

Abstract Book 20:th EUMASS Congress

# Scientific Knowledge and Good Practice in Insurance Medicine and Social Security



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# **Dear Participants**

It is a great joy for us to be together with you in **Stockholm for the 20th EUMASS congress**, devoted to Scientific Knowledge and Good Practice in Insurance Medicine and Social Security.

**EUMASS congresses** have a tradition of addressing a broad spectrum of themes that together constitute the field of insurance medicine. A prominent theme this time is the promotion of the return to work of people with health conditions. Plenary speakers and speakers in parallel sessions, as well as posters show an impressive amount of work that is being done in order to make sure that citizens are able to participate in society. Much has been tried in this area, many of these experiments have been evaluated and some in such a manner that one can draw more general conclusions about them. The complexity of returning to work of people with health conditions explains why we still do not hold the key to general solutions.

- what are effective ways of promoting return to work?
- do different groups of workers need different interventions?
- who has what role, the worker, the employer the doctor ...

In insurance medicine another main task is evaluating the consequences of health conditions in peoples' lives. This task consists of medical, psychological and legal aspects and requires specific evidence. Here too, we are happy to share new developments with you, both in practice and policy and in research.

- what are the new methods of assessing capacity for work and how good are they?
- what use is the ICF in this field?
- what evidence do we have and when do we have the evidence we need?

Insurance medicine also plays its part in **risk management in health care**. Here we leave the level of the individual for the group level. This again poses different challenges and different questions.

- what new technological means are there for risk management?
- can we focus risk management on the groups who need it?
- can we use the work field in the health field and vice versa?

We expect that listening to the lectures and discussing with researchers and colleagues will help you find your way!

Best Regards, Wout De Boer EUMASS International Scientific Committee

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#### Review of patient records and associated tests

Nadine Agosti (1) (1) CNAMTS

#### Context

Medical advisors decide about health care provision and work incapacity and document this in the patients'records. Reviewing these records by medical advisors is a major tool for the management system of medical service quality.

These reviews can be exchanged between medical advisors on medical themes and their medical and administrative management.

Annually, records are reviewed medical themes that are selected, in accordance with the health Insurance's strategic orientations.

#### Objective

Since 2009, this review of records has been coupled to a tool - the test script concordance (TCS). It has been added to the range of continuous improvement deployed for several years. Its main objective is to optimize the evaluation of individual and collective practices for medical advisors.

#### Method

TCS is a tool which has been used to assess skills for many years in French and foreign medical schools. Before implementing this tool, we gathered opinions of the medical service regional directors, then we approached the medical advisors'unions. To ensure full support, two commitments were made by the CNAMTS:

• collective results are anonymized

• individual results are only for medical advisors' guidance and are strictly confidential.'

#### Results

#### Description of the tool

New information is introduced after the description of a clinical case. Then, the assessed medical advisor is asked to state the potential impact on the action to be taken.

The interest of TCS is the confrontation of the assessed medical advisors' results to those of a panel of experts. This focuses on skills as well as knowledge: how is knowledge applied in practice? The key word here is efficiency.

The assessed medical advisors have the option of following the completion of their tests to compare their answers, item by item, to those of the experts and their arguments. This approach began in 2009 and has continued since; in 2013, a real pedagogical sequence was developed around heart failure; this sequence includes an available documentation system, the development a one day course, the establishment of tests (knowledge and TCS tests) and, finally, the implementation of the reviews of records.

#### Quantitative results

In 2013, 1,324 medical advisors participated in these tests. 27 questions were asked in the knowledge test. For the TCS test, six scenarios were presented with a total of 26 items. Individual rests enable self-assessment for medical advisors. Collective results are given nationally, but also regionally in order to allow comparison.

#### Conclusion

This approach is part of the process of Continuous Professional Development for medical advisors. This approach has provided us with an opportunity of peer exchange, for the first time. Medical advisors can discuss concrete field cases together.

#### Sick leave certification: Problems, solutions and evidence

#### Krsitina Alexandersson (1)

(1) Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

Many physicians certify sickness as a common task, often with mixed feelings. How they certify sickness has a great influence on the life situation of patients as well as for others. Yet, there is only very limited scientific knowledge on sickness certification and factors influencing such tasks.

The specific tasks and roles of physicians in sickness certification consultations will be discussed. A review of the literature and the research area will be given, e.g. regarding the type of data and study designs used in research on this.

Also, results from the largest studies in this area will be presented, including all physicians working in Sweden; 33,000 physicians received a comprehensive questionnaire about their work with sickness certification; response rate: 52 percent.

The 163 items covered tasks, problems, competence, resources, support, collaborations, experiencing this as a work environmental problem, etcetera.

Results for all and for specific specialties will be compared to those from two previous such studies, 4 and 8 years ago, respectively. General question about what type of knowledge we need about physicians' sickness certification, e.g. regarding effects of the different interventions taking place in European countries will be raised.

Such interventions include courses, e-learning, guidelines, electronic tools, economic incentives, changes of rules and laws, etcetera. How can we gain more comprehensive evidence from them? What are the challenges ahead – in general and from the perspective of physicians?

# How do managers in healthcare organisations manage the work with sickness certification of patients?

Kristina Alexanderson (1), Mia von Knorring (1,2), Christina Keller (2,3)

(1) Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

- (2) Center of Medical Management, Karolinska Institutet, Stockholm, Sweden
- (3) Jönköping Universtity, Sweden

There are many interventions to increase the quality of physicians' sickness certification work. Generally they focus on individual physicians, mainly GPs. There has been little concern on health care organisation and how managers take their role as managers in relation to this task.

A study from 2005 established that Swedish healthcare organisations had no strategies regarding competence development, cooperation or quality assurance regarding sickness certification tasks, and that such issues were not on the agenda of healthcare managers. In 2006 the Swedish government issued economic incentives to the county councils, the so called 'sick-listing billion' for increasing the quality of sickness certification, and the main task was to increase management, at all levels, of such tasks.

The aim of this study was to gain knowledge in how healthcare managers manage sick-listing practices and issues concerning this task in their organisation, and if the 'sick-listing billion' lead to improvement of such management.

#### Methods

Data from individual semi-structured interviews with the managers on three levels in all 21 county councils of Sweden were subjected to content analyses; 74 interviews in 2004 and 72 on 2013. The drop-out rates were low.

#### Results

Generally, sickness certification had gone from being a non-issue for managers, to be a 'side-issue' and to some extent on its way to be an ordinary part of healthcare management. Also, the managers had a much higher awareness of insurance medicine, and related issues. Especially the chief executives officers had this on their agenda, and in 2013 also the other managers saw this as their responsibility – that was not the case in 2007. They had initiated more external cooperation with the Social Insurance Agency, however, not much with employers. Regarding internal cooperation, not much was done. Regarding competence development, this was prioritised, and seen as a challenge to accomplish in the organisation. Equity in sick-listing cases has been prioritised in the sick-listing billion, however, the managers had not accomplished much in this area and found it very difficult, e.g. due to lack of knowledge. Another area needing further attention is quality and quality assurance in this area. There was no clear idea of what good quality actually means, and therefore not how it can be assured. Many managers talked about how they worked to promote administrative prerequisites for optimal work with sickness certification. IT-systems, tools for assessing work capacity and need of sick leave, joint policies at units, etcetera were issues.

#### Conclusion

The sick-listing billion has had a crucial importance for that healthcare managers now take a greater responsibility for sickness certification issues in their organisations. Many positive changes have taken place – and much still need to be done. Healthcare managers need more competence regarding insurance medicine, equity questions regarding this, competence development and how to define and assure quality in that work.

#### Suicidal behavior among young adults on disability pension; prospective population-based cohort studies.

#### Presenter: Kristina Alexanderson

Co authors: Ellenor Mittendorfer Rutz, Ass prof, Division of Insurance Medicine Karolinska Institutet, Stockholm Ulf Jonsson, PhD, Division of Insurance Medicine Karolinska Institutet,Stockholm

#### Objectives

Increasing rates of disability pension (DP), particularly owing to mental diagnoses, have been observed among young adults in Organisation for Economic Co-operation and Development (OECD) countries. There is a lack of knowledge about the health prognosis in this group. The aim of this study was to investigate whether DP in young adulthood owing to specific mental diagnoses or somatic diagnoses predicts suicidal behaviour and allcause mortality.

#### Methods

A nationwide prospective register study of all young adults who in 2005 were 19-23 years old and lived in Sweden. Registers held by the National Board of Health and Welfare, Statistics Sweden and the National Social Insurance Agency were used. Those who in 2005 had DP with mental diagnoses (n=8070) or somatic diagnoses (n=3975) were compared to all the other young adults in the same age group (n=513,231). HRs for suicide attempt, suicide and all-cause mortality in 2006-2010 were calculated by Cox proportionate hazard regression models, adjusted for sex, country of birth, parental education and parental and previous own suicidal behavior.

#### Results

The adjusted HR for suicide attempt was 3.32 (95% CI 2.98-3.69) among those on DP with mental diagnoses and 1.78 (95% CI 1.41-2.26) among those on DP with somatic diagnoses. For the specific mental diagnoses, the unadjusted HRs ranged between 2.42 (mental retardation) and 22.94 (personality disorders), while the adjusted HRs ranged between 2.03 (mental retardation) and 6.00 (bipolar disorder). There was an increased risk of mortality for young adults on DP in general, but only those with mental DP diagnoses had a significantly elevated HR of completed suicide with an adjusted HR of 3.92 (95% CI 2.83-5.43).

#### Conclusions

Young adults on DP are at increased risk of suicidal behavior and preterm death, which emphasizes the need for improved treatment and follow-up.

#### Self-efficacy in women on long term sick leave

Ingrid Anderzén (1,2), Åsa Andersen (1), Per Lytsy (1,2) (1) Department of Public Health, Uppsala Univerity (2) Occupational and Environmental Medicine, Akademiska Hospital

Speaker: Åsa Andersén

#### Introduction

Self-efficacy is defined as confidence in carrying out a specific activity. The concept is linked with people's needs of influence and over events in life. Self-efficacy can be negatively affected by long-term sick leave which can have an influence for individuals return to work (RTW). A total of 355 women on long term sick leave due to pain, stress, depression and/ or anxiety symptoms participated in individual tailored vocational rehabilitation aiming to support RTW.

#### Purpose of the study

The study aimed to investigate and describe the relation between self-efficacy and background variables for women on long term sick leave.

#### Methods

In this cross-sectional study a questionnaire including validated self-report measurements was used for data collection. Correlations between self-efficacy and self-reported general health, anxiety, depression, physical activity, social relations, motivation to return to work, view of the future and employment/not employment was analyzed with parametric and non-parametric tests of correlation.

#### Results

Preliminary analyses showed that there was a significant negative correlation between self-efficacy and anxiety and depression respectively. There was a significant positive correlation between self-efficacy and self-reported general health, social relations, motivation to return to work and view of the future respectively. A negative correlation was found between self-efficacy and physical activity. Self-efficacy mean scores were significantly lower in women born abroad compared with women born in Sweden. Employed women had a significant higher self-efficacy mean score compared with women who were unemployed.

#### Conclusion

Preliminary data showed that self-efficacy was generally low in this specific target group. Final results will be reported at the conference. Thus, self-efficacy should be considered when vocational rehabilitation interventions are being designed.

### The importance of health care competence in vocational rehabilitation

Ingrid Anderzén (1,2), Kjerstin Larsson (1), Åsa Andersen (1), Christian Ståhl (3)

(1) Department of Public Health, Uppsala Univerity

(2) Occupational and Environmental Medicine, Akademiska Hospital

(3) National Centre for Work and Rehabilitation, Department of Medical and Health Science, Linköping University

Speaker: Kjerstin Larsson

#### Introduction

In Sweden, the rates of young adults on sick leave have increased over the last decade. A project aiming to develop methods for cooperation between social insurance and employment services is currently ongoing in Stockholm. This study analyzes project participants' and project workers' experiences from the project with specific focus on aspects of health and health care.

#### Purpose of the study

The study aimed at investigating the presence and absence of health care in a vocational rehabilitation project of young adults on sick leave.

#### Methods

Both quantitative and qualitative research methods were used. Participants were asked to fill out a questionnaire in the initiation of the project. The questionnaire contained items of self-assessed health, physical and psychological function, self-efficacy, capacity for work, and expectations of and benefits from participating in the project. Individual and focus group interviews were conducted with participants, project workers and medical resource personnel.

#### Results

Nearly 40 % of the participants perceived their health to be good or very good, 35 % neither good nor poor, and 26 % poor or very poor. Most of the participants considered their physical functioning to be fairly good and to have capacity to perform most everyday tasks as housework or shopping. However, about 80 % reported low general self-efficacy and sleep problems.

The participants emphasize the need for project workers to have knowledge about different disabilities and how these may affect everyday life.

The project workers have more time with each participant giving a greater knowledge of each participant's situation, problems and skills – this means that health and social issues are raised with the health care coordinator.

The project workers report that in addition to the disability, there may also be somatic and psychiatric problems. If medical knowledge is not included in the investigation and assessment, there is a risk that this comorbidity is overlooked.

#### Conclusion

The data is currently being analyzed and final results will be reported at the conference. However, preliminary findings underline the need of health care involvement in the rehabilitation process to improve vocational rehabilitation of young adults on sick leave. The projects DIRIGO and UMiA are carried out in collaboration between the Swedish Social Insurance Agency and the Employment Office. The project is founded of the European Social Found and evaluated by The University of Uppsala and Linköping.



#### Vitalis- Women on long-term sick leave and return to work

Ingrid Anderzén (1, 2), Per Lytsy (1, 2) (1) Department of Public Health, Uppsala Univerity (2) Occupational and Environmental Medicine, Akademiska Hospital

#### Introduction

Despite having one of the most generous health care systems in the world, a significant proportion of the Swedish population, with pain and stress related symptoms end up as a marginalized group on long-term sick leave. Women, in general, have longer periods of sick leave and the complexity of their problems are generally vaguely described which may hinder implementation of adequate rehabilitation. Due to changes in the regulations of the Swedish health insurance system, approximately 1100 women in Uppsala County on long term sick leave due to pain and/or psychological ill-health were expected to be transferred from the National Health Insurance to the Employment insurance between March 2010 and June 2011. This group was the target for this Return to Work (RTW) study, as employment is central to the concept of health recovery after long term sick leave

#### Purpose of the study

The aim of the study was to compare and evaluate the effect of three different rehabilitation models carried out along with the process of transference between the insurance systems.

#### Methods

The study is an RCT (n=314) with repeated measures and three conditions. Women on long term sick leave due to mental ill-health symptoms and/or long term pain were randomized to either 1) an unimodal treatment with Acceptance and Commitment Therapy (ACT) provided by a psychologist, 2) a multimodal assessment and treatment team intervention also including the possibility of ACT therapy or 3) treatment as usual (TAU) comprising the standard support by the employability rehabilitation program offered by the Public Employment Service. Participants were assessed at baseline and during followed up the first year. Outcome variables include employment status, extent of sick listing, general health, and

satisfaction with life, and self-ratings of depression, anxiety and level of pain.

#### Results

Participants were 48.8 (SD 8.4) years old and had an average sickness absence of 7.8 years (SD 3.2). About one-third had no employer. About 39% of participants had mixed psychiatric / pain problems while about 30% had either pure psychiatric or pain-related problems as sick-leave diagnoses.

There were significant interactions effects where ACT and Team participants improved from pre-treatment to one-year follow up on self-rated depressive symptoms, anxiety symptoms, general health and satisfaction with life in comparison to TAU. There was also a trend toward an interaction effect regarding self-rated pain intensity.

There was a slight trend that fewer individuals in the treatment arms had returned to the health insurance after one year, and the TEAM group had fewer days of compensation, these trends, however, failed to reach the level of statistical significance.

#### Conclusion

The preliminary results of this randomized controlled study suggest that unimodal ACT as well as multimodal treatment improve several aspects of mental health in persons on long term sick leave due to pain and/or mental ill health. Data from the 2-year follow up will be presented at the conference.

# The medical audit method might improve proffessional compentence regarding sickness certification

Britt Arrelöv (1,2), Anna Kiessling (3)

(1) Stockholm County Council

(2) Division of Family Medicine, Karolinska Institute

(3) Department of Clinical Sciences, Danderyd Hospital, Karolinska Institute

#### Introduction

Different studies have identified a wide spectrum of medical and insurance-related problems in sickness certification 1-4. Despite educational efforts aiming to improve physicians" knowledge of social insurance medicine there are no signs of reduction of these problems. We therefore suggest the use of activities with a broader theme, such as medical audit, in order to strengthen the professional development.

#### Purpose of the study

The aim of the study was to explore the usefulness of the audit method in order to develop necessary professional skills when physicians handle sick-listing matters.

#### Methods

One hundred seventy-seven physicians, participating in a sick-listing audit program, identified challenges in handling sick-leave issues and formulated action plans for improvement. From these action plans problems were identified. Facilitators of the program were interviewed. A qualitative content analysis was performed exploring problem categories. Thereafter the problem categories were related by their content to professional competence roles in accord with the Canadian Medical Education Directions for Specialists (CanMEDS) framework.

#### Results

Seven categories of problems were identified. Practitioner patient interaction, Work capacity assessment, Interaction with the Social Insurance Administration, The patient's workplace and the labour market, Sick-listing practice, Collaboration and resource allocation within the Health Care System, Leadership and routines at the Health Care Unit. The challenges were related to all seven CanMEDS roles5. The audit method was suitable for the process.

#### Conclusion

Physicians performing sickness certification tasks experience a complex variety of problems. The relation between the challenges and a well-established professional competence framework revealed a complex pattern. The medical audit method enlightened all needed professional competences and might be used as a useful tool in order to help physicians to develop necessary skills in handling complex issues such as sickness certification 6-7.

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# Quality of sickness certification in primary health care in Stockholm 2004-2009 and 2010-2011

Britt Arrelöv (1,2), Ylva Skåner (2), Gunnar H Nilsson (2), Peter Henriksson (3), Lars Backlund (2), Anna Kiessling (3), Magdalena Fresk (2)

(1) Stockholm County Council

(2) Division of Family Medicine, Karolinska Institutet

(3) Department of Clinical Sciences, Danderyd Hospital, Karolinska Institutet

#### Introduction

Parameters for assessing the quality of sickness certification have been proposed by a quality group in Stockholm County in a joint action with Primary Health Care representatives from four other Swedish Counties. Between 2004 and 2009, a number of national and regional initiatives to raise the quality of sickness certification were undertaken, including diagnoses-specific sickness certification guidelines [1].

#### Purpose of the study

Our aim was to assess whether these activities resulted in an improvement of sickness certification in primary health care in Stockholm 2004-2009 [2] and in a follow up study 2010-2011.

#### Methods

Retrospective data was retrieved from sickness certificates in the electronic patient records from 21 Primary Health Care Centres (PHCC) 2004-2009 and from 31 PHCCs 2010-2011. A total of more than 300 000 certificates were included. Outcome variables were values for seven quality parameters (Table 1). The PHCCs were the units of analysis and medians for each unit were calculated and medians of those medians were used for comparisons.

#### Results

The results are shown in Table 1. There was a raise of quality for six of the parameters 2004-2009; for parameter 3, the quality was good throughout both periods. Only two parameters continued to get better during the second period: Number 4 and 7. For two parameters, the rise in quality did not continue: Number 1 and 2. For two parameters, we saw

reduced quality during the second period: Number 5 and 6.

#### Conclusion

During 2004-2009, when there were many initiatives aimed at improving the quality of sickness certification, the quality did improve, but for most of the parameters, this tendency did not continue the following two years. Guidelines and educational activities may have to be supplemented with other measures, like reminders, compulsory certificate fields and structured guidance.

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Quality parameter	2004- 2009	2011
1. Number of days on first certificate (days; low values better)	19-14	16
2. Face to face consultations (%)	79-90	91
3. Certificates with non-specific diagnoses after 30 days (%; low values better)	10-8	8
4. Certificates with notation about need for vocational rehabilitation after 30 days (%)	44-59	75
5. Certificates with notation about prognosis for return to work after 30 days (%)	70-85	74
6. Completely filled in certificates after 30 days (%)	27-52	38
7. Acceptable certificates (information about medical history, examination and functional limitations) (%)	68-90	99

Table 1 - Medians of quality parameters per year for all PHCCs.

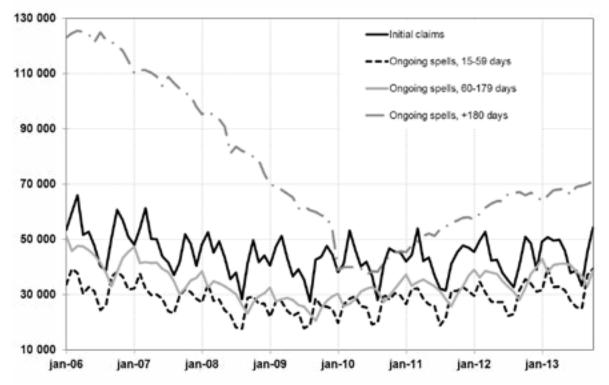
### The impact of winter flu and colds on absence from work

Axel Arvidsson (1), Petra Ornstein (1), Patric Tirmén (1) (1) Swedish Social Insurance Agency

Speaker: Petra Ornstein

There are many explanations for absence due to sick leave and parents nursing sick children. In this study, we are mainly interested in examining how epidemic diseases such as flu and colds affect absenteeism from work. A distinctive feature of these health conditions is that affected individuals typically recover within a few weeks. Therefore, sickness absence due to epidemic diseases is not thought to create high social insurance costs. However, as a comparatively large share of the population is affected during high season, such spells pose a heavy although temporary burden on the administration of social insurance.

As these diseases follow a strong seasonal pattern, sickness absence due to influenza and cold is highly seasonal. A curious phenomenon is that when sick leave is divided into different length classes the seasonal pattern is shown not only for the shortest spells, which is what would be expected. Could it be that peaks of high absenteeism propagate in to other length classes?



Initial claims and ongoing sickness spells, by duration

As can be noted, incoming claims for sickness benefit are subject to a high level of seasonality. The spike early on each year coincides with the annual influenza epidemic – most noticeable in February and March. Hence, predicting outbreaks of influenza and cold-epidemics have the potential to greatly improve in-house efficiency and thus the service experienced by claimants. Comparing several measures of the spread of seasonal influenza and common cold, our main aim in this study is to improve on the prediction of the number of cases in sickness absence and sick leave due to temporary care of a sick child. In addition we will investigate the share of incoming sick spells that is due to epidemic diseases. Finally, we aim to analyze to which extent the seasonality of longer sick spells is due to such diseases.

We will use data on sick leave from the Social Insurance Agency's payouts for sick leave and temporary care of a sick child. We merge this with data from Statistics Sweden covering sick leave reimbursed by employer (first two weeks of the illness). Health data over seasonal influenza and colds are retrieved from the Public Health Agency and online search query data.

The first contribution of this paper is if the Social Insurance Agency's administration can benefit from secondary data sources in the determination of the size of the administration that process new sick spells. This would improve efficiency and thus lead to improved service to claimants. Secondly, a better understanding of the burden of seasonal influenza can improve policy decisions such as vaccination recommendations and pricing. Third, it is important to shed light on the relation between short term sickness absence due to epidemic diseases and longer, potentially more complex cases. Given the Social Insurance Agency's current focus on differential treatment of different causes for sick leave, information regarding the composition of medium length sickness absence have become increasingly important.

# Effectivness of the "brainwork intervention" in reducing sick leave for unemployed workers with pshycological problems.

Selwin AUDHOE, Karen NIEUWENHUIJSEN, Jan HOVING, Judith SLUITER, Monique FRINGS-DRESEN

Academic Medical Center, Department: Coronel Institute of Occupational Health/Research Center for Insurance Medicine, University of Amsterdam, The Netherlands P.O. Box 22700, NL-1100 DE Amsterdam, The Netherlands

#### Background

Among the working population, unemployed and temporary agency workers and workers with expired fixed-term contracts and psychological problems are a particularly vulnerable group, at risk for sickness absence and prolonged work disability [1-3]. Studies investigating the effectiveness of return-to-work (RTW) interventions of these workers without an employment contract is lagging behind [4,5]. We developed a RTW intervention called Brainwork to improve work participation in workers without an employment contract.

#### Objectives

To describe the 'Brainwork Intervention' and the design of a controlled clinical trial to study its effectiveness in reducing the duration of sick leave compared to usual care.

#### Method

The 'Brainwork Intervention' is designed to assist unemployed, or temporary agency workers and workers with expired fixed-term contracts sick-listed due to psychological problems with their return to work. 'The Brainwork Intervention' uses an activating approach: in an early stage of sick leave the sick-listed workers are encouraged to exercise and undertake activities aimed at regaining control and performance recovery while job coaches actively support the search for (temporary) jobs. The tailored content of the intervention varies depending on the severity of the psychological problems and specific (psychosocial) problems the sick-listed worker has to deal with.

The intervention study is designed as a quasi-randomized controlled clinical trial with one year follow-up. The control group receives care as usual with minimal involvement of the occupational health professional. Outcomes are measured at baseline, 4, 8 and 12 months. The primary outcome measure is duration of the sick leave. Secondary outcome measures are: proportion of subjects returned to work at 8 and 12 months; number of days of paid employment during follow-up; degree of participation; psychological complaints and self-efficacy for return to work. Cost-benefit is evaluated from an insurer's perspective.

#### Relevant follow-up

The follow-up of this study will point out if it is possible to develop effective RTW interventions for workers without an employment contract.

#### Indications of the relevance of the study for international audiences

Return to work for workers with mental health problems who can not return to their own workplace is a growing challenge and it's relevance is increasing as unemployment rates are rising throughout Europe.

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# Development of Questionnaire about Claimant's Satisfaction with the Assessment of Work Capacity

Monica S. Bachmann (1), Wout E. L. de Boer (1), Bärbel Brigger (1), Irena Pjanic (2), Katrin Fischer (3), Sarah Kedzia (1), Regina Kunz (1)

(1) Academy of Swiss Insurance Medicine, University Hospital Basel, Basel, Switzerland

(2) Institute of Clinical Psychology and Psychotherapy, University Bern, Bern, Switzland

(3) School of Applied Psychology, University of Applied Sciences, Olten, Switzerland

#### Speaker: Regina Kunz

#### Introduction

Anecdotal evidence in Switzerland suggests that claimants do not always feel adequately treated in their assessment for disability benefits. It is unclear if the media reflects a minority of unsatisfied claimants or if there is a considerable dissatisfaction in claimants with the assessment process. Claimant's satisfaction is not systematically monitored, nor reported about in the scientific literature. Between 2008 and 2011 the Dutch social insurance used a questionnaire which was, however, not tested on re-test reliability and validity. In order to receive a representative picture of the opinion of claimants we develop a questionnaire.

#### Purpose of the study

To develop and validate a questionnaire that assesses claimant's satisfaction with the assessment.

#### Method

We used the Dutch questionnaire as starting point. We back-translated this questionnaire and adapted it to the Swiss situation, finally containing 33 items. We pilot the new questionnaire in a sample of 40 claimants who have undergone an assessment at our institution until April 2014 and test the questionnaire on its psychometric properties in a larger sample.

#### Results

So far, 10 claimants participated in the piloting. Their feedback on linguistics and comprehension level as well as their general impression allowed us to simplify our items. Claimants appreciated being given a voice about the assessment process. We will present the results of the piloting at the congress.

#### Conclusion

It seems possible and desirable to systematically elicit claimants' satisfaction with their assessment of work capacity. A reliable and validated questionnaire is a necessary prerequisite for this and to conduct meaningful research. We plan to include over 300 claimants for a factor analysis during the realization of the study (Planned start April 2014).

#### Development of an Intervention in Psychiatric Assessment of Work Capacity

Monica S. Bachmann (1), Wout de Boer (1), Katrin Fischer (2), Ulrike Hoffmann-Richter (3), Jörg Jeger (4), Andrea Leibold (2), Ralph Mager (5), Renato Marelli (6), Stefan Schandelmaier (1), Regina Kunz (1)

(1) Academy of Swiss Insurance Medicine, University Hospital Basel, Basel, Switzerla

(2) School of Applied Psychology, University of Applied Sciences, Olten, Switzerland

(3) Department of Insurance Psychiatry, Swiss Accident Insurance Fund, Lucerne, Swit

(4) Institute for Medical Disability Evaluations of Central Switzerland, Lucerne, Sw

(5) Department of Psychiatry, University Hospital Basel, Basel, Switzerland

(6) Swiss Society of Insurance Psychiatry, Basel, Switzerland

Speaker: Wout De Boer

#### Introduction

Stakeholders have raised concern about the lack of transparency and reliability of assessment of work capacity. Literature shows, that psychiatrists report assessments in a little structured and unsystematic way. They pay much attention to details of the claimants' health conditions and little attention to their capacities in relation to job requirements. Representatives of two Swiss social insurance organizations confirmed these observations. On the basis of our research we decided to develop an intervention with a functional approach for psychiatrists.

#### Purpose of the study

To develop, pilot, evaluate and test an intervention for psychiatrists in order to improve the reliability and transparency of their assessment of work capacity.

Methods: In an expert consensus procedure we used the ICF and the Mini ICF as starting point for reporting about mental impairments and relevant activity limitations. We used Dutch examples of semi-structured interviewing about work capacity to develop a partial interview protocol. We developed a training to support psychiatrists in using this approach. We trained 19 psychiatrists in this functional approach. All trained psychiatrists piloted the intervention in their practice.

#### Results

The intervention includes a semi-structured interview about the claimant's work capacity and the Instrument for Functional Assessment in Psychiatry (IFAP). IFAP is a report form to record the claimant's impairments of 12 mental functions and his work capacity in 13 relevant activity limitations, both for their previous work and for a selection of hypothetical suitable alternative jobs in a hotel. Psychiatrists were satisfied with the training. They approved the semi-structured interview and the IFAP-instrument. Psychiatrists reported a gain in knowledge and adoption of the intervention; the activity limitations for hypothetical work pose problems, however. All psychiatrists participate in our study to establish the reliability of work capacity with our intervention (started 1st of November 2013). The results of the testing of the intervention will be presented at the conference.

#### Conclusion

The evaluation of the intervention shows that psychiatrists are satisfied with the intervention. In a next step we want to test the intervention regarding the reliability of the percentage work capacity.

# Sickness compensation in individuals with the diagnosis Chronic Fatigue Syndrome

Gunnel Bagge Allwood (1) (1) Swedish Social Insurance Agency, Sweden

#### Background

Individuals with the diagnosis Chronic Fatigue Syndrome (CFS) often have a prolonged absence from work due to illness. It is of importance to expand the knowledge about CFS and what lies behind it.

#### Purpose

Firstly a study on the occurrences of sick leave, as well as sickness compensation (before or after thirty years old) in individuals with CFS, is presented. Secondly a literature survey over studies of patients with CFS is presented.

#### Methods

807 individuals (53% women) given the diagnosis Chronic Fatigue Syndrome (ICD-10: G 93.3) sometime between year 2004 and 2009 by hospitals were included. The information was collected from: Swedish Social Insurance Agency, Statistics Sweden and the Swedish National Board of Health and Welfare. The literary survey included studies regarding previous morbidity, lab tests and factors contributing to the maintenance of the symptoms.

#### Results

On 31 of December 2009, about a third of the cohort had sickness compensation (for people before or after thirty years old). One-third of these had a mental disorder as their main diagnosis. One sixth had musculoskeletal diseases and one sixth had neurological diseases (including the diagnosis G 93). The individuals that were sick-listed had generally very long periods of sick-listing.

The literary survey showed that people with CFS have lab results similar to stressed people, but no immunological factors or demographical variables had impact on the outcome. Moreover, several studies showed that many people with CFS have a previous history of mental illness. Also, different cognitive attitudes or processes seem to impact the maintenance of the symptoms in individuals with CFS, for example:

Negative feelings and an aversion to the expressed fatigue, the condition was seen as an illness, impossible to influence, focusing on the fatigue as well as negative and underestimation of the individuals' own ability be active [1].

Treatment methods such as CBT and Exercise therapy have shown a positive effect [1], [2], [3], [4].

#### Conclusions

Sick-listing, as well as sickness compensation (for people before or after thirty years old) in the cohort was wide-spread. The largest part of people with sickness compensation had psychological diagnoses. Future research should evaluate the development of CFS-individuals from a social insurance point of view, as well as the outcome of treatment interventions.

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# Health promotion or "health orientation" and the Medical Service of the German Federal Employment Agency (i. e. the German Federal Unemployment Insurance).

Andreas Bahemann (1) (1) Bundes Agentur Fuer Arbeit

Research and investigation has shown interesting data on the relationship between unemployment and health. The Medical Service of the German Unemployment Insurance has about a decade of experience concerning the "Unemployment Benefit II" (especially for the long-term unemployed). Now it is worth to reflect on the health situation and on different approaches for prevention and treatment. "Health promotion" in the strict sense of the word belongs to the responsibility of the health insurance. But there is another approach by the German Unemployment Insurance, called "health orientation".

The Medical Service of the Federal Employment Agency in Germany has been used to cooperate interdisciplinarily with the operative divisions and with the Psychological as well as the Technical Consulting Service. During the last years there are new chances for cooperation with the Health Insurance. They are interested in promoting the health of their insurants who are jobless. The Unmployment Insurance is interested in improving the health situation for the recipients of benefits and other "customers", first and foremost to improve the chances for reintegration into employment (not only by vocational rehabilitation).

Practical and specific results of the cooperation in different fields will be presented. Settingsbased approaches to health promotion involve a multi-disciplinary method. The goal is to maximize disease prevention via an appropriate approach in accordance with the Health for All Strategy by WHO and by the Ottawa Charter for Health Promotion. The cooperation has already led to a better understanding of both branches of social security and to an improvement concerning health care utilization by those who need it. They experiences in Germany might encourage or stimulate similar activities in other European countries with differing systems of social security.

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## La prestation de soins dans les établissements d'hebergement pour personnes âgées dependates EHPAD. (Care provision in residential care facilities for the eldery)

Ghislaine Bernard-Bruls (1)

(1) Cnamts, Direction Régionale Du Service Médical Ile De France, France

## Objectif

Réaliser une action d'amélioration de la qualité de la prescription de psychotropes chez les personnes âgées en Etablissement d'Hébergement Pour Personnes Agées Dépendantes (EHPAD).

## Contexte

- les traitements médicamenteux des personnes âgées sont nombreux et entraînent des effets secondaires importants

- la prescription de somnifères est encore trop élevée et la prise en charge des états d'agitation trop souvent traitée par des benzodiazépines ou des neuroleptiques.

A titre d'exemple : 54 % des résidents sont atteints de démence et 47% de troubles du comportement.

- les médicaments du traitement symptomatique de la maladie d'Alzheimer, qui touche 800000 personnes en France, sont nombreux et coûteux.

- L'analyse de la prestation des soins en EHPAD, conduit aux constatations suivantes :

• la population âgée de 80 ans hébergée est actuellement d'environ 3,6 millions. Elle présente un coût de 27,2 Milliards d'euros et 11,9% de dépenses des médicaments.

En 2011, 48% des personnes âgées de plus de 85 ans prennent des psychotropes.
la iatrogénie conduit souvent à des hospitalisations : cela représente 20% pour les plus de 80 ans.

## Méthode

Il faut définir la place du traitement symptomatique de la maladie d'Alzheimer et des traitements neuroleptiques et benzodiazépines dans les troubles du sommeil et les états d'agitation.

Il y a lieu d'adapter le « comportement des soignants » pour :

- améliorer les troubles du sommeil des personnes âgées
- diminuer les troubles du comportement du dément

## Résultats

L'Assurance Maladie a initié en 2008 une action d'accompagnement auprès des EPHAD. Ce programme a porté sur la iatrogénie médicamenteuse, avec un objectif régional fixé à 1000 rencontres en établissement, notamment sur le thème Alzheimer.

En 2011, le thème plus spécifique du traitement non pharmacologique de la maladie d'Alzheimer et des pathologies apparentées été introduit. La prévention de la iatrogénie médicamenteuse, chez les personnes âgées résidant en EPAHD, a été privilégiée.

Des plaquettes sur le traitement non pharmacologique de la maladie d'Alzheimer et des pathologies apparentées ont été distribuées à l'attention des équipes soignantes.

## Conclusion

Ces actions visent à former les équipes soignantes pour diminuer les troubles du comportement du dément et limiter la prescription de psychotropes.

# Cardiac revascularisation: Comparing cost and return to work in PCI and CABG patients

C. Boeckxstaens (1), M. Vandeweerdt (1), P. Galloo (1)

(1) Belgium

Economics become more important in healthcare. Apart from clinical outcome and quality of life, costs and return to work remain important topics to study.

In this limited study all interventions for coronary revascularization PCI (percutaneous coronary intervention) and CABG (coronary artery bypass grafting) were retrieved between 2007 and 2011 from the data warehouse of the Socialistic Mutuality of Belgium. Classical variables as gender and age were studied but the particular aim of this study was the comparison of the two types of interventions for cost of hospital stay and length of incapacity of work.

The study contained 33.359 patients and 40.759 interventions (25% of all interventions performed in Belgium in this period): 6.963 CABG, 33.640 PCI and 156 combined procedures. This means that 17% of the patients underwent more than one procedure in the investigated period. No patient underwent 2 CABG's but some patients had up to 10 PCI's.

The population was merely male, 72% with an average age of 63 years, compared with 28% for the female population with an average age of 68 years (p < 0.05). The average cost of CABG was 10.980 euro with a mean hospital stay of 16 days. The results for PCI were respectively 5.478 euro and a length of stay of 5 days. (p < 0.05)All patients of the active population who underwent a procedure in 2011 were investigated for their status of employment postoperatively. In total 2.373 records were analysed. A high percentage did not declare their sickness to the social security (45% CAGB, 60% PCI).

Different explanations can be found depending on their social status and the specific regulations of the social security in Belgium. In the CABG-group 39% returned to work after an average of 185 days of sick leave versus 30% of the PCI-group after 137 days (p < 0.05).

A striking feature was that independent workers stayed longer at home than employees in both interventions. Ten per cent of the population was accorded a prolongation of the sick leave of which half of them (5% of the total population) definitively. Only one percentage was declared able to work by the control doctor of the social security. Reasons for prolongation of the incapacity to work were diminished cardiac function, incompatibility between work situation and physical recovery and in a high percentage depression (36%).

Disadvantage of the study was that no complete medical dossiers could be consulted to verify the medical status or evolution of the disease. Postoperative care and cost were also not investigated.

From economic point of view the first conclusion can be that PCI costs less than CABG when we consider hospital cost and length of incapacity to work. Due to the multiple interventions in the PCI-group we have to reconsider this conclusion. Postoperative and pharmacological care has to be considered and investigated.

Our findings were confirmed in recent international literature (Lancet February 2013 and Circulation November 2012).

## The assessment of work endurance in European countries

Henk-Jan HJM Boersema (1,3), Bert LR Cornelius (1,3), Wout de Boer (4) Jac JL van der Klink (1,2) Sandra Brouwer (1,2)

(1) Research Center for Insurance Medicine, Amsterdam, The Netherlands

(2) Dep. of Health Sciences, Community and Occupational Health, UMC Groningen, The

(3) Social Security Institute, Amsterdam, The Netherlands

(4) Swiss Academy of Insurance Medicine, University Hospital Basel, Switzerland

### Introduction

An important part of the disability benefit assessment by insurance physicians (IP's) in the Netherlands is the evaluation of work endurance (WE), i.e. the number of hours per day or per week a disabled person is able to work. However, the definition of limited WE is unclear and methods to assess it lack a scientific basis. As a result, inter-rater reliability between Dutch IP's assessing WE is low.

#### Purpose of the study

Recently a research project was started in the Netherlands aiming to better define and operationalize the concept of WE, to identify methods potentially suitable to assess (impaired) WE, and to develop and validate a method to assess WE. The present study is a first step in this project. It aims to explore whether the assessment of WE is part of the assessment of work disability in other European countries and, if so, how impaired WE is measured. Exploring and discussing similarities and differences in the assessment of (normal and impaired) WE in an international context, may help to better define and operationalize the concept and to develop valid methods to assess it. The outcome may contribute to an update of the EUMASS taxonomy project.

#### Methods

EUMASS representatives will be sent a questionnaire, starting with the question whether the disability assessment includes the evaluation of WE. If so, the questionnaire will ask open-ended follow up questions on the definition, operationalization and the assessment of WE in the practice of professionals, i.e. IP's assessing work disability benefit claims, and on the content of available guidelines. Selected representatives from countries which assess WE will be contacted by email or phone for more in-depth interviewing on the assessment of WE.

#### Results

The results will be presented at the EUMASS congress 2014 in Stockholm.

# The Importance of applying a quality management system in work disability reports

# Susanne Bohs (1), Pål Lindström (1) (1) Insurance medicine, Region Skane/ Susano AB, Malmo, Sweden

## Background

Team-based medical work disability reports is a way for the Swedish Social Insurance Agency (SSIA) to obtain a comprehensive overall picture of a complex state of illness or disability. It's essential that the reports make it clear how disability and functional capacity affects the individual's performance in different types of activity. This increases the demand of quality in medical evaluations regarding work disability. A physician's signature is no longer by its own a sufficient evidence for a patient's disability; the doctor and the team needs to undergo a certification process in order to perform the more extensive types of disability reports which from our point of view demands a management-led quality process in order to ensure the reports validity and quality.

## Objectives

Disability reports objectives are to ensure a distinct connection between diagnoses and functional capacity. Furthermore that the prognosis and proposed actions are described and motivated in a way that meets the demands of SSIA.

## Method

We have chosen to illustrate how a process-based method supported by an IT-system and led by a quality coordinator in a close and structured cooperation with SSIA raises quality of the end product.

The physician in a team-based disability evaluation have traditionally the final responsibility for the end product. We have chosen to let a quality manager review the reports before they are approved for delivery. The process follows the quality management system ISO 9001:2008, including documents of requirements for Swedish Occupational Health. The purpose of the quality managing system is to continuously improve customer satisfaction by monitoring quality, deviations, and performing risk assessments.

Quality audits also consist of a structured cooperation with the SSIA where meetings between the representatives [2] and the assignment coordinator constitute an essential part of ensuring customer satisfaction. The follow-up meetings are attended by representatives from SSIA, the company's quality coordinator and chief medical officer. The purpose of the meeting is to highlight and demonstrate how the reports meet the overall requirements of the SSIA and from the SSIA administrators who made the order of the evaluation in the first place. Discussion is based on the current reports and emphasizes both strengths and weaknesses in order to develop and improve future content. The quality coordinator is responsible to inform all the team members.

## Follow-up

The meetings evaluate how well the company meets SSIA:s requirements to provide a comprehensive description regarding functional capacity and activity limitations. A measure to determine the achieved standard is the proportion of delivered reports approved without complementary reviews. The goal is 90%. Relevance for international audiences Quality management systems can be a cost-effective method for increasing quality in work disability reports.

#### **Referenser:**

[1] Swedish Social Insurance Agency, Guidelines for quality requirements for team-based medical investigations (TMU, 2013-12-17

[2] MD Ann Bernsdotter Medical Coordinator; Swedish Social Insurance Agency and MD Christine Hugosson, Medical Advisor; Swedish Social Insurance Agency

# Towards a perfect assessment of fitness for work

*James Bolton (1) (1) Health and Wellbeing Directorate of the Department for Work and Pensions, UK* 

Work Capability Assessment (WCA), introduced in 2008, is used throughout the UK to determine eligibility for sickness benefit.

It is a functional assessment that considers a range of physical and mental functions in order to determine fitness for work. Its usage is controversial and continues to attract a great deal of attention among individuals, politicians, the media and charities.

Since its introduction, WCA has been subject to considerable scrutiny. This includes independent annual reviews by respected occupational health physicians. In turn these reviews have led to a number of significant changes aimed at improving the assessment. The Department for Work and Pensions is also undertaking an evidence-based review of WCA. This is a project to examine the performance of the current assessment and compare it to an alternative version that has been proposed by a group of charities.

The aim of the review is to identify whether changes to the assessment and associated processes would significantly improve the performance of WCA. The project is subject to external scrutiny by a panel of academics in order to ensure its rigour. Results derived from both current WCA and alternative assessments will be compared with the expert panel's opinion in order to examine the validity of each. The results are expected to be available in late 2013.

This presentation will focus on results of having evaluated WCA to date, changes that have been made and the future of this assessment.

## Continuing professional development: Another approach to the analysis of healthcare practices

George Borgès Da Silva (1).

(1) Caisse nationale d'assurance maladie des travailleurs salariés (CNAMTS), France

In France, in 2013, continuous professional development (CPD) seeks to evaluate professional practices, develop knowledge, improve healthcare quality and safety and take public health priorities and medical control of healthcare expenditures into account. This is compulsory for all medical doctors by law: Article L4133-1 of the French Public Health Code.

CPD involves the analysis by doctors of their professional practices and the acquisition or strengthening of knowledge or skills. It is an individual obligation that is part of an on-going initiative (Article R4133-1 of the French Public Health Code).

CPD takes the form of programmes that can entail the following stages:

- Collecting practices (collection of data pertaining to the doctor's practice).

- Educating (acquisition/strengthening of knowledge and skills).

- Shared analysis of practices (analysis by comparison to a standard or the participants' collective expertise).

These practice evaluations represent a professional perspective on regulation of health care. Healthcare practice is also evaluated by the social insurance institution and the regional health agencies with different aims and methods.

These evaluations represent an administrative perspective on regulation of health care. Their aim is to optimally use resources to best meet the needs of the population. For this, they analyse the information systems to perform actions of academic detailing (an intervention that combines interactive, one-on-one communication conducted by trained healthcare professionals with evidence-based, non-commercial information). These actions are performed by insurance physicians for treating physicians.

If this process of continuing self-improvement with regard to the quality of health care is set up among providers, it will be possible to combine the professional and managerial approaches for more effective regulation of the system. This change is consistent with a new method of analysing practices that has been established in Europe since 2000. In 1993 the British Standing Committee on Postgraduate Medical and Dental Education found that continuing medical education did not meet the career path and education needs brought about by changes to the healthcare system.

The concept of continuing professional development (CPD) was put forward to meet the new needs (communication, management, population health, evaluation of practices). Since the 2000s, Europe has developed CPD with definitions tailored to each country and their healthcare system. The European Union of Medical Specialists (UEMS) has been tasked with ensuring high quality of care in Europe and coordinating the qualifications of medical specialists.

# Virtual libraries for sharing knowledge

Gisele Borges-Da-Silva (1) (1) Direction régionale du service médical PACAC CNAMTS (France)

## Context

People with health insurance must be actively involved in their health. They must have access to validated information to help them find information on their pathology easily. They can then prevent their health from deteriorating, obtain treatment at the right time and learn to cope with chronic pathologies. To fulfil this mission mentioned in the 2010-2013 Agreement on objectives and management, the Health Insurance providers created the website ameli-sante.fr in 2010. A virtual medical reference library must be compiled to help twenty practitioner-counsellor authors to draft the health themes.

## Objective

To present the procedure for setting up a virtual library on the web

# Methods

The project was ordered and carried out in summer 2011. The request concerned the implementation of a system of documentation which would be validated, centralised and shared by all the authors distributed throughout France. Each author must also have a monitoring system via and RSS feed, to inform them in real time of any new documents added to the library, on their theme.

For this project we used social bookmarking sites. Our first choice was delicious.com. For technical reasons linked to our Intranet, the library was then permanently transferred to the diigo.com website.

Social bookmarking is a method of storage, classification, searching and sharing links to documents available on the web. Documents are classified by keywords (folksonomy)

# Results

The library went online on Delicious.com in September 2011 and transferred to Diigo.com in January 2012:

## https://www.diigo.com/user/Asclepios

It currently includes nearly 5000 documents. The keywords (tags) enable authors to sort through Ameli-santé (health improvement) themes and select one or more of them. Each document is accompanied by an inclusion for authors: help in drafting or referencing. The public list facilitates access to each theme.

The RSS feed addresses use a general syntax: https://www.diigo.com/rss/user/Asclepios/ sclerose\_en\_plaques

To set up a documentary alert, these addresses can be installed on any type of feed reader (e.g. Netvibes).

# Conclusion

This library has been used to draft or update the 223 health themes, put online on ameli-sante.fr, with validated documentation.

This method for setting up collaborative virtual libraries helps produce a body of knowledge which can be made available to a professional community. It may contain links to documents available on the web and/or documents available on an Intranet (in this case, only those connected to their Intranet will have access).

This type of shared documentation is particularly useful to project leaders, members of task forces, professionals working with quality groups, groups of colleagues or health care networks wishing to pool baseline documents governing professional practices.

## Interaction and friction between the healthcare system and work incapacity regulations and practices

Chiel Bos (1) (1) Belgium

In addition to treatment, illness requires exemption from the social obligation to be gainfully employed, as well as support to become re-established in the labour market. Healthcare professionals play a key role when it comes to supporting and mentoring their patients. Alongside of individuals and their families, employers and insurers bear responsibilities of their own in Western society.

Both within and among countries, the tasks of these five parties are structured differently as time goes on. Each party brings its own institutional interests to the table.

Dutch employers and insurers both exert great influence at the moment with respect to healthcare provision and work incapacity policy.

The present arrangement carries certain advantages over previous ones but is still not wholly adequate. My lecture will concentrate on the role of employers in healthcare provision and of the insurer when it comes to covering work incapacity. Employers these days have ultimate responsibility for results, the goal being for them to promote optimal outcomes. They can call on a broad range of specialised disciplines – treatment, social medicine, etc. – to promote reintegration of employees. My lecture will look at the relationship and potential of the areas mentioned above.

# Rapid return to work for persons on long-term sick leave due to musculoskeletal and common mental disorders. A controlled cohort study.

Dag Brekke (1), Bjørgulf Claussen (2), Søren Brage (2,4), Tor Haugstad (1), Johan K Standhelle (1, 3)

(1) Sunnaas Rehabilitation Hospital

(2) Institute of Health and Sociaty, University of Oslo

(3) Faculty of medicine, University of Oslo

(4) Norwegian Labor and Welfare Administration (NAV), Dept of statistics and assessm

## Introduction

A pilot study presented in 2010[i] indicated promising results of the intervention Rapid Return to Work (RRTW) for persons on long-term sick leave for musculoskeletal and common mental disorders. We present results from a three year follow up of similar group of patients referred from family doctors to an out-patient clinic in Ostfold County, Norway. [1] Rapid return to work with musculoskeletal or minor psychiatric diseases By Dag Brekke MD. DPH. Consultant Sunnaas Rehabilitation Hospital, Oslo, Norway. (D Brekke - slides). EUMASS Berlin 24.sept.2010.

## Aim

To investigate effects of an intervention, consisting of one day assessment, on return to work 6-36 months after the assessment.

## Methods

Totally 420 patients (31 % men, 69 % women) underwent the intervention, consisting of an assessment that was done by a multidisciplinary team (physiotherapist, occupational the-rapist, social worker, clinical psychologist and medical specialist in occupational medicine), and based on principles from clinical medicine and cognitive therapy. Out of the intervention group a subgroup (n = 100) was selected on clinical terms and given additional intervention (four weeks with additional training on coping). The rate of return to work in the intervention group was compared with the rate of return to work in a matched control group (n = 1260), who had "treatment as usual", and with data from the national register. Satisfaction with the assessment was registered by a questionnaire. At assessment (6 months median sick leave = t0), and 6, 12, 24 and 36 months (t36) thereafter, the national register data (NAV) on work participation and social benefits were compared with our results.

#### Results

The rate of employment in the intervention group (n = 420) was reduced from 64 % at t0 to 32 % at t36. In the group with additional intervention (n=100) 71 % at t0 and 27 % at t36 were employed. In the control group (n=1260), employment went down from 81 % at t0 to 49 % at t36, (p<0,001 between control and intervention groups).

Rate of persons receiving rehabilitation benefits were 18 % in the intervention group at t0, 55 % at t12 to 41 % at t36. Comparing rates in the control group were 10 % at t0, 37 % at t12 and 29 % at t36, (p<0,001 compared with intervention group). In the subgroup with additional intervention comparing rates were 19 % at t0, 73 % at t12 and 51 % at t36 (p<0,001 compared with controls).

The rates of disability pension were: for the intervention group 0 % at t0, 5 % at t24 and 10 % at t36, for the control group 1 % at t0, 4 % at t24 and 6 % at t36. For the additional intervention subgroup 0 % at t0, 4 % at t24 and 9 % at t36 (p=0,026 at t36). The patients in the intervention groups reported that the intervention method was beneficial and satisfying.

## Conclusion

This study shows better results on return to work for those with "treatment as usual" than for those who received special intervention (RRTW), even if the patients reported that the intervention method was beneficial and satisfying. The employment rates were reduced during the three years follow-up, in all groups, most in the intervention groups. The disability pension rates showed similar increase during the three years follow-up in both the control and the intervention groups. This study indicates that "treatment as usual" is good enough for enabling persons with musculoskeletal and common mental disorders return to work.

# Enabling return to work through preventive sickness allowance during adjuvant treatment for breast cancer.

Ann-Marie Brudin (1), Rolf Carlsson (2), Bo Fagerkvist (3), Karin Lindfors (4), Zarah Nettervik (5), Margareta De Oliveira (6), Susanne Ottosson (7)

- (1) Swedish Social Insurance Agency, Nygatan 36, 391 84 Kalmar, Sweden
- (2) Swedish Social Insurance Agency, Box 13135, 402 52 Gothenburg, Sweden
- (3) Swedish Social Insurance Agency, Box 402, 541 30 Skövde, Sweden
- (4) Swedish Social Insurance Agency, 405 12 Gothenburg, Sweden
- (5) Swedish Social Insurance Agency, 405 12 Gothenburg, Sweden
- (6) Swedish Social Insurance Agency, Box 31186, 400 32 Gothenburg, Sweden
- (7) Sahlgrenska University Hospital, department of Oncology, 413 45 Gothenburg

#### Background

In 2012 the Swedish Social Insurance Agency (SSIA) formed an insurance medical network concerning oncological diagnoses. A problem inventory involving regional cancer centers (RCCs) showed that sick listing for cancer diagnoses is complicated, since current activity limitations may be absent. Treatment, rather than disease, often causes incapacity. Patients react individually to treatment and doctors can't predict all consequences, leading to full sick listing during the entire treatment period, regardless of capacity for work (CFW). A recently published thesis on women's psychosocial situation and work after breast cancer surgery [1] indicates that most women regard work as a very important aspect of life, and flexibility is, therefore, needed concerning return to work (RTW).

Preventive sickness allowance (PSA) is an option for these patients. The patient is allowed to decide her CFW without risk of losing benefit. Representatives from the RCCs express the need of a more uniform management of this benefit, which would decrease differences between geographic areas in Sweden.

## Objectives

The aim of the project was to compare RTW during adjuvant therapy for breast cancer amongst women offered PSA with those receiving ordinary sickness allowance. Potential obstacles and difficulties are to be identified.

## Methods

The project was performed in collaboration between the Department of Oncology at Sahlgrenska University Hospital (SU) and SSIA in Gothenburg. The target group was women, employed or self-employed, with adjuvant therapy after primary breast cancer surgery. There was continuous inclusion for 10 months, starting July 1st, 2013. Patients were informed about the project and asked about participation by oncologists at SU, and a Social Insurance Officer (SIO) contacted the patients after consent to participate. Decision concerning PSA was made without undue delay. Participants stayed maximum 6 months in the project.

One month after finished therapy and benefit the patients were interviewed by a medical advisor. Experience of actions from healthcare, local SSIA and employers concerning benefit was asked for, as well as patient's overall experience concerning RTW and private economy. Interviews were performed to explore doctors, nurses and SIO's experiences during the

project. Registered days with PSA versus sickness allowance for the same diagnosis in the region during the project and for a comparable previous period were analyzed.

## **Results and conclusion**

So far employment support allowance (ESA) for participating patients was significantly reduced (p<0,001) compared to control groups. Patients and staff are mainly positive, and provided this positive outcome continues, we suggest an increased use of this benefit in Sweden, also for other diagnoses. This can be done by better information to doctors and patients and a more structured approach by the SSIA. Suggestions from participants, including digitalized medical certificates and improved claim forma, would facilitate increased utilization.

## Indication of the relevance of the study for international audiences

We intend to illustrate a form of benefit, which may facilitate RTW for cancer patients.

## References

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# Independent Medical Evaluations - Important, neglected, in need of reform.

Jason Busse (1) (1) Clinical Epidemiology & Biostatistics at McMaster University, Canada

Independent medical evaluations (IMEs) are a common form of assessment, often influencing whether patients receive compensation for an injury or illness.

Compensation may, in Canada and the US, be provided by private or social insurers. Medical doctors are contracted on a case-by-case basis to provide judgements on functional capacity, diagnosis, prognosis, and optimal management.

In North America, as in Europe, IMEs have been criticised for being less than transparent, unreliable, and subject to assessor bias.

To explore the evidence base underlying IMEs, we conducted a systematic review of all primary research literature from a North American perspective.

We found 54 eligible articles, of which the majority (65%) were on the topic of malingering. This presentation will report our findings, including:

(1) the prevalence of non-credible symptom over-reporting among employees presenting for an IME

(2) inter-examiner reliability for determination of disability, and

(3) the effect of motivation on tests commonly administered during IMEs.

This is the first systematic review of the IME literature, and attendees will learn what evidence exists, the strength of the evidence, and where research is needed.

# Round table session on compensation health research (CHR) and building a European Research Network on Compensation Health (EURNoCH)

Prof.dr.mr. Arno Akkermans, VU University Amsterdam, Faculty of law, the Netherlands Dr. L. Holm, associate professor, IMM Institute of Environmental Medicine, Karolinska Institutet, Sweden Prof. Dr. J.D. Cassidy, Globalisation Professor, Faculty of Health Sciences, University of Southern Denmark, Senior Scientist, University Health Network, Toronto Ontario, Professor

of Epidemiology, Dalla Lana School of Public Health, University of Toronto. Dr. J. Buitenhuis Dutch Academic Center for Insurance Medicine, Academic Medical Center

Dr. J. Buitenhuis Dutch Academic Center for Insurance Medicine , Academic Medical C Groningen, the Netherlands

Workshop/Countributors: Arno Akkermans, Lena Holm, David Cassidy.

Compensation Health Research (CHR) aims to study the influence of compensation schemes, for instance in case of work disability or after traffic injuries, on health and health related outcomes. There is research that suggest that people in a claim situation have more symptoms or recover more slowly. What is causing this? What factors are relevant and determine the optimal compensation scheme? What compensation scheme does not harm the health of sick or injured victims, but facilitates optimal recovery?

The answers to these questions are part of compensation health research and essential insights for the process of further harmonization of legislation in the EU.

Besides introducing and presenting the area of compensation health research we also want to invite interested delegates to join the European Research Network on Compensation Health (EURNoCH).

# What is this session about?

In this round table session the research area of Compensation Health Research (CHR) will be introduced and presented, participants will be invited to discuss various aspects of CHR and the possibilities and relevance of future research. Furthermore, interested delegates are invited to join the European Research Network on Compensations Health (EURNoCH). This collaboration aims to provide a European network on compensation health research facilitating International research.

# The following aspects will be presented:

- An overview of earlier research on compensation health
- What are the relevant factors in compensation schemes (or legal procedures) related to health or health related outcome parameters.
- What is the place and role of secondary gain?
- The International perspective. What can we learn from International research on the effect of change of compensation schemes?
- What does the optimal compensation scheme look like?
- What kind of research do we need in the future?
- The biopsychosocial-model: After the bio- and psycho-, finally time for the social part?
- Building a European research network on compensation health.

## Who should participate?

This round table session is relevant for everyone interested in the relationship between compensation schemes and health, for everyone interested or involved in research regarding aspects of compensation systems and health related factors and, for all delegates interested in joining the European Research Network on Compensation Health (EURNoCH).

#### Background

Each year 42.000 EU citizens are killed and 3.5 million are injured in road traffic collisions. In its 1995 Green Paper, the European Commission noted that in a single year, road traffic injuries cost the European Union approximately 15 billion Euros in medical, administrative and damage reparation expenditures alone. In 2002, the annual cost of road traffic collisions to society was estimated at 160 billion Euros and is now estimated at 200 billion Euros. Medical costs and the level of compensation have also generally increased.

When a EU citizen gets injured in a traffic collision, the economic and non-pecuniary losses usually are compensable, but compensation practices and procedures vary widely between Member States with unclear effects. Civil liability coverage exists in all countries. A number of factors impact on compensation scheme outcomes. Guaranteeing minimum levels of protection through compulsory third party insurance has an impact on compensation and health outcomes, but so do societal changes, standards of living, the evolution of mortality rates, new technologies in dealing with injuries, the circumstances in each case and how non-pecuniary losses are evaluated by the courts. All these will create differences in compensation and health outcomes with some merely creating differences between individual cases and others leading to important differences between countries.

Epidemiological research shows that, as a group, people injured in traffic collisions who are involved in compensation processes recover on average less well than those who are not. (1-5)

There is evidence that changes in the design and operation of compensation schemes, and in the services provided by agencies and lawyers, can improve health outcomes and return-to-work.(3,4)

Research shows that disability assessments vary vastly across Europe. (6) The number of workers on disability benefits also varies across Western European countries. Different legislation, compensation schemes, eligibility rules, levels of juridification and adversariality, and/or generosity of benefits can explain these variations.

#### Aim of Compensation Health Research

Research is needed to provide a better understanding of what exactly causes the detrimental effects of compensation procedures and how they can be optimized, in order to enable informed changes in future policy, case law, the modus operandi of the legal profession and relevant institutions, and perhaps even to inspire legislative change.

An International comparison and investigation of compensation schemes in relation to health related factors is essential to understand what compensation system factors influence health outcomes like health-related quality of life, functional recovery and return to work, and how a compensation scheme can be designed that does not harm the health of work disabled employees and self-employed, and injured victims, but facilitates optimal recovery. CHR aims to investigate the relationship between relevant factors in the compensation system and health related outcomes.

Compensation Health Research can deliver to policy makers the information they need to design the EU compensation systems of the future. Optimized compensation schemes can facilitate injury recovery, return to work, promote health and reduce the cost of work disability and road traffic injuries to society.

In Australia, Compensation Health Research is already a rather established research area, as illustrated by the annual Australian Compensation Health Research Forum (www.achrf. com.au).

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# Supported user participation: Alignment in multiparty crossinstitutional conversations about work capacity

Pia Bülow (1) & Monika Wilińska (2)

- (1) Jönköping University, Sweden;
- (2) University of Stirling, Scotland, UK

#### Introduction

The Swedish Social Insurance Agency (SSIA) is responsible for assessing the work ability of people on sick leave. Since 2003, the SSIA is obliged by the law to summon a status meeting when required. The status meeting is a multiparty institutional conversation involving at least three different parties involved in the rehabilitation process (e.g. employer, occupational therapist, medical doctor). The status meeting is compulsory for the individual on sick leave.

Previous research on status meetings has shown that the insured person often felt detached from what was discussed at the meeting (1). With the aim to improve the possibility for insured people to participate more actively in such meetings, the SSIA in Jönköping initiated a project in collaboration with Jönköping County Council. As a result, a modified working method for preparing the insured person for the status meeting was on trial at five health care centres in the County. The intervention implied that the same kind of information about the coming meeting was given the insured person by both the SSIA and the health care centre.

## Purpose of the study

The aim of the study was to explore the communicative process in the status meeting regarding the participation of the insured person and to investigate the insured person's perception of the meeting and the role taken/given in the meeting.

#### Method

Eight status meetings run according to the modified working method were observed and video-recorded. The collected data were transcribed verbatim and the communicative space for each party was measured by counting the number of words uttered in the meeting. The communicative process was analysed using discourse analysis and conversation analysis.

#### Results

All of the insured people (the users) evaluated their status meeting as very good and described a feeling of being the key person in the meeting (2). In five meetings the user was the single party with the largest communicative space in total. In general, the user participation dominated the phases when their actual health and workability were discussed and when further rehabilitation actions were planned. In the decision-making phase, the insured people were less active. Evidently, the degree of users' participation depended on the actions of other participants. Through the practice of alignment, insured persons were supported by the professional parties in their active involvement and their participation was enhanced.

## Conclusion

The results indicate that insured people who were well-informed about the meeting felt important and confident during their interaction with other meeting's participants. Moreover, through a number of actions and words other participants were strengthening the position of the insured people. The SSIA representatives played the key role in that process, hence their role in facilitating users' involvement is crucial.

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# Indications de traitement de la DMLA, dégénérescence maculaire liée à l'âge. (Indications for the treatment of age related macular degeneration, AMD).

Marie-Claude Cabanel-Gicquel (1) (1) RSI Midi-Pyrenees

#### Introduction

La DMLA représente la première cause de cécité légale ou de malvoyance dans les pays industrialisés. En France, plus d'un million de personnes en seraient atteintes. La commercialisation des médicaments anti-VEGF en 2006 a révolutionné la prise en charge de la maladie dans sa forme clinique exsudative. En combinant la plus forte progression des montants remboursés (+23,5%) avec une augmentation considérable de la population traitée (+28,0%), Lucentis©, anti-VEGF le plus utilisé, devenait en 2012 le médicament le plus onéreux pour le RSI.

#### Objet de l'étude

Évaluation des pratiques médicales diagnostiques et thérapeutiques pour une meilleure appréciation des enjeux de santé publique liés à l'évolution de la prise en charge de la DMLA.

#### Méthode

Échantillon multirégional de bénéficiaires du RSI atteints de DMLA confirmée et ayant bénéficié d'un premier traitement anti-VEGF par Lucentis©, Macugen© ou Visudyne© en 2008. Suivi rétrospectif par recueil de données médicales auprès des professionnels de santé. Comparaison de l'utilisation observée avec les référentiels d'autorisation de mise sur le marché (AMM) et les fiches d'information thérapeutique (FIT). Comparaison des examens complémentaires réalisés avec les recommandations de la Haute Autorité de Santé (HAS).

#### Résultats

Parmi les 184 patients (âge moyen: 81,3 ans), le caractère exsudatif était confirmé dans 91,3% des cas. Les examens réalisés comprenaient l'angiographie fluorescéinique (87,5%) et la tomographie à cohérence optique (OCT) (91,8%). Les différentes situations observées comprenaient des néovaisseaux choroïdiens rétrofovéolaires préexistants (62,0%) ou bien présents avant réinjection (30,2%), une acuité visuelle conforme aux valeurs préconisé-es (83,5%), une phase d'induction complète avec respect du délai entre deux injections (31,7%), un protocole utilisant le Lucentis© (91,8%).

#### Discussion

Chez ces patients atteints de DMLA confirmée, l'indication thérapeutique des médicaments anti-VEGF était souvent conforme à l'AMM. Cependant l'ensemble des critères ouvrant droit au remboursement (FIT) était respecté moins de 2 fois sur 3. Par ordre décroissant, les critères les moins souvent respectés étaient les phases de traitement, la présence de néovaisseaux choroïdiens rétrofovéolaires à l'initiation du traitement (FIT) et l'angiographie fluorescéinique obligatoire (HAS). Les dernières recommandations [1] valident partiellement l'indication aux néovaisseaux juxtafovéolaires et confortent la pratique des réinjections basées sur les seuls signes exsudatifs à l'OCT. De plus le traitement étant le plus souvent conduit comme un traitement chronique, l'estimation prix-volume nécessiterait d'être reconsidérée notamment pour Lucentis©. Les nouvelles indications réglementaires de Lucentis© (œdème maculaire diabétique et œdème maculaire dû à une occlusion veineuse rétinienne) [2] ainsi que les extensions d'utilisation recommandées pour le traitement de la DMLA exsudative imposent un suivi précis de la qualité du diagnostic et du traitement pour une prise en charge plus efficiente.

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# Evaluation of developments in health care: Online surveys by a health insurance fund

## Michael Callens (1)

(1) Landsbond der Christelijke Mutualiteiten, Departement Onderzoek & Ontwikkeling [National Association of Christian Friendly Societies, Research and Development Department]

Health insurance funds are defined as "Associations of physical persons who promote the physical, psychological and social well-being of their members in a spirit of providence, mutual assistance and solidarity". They are more then only a payer, they are also a player. Research is necessary in order to identify needs and shortcomings in the health care system and to formulate recommendations for improvement. Through their statutory task, the refunding of health costs, health insurance funds have a huge amount of data at their disposal (Christian sickness funds (CSF): 4.4 million members). Moreover, they are experts in health care research.

The available information consist of administrative (e.g., age, indicators of low income, allowances) and refunding data (e.g., GP consultations, specialists, dentist, use of pharmaceuticals, hospital admissions). An important research topic is the exploitation of these available data (e.g., each year the 2 million hospital invoices of CSF members are scrutinized). But not all relevant information is available in the data warehouses of health insurance funds. It is therefore sometimes necessary to conduct inquiries among members in order to quantify non-refundable health costs.,to explore health behaviour or to gather opinions about the health system. The usual approach is to send out a written questionnaire by regular mail.

The digital revolution opens up new possibilities to survey members: mass emailing, online questionnaires, etc. On the basis of a number of surveys conducted by CM, the pros and cons, the dangers and opportunities of online research are discussed.

The cost of online research is minimal and efficiency has increased because the Christian Sickness Funds have access to about 1 million member email addresses now. The advantage of online survey is the possibility to survey some thousands respondents on a relative cheap and quick way. Recently the CSF initiated a number of large online investigations, among other, into the amounts actually paid for ambulatory care and the attitude of its members towards the health care system. It is important to check whether the research question can be resolved using an online questionnaire, since this approach has important limitations. Not everyone can be contacted through email and the response rate is about 25% versus 25% till 40% (with reminders) for a survey using regular mail.

# How to improve incapacity assessment and return to work policy in social health insurance

IG Cappan (1), HMJ Hendrickx (1), R Lambrechts (1), SHP Nackaerts (1), HK Reynders (1), VCA Van Elshocht (1)

(1) Landsbond Der Christelijke Mutualiteiten, Haachtsesteenweg 579, 1031 Brussel, Belgium

# Introduction

Social security systems in Europe have budgetary constraints. Resources to assess incapacity and encourage return to work must be applied in an economically and scientifically justified way.

Our previous study (n=355) (Eumass 2012) [1] included only patients that started a court procedure and indicated that sex, level of education, social status and profession had an important influence on the return to work. The research group in the previous study, however, was insufficient to change the actual policy, because the majority of patients (92.5%) never starts a court procedure. This study therefore included the 4333 patients that never started a procedure.

# Purpose of the study

Are there indicators that can improve the return to work policy?

# Methods

We conducted a retrospective cohort study using the same parameters as in the previous study.

Patients, all member of the Christian Sickness Fund Mechelen, with an imposed work resumption between 2000/01/01 and 2008/12/31 were included. All are employees and none launched a court procedure. Follow up of their professional status ended at 2010.

The parameters sex, age, level of education, professional status before incapacity, pathology, social status, duration of incapacity were investigated.

## Results

The parameters were reviewed at 6 months, one year and three years after the imposed work resumption. At each of these intervals there appeared to be a statistically significant effect of sex: women return less to work (p<0.01, Fisher exact test). For age the turning point is 45. People younger than 45 return significantly more to work.

Couples with children score better (p<0.05, Fisher exact test) then single people with children (p $\leq$ 0.01, Fisher exact test).

Return to work rate of the highly skilled is best, the uneducated score worst. Patients with a psychiatric and psychosomatic pathology have the lowest return rate.

Regarding the professional status before the incapacity, the unemployed, cleaning workers and the handicrafters scored badly.

The longer the duration of incapacity, the worse the work resumption (Wilcoxon two-sample test p<0.01).

We compared our two cohorts (4333 without and 355 with a court procedure) to find out who are 'at risk' to start a court procedure.

There is no difference between the sexes (p=1). Again 45 years appears a turning point. Above this age there are significantly more court procedures (p<0.01, Fisher exact test). Singles with children initiated the most procedures (p<0.01, Fisher exact test). There is a statistically significant effect of level of education, pathology and profession before incapacity (Cochrane armitage trend test <0.01). Only the highly skilled start considerably less procedures (5.63% vs 9-12% in the other groups). Incapacity due to an accident or

psychosomatic pathology leads more frequently to a court procedure (respectively 18.68% and 14.03%), although after an accident there is a better return to work. Handicrafters appeal most frequently (27.47%).

#### Conclusion

A better reintegration policy should focus mainly on the 'groups at risk': females, 45+, single parents, low skilled, psychosomatic pathology, unemployed, cleaners, handicraft.

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# Early multidisciplinary assessment resulted in longer periods of sick leave

Lars Carlsson (1, 2), Lars Englund (1, 2), Johan Hallqvist (1), Thorne Wallman (1,3)

(1) Uppsala University, Department of Public Health and Caring Sciences

(2) Centre for Clinical Research Dalarna, Uppsala University, Falun Sweden

(3) Centre for Clinical Research Sörmland, Uppsala University, Eskilstuna Sweden

## Introduction

In Sweden sick leave issues have had high priority within the medical and political debate in recent years. The authorities have taken several initiatives to improve rehabilitation and decrease sick leave days. Some are changes in rules and regulations and other are economic incentives for the county councils. The authorities have invested large sums of money (two billion SEK/year 2009-2014) in accelerating and improving the rehabilitation of sick listed individuals. At the same time there has been a lack of randomized controlled trials (RCT) to study the effect on return to work (RTW) of interventions in primary health care where many of these patients are treated.

## Purpose of the study

To study the effect on RTW from an early multidisciplinary assessment in a primary health care centre.

## Methods

Patients who visited GPs at a primary health care centre in mid-Sweden and became sick listed due to psychiatric or musculoskeletal diagnoses were invited to participate in the study. Patients included should not have been on sick leave for more than four weeks. 33 patients were randomized to either an assessment within a week by a physiotherapist, a psychotherapist and an occupational therapist (18) or to "usual care" (15). The therapists used methods and tools they normally use in their clinical work. Main outcome measure were proportion of patients still on sick leave three months after randomization, total and net days on sick leave and proportion that were on part time sick leave.

## Results

At follow-up three months after randomization, there was a trend toward a higher proportion of patients still sick listed in the intervention group (7/18) compared to the control group (3/15). The intervention group also had significantly longer sick listing periods mean 58 days, (95% CI= 42-74), compared to the control group mean 36 days (95% CI 18-54), (p=0.038). The proportion of persons who were part time sick listed was significantly higher in the intervention group (10/18) than in the control group (2/15) (p=0.027).

	Intervention (n=18)	Control ( n=15)	
Still on sick leave after 3 months	7/18	3/15	p=0.283
Total number of gross sick leave days in the first three months mean	58	36	p=0.038
Total number of net sick leave days in the first three months mean	48	32	p=0.070
Number of individuals who were on partial sick leave 0-3 months	10/18	2/15	p=0.027

Table I. Sick leave measures at three month for intervention and control group.

#### Conclusions

In this RCT, the total number of sick leave days was significantly higher in the intervention group with early multidisciplinary assessment. Further RCT are needed to obtain better knowledge of which patients can benefit from multidisciplinary assessment in primary health care, when in the sick-leave period this should optimally be performed and what the content of the intervention should be.

# Sick leaves for subacute lower back pain: Advantages of an early coordinated intervention

Laurence Cauchard (1), Hélène Azoury (2), Jacques Niezborala (1), Dominique Cholley (2) (1) Région Languedoc Roussillon, ELSM de l'Hérault, CNAMTS, France (2) Région Languedoc Roussillon, CNAMTS, France

## Background

Sick leaves for common lower back pain are a stake in public health because of their socioeconomic consequences. They represent a concern for the French national health care insurance which prioritizes controls by its own physicians in order to prevent chronicisation.

#### Objectives

Main objective: testing feasibility and efficiency of an intervention carried out during the summons by the insurance physician in encouraging an earlier return to work.

Indicator: return to work rate at 6 months of insurants on sick leave for lower back pain for more than 45 days and less than 90 days and summoned to the health care insurance's medical service.

Secondary objectives: preventing professional exclusion, identifying chronicisation risk factors and estimating fears and beliefs, use of health care services, satisfaction of insurants and partners.

## Method

Prospective randomized controlled study evaluating an intervention
Included subjects: insurants on sick leave for lower back pain for 45 to 90 days, sum moned to the medical service of the Montpellier National health care branch.

## Results

## <u>1st study</u>

In 2011, 143 subjects were included in a study which consisted in sending the summoned insurant at 45 days of sick leave the "Back Book" with self-administered questionnaires, and in increasing family doctor's awareness.

In the intervention group (n = 69), more insurants had returned to work at 6 months (79.37 % vs 63.38 %, p = 0.042) and apprehension of resuming professional activities estimated by the FABQ-work subscale (Fear Avoidance Beliefs Questionnaire) at 45 days was lower (34.00 vs 37.00, p = 0.027).

Despite interesting results, this simple intervention seemed limited in preventing professional exclusion.

A support program and a partnership with occupational health services and with the department of physical medicine and rehabilitation of the University Medical Centre of Montpellier were organized.

## <u>2nd study</u>

Began in 2013, it defines a care plan:

• Self-administered questionnaires sent with the summons including an assessment grid of chronicisation risk factors

•Examination by the National Health Care insurance physician

•Information and consent of the family doctor

•Collective hospital day admission "Back School" and distribution of the "Back Book" (project of a personalized consultation to answer individual needs)

•Proactive return visit by the company doctor (therapeutic part-time, workstation adjustments)

Communication campaigns, well accepted, were planned aiming insurance physicians, company doctors and family doctors in order to promote a homogeneous speech (common lower back pain is a benign disease), encourage physical activity and broadcast the recommended durations of sick leave (index reference cards).

The implementation of this care plan was complex (multiple partners, short deadlines, hospital "Back school" days on fixed dates, reluctant insurants, incomplete documents, risk of interference with treatment, patients hijacking).

Investment of the various partners and adapting to the field's constraints were essential in overcoming difficulties and reluctances.

## Conclusion

The second study is in progress and will allow completing the positive results of the first intervention by a constructive follow-up and a partnership around the sick insurant aiming at his long-term reintegration.

# Assessing of disability in patients with schizophrenia in the Czech Republic

Libuše Celedová (1), Rotislav Cevela (1) (1) 85, Institute of Social Medicine, Faculty of Medicine in Pilsen, Charles University

## Introduction

Since 2010, major changes in the assessment of disability have been carried out. A three-tiered system of disability assessment has been introduced and the gravity of every health impairment has been expressed by a percentage specified by the law. Until 2010, mental diseases were the third most common reason for an institutionally approved disability and since 2010, mental diseases rank as the second most common reason.

## Method

The new invalidity assessment method, pursuant to the cited Decree, makes it possible to consider the useful profile of the functional capabilities of an individual, his or her disability, and to specifically make up for the decreased capacity for work of that individual while evaluating the extent of the decrease in the capacity for work.

## Results

The solution reflects the principles of the International Classification of Functioning, Disability and Health. Disability due to schizophrenia represented 1/4 of all mental diseases until 2010 and since 2010 it stands for 1/5 of all mental diseases.

## Conclusion

By introducing the approach of personified medicine into medical assessment service, the number of patients with schizophrenia-caused disability has increased since 2009, while at the same time the incidence of schizophrenia remained constant. This discrepancy may be explained by early diagnostics and more effective treatment, which prevents schizophrenic patients to become disabled.

## Burnout syndrome by the doctors in the Czech medical assessment service

Libuše Celedová (1), Rostislav Cevela (1) (1) 85,Institute of Social Medicine, Faculty of Medicine in Pilsen, Charles Universi

## Objective

Survey of the incidence of Burnout Syndrome in Assessment Medicine Doctors in the Czech Republic

#### Methods

We have conducted an extensive research to determine the level of stress load and occurrence of possible signs of depression and other reactive mental illnesses among Czech assessment doctors. The research group consisted of randomly selected assessment doctors in the Czech Republic (n=250) and a control group consisting of other medical and non medical professions (n=100). The groups were compared on the basis of questionnaires evaluating levels of burnout syndrome, stress, depression and occurrence of other possible mental illnesses.

## Results

Assessment medicine doctors show higher incidence of burnout syndrome and stress related phenomenon as depression comparing to other medical and non-medical professions (p<0.01). This may be connected to specificity of the profession bringing specific stress load.

## Conclusion

Assessment medicine represents an individual area of expertise that requires special skills and knowledge and it also put specific stress load on the assessment doctors. Different responsibility and the style of work, including special kind of contact with clients make this profession to different from other fields of clinical medicine. The specific work load may bring different stressors and cause specific mental load.

# First impressions of the assessment of medical condition for the purposes of social services based on 10 basic needs

Libuše Celedová (1), Rostislav Cevela (1)

(1) Institute of Social Medicine, Faculty of Medicine in Pilsen, Charles University

#### Introduction

Since January 2012, there has been an aggregation of the 36 self-care and self-sufficiency tasks into ten basic living needs, i.e. mobility, orientation, communication, food intake, putting on clothes and shoes, body hygiene, using the toilet, health care, personal activities, and household cleaning.

#### Aims

Transformation of the medical assessment paradigm used for dependence degree assessment for the purposes of care allowance according to the principles of personalised medicine.

#### Methods

A change in the medical assessment criteria for consideration of the degree of dependence level, based on the assessment of Activities of Daily Living and principles of the International Classification of Functioning, Disability and Health. So far, more than 150 thousand assessment cases have confirmed that personalised assessment of functional disabilities represents a significant improvement in the individualised approach to all clients of the social security system.

#### Results

There was an increase in the number of acknowledgements of the degree of dependence from 114 357 cases in 2011, to 124 383 cases in 2013; significantly in the number of persons with the degrees of dependence III - serious and IV – very serious. ((p<0.01).

#### Conclusions

The increase in the number of patients with confirmed dependence serious and very serious degrees has demonstrated that modern functional assessment is beneficial especially for patients with serious disability.

# Predictors of functional improvement and future work status after the disability benefit claim: A prospective cohort study

LR Cornelius (1), JJL Van Der Klink (1), MR De Boer (1), JW Groothoff (1), S Brouwer () (1) Research Center For Insurance Medicine, The Netherlands

## Introduction

In most industrialized countries, disability benefit rates have increased substantially in the past decade. Few beneficiaries return into employment once disability benefit is awarded. Knowledge on factors that predict functional improvement and return to work is scarce.

# Purpose

The present study aims to investigate which factors predict functional improvement and future work status among persons claiming disability benefit after having been on long-term sickness leave.

# Methods

Prospective cohort study with one year follow-up among disability claimants (n=375; response rate: 24.3%) conducted in the Netherlands (October 2008 to April 2011). Logistic regression was used to analyze associations between predictors (demographics; outcomes of the 12-item General Health Questionnaire (GHQ-12); 10-item Kessler Psychological Distress scale; Alcohol Use Disorders Identification Test; Trimbos/iMTA questionnaire for Costs associated with Psychiatric Illness; Utrecht Coping List; Social Support Questionnaire for Transactions and Satisfaction; certified ICD-10 diagnosis; Loss of Earning Capacity (LEC)) and outcomes (functional improvement on the World Health Organization Disability Schedule 2.0 (WHODAS 2.0) exceeding the standard error of measurement; work status at follow-up).

# Results

Functional improvement on total WHODAS was reported by 84 (31.9% of 263 claimants included in analysis), but of these only 12 claimants (10.6% of those not having paid work at T0) were reported to have paid work after one year follow-up. Predictors of functional improvement were GHQ-12 sum score>20 (OR 2.9; 95% CI 1.54-5.34); predictors of future work status were: work status at baseline (OR 16.8; 95% CI 6.55-

43.14), LEC<80% (OR 4.6; 95% CI 1.87-11.42) and contact with a medical specialist (OR 0.4; 95% CI 0.19-0.87).

# Conclusions

The discrepancy we found between functional improvement and future work status may be an indication that possibilities for rehabilitation have been missed for beneficiaries with substantial functional improvement. Monitoring functioning and effective re-assessments after the claim may prevent permanent disability.

Only a limited number of factors were found to significantly predict functional improvement and return to paid work after the disability benefit claim, having paid work at baseline being by far the most important factor. This illustrates the importance to return to work as early as possible, preferably before disability benefit is claimed.

# International code of ethics for occupational health professionals: Guide for physicians of Italian workers' compensation authority

Carla Corsi (1), Carnassale Maurizio (2)

(1) INAIL Torino Nord Via B. Ramazzini, 26 10154 Torino

(2) Carnassale Maurizio INAIL Torino Sud Corso Orbassano 366, 10137 Torino

#### Workshop

The aim of occupational medicine is to protect workers' health and to promote the adaptation of work to the capabilities of workers taking into account their state of health. The expression occupational health professionals includes all those who provide occupational health services within the framework of a multidisciplinary team approach. Doctors , employers, social partners and workers have to deal with objectives which may be competing such as the protection of employment and the protection of health. At the same time all the occupational health professionals have to find strategies for recovery and reintegration into the working environment for workers after an injuries at work or in case of occupational and work-related diseases.

INAIL : Italian workers compensation authority is now not just compensation but a global protection system for all workers. Recent innovative provisions of law ranging from prevention , medical treatment, rehabilitation and reintegration in the social and working life put INAIL's physicians in a key role in the management of occupational health practice. The principles of ethics and the values on which is based the International Code of Ethics for Occupational Health Professional are the same for INAIL's physician in their daily work. Our aim at INAIL is to improve the health and the social well-being of workers individually and collectively with integrity in professional conduct, with impartiality, with respect for the protection of confidentiality of health data. We have to face with accident at work and professional diseases carrying out our tasks according to good practice and professional ethics. In this article the authors want to analyze the duties and obligations of INAIL's physicians in the execution of their functions in accordance with the rules laid down by the Code of Ethics.

# Work-Related skin diseases: A European overview

Cristina Dal Pozzo (1), Carlo De Rosa (2), Paolo Bastini (3), Raffaele Zinno (4), Maria Antonietta Zinno (5)

(1) INAIL – Medical Adviser, Veneto Regional Directorate, Venice

(2) INAIL – Medical Adviser, Navigation Sector, Naples

(3) INAIL – Medical Adviser, Veneto Regional Directorate, Venice

(4) SISMLA – Union of Forensic Specialists, National Secretary

(5) Medical Doctor – Institute of Legal Medicine, University Federico II, Naples

#### Introduction

Skin is exposed to a broad range of chemical, physical and biological risks and skin diseases are one of the most important emerging risks in European countries. However different occupational health systems, reporting methods and social insurance legislations makes it difficult to have an accurate description of the phenomenon. Moreover no dermal exposure standards are set because it's difficult to measure the consequences and level of the body's exposures to risks via dermal contact. This increases the importance of recognizing risk factors and developing methods of assessing and controlling them.

#### Purpose of the study

The study aims to better understand the epidemiology of occupational skin diseases in different countries and in different work sectors, to analyse the existing occupational health and safety prevention measures and to compare the social insurance interventions in different European countries.

#### Methods

Data are collected from European publications, national statistics reports, social insurance institutions publications and occupational medicine scientific societies guidelines.

#### Results

In Italy a constant increment in the claims of occupational diseases has been registered from 2008 (30.120) to 2011 (46.756) with a slight reduction in 2012 (45.980). The increment is mainly due to a more favourable legislation towards some musculoskeletal disorders (representing over 50% of the total in 2012) issued in 2008 [1]. In the same period the claims for skin diseases have shown a constant decrement in the manufacturing sector and a more constant occurrence in the agricultural sector. This difference may be explained with the efficacy of prevention measures in the industrial sector. However in 2012 only 32% of the reported diseases were recognised to have an occupational aetiology and received a compensation when due. This may lead to an underestimation of the problem. European data also show a decrement in the occurrence of skin diseases estimated around 7% in 2008 with the exception of skin cancers showing an increase.

# Conclusion

1) Epidemiology of occupational skin diseases is far from being accurate and there is a need for a common reporting system. 2) Respect of prevention guidelines is crucial to promote a decrement in the occurrence of skin diseases. 3) In accordance with the priorities of the occupational safety and health research in Europe for the 2013-2020, more research is

needed in the field of new technologies as a potential source of occupational exposure to biological agents, chemicals and new materials with risk potential for skin diseases as well as promotion of risk communication to specific target groups.

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NAIL Veneto Region, Annual Regional Report 2012.

# Insurance medicine in Europe

Wout De Boer (1), Clairy Wiholm (2), Sören Brage (3)

(1) Swiss academy of insurance medicine, Basel

(2) Forsäkringskassan, Stockholm

(3) NAV (Arbeids- og velferdsforvaltninga), Oslo

#### Background

Insurance medicine lacks a common and shared definition that is valid in all countries, unlike many clinical disciplines. There is considerable variation in the tasks and in the organisation of the work in insurance medicine.

#### Purpose

The European Union of Medicine in Assurance and Social Security (EUMASS) adopted a project to clarify what is to be understood by insurance medicine and how, where and by whom it is practiced in EUMASS countries.

#### Methods

First, in an expert meeting, we determined a general definition and tasks of insurance medicine that seemed to exist in all countries.

Second, we performed a survey in all 21 EUMASS countries about where and by whom these tasks were performed. We merged the answers in tables and distributed these to all invited respondents. Respondents were asked to comment in order to reach a common understanding of terms.

Third, we verified bilaterally if other tasks as mentioned by individual respondents were performed in other countries as well.

# Results

The following definition of insurance medicine: a practice of applications of medical know how (knowledge, methods and values) in executing collective arrangements for social consequences of ill health.

Based on that definition we identified the following tasks:

1.certifying sick leave and promoting return to work (including cause of sick leave)

2.evaluation of long-term work disability (including cause of disability)

3.evaluation of risks for acceptance for life insurance

4.evaluation of incapacity to participate in non-work life

5. evaluation of developments in health care

Forteen countries answered: (Belgium, Croatia, Czech Republic, Finland, France, Germany, Hungary, Netherlands, Norway, Poland, Romania, Slovenia, Sweden and Switzerland). These tasks exist in all participating countries and they are required for public or private schemes, both insurances and other. Schemes use different personnel for these tasks, mostly medical doctors are employed but in return to work different types of case managers are active as well. Several respondents mentioned the establishment of consequences of work accidents and professional diseases as separate tasks.

# **Discussion and conclusion**

In a comparative survey among 13 European countries we identified 5 tasks in insurance medicine. In all participating countries these tasks seem to form the bulk of the work that is done under the label insurance medicine, but other labels are used too (social medicine). In several countries work accident schemes are carried out separately from sick leave and disability schemes. This challenges our definition and leads to a 6th task.

The tasks could be clustered in four types:

- monitoring health care use,
- assessing risk for life insurance,
- establishing bodily damage consequent upon a specific cause, per sé,
- evaluating problems in participation of sick and disabled people
- non-work,
- work, short time
- work, long time, all further subdivided in causal questions or not).

# Expectation of sickness abscense duration: A review on statements in guidlines in western countries

*Wout De Boer (1), Mohsen Mousavi (1), Georges Delclos (2), Mercedes Lorente (3), Regina Kunz (1)* 

(1) Swiss Academy of Insurance Medicine, University Hospital Basel, Switzerland

(2) The University of Texas School of Public Health, Houston, Texas USA and the Cent

(3) Caisse Nationale de l'Assurance Maladie des Travailleurs Salariés, Paris France

#### Introduction

Sickness absence is considered to be high in many Western countries and difficult to manage. Certifying physicians play a key role in the management of sickness absence and are often provided with guidelines. In some of these guidelines, there are statements on expected sickness absence duration, according to diagnosis. We were interested in exploring the evidence base of these statements.

#### Purpose

To review and compare statements on expected sickness absence duration, including the methodology on which they are based.

#### Methods

We identified guidelines through a systematic survey of EUMASS members and a systematic literature of the Internet and PubMed. We extracted the statements and methodologies from the guidelines; where details were lacking, we personally contacted the developers of the guidelines.

We compared and summarised the included diagnoses, , expected durations and development processes followed. Next, we presented our findings to the developers, to afford them an opportunity to comment and/or correct any misinterpretations.

#### **Preliminary results**

We identified 4 guidelines from social insurance systems (France, Serbia, Spain and Sweden) and 4 guidelines from private organisations (1 Netherlands, 3 US). Respondents from several countries mentioned considering the development of their own guidelines.

Several diagnoses overlapped, but direct comparison is hampered by differences in coding (ICD 9 or 10) and level of aggregation (three or four digit, clustering of diseases and treatment situations).

Expectations about duration are defined in different ways (minimum, maximum, and optimum; mean or median and percentile distribution), Some guidelines specify the durations to age and work requirements, further complicating comparison In a sample of 5 diagnoses we found overlap in expected duration but also differences. For example, the expected duration of low back pain (ICD9 724.2 or ICD10 M54.5) was reported, depending on work requirements, varied from 7 to 14 days in one guideline and 0 to 49 in another (with a maximum expectation of 64 days for a person with a BMI ≥30).

Guidelines are developed using different approaches, but pragmatic expert consensus is frequently used, supplemented with data on sickness absence from different registers, other guidelines and non-systematic literature reviews.

The effectiveness of these guidelines has hardly been formally evaluated yet.

#### Conclusions

Expectations about duration of sickness absence by diagnosis are expressed in guidelines developed in several countries, with additional countries expressing similar interest. The statements are to some extent similar but also show differences. However, the expectations are difficult to compare and their evidence base is unclear. Their effectiveness needs to be established.

# Disability's benefits and job protection for cancer's patients in Italy: Legal, ethical and medical aspects.

Onofrio De Lucia (1)

(1) INPS - GENERAL COORDINATION OF THE FORENSIC MEDICINE - ROME

The Italian social security system provides for a limited time (mostly 180 days) of economical protection for temporary incapacity to work, after which the preservation of the work-place is no longer guaranteed.

Therefore, the economic protection of cancer patients, who often require long treatment even after the initial clinical remission, is entrusted mainly to benefits related to permanent disability that, however, do not imply any preservation of the job position. The permanent disability is determined on the quoad vitam prognosis and is subject to revision.

Consequently, the patient who, after a long treatment, is "clinically cured" and no longer disabled (which is now increasingly common) is often marginalized from the labor market. This problem has been the focus of interest of international organizations and of the European Parliament.

The Charter of Paris (February 2000), at article 2 states that "the stigma associated with cancer" causes "bias and discrimination against employment of people with cancer and/ or their meaningful participation in and contribution to society", committing the Parties to "redefine the disease as a treatable biological pathology and not a social condition". The Declaration on the Promotion and Enforcement of Cancer Patients' Rights (June 2002, the European Cancer League) considers the "right to social support and protection at work" among the "fundamental rights" of the cancer patient , who has the right "to get economic, financial and social services and support as well as education and job chances" and to maintain his/her workplace "even in the case of repeated and prolonged absences resulting from medical treatments".

With the Resolution "Breast cancer in the enlarged EU" (October 2006), the European Parliament also addressed the specific "problem of working and employment", and with the further Resolution (April 2008) " combating cancer in the enlarged European Union", it has invited the States to find a common definition of disability that may include people with chronic diseases or cancer and "to draw up a charter for the protection of cancer patients and chronically ill individuals in the workplace".

In May 2010 (Resolution "Fight against cancer, a European partnership"), the European Parliament stressed "the need to make greater efforts in the field of psychosocial and occupational rehabilitation programs for cancer patients". Italian Law, apart from the general labor protections introduced by Law 104/1992 (Framework Law for the Handicap) and Law no. 68/1999 (targeted placement in the labor market), has provided specific rules for workers with oncological diseases: the right to reversible part-time (decree no. 276/2003 and Law no. 247/2007); the exemption from night work (Legislative Decree no. 66/ 2003), the granting of teleworking opportunities (Ministry of Public Administration , circ. 1/2009).

Other protections (exclusion from the calculation of absences of the days of hospitalization, day hospital and life-saving therapy, different articulation of working time and so on), were introduced in Collective Agreements, creating a different among workers of the various economic sectors.

It would be desirable a reorganization and harmonization of these rules that could ensure uniformity (at national but possibly also at European level) and coordination, also in respect of the compatibility with the economic benefits for invalidity.

# Labour participation across six chronic conditions: The importance of self-rated health

#### Angelique De Rijk (1)

(1) Maastricht University, department of Social Medicine, the Netherlands

#### Introduction

Labour participation among chronically ill is generally substantially lower than among healthy persons. European figures show only half of those in working age to participate in paid jobs. While the labour participation in working age is 67% in the Netherlands, the estimates for labour participation of those with a chronic medical condition are only 25 to 57%. Research shows that in addition to health-related factors, social demographic and psychosocial factors play a role in low labour participation. Therefore and to de-medicalize, returnto-work interventions often not focus on health. It is however necessary to know more about the relative contribution of self-rated health to employment status across different conditions. We focused on sarcoidosis, renal disease, neurofibromatosis, hiv, autism and chronic headache.

#### Purpose of the study

Our objective was to analyse to what extent subjective health and a wide range of social demographic and psychosocial variables are predictors of employment status across six chronic conditions.

#### Methods

Cross-sectional data were collected by a digital questionnaire on the website of the respective patient organisations during spring 2013 for one month. Members received a digital newsletter announcing the survey. Inclusion criteria were: age between 18-65 and diagnosed condition. The response was between chronic headache (755) and 216 (neurofibromatosis), representing 0,15 to 9,3% of the estimated population. Data were collected on employment status and on 6 groups of variables: (1) health (self-rated health, physical and mental functioning (SF-36), comorbidity and pain for those with chronic headache), (2) psychological characteristics (self-esteem and self-efficacy), (3) social support from family, friends and important others; (4) number of life events; (5) health care consumption (general practitioner, medical specialist and other); (6) lifestyle indicators (smoking, physical activity and Body Mass Index (BMI)). For each chronic condition, 6 logistic regression analysis on employment status were performed per group of variables. If p<0.20, the variable was selected for the final backward logistic regression.

#### Results

The labour participation was between 56,6 and 85,7%. For all groups but renal disease, self-rated health was the most important predictor of labour participation (see table 1).

Chronic condition	Labour par- ticipation	OR (95%CI) Self-rated health	р
Sarcoidosis	68,7	6,08 (2,64-14,02)	< 0.01
Neurofibro- matosis	76,3	6,08 (2,64-14,02)	< 0.01
Hiv	85,7	3,25 (1,11-9,51)	0.03
Autism	56,6	4,70 (2,80-7,90)	< 0.01
Chronic headace	70,3	2,31 (1,48-3,59)	< 0.01

For those with renal disease level of education was the most important predictor (OR 1,75 (95%CI 1,28-2,42)). In the diverse groups. the following variables were not predictive for employment status: gender, mental functioning, social support from family or significant others, visiting general practitioner or medical specialist, smoking, and physical activity. The remaining variables were predictive to a far lower extent than subjective health.

#### Conclusion

The labour participation was relatively high. In all groups but renal disease, self-rated health was the most important predictor of employment status, besides age, educational level, other indicators of health and psychological characteristics. Educational level, age and comorbidity were predictive for employment status in renal disease, but with small ORs. The convincing role of self-rated health regarding employment status needs to be acknowledged in health care, occupational health care and in social insurance. To improve labour participation, support that recognizes the struggle of living with a chronic condition is necessary. Self-rated health needs to be included in research on work disability.

# Evidence-based duration and return to work guidelines in the United States

George L Delclos (1) (1) University of Texas School of Public Health, US

The high social and economic costs of sickness absence are driving interest in methods to improve both administrative and clinical case management such that workers can return safely to their jobs while maximizing efficiency in the use of resources. In this regard, many countries are working on developing guidelines to help practitioners and case managers improve the return to work process.

In this presentation, we will provide a comparative overview of three comprehensive resources frequently used in the United States by clinicians and case managers to help guide the management of sickness absence:

1) Official Disability Guidelines, published by the Work Loss Data Institute,

2) Medical Disability Guidelines, published by the Reed Group, and

3) Occupational Medicine Practice Guidelines, published by the American College of Occupational and Environmental Medicine.

Topics addressed by these guidelines (source of the evidence, methodology, use to determine anticipated time to return to work, treatment guidelines and work modifications) will be discussed, together with their strengths and limitations.

The degree to which use of these guidelines can and cannot be generalized to other countries and settings will be discussed too.

# Improvement of work ability assessments of employees on long term sick leave in Insurance Medicine -results of the thesis-

Patricia M. Dekkers-Sánchez, MD, PhD (1,3) Haije Wind, MD, PhD (2,3) Judith K. Sluiter, PhD(2) Monique H.W. Frings-Dresen, PhD (2,3)

(1) Dutch Workers Insurance Authority (UWV)

(2) Academic Medical Center, Department: Coronel Institute of Occupational Health, Amsterdam, The Netherlands.

(3) Academic Medical Center, Department: Coronel Institute of Occupational Health/Research Center for Insurance Medicine AMC-UMCG-UWV-VUmc, Amsterdam, The Netherlands.

# Objectives

The aim of the thesis is to contribute to the improvement of work ability assessments of employees on long term sick leave by insurance physicians.

# Design

Knowledge of factors that hinder or promote return to work of employees on long term sick leave was gathered from different perspectives i.e. patients on long term sick leave, vocational rehabilitation counsellors and insurance physicians. This new knowledge was used to develop an innovative instrument to help insurance physicians recognize factors relevant to return to work during workability assessments. Subsequently, the implementation of the instrument in the daily practice of insurance physicians was evaluated.

# Methods

Five studies were performed. A systematic literature search; focus group interviews with 27 patients who had been on long-term sickness absence; semi-structured interviews with 23 vocational rehabilitation counsellors; a Delphi study among 102 experienced insurance physicians using online questionnaires. Two hundred twenty Dutch Insurance physicians (IPs) were asked to participate in a nationwide implementation study.

# Results

Thirty personal and environmental factors were suggested to promote return to work by employees on long-term sick leave. Twenty-seven personal and environmental factors hinder return to work by employees on long-term sick leave. Of the 57 factors, six factors that promote return to work and three that hinder return to work should be considered in work-ability assessments of employees on long-term sick leave, according to IPs. A total of 79 IPs participated in the implementation study. 96% of the IPs assessed at least one factor, 89% of the IPs used the checklist in at least 3 of the 6 work ability assessments. An analysis of 474 official work ability assessment records indicated that 90% of the IPs reported at least one of the factors. It is feasible to implement a checklist to assess factors relevant to work ability in assessments of employees on long-term sick leave.

# Conclusions

The checklist to assess factors relevant for work ability assessments of employees on long term sick leave seems to be a useful tool to assess barriers and facilitators for RTW of long-term sick-listed employees.

# Work return in patients with brain injury and psychiatric disorders as comorbidity: A systematic review

*Birgit Donker-Cools (1,2,3), Sander Garrelfs (1,3), Haije Wind (0), Monique Frings-Dresen (1,3)* 

(1) Coronel Institute of Occupational Health, Academic Medical Center (AMC)

(2) Research Center for Insurance Medicine

(3) University of Amsterdam

#### Introduction

Acquired brain injury (ABI) leads to physical, cognitive and behavioral impairments that influence participation activities negatively; hence a majority of individuals with ABI does not return to work (RTW) [1]. In particular in the ABI population psychiatric disorders occur frequently as comorbidity [2-4]. However, it remains to be elucidated systematically whether psychiatric disorders as comorbidity in individuals with ABI are a restriction for RTW.

#### Purpose

The objective of this systematic review is to explore the association between psychiatric disorders as comorbidity and RTW in ABI patients.

#### Methods

A systematic database search (2002-2012) was conducted in PubMed, EMBASE and Psycinfo including terms for ABI, RTW and psychiatric disorders. Methodological quality of included studies was assessed and conclusions were based on the evidence of retrieved articles.

#### Results

The selection procedure provided seven articles for inclusion. Six high-quality studies report a negative association between psychiatric comorbidity and RTW after ABI. Depression is correlated with poorer RTW outcomes after traumatic brain injury [2] as well as subarachnoid hemorrhage (SAH) [3], with more severe depression resulting in lower return to work rates [2]. RTW is also reduced in individuals with moderate to severe anxiety after SAH [3]. RTW rates are lower when PTSD is present following SAH [4]. One low quality article reported no association between psychiatric comorbidity and RTW in individuals with ABI.

# Conclusion

Psychiatric disorders as comorbidity in individuals with ABI are strong negatively associated with RTW. Therefore, more attention should be paid for diagnosing and treating psychiatric disorders in patients with ABI in order to improve reintegration in work.

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# Development of an instrument assessing recovery expectations in patients with mental health disorders

Shanil Ebrahim, Cindy Malachowski, Mostafa Kamal el Din, Luis Montoya, Sohail Mulla, Sheena Bance, Gordon H. Guyatt, Jason W. Busse

Speaker: Jason Busse

#### Introduction

Our preliminary analysis of a Canadian disability insurance claims database collected over 4 years (2007 to 2010) showed that of those approved for long-term disability benefits, 31.6% suffer from a primary diagnosis of a mental health disorder. Negative patient recovery expectations and patient beliefs are associated with worse outcome in a variety of conditions [1], including acute low back pain, whiplash, and chronic pain [2,3,4]. Measures assessing patient's beliefs or expectations of recovery can help with early identification of individuals at risk of prolonged recovery.

#### Purpose of the study

Our objectives are two-fold: 1) complete a systematic review to identify measures that currently assess patient beliefs and expectations of recovery, and 2) using the results from the review, develop an instrument assessing recovery expectations in individuals who are off work due to a mental health disorder and receiving wage replacement disability benefits.

#### Methods

For our systematic review, we completed electronic searches of MEDLINE and PsycInfo to June 2013 to identify primary studies evaluating patient expectations or beliefs about recovery in any clinical condition. We did not restrict our review to mental health conditions to ensure that we captured all measures that were important in informing the development of our instrument. Teams of reviewers independently screened titles and abstracts of identified citations, applied eligibility criteria to the full text of potentially eligible studies, and extracted data (e.g., psychometric properties) from all eligible studies. Using the results from the review and input from content experts (psychologists, occupational therapists, methodologists and insurance administrators), we developed items for an instrument assessing recovery expectations in individuals who are receiving disability benefits secondary to a mental health disorders.

#### Results

Of 12,599 unique citations, 43 studies were eligible. Studies reported on 12 different measurements and 30 individual items assessing patient beliefs or expectations of recovery that evaluated an association with a measure of functional recovery. Recovery expectations were most frequently assessed in patients suffering from back pain (n=17; 40%), and non-back pain related musculoskeletal disorders (n=13; 30%). Seventy-three percent (n=11) of studies using a formal measure reported some measurement properties with 4 reporting an assessment of both reliability and validity. Fourteen (33%) studies assessed the association of expectations and beliefs about recovery with return to work. We developed a 27-item instrument that will be presented at EUMASS 2014.

# Conclusions

Only one-third of all articles assessing recovery expectations used a developed measure to assess patient beliefs and expectations about recovery. Of these measures, only a quarter reported both indicators of the quality of measuring an instrument—validity and reliability. Our instrument will aim to assess limitations of existing measures through formal testing and validation.

EUMASS 2014

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# Contrôle et evaluation des soins dentaires rembourses en Belgique : Illustration par deux etudes

# Eisenhuth Marc (1)

(1) NIHDI (National Institute for Health and Disability Insurance)

# 1. CONTÔLE

« Répétition des soins dentaires conservateurs endéans une année sur une même dent par un même dentiste. »

L'objet de ce projet est de quantifier et suivre le taux de refacturation annuel des soins dentaires conservateurs (obturations de cavités et restaurations) sur une même dent, par un même dentiste. L'approche du Service d'Evaluation et de Contrôle Médicaux (SECM) de l'INAMI (Institut National d'Assurance Maladie Invalidité) après une phase préparatoire a été une enquête nationale en surconsommation, sur base légale.

# Méthode

Récolte au début de l'année 2010 des données de facturation relatives aux dents définitives pour les 7.176 dentistes exerçant en Belgique. Détermination d'un taux moyen de répétition annuel de 8,5% et d'un taux médian de 7,4%.

Une revue de la littérature scientifique belge et internationale conclut à un taux d'échec déterminé, sur base annuelle, compris entre 0 et 9%, toutes études confondues. (Une référence parmi d'autres : [1])

Des experts belges consultés par le SECM, concluent qu'un taux annuel de retraitement dépassant 10% questionne la qualité des soins. Ce taux a été retenu par le SECM, tenant compte des accidents et aléas possibles, inhérents à la pratique dentaire. Deux années plus tard, le SECM a récolté de nouvelles données de facturation sur la période 2011-2012. Résultats et suivi :

Environ 1.000 dentistes ont été informés qu'ils dépassaient en 2010 le taux de répétition de 10% et que leur pratique resterait sous monitoring continu.

Une mesure d'impact de la première phase a mis en évidence une économie de 11 millions d'euros pour les soins dentaires conservateurs dont 8,5 millions peuvent être imputés directement à l'action du SECM.

La deuxième récolte des données de facturation montre que 79,6% des dentistes qui initialement avaient un « taux de répétition » supérieur à 10% étaient retombés sous le seuil acceptable de 10%. L'action du SECM en septembre 2013 a consisté principalement en la notification d'un Pro Justitia pour 174 réclacitrants. Le montant total des indus individuels est de 274.151,16 euros à rembourser par ceux-ci.

# Conclusion

ce type de contrôle vise l'amélioration de la qualité des soins.

[<sup>1</sup>] MANHART J. & HICKEL R.: Longevity of Restorations. In: "Advances in Operative Dentistry: Vol. 2. Challenges of the Future" (ROULET J-F., WILSON N.H.F., FUZZI M.). Chapter 16: 237-292.

# 2. EVALUATION

« Utilisation de la radiographie panoramique des mâchoires (Orthopantomogramme : OPG) chez les licenciés en sciences dentaires. »

Des indications spécifiques existent pour les OPG.

Le SECM a fait deux constatations importantes :

- Le nombre de prestations est réparti de manière inégale entre dispensateurs de soins. - Entre 2002 et 2008, le nombre d'OPG a augmenté de 255.313 unités (42,18%) et le montant remboursé a augmenté de 10.969.163 euros (75,53 %).

Le SECM a choisi de mener une enquête écrite par questionnaires auprès de 275 dispensateurs (échantillon aléatoire mais significatif ; 20 prestations/dentiste) qui cible uniquement les indications pour les OPG attestés entre le 01.01.2009 et le 30.06.2009 (critères d'inclusion : plus de 50 OPG et moins de 10% de prestations d'orthodontie en 2008). Le SECM a démontré que les indications de 56,20 % des prestations pouvaient être qualifiées de « non conformes ». En extrapolant : 318.814 prestations, pour un montant total de 9.934.411 euros ont été indûment attestées en 2009.

Un courrier a été envoyé fin 2013 à environ 3.000 dentistes (plus de 50 OPG et moins de 10% de prestations d'orthodontie en 2011) leur rappelant les indications d'OPG selon les directives internationales et les informant de leur nombre absolu d'OPG en 2011, de leur nombre d'OPG pour 100 patients et de leur taux de prestations d'orthodontie. Une mesure d'impact est programmée en 2015.

# Control and assessment of dental care reimbursed in Belgium: Illustration by two investigations

# 1. CONTROL

"Repeated restorative dental care on the same tooth by the same dentist within a one-year period."

The purpose of this project is to quantify and follow up on the annual rate of repeated billing for restorative dental care (dental fillings and coronal restorations) on the same tooth by the same dentist. After a preparatory phase, the approach of the medical assessment and control unit (SECM) of the Belgian institute for health and disability insurance (INAMI) consisted in carrying out a national survey focused on overuse, on a legal basis.

#### Method

Collection in early 2010 of billing data concerning permanent teeth among the 7,176 dentists practising in Belgium. Determination of an annual average repetition rate of 8.5% and a median repetition rate of 7.4%.

A review of the Belgian and international scientific literature indicates a determined annual failure rate between 0 and 9% across all the studies (among other references: []). Belgian experts who were consulted by SECM conclude that an annual repeated intervention rate over 10% challenges the quality of dental care. This rate was used by SECM taking into account possible accidents and mishaps which are inherent in dental practice. Two years later SECM collected new billing data for the 2011-2012 time period.

#### **Results and follow-up**

About 1,000 dentists were informed that they had exceeded the repetition rate by 10% in 2010 and that they would remain subject to an ongoing follow-up.

An impact assessment of the first phase indicated savings of EUR 11 million for restorative dental care, out of which 8.5 million may be directly imputed to the action of SECM. The second collection of billing data shows that 79.6% of the dentists who initially had a "repetition rate" of over 10% had fallen below the acceptable threshold of 10%. The action of SECM in September 2013 mainly consisted in notifying a Pro Justitia (affidavits with repayment request) to 174 recalcitrant dentists. The total amount of individual undue payments is EUR 274,152.92 which they have to reimburse.

#### Conclusion

This type of control aims at improving the quality of dental care.

[<sup>1</sup>] MANHART J. & HICKEL R.: Longevity of Restorations. In: "Advances in Operative Dentistry: Vol. 2. Challenges of the Future" (ROULET J-F., WILSON N.H.F., FUZZI M.). Chapter 16: 237-292.

#### 2. ASSESSMENT

"Use of panoramic radiography (orthopantomograph: OPG) by graduates in dental sciences."

There are specific indications for OPGs.

SECM made two important observations:

- the number of panoramic radiographs fluctuates depending on the dental care providers; - between 2002 and 2008 the number of OPGs increased by 255,313 units (42.18%) and the amount repaid increased by EUR 10,969,163 (75.53%).

SECM decided to carry out a written survey by sending questionnaires to 275 dental care providers (random yet significant sample; 20 radiographs/dentist). Such survey only relates to indications for OPGs which were acknowledged between 01.01.2009 and 30.06.2009 (inclusion criteria: more than 50 OPGs and less than 10% of radiographs for orthodontics in 2008). SECM demonstrated that the indications of 56.20% of the radiographs could be considered "non-compliant". By extrapolation, 318,814 radiographs for a total amount of EUR 9,934,411 were unduly reimbursed in 2009.

At the end of 2013 about 3,000 dentists (more than 50 OPGs and less than 10% of radiographs for orthodontics in 2011) received mail reminding them of the OPG indications according to the relevant international guidelines and informing them of their absolute number of OPGs in 2011, of their number of OPGs for 100 patients and of their rate of radiographs for orthodontics.

An impact assessment is scheduled for 2015.

# Early contact with the employer/employment services - three -party meeting/call

Ann-Britt Ekvall (1), Eva-Marie Sundkvist (1) (1) Landstinget i jönköpings län

#### Background

Employers usually notice too late that something needs to be done to prevent or shorten sick leave among employees. Also, insurance agency usually takes actions too late to be able co-ordinate the review meetings and the planning process of return to work. This is why Jönköping County Council is testing a new approach where the physician, in consultation with the patient take direct contact with his/her employer.

#### Goal

The aim is to identify patient's ability to work and to initiate and plan for a possible rehabilitation process at the early stage in order to possibly prevent or shorten the period of sick leave.

It is important that the patient, healthcare professionals and the employer / employment services have an early dialogue to clarify whether the patient can remain at work, possibly with adjusted tasks during the period of sick leave or if anything else should be done. Care must therefore be the part of the employer / employment agency's view of the situation. Also, the employer / employment agency must know if any special considerations have to be done regarding the patient's medical status.

#### Method

Three -party talks mean that the responsible physician and the patient (who is or may become sick) have a telephone conversation with the employer / employment agency to prevent or shorten the illness. The call should be carried out in the early stage, before the possible sickness or four weeks after the first day of the sick leave and before the insurance agency schedules a reconciliation meeting. Documentation in the medical record should be made according to the agreed plan, how monitoring has been conducted and who participated in the call.

Three -party meeting is a physical meeting between the patient (who is or has a risk of being sick), the responsible physician and employer / employment agency. The meeting call should be carried out in the early stage, before the possible sickness or four weeks after the first day of the sick leave and before the insurance agency schedules a reconciliation meeting. Documentation in the medical record should be made according to the agreed plan, how monitoring has been conducted and who participated in the call. In case of work-related disorders the referral is sent via the employer to the company's care organization, if one exists.

#### Monitoring

A follow-up /study on 38 meetings / calls has shown that sick leave has been avoided in about 10 cases. In some cases, it was a risk with a long-term sick leaves. Moreover, in most cases the sick leave has been shortened gradually and the doctor has had a clear plan for the treatment/recovery.

Interviews of patients and employers have shown that both parties are very satisfied with the method.

If this method is spread further, this will mean that the work situation can be better adapted to the needs of the patient and, as a result, reduce absenteeism and dissatisfaction in the workplace.

# The role of a sick leave co-ordinator in the Kalmar county council

Lisa Ericson (1), Göran Petersson (1) (1) eHealth Institute, Linnaeus University

#### Introduction

To decrease the unhealthy rate and optimise the sick leave process, the Swedish government initiated "Sjukskrivningsmiljarden" [the sick leave billion]. There is an agreement of a national rehabilitation warranty to strengthen the individual's position in the sick leave process and ensure that the patient receive medical treatment and rehabilitation. To organise and lead this new procedure, the Kalmar County Council initiated the role of a sick leave co-ordinator.

#### Purpose of the study

To evaluate the introduction of the sick leave co-ordinator in the Kalmar County Council from the health care and patient perspective, respectively.

#### Methods

This was a qualitative and quantitative study. Data was collected by 1) semi structured interviews and a web survey among health care staff (co-ordinators, department heads, physicians), and 2) semi structured interviews with patients who were or had been on sick leave (on-going study). The study was carried out by the eHealth Institute at the Linnaeus University in Kalmar, and assigned by the Kalmar County Council.

#### Results

Most of the respondents had a positive response to the introduction of a sick leave co-ordinator in the sick leave process. The role as a sick leave co-ordinator was considered important for the health care management and the sick leave process as well as for patients and physicians. The coordination of internal and external contacts was deemed essential and resulted in a more efficient sick leave process. However, there were some discrepancies, due to the fact that different health care units have different needs. Additionally, the majority of the respondents experienced that the patients felt safer and that the health care process was faster with less health care contacts. The patient perspective will be evaluated in more detail in an on-going study.

#### Conclusion

The sick leave co-ordinator is an appreciated resource among health care staff. However, the role as co-ordinator must be adapted to the different requirements at each health care unit.

# From research projects to patient benefit. A Rehabilitation Network in Sweden for research and implementation

### *Elisabeth Erwall (1)* (1) Project Director, Public Health Services Committee, Stockholm County Council, Sweden

Workshop: Rehabilitation of individuals with mental or musculoskeletal disorders in primary care. Examples from a national research program (REHSAM) in Sweden.

The Swedish National Rehablitation program for mental disorders and musculoskeletal pain in primary health care included research funding (REHSAM) for a total of 24 projects. The main responsibility for the project was on the health care authorities in the different county councils in close collaboration with the university researchers.

To facilitate both the applications, the organisation and the coordination of some of the major projects a Rehabilitation Network including six health care authorities, three larger (Stockholm, Skåne and Västra Götaland) and three smaller(Kronoberg, Blekinge and Västmanland) was set up. This network started in 2009 and the first study to coordinate was the REGASSA RCT for mild to moderate depression or anxiety disorders.

The treatment arms (three months active treatment and 12 months follow-up) included web based cognitive behavioural therapy or tailored physical activity comparing to treatment as usual in primary health care. 944 patients were included and the follow-up and analysis is ongoing. REGASSA has shown that it is possible to perform large RCT studies of high quality in naturalistic settings at a rather low cost. Besides from its scientific results it also provides us with guidelines for the future on how to intergrate research in primary care.

Further, the Rehabilitation network organised partly or fully another RCT on mental health (the SAFARI project) and one on neck and back pain (the Work-Up project). In the SAFARI RCT for patients with adjustment, mild to moderate depression or anxiety disorders 352 patients are inkluded. Inclusion ended in May 2014. The participants are allocated to one of four conditions: 1) Acceptance and Commitment Therapy (ACT), 2) Workplace intervention (WI), 3) ACT and WI in combination and 4) TAU. Characteristics of patients and cause of sickness absence will be presented at the EUMASS congress.

The Rehabilitation Network shares a common ground for development and further work within this important area. It will continue to support current and future initiatives within rehabilitation with a special focus on mental or musculoskeletal disorders. The next phase for the Rehabilitation Network will be to use the results from the studies together with existing scientific evidence for implementation in the ordinary health care system. Important experiences in organising clinical trials and in the close collaboration between stakeholders from the health care and from scientific researchers will be further analysed and discussed. The actions of the network has already been well recognized in Sweden but also within other countries such as UK and the Netherlands and also on an EU level.

# Contemporary issues in vocational rehabilitation and disability evaluation: Application and implementation of the ICF

Reuben Escorpizo (1, 2, 3), Soren Brage (4), Debra Homa (5), Gerold Stucki (2,3,6)

- (1) Louisiana State University Health Sciences Center, New Orleans LA USA
- (2) ICF Research Branch of the WHO FIC Collaborating Centre, Nottwil Switzerland
- (3) Swiss Paraplegic Research, Nottwil Switzerland
- (4) Directorate for Labour and Welfare, Oslo, Norway
- (5) University of Wisconsin-Stout, Menomonie, WI USA

(6) University of Lucerne, Lucerne Switzerland

Workshop/Contributors: Sören Brage

#### Background

Vocational rehabilitation and disability evaluation are two important overarching concepts in the realm of employment participation. Mitigating work disability through appropriate disability evaluation and vocational rehabilitation facilitate entry- or return-to-work strategies. A comprehensive understanding of the multifactorial and complex nature of vocational rehabilitation and disability evaluation is imperative for researchers and professionals in health care and social security who would like to facilitate successful employment and functioning outcomes. The International Classification of Functioning, Disability and Health (ICF) by the World Health Organization is a reference framework that can be used to explore and study work and employment. However, until now, no systematic work has collated evidence on the utility of the ICF in vocational rehabilitation and disability evaluation.

# Objectives

The objective of this topical seminar is to present large-scale state-of-the-art evidence and experience in work and disability evaluation in different settings from various countries in Asia-Pacific, Europe, and the Americas.

# Method

Experts in the field were invited to write a book chapter on the application and implementation of the ICF in different settings including health systems, case management, job placement, social security, ethics and legalities, musculoskeletal, neurological, and mental health conditions, and patient and clinician outcome measurement. Book chapters were peer-reviewed and edited.

#### Results

Results and review of the evidence will be presented in four sections: (1) Conceptual framework in health, vocational rehabilitation, and disability, (2) State of vocational rehabilitation and disability evaluation in different healthcare and social security settings, (3) ICF-based measurement of functioning, and (4) Challenges and opportunities. The review of the evidence suggests a broad spectrum of definition, conceptualization, and operationalization of work disability and disability evaluation. However, we also found that the ICF is a viable framework that can be used to unify these variances.

#### Indication of the relevance of the study for international audiences

The content of the book is extensive, comprehensive, and evidence-based. With careful input from international experts in the field, we conclude that stakeholders in the field of work and employment will benefit from the knowledge transfer for which the book was intended. The book is also relevant to the further implementation of the ICF internationally and to advancing international and multidisciplinary application the ICF.

# Toolkit 2013-outil cartographique de caractérisation des femmes non dépistées pour le cancer du sein. (Toolkit 2013 – Mapping Tool for characterisation of women not screened for breast cancer)

Valerie Fabri (1), Joeri Guillaume (2), Bram Peters (3), Ann Ceuppens (4), Michel Boutsen (1)

(1) Mutualité Socialiste-Solidaris

(2) Agence InterMutualiste

(3) Mutualités Chrétiennes

(4) Mutualités Libres

#### Contexte

En 2011, la Belgique a démarré un programme de dépistage du cancer du sein respectant les recommandations de l'Europe contre le Cancer. Après six ans de programme, l'Agence InterMutualiste (AIM) constate que 25% des femmes du groupe cible n'ont jamais été dépistées entre 2002 et 2007. L'AIM collecte les données de facturations des membres pour la gestion des soins de santé.

#### Objectifs

Les trois communautés en charge du programme, la Fondation contre le Cancer et l'AIM ont étudié les déterminants de la non-participation au dépistage, et développé un outil cartographique permettant d'élaborer et d'évaluer les actions de promotion du dépistage du cancer du sein au niveau local.

#### Méthode

L'étude compare les femmes qui n'ont jamais été dépistées, avec celles qui ont été dépistées une fois tous les deux ans (dépistage programmé ou opportuniste)— entre 2002 et 2007.

Résultats

95% des femmes qui ont un gynécologue sont examinées,

49% des femmes qui consultent un médecin généraliste et ne consultent pas de gynécologue sont examinées.

Les médecins généralistes pourraient être partenaires pour augmenter la participation.

#### Toolkit 2013

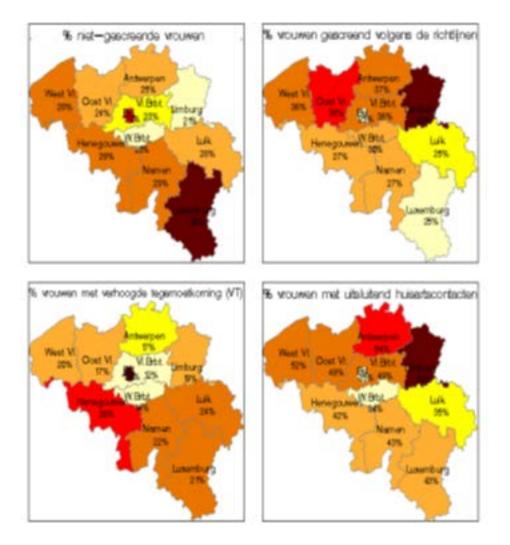
4 cartes reprennent sur base du lieu de résidence (de la province au secteur statistique), les proportions de femmes cibles :

qui n'ont jamais été dépistées, entre 2005 et 2010 ;

qui ont été dépistées une fois tous les deux ans

qui bénéficient du remboursement majoré des soins;

qui ont eu exclusivement des contacts avec un médecin généraliste.2



Un tableau reprend la proportion de celles qui ont eu au moins un contact avec un médecin généraliste exclusivement qui n'ont eu aucun contact médical, ni avec un médecin généraliste, ni avec un gynécologue.

#### Exploitation de l'outil

1 Action communautaire : Recherche-action des Femmes Prévoyantes Socialistes (2010-2011) En Collaboration avec la Mutualité Socialiste-Solidaris Sélection de 10 quartiers Zones d'action

Ressources locales : soins à domicile, planning familial, paramédical, assistantes sociales, femmes cibles et population.

#### **Evaluation**

Démarche qualitative à petite échelle, 140 femmes participantes sur 1330 femmes sélectionnées.

Identification de freins au dépistage : cacophonie scientifique et médiatique, organisation du dépistage, précarité, attitude des médecins.

2 Projet pilote en Flandre (2013)

# Collaboration

Collège intermutualiste provincial de Flandre occidentale Centrum voor Kankeropsporing Vlaams Agentschap Zorg en Gezondheid Les médecins généralistes locaux Sélection de 4 communes Zones d'action > 100 femmes cibles Proportion de femmes non dépistées différente de la moyenne de 33% Dispersion géographique au niveau provincial Niveaux d'urbanisation

# Actions

Les généralistes reçoivent la liste des femmes non dépistées de leur patientèle (dans le respect de la vie privée) pour une action de sensibilisation.

Actions au niveau communal

Evaluation en 2014

Extension de l'outil

Sur base des informations sur la consommation des soins et des caractéristiques de la population disponibles à l'AIM, cet outil pourrait s'appliquer à d'autres problèmes de santé publique.

# ATLAS de l'agence intermutualiste (Publication of the Inter-mutual agency)

Valerie Fabri (1), Joeri Guillaume (2), Birgit Gielen (3), Ragna Preal (2), Johan Vanoverloop (1), Chantal Houtman (2), Tonio Di Zinno (1), Ann Ceuppens (4), Bram Peters (2)

- (1) Mutualité Socialiste-Solidaris
- (2) Agence InterMutualiste
- (3) Mutualités Chrétiennes
- (4) Mutualités Libres

Visualisation d'indicateurs pertinents provenant des bases de données de l'Agence Inter-Mutualiste (AIM) pour la gestion des soins de santé.

En Belgique, 7 mutualités gèrent les remboursements du système de soins de santé. Ces mutualités collectent toute une série de données en vue d'exécuter leurs missions, en l'occurrence:

des données administratives des membres: sexe, âge, lieu d'habitation, proxi du niveau socio-économique (remboursement majoré);

des données de facturation des membres : chaque fois qu'un membre a droit à un remboursement pour des soins de santé, la mutualité traite et rassemble des données : date de prestation, lieu de prestation, coût de la prestation,...

L'Agence InterMutualiste (AIM) a été instaurée afin d'utiliser ces données de manière efficace dans le cadre des missions légales des mutualités.

Les données de l'AIM sont devenues une référence dans le paysage de la santé belge. Ces données sont une ressource importante pour de nombreuses études et grâce à leurs recommandations, l'AIM et ses partenaires influencent la politique de gestion de l'Assurance Maladie. En plus de ces études approfondies, il existe également un besoin d'une source de références (statistiques et indicateurs) accessible en permanence. L'AIM rassemble des statistiques et des indicateurs sur son site Internet. Ces chiffres couvrent une période de 10 ans et seront mis à jour annuellement pour mettre à disposition les données les plus récentes. Les indicateurs et les statistiques de l'Atlas AIM sont disponibles au niveau fédéral, régional ou communal, voire même au niveau du quartier ou du secteur statistique (sous réserve du respect de la législation de la vie privée). Ils peuvent être regroupés selon 6 thèmes : Démographie et socio-économie, Prévention, Etat de Santé, Consommation de soins de santé, Accès aux soins et Organisation des soins.

Durant la phase initiale, seul un nombre limité de statistiques sera disponible en permanence : les chiffres de la population générale, la prévalence du diabète, le dossier médical global et les contacts médecins généralistes. A partir de 2014 et après validation par des experts du secteur, de nouveaux sets de statistiques seront progressivement publiés sur le site web. Celles-ci seront récupérées principalement de projets récemment étudiés par l'AIM. Les visiteurs pourront également proposer de nouveaux indicateurs à développer. A terme, outre les statistiques régionales, des indicateurs par institution de soins seront également disponibles.

Dans le cadre de ce projet, l'AIM poursuit ses démarches de qualité. Ainsi des validateurs externes sont impliqués à deux moments clés ; en amont et en aval de la mise en oeuvre de chaque ensemble d'indicateurs.

Rendez-vous sur l'Atlas : atlas.aim-ima.be New Window

### Réforme des missions de médecins conseils de sécurité sociale en Belgique. (Reform of the responsibilites of social security medical advisers in Belgium)

Freddy Falez (1 2 3)

(1) Université Libre de Bruxelles

(2) Union Nationale des Mutualités Socialistes, Belgique

(3) Association Scientifique de Médecine d'Assuarnce (Belgique)

### Position du problème

Comme dans les autres pays européens, la Belgique connaît une augmentation permanente du nombre de personnes en incapacité de longue durée.

Les autorités ont décidé en 2006, d'ajouter aux missions des médecins conseils, la mission de participer activement à la réinsertion socio-professionnelle des personnes en incapacité de travail (loi du 13 juillet 2006.) Une refonte globale de l'organisation du travail des médecins conseils est ainsi en voie d'achèvement.

#### Méthode

La plan back to work se décline suivant plusieurs axes. Le premier est de faciliter la reprise du travail partiel en période d'incapacité de travail. Le deuxième est de définir des trajets de réinsertion socioprofessionnelle : retour vers le dernier poste de travail, retour vers une profession exercée antérieurement, avec ou sans réhabilitation professionnelle, réorientation professionnelle vers un nouveau métier. Le troisième est de développer des collaborations entre l'assurance indemnités gérée par les mutualités et les organismes de formation et de placement des différentes communautés et régions de l'état fédéral. Le quatrième est de stimuler la communication entre les médecins conseils, les médecins traitants et les médecins du travail. Des moyens de communication électronique seront développés d'ici 2016. Le cinquième axe est de former des collaborateurs en insertion auprès des médecins conseils de manière à maintenir l'assuré dans les liens du contrat de travail. L'évaluation de l'incapacité de travail est profondément remaniée. Le système du « tout contrôle » qui oblige l'évaluation de toutes les personnes en incapacité de travail primaire

(première année) est remplacé par un système d'évaluation orienté prioritairement vers la prévention des incapacités de longue durée « évitables » : troubles psychiques et musculosquelettiques. Des recommandations de bonne pratique sont élaborées en ce sens avec la collaboration des spécialistes dans ces différents domaines.

#### Résultats

Le nombre de reprises partielles a augmenté de 16% entre 2010 et 2012, passant de 38.306 à 43.455. Cinquante pour cent des reprises partielles débouchent sur une reprise totale de l'activité professionnelle. La réorientation professionnelle a progressé : on note une augmentation de 27% du nombre de personnes en formation entre 2011 et 2012 (de 530 à 672 personnes) et le nombre d'assurés ayant terminé une formation est passé de 116 personnes en 2010 à 212 en 2012.

Sur le plan légal et réglementaire, les dispositions suivantes ont été adoptées : trajets spécifiques de réinsertion professionnelle, réforme du suivi des patients en incapacité de longue durée, financement de la formation de collaborateurs en réinsertion professionnelle. Les recommandations de bonne pratique pour l'évaluation de l'incapacité dans le cadre des troubles psychiques et musculosquelettiques sont en voie d'achèvement.

# Conclusion

L'assurance indemnité belge confie une mission originale aux médecins conseils en inversant le paradigme de l'évaluation : celle-ci porte dorénavant sur les capacités restantes de la personne et débouche sur des actions de réinsertion professionnelle concrètes. Les premiers résultats montrent des progrès réels . Une évaluation des effets d'une réforme globale devra être évaluée par la suite.

### Ethical challenge in Social Insurance Medicine. Inversion of paradigms

Professor Freddy Falez and Licensed Psychol. Jehoshua Kaufman

Workshop

Social Insurance medicine has to deal with ethical problems.

The claimant may not choose his medical advisor. He has to give evidences about his incapacity to work. The medical advisor is an evaluator. In Belgium, he has to decide if the claimant remains eligible for incapacity of work benefits or not. The relationship between the claimant and the medical advisor is strongly asymmetric

Moreover, the increasing numbers of people who are incapable to work make politicians and decision makers suspicious about the reality of the incapacity to work and the medical advisor assessment quality. This environment makes a relationship of confidence between the claimant and the medical advisor difficult.

The present seminar aims to debate about the possibility to use a trust paradigm between the claimants and the social insurance medical advisor.

# Specific Learning Disorders and the Italian Social Protection System

Alessandro Feola (1), Antonella Masullo (1), Valeria Marino (2), Simona Sorrentino (3), Luigi Tonino Marsella (4)

(1) Department of Experimental Medicine, Second University of Naples, Naples, Italy

(2) Section of Legal Medicine, University of Rome "Tor Vergata", Rome, Italy

(3) Department of Ophthalmology, University of Rome "Campus Bio-Medico", Rome, Italy

(4) Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Italy

#### Background

Specific Learning Disorders involve specific abilities (dyslexia: reading disorder, dysorthography: disorder of written language, dysgraphia: transcription disorder, dyscalculia: disorder in learning or comprehending arithmetic) in a normal general framework [1,2]. As far as concerns the Italian language, their preponderance reach 2.5-3.5% of population D.A [2]. (evaluation underestimated). Dysfunctions at the base of these disorders interfere with the normal acquisition process of reading, writing and computation, leading to various degrees of maladjustment of the affected person [3].

#### Objectives

The aim of this study is to evaluate the protection Italian Government grants to its citizens suffering from Learning Disorders. Authors have focused particularly on advantages granted in pre-school age.

#### Method

Authors analysed specific literature on this subject, paying attention to the functional consequences related to each type of disoder. They compared these repercussions with Italian Laws on civil disability and with special laws for persons affected by Specific Learning Disorders (Legge n. 170/2010, D.M. n. 5669 del 12.07.2011, Decreto del Presidente della Repubblica del 22.06.2009 n. 122 art. 10).

#### **Results and Conclusions**

In the last years Italian legislation has paid more attention to the problems of students affected by Specific Learning Disorders, adding to the current welfare protection other instruments to get to more precocious diagnoses. Shared and standardized clinical procedures have been implemented on a national scale and structured rehab paths have been promoted, giving these students specific instruments, in order to grant a better functional recovery and to decrease the social long-term consequences of these diseases. This last point explains why it is crucial to better coordinate the Institutions involved (SSN- School-Family).

#### Indication of the relevance of the study for international audiences

In a more general UE context a comparison between national legislations seems more and more fruitful, so to highlight critic points of each Country and attempt to correct them. The right of citizens of the Union and their family members to move and reside freely within the territory of the Member States makes it necessary to uniform laws on disabilities so to grant the same rights to all European citizens.

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# Intertester reliability in the diagnostics of patients with shoulder complaints

Nils Fleten (1), Benny Storheil (2), Stian Holmvik (1), Nina Emaus (2), Elise Klouman (1) (1) Department of Community Medicine, UiT The Artic University of Norway, 9037 Trom (2) Department of Health and Care Sciences, UiT The Artic University of Norway

#### Introduction

Shoulder pain is among the most frequent musculoskeletal problem and neck, shoulder and arm complaints causes some 10 % of sickness absence in Norway. Shoulder pains rarely resolve quickly or completely. According to a Dutch study, one half of all sufferers still report problems one year after their initial consultation [1]. More than hundred separate shoulder test is described [2], but very few physical examination tests of the shoulder appear to be diagnostically discriminatory [3].

#### Purpose of the study

The aim of this study was to investigate the diagnostic accuracy of shoulder complaints using selective tissue tension techniques (STT) in a systematic approach according to orthopaedic medicine.

#### Method

In a multidisciplinary and multinational primary health care setting, four trained clinicians in orthopaedic medicine, three physical therapists and a general practitioner, conducted a clinical examination according to a pre-planned protocol using STT. The two Norwegian and two Swedish examiners provided diagnoses in altogether 62 patients, 34 females and 28 males aged 18 to 75 years. The diagnostic reliability was assessed by observed and chance corrected agreement, kappa statistics.

#### Results

Female patients dominated in age groups younger than 50 year, and male patients in the age groups 60 or older. The participants provided 372 "pairs" for intertester comparisons. Among 22 predefined diagnoses, 8 specific diagnoses were presented; the supra-, infraspinatus, and subscapularis tendinopathies, the subacromial chronical and acute bursitis, subdeltoid bursitis, glenohumeral capsulitis and acromio-clavicular joint lesion. One half of the patients were assessed to have capsulitis by at least one examiner and all four agreed that 12 of the patients met the diagnostic criteria for this diagnosis. Correspondingly, of 17 patients (27%) given a supraspinatus diagnosis, all agreed in five of these patients. The intertester observed agreement on these diagnoses ranged from 0.84 for glenohumeral capsulitis to 0.97 for acromioclavicular joint lesions. The kappa scores ranged from 0.46 (95% CI 0.32, 0.58) for subacromial chronical bursitis, 0.59 (95% CI 0.47-0.70) for supraspinatus, 0.66 (95 % CI 0.57-0.73) for glenohumoral capsulitis, to 0.78 (95% CI 0.63, 0.90) for acromioclavicular lesion. The kappa scores were generally better for the specific diagnosis than for the specific tests, except for limitation in passive abduction and lateral rotation with kappa scores of 0.70 (95% CI 0.62 - 0.78) and 0.66 (95% CI 0.57 - 0.73), respectively. Neither intra-professional nor intra-national agreements differed from inter-professional and inter-national agreement, respectively.

#### Conclusions

Although well-trained clinicians may reach substantial intertester agreement, a precise diagnosis of shoulder complaints in primary health care remains a challenge. The results call for further research upon refined diagnostics.

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# Web-based knowledge support in combination with multimodal pain rehabilitation (MMR) in primary health care, an RCT-study in the north of Sweden

Gunvor Gard (1), Lars Nyberg (1), Margareta Eriksson (2), Peter Michaelson (3), Catharina Nordin (4), Tommy Calner (1) Karin Zingmark (5)

- (1) Luleå University of Technology
- (2) FOU, Norrbotten County Council and Luleå University of technology
- (3) Luleå University of technology
- (4) Norrbotten County Council and Luleå University of Technology
- (5) FOU, Norrbotten County Council

# Design

The study design is a randomized controlled trial (RCT) within 18 primary health care centers in the north of Sweden. The interventions provided are 1) multimodal pain rehabilitation and access to a web-based pain rehabilitation program or 2) multimodal pain rehabilitation.

# Aim

The aim is to evaluate the effects of the web-based pain rehabilitation program on perceived workability, health and well-being, pain and function in the musculoskeletal system, self-efficacy and coping with pain, satisfaction and perceived usability with the web-based support system and resource utilization in the primary health care system.

# Metod

Participants: So far 95 patients have been included in the study, 65 patients have completed the 4-month follow-up and 25 the 12 month follow-up, and we will continue inclusion until the power criteria is met. Inclusion criteria for participation are: patients with persistent or recurrent pain from the musculoskeletal system, aged 18-63 years, scoring  $\geq$  90 on Linton's questionnaire, actively working or in disposition to work. The patients also had to be fluent in the Swedish language and in deposition of internet attached computer at home.

# Procedure

The study is carried out at 18 primary health care centers certified for MMR in Norrbotten County Council. The health care centers use multimodal pain rehabilitation (MMR) with a cognitive approach in accordance with the national guidelines for treatment of patients with persistent pain. The MMR at health care centers have a psychosocial perspective based on cognitive behavior principles. The inclusion of participants is performed by a rehabilitation coordinator at each primary health care center. After inclusion, the participants are randomly allocated to either MMR with web-based program (MMR-WEB) or MMR.

# Intervention

The web-based program is based on cognitive principles. The web-program consists of eight modules comprising; pain mechanism, activity balance and health, physical activity and ergonomics, emotions, thoughts and behavior, stress, self-esteem, sleep, communication and conflicts, problem solving and planning for the future. The web-program includes informative texts, interactive media with questions for reflection. In addition, exercises to perform and instructional videos concerning for example ergonomics and relaxation exer-

cises are included in the program. The aim of the web-based program is to increase each patient's knowledge, understanding and self-management of pain, body functioning, life and work situation to provide increased health and work ability.

#### Analyses

The main outcome measure is perceived workability (WAI) and the following variables are measured: health-related quality of life (SF-36), pain (PDI, EQ-VAS), self-efficacy in relation to pain and symptoms and coping with pain. Satisfaction and perceived usability with the web-based support system and resource utilization in the primary health care system ware also studied. Repeated measures ANOVA are used to evaluate the effect of the intervention over time and between groups.

#### Results

At this 4-months follow-up, based on 65 of 95 patients, there were improvements within each group compared to baseline in most of the variables studied. Between-group comparisons showed tendencies for greater improvements for the MMR-WEB group compared to the MMR group in return to work self-efficacy, EQ-VAS-health and perceived work ability, pain disability levels (PDI), pain intensity and self-efficacy in handing pain, however no being significant. The baseline values in work ability were low for both groups.

#### Conclusion

A follow-up after 4 months showed tendencies for better results for the MMR-WEB group. The study is on-going and a one-year follow up will be performed.

# Identification of the possible occupational origin of bladder tumours and informing those insured

Martine Garin (1) (1) CNAMTS, BURES SUR YVETTE, FRANCE

## Context

In France, occupational diseases are under-declared, partly because of the insured parties' lack of knowledge of the regulations. The Occupational risks department of the French national health insurance fund has begun to implement actions intended to improve the identification of cancers of occupational origin and inform those insured by the Standard regime of their rights to any compensation.

## Objectives

Bladder tumours were targeted because of a non-negligible fraction attributable to occupational factors, and also because, since 2008, an experiment has already been under way run by the medical services in two regions.

## Method

During treatment of a long-term illness (LTI) for a bladder tumour (ICD C67), information was sent to beneficiaries, proposing research to identify a possible occupational origin of this pathology. If the insured person agreed, a member of the medical service contacted them by phone to draw up a history of his/her professional career using a questionnaire. In view of the answers, the insured person could be recommended to claim recognition of the pathology as an occupational disease (OD). The referring physician was informed of this procedure by letter.

The insured person then requested recognition of this disease as being of occupational origin, and this request was processed by the usual channels.

The Normandy and Nord-Picardie regions began this experiment in 2008: Burgundy, Franche-Comté and Ile-de-France (IDF) in 2010. The Sud-Est (South-East) and Nord-Est (North-East) regions joined the study in 2011.

## Results

Results on 30/06/2013 for all 6 regions:

The cohorts in each region were included from the inclusion date.

Of 32247 LTIs attributed, 1855, i.e. 6%, presented an occupational origin defined as possible. Of the 961 requests for OD treated, 569, i.e. nearly 60%, were recognised.

The half-yearly analysis showed that at least one year was needed to note an effect, partly because of the time taken to process the request.

The number of declarations of OD was multiplied by 4.6 in 2 years, then stabilised.

Comparative study of the 6 regions included versus the 11 other French regions from 01/01/2011 to 31/03/2013:

The 6 regions represented 49% of the 27572 LTIs confirmed in the whole of France. But, with 576 OD requests and 445 recognitions, they represented 84% of occupational diseases concerning bladder tumours over this period.

#### **Conclusions and prospects**

This action, intended to offer those insured by the Standard regime suffering from a bladder tumour the possibility of analysing their professional career to determine whether or not their pathology could be of occupational origin, showed that the number of recognised occupational diseases increased significantly over the following 2 years.

In view of these results, it was concluded that the study was pertinent and the Professional risks department has decided to extend it to all regions in 2014.

# START - experiences from a cooperation project assisting people with disabilities to reach paid employment

Lena Gladh (1), Ahmad El-Far (1), Veronica Svennberg (1), Michael Berger (1) (1) Botkyrka Municipality, AVUX, Daglig Verksamhet, START - Stöd Till Arbete

## Background

Botkyrka is a multicultural but segregated Municipality in the south of Stockholm with large variations in living conditions. The unemployment rate is high and the average level of education is low. For young people with disabilities and often poor living conditions it can be very hard to find employment and earn a living. To increase the possibilities to obtain and maintain paid employment cooperation is needed between several stakeholders in the community. The project START is funded by a Cooperation Association of Authorities consisting of the Municipalities of Botkyrka, Huddinge and Salem, the Swedish Public Employment Agency, Stockholm County Council and the Swedish Social Insurance Office. It started in November 2011 and will end in December 2014.

The project team consists of a Project Manager/Occupational Therapist, two Employment Support Workers from the Municipality and one Employment Specialist from the Swedish Public Employment Agency.

## Objectives

Together with relevant stakeholders find ways to assist 40 individuals with mild intellectual disabilities and/or Autism Spectrum Disorders to access and maintain paid employment or studies. 30% of the participants should start studies or reach employment with or without wage subsidies, which is the current Labour Market programme in Sweden. 80% should study or have a work experience placement for at least 12 weeks, and 80% of the cooperation partners should be satisfied with the projects efforts.

## Method

The method used in the project is Supported Employment, a method of intervention which assists individuals with disabilities or other disadvantages to access paid employment in the open labour market. The method, including guidelines, is described in the European Union of Supported Employment (EUSE) Toolkit (2010). The project has an ongoing evaluation since September 2013 in order to strengthen the project's abilities and efforts to create sustainable change for the target group.

## Results

So far the project shows good results. In January 2014, START has already fulfilled the objectives concerning employment/studies and Work Experience Placements. 10 individuals have reached employment with wage subsidies and 3 have started studies. Our ambition is that the individuals will maintain employment or fulfil their studies to improve their health and living conditions over time. To increase the possibilities of keeping a job, START gives ongoing on/off job support to both the employer and the employee.

The cooperation between relevant stakeholders around each individual, the constellation of the project team and using the guidelines and How To Guides in the EUSE Toolkit could be of importance for the results but has not yet been evaluated.

#### **Relevance for international audiences**

Identifying effective ways to assist people with disabilities to access and maintain paid employment is of importance for all communities. Improvement of living conditions, better health and reduction of social benefits is of great value for the individuals as well as for society as a whole.

# Effects of a randomized experiment aiming to improve the quality of information on doctor's certificates in Sweden

Hans Goine (1), Hans Goine (2), Elsy Söderberg (3), Per Engström (4), Edward Palmer (5), Edward Palmer (6)

(1) Swedish Social Insurance Agency, SE 103 51 Stockholm, Sweden

(2) Department of Medical Sciences, Uppsala University, Sweden

(3) Department of Medical and Health Sciences, Linköping University, Sweden

(4) Department of economics, Uppsala University, SE-751 20 Uppsala, Sweden.

(5) Swedish Social Insurance Agency, SE 103 51 Stockholm, Sweden,

(6) Department of Economics, Uppsala University, Sweden

## Introduction

Information about functional incapacity associated with sickness is communicated to Sweden's national sickness insurance through the doctor's medical certificate. Recent studies indicate that more than 40 % of the certificates do not provide an adequate description of the functional capacity of the patient. This means that the Social Insurance Agency (SIA), which is the insurance provider, has to gather additional information for a large number of certificates. This leads to more work for the doctor and the SIA and may lead to unnecessarily longer spells of sick leave.

## Purpose of the study

This study reports the result of an experiment designed to improve the quality of certificates.

## Methods

Twenty of the 40 municipalities were randomly selected for "treatment". A letter explaining the importance of relevant and adequate information in the medical certificate was sent from the SIA to all Primary Health Care Clinics (PHCC) in the 20 "treatment" municipalities. All certificates in all 40 municipalities were collected during September 2007. Two experienced SIA doctors assessed blindly and independently all 539 certificates.

## Results

In the control group 43 % (95% CI= 0.38 - 0.48) of the certificates were inadequate as regards information about the patient's functional capacity. In the treatment group 8 % (95% CI= 0.01 - 0.15) more certificates had inadequate information.

## Conclusion

A letter from the SIA to the PHCC about the SIA's need of adequate information on functional incapacity caused a reduction in the quality of information provided by doctors in their patient certificates. A request to improve the quality of certificates, with elements of control, had the opposite effect than the intended.

## Previous selfrated work ability as a predictor of current sickness absence in Sweden

Hans Goine (1,2), Edward Palmer (3), Edward Palmer (4), Peter Westerholm (5), Roma Runeson-Broberg (6)

- (1) Swedish Social Insurance Agency
- (2) Department of Medical Sciences, Uppsala University, Sweden
- (3) Swedish Social Insurance Agency
- (4) Department of Economics, Uppsala University, Sweden
- (5) Department of Medical Sciences, Uppsala University, Sweden
- (6) Department of Medical Sciences, Uppsala University, Sweden

#### Introduction

An important consequence of health problems is that they may affect the ability to work. Just about all European countries have some form of social insurance that covers income loss due to absence from work because of poor health. Work ability is a central criterion in the determination of benefit rights in all of these. To date there is little knowledge of how self-rated work ability – that is the individual's own assessment of his or her situation – can predict days of absence from the workplace due to sickness. In two studies we have been able to find, work ability assessed by patients was found to be useful in predicting sickness absence [1-2].

#### Purpose of the study

The aim of this study is to investigate how self-rated work ability can predict sickness absence.

#### Methods

The data collection was carried out by Statistics Sweden on behalf of the Social Insurance Agency in Sweden (SSIA) and is a part of a larger RCT-study conducted jointly by the SIA and the Departments of Economics, Psychology and Occupational and Environmental Medicine at Uppsala University focusing on aspects of early intervention in sickness absenteeism. The study population consists of all people sick-listed in Sweden during 5 November and 14 December 2007. One year later in December 2008 people ages 20-59 in this population received a postal questionnaire (N =22 728) containing some of the variables examined in this study. In total 10 699 answered the questionnaire (48 %).

The present longitudinal study is restricted to people who were occupationally active and who on 31 of December 2008 were not on sickness – absence and are referred to as the "healthy group" (n=5847). New sickness-absence spells during follow-up period of 910 days (2009 – 2011) were collected for the "healthy group" from the administrative SSIA-register. 2,130 individuals had at least one period of sickness for more than 14 days. 793 individuals had a spell that lasted 90 days. Compensated days of sickness absence prior to a current spell were also registered.

Work ability was measured by the question "How would you rate your ability to work today?" 1-2= poor, 3-5 = fair, 6-8= good and 9-10=excellent. Relative risks (RR) were calculated using Cox regression corrected for age, sex, education and sick-leave days during past ten years before the follow up.

## Results

Those with poor self-rated work ability had an elevated risk for a spell of sickness absence lasting more than 14 days compared to those who had excellent self-rated work ability score RR 1,8 (Cl 1,2 – 2,8). The corresponding result for absence  $\geq$ 90 days was RR 3,4 (Cl 2,0 – 5,9).

#### Conclusions

Self-rated work ability "today" is a significant predictor of future sickness absence.

#### References

[1] Reiso H, Nygård JF, Brage S, Gulbrandsen P and Tellnes G; Scand J Public Health 29: 218, 2001

[2] Sell L; Int Arch Occup Environ Health 82:1133–1138, 2009

# Early structured care including workplace intervention to improve work ability in patients with neck, shoulder and/or low back pain

Birgitta Grahn (1) (1) University of Lund, Sweden

Workshop: Rehabilitation of individuals with mental or musculoskeletal disorders in primary care. Examples from a national research program (REHSAM) in Sweden.

Musculoskeletal disorders are the most common reasons for sick leave in western countries. It is important to identify risk factors and predictors for work ability and return to work (RTW). An evidence-based (EB) safe care includes systems for detecting medical conditions with urgent need for medical care (red flags) and psycho-social risk factors (vellow flags). Furthermore supporting work ability requires focus on the individual's capacities related to work demands, (physical, mental and social) as well as of work environment and organisation aspects; "blue flag system". |We hypothesized that an early well, coordinated evidence-based intervention leads to a faster recovery of health, function and work ability, and when sick-listed a faster RTW as compared to treatment as usual (TAU). 1. The identification of patient's risk factors (red, yellow and blue flags) will be identified and based on this screening a structured tailor-made intervention will be offered. 2. In the randomization half of the patients will receive supported interaction between the patient, the primary health care (PHC) and the work place. |The main purpose is to test a time-coordinated tailor-made intervention based, on screening of risk factors for further disability and the use of EB guidelines as of above in a comparison study with TAU in PHC. Questionnaires focusing on the presence of physical or modifiable psychosocial prognostic factors (STarT Back Screening Tool (SBT)) and the patient's work situation (blue flags) will be used. | Design: A prospective pare wise cluster randomized trial in PHC including one year follow-up. |Intervention: Through a flow chart medical, social insurance and work place interventions are clarified (all according to EB guidelines). Red, yellow and blue flags are identified. The aim of the screening is to create tailor-made rehabilitation. Physiotherapy interventions based on bio-psychological and behavioral medicine treatment principles are applied incorporating careful examination and treatments. Interventions on ergonomics and work place changes according to convergence dialogue meetings (CDM) are included. CDM is a three step structured dialogue and meeting model supporting the patient, health care professionals and employer to summarize concrete suggestions to support work ability and if sick-listed a RTW. |Within TAU patients will follow the PHC's standard time schedule and procedures as of ordinary care and the national rehabilitation programme. Primary outcomes: Work ability (defined as being at work or being eligible to the labor market during at least four weeks in a row), time of sickness absence and Work ability index. Secondary outcomes: Health index, functional ability, health economy, insurance medicine, health inequity and gender perspectives, patient satisfaction, health care and rehabilitation personnel satisfaction will be evaluated. |Statistical power analyses suggested a minimum of 20 PHCs and 500 patients to be included in the study. Patient inclusion is expected to be completed by autumn 2014. |This kind of structured care in routine primary care can facilitate an adequate treatment for patients with back and/or neck/shoulder pain and also give guidance to allocate sparse resources. If beneficial results emerge a structured implementation program will follow. | Preliminary results will be presented at the EUMASS congress.

#### Prescriptions à tort de fentanyl d'action rapide, fentanyl par voie transmuqueuse. (Incorrect prescribing of immediate-release fentanyl, transmucosal fentanyl)

Christine Guimond (1), Bertille Roche-Apaire (2) (1) RSI IDF 139 rue de Saussure 75014 Paris France (2) RSI CN 264, AV du President Wilson 93457 LA PLAINE ST DE

## Introduction

Le fentanyl à libération rapide par voie transmuqueuse est remboursable par l'assurance maladie depuis 2004 dans des indications limitées : «Traitement des accès douloureux paroxystiques chez des patients recevant déjà un traitement de fond morphinique pour des douleurs chroniques d'origine cancéreuse» [1]. S'agissant de médicaments stupéfiants, le Code de Santé Publique limite la prescription à 28 jours et la délivrance par le pharmacien à 7 jours. Les risques associés à l'administration rapide de doses massives de fentanyl sont l'arrêt respiratoire et circulatoire, et l'accoutumance et la dépendance physique ou psychique sévères.

En 2011, le RSI a remboursé 44 413 boîtes à 3 104 patients, pour un montant de 2 318 511 € (747€ en moyenne par patient).

L'action a ciblé les prescripteurs pour les inciter à modifier leurs prescriptions hors indication.

## Matériel et méthode

La cible était les médecins ayant prescrit en 2011 du fentanyl d'action rapide aux patients sans pathologie cancéreuse connue du service de contrôle médical. Pour valider ce ciblage, nous avons contacté les médecins pour leur faire préciser le motif de prescription. Les médecins aux prescriptions rédigées hors indication de l'autorisation de mise sur le marché (AMM) ont été informés par courrier du caractère non remboursable ainsi que de la dangerosité de leur prescription.

Le suivi des cas ciblés a permis de détecter la poursuite ou non des remboursements. Un message informatif renforcé a été adressé aux médecins ayant poursuivi les prescriptions et, dans certains cas, l'arrêt du remboursement du médicament a été imposé par application de l'article L315.2 du code de la Sécurité Sociale.

## Résultats

Au total 679 médecins ont prescrit hors indication de l'AMM 14 713 boîtes de fentanyl. Après envoi du courrier d'information, 15 médecins avaient poursuivi leurs prescriptions.

## Discussion

Les limites de cette action comprennent l'absence d'information sur les alternatives thérapeutiques utilisées après arrêt des prescriptions et l'impossibilité de conclure en termes de causalité. L'arrêt de la prescription peut relever de motifs très divers : décès, survenue de pathologies intercurrentes, changement de médecin, tout autre changement de situation... Cependant, cette action semblait démontrer une efficacité sur le comportement des prescripteurs [2]. Nous avons constaté que 33% des boîtes de fentanyl remboursées par le RSI en 2011 étaient prescrites hors indications remboursables. Au-delà du risque médical encouru, le coût financier du fentanyl d'action rapide par voie transmuqueuse apparaissait dix fois supérieur à celui du traitement conventionnel. En conclusion, la diminution majeure des prescriptions hors indication remboursable confirme le bien fondé de cette action qui pourrait être déployée dans les autres régimes d'assurance maladie.

[1] Evidence-based treatment of cancer-related breakthrough pain with opioids. Zeppetella G. J Natl Compr Canc Netw suppl 1:s37-43, 2013.

[2] Opioids, pain management and the law. Stayner RS, Copenhaver DJ. Expert Opin Pharmacother 25:566-71, 2012.

# ALAR – Rehabilitation for persistent pain: A randomized controlled pilot trial of a return-to-work intervention.

Catharina Gustavsson (1, 2, 3), Kristina Alexanderson (1), Anne Söderlund (4), Jessica Nordlander (2)

(1) Karolinska Institutet, Department of Clinical Neuroscience/Insurance Medicine

(2) Uppsala University, Center for Clinical Research Dalarna, Falun

(3) Uppsala University, Department of Public Health and Caring Science

(4) Mälardalen University, School of Health, Care and Welfare, Västerås

Pain from the musculoskeletal system is a major public health problem. It is a common reason for seeking primary health care (PHC), it can lead to disability in relation to everyday-life activities, including work, and it is a main reason for needing compensation from the sickness insurance system, involving large costs for individuals, employers and society. Pain rehabilitation programs that effectively target activity and work capacity, and that reduce disability and psychosocial obstacles for return to work (RTW) are lacking in Swedish PHC. ALAR is a newly developed activity and life-role targeting rehabilitation program. Keeping an activity log of daily life activities, activity scheduling, gradually increasing activity involvement, establishing and maintaining daily routines and identifying and overcoming psychological obstacles to activity involvement are important parts of the program. There is no similar pain rehabilitation program available in Swedish PHC.

The purpose was to perform a pilot study of a randomized controlled trial, to evaluate the effect of ALAR, compared to multimodal pain rehabilitation (MMR) in PHC, for persons with persistent musculoskeletal pain, on the outcome variables RTW and sickness absence (SA).

A randomized controlled pilot trial was performed in six PHC rehabilitation centers during the years 2011-2013. Persons aged 18-63 seeking care due to musculoskeletal pain of persistent duration (≥3 months) was included. Participants were randomized to receive either the intervention ALAR in conjunction with MMR or to receive only MMR. The outcome was measured by a self-assessment questionnaire before treatment, and after treatment: at 9 weeks and 1 year after inclusion, and in addition by examination of the patient records and a telephone interview with the participants 3 months after inclusion.

65 persons were included to the study; 34 persons to ALAR and 31 persons to MMR. A large number of participants failed to return the post treatment self-assessment questionnaire at 9- week follow-up. By use of telephone interviews and examination of patient records, data on RTW and SA was obtained for some additional participants. Analyses of participants with available data (ALAR n=15 and MMR n=17) indicate that ALAR had an effect on RTW as measured by change in SA, although not superior to the control condition. Cost-utility analyses showed that ALAR was cost-effective according to a willingness-to-pay of 3800 EURO per QALY at 9-week follow-up and that ALAR was 'dominant' at 1-year follow-up, i.e. had lower costs and higher QALY:s than MMR. There were within-group differences over time on several secondary outcome measures. Due to the limited number of participants with complete data, the significance of these differences could not be ensured.

This study shows that the study design, measures and methods were feasible in a PHC setting. However, due to the limited number of participants the results on outcome measures should be interpreted with caution. A full-scale randomized controlled trial is planned and will be conducted to accurately evaluate treatment effects. A future study will ensure procedures to obtain credible data on RTW and SA.

# The ReKoord-project. Evaluation of the function coordinator in primary health care in Sweden

Annie Hansen Falkdal (1, 2), Sonya Hörnqvist Bylund (2), Curt Edlund (3), Urban Janlert (0), Birgitta Bernspång (1)

- (1) Umeå University, Umeå, Sweden
- (2) County Council of Västerbotten
- (3) Miduniversity of Sweden

In 2006 the Swedish government and the Swedish Association of Local Authorities and Regions (SKL) signed an agreement for "Sjukskrivningsmiljarden" in order to provide the county councils with financial incentives to improve the quality of the sickness certification process. Most county councils used this funding to implement rehabilitation coordinators in the primary care settings.

## Purpose of the study

This national inquiry is made on behalf of the Ministry of Health and Social Affairs. The study was performed to evaluate the effects of the coordinators' work with the sick-listing and rehabilitation process in the primary health care. The main questions concern the organisation and the tasks for the coordinators. The qualifications needed and factors that affect the coordinators work are also studied.

#### Methods

Data were collected during visits in most of the county councils in seminars and by focus group, in-person and telephone interviews. Coordinators, personnel in primary healthcare, officials from Social Insurance office and the Employment offices were interviewed and questionnaires were answered by patients. The interviews were audio-taped and transcribed verbatim. The analysis of the interviews was conducted using a content analysis.

#### Results

All county councils except two have implemented coordinators in primary health care, but with great differences between the counties. There are around 500 coordinators in the primary health care. The background of the coordinators varied, most common were occupational therapists, and physiotherapists. Professional background is not as important as the personal skills. A medical background and experience from rehabilitation is considered to be an asset. Recommended competencies are also knowledge of insurance medicine and the outside world. Administrative skills, being determined and inspiring and to be able to work independently, having good teamwork are skills that also are important. Many different tasks are included in the coordinators work eg. achievements for patients, organising, establishing routines, providing sick listing data and to support the GP:s in handling sickness certification. They also act as coordinators to external authorities. Several factors affect the coordinators work. The promotion and mandate from the manager is considered to be the most important. It is also essential to have sufficient of time, a precise description of tasks, and cooperation with GP:s and rehabilitation team.

Patients express satisfaction with the support from the coordinators and they also appreciate the coordination with external authorities. The coordinators themselves as well as colleagues and the managers describe the coordinator role much like "a spider in a web". Co-workers value the coordinators as a local knowledge base in insurance medicine, and the encouraging structures and networks that coordinators create. GPs report improved working conditions and value not having the whole burden of sickness certification alone. External collaborators describe the coordinators as "a way into the health care" as they convey information and enable rehabilitation in an early stage.

#### Conclusion

The inquiry indicates that the rehabilitation coordinators have shown positive outcomes for patients, doctors and other co-workers as well as the cooperation with external authorities.

# Return to work rehabilitation for patients with fatique in mixed patient groups

Karen Walseth Hara (1, 2, 3, 4), Henrik Børsting Jacobsen (1, 2, 3, 4), Petter C. Borchgrevink
(0), Søren Brage (5), Astrid Woodhouse (1, 2, 3, 4)
(1) Hysnes Vocational Rehabilitation Centre
(2) Norwegian University of Science and Technology
(3) National Competence Centre for Complex Symptom Disorders
(4) St Olav's Hospital, Trondheim
(5)Directorate of Labour and Welfare, Oslo

Introduction

Fatigue is an increasing cause of sick leave in Norway. Evidence based return to work (RTW) rehabilitation programs designed for musculoskeletal disorders or mental disorders are in common use. Research is however lacking on programs designed for mixed patient groups. In 2012 the Norwegian government initiated research on a new RTW program for mixed patient groups that included long-term sickness-absentees (> 8 weeks) with fatigue, pain and/or mental disorders. It was questioned whether patients with fatigue would be able to take part in an intensive rehabilitation program together with other patient groups.

#### Purpose of the study

To increase the knowledge needed when designing return to work interventions for patients with fatigue. This study aimed at answering the following questions:

- How prevalent is fatigue in our RTW population?
- Does fatigue occur alone or in combination with mental distress and/or pain?
- To what extent is fatigue self-reported as a major cause of reduced ability to work?
- Will fatigue patients participate in extensive pre-admission data collection?
- Will fatigue patients be able to participate and engage in group rehabilitation?

#### Methods

An inpatient, occupational rehabilitation program based on acceptance commitment therapy was evaluated over an 18-month period. Sickness absentees with a broad range of diagnoses were referred from general practice. Prior to admission they answered over 350 questions from validated questionnaires via Internet. Patient participation and assessment of group climate were documented during the 3-½ week rehabilitation period.

#### Results

The study included 233 patients of whom:

• 90% reported fatigue (caseness if > 4 on Chalder fatigue score), while 71% had chronic fatigue.

• 2 out of 3 stated fatigue as a major cause of reduced ability to work.

• 64% had fatigue in combination with either significant pain and/or mental distress. Fatigue presented alone in only 7.8%.

• Only 44% were referred with a diagnoses directly implying fatigue, such as chronic fatigue syndrome.

• Over 99% successfully answered over 350 questions via Internet.

Regardless of type of disorder(s), patients completed the rehabilitation program (97%), participated actively and reported positive engagement in group settings with average scores on the Group Climate Questionnaire of 4,4 (0-6).

#### Conclusion

Results from this study indicate that:

• Fatigue is highly prevalent in our return to work population, rarely presents alone and is a common self-reported cause of reduced ability to work.

• Fatigue was prevalent regardless of whether referral diagnose(s) indicated fatigue, pain or mental disorder. The diagnose(s) would often not express the symptom diversity.

• Extensive self-reporting via Internet was possible to implement pre-admission, despite our population suffering from fatigue.

• Presence of fatigue did not reduce participation and engagement in the group.

It was feasible in this study to set up a return to work rehabilitation program that included patients with fatigue, pain and/or psychological distress in mixed groups. An ongoing study will further investigate whether fatigue patients benefit equally from the rehabilitation program.

# E-sick leave certificates - Will they quicken clients return to work?

Grazyna Hart (1) (1) Polish Social Insurance Institution (ZUS), Managing Director of Medical Evaluation

## Description

The presentation is about a project, which started last year in Polish Social Insurance Institution (ZUS) and is connected with sick leave certificates issued by doctors working in Polish health care system. In the presentation I tried to show:

- current legal status of sick leave system in Poland,
- basic principles of the project,

- advantages we hope the project will bring to insured people, doctors, employers (contribution payers) and ZUS,

- what is the connection between sick leave certificates in electronic form and the aim which is supposed to achieve with the project, it means – quicker return to work of sick leave beneficiaries.

The method we think will be useful to achieve the aim is increasing knowledge among doctors about medical rehabilitation led by ZUS, utilizing the algorithm related to International Classification of Disease – 10 in the informatics system used by both: doctors and ZUS. On this stage of the project is difficult to evaluate what is a perspective to achieve the goal, because our project is quite unique in Europe. There are some European countries in which electronic sick leave certificates exist but the devil is in the detail ...

# The impact of collaboration between primary care and pain unit on patient rehabilitation

Hani Hattar (1), Irene Sjöberg (2) (1) Hani Hattar, Pain Unit, Västervik Hospital, 593 81 Västervik (2) Irene Sjöberg, Samrehab, Oskarshamns hospital, 572 28 Oskarshamn

# Background

40% of visits in primary care are chronic pain patients resulting in individual suffering, and substantial costs for both the health service and society.

Early diagnosis and identification of the individual's needs are crucial for the rehabilitation process. levels of rehabilitation depends on the complexity of the patient's condition. Some cases require multimodal rehabilitation, based on the bio-psycho-social model, with rehabilitation using planned and coordinated procedures intended to achieve a better outcome. The provision of rehabilitation is linked to the patient's participation and will to achieve change. In complex cases specialist healthcare may be required. Pain Unit at Västervik hospital, is referral clinic in Kalmar County. This Unit has an increasing in-flow of referrals resulting in long waiting times from referral to diagnosis or rehabilitation.

## Object

The early identification of pain patients at risk of sick-leave in order to adequately rehabilitate them at primary care level, and identifying patients where more specific treatment at the Pain Unit is required.

## Goal

To develop routines and collaboration forms between primary care and Pain Unit in order to use pain specialist knowledge at an early stage in the primary healthcare rehabilitation process, and to offer the right intervention at the right level of care.

# Method

The project entailed a pain specialist being linked as consultant to several multimodal rehabilitation teams in primary care. The pain specialist participated in bedside diagnosis, management and rehabilitation, as well as skills-improving lectures to the rehabilitation team. Guidelines for referral to the Pain Unit where discussed. Prior to the consultation, the primary care physician investigated the causes for the pain, and morbidity. The physiotherapist did functional status assessment and the occupational therapist assessed the patient's activity. Behavioral experts conducted a psychosocial assessment. Health centers were responsible for medical file documentation. Treatment strategy was presented to the patient.

# Results

Thirty-six patients were subject to consultation, thirty, 83% female and six, 17% male. Average age was forty-three. Twenty-four, 66% were on sick leave, while the other 34% were at potential risk of being on sick leave in the long term. Two patients, 5% were referred to Pain Unit. The other thirty-four patients continued their rehabilitation in primary care.

The in-flow of referrals to Pain Unit decreased with 15% during the course of the project. The referrals received by the Pain Unit fulfilled set referral criteria, which meant fewer additions or rejections. In a questionnaire to the involved primary care physicians, the majority answered that they benefited from this consultation form and that the pain patients reported benefiting from teamwork and prompt consultation. The primary care physicians thought that this consultation activity should become permanent.

#### Conclusion

More patients were treated in primary care instead of referral to specialist. The Pain Unit received fewer but more adequate referrals, resulting in less passive waiting for patients between referral and first visit. The project is going to be implemented at more health centers in Kalmar County.

#### Migraine impact on work ability

Samy Hellerstedt (1), Åkesson, Jan Åke (2) (1) Försäkringskassan (Social Insurance Agency), Sweden (2) Läkarcentrum Stångåblick, Linköping

Migraine is a common headache disease characterised by recurring episodes of severe headache and a variety of associated symptoms. In many cases the disease leads to significant disability affecting the capacity for work. In our daily work as medical practitioners, we have found a discrepancy between the Medical insurance decision support of The National Board of Health and Welfare and our clinical experience concerning migraine related sickness abscence. By doing a systematic review, we aim at examine how work capacity is directly affected by migraine attacks, if it is affected between the actual attacks and wether there is an enduring disability related to migraine.

Searching PUBMED using relevant keywords, resulted in 237 articles and after reviewing quality and relevance, 14 articles remained for further analysis.

The systematic review showed a considerable disability during migrain attacks, resulting in an increased sickness abscence as well as increased presenteeism. Hardly any data confirming an affect on work capacity between attacks could be found in the matierial. Concerning enduring affect on the work capacity, we found some indications towards higher part time working and unemployment rates among patients with migraine and other kinds of severe headache.

This review shows coherence between the knowledge found in the scientific results of the analysed articles and the Medical insurance decision support. However, the discrepancy to our clinical experience can be explained by gaps in the scientific knowledge concerning work capacity between migraine attacks and possible long term affect on work capacity among migraine patients.

# Sick leave and gender differences

Lennart Hellström (1), Ann-Marie Brudin (2), Inger Jansson (3,4) (1) Department of Environmental Medicine and Public Health, Garvaregatan 9-11,57232 Oskarshamn (2) Planning Department, Kalmar County Hospital, 391 85 Kalmar (3) School of Health Sciences, Department of Rehabilitation, 553 18 Jönköping (4) Nyckeln Competence centre, Kalmar County Hospital, 391 85 Kalmar

#### Background

Gender equality is an important part in the sick leave process. In the county council of Kalmar, Sweden an action plan was approved 2012 for developing gender equality. The plan included three stepwise strategic areas: statistics, education and applied measures. The area statistics, which is the main issue for this abstract, meant to extract statistics with the purpose to identify any gender differences in sick listing. In one of the municipalities, represented in three health care centres, the statistics showed a stable pattern of having the largest differences in sick listing between men and women.

#### Objectives

The objective was to describe the sick leave pattern for patients receiving medical certificates from primary care. The overall aim was to identify if systematic differences between men and women were occurring in the primary care process and the sick listing process for the same diagnosis. Finally, to present data on a local level, which might have an impact on professionals to start reflecting and to be more aware of possible inequality in the health care or sick listing process.

#### Method

Data, such as gender, age, employer, occupation, diagnosis, treatment, rehabilitation and the length of ongoing sick leave, were collected from the county council, social insurance office and primary care centres for people on sick leave at a given date in June 2013. Potential differences in data between female and male patients were analysed.

#### Results

On the date of the study, 335 people were sick listed by primary care in the municipality and 70 % of these were women. The mean age for men was 48 years and for women 47 years. The median number of days with sick listing was 112 for men and 162 for women. Disorders of the musculoskeletal system (M) accounted for 38% (men 40%, women 36%) of sickness certification diagnoses, mental disorders (F) 39% (men 33%, women 45%) and other diagnoses (O) 23% (men 26%, women 19%). Of all patients on sick leave, 143 (whereof 26 %men and 74 % women) had been on long-term sick leave (> 180 days) on the studied day. The distribution between diagnostic groups for men and women differed even more for the long-term group, with M-diagnoses dominating in all age groups for men, and F-diagnoses now even more dominating for younger women.

In the long-term group, 25% were unemployed. Forty-four percent of the women were employed by the municipality, mostly in care. The men were mostly employed within manufacturing. The social insurance agency held more meetings and required more insurance medical investigations for women than for men. We found no measurable gender differences in treatment/ rehabilitation (drug treatment, physiotherapy, psychologist, multimodal rehabilitation and pain/stress management) by the primary care units.

#### Indication of the relevance of the study for international audiences

In many countries there is a difference in sick leave levels between men and women and it is important to know if there is gender inequality in the health care or sick listing process affecting the sick leave level.

# Prognostication and use of evidence in disability assessments

Jan Hoving (1), Richard van der Voort (1), Jos Verbeek (1), Rob Kok (1), Carel Hulshof (1) (1) Academic Medical Center, Department: Coronel Institute of Occupational Health

#### Background

Worldwide, assessing prognosis of disease and/or (work) functioning is an essential task of professionals working in the field of disability assessments, either as part of their clinical work or as one of their main tasks. Although the settings, insurance and legislative systems, and clinical backgrounds between countries differ, disability evaluations have in common the use of medical and non-medical information, and include a judgment of an individual's functioning or capacity to perform work in the future.

#### Objectives

The objective of this study was to evaluate the role and challenges of prognostication and the use of evidence in this by insurance physicians.

#### Method

Using an electronic survey, we asked insurance physicians working for the Dutch Employee Insurance Agency (UWV) to reflect on their role and challenges in prognostication and the use of evidence in this. We also asked physicians to motivate their answers using open ended questions. Continuous and categorical outcome data were represented as means (SD) or percentages. The qualitative data were analysed using thematic analyses. The content, descriptions, and final wording of the concepts were checked and discussed by the research team.

## Results and/or relevant follow-up

For the first analyses, we send 103 physicians an invitation to complete the electronic survey. Sixty-three physicians completed the survey. Physicians highlighted the importance for substantiating their evaluation and need for using evidence during prognostication in their disability assessments. More than 80% indicated a need for more support or tools to better substantiate their judgement of the prognosis (of functional capacity). Prognostication was particularly found difficult or challenging in the case of comorbidity (76% of physicians), rare diseases (46%), and unclear pathology or subjective complaints (43%). In addition, there was little consensus between physicians on what constitutes a good or bad prognosis for return to work or work disability.

Indication of the relevance of the study for international audiences

Prognostication is a major challenge for insurance physicians and other professionals involved in disability assessments. Yet there is little guidance for professionals involved and a great need for support or tools to facilitate the process of prognostication. This study calls for more research and practical tools to support prognostication in daily practice.

# Sick leave patterns in common musculoskeletal disorders – A study of doctor prescribed sick leave

Jenny Hubertsson (1,2), Martin Englund (1,2,3), Ulf Hallgårde (2), Ulrik Lidwall (4,5), Sofia Löfvendahl (1,2), Ingemar Petersson (1,2)

(1) Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden

(2) Epidemiology and Register Centre South, Skåne University Hospital, Lund, Sweden

(3) Clinical Epidemiology Research & Training Unit, Boston University School of Medicine, Boston, MA, USA

(4) Department for Analysis and Forecast, Statistical Analysis Unit, Swedish Social Insurance Agency, Stockholm, Sweden

(5) Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

#### Introduction

Musculoskeletal disorders (MSDs) are the most common causes of severe long-term pain and physical disability and have a major impact on society. Even if different musculoskeletal complaints are often overlapping the group of MSDs does nonetheless include a spectrum of diseases with a variety of disease specific characteristics. Despite this, in many studies of sick leave, diagnosis is mainly used on the level of diagnostic chapters and MSDs are treated as one group. Comparative data on sick leave within musculoskeletal disorders (MSDs) is limited.

#### Purpose of the study

To compare sick leave patterns in different acute and chronic diseases within the group of MSDs.

## Methods

Using the electronic medical record systems we collected information on dates and diagnostic codes for all available sick leave certificates in the North Western part of the Skåne region in Sweden (22 public primary health care units and two general hospitals) from the first of January 2009 until the last of December 2010. Using the International Classification of Diseases (ICD-10) codes on the sick leave certificates (one per period) we compared duration (gross days) as well as age and sex distribution and share of recurrent sick leave periods between six groups of MSDs; low back pain (M54) disc disorders (M51), knee osteoarthritis (M17) hip osteoarthritis (M16) rheumatoid arthritis (M05-M06) and myalgia (M79) for all subject aged 16-64 years.

## Results

20 251 sick leave periods were issued for 16 673 individuals 16-64 years (53 % women). 3 371 periods (17% of all periods) were issued for an MSD. The mean duration of a sick leave period was 135 days (SD 263), median duration was 27 days (25th and 75th percentile 17 and 120). Back pain (n=876), myalgia (n=285), disc disorders (=230) and knee osteoarthritis (=194) were the four diagnostic codes with the most sick leave periods. While disc disorders, hip osteoarthritis and rheumatoid arthritis had more than 60% of sick leaves ≥90 days, back pain and myalgia had only 11 and 13% ≥90 days (Figure). Total amount of days with sick leave for back disorders peaked in the age-group 35-44 and in the age group 55-

64 for osteoarthritis. Days with sick leave for back disorders had quite a similar pattern for women and men while the sex distribution in hip osteoarthritis, rheumatoid arthritis and myalgia differed. Low back pain, rheumatoid arthritis and myalgia had the greatest share of recurrent sick leave periods (31%, 34% and 32% respectively).

#### Conclusion

Duration as well as age and sex distribution and share of recurrent sick leave periods of doctor-prescribed sick leave varies considerably between different MSDs. This underlines the importance of specifying diagnosis, in sick leave research as well as in planning of treatment and rehabilitation and evaluation of prognosis.

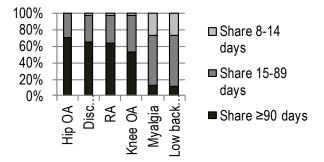


Figure. Share of sick leave periods being 8-14 days, 15-89 days and  $\geq$ 90 days long for low back pain, disc disorders, knee osteoarthritis (knee OA), hip osteoarthritis (hip OA), reumatoid arthritis (RA) and myalgia.

# Management system for sickness certification tasks in clinical practice

Solveig Hällgren (1, 2), Martin Fahlström (2), Kristina Alexanderson (3)

- (1) Västerbotten county council, Umeå University Hospital
- (2) Dep of clinical sciences, Umeå University

(3) Division of insurance medicin, Karolinska Institutet, Stockholm

#### Introduction

Sickness certification tasks have by physicians been considered time consuming, problematic [1] and even a work environmental problem [2]. It has also been recognized that management and leadership was insufficient regarding how sickness certification of patients was handled in Swedish healthcare [3,4]. To give incentives for better such management and higher quality of sickness certification, the Swedish government introduced economic incentives for the county councils (the so-called sick-listing billion) over several years. In 2011, one aspect of the agreement about this stated that healthcare management systems regarding sickness certification should be introduced for six specific target areas.

#### Purpose

To analyze the management system for sickness certification tasks, in specialist clinics at the Umeå University Hospital and in primary health care units in the Västerbotten county.

#### Method

Data from individual interviews with the clinical department managers of 16 hospital specialist clinics were analyzed regarding 1) to what extent they now had operational procedures/routines for the six target areas listed in the above mentioned agreement regarding sickness certification tasks and 2) their rating of how well the routines worked. 3) Also, these results were compared with the equivalent results from primary healthcare units.

## Results

Clinical department managers of hospital clinics rated their routines less well working than managers of primary health care units, in the first target area; "Knowledge-based and effective sickness certification" and in parts the other five areas. Managers of clinics with mostly physical sickness certification diagnoses rated their routines significantly lower than the other managers. They also expressed more frustration and a need of education and better cooperation with other stakeholders. The opposite was expressed by managers of clinics with mostly mental sickness certification diagnoses. Seven clinics had employed someone to help coordinate sickness certification and rehabilitation issues. This was experienced as positive but it was not possible to assess if the clinic's sickness certification practice was affected.

## Conclusion

Clinical department managers of hospital clinics rated their operational procedures/routines lower than the managers of primary health care units, in many target areas of the management of sickness certification tasks. The experience and handling of sickness certification issues seemed to differ between the hospital clinics and also compared to primary health care units. These results may indicate that education and information regarding insurance medicine should be designed for the needs of specific clinics and types of diagnoses handled.

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# The Concept of 'work abillity' from the view point of employers

Inger Jansson (1,2), Anita Björklund (2), Kent-Inge Perseius (1,3), Birgitta Gunnarsson (4)

(1) Nyckeln Competence centre, Kalmar County Hospital, 391 85 Kalmar

(2) School of Health Sciences, Department of Rehabilitation, 553 18 Jönköping

(3) Karolinska Institutet, Department of Neurobiology, 171 77 Stockholm

(4) Unit for Research and Development, Kronoberg County Council, 352 34 Växjö

## Introduction

Work ability is mainly regarded from a medical insurance perspective and a rehabilitation perspective. Since work ability is manifested in working life and "bought" by employers, employers' perceptions of work ability are surprisingly unknown. Studies have demonstrated the doubt felt by employers when they consider hiring a person with disabilities [1]. Knowledge of the concerns, expectations and needs employers have in terms of work ability can make it easier to adapt work situations and help to better highlight the resources that people with disabilities can contribute with and under what circumstances they can be utilized [2].

#### Purpose

The aim was to identify and characterise employers' conceptions of work ability.

#### Methods

The study design was qualitative with a phenomenographic approach. Six male and six female employers from various workplaces and geographical areas in Sweden were interviewed.

#### Results

Three domains were identified: employees' contributions to work ability, employers' contributions to work ability and circumstances with limited work ability.

The employee's contribution to work ability included basic physical, mental, cognitive, communicative and social abilities. Endurance in abilities was essential. Expectations on abilities could differ depending on the demands of the actual work setting. The employers emphasised commitment and interest as part of work ability which could bridge other shortcomings. Employees were expected to follow norms for work performance as well as being able to work independently.

The employers' contribution to work ability included shaping work ability for their specific needs and educating employees in performing work duties based on lean production, quality and safety demands. Some employers organised work duties according to circumstances and adapted according to the employees' abilities. Work ability was regarded as a tool in production and its output, production, was the main issue.

Circumstances with limited work ability included having too many private commitments. Divorces were described as having impact on work ability. Also, positive events like building a new house were experienced as limiting work ability. Young employees with no work experience seeming to lack the ability to adapt to rules in the workplace regarding how to dress, take responsibility and be on time were regarded as having limited work ability, however transient.

#### Conclusion

The employers' conceptions of work ability were described as a relation between individual abilities shaped in a work setting, resulting in a productive outcome. The employers highlighted their own contributions in shaping work ability. Not only health problems were limiting. Individual characteristics as well as contextual factors, could limit work ability too. Knowing the importance of commitment and interest is valuable in work rehabilitation. Using situational leadership may suit people with disabilities better, especially if their work ability fluctuates.

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# Development of clinical low back pain guidelines in occupational health-clinicians and researchers in collaboration.

Irene Jensen (1), Kjerstin Stigmar (2, 3), Charlotte Wåhlin (1), The Occupational health guideline group in Sweden (4), Lydia Kwak (1)

(1) Division of intervention and implementation research, Karolinska Institutet

(2) Department of Health Sciences, Lund University, Sweden

(3) Epidemiology and Register Centre South, Region Skåne, Sweden

(4) The Occupational health guideline group in Sweden, Karolinska Institutet, Sweden

Speaker: Kjerstin Stigmar

#### Background

The assignment for Occupational health services (OHS) is to supply employers with expert-knowledge within the area of work related health and work environment issues, from a broad perspective. The OHS in Sweden is financed by the employers. According to the Swedish work environment act, employers are obligated to have some kind of access to OHS. About 60 % of all employees in Sweden are connected to OHS on a regular basis. Different professionals in OHS often handle work disability issues, such as musculoskeletal disorders and mental disorders.

#### Objectives

One of the most common reasons for searching OHS is low back pain (LBP). In an effort to minimize the adverse impact of LBP at the work place and to strengthen the evidence based practice in OHS, evidence-based guidelines in the management of LBP was developed. Since OHS is a very diverse scope of practice, the aim was to establish guidelines that can be easily implemented in different settings.

#### Method

In order to promote knowledge translation, a multi professional working group, consisting of clinicians from OHS with different professions and researchers in OHS, was formed, with the mandate to develop LBP guidelines in OHS. An implementation researcher was linked to the working group, for the purpose to follow the process within the group and also how the guidelines later on were introduced and implemented in regular services. The working group met regularly three times per semester, during a period of 1½ year. Between the meetings, the members had assignments, in order to have a progression in the development of the guidelines. All members confirmed the guidelines and different experts in the area were also asked to review the guidelines.

## Results

A concept of evidence-based guidelines, based on all-ready existing guidelines, reviews and research publications, was introduced [1]. The guidelines cover management, assessment methods, approaches and also interventions. In the guidelines, actions in close collaboration with the employer are emphasized. A series of different arrangements was conducted and also planned, to implement the guidelines at different levels in OHS.

## Indication of the relevance of the study for international audiences

Although, OHS are organized in different ways in different countries, and these guidelines were developed in a Swedish setting, we believe that there is need for evidence-based guidelines that easily can be implemented in regular services in different countries.

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# Sick Leave among first-time mothers in sweden – The role of domestic and work equality

Mats Johansson (1, 2), Ulrik Lidwall (1, 3), Margaretha Voss (1,3)

(1) Dep. for Analysis and Forecast, Swedish Social Insurance Agency, Stockholm

(2) Stockholm Un. Linnaeus Center on Social Pol. and Fam. Dynamics in Europe, SPaDE

(3) Dep. of Clin. Neuroscience, Div. of Ins. Med., Karolinska Institutet, Stockholm

## Introduction

In Sweden, women have about the same level of employment as men, including also women having small children at home. After becoming a mother women have an increased risk of sick-leave compared to men. The causes are not well understood but may be related to what extent parents are sharing domestic duties and child care combined with gainful employment.

## Purpose of the study

The purpose of the study was to analyse medically certified sick leave among first-time mothers in relation to engagement in domestic work and gainful employment.

## Methods

The study population consisted of parents in Sweden who had their first child in 2005 (n=28,778), and where women were working the year before the child's birth. All parents were identified from national registers of the Swedish Social Insurance Agency including information about medically certified sick leave, parental benefits, socio economic, and socio demographic factors. Two measures of equality in the domestic sphere (proportion of parental leave and proportion of temporary parental benefit for care of children) and two measures of equality of the work sphere (proportion of the family's income and qualification level of the occupation) were used. These measures where used as proxies for the parent's division of labour within the domestic sphere and the work sphere respectively. Hazard ratios (HR) of the first new medically certified sick-leave spell (>14 days of duration) up to seven years after the first child was estimated by Cox proportional hazard regression with a 95% confidence interval (95%CI). In the analyses several demographic and socio-economic factors were taken into account, e.g. age, country of birth, living area, educational level, income level, employment status and sector, as well as previous history of sick leave.

# Results

The risk of sick leave was significantly higher for women who had the main responsibility in the domestic sphere and at the same time had similar income and level of occupation compared to the father (HR=1.14; 95%CI=1.03-1.26). Also women who had the main responsibility in the domestic sphere and with a higher position in the work sphere compared to the father (HR=1.22; 95%CI=1.05-1.41), and women that were equal in the domestic sphere and had a higher position in the work sphere compared to the father (HR=1.36; 95%CI=1.07-1.73) had an increased risk of sick leave.

# Conclusion

Having the main responsibility in the domestic sphere combined with gainful employment among first-time mothers is associated with an increased risk of sick leave. This underscores that a well-developed childcare and generous parental benefit may be of importance to facilitate for both women and men to combine parenthood with career, but it is seems to be insufficient in Sweden in counteracting extensive work-life demands for women. Further studies about equality among parents are warranted, e.g. the risk of sickness absence among fathers.

# Assessment and training of critical functions for early and sustainable return to work in patients with stress-related exhaustion disorder

# Ingibjörg Jonsdottir (1)

# (1) University of Gothenburg, Sweden

Workshop: Rehabilitation of individuals with mental or musculoskeletel disorders in primary care. Examples from a national research program (REHSAM) in Sweden.

# Background

Long-term stress without enough recovery can lead to a condition characterized by severe mental and physical exhaustion and cognitive disturbances, often accompanied by somatic complaints, depressive mood and anxiety. Clinical diagnostic criteria for such condition named "Exhaustion Disorder" (ED) (Utmattningssyndrom; ICD-10 code F 43.8) have been established in Sweden. The clinical experience is that return to full time work takes a long time for patients suffering from ED can. In an explorative pilot study of such patients at the Institute of Stress Medicine still on sick-leave after two years we found that lack of energy, cognitive problems and poor self-esteem could be hindrances for return to work.

## Aim

The purpose of this project was to systematically evaluate trough assessment and training, a rehabilitation strategy focusing on these three dimensions. Specific objectives are to develop and improve a model for individual assessment, using established methods, and subsequent training of physical and mental endurance, cognitive ability and self-esteem, and to evaluate this new rehabilitation strategy with a randomized controlled design.

## Method

Patients with ED are after the assessment allocated either to an intervention group (n 65) receiving an extensive training program based on individual assessment of the factors mentioned above, or to a control group (n 65) receiving the standard, individually designed, multimodal treatment and rehabilitation. All participants should have impaired work ability with at least part-time sick leave and a need of training/improvement of minimum one of the four dimensions assessed. The proportion of subjects in each group who have returned to full-time work at follow-up after one year is compared as the primary outcome.

## Results

The study is ongoing and hitherto all patients have been included and the rehabilitation and follow-ups are being conducted. Preliminary results will be presented at the meeting. We hypothesize that the new rehabilitation strategy that has been tested in this study can shorten the duration of absence from work and reinforce the patients to regain sustainable work ability.

## Background

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#### Systematic reviews in insurance medicine

Bengt Järvholm (1), Maria Albin (2), Kjell Torén (3)

- (1) Umeå University, Umeå Sweden
- (2) Lund University, Lund, Sweden
- (3) Gothenburg University, Gothenburg, Sweden

#### Background

Systematic reviews are a way to gather and evaluate the present knowledge. Compared to narrative reviews they more systematically select and evaluate the literature. Such reviews can contribute to quality of preventive actions and claims adjustments. However, also systematic reviews includes judgments. There are several systematic reviews published worldwide, but there is an advantage to have a similar topic evaluated from several aspects. The reviews should preferable be published in native language to be used by the national insurance systems and in an international language to be used by others and for an international critique.

#### Objectives

Our project aims to produce systematic reviews in topics that have interest for the Swedish insurance system. It focus on occupational aspects on prevention, possibilities to work with chronic diseases and compensation for occupational diseases.

#### Methods

The selection of the topics for the reviews is discussed in a steering group consisting of three senior researchers (coordinators/project leader) and representatives from the unions and employers. The reviewers/writers of the reviews are selected by the coordinators and shall be independent senior researchers. The question(s) for the review should be clear. The review is then evaluated by two independent researchers with special interest/ knowledge in the topic. Each review will have an editorial summary by the coordinators. The authors of the review are encouraged to publish their findings in international scientific journals. The project is supported by a grant from AFA Insurance.

## Results

There are 5 published and another 7 ongoing reviews, see table.

Торіс	Published
Sick buildings and asthma in adults	2010
Whole body vibration and diseases in the lum- bar spine	2012
Depression and work environment	2013
Diabetes and work	2013
Factors in the work environment as a cause of stroke	2013
Parkinson's disease and work	ongoing
ALS and work	ongoing
Hand vibration and diseases	ongoing
Prostate cancer and work	ongoing
Workplace interventions and return to work among subjects with common mental disorders	ongoing
Systemic sclerosis and work	ongoing
Work and COPD	ongoing

All published reviews are available on internet (http://www.medicine.gu.se/avdelningar/ samhallsmedicin\_folkhalsa/amm/publikationer/aoh/) but only in Swedish. The international publications are slow and we consider publishing an English summary and editorial. The reviews often highlight knowledge that is less well established along with lack of knowledge. I.e. the review about diabetes indicated a causal relation between shift work and diabetes but a lack of knowledge e.g. how to prevent hypoglycemia in persons with heavy work.

#### Conclusions

Good reviews are of high importance for high quality insurance medicine and a guarantee that the decisions are based on facts that can be explained to the clients. Furthermore, they highlights relevant aspects with important knowledge gaps. In addition they may serve as a source for information with regard to job to the worker with chronic disease. Reviews for insurance medicine focus often on other aspects than evaluations of medical interventions, the latter often under the heading of evidence based medicine.

# Details in the summary – A decomposition of population statistics on sickness absence

Erik Jönsson (1), Petra Ornstein (1), Anna Persson (1) (1) Swedish Social Insurance Agency

Speaker: Petra Ornstein

Sickness absence in Sweden has a history of large and unexplained variation, with no tendency towards stabilization. While historically there has been a strong inverted relationship with unemployment, this is no longer the case and there is little knowledge of which macro variables that regulate sickness absence. On an individual level as well, we can explain very little of the variation in both short and long term sick leave. Thus, it is difficult improve much on summary statistics of the total level of sickness absence. Still, there are clear differences in aggregate data, both over time and between groups.

With this work we aim to stay within the area of descriptive summary statistics, but paint a more detailed picture. Our focus is the internal mechanisms behind changes in the level of sickness absence. Our work will outline the separate contributions of inflow and duration to the variation in levels, and how that has varied over time. But more complex questions can be posed as well. Is there any consistent relation between inflow and duration of spells? How do the dynamics of growth and decline differ between groups? What is the contribution of the composition of medical diagnoses prescribing sick leave to the duration of spells?

The analysis is based on the Swedish administrative records, covering the full population since 1994. We decompose sickness absence into inflow, duration, and medical diagnose, and study variation due to each of these factors on its own.

Earlier studies on this topic reveal that all three components mentioned above have contributed to the variation in sickness absence. Socialförsäkringsutredningen estimated that around 82 percent of the increase in sickness absence between 1996 and 2002 was due to an increase in duration, while 18 percent was due to an increase in inflow [1]. It has also been shown that there are important differences between groups, not least between employed and unemployed. Försäkringskassan (2013) has shown that among employed individuals the duration of spells were relatively stable between 2010 and 2012, while the inflow into sickness absence increased. Among unemployed individuals we see the opposite; the duration of spells increased while the inflow remained constant. In combination with a change in the composition of medical diagnoses, with an increase in spells due to mental illness, this led to a substantial increase in the stock of sickness absence.

Our contribution to the topic is a systematic study of the underlying trends of sickness absence, focusing on a time period of almost 20 years, and comparing several measures of duration of sick spells. This will allow us to answer the questions discussed above regarding relationships between inflow, duration, and diagnosis. Such an exercise will hopefully shed light on the underlying forces behind the highly volatile Swedish sickness absence levels.

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### An attempt to validate a malingering-identifying checklist

Jehoshua Kaufman (1), Per Kihlgren (1) (1) BeteendeMedicinskt Center Sv AB

#### Introduction

Malingering is defined in DSM-V as the intentional production of false or exaggerated physical or psychological symptoms in order to gain external benefits such as financial compensation. There are past estimates that at least 3 % of all male USA citizens and 1% of female were malingering [1]. The current true number is obviously unknown. If the figure is just close to this today in Europe and Sweden the related costs are substantial. Due to the potentially very high costs of malingering for government and businesses, there is a great need for tools to identify malingering. Among such tools the "Structured Interview of Reported Symptoms" (SIRS) is considered to be the golden standard [2]. But because of the relatively long duration of SIRS and its requirement of high competence and experience, validated tools that are more accessible and have a shorter conducting duration are very valuable and could potentially be used as a first step to identify malingering before using SIRS.

#### Purpose of the study

To assess the validity of a malingering-identifying checklist, as measured in the accordance of the checklist's questions to the questions of SIRS.

#### Method

A text analysis of SIRS and the malingering-identifying checklist, where the questions (and what these are aimed at answering) of SIRS and the malingering-identifying checklist are analyzed and compared.

#### Results

The result of the text analysis will show how well the malingering-identifying checklist and SIRS accord, as in how their questions can reasonably be regarded as according with one another.

#### Conclusion

From the results a conclusion can be drawn regarding the potential validity of the malingering-identifying checklist.

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## A search for signs of malingering – A practical study.

Jehoshua Kaufman (1), Agata Ostapowicz (1), Lars Havinder (1) (1) BeteendeMedicinskt Center Sv AB

Workshop

## Background

The policy and official approach concerning malingering within the Swedish state health insurance system is, and has been, that it doesn't exist or that malingering in itself is a sign of sickness.

### Objectives

We, a team of medical and paramedical staff, have been evaluating level of impairment within the insurance system for many years and the question of possible cases of malingering has turned up many times.

In Sweden, there has never been a demand to consider the possibility of malingering, and therefore there are none or few questionnaires, tests or checklists to detect these phenomena. We've studied about 400 cases.

### Method

Two years ago we decided to take into consideration that the patient we are to evaluate might be malingering. We then started to closely looking into this possibility when evaluating patients. In order to do this we have created a checklist that helps us confirm or question the diagnoses as well as impairment.

The checklist we will present, is a result of trial and error. We started with a long list and then kept useful items, modified others and discarded less usefull ones. The items are all based upon international research within the field of malingering.

In our presentation we will describe how the checklist was created, how we have been using it and our experience of it's usefulness within the Swedish health insurance system.

## Follow-up

We will also discuss further use of this checklist and modified versions of it. We think that this checklist, with some modifications, could be used as an evaluation tool and as an indication in further work both in Sweden and other countries.

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# Economic evaluation of occupational disease screening – chronic solvent encephalopathy as an example.

Ari Kaukiainen (1, 2, 3), Heidi Furu (1), Hanna Kaisa Hyvärinen (1), Guy Ahonen (1), Markku Sainio (1)

(1) Finnish Institute of Occupational Health

(2) LocalTapiola General Mutual Insurance Company

(3) University of Turku

### Introduction

Early detection of adverse exposure-related health effects supports work ability. However, detailed knowledge on costs of occupational disease screening is scarce.

### Purpose of the study

Chronic solvent encephalopathy (CSE) was used as an example, with proactive approach in screening [1, 2, 3]. The aim was to estimate the cost of detecting one new CSE case by screening and diagnostics, to estimate the career extension needed to cover the costs, and to study work ability.

#### Methods

A financial analysis of stepwise postal CSE screening followed by clinical examinations (SPC screening) was carried out, and the results were compared to the existing national practice of occupational health services (OHS screening). Work ability was studied in relation to the retirement rate and the Work Ability Index (WAI).

#### Results

The costs for detecting a new verified CSE case were more than ten-fold in the existing national OHS screening compared to stepwise postal-clinical, SPC, screening [4]. If a worker is able to continue working for four months or longer, costs of SPC screening are covered. The retirement rate of the SPC screened CSE cases was significantly lower than that of the OHS screened cases. The WAI scores of the SPC screened were nevertheless lower than those of the general population, implying a greater risk of becoming excluded from the labor market.

#### Conclusion

A case of occupational disease detected at an early stage enables occupational rehabilitation or measures to decrease exposure. Stepwise postal-clinical screening detected new CSE cases at considerably lower costs than the existing OHS screening routines. Only a short extension in working life covered the costs in proactive low-cost approach of screening. The results show that it is possible to screen a relatively rare occupational disease at an early stage and at a reasonable cost.

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### International sick leave: Comparing the organisation of sick-leave certification, professional involvement, and return to work activities in different countries.

Sarah Kedzia (1), S Ebrahim (2), WEL de Boer (1), K Alexanderson (3), S Brage (4), S Brouwer (5), D Cohen (6), C Dal Pozzo (7), C Foury (8), KP Martimo (9), O Masten-Cuznar (10), C Oancea (11), C Reese (12), N Turčić (13), R Kunz (1)

(1) University Hospital Basel, asim | Swiss academy of Insurance Medicine

(2) McMaster University, Department of Clinical Epidemiology & Biostatistics, Canada; McMaster University, Department of Anaesthesia, Canada; Stanford University, Stanford Prevention Research Center, Department of Medicine, USA; The Hospital for Sick Children, Department of Anaesthesia & Pain Medicine

(3) Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

(4) NAV (Norwegian Labour and Welfare Service); Oslo Norway

(5) Department of Health Sciences, Division of Community and Occupational Medicine, University Medical Center Groningen, University of Groningen, The Netherlands

(6) Centre for Psychosocial Research, Occupational and Physician Health UK

(7) Italian Workers' Compensation Authority (INAIL), Regional Office, Venice, Italy

(8) Caisse Nationale d'Assurance Maladie des Travailleurs Salariés (CNAMTS)

(9) Elo Mutual Pension Insurance Company Finland

(10) Slovenia Health Insurance Institute of Slovenia, Ljubljana

(11) Carol Davila" University of Medicine and Pharmacy Bucharest, the National Institute for Medical Assessment and Work Capacity Rehabilitation

(12) Medical Center – University of Freiburg, Institute for Quality Management and Social Medicine

(13) Croatian Institute for Health protection and Safety at work

#### Introduction

Sick leave is a significant individual, economic and social security issue in many western countries. Employees benefit because they can stay off work when sick without losing their job, but this social security is costly and can be misused. Sickness certification and promotion of return to work are organised differently among countries. Conflicts between physicians and patients, employers and employees or between various insurances are reported and may root in organisations of sick leave certification and return to work promotion. To learn more about the systems and (un-) common obstacles we set out to draw an international comparison.

#### **Research question**

We describe in a systematic manner the organisation of sickness certification and return to work activities in Europe and Canada. We assess what kind of professionals and institutions engage in sick leave and return to work activities and how the social security system around sickness absence is structured. We want to know more about the common problems occurring in the countries.

#### Methods

Using a systematic survey, we asked a series of questions to 3 experts on sick leave and re-

turn to work (researcher, certifying physician and insurance expert) in each country from a sample of European nations and Canada. In the first step, experts indicated which professionals were involved in 9 different tasks with sickness certification and return to work (e.g., who diagnoses and treats primary healthcare concerns?), and any problems with respect to each task or involvement. In the second step, we will compare and complete the tables to give an overview over organisation and common conflicts.

### Results

In October 2013 we invited respondents in 19 countries, of which 13 agreed to participate (CAN, CH, CRO, FIN, FRA, GER, IT, NL, NO, RO, SI, SE, UK) and 8 already did. At the EUMASS congress we will give an overview over how they organize sickness absence and return to work promotion, what similarities and differences exist between these countries and what difficulties are commonly reported. For example, in some countries, employers are legally obliged to have OHS that takes preventive and/or curative measures. But this is hardly manageable for small businesses, which disadvantages employees working there.

### Conclusions

Our study systematically report sickness absence and return to work promotion practices across a large sample of western countries. The results will inform scientists, policy makers and professionals about possibilities to organise sick leave certification existing (un) common conflicts.

# Swiss general practitioners and sickness certification: A survey on problems and needs.

Sarah Kedzia (1), Wout de Boer (1), Peter Tschudi (2), Thomas Rosemann (3), Peter Frey (4), Johanna Sommer (5), Lilli Herzig (6), Regina Kunz (1),

- (1) University Hospital Basel, asim | Swiss Academy of Insurance Medicine
- (2) University Basel, Institute of General Medicine Basel
- (3) University Zürich, Institute of General Medicine Zürich
- (4) University Bern, Berner Institute of General Medicine
- (5) Institute of General Medicine, University of Lausanne
- (6) Université Geneva, Unité de Médecine de Premier Recours

#### Introduction

General Practitioners (GP)s in Sweden[1], Norway[2], Great Britain[3] and Ireland[4] report difficulties in estimating duration and degree of sickness absence and in handling conflicts with patients concerning the need of a certificate. In Switzerland there is no systematic evidence but there is anecdotal criticism on certification practice from several sides.

#### Purpose of the study

The aim of the study is to assess frequency of sickness certification in Swiss General Practice as well as potential problems and need for support.

#### Methods

Cross sectional survey among general practitioners in Switzerland. With 5 academic primary care networks in Switzerland we perform an anonymous online survey under German and French speaking general practitioners. The questionnaire contains 64 close-ended questions and 3 free text items and draws partly on a Swedish questionnaire[1] (26 items). We added 8 questions on conflicts with patients, 12 on education and needs, 9 on attitude concerning sickness certification and 9 on demographics.

### Results

Results are available for the German speaking part of Switzerland (response 365 from 679; 54%); French speaking doctors will be invited in spring 2014.

Ninety-seven per cent of GPs (356/365) issue at least one certificate per week and 12 % more than 20 certificates per week. Thirty-three per cent report at least weekly difficulties with handling sickness certification. Discussing disagreement about the need of a certificate is challenging for 46%. Fifty-six per cent indicate to have conflicts with their patients when occupational obstacles drive the request and 21 % when patients are determined to get a certificate. Seventy-four per cent define sickness certification as negotiation process with the patient.

Forty per cent of GPs stated to have received training on certifying sick leave at some point during their professional education, but all confirmed that "learning by doing" was the main source for developing skills and knowledge. To acquire more competencies 55 % favour training on handling sickness certification, followed by training in conflict management (33%) and support / discussion with colleagues (36%).

### Conclusion

A substantial part of Swiss General Practitioners s report difficulties with Sickness certification. Current training does not seem to provide the needed proficiency. We will discuss practical and scientific implications at the congress.

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### Vocational rehabilitation via practice in different European countries through project 'KRUT' (Cofinancing: 'Finsam and 'ESF')

Pernilla Knutsson (1), Anna Fagefors (1) (1) Sjuhärads samordningsförbund

Trends in OECD-countries show rising amounts of people getting financial support from society. Many people suffer from mental health problems and numbers are rapidly increasing. Young people have problems getting in to the labor market and so called NEET, Not in Education, Employment or Training become more and more frequent. To counteract those problems and benefit both individuals and society new methods for strong and sustainable actions has been created within project KRUT (january 2012-june 2014). Methods can be used as individual activities or easily be part of other courses.

One good example is KRUTs transnational activity "Across borders" which enables practice abroad. After six weeks of preparation period the group of ten participants collectively travels to a foreign country and stay there three weeks together with 1-2 personnel. During preparation the group unites through structured activities such as language training, cultural tasks and comparison of different kinds of work. During the period abroad the group constructs wise workday routines including cooking meals, taking care of hygiene and laundry etc. Practically a functional life regarding both work and spare time which in reality then happens for the first time in life, or didn't happen since a long time for many of the participants. Back in Sweden another two weeks are used to maintain knowledge. It is an effective way of vocational rehabilitation strongly developing participants confidence, self-esteem and ability to perform activities. It also promotes interaction within the region of Sjuhärad and with partners abroad.

Arbetsförmedlingen (Swedish Public Employment Service), Försäkringskassan (Swedish social Insurance), Västra Götaland Region (health care) and 8 municipalities cooperate in the project. Target group is people aged 16-64 with mental health problems or disabilities of different kinds and who are far from labor.

The purpose of the project is to add employability to participants and in a longer perspective that they get work or begin to study. Swedish participants learn from European work experience and dare to work in other municipalities or even other countries. This supports mobility of labor, get participats included in social community and strengthen competence for independent life. Many persons with some or even significant disabilities and/or mental problems have made good progress thanks to the KRUT-project which now is in a spreading-phase.

KRUTs transnational activities have reached success in Sjuhärad and will serve as a model to improve similar activities in Sweden and Europe.

Time for implementation july-december 2014 will result in a complete method-guide and expanded distribution, allowing other areas and projects to receive effective methods regarding transnational actions. Finishing the project time will also be used to ensure consistent transnational activities locally.

The conclusion is that this method in a relatively short time give participants confidence, self-esteem and courage to get into studies or find a work that they can maintain.

### Improved quality and more attractive work by applying EBM in disability evaluations. A qualitative survey.

Rob Kok (1), Jos Verbeek (3), Paul Smits (1), Sarah Ketelaar (1), Frank van Dijk (1), Jan Hoving (1)

(1) Coronel Institute of Occupational Health, Academic Medical Center, Amsterdam

(2) Research Center for Insurance Medicine, Amsterdam, the Netherlands

(3) Cochrane occupational Safety and health review Group, FIOH, Finland

### Background

The uptake of evidence in practice by physicians, even if they are trained in the systematic method of Evidence-Based Medicine (EBM), remains difficult to improve [1]. This also applies to physicians who perform disability evaluations.

### Objectives

Therefore we studied the opinions and experiences of these physicians regarding the continued use of EBM skills in clinical practice.

### Method

This qualitative study was nested in a cluster RCT evaluating the effects of training in EBM [2]. Fourty-five physicians participated and received a comprehensive 6 months training program in EBM of which the last course day included an evaluation. During this evaluation, group interviews were held with the participating physicians who discussed opinions and experiences regarding EBM application in daily practice. In an iterative process we searched for common motivators or preconditions promoting or hindering implementation of EBM.

#### Results

Three main concepts emerged after analyzing the discussions: 1) Improved quality of physicians' actions, such as clients benefiting from the application of EBM; 2) Improved work attractiveness of physicians; and 3) Preconditions that have to be met in order to work in an evidence-based manner, including professional competence, facilitating material conditions and organizational support and demands.

#### Conclusions

Physicians trained in EBM are motivated to use EBM because they perceive it as an improvement in the quality of their work and as a factor making their work more attractive. In addition to personal investments and gains, organizational support should further facilitate the uptake of evidence in practice.

Indications of the relevance of the study for international audiences The uptake of evidence in disability evaluation is important. Considering the experiences and opinions of trained physicians in the continued use of EBM, the findings of this study can help to develop further training and implementation of EBM to facilitate the uptake of evidence in practice.

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# The Expansion of the EUMASS core set and the development of the work ability assessment in Iceland.

Asa Dora Konráðsdóttir (1), Sveina Berglind Jónsdóttir (1) (1) VIRK Vocational Rehabilitation Fund ICELAND

The work ability assessement has been systematically used in Iceland by VIRK – Vocational rehabilitation fund since 2010. It is a continous assessment (transistional assessment) using the ICF ideology. It is about systematic gathering of information that follows the individual through the whole process of vocational rehabilitation/rehabilitation at VIRK where the final target is always getting back to work. Also it takes into account important factors in connection to work ability (EUMASS core set and others) and it assures that those important factors are worked with in the rehabilitation process to maximize function. The information from this assessment are used to connect the individual all the way to work. There have been some research on the work ability assessment. Konráðsdóttir (2010) found out that the development of the method was done in accordance with the most modern definitions and understanding of work ability, it was inspired by used established methods from other countries that have been shown to be useful and continued developement of the instruments in the Work ability assessment was done with international experts and through international developmental project. Since the validation study of the EUMASS core set implicated a lack of mental health factors, an expert group with experienced psychiatrists and psychologists met and examined factors in special assessment, ICF core sets for depression and bipolar disorders, and existing research on the most common functional loss due to anxiety. The group also compared the mental health problems and the functional loss in 70 individual cases.

# Peter Donceel memorial lecture: Evidence based insurance medicine - Why is it needed? How is it possible?

Regina Kunz (1)

(1) Asim, Swiss Academy of Insurance Medicine, Basel, Switzerland

The evidence based medicine movement seems to have found firm ground in promotion of return to work but much less in the other tasks of insurance medicine. Insurance medicine has such an impact on individuals and such a social responsibility that a proper founding of its conclusions with evidence is essential.

Insurance medicine has in particular problems with transparency and reliability of the medical judgments, as is well demonstrated by research. I will give some examples of research that indicate this. These problems call for answers in the near future.

Insurance medicine is typically practised in national political and administrative contexts which have sheltered insurance medicine from proper research. Fortunately, this situation is changing. Different institutions in Europe and Northern America have started to carry out research in insurance medicine and to collaborate in international networks. I will give some examples of the state of affairs.

Organising and carrying out research is not enough, however. Insurance medicine as a discipline with its own scientific groundings needs the acknowledgment of the scientific community. For this, several strategies are open that I will discuss.

## A cochrane field insurance medicine?

R Kunz1, K Alexanderson2, S Brouwer3, J Buitenhuis4, J Busse5, J Hoving6, W de Boer1

(1) asim, Swiss Academy of Insurance Medicine, Basel, Switzerland; Department of Health Sciences, Community and Occupational Medicine

(2) Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden

(3) University Medical Center Groningen

(4) DACIM, Dutch Academic Center for Insurance Medicine, Groningen, Netherlands

(5) Insurance Medicine, Department of Anaesthesia/Department of Clinical Epidemiology & Biostatistics, McMaster University, Hamilton, Ontario

(6) Coronel Institute of Occupational Health, AMC, University of Amsterdam

The evidence base for clinical decisions and judgments in insurance medicine is very limited. This limited evidence and the poor accessibility of available evidence is a concern for the assessing health professionals and the people who have to undergo an assessment. Stakeholders also raise concerns since they have to deal with far reaching decisions based on the assessments.

Why is this so? There is a lack of both relevant high quality systematic reviews and primary studies. In part, the reviews and the studies truly do not exist; in part, they are only published as reports in national languages. Even if evidence is available many stakeholders are not familiar with evidence based insurance medicine and face difficulties to understand

such findings. In systematic reviews clinical outcomes of insurance medicine are often not considered which limits available evidence. In asking ourselves how to improve this situation we considered the Cochrane Collaboration as important player to improve evidence based decision-making in our field.

The Cochrane Collaboration (CC) aims at healthcare decision-making throughout the world being informed by high-quality, timely research evidence. CC plays a pivotal role in the production and dissemination of this evidence across all areas of health care. CC's network of practitioners, researchers, patient advocates and others makes research evidence available for informing decisions about health www.cochrane.org. Supporters from over 120 countries in over 50 Review Groups collect research evidence, compile it and provide the findings to those who make health care decisions: practitioners, patients, policy-makers. Cochrane Fields function as communicators for broad themes in health care services.

A Cochrane Field Insurance Medicine could have the following functions:

- Generate strategies to identify and collect the evidence relevant for insurance medicine.

- Set up specialized registers on primary studies in insurance medicine.

- Help Cochrane Review Groups (CRG) to summarize the studies and thereby identify the research gaps that hinder informed decision making in insurance medicine.

- The CC has developed a collaborative infrastructure and standardized approaches in addressing these issues. Additional tasks of a field would promote awareness among stakeholders about the deficient knowledge base of insurance medicine and indicate ways to fill the gaps.

Through a Cochrane Field Insurance Medicine (CFIM) we want to show the relevance of insurance medicine for CRGs and researchers and to collect strongest evidence for questions in insurance medicine to make the evidence available for patients, health and social care professionals and policy makers. We strive at implementing topics from insurance medicine in CC and towards implementing evidence and methodologies from evidence-based medicine / CC into insurance medicine.

## Evidence-based insurance medicine. What is the need of the community?

### Regina Kunz (1)

(1) Asim, Swiss Academy of Insurance Medicine, Basel, Switzerland

Workshop/Contributors: Kristina Alexanderson, Wout De Boer, Sandra Brouwer, Jan Buitenhuis, Jason Busse

#### Background

Insurance medicine impacts on the wellbeing of individuals and the welfare of a society. It has a fundamental role in social systems when it comes to covering the existence of individuals who are unable to take care of themselves or who want to protect themselves in case such a situation arises. Its tasks include 1. certifying sick leave and promoting return to work, 2. evaluating long-term work disability, 3. evaluating health risks for acceptance for life insurance and 4. evaluating incapacity to participate in non-work life.

Nevertheless, being locked in nationally defined and administratively governed environments, the validity and effectiveness of practices and procedures within insurance medicine has not yet come under close scrutiny. As a consequence, the area has benefitted little from the evidence-based developments as many other areas of health care and health related policies have done.

Deploring the status quo, a group of us, (W. deBoer, Switzerland, K.Alexanderson, Sweden, J Busse and S. Ebrahim, Canada J. Buitenhuis and S. Brouwer, the Netherlands together with an increasing number of people and policy makers experience a "need to find out what we know already" (Sir Iain Chalmers) and make this knowledge accessible. By doing so, the insurance community would be able to identify the knowledge gaps and reflect of what gaps would need to be closed most urgently.

#### Objectives

In this workshop, we will describe the current lack of evidence from credible research in insurance medicine and its consequences for the insurance community. We propose specific options, e.g. in the context of the Cochrane Collaboration on how to go about changing the situation to the better and what it would take to get there. We invite the participants to discuss with us the proposal.

#### Method

1. Presentation to decribe the problem and how the current lack of evidence from credible research in insurance medicine impacts on the insured people and the insurance system, is a source of waste of ressources and provides sub-optimal management of the needs

2. We will specific options, e.g. in the context of the Cochrane Collaboration on how to go about changing the situation to the better and what it would take to get there.

3. We will discuss our proposal with the participants to get a better understanding about the needs of the community.

#### Results and/or relevant follow-up

By discussing our proposal we anticipate to get a better understanding about the needs of the community.

## Indication of the relevance of the study for international audiences

The lack of information to insurance medicine related evidence is of universal concern and all insurance systems dealing with disability and accidents are affected. We therefore consider this topic of top relevance to an international community.

### Nature -Based rehabilitation in primary Health care - theoretical and practical model, descriptions and considerations.

Sara Kyrö Wissler (1), Anna María Pálsdóttir (1), Ulf Hallgårde (2), Kjerstin Stigmar (3,5), Ingemar F Petersson (3,4), Patrik Grahn (1)

- (1) Department of Work Science, Business Economics and Environmental Psychology, the
- (2) Region Skåne
- (3) Epidemiology and Register Centre South
- (4) Deparment of clinical sciences, Lund University
- (5) Department of health sciences, Lund University

### Introduction

Recent research results suggest that people affected by stress induced illnesses can benefit from rehabilitation in enriched environment in nature: harmful stress can be reduced, levels of function can increase and return to the labour market increased. We now describe a new method applied in primary health care setting in Scania (Skåne), south Sweden.

### Purpose of the study

The aim of this study was to examine the effect of an eight-week nature-based rehabilitation programme according to a new model for this kind of rehabilitation: NUR. The primary end points are symptom reduction and improved function. Secondary end- points are return to work, coping and quality of life.

### Method

In this study, the new rehabiliation model was tried out where primary healthcare centers were responsible for treatment as usual and the collaborating agricultural businesses were responsible for the nature based intervention. The study was conducted as a prospective controlled trial from August 2012 to December 2013 with a one-year follow-up. The inclusion criteria for the study was a psychiatric diagnosis of adjustment disorders and reactions to severe stress (ICD-10 F43 diagnoses), anxiety disorders (F41) or depression (F32) that does not require further medical procedures.

The eight week intervention included interaction with both companion animals and plants. A given frame was followed for the intervention; i.e., the daily structure was the same for all participants but the activities vary depending on the main focus of the company. None of the companies offered medical or psychological therapy; but meaningful occupations grounded in their daily work. At halftime during the intervention period the referring primary care physician, the participant and representatives of the Social Insurance Agency and the Public Employment Service had a meeting to determine the participant's next step toward the labour market or other options.

#### Results

The expected results are not only a positive effect on self-rated health, quality of life and stress reactions but also reduced health care consumption and hopefully more people returning to work or studies. In an interim study for this conference result shows that self-rated work ability (WAI) increased significantly.

## Conclution

So far our result and the on- going evaluation shows that the intervention works as expected. Further results will be presented at the conference.

# Nature-based rehabilitation in primary health care in patients with stress related mental illness.

Sara Kyrö Wissler (1), Kjerstin Stigmar (3,5), Anna María Pálsdóttir (1), Birgitta Grahn (3,5), Ulf Hallgårde (2), Patrik Grahn (1), Ingemar Petersson (3,4)

- (1) Department of Work Science, Business Economics and Environmental Psychology, the
- (2) Region Skåne
- (3) Skåne University Hospital, Epidemiology and Register Center South
- (4) Department of Clinical Sciences
- (5) Department of Health Sciences

### Introduction

Recent research results suggest that people affected by stress induced illnesses can benefit from rehabilitation in enriched environment in nature: harmful stress can be reduced, levels of function can increase and return to the labour market increased. We now describe a new method applied in primary health care setting in Scania (Skåne), south Sweden.

### Purpose of the study

The aim of this study was to examine the effect of an eight-week nature-based rehabilitation programme (NUR) according to a new model. The primary end points are symptom reduction and improved function. Secondary end- points are return to work, coping and quality of life.

## Method

In this study, NUR was tried out where primary healthcare centers were responsible for the medical treatment and the collaborating agricultural businesses were responsible for the nature based intervention. The study was conducted as a prospective controlled trial from August 2012 to December 2013 with a one-year follow-up.

The inclusion criteria for the study was a psychiatric diagnosis of adjustment disorders and reactions to severe stress (ICD-10 F43 diagnoses), anxiety disorders (F41) or depression (F32) that does not require further medical procedures. Patient reported outcome measures (PROMS) were reported at baseline, the end of NUR and at six and twelve month follow-up. Matched controls will later on be linked to the study.

The eight week intervention included interaction with both companion animals and plants. A given frame was followed for the intervention; i.e., the daily structure was the same for all participants but the activities vary depending on the main focus of the company. None of the companies offered medical or psychological therapy; but meaningful occupations grounded in their daily work. At halftime during the intervention period the referring primary care physician, the participant and representatives of the Social Insurance Agency and the Public Employment Service had a meeting to determine the participant's next step toward the labour market or other options.

### Results

The expected results are not only a positive effect on self-rated health related quality of life (HRQoL) and stress reactions but also reduced health care consumption and increased work ability and return to work. In an interim study for this conference result shows that self-rated work ability increased significantly.

#### Conclution

So far our result and the on- going evaluation shows that the intervention works as expected. Further results on different PROMS, will be presented at the conference.

# Predicting return to work: A long term cohort study of sick workers with mental disorders

Lieke Lammerts (1, 2, 3), Sylvia Vermeulen (1, 2, 3), Frederieke Schaafsma (1,2,3), Willem Van Mechelen (1, 2), Johannes Anema (1, 2, 3), Merijn Eikelenboom (2, 4), Brenda Penninx (2, 4, 5, 6, 7)

- (1) Department of Public and Occupational Health, VU University Medical Center
- (2) EMGO+ Institute for Health and Care Research, VU University Medical Center
- (3) Research Centre for Insurance Medicine AMC-UMCG-VUmc-UWV, The Netherlands
- (4) Department of Psychiatry, VU University Medical Center
- (5) Institute for Neurosciences, VU University Medical Center
- (6) Department of Psychiatry, Leiden University Medical Center
- (7) Department of Psychiatry, University Medical Center Groningen

Speaker: Sylvia Vermeulen

### Introduction

Sickness absence affects both the individual and society as a whole. Mental disorders are a major cause of sickness absence in the Netherlands. According to the biopsychosocial model work disability results from an interaction between biological, psychological and social processes(1;2). Knowledge about a broad scope of prognostic factors for return to work (RTW) of sick workers with mental disorders and about how these factors interact could help occupational health care professionals to address all dimensions of work disability in their sickness absence counselling.

## Purpose of the study

The aim of this study is to increase knowledge about prognostic factors for RTW of sick workers with mental disorders. We focus on two vulnerable groups of workers, i.e. workers who are on sickness benefit and long term sick-listed workers.

## Methods

Data of The Netherlands Study of Depression and Anxiety (NESDA) is used to identify prognostic factors for sustainable RTW after two years for sick workers in the Netherlands with a common mental disorder. NESDA not only provides detailed information about the disorder. The database also contains a careful documentation of the respondents' work status, personality traits and demographic characteristics.

The study sample consists of respondents who are on sickness absence at baseline. Univariate and multivariate logistic regression analysis are performed to determine predictors for sustainable RTW after two years. Sub group analysis are conducted to identify predictors for sustainable RTW of workers who are on sickness benefit, consisting of 110 respondents, and long term sick-listed workers, consisting of 142 respondents. The latter group was sick-listed for more than six months at baseline.

## **Preliminary results**

Results of the univariate analysis indicate that in workers on sickness benefit age (OR = 0.96; 95% CI = 0.92 - 0.99), intermediate education (OR = 5.00; 95% CI = 1.02 - 24.41), high education (OR = 6.19; 95% CI = 1.19 - 32.23) and being absent from work longer than six

months (OR = 0.26; 95% CI = 0.12 - 0.58) are significantly associated (p< 0.05) with sustainable RTW after two years. Dual-earning (OR = 2.31; 95% CI = 1.13 - 4.72), higher skill discretion (OR = 4.04; 95% CI = 1.10 - 14.89), higher job security (OR = 3.38; 95% CI = 1.28 - 8.95) and not being currently employed or self-employed (OR = 0.25; 95% CI = 0.12 - 0.50) are related to sustainable RTW after two years of long term sick-listed workers. Results of the multiple logistic regression analysis are expected in March 2014.

#### Conclusion

Results of the univariate analysis show that work-related and demographic characteristics seem to be more strongly associated with sustainable RTW than disorder-related characteristics.

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# Profiling Ability: A new way towards transparency and fairness in work capacity decisions in Sweden

### Jan Larsson (1)

(1) Department for Analysis and Forecast, Statistical Analysis Unit, Swedish Social Insurance Agency.

Who is entitled to financial support from society on the grounds of incapacity to work and who is not? Every day employees at the Swedish Social Insurance Agency make difficult decisions of importance both for individuals and for society.

To make this more transparent, uniform and fair, Sweden is at the moment implementing a new procedure – Activity Capacity Evaluation (ACE) – for establishing an individual's capacity to work.

Extensive involvement of the claimant, use of synthesized ability profiles, use of descriptions of demands in professional areas directly corresponding to the ability profiles and a clear distinction between clinical assessments and social support decisions are four of the main features of the new method. These will be described and their evidence base will be proposed.

Changing existing ways of working is complex and controversial but crucial. Measuring an individual's capacity for activity involves far more than strict medical factors, and linking the outcome to what counts on the labour market increases the complexity.

ACE represents new ways and new instruments for doing this. The change leads close to borders of welfare ideology and positions in the political arena. The medical professions, healthcare system, labour market and political parties all have their own logic and priorities.

The implications and consequences for the development and implementation of ACE will be discussed. The evaluations, as they have been carried out so far, will also be presented. The creation and implementation of ACE has far-reaching consequences for individuals, the Swedish Social Insurance Agency and trust and support for this part of the welfare system. The story of ACE is the story of social insurance thinking in transition.

## Le non recours aux arrêts de travail lors des syndromes coronariens aigus. (Non-use of time off work in acute coronary syndromes)

François Latil (1), Christine Lechien (1), Jean-xavier Pietri (1), Carole boileau (1), Pascal Perrot (1)

(1) Medical service of the health fund for independant workers

## Introduction

Le « non recours » aux prestations peut être dommageable pour la santé. Nous l'avons étudié dans le cadre du sur-présentéisme dans les affections coronariennes.

## Objet de l'etude

L'absence d'arrêt de travail au décours d'un syndrome coronarien aigu (SCA) est un facteur de complications [1]. Notre étude quantifie certains facteurs du non recours aux indemnités journalières (IJ) après SCA et ses répercussions.

## Methodes

Population source : artisans ou commerçants indépendants, en activité, en région parisienne, présentant un SCA inaugural avec hospitalisation et diagnostic de maladie coronarienne entre le 1.9.2011 et le 30.4.2012.

Mode opératoire : étude observationnelle de description du contexte de recours ou de non recours aux IJ après SCA.

Les deux bras de l'enquête étaient constitués à partir de la population source :

- Groupe sans IJ : sélection via le système d'information des patients de la population entrés en affection de longue durée pour coronaropathie sans prescription d'arrêt de travail (IJ) par leur médecin. Les motivations des patients ont été recueillies par enquête téléphonique.

- Groupe avec IJ : population ayant perçu des indemnités journalières pour coronaropathie inaugurale.

## Resultats

Sur 129 patients, 81 (65,8%) se sont fait prescrire des IJ ; 44 (34,1%) n'en ont pas eu ; 4 étaient décédés au moment du recueil des données.

L'enquête téléphonique (groupe sans IJ) révèle dans 43% des cas l'absence de recours à l'arrêt de travail du fait du bon état de santé et dans 27%, l'ignorance de la prestation.

Le fait de ne pas recourir aux IJ était associé à une durée de l'arrêt d'activité plus courte : 12,23 jours contre 102,47 pour le groupe avec IJ, p<0,0001. Le niveau de ressources annuelles était plus élevé pour le groupe sans IJ, p<0,008.

Selon l'enquête téléphonique, la durée d'arrêt considérée comme optimale par les patients n'était pas supérieure à celle observée au travers du système d'information.

## Conclusions

L'absence de relation entre la gravité des lésions et la durée de l'arrêt a été décrite [2,3] et confirmée dans notre étude par le fait que les patients sans IJ déclaraient, au téléphone, qu'ils n'auraient pas prolongé l'arrêt s'ils en avaient eu la possibilité.

Notre étude sur la durée des arrêts chez les coronariens suggère qu'une reprise précoce du travail au décours d'un SCA ne serait pas préjudiciable à moyen terme.

		92€ ± 54696 16945€ ± 20923 0,008 Analyse de		
	SANS IJ (n=44)	avec IJ (n=81)	р	Test
Revenus/an	35292€ ± 54696	16945€ ± 20923	0,008	Analyse de variance
Durée arrêt de travail	12,2 ± 15	102,5 ± 103,9	<0,0001	Analyse de variance

#### Comparaison des patients coronariens avec ou sans indemnités journalières

#### References

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#### Utilisation de l'analyse en composantes principales (ACP) pour déterminer une population cible potentielle pour une intervention en santé publique. (Use of principal component analysis to determine a potential target population for a public health intervention.)

Phillipe Latry (1), C Peter (1)

(1) Cnam-TS - Échelon Régional Du Service Medical D'Aquitaine, 80 Avenue De La Jallère, 33000 BORDEAUX

### Introduction

Dans les maladies chroniques, l'observance médicamenteuse souvent est faible [1]. Afin de cibler les interventions en santé publique, ll est nécessaire de connaitre des sous-populations de patients non adhérents.

## Objet de l'étude

Définir une méthode de ciblage à une population présentant une mauvaise observance à partir des bases de remboursement de l'assurance maladie.

## Méthodes

Cette étude a été conduite à partir de la base de remboursement du régime général de l'assurance maladie pour la région Aquitaine. Compte tenu des enjeux médicaux et financiers, la consommation de statines a été retenue. Les données de remboursement ont été extraites puis les indicateurs d'observance [2] calculées. La dose journalière a été déterminée à partir des posologies usuelles. L'ACP a été réalisée à partir de ces indicateurs.

## Résultats

Des données de remboursement de 126 059 sujets furent extraites Le sex-ratio était de 1,1, l'âge moyen (écart type) de 65,9 ans (11,9) et 13% furent considérés comme des nouveaux traités. Les principaux descripteurs de l'observance sont présentés dans le Tableau 1.

	Moyenne	Intervalle de fluctuation	
Couverture > 80 %	83,7%	[83,53%; 83,94%]	
Taux de persistance à 1 an	64,796	[64,41%; 64,95%]	
Délai pour le premier renouvellement (jours)	36,5	[36,4;36,5]	
Délai moyen entre deux délivrances (jours)	37,1	[37,1: 37,2]	

Tableau 1 : Paramètres d'observance

Des valeurs déformant trop le nuage ont été trouvées chez 6 489 sujets ; ils ont été retirés de l'ACP qui a porté sur 119 570 sujets. L'ACP a montré que 67 % de la variance était portée par 3 dimensions. Une classification mixte associant la méthode des centres mobiles et la méthode de classification ascendante hiérarchique a permis de caractériser 6 groupes.

	Groupe 1	Groupe 2	Groupe 3	Groupe 4	Groupe 5	Groupe 6
n	51 310	36 303	8 294	11 878	1 401	10 384
Bonne	couverture Peu de gaps	Bonne couverture Beaucoup de gaps Bonne	Mauvaise couverture Beaucoup de gaps Faible	Mauvaise Mauvaise Bonne couverture couverture couver Délai pour le Délai pour le Mauva premier premier persista renouvellemen renouvellemen		
Nouveau	3 397 (6.6)	2 972 (8.2)	814 (9.8)	t long Survenu rapide des 2 649 (22.3)	t long Survenu rapide des 430 (30,7)	3 060 (29,5)
traitement n (%)						

Tableau 2 : Caractéristique des groupes

Au sein de ces groupes, le groupe 4 (10 % de la population de l'étude) et le groupe 5 (1 % de la population de l'étude) furent considérés comme non observants. Le groupe 5 se caractérise par une forte proportion de nouveaux traitements.

# Le retour au travail, y compris les déterminants de sa réussite. (Return to work, including factors determining success)

Tatiana Legkobyt (1)

(1) Cnamts, Direction Régionale Du Service Médical Ile De France, France

## Contexte

Le régime général français de l'Assurance Maladie couvre 85 % de la population, soit 56 millions de personnes en tant qu'assureur solidaire en santé. Il rembourse les soins et verse aux assurés en arrêt de travail un remplacement partiel du salaire, nommée indemnité journalière (IJ).

La problématique de l'arrêt de travail est au cœur des préoccupations de l'Assurance Maladie:

- les indemnités journalières représentent un poids important (6,4milliards d'euros pour le régime général en 2011) dans les dépenses.

 plus un arrêt de travail est long et plus le risque de désinsertion professionnelle associé à une précarisation des assurés augmente : 50% de personnes en arrêt de travail de 6 à 12 mois ne reprennent pas leur emploi.

## Objectifs

Prévenir le risque de désinsertion professionnelle et diminuer les dépenses d'IJ par un meilleur suivi des assurés en arrêt de travail.

## Méthode

Les plans d'actions mis en œuvre sont dirigés vers les principaux acteurs: assurés sociaux, médecins prescripteurs, employeurs, médecins du travail et travailleurs sociaux.

Leurs déploiements s'appuient notamment sur 2 outils, utilisés au quotidien par les médecins-conseils :

1- L'applicatif informatique «Conso IJ» est utilisé pour optimiser le suivi des arrêts de travail.

- Au travers de requêtes interrogeant nos bases de données comprenant l'ensemble des soins remboursés aux assurés, nous obtenons le «profil de consommation de soins».

- En croisant ces données avec l'historique de leurs arrêts de travail, des recommandations sur la durée d'incapacité au travail illustrées par les fiches repères ainsi qu'avec les prescriptions médicales d'arrêt de travail dématérialisées via «Diadème» qui est l'outil de gestion électronique des documents, nous pouvons «médicaliser » le suivi de ces arrêts et déterminer, entre autre, le meilleur moment pour convoquer un assuré.

2- Les « échanges confraternels IJ »est un dispositif d'accompagnement des médecins traitants ayant le plus grand nombre d'assurés en arrêt de travail plus de 6 mois a été mis en œuvre, afin d'induire un changement de pratique.

 Après un ciblage par la cellule statistique locale, la liste d'assurés de ces médecins est analysée par un médecin-conseil en vue de dégager une problématique ou des situations récurrentes.

- Un entretien est réalisé avec ces professionnels de santé dans leur cabinet pour évoquer ces cas précis et définir ensemble les mesures les mieux adaptées à chacun de leur patient.

## Résultat

Lors de la convocation, le médecin-conseil évalue l'état de santé ainsi que la situation socioprofessionnelle de l'assuré et en cas des difficultés prévisibles lors de la reprise du travail, initie avec l'accord de l'assuré les démarches de maintien en emploi (en collaboration avec principaux acteurs).

Mis en place en Ile de France en 2011, « Conso IJ » est actuellement utilisé par 10 régions en France.

Les échanges confraternels mis en place depuis 2013, ont aujourd'hui permis de traiter les dossiers les plus sensibles avec les médecins traitants, mais il est encore trop tôt pour constater un changement de pratiques de ces derniers.

#### The effects on activities when receiving activity compensation.

Sophie Lenasdotter Nohlberg (1), Sandy Korkis (1) (1) Försäkringskassan (Swedish Social Insurance Agency), Skövde

In Sweden a person can receive activity compensation if they are aged between 19 and 29 and their work capacity is reduced by at least a quarter for at least a year. During the time with activity compensation, the claimant has the opportunity of participating in various activities. These activities are intended to assist and support their development and to have a positive effect on the illness or disability and to contribute to increasing the claimant's ability to improve their work capacity. Common examples are going to the gym, bowling, horseback riding and studies. The claimant can receive compensation for costs they have in connection with activities, called special compensation. An individual assessment is made of the activity in connection with every application. Due to the great variation of activates it is difficult to receive a clear view regarding the utilization rate and effects of these activates. The goal of our study was to develop an understanding of which activity the claimants choose and if the activity has the intended effect.

To reach our goal we have done two main things. We did a review of the claimants who were classified as active at Försäkringskassan in Skövde (n=423). Of these n=143 had special compensation for activity. Among this group we did a survey of which activities the claimants chose and we interviewed n=14 subjects regarding if the were satisfied with their activity and how it had affected them. With n=12 subjects we also controlled their actual activity level.

To get a further understanding of the effect of activities we interviewed n=5 social insurance officers handling activity compensation. They were given questions regarding their experience of and their perceived value and benefit of, as well as possibilities plus other reflections regarding activity and special compensation.

Our results indicate that special compensation activity is highly appreciated among those who participate. There seems to be a high degree of utilization in our sample. The claimants feel that it gives beneficial effects, both regarding the general health and also regarding their capacity for work. During interviews with the social insurance officers a somewhat different picture is revealed. The social insurance officers highlight how hard it is to be fair, to know what to approve and not when the laws and regulations are not clear. It is difficult to follow up if the activity really does make a difference. There has also been a discussion regarding if the claimant would have done the activity if they had not received special compensation.

At a cost of just over 20 M SEK, not including administration, this activity seems to be very favorable in some cases, but due to unclear rules and regulations it is hard, and possibly unfair, to decide how the support of special compensation should be given to the claimant. With clearer regulations the possibility for activity could serve as an inspiration, possibly even to other countries, as it seems to increase the general quality of life.

## Sick leave diagnoses and return to work: A swedish register study

Ulrik Lidwall (1, 2) (1) Dept. for Analysis and Forecast, Swedish Social Insurance Agency (2) Dept.of Clinical Neuroscience, Div. of Insurance Medicine, Karolinska Institutet

#### Introduction

Over time there has been a shift in the return to work (RTW) literature from medically determined models to more focus on the workplace, cultural, economic and social factors. Still, the medical reason for the sickness episode seems to be of great importance for the length of sick leave and a more diagnosis-based approach has been suggested for early screening of individuals at risk for long-term sick leave. To facilitate RTW for persons on medically certified sick leave it is important to recognise factors hindering successful rehabilitation such as detailed information about diagnosis, rather than broad categories. Even though differences in recovery due to different diseases and disorders are common knowledge in clinical practice, a thorough description of RTW across different diagnoses is lacking.

### Purpose

To provide a detailed description of RTW for different diagnoses in sick leave exceeding 14 days.

### Methods

The population was a sample of 617 611 cases of sick leave with minimum duration of 14 days started in 2009 and 2010 with a follow up of 450 days. Data on sick leave episodes, diagnosis (ICD-10 codes on 3-digit level), and individual background factors adjusted for, were retrieved from Swedish national social insurance registers. RTW was analysed with Cox proportional hazard regression with separate analysis for women and men.

#### Results

The diseases with the lowest RTW rates were present within malign neoplasms; severe mental disorders such as schizophrenia and bipolar disorders; and severe cardiovascular diseases such as intracerebral haemorrhage and cerebral infarction. High RTW rates were present for infectious respiratory diseases and viral infections and cardiovascular diseases such as haemorrhoids and varicose veins of lower extremities. There were distinct differences across diagnoses within all diagnosis chapters. This also holds for mental disorders and musculoskeletal diseases which are the most common causes of sick leave. With a few exceptions the RTW patterns for women and men across different diseases and disorders were strikingly similar.

#### Conclusions

Systematic use of standard information within the sickness insurance administration, such as detailed sick listing diagnosis, could at low cost pinpoint cases at risk for prolonged sick leave which maximises the practical value of the findings in this study. In sick leave research the use of broad diagnosis categories such as ICD-10 chapters has to be thoroughly considered, since there are distinct differences in RTW within the same diagnosis chapter. Keywords: diagnosis, return to work, sick leave

1 Department for Analysis and Forecast, Statistical Analysis Unit, Swedish Social Insurance Agency, Stockholm, Sweden

2 Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

# Using digital workflow with decision support system and case management in order to decrease sick leave abscence

Pål Lindström (1), Jack Norling (1)

(1) Susano AB

## Background

The Swedish National council of Rehabilitation [1] determined that proactive and earlyon rehabilitation initiatives reduces the risk of work absence which in turn lowers costs and suffering. Earlyon initiatives concerning psychological ailments is reported to successfully improve health and decrease the need for sick leave [2]. There's evidence to support that interventions in the workplace have a positive effect on returntowork outcome. However, this approach is seldom implemented or not used to its full extent.

A challenge with earlyon rehabilitation initiatives is to distinguish cases in need of health care treatment and those who aren't. This is because it's hard to estimate which cases risk extensive sick leave and which ones who will return to work without the need of support. Another challenge in the chain of rehabilitation, regardless if its earlyon or not, is the numerous participants that need to cooperate and move in the same direction.

According to current knowledge of the importance of earlyon rehabilitation initiatives and commitment from employer and other participants it becomes a necessary focus on effective management of the rehabilitation. Costefficient methods are a realistic possibility with webbased case management and decision support system for dynamic processoriented care chains. The role of the case manager is to oversee the process and support the employee throughout the chain.

## Objective

Using a digital workflow to report sick leave and initiating real time case managing it can be possible toreduce delays in the chain of rehabilitation and length of sick leave.

## Method

The project has identified five milestones where the case management system can activate. The first is before sick leave occurs, when the supervisor reports sickness presence. The second milestone occurs the first sick day reported by the employee. The third is at the eighth day of sick leave in connection to the first sick note from the employee's physician and the fourth at the 15th sick day when the Swedish Social Insurance Agency (SSIA) takes over responsibility and company based sick pay discontinues.

Finally, the fifth milestone occurs at day 28 when it's possible to identify the need for coordinated rehabilitation initiatives (SSIA subsidizes initiatives from the occupational health care with extensive disability evaluations and reports).

In every step, directed initiatives are initiated combined with an evaluation with the outset of three criteria: (1) screening of employees at risk determined by risk profiling, (2) identifying the need of individual rehabilitation initiatives and (3) initiating individualized return-towork support. All cases are monitored continuously after day 28 of sick leave by the case manager according to above stated criteria.

### **Relevant followup**

How long after sick leave is the extensive mapping and evaluation of an employee's situation initiated?

In how many of the cases was a plan for rehabilitation/returntowork generated? When the case manager identified a risk profile, what was the outcome?

[1] SOU 2011:15

[2] The Inspection of Social Insurances (ISF 2012:17)

# Work absenteeism and controlling of sick abuse in polish social insurance institution (ZUS)

Małgorzata Lipowska (1), Piotr Winciunas (1) (1) Polish Social Insurance Institution ZUS

In Poland sick leave period can last for 182 days maximum. During all those days Polish Social Insurance Institution (ZUS) provides sickness benefits to people with sickness insurance.

In Poland all sick leaves are registered in Social Insurance Institution (ZUS). ZUS can control sick leaves. In order to effectively control and manage sick leave it can be controlled by the evaluating doctor and also the employer can make a request to ZUS to control it. After the medical examination evaluating doctor decides if the sick leave was given correctly or not. If it is not correct the examined person loses their sickness benefit and has to return to work next day after the examination.

# Sickness certification as a work environment problem – results from a nation-wide survey in Sweden

Therese Ljungquist (1), Elin Hinas (1), Kristina Alexanderson (1) (1) Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

## Introduction

According to a survey 2008 to all the physicians working in Sweden, half of those who had sickness certifications considered sickness certification tasks (SCT) a work environment problem (WEP) [1 2].

## Purpose of the study

To explore if and to what degree the physicians in Sweden still experience SCT as a WEP four years later, in 2012, and associations with sex, age group, educational level, frequency of sickness certification consultations, organizational factors, and type of work clinic.

## Methods

A questionnaire was sent to 33 000 physicians living and working in Sweden in 2012 (response rate 57.6%). The study group comprised the 12 820 physicians aged < 68 years who had SCT at least a few times a year. Answers to two questions concerning frequency and seriousness of experience of SCT as a WEP were analyzed, and odds ratios (OR) and 99% confidence intervals (CI) for associations with the factors listed above were calculated.

## Results

One third, 32%, of the physicians perceived SCT as a WEP to a great or fairly great extent, and 9% did so to a great extent. The results varied much with type of clinic; a higher rate of general practitioners (52%), orthopaedics (42%), and psychiatrists (38%) experienced SCT being a WEP. Seventeen percent perceived SCT as a WEP at least once a week, with a higher rate among orthopaedics (31%), general practitioners (25%), and among physicians working with pain management and in psychiatry (22%).

Working in general practice (OR 4.1), orthopaedics (OR 3.7), rheumatology (OR 3.5), neurology (OR 2.5) or psychiatry (OR 1.6) practices, experiencing daily lack of time with patients (OR 2.2) or with patient-related tasks (OR 3.1) were associated with experiencing SCT as a WEP. To have some support from immediate manager regarding sickness certification cases (OR 1.9, as compared to substantial support) in sickness certification matters was associated with experiencing SCT as a WEP, while not having any such support was not.

## Conclusion

A high rate of physicians experience SCT as a WEP. The findings underline the importance of measures for improving the organizational prerequisites for physicians in developing, maintaining, and practice professional competence in insurance medicine, especially for physicians working in general practice, orthopaedics, rheumatology, neurology, and psychiatry.

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# The work disability paradigm and consequences for successful return to work

Patrik Loisel (1) (1) Dallas Lana School of Public Health, Canada

Work disability pertains most often to socially related causes instead of medical causes and has been defined as the work disability paradigm.

Failure of return to work has to be looked for inside the complex "arena" of work disability involving multiple stakeholders with different interests and perspectives.

Research has shown that interventions targeting the real causes of work disability are efficacious and cost-effective. Core elements of these interventions have been defined and may be adapted to a variety of contexts.

The presentation will describe winning strategies for successful return to work and the areas where evidence is still lacking. "Tactical" adjustment of these strategies is needed to adapt them to the specific context where they are to be applied. Developing implementation science may be used as a guide by policymakers and promoters of adapted interventions.

# INAIL Multidisciplinary team: An integrated model of interventions for the workers.

Andrea Manzoni (1), Susanna Rigato (2) (1) Medical Aviser - INAIL Venice Office, Venice Italy (2) Director - INAIL Venice Office, Venice Italy

Speaker: Cristina Dal Pozzo

#### Introduction

Under the new system of compensation and social support, the Italian Workers' compensation authority (INAIL) implements a model of protection which guarantees policyholders – recognized affected by physical disabilities and/or mental disabilities resulting from an accident at work or occupational disease - technical devices and interventions to facilitate their reintegration into working life and relationships (family, society) and promoting appropriate standards of accessibility and quality of life through the maximum possible recovery of autonomy and the valorisation of residual physical and mental capacities. Moreover benefits in cash are paid in favour of the insures during sick leave and to family members of workers who died from work.

#### Purpose of the study

Measure the efficacy of the interventions granted by INAIL through the integrated model of protection in the Veneto Region and comparison with national data.

#### Methods

Qualitative and quantitative analysis of the interventions granted in the Veneto Region over the period 2012.

#### Results

The institutional activities carried out by INAIL are regulated by a policy containing technical and organizational measures necessary for implementing the system of "comprehensive and integrated protection". The contents of this policy have been updated in 2011 and take into account the deep cultural evolution of the concept of disability which led to the development of the International Classification of Functioning, Disability and Health (ICF), adopted by the World Health Organization in 2001. The ICF has given a new connotation to the concept of "rehabilitation" that is not just a "functional recovery", but includes the appropriation, by the person who became disabled, of the ability of self-determining within the family as well as within the workplace and the social environment.

When the damage, by its nature and/or severity, generates needs which invest more aspects of life (health, social, etc.), the provision of technical devices, assistive technology and supporting actions for reintegration into social life requires an "individual rehabilitation plan" as defined by a multidisciplinary team (MT).

The MT of the Veneto Region in 2012 provided 325 insurèes with a broad range of interventions to overcome and/or to remove architectural barriers and in the educational and social areas such as:

- support to the person
- support for autonomy
- integration and re-socialization
- return to work
- sport promotion

#### Conclusion

Removing environmental, cultural and relational obstacles limiting the worker's autonomy and preventing the recovery of the social role, as well as expanding opportunities for reintegration in the context of life are the actions that INAIL integrates with health and functional rehabilitation. They take place in the final phase of the rehabilitation process, which is the phase of "reintegration". The social and occupational reintegration is the goal of the MT but it requires that the injured person regain first his/her independence and his/her social relations.

# Medico-legal issues in the evaluation of noise related hypoacusis in range of workers social protection

Valeria Marino (1), Simona Sorrentino (2), Alessandro Feola (3), Antonella Masullo (3), Luigi Tonino Marsella (4)

(1) Section of Legal Medicine, University of Rome "Tor Vergata", Rome, Italy

(2) Department of Ophthalmology, University of Rome "Campus Bio-Medico", Rome, Italy

(3) 3Department of Experimental Medicine, Second University of Naples, Naples, Italy

(4) Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Italy

# Background

Hypoacusis is a functional disorder of hearing, which begins when the increasing threshold of given frequencies compromises hearing functions. The decreasing of hearing ability, from mild forms to almost total deafness, depends on lesions of anatomic structures of the apparatus of transmission from the external ear to the basilar membrane (transmissive Hypoacusis) or structures of the acoustic apparatus, from the organ of Corti to the brain (perceptive Hypoacusis). Noise related hypoacusis is a deafness of both ears, caused by continuous and prolong exposition to noise. The most frequent exposition is given in certain types of works so this kind of deafness is defined as "professional hypoacusis" and is one of job related injuries most recognized in occupation medicine in Italy. It is a perceptive disease where the lesion affects the structures designated to decodification and transmission of nervous signal The damages it provokes can be conseguent to an acute acoustic trauma (impulse or blast wave noise), to a chronic acoustic trauma ( long-term exposure to loud noise) and external trauma.

# Objectives

The aim of this study is to analyse the evolution of the regulatory intervention for workers' protection granted by the Italian Government. Special attention is paid to medical-legal problems related to acknowledgment and evaluation of damage extent.

# Method

Authors analysed the specialist literature on the subject, with special attention to evaluation methods and to methodological procedures for the inspection of professional hypoacusis, related to the changes in Italia laws (D.Lvo 38/2000, D.M. 12 Luglio 2000, D.M. 9 Aprile 2008).

# **Results and Conclusions**

The acknowledgment of a substantial weakening of hearing and its quantification is a crucial point. for work related injuries and its legal outcome Not only quantitative data are to be determined, but it is also necessary to perform functional tests in order to avoid frauds and define the extent of hearing damage. Its consequences can change even in presence of mild quantitative differences. It is also crucial to define the true functional hearing condition through incontrovertible evidence, or through a sophisticated investigation, leading to an explained judgment.

#### Indication of the relevance of the study for international audiences

In recent years EU Countries and in highly industrialized countries problems related to prevention of professional deafness have been investigated and faced with meticulous laws (D.L. n. 626/94). The use of technologies and individual protection devices on job sites have brought to a significative decrease of noise-induced hearing loss in factories. We consider important a comparison among the local legislations in the UE, in order to develop and suggest further means of prevention and social protection.

# Insurance quality as a part of the total quality of general practitioner's work

Olivera Masten Cuznar (1) (1) Health Insurance Institute of Slovenia

### Introduction

A general practitioner (GP) is usually the entry point to the healthcare system. By thoughtful diagnostics and therapy on the primary level and planning health treatment on the secondary and tertiary level, a GP strongly impacts the utilisation of healthcare services and the use of financial resources. In partnership with the patient, a GP resolves the conflicts between the wishes and needs of the patient as an individual and the community as a whole (1-5).

#### Purpose of the research

The purpose of the research was to use a uniform methodology to compare the quality of work performed by GPs in Slovenia and to assess the impact of capitation and the features of the GPs and the practice on GP's work quality indicators. Proposals for monitoring, work planning, quality assessment according to the basis of the research findings of general practices can be prepared.

#### Methods

The research was made on the data provided by the Health Insurance Institute of Slovenia in 2004 and conducted as a special Slovenian part of the international EPOKSA research (European project on the assessment of the quality of general practices). The sample comprised 51 GPs in Slovenia.

The quality of GP's work was assessed according to 6 indicators (0 - none of the indicators comprised quality performance of work, or 6 - all indicators):

- 1. The share of initial and subsequent medical examinations,
- 2. the share of house visits in initial and subsequent examinations,
- 3. the share of referrals in all examinations and visits,
- 4. the share of prescriptions for antibiotics in all prescriptions,
- 5. the share of prescriptions for benzodiazepines in all prescriptions,

6. the share of antidepressants in relation to benzodiazepines considering the number of DDD (statistical term for assumed average maintenance dose per day for a drug used for its main indication in adults).

Insurance quality was assessed according to 4 indicators (ranging from 0 to 4):

1. The share of performed interventions within the scope of all examinations (exclu ding preventive check-ups and short visits),

- 2. the average value of the prescription covered by obligatory health insurance,
- 3. temporary inability to work up to 30 days,
- 4. temporary inability to work for a period longer than 30 days.

Total quality of work of GPs was represented by the sum of both and assessed by a value ranging from 0 to 10.

The limits of quality of individual indicators of GP's work were determined by using the Delphi method (6).

Data was processed using the descriptive method. The connection of the ten indicators for GP's work quality was verified with the  $\chi^2$  test using the variables of GPs and practices (sex, age, size, location) and capitation. Various methods were used considering the variable type: Spearman's rank correlation coefficient, Mann-Whitney test and Kruskal-Wallis test.

The relationship between the 10 work quality indicators was tested with Spearman's rank correlation coefficient.

#### Results

Quality of GP's work – Table 1.

Valid	Number	Percentage	Valid percen- tage	Cumulative percentage
2.0	5	9.8	9.8	9.8
3.0	13	25.5	25.5	35.3
4.0	17	33.3	33.3	68.6
5.0	11	21.6	21.6	90.2
6.0	5	9.8	9.8	100.0
Total	51	100.0	100.0	

#### Table 1: Frequency distribution of the quality of GP's work

Insurance quality – Table 2.

Valid	Number	Percentage	Valid percen- tage	Cumulative percentage
0.00	2	3.9	3.9	3.9
1.00	4	7.8	7.8	11.8
2.00	19	37.3	37.3	49.0
3.00	19	37.3	37.3	86.3
4.00	7	13.7	13.7	100.0
Total	51	100.0	100.0	

Table 2: Frequency distribution of the insurance quality

The average value of the total quality variable was 6,5 with a standard deviation of 1,5: there was not a GP who would perform work with complete non-quality; two GPs performed their work with complete quality – Table 3.

Valid	Number	Percentage	Valid percen- tage	Cumulative percentage
2.00	1	2.0	2.0	2.0
3.00	1	2.0	2.0	3.9
5.00	11	21.6	21.6	25.5
6.00	13	25.5	25.5	51.0
7.00	13	25.5	25.5	76.5
8.00	10	19.6	19.6	96.1
10.00	2	3.9	3.9	100.0
Total	51	100.0	100.0	

# Table 3: Frequency distribution of total quality

*The relationship was verified with Spearman's rank correlation coefficient – Table 4.* 

		Capitation	Quality of GP's work	Insurance quality
Spearman's rank correlation coeffi- cient	Capitation	1.000 51	-0.143 0.316 51	-0.155 0.278 51
	Quality of GP's work	-0.143 0.316 51	1.000 51	-0.074 0.608 51
	Insurance quality	-0.155 0.278 51	-0.074 0.608 51	1.000 51

Table 4: Relationship between the quality of GP's work, insurance quality and capitation

### Conclusion

The professional interest of an individual GP is not the first reason to perform quality work. The key role is given to the style of work established in a certain professional environment and which is supported by the GP's associates, patients and the community with their thinking and activities.

The research did not prove the impact of capitation on quality indicators, but it would be necessarily to repeat the research for the entire population of Slovenian GPs.

The research results do not represent the absolute criterion, but only the indicators for planning training, quality work at practices and directing the needs for control.

More new questions have arisen, demanding further analyses and research in the field of connections between various quality indicators, which are relevant from the professional and the economic aspect. It is necessary to continue searching for the real quality indicators assessing the total quality (profession, patient and payer) and not separately.

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# OSAS and work-related injuries: Clinical and medical-legal premises for workers' social protection

Antonella Masullo (1), Alessandro Feola (1), Simona Sorrentino (2), Valeria Marino (3), Carlo Iadevaia (4), Luigi Tonino Marsella (5)

(1) 1 Department of Experimental Medicine, Second University of Naples, Naples, Ital

(2) Department of Ophthalmology, University of Rome "Campus Bio-Medico", Rome, Italy

(3) Section of Legal Medicine, University of Rome "Tor Vergata", Rome, Italy

(4) Division of Pulmonology Second University of Naples, Naples, Italy

(5) Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Italy

# Background

The growing interest of occupational doctors and forensic scientists for workers affected by OSAS (obstructive sleep apnea syndrome) lies first in the high indexes of predominance of this disease in the working age group (18-65): it reaches 9% of female population and 24 % of male population. In Italy, several works demonstrate that in OSAS affected persons are subjected to accidents 2 to 7 times more than average, with a healthcare cost of 838.013.400 (car accidents) and 101.083.761 (work accidents) for year [1-4].

# Objectives

The aim of the study is to analyse this problem, with a deep-reading of the related literature, with the intention to express a legislative proposal for the social protection of workers affected by OSAS, considering the present lack of inherent laws in the UE Countries. Authors will insist on shift workers, a category particularly exposed to the risk of work-related injuries.

# Method

Authors will analyse clinical and medical-legal premises on the recent evaluation of UE about the inclusion of OSAS in Annex III (physical and psychic requirements of driving licensing), Council Directive 91/439/EEC 21/09/1991.

In 2010 in Italy the COMLAS (Coordinamento Medici Legali Aziende Sanitarie) had dedicated a whole chapter of its "Guidelines of verifications for Local Medical Commissions" to the evaluation of psychic-physical suitability for driving of OSAS affected persons.

# **Results and Conclusions**

While waiting for laws attesting OSAS as a risk factor for injuries at work, the judjment on physical and psychic suitability at work remains at occupational physicians complete discrection. Data from studies about effects of CPAP therapy attest an improvement of working performances, a reduction of sudden-onset sleep while driving. At the same time, they make it difficult a final conclusion about the prevention of work-related injuries.

# Indication of the relevance of the study for international audiences

The analysis of data from Italian clinical studies on workers affected by OSAS is a valid contribution to the discussion and preliminary evaluation for the growing need of an European Directive for physical and psychic suitability to work for OSAS affected persons, so to decrease the alarming statistics of deaths on the job site of this category.

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# INAIL the ICF based core set in the functional assessment of the residual capacities for return to work

M.R. Matarrese (1), G. Cortese (1), G. Bazzini (2), V. Castaldo (3), C. Dal Pozzo (4), D. Nicita (5)

(1) Italian Workers' Compensation Authority (INAIL -Istituto Nazionale per l'A ssicurazione contro gli Infortuni sul Lavoro), General Medical, Superintendency, Rome - Italy .

(2) Occupational Health and Ergonomics Unit, Scientific Institute of Pavia-Montescano Italy, Salvatore Maugeri Foundation-IRCCS (Scientific Institute of Recovery and Care).

(3) Italian Workers' Compensation Authority (INAIL - Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro), Puglia Regional Department, Bari - Italy.

(4) Italian Workers' Compensation Authority (INAIL - Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro), Veneto Regional Department Authority, Venezia – Italy.

(5) INAIL (Italian Workers' Compensation Authority) prosthesis centre, Vigorso di Budrio – Bologna, Italy.

Speaker: Cristina Dal Pozzo

# Introduction

The new INAIL medical model defines a "facility's rehabilitation project". The project points out the "rehabilitation for work-reintegration" as target for the outpatient rehabilitation services. The Bio-psycho-social Model based on ICF (International Classification of Functioning, Disability and Health) as indicated by the World Health Organization, was introduced in the Institute with President's resolution no. 261 of 2011 September 29 and is implemented through circular letter no. 61 of the New Regulation for providing technical devices and assistance to disabled workers for reintegration in their social-labour environment.

Therefore, rehabilitation services assume a a new meaning. The implementation of these services – in the meeting point between medical services and workplace, i.e. between the treatment-rehabilitation phase and the reintegration phase of the injured worker into work activities – requires operational methods which are strictly related to resuming work. Based on these considerations, a specific rehabilitation record was prepared, with sections aimed at analyzing and studying the work-related movements and, upon discharge, a specific section for reporting based on ICF.

# Purpose of the study

The goal consists in pointing out a functioning profile of the injured worker or the person affected by occupational illness in terms of work–related movements, which integrates not only functional recovery, but also the recovery of occupational attitude, in order to be reintegrated in the workplace and exploit the residual skills of the person.

# Methods

Fifty 50 INAIL patients were recruited for the study after giving their informed consent. The analysis report-sheet based on ICF that addressed feasibility to work (table I) was developed and tested thanks to a scientific collaboration between INAIL and Scientific Institute of Pavia-Montescano, Fondazione Salvatore Maugeri.

# Results

The test concerning the evaluation report of work gestures, defined the spheres of activities and participation, which mainly characterise the series of gestures performed at work, involving the injured body areas, i.e. the items that are required and sufficient to describe and classify any disability/ residual skills for each injured body part.

### Conclusion

Results pointed out that residual skills can be actually summarised in a few items, through the characterising gesture, regardless of the type and area of the injury.

This finding enables a simplified description of the functioning profile of work-related movements and of the residual skills, required to be reintegrated in the workplace, in view of an evaluation of the feasibility to work of a specific individual, as per art. 40 of Legislative Decree 81/08 and subsequent amendments and integrations.

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2. Occupational Health and Ergonomics Unit, Scientific Institute of Pavia-Montescano Italy, Salvatore Maugeri Foundation-IRCCS (Scientific Institute of Recovery and Care).

# Compensations and pension benefits within the Romanian Social Insurance System.

Roxana Mirica (1), Maria-Magdalena Ciuvica (1), Despina Gherman (1) (1) University of Medicine and Pharmacy "Carol Davila" Bucharest, National Institute of Medical Expertise and Rehabilitation of Work Capacity

#### Background

In the early 1990s, an overview of pension reform was presented, but the major breakthrough came with the adoption of Law 19/2000 concerning the public pension system, according to the EU requirements, which underwent changes and additions mainly of some legislative acts, becoming Law 263/2010,that regulates the organization of public pension system in Romania, entrusting the management of the public pension scheme to an autonomous body – the National House for Pension and Other Social Insurance Rights.

#### Objectivies

There are five types of benefits granted under the current legislation, which will debate in the presentation: old age pension, early pension, partial early pension, disability pension, survival pension, sickness benefits.

#### Method

The work followed-up: a) the qualifying conditions for old age pension, early and partial pension; b) the situation when people who are insured in the public system of pension scheme are entitled to a disability pension in the event that they lose at least half of their working capacity as a result of an injury or disease (including employment injuries- work related accidents and occupational diseases), being included in one of degree of disability and reviewed periodically by a social insurance physician; c) the eligible survivors in the event of survivors benefits; d) the eligible criteria for sickness benefits.[1]

#### **Relevant Follow-up**

A minimum contribution period is required in almost all benefits, but there are exceptions when it is waived and the disability is the result of : an employment injury, occupational disease, TB, neoplasia, schizophrenia, AIDS. Periodical review takes place in order to assess the health evolution of the pensioner. The irreversible disability pensioner is exempted from passing the periodical checking, but, a review is also possible on request, if the health condition improves or weakens.

# Indication of the relevance of the study for international audience.

In the event that a disability pensioner meets the eligibility criteria for more than one type of pension, he/she has the right to choose the most advantageous pension. The attendant indemnity will continue to be paid under either option. [1] In Romania, the social insurance medicine represents a complex specialty which aimed to assess the patients from medical, work capacity and social point of views and social-professional reintegration of disabled people with favorable prognosis.

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# Risk markers of disability pension in individuals sickness absent due to stress-related mental disorders.

Ellenor Mittendorfer-Rutz (1), Kazi Ishtiak-Ahmed (1), Aleksander Perski (2)

- (1) Karolinska Institutet
- (2) Karolinska Institutet
- (3) Stockholm University

### Introduction

Stress-related mental disorders, which correspond to the diagnostic code F43 in the International Classification of Diseases, version 10, rank among the leading causes of sickness absence in several European countries. Despite the size of this public health problem, research on risk markers for granted disability pension in these individuals is absent to date.

#### Purpose of the study

The aim of this study was to investigate predictors of all-cause and diagnosis-specific disability pension in sickness absentees with stress-related mental disorders.

# Methods

A cohort of 36304 non-retired individuals aged 16- 64 years at 31.12.2004 with at-least one sickness absence spell due to stress-related mental disorders (SRMD) initiated in 2005 was followed-up with regard to disability pension (2006-2010). Uni- and multivariate Hazard ratios (HR) with 95% Confidence Intervals, CI, were estimated for a number of risk markers.

#### Results

During the follow-up period, 2735 individuals (7.5%) were granted a disability pension, predominantly due to mental diagnoses (n=2004, 73.3%). In the multivariate analyses, female sex, age exceeding 35 years, low educational level, being born in a country outside Europe, residing outside big cities, living alone, having had a long duration of the first spell due to SRMD (> 90 days); mental disorders necessitating frequent specialised health care as well as comorbid somatic disorders. Hazard ratios ranged from 1.1 to 16.6.

#### Conclusions

Several predictors related to socio-demographics, sickness absence and health care could be identified as risk markers for disability pension. Careful monitoring of these risk markers is both of clinical and public health importance.

# Electronic sick leave certificates in Sweden

Göran Modin (1) (1) The Swedish Social Insurance Agency

# Background

The Swedish Association of Local Authorities and Regions, SALAR, and The Swedish Social Insurance Agency (Försäkringskassan) have since 2006 taken part in a program for improving the Sick leave process, called the National Sick Leave Program, NSLP. There was a need for improved quality in the Sick leave certificates (U. K. term "Statement of Fitness for Work") and a need for shorter dealing times to serve the claimant. Before the digitalization of the Sick leave certificates (U. K. term "Statement of Fitness for

Work"), all communication was on paper and by ordinary mail and produced about 1.4 million Sick leave certificates yearly. Questions from the agency to the physician also went by ordinary mail.

SALAR and the ministry have through an agreement on how to improve the work with Sick leave certificates including to improve the quality in the medical information and working routines as well as developing and implementing a technical solution for communicating electronic certificates. The Swedish Social Insurance Agency have taken several initiatives to structure and facilitate the processing of certificates.

A questionnaire study to 33 000 physicians in Sweden 2012 showed that 62 percent of the physicians used electronic certificates and that 73 percent thought that it worked without problems.

This year The Statistical Tool for Sick leave certificates will be launched.

# Objectives

Some objectives of the program was to transfer the communication of sick leave certificates to electronic formats, to improve the content in the certificates and to make the sick leave process more effective.

# Method

Several methods have been used for evaluation. The number of electronic sick leave certificates has been counted by the electronic service itself.

A random sample of sick leave certificates received by The Swedish Social Insurance Agency from December 2012 to January 2013 were analyzed regarding quality of the content. Sick leave certificates in electronic format were compared to certificates in paper format.

# Results and/or relevant follow-up

The work has resulted in structured electronic information in sick leave certificates and also in sending questions and answers between the parties. In 2013, 19 counties out of 21 have implemented electronic sick leave certificates and within the connected counties, the exception being Stockholm County Council which is producing more than 20 percent of the certificates. [In September data on the number of electronic certificates up to July could be presented, as well as data from a new statistical tool for metadata of the electronic certificates.]

The Swedish Social Insurance Agency analysis showed that out of the electronic certificates had almost 57 percent approved quality as compared to almost 52 percent for the paper certificates. [In September new data from 2013-2014 will be presented.]

Indication of the relevance of the study for international audiences Successful digitalization of sick leave certificates and improvement of quality. Improved quality and efficiency in the sick leave process.

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#### Keywords

Medical certificate, sick leave certificate, sick leave process, sickness compensation

# Inter-physician collaboration to prevent long-term sickness absence: A delphi study commissioned by the Belgian government.

Katrien Mortelmans (1), P Donceel (2), M Vanmeerbeek (3), N Schippers (4), P Govers (4), P Mairiaux (4)

(1) Department of Research & Development, Occupational Health Services Group Mensura, Brussels, Belgium

(2) Department of Occupational, Insurance and Environmental Medicine, Catholic University Leuven, Leuven, Be

(3) Department of General Practice/Family Medicine, University of Liege, Belgium.

(4) School of Public Health, University of Liège, Liège, Belgium.

# Introduction

In Belgium, 1) general practitioners provide sick notes and treatment; 2) occupational physicians adapt work environments to workers capacities and 3) social insurance physicians control sickness absence benefit.

In 2011, academic researchers listed 15 proposals to enhance collaboration between these 3 physician groups to prevent unnecessary long-term sickness absence 1.

# Study purpose

The Belgian Federal Government of Work initiated in 2013 a follow-up study 2. Aim was a) to validate the proposals among practicing physicians, and b) to get their feedback on proposal implementation possibilities.

### Methods

61 experts representing scientific and professional groups of physician, patients, government, employers and labour unions were asked to participate. A questionnaire of 18 questions (the 15 proposals with a 5-point Likert answer scale and 3 open questions) was used in a 2-round Delphi study.

# The proposals focused on

Structural contact between the 3 physician groups for patients with > 3 months sickness absence (3 proposals)

Information on the decision to end sickness absence benefit to be provided by the insurance physician to the other physician groups (2 proposals)

Work-related information to be provided by the occupational physician to the other physician groups (4 proposals)

A website providing contact data of 3 physician groups in order to enhance inter-physician communication (2 proposals)

Basic university education focusing on inter-physician collaboration and post-university formations that bring together the 3 physician groups (3 proposals)

Electronic data exchange between all involved physicians for common long-term sick-listed patients (1 proposal)

Proposals were accepted if 80% of experts agreed. For the elaboration of the final advises to the Federal Government of Work, the research team relied on a multidisciplinary expert group.

### Results

Delphi round 1: Participation rate was 77% (47/61 experts). 7 of 15 proposals were accepted. The qualitative results were used to adapt the 8 remaining proposals. Delphi round 2: Participation rate 94% (44/47 experts). 2 of remaining 8 proposals were accepted.

The Federal Government of Work was advised the to invest in a) promotion of pre-return to work visit with occupational physician for sick-listed patients; b) a website with primarily occupational physicians contact data; c) guidelines for concerted return to work guidance; d) common training of the 3 physician groups; 5) methods to provide safe electronic information exchange

#### Conclusion

The need for inter-physician collaboration to prevent long-term sickness absence exceeds local and individual possibilities and should best be promoted, supported or even structured by the Federal Government of Work.

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# Insurance medical group consultation

Eva Mårtensson (1) (1) ISSA, Lokalt Försäkringscenter Malmö

Both Swedish Social Insurance Agency (SSIA) and Swedish Association of Local Authorities and Regions have agreed that the quality in sickness certification should increase. In working with sick patients, the physician is multi-tasking. A medical that involves diagnosis, provide treatment and rehabilitation, and a medical insurance which means to describe disability and write medical records. Both missions are of great importance for the patient.

# Objectives

In 2013 the purpose of Medical group consultations streamlined. The purpose of group consultation is to demonstrate the kind of questions that the officer has to work with and understand. Also how important the sickness certification is for the actuarial assessment mainly as regards the right to compensation but also SSIA coordination task.

#### Method

Participation in 2013 has meant open groups; you can walk in - out in the group. The officer comes with anonymized cases, which are discussed in the group. Insurance medical advisor is used to explain and simplify medical terms. After that is the process of officer supported by the responses of the group to make the actuarial decision in the matter. It has been the voluntary participation of the officer.

Physician from primary care have been able to choose between 37 different date for their participation in group consultation. In addition, LFC Malmö offered 5 days of auscultates. This is to give the physician an insight in the officer's work of employees and unemployed. Physician have been able to attend the group consultancy on sickness benefits, sickness disability pension or disability area. New for 2014 are pregnancy cases.

#### Results

Upon completion of participation in either group consultation or auscultate physician has asked to complete a questionnaire. All present physicians responded to the survey. The physician came from: Primary care 14, Specialist 7, private 1.

Question 1 The physician claims to have gained increased customer relationships around how important the medical evidence is for the actuarial assessment. All 22 answers claim to have gotten this.

Question 2 The physician claims to have received sufficient information to facilitate daily life in the certificate writing

- 20 responded that this is correct
- 2 responded that it is not true
- Question 3 The physician may recommend group consultation in skills aimed
- 20 answered YES
- 2 responded NO

The questionnaire responses had also space for comments and the following are some examples:

- Medical group consultation is very unassuming, but learning to discuss complex cases
- -Very instructive and it will make that medical certificates will be easier to fill in
- Good to get insight into the process and what is important in the certificates
- Rated completely different insight into the laws / rules that FK has to follow

- Absolutely very useful, all physicians should take this course. Gives insight into how SSIA is working.

#### Indication of the relevance of the study for international audience

It is important that each physician develops strategies of their own expertise into a professional approach.

# Experience of early stage collaboration between the Swedish Social Insurance Agency and Jönköping's health care county.

Camilla Nohammar (1) (1) The Swedish Social Insurance Agency

#### Background

Collaboration between different professionals in health care and welfare agencies has become an important issue, especially in the process of sick leave. It is often referred to as an essential strategy in order to avoid patients or clients falling between the stools of different organizations involved. Not surprisingly, collaboration across organizational boundaries is difficult and is relied on certain attributes, of which working for a common purpose and good communication is fundamental in order for patients or clients to benefit from it.

#### Objectives

Against this background, the Swedish Social Insurance Agency and Jönköping's Health Care County have agreed to collaborate in a structured way by introducing a rehab coordinator (case manager) as a liaison between primary health care and clinics, and social insurance services. In the same way the Swedish Social Insurance Agency has provided coordinators (social insurance officers), later on referred to as social insurance coordinators, to facilitate and improve communication in the process of sick leave. The overall purpose is to build long lasting relations determined by a holistic approach and a structure for effective interorganizational collaboration, which is required in order to support patients or clients with multiple and complex needs.

#### Methods

The rehab coordinator and the social insurance coordinator meet regularly to discuss insurance medicine and issues related to the process of sick leave. In the process of sick leave the patient usually first meets with the doctor, and he/she may bring up cases for discussion with the rehab coordinator. The rehab coordinator is able to contact the social insurance coordinator early in the process to discuss issues related to sick leave in general, rules and regulations and/or set up a meeting with the responsible professionals. It does not only help patients or clients to receive the right support and information from the beginning; it also brings educational purposes such as mutual understanding of roles and responsibilities, trust and respect for priorities and limits.

#### Results

Our experience shows that good communication and interaction between the rehab coordinator and the social insurance coordinator speeds up the process of sick leave and returning to work for patients or clients. Timing is critical when it comes to supporting return to work. We all know that the longer anyone is off work, the greater the obstacles to return to work and hence early interventions are vital, and are most effectively achieved through structured communication and coordination. Our experience further shows that the efficiency and quality work around patients or clients has improved. The communication channels as well as coordination have been facilitated and the occurrence of bureaucratic misunderstandings on different levels has been reduced. Not only have we found successful routines for working together, but more importantly we have managed to coordinate services in the most effective and efficient way for patients or clients.

# Individual- and workplace variables associated with job change among individuals with experience of long term sick leave

Karin Nordström (1), Kerstin Ekberg (1), Tomas Hemmingsson (2,3), Gun Johansson (2)
(1) Dept. of Medical and Health Sciences, Linköping University
(2) Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

(3) Centre for Social Research on Alcohol and Drugs, Stockholm University, Stockholm

# Introduction

Long term sick leave is associated with future unemployment and disability pension[1,2]. When return to existing work place is not possible, job change can be a way to remain in working life. Knowledge about factors associated with job change among individuals with experience of long term sick leave may display groups that are forced or inhibited to change and may need support.

Purpose of the study

The purpose was to investigate if individual and work-place conditions are associated with job change among individuals with a history of long term sick leave.

# Methods

Data was collected from a longitudinal data base containing Swedish registers of all residents (age >15). Two cohorts were created based on the population who at base year (1999 and 2006) had more than 180 days of sickness absence, were between 20 and 62 years old and employed (2006: m=22407, w=36202, 1999: m=22407, w=31278). The odd ratios for having changed job in regard to individual- and work place factors were calculated using multiple logistic regression. Job change was defined as a change of workplace identity from base year to outcome year.

# Results

Among men and women with more than 180 days of sick leave in both cohorts, the likelihood to change work place were higher among the youngest compared to the older. Individuals without employment in the year before baseyear, or who changed workplace the previous year, had an increased likelihood to change workplace. To be on full time sick leave also increased the likelihood to change work place compared to being on part time sick leave at least one day during baseyear. Among women in both cohorts, the likelihood to change work place increased with higher education. This was not true among men.

Women employed at a male dominated work place, compared to female-dominated, had an increased likelihood to change job. For men and women, the likelihood were higher if they were employed at workplaces with high average education compared to low and with low average age compared to high. Men and women employed at small workplaces were more likely to change job than those employed at large workplaces.

# Conclusion

This study indicates that both individual- and work place conditions are associated with job change. Young age and high education might be factors that facilitates finding a new job. Other factors such as full time sick leave and working at a small work place might increase the likelihood of job change by making it harder to stay at the old job.

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# Effects of a case management program in insurance medicine, a randomized controlled trial

Anne Marie Norén (1), Sofia Landström (2) (1) Stockholm County Council (2) Health Navigator Speaker: Sofia Landström

# Introduction

Chronic pain and mental illness are national matters due to health and high costs for sick-leave and health care. These patients are the target of the Swedish national rehabilitation guarantee, launched in 2009 to stimulate new rehabilitation initiatives. Only in Stockholm County Council (SLL) approximately 152 000 patients are diagnosed with mental illness or chronic pain, the overall cost for SLL and SSIA (Försäkringskassan) is approximately 900 million EUR (6000 EUR per patient per year)[1]. Case management is one promising strategy, for instance, Bewley [2] had good results on return to work, however when the intervention was widely adopted results dropped. In Sweden several ongoing initiatives uses a trained nurse or physiotherapist to coordinate process of rehabilitation and patient coaching. These initiatives are highly valued by patients and caregivers, however little is known on the total effects of return to work, costs and quality of life [3]. In an effort to develop an evidence based model for case management, SLL initiated a development project in 2012.

# Purpose of the study

The aim of the ongoing RCT is to develop an evidence-based model for case management and evaluate the effects for patients with high risk of long periods of sick leave within chronic pain and mild/moderate mental illness.

# Method

Study design: Patients are selected after receiving a medical certificate, the patient's health record is manually screened and all patients meeting the inclusion criteria are invited to participate. Included patients are randomized to two groups; A) standard care B) standard care + intervention.

Intervention: The intervention consists of a telephone based individualized support, provided by a coordinator (formally educated physiotherapist, occupational therapist or nurse) that coordinates process of care, facilitate the rehabilitation process and provide patient coaching.

Outcomes measured: return to work, cost of care and sick leave, quality of life by SF36

# Results

359 patients have been included so far (241 receiving the intervention). Interim results show increases in quality of life (compared to standard care) with a 180% increase of the physical role function domain, commonly connected to work ability. The sick-leave proportion has decreased by 40%, largely explained by an increase in part-time return to work. The effects on health care consumption are still early to judge, however an increase of CBT and MMR-rehabilitation efforts can be seen in the intervention group.

# Conclusion

Interim results are positive, especially effects on patient quality of life. However more research is needed to understand the effects and optimal design of case management programs on return to work and health care outcomes. At the conference, results from 24 months of study with approximately 500 patients will be presented, focusing on quality of life, return to work, health care and social insurance costs.

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# Readiness for return to work scale and future work participation in occupational rehabilitation in Norway.

Tore Norendal Braathen (1,2), Søren Brage (1,3), Gunnar Tellnes (1), Irene Øyeflaten (2,4), Chris Jensen (2,5), Monica Eftedal (2)

(1) The University of Oslo, Institute of Health and Society, Department of Community (2) National Centre for Occupational Rehabilitation – a National Advisory Unit, Raul

(3) Directorate for Labour and Welfare, Oslo

(4) Uni Health, Uni Research, Bergen

(5) Department of Public Health and General Practice, Norwegian University of Scienc

# Introduction

The workers' own perceptions on return to work (RTW) have been associated with RTW after sickness absence. To address RTW perceptions, the Readiness for RTW scale was developed and validated in a Canadian cohort study. Earlier we have described psychometric properties of the Norwegian version of the scale in persons referred to an inpatient occupational rehabilitation program.

# Purpose of the study

The aim of the study was to investigate the associations between the Norwegian version of the Readiness for RTW scale and future work participation among persons in inpatient occupational rehabilitation.

# Methods

A prospective cohort with one year follow up. The participants (n=179) were persons with reduced work ability who participated in a one-week inpatient occupational rehabilitation program. Four factors for readiness for RTW were identified at baseline using explorative factor analysis: 'RTW inability' and 'RTW uncertainty' among persons not working, and 'uncertain work maintenance' and 'proactive work maintenance' among persons working with a history of earlier sickness absence and at risk of relapse.

Work participation was measured as days without sickness benefits in the year following the rehabilitation program. The associations between work participation and readiness for RTW factors were analyzed in multivariate linear regression models controlling for gender, age, subjective health complaints, employment status and previous sickness benefit.

# Results

High scores on the RTW inability factor were associated with low future work participation among persons not working before the rehabilitation program. Among persons working before the program, the proactive work maintenance factor was associated with high future work participation. Neither the RTW uncertainty factor nor the uncertain work maintenance factor was associated with future work participation.

# Conclusions

The associations between two readiness for RTW factors (RTW inability and proactive work maintenance) and future work participation indicate that these factors can be used as screening tools to tailor occupational rehabilitation programs.

# Green rehabilitation coordinated rehabilitation for persons on sick leave in county of Uppsala.

Irene Nyman (1), Samra Swenson (2) (1) Swedish Public Employment Agency (2) Swedish Social Insurance Agency

#### Background

Sweden experienced drastically increased numbers of sick listed persons during the last decade. Due to a new and more restricted social insurance policy introduced in 2008, governmental agencies, county councils and other parties involved began to develop new methods and strategies to handle persons on sick leave, during transition to the labor market. Of main concern was the lack of cooperation between the parties regarding persons in need of coordinated rehabilitation interventions.

Past experiences during vocational rehabilitation for persons on long term sick leave indicates that reduced work capacity is not the main obstacle, but low self-esteem. Project Green Rehabilitation in Uppsala County began in 2011 as collaboration between the Public Employment Agency, Social Insurance Agency, County Council and Swedish Forrest Agency.

#### Objectives

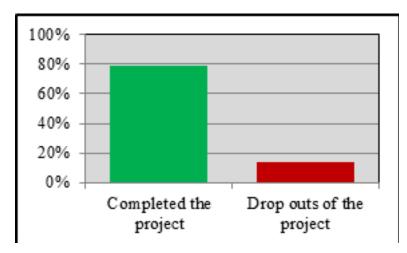
Green Rehabilitation is primarily intended for persons on sick leave, who are in need of extra support in order to re-enter the labor market. The project aims are to improve the physical and mental health of the participants, and to enable the process of vocational rehabilitation. The most important goal of the project is to motivate individuals. Motivation enables a sustainable return to work life, after a long term sick leave.

#### Method

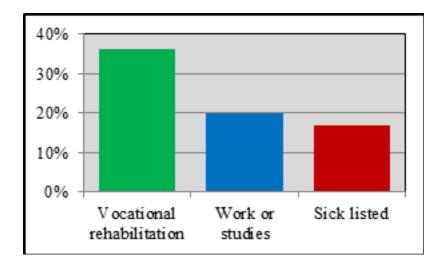
The project method is designed to increase motivation and self-esteem through outdoor activities during 8 weeks, combined with ACT classes (Acceptance and Commitment Therapy) and counseling by an Employment Officer. Groups consist of maximum 8 participants. The group objective is meant to stimulate cooperation, problem solving skills and the ability to respond to different surroundings and situations.

Through outdoor activities participants are experiencing nature through hiking, field trips and vising sites of natural and cultural heritage.

#### Results



165 individuals entered project Green Rehabilitation during October 2011 until December 2013. As many as 79% completed the project and began the process of vocational rehabilitation. Only 14% dropped out due to physical or psychological reasons.



A follow-up of 72 participants, 10 months after finishing the project, was done by the Project Manager. Approximately one-third, or 36%, was still in the process of vocational rehabilitation – such as vocational training or activity capacity evaluation. Nearly one-fifth, 18% of the follow-up group, had returned to the labor market to work or study. 17% returned to be sick listed.

#### Indication of the relevance of the project for the international audiences

The success of interagency coordination projects has led to a new kind of vocational rehabilitation boom in Sweden. There are several Green Rehabilitation projects being run in Sweden with good results for persons in need of coordinated rehabilitation. When participants enter the project, in contrast to their ordinary life, focus on medical treatment stands back in favor of collaboration between the different parties. The project method builds on collaboration, and has shown to be successful in order to solve the participant's different work-life challenges.

# Sick leave and mental disorders: Risk factors and consequences

Christina Olsson Bohlin (1), Sofia Bill (1), Edward Palmer (1,3), Ulrik Lidwall (1,2)

(1) Department for Analysis and Forecast, Swedish Social Insurance Agency, Stockholm

(2) Dept. Clinical Neuroscience, Div. of Insurance Medicine, Karolinska Institutet

(3) Department of Economics, Uppsala University, Uppsala

### Introduction

The costs of sick leave in developed countries are high and mental disorders are increasing as the cause of reduced work ability and sick leave. In order to counteract long-term sick leave and permanent exclusion from the labour market a better understanding of the potential causes behind sick leave for mental disorders is warranted.

#### Purpose

The purpose of the study was to analyse the relative risk of medically certified sick leave for mental disorders, in relation to demographic, socioeconomic and work-related factors, and to analyse return to work (RTW) or transition to disability pension (DP).

# Methods

The risk population was the Swedish population ages 16-64, about 6.2 million inhabitants in 2011. Relative risks (RR) of a sick leave period >14 days during 2012 were analysed with logistic regression. Hazard rates (HR) for RTW and DP were analysed with Cox proportional hazard regression among cases with no sick leave history started in 2010-2012 (n=461 000). Diagnoses according to ICD-10 codes on 3-digit level (F00-F99) and individual background factors were retrieved from social insurance registers. All analyses were conducted conjointly as well as separately for women and men.

# Results

In 2012, 370 000 persons experienced medically certified sick leave >14 days, and 81 000 with a mental disorder. The risk for sick leave with a mental disorder was higher among women compared to men (RR=1.28; 95%CI=1.27-1.29). Elevated risks were also found among divorced (1.20; 1.19-1.21), persons with only compulsory education (1.10; 1.08-1.11).

More moderate, although statistically significant risks where found among urban or suburban living, among persons ages 30-39 and among parents with children in ages 3-12 years. Risks were significantly lower among high income groups and persons in private enterprise employment compared to public sector employees. Several occupational groups, particularly within the welfare service sector, have relatively high risks for sick leave with a mental disorder. Clear examples are health care professionals and nurses, teachers, social workers, and personal care workers.

RTW was considerably lower (HR 0.53; 95%CI=0.52-0.53) and transition to DP was substantially higher (1.43; 1.25-1.64) for mental disorders compared to other diagnoses after adjustment for confounders. There were striking differences within mental disorders with lower RTW and higher DP among less common mental disorders such as organic mental disorders, schizophrenia, mental retardation and disorders of psychological development. RTW was considerably higher and DP lower for common mental disorders such as first episode depression, and particularly among stress reactions and adjustment disorders.

#### Conclusions

Demographic, socioeconomic as well as work-related factors play a role in medically certified sick leave for mental disorders. Since mental disorders mean lengthy sick leave and a high risk of DP preventive actions are warranted. Healthy working conditions and environments for both women and men and in every phase of life are important, but this study shows that there is considerable room for improvement in Sweden particularly within the welfare services sector.

Keywords: sick leave, mental disorders, risk factors, return to work, disability pension

1 Department for Analysis and Forecast, Swedish Social Insurance Agency, Stockholm, Sweden

2 Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden

3 Department of Economics, Uppsala University, Uppsala, Sweden

# Coordinates and challenges in assessing invalidity in Romania

Corina Oancea (1), Maria Magdalena Ciuvica (1), Despina Gherman (1) (1) 'Carol Davila' University of Medicine and Pharmacy, Bucharest

#### Background

The invalidity benefit system in Romania is part of the contributory insurance scheme, as it requires a minimum period of insurance contribution. The invalidity pension is delivered at a national level and it is meant to cover the risk of incapacity for work. The eligibility for the invalidity pension is based on a medical assessment conducted by the insurance physician [1]. A system of medical guidelines/standards for common practice was developed (Guidelines/criteria for clinical and functional diagnosis, work capacity assessment) [2]. Standards are based on scientific evidence and are used as instruments for decision making, notably regarding the degree of invalidity. Updated versions of the Guidelines are released periodically in accordance with the scientific progress. The assessment procedures develop within the limits set by the current legislation and in accordance with policy rulings set by the Government.

#### Objectives

This paper aimed to analyze the evolution of the invalidity during the last years and the possible determinant factors.

#### Method

Quantitative data (statistics, historical series) and descriptive information were collected to provide a comprehensive picture of the issue.

#### Results

The number of the invalidity pension recipients varied during the last years under the provision of the new legislation. The law 119/2010 enacted The National Institute for Medical Assessment and Work Capacity Rehabilitation in Bucharest (INEMRCM – the Romanian abbreviation) to provide a thorough monitoring of the invalidity benefit system, focused mainly on the eligibility and entry conditions [3]. A certain number of demands were rejected on medical basis, tightening entry conditions, which resulted in a decreased number of invalidity pension beneficiaries. According to the provision of Constitutional Court Decision nr. 680/2012 to reduce the minimum period of insurance contribution, the entry conditions became more permissive. The number of invalidity pension recipients sharply increased. The disease-based distribution of the invalidity shows a surprisingly top position of cardiovascular pathology, compared to other EU countries. This finding is also discussed.

# Indication of the relevance of the study for international audiences.

Communication and exchange of information concerning invalidity with respect to assessment, causes and legal framework might be useful for comparative analysis and for drawing-up recommendations and guidelines.

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# Effects of early intervention on sick leave and disability grants - a Swedish experiment

Edward Palmer (1), Edward Palmer (2), Hans Goine (3), Hans Goine (4), Sten Olsson (5)

- (1) Swedish Social Insurance Agency
- (2) Uppsala University
- (3) Swedish Social Insurance Agency
- (4) Uppsala University
- (5) Swedish Social Insurance Agency

#### Introduction

A common belief among experts and practitioners (e.g., OECD 2009) is that early interventions during spells of sick leave can lead to shorter spells.. This was also the view of the Swedish Social Insurance Agency (SSIA) when it requested that the government change the legislation to give the Agency the authority to establish formal meetings including the insurance adjudicator, the individual on sick leave, the individual's treating physician and the employer.

The purpose of this meeting is to determine whether the individual can return to work, perhaps with some modification of the work environment. This form of intervention has been used since 2003. This meeting is preceded by an initial, structured meeting between the insurance adjudicator and the individual (called a "SASSAM-meeting") – to determine the relevance of the more comprehensive meeting ("avstämningsmöte") with the employer and treating physician. In a second randomization persons born on an even day and in an even month were selected to participate in a meeting with the employer and treating physician, given that their immediate health or injury did not prohibit this.

#### Purpose of the study

This study tests the hypothesis that early interventions during spells of sick leave lead to shorter spells, but do not affect the number of disability grants.

#### Methods

The experiment was performed in all of Sweden's social insurance offices during the period November 5 – December 14, 2007. New cases were first screened to determine whether there was a probable need to contact the individual for further consideration for work-related rehabilitation, based on the doctor's certificate and a telephone contact with the individual. A total of 15 228 individuals were determined to have a potential need of an active intervention.

This group was randomly divided into a treatment and a control group. Persons born on even dates (7 362) were assigned to the experimental group and the rest to the control group. There was no action taken for the control group (7 866) until 45 days or more had passed. A structured (SASSAM) meeting was arranged as soon as possible with the individuals in the treatment group. In a second randomization, persons born on an even day and in an even month (1 120) were selected to participate in a meeting with the employer and treating physician, given that their immediate health or injury did not prohibit this. The remainder constituted a second control group (1069).

#### Results

The experimental groups received their interventions 45 days earlier than the control groups. In addition, disability was granted earlier in the experimental groups, where interventions were 45 days earlier. However, there was no significant difference in the number of days of sickness nor the number of disability grants between the experimental and control groups.

#### Conclusion

The main conclusion of this study is that intervening with the two "instruments" used by the Swedish sickness insurance administration – a structured meeting between the adjudicator and the individual on sick leave and conditional on the outcome of this meeting a follow-up meeting with the treating physician and the employer - had no effect on either the days of sickness or the number of disability grants.

#### Pragmatic targeted prevention programme for independent workers.

Pascal Perrot (1) (1) Department of Professional Hazards and Social Care, France

In France, independent workers, (more than 4 million people: artisans, traders, liberal professions and their assignees) are protected by the RSI social security organisation. Independent workers run health risks: they work over 50 hours per week, often alone, for very low salaries, and a lot of them don't stop for two consecutive days. They use the healthcare system less than salaried workers and they don't readily consult their doctor, even in case of pain or disease. They often resort to self-medication.

In 2011, 6 percent of independent workers had a sick leave spell versus 20 percent of salaried workers. French independent workers have healthcare coverage but not occupational health care.

They don't have coverage for accident and professional disease, no sick pay or disability benefits. Yet their risks are the same as for salaried workers and the risks can harm the business.

For these reasons, RSI decided to design a pragmatic targeted prevention programme for independent workers. The programme "RSI Prevention Pro" started in 2012 and entails 1) awareness and risk self-evaluation

2) a consultation with the GP for professional risk prevention and for screening related to the job.

Twenty-two professions were selected for the first group, according to the following criteria:

- risk severity
- professional disease frequency
- economic and social impact

In 2012, 44 000 hairdressers, 4 300 laundry operators and 22 000 taxi drivers were invited to participate in the programme. They received an information flyer about professional hazards for their profession and a self-evaluation quiz.

Hairdressers suffer from venous and skin disorders, and laundry operators from respiratory, neurological and kidney disorders. So they understood their professional risk and they received a voucher for a free consultation with a doctor.

The first results are encouraging and show that the programme answers a real need. About 10 percent of workers promptly went to a doctor. Prevention is a long-term action, and messages have to be repeated and relayed by confidence and proximity partners. In this manner, behavioural and environmental changes are possible.

In 2013, the three new professions selected are garage workers, bakers and veterinary surgeons.

# Regional strategies to implement national programs for improving work capacity in patients with mental and/or musculoskeletal disorders. Experiencies from south Sweden and region Skåne 2006-2013.

Ingemar Petersson (1), Ulf Hallgårde (2), Anja Nyberg (2), Birgitta Grahn (1), Rikke Schau (2), Håkan Rundberg (2), Kerstin Jigmo (2)

(1) Orthopedics, Dept Clinical Sciences Lund, Lund University, Lund Sweden

(2) Region Skåne, Regionhuset 3D, Dockplatsen 26, SE 211 19 Malmö

Speaker: Ulf Hallgårde

#### Background

The Swedish Governement initiated in 2006 and 2008 two different national programs for for improving work capacity with a special focus on patients with mental and/or musculos-keletal disorders. The Swedish Social Insurance Agency holds a national perspective with local offices while the health care system is based on regional authorites such as Region Skåne the south Sweden with 1.3 million inhabitants. The focus of the first program (the National Sick Leave Program, NSLP) was to change the sick listing process among all physicians while the second program (the National Vocational Rehabilitation Program, NVRP) provided in primary care settings MultiModal Rehabilitation(MMR) for musculoskeletal pain and Cognitive Behavioural Therapy (CBT) for mental illness.

#### Aims

The aims of the programs were to

- Decrease the sick leave rates by
  - Higher quality of the sick notes
  - Better strategies for sick listing
  - Implementing a decision support tool for sick listing practice
- To improve vocational rehabilitation in primary health care for patients with
  - Musculoskeletal pain
  - Mild to moderate mental illness

#### Methods

The NSLP program was through a structured process adpopted to a Regional Sick Listing Program for Region Skåne. This process included stakeholders from all relevant authorities as well as physicians from all relevant medicial specialties with a focus on primary health care. The key words for the sick listing process were: Correct, Tailored and Accurate

Correct: i.e. according to the laws and regulation and also based on the National Decision Support provided by the National Social Insurance Agency and the National Institute for Health and Welfare.

Tailored: i.e. related to each persons indivual situation

Accurate: i.e. continuously evaluated through regular follow-ups and register based evaluation. Also, case managers were educated and appointed for monitoring the process on every Primary Care Centre.

Additionally, special projects were designed and applied in primary care settings for Low Back Pain (the Back-Up project of structured care and rehabilitation), the Work-Up project

(an RCT comparing small scale work place interventions to TAU in addition to structured care and rehabilitation for patients with early back or neck pain), the regional Gender Project including education, flag systems and structured programs for different levels of health care.

The National Vocational Rehabilitation Program, (NVRP) was implemented as a Regional Vocational Rehabilitation Program, provided in primary care settings MultiModal Rehabilitation(MMR) for musculoskeletal pain and Cognitive Behavioural Therapy (CBT) for mental illness. This included a broad educational program for both MMR teams and for CBT providers introducing a new forma and a new level for vocational rehab in more than 150 Primary Care Centres.

#### **Results and consequences**

#### Correct:

In 2012 Region Skåne provided the highest quality ranking in the national program for sick notes.

#### Tailored:

The programs were evaluated and the was a significant improvement for both physicians (Ref 1) and for patients (Ref 2).

#### Accurate:

In 2013 Region Skåne reported 260 case managers, aminly in primary care but also in departments of orthopedics, rheumatology, oncology and psychiatry covering 70 % of relevant halth care centres. Further, some 500 CBT providers had been educated and were available through the Primary Care Centres while the number of MMR teams was 50.

In the national bench marking for sick listing practice Region Skåne had significantly improved from 2006 to 2013 in reducing the actual number of sick listed people as well as the most even sex distribution for major diagnoses as compared to other regions in Sweden. The Swedish Government used the Region Skåne data on vocational rehabilitation in Primary Care for a national evaluation (Ref 3). This evaluation showed that individuals with mild to moderate anxiety and/or depression seeking primary care receiving CBT had lower risk for sick listing and less need for health care utilization and medication as compared to treatment as usual.

#### **Conclusions and Discussion**

Regional implementation of national programs for increasing work capacity can provide important results and experiences for successful strategies nationally and internationally.

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#### To evidence base the return to work process for people with mental or musculoskeletal disorders

Ingemar Petersson, MD. PhD, Professor Director/Enhetschef ERC Syd (Epidemiologi och Registercentrum Syd, University of Lund, Sweden

Workshop: Rehabilitation of individuals with mental or musculoskeletal disorders in primary care. Examples from a national research program (REHSAM) in Sweden.

"The link between health and work, in terms of providing positive outcomes for individuals, economies and society, is well established. Despite a growing body of evidence to support this, however, there remains a chronic lack of integration between European health care systems and employment and welfare policy. This lack of integration is nothing new. However, if health, labor and welfare policies are framed in the context of ageing populations, diminishing social inclusion and increasing public spending cuts, ensuring that more people remain healthy and stay in or return to work following ill health, can be crucial to any economic recovery strategy." (Professor Steve Bevan, UK and professor Ingemar Petersson, Sweden; in the Fit for Work Europe Health Economic White Paper). Thus, in all European countries there is a common need to make more people work more and also in higher ages than today. The focus for this work should be to improve health, function and participation through better diagnostic, therapeutic and rehabilitation strategies in all chronic diseases. This is also an important part of the EU Horizon 2020 strategy for Active and Healthy Ageing. Also, the different countries need to support all individuals at working age to get the best rehabilitation, both medical and vocational. Some European examples have pointed out different solutions depending on traditions, laws and regulations and also different social security systems. In this session we will describe an example from Sweden where the experiences shared hopefully could help and inspire others.

### Screening for complex healing processes and psychological intervention in injured individuals.

Irena Pjanic (1), Ulrike Hoffmann-Richter (2), Volker Schade (3), Hansjörg Znoj (1)

(1) Department of Clinical Psychology and Psychotherapy, University of Bern, Bern

(2) Swiss National Accident Insurance (SUVA), Luzern, Switzerland

(3) Centre for Human Resource Management and Organizational Engineering, Bern

#### Introduction

Injured individuals face a high risk for the development of psychological symptoms such as depression or anxiety, which influences early return to work after an accident. So far, it is unclear to which extent early psychological interventions can improve the ability to return to work.

#### Purpose of the study

The aim of the study was to investigate whether an improvement of the treatment-triage (by the screening questionnaire work and health [FAB]) influences early return to work and well being in injured individuals.

#### Methods

The study sample consists of injured individuals with different mental health-related or work-related disabilities after an accident. Participants are included eight weeks after an accident. Participants are randomly assigned to the intervention or to the control group. The intervention is an individualized psychotherapy consisting of cognitive-behavioral therapy and work related topics in an individual setting. Well being and work related factors are assessed at baseline and after six months.

#### Results

The recruitment is still ongoing. The preliminary results of this randomized controlled study will be presented at the conference.

#### Conclusion

An individualized psychotherapy might have the potential to improve the rehabilitation process in injured individuals and improve the ability to return to work.

#### Reducing high sickness absence levels: More responsibilities for the employer?

### Rienk Prins (1) (1) AStri Policy Research and Consultancy Group, Leiden, The Netherlands

Keeping sickness absence rates at an acceptable level is a challenge for many countries. In some countries (e.g. the UK and Norway), more attention has recently been paid to the work and training of general practitioners (who play a role in certifying sickness absence). In other nations (e.g. Chile and France), the social insurance agencies themselves (sick funds, etc.) try to initiate early intervention measures. A third category of measures focuses on the employer. Initial measures consist mainly of the employer's obligation to draw up a return to work plan (after 6 or 8 weeks of sickness absence). Initial experiences reported for this tool (e.g. from Sweden and Norway) suggest that implementation and supervision are poor.

A more drastic set of innovations have been implemented in the Netherlands. Employers there are also obliged to draw up such an RTW plan, but – starting quite a few years ago – more obligations have been imposed.

First, continued wage payment during sickness for a maximum of two years (as a financial incentive to initiate work resumption measures). Moreover, a Dutch employer has to make use of an occupational health service or occupational physician to support her in these tasks.

Finally, actions to be taken by the employer and employee during that two-year period have to be formalized in a (compulsory) protocol.

In his presentation, Dr Prins will focus on the changing role - in some countries - of the employer regarding management of sickness absence. Experiences and outcomes in the Dutch system (substantial drops in sickness and disability benefit rates) will be discussed, as well as consequences for other actors (healthcare practitioner, social security agency, employee, occupational physician). Finally, questions will be raised as to the applicability of this "de-medicalized" approach to other countries.

#### Workup- weekly text-messages follow-up of sick leave, work ability and productivity for back pain patients.

Charlotte Post Sennehed (1,2), Iben Axén (3), Kjerstin Stigmar (4,5), Sara Holmberg (2,6), Ingemar Petersson (1,5), Anja Nyberg (7), Birgitta Grahn (1,2,5)

- (1) Orthopedics, Department of Clinical Sciences, Lund University, Lund, Sweden
- (2) R&D Kronoberg, Kronoberg County Council, Växjö, Sweden
- (3) Department of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden
- (4) Department of Health Sciences, Lund University, Lund, Sweden
- (5) Epidemiology and Register Centre South, Skåne University Hospital, Lund, Sweden
- (6) Department of Public Health and Caring Sciences, Uppsala University, Uppsala,
- (7) Head office Department of Healthcare Governance, Region Skåne, Malmö, Sweden

#### Introduction

Musculoskeletal disorders are one of the most common reasons for sick leave in western countries. WorkUp is a cluster randomized trial for patients with early back and neck pain in primary health care (PHC) in southern Sweden. The main aim in WorkUp is to test a time-coordinated tailor-made evidence based (EB) physiotherapy intervention focusing on work ability in relation to the work place and supporting interaction between the patient, the work place and the PHC in comparison to treatment as usual (TAU) in PHC.

Sick leave shorter than 14 days is in Sweden administered and paid by the employer and is not possible to track by register data from the Swedish Social Insurance Agency (SSIA). The extent of shorter term sick leave and its effect on productivity is therefore unknown. Follow up by text messages enables frequent, timely and detailed prospective data collection. Development over time, individual differences and possible interactions with other variables can be explored. This type of monitoring is possible in Sweden, where 97 % of the population has a mobile phone.

#### Purpose of the study

To evaluate the effects of EB physiotherapy in PHC- including workplace interventions- on sick leave, work ability and work productivity in comparison to TAU in PHC.

#### Methods

A prospective pairwise cluster randomized trial is ongoing since 2013 for patients between 18-67 years who seek physiotherapy for neck and/or back pain. Apart from questionnaires and clinical assessments, patients are followed with three weekly text messages during a one year follow-up period. The questions concern last week's number of sick days, self-rated productivity at work and ability to perform everyday activities. Patients are asked to respond with a single digit for each of the three questions and data is automatically stored in a database.

#### Results

At the end of January 2014, 213 patients have been included in the WorkUp study and the compliance with the text massages is excellent, averaging 98 % answers every week. Preliminary results of selected baseline variables together with results from the text messages will be presented at the EUMASS congress.

#### Conclusion

Sending frequent survey questions through text message yields a high response rate, seems to be convenient for patients, and can provide frequent detailed information about short-term sick leave, work ability and work productivity. These data are not possible to track through existing register from SSIA.

### New services in French Healthcare Insurance: A new paradigm of risk management for the medical service

Jean-Paul Prieur (1) (1) CNAMTS, France

A French healthcare insurer deploys special services for people in particularly needy circumstances.

A typical example is the sophia disease management programme for chronically ill people, launched as an experiment in 2008.

The sophia programme was adapted from American, British and German examples and was evaluated twice, on medical (development of disease) and financial outcomes (cost).

Healthcare providers and patients were satisfied with the programme, which was disseminated nationally in 2012 and quickly reached 400 000 people with diabetes. In 2013 the programme will be offered as an experiment to people with asthma. Parallel to the sophia programme, the PRADO programme was launched to support quick and easy return home for many hospitalized patients. This programme was tested with women who had given birth and people who had undergone certain orthopaedic procedures. Satisfaction with both patients and healthcare providers was encouraging and so was the effect on days in the hospital.

This programme will be extended too, first with people suffering from cardiac failure. Sophia and Prado have been effective through patients' understanding of their illnesses and use of healthcare services. Coaching and counselling of eligible patients require a new and well-coordinated effort by healthcare and health insurance staff.

A key role is played by insurance physicians, whose methods improve. The lecture will discuss evaluations of the programmes so far.

### Helping those who help others: Meet caregivers' educational needs of severely disabled at work

Antonella Cinzia Punziano (1), Manuel Leonardo Cubilete (2), Alessandro Sansolini (3), Alessandra Terzani (4), Maria Rosaria Matarrese (5)

(1) INAIL - SOVRINTENDENZA SANITARIA CENTRALE

(2) INAIL - UNITA' SANITARIA TERRITORIALE ROMA CENTRO

(3) INAIL - UNITA' SANITARIA TERRITORIALE ROMA CIVITAVECCHIA

(4) INAIL - UNITA' SANITARIA TERRITORIALE ROMA AURELIO

(5) INAIL - SOVRINTENDENZA SANITARIA CENTRALE

#### Background

Despite growing evidence regarding the importance and pervasiveness of families' roles in severely disabled adults' health care, most family caregivers have not received any professional training in providing care [1] and in managing home-based technologies [2]. Several studies shows that inadequate help have a negative impact on the mental health of family caregiver and may compromise ability to maintain a safe and reasonable standard of life [3].

#### Objectives

To increase empowerment and self-efficacy and to decrease fatigue and psychological distress of caregivers.

#### Method

The project entailed three steps. Caregivers were first interviewed to explore tasks, skills and specific needs in caring of their relative. Then, based on the caregivers' interviews, was developed a program of individual workshops aimed at meeting their needs. The final step of the process will be experimentation of the program constructed and its qualitative evaluation.

#### Results

The first two steps of the project led to identification of the most salient educational needs of caregivers and of theirs major stressors: posture and support, transferring, change dressing, urinary catheter care and sense of powerlessness in the institutional setting (difficulty participating in decision making concerning relative's care), sense of loneliness (difficulty finding appropriate social support), difficulty reorganizing own life and, finally, feeling of fatigue and difficulty maintaining a personal life. The results of the second step make it possible to clarify the goals of the program, its content and structure.

#### Conclusion

The first results of this project indicate a number of issues that should be considered by health care professionals in order to improve the assistance provided to family caregivers of severely disabled at work: They include monitoring of specific needs, assessment of individual and social resources, educational interventions, emotional support during hospitalization and follow-up plans that ensure continuity of care.

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#### Early stroke specific vocational rehabilitation (ESSVR): A feasibility randomised controlled trial.

Kate Radford (1), Mary Grant (1), Emma Sinclair (1), Jane Terry (2), Marion Walker (1), Avril Drummond (3), Lou Watkins (4), Nicola Brain (4), Marita Jenkinson (5), Chris Sampson (1)

(1) Division of Rehabilitation and Ageing, University of Nottingham

(2) Nottingham CityCare Partnership

(3) School of Health Sciences, University of Nottingham

(4) Derby Hospitals NHS Foundation Trust

(5)Service User Representative, Nottingham

#### Introduction

A quarter of strokes occur in people under 65 years of age1. Returning to work is a key goal and critical to quality of life2. Work is a recognised health outcome3. However, NHS Rehabilitation often ends when minimal function is regained and fails to address work needs4. Vocational Rehabilitation (VR) is a process where those disadvantaged by illness or disability can 'access, maintain or return to employment'5. UK Policy and clinical guidelines support health based VR but evidence to underpin VR interventions for stroke survivors is lacking.

#### Objectives

To test the feasibility of delivering an occupational therapy led Stroke Specific Vocational Rehabilitation (ESSVR) intervention and measuring its effectiveness and cost effectiveness compared to usual NHS Rehabilitation (Usual care UC) in a feasibility randomised controlled trial (RCT)

#### Methods

Previously employed stroke survivors (SS) aged  $\geq$  16 recruited from a hospital stroke unit were randomised to receive ESSVR or UC. Exclusion criteria: refusing consent; not intending to work, medical preclusion. Primary outcomes: occupational and benefit status. Secondary outcomes: Mood, functional ability, participation, quality of life and service use were measured using standardized and bespoke postal questionnaires at 3, 6 and 12 months. Self reported service use was cross-referenced with service records in 10% of participants and costs were calculated.

#### Results

46/124 patients screened (36 men, mean age 56 (SD 12.7, 18-78 years) were recruited in 15 months (target 50). 78 were excluded of whom 51% declined. 29/46, had NIHSS scores ≤ 15 (minor and moderate strokes), 65% were in professional/ managerial roles at onset. 32 were available for 12 month follow up (response rate 78% SSVR and 61% UC). Intervention was successfully deployed in all but one case. ESSVR participants took a mean 90 (SD 70, 7-227) days to return to work. At 12 months 39% were back at work with the same employer and of these, 59% in the same role. Twice as many ESSVR participants returned to work and had higher levels of productivity, financial income and workplace accommodations at 12 months. Scores on secondary outcome measures were comparable between groups. Cross-referencing for five participants was labour intensive, involving 51 phone calls and 23 letters/emails. Self-reported and actual service use data were discrepant. Stroke survivors underestimated GP and consultant input and overestimated therapy input.

#### Conclusion

ESSVR can be delivered and its effects and costs measured using standardised and bespoke questionnaires.

This early intervention can potentially influence job retention rates in people with mild and moderate stroke. However, a larger trial is needed to demonstrate the effect and more reliable methods of capturing service use, income and benefit data and clearer definitions of work are needed.

Stroke severity and communication difficulties influenced participation. A different model may be needed for those with severe stroke and those unable to return to an existing job.

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### The increasing use of health insurance database to evaluate drug safety: The French example.

Philippe Ricordeau ()

(1) Cnamts

#### Introduction

Carrying out real-life studies, after marketing health products, is a major challenge for health authorities. These studies are intended to evaluate safety as well as the risk/benefits of these products. In France, the national health insurance database is increasingly used to answer these questions.

#### Methods

The French national health insurance database (SNIIRAM), constituted in 2005, contains individualized, anonymous, and comprehensive data on health spending reimbursements for the entire French population (65.3 million people). These data includes patient demographic data such as age, gender, vital status, as well as prescriber characteristics and can be linked to the French Hospital Discharge database. The database includes the exact identification of medicinal products for outpatient reimbursements and the patient's status related to a severe and costly long-term disease (LTD) with in particular the LTD diagnosis encoded in the International Classification of Diseases, 10th edition (ICD-10).

#### Results

In 2009, a cohort study based on data from the SNIIRAM showed that the use of benfluorex by diabetic patients was significantly linked to hospitalisation for cardiac valve pathology: RR adjusted 3.1 [2.4 to 4.0][1]. The health authorities then decided to suspend marketing of this drug. In 2011, a study of patients who had taken pioglitazone, was used to identify a significant increase in the incidence of bladder cancer: HR adjusted 1.22 [1.05 to -1.43](2). Moreover, there was a dose-effect relationship with significant risk for people with a, accumulated dose of at least 28 000 mg: HR adjusted 1.75 [1.22 to -2.50][2]. In France, since this study, the authorities have decided to stop marketing pioglitazone. On the other hand, still in 2011, a study concerning glargine insulin did not reveal any risk of cancer linked to its consumption, as had been suggested by certain experts: HR = 0.97 [0.87 to 1.07]. Finally, in June 2013, a cohort study exploring the risks of venous and arterial thromboembolism linked to the consumption of combined oral contraceptives, showed that old generation progestationals such as levonorgestrel (COC2G), combined with 20  $\mu$ g of ethinylestradiol, was linked to a lower risk than other combined oestrogen-progestogen pills.

#### Conclusion

Health insurance database are a valuable source of information for health authorities. These data have the advantage of covering very large numbers of people, which gives them considerable statistical validity. They also have the advantage of being able to be processed rapidly at little cost, compared with complex multicentre studies. However, statistical processing of these data requires the development of specific expertise, dedicated to these studies.

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### Disability allowance and short-term follow-up in neoplastic patients EBM treated: Our experience (II)

Leonardo Sammartano (1), Silvio Vagnarelli (2), Federico Cattani (3), Massimo Piccioni (4) -National Social Security Institute (INPS):

(1) Medico-Legal Department-4, Robbioni St.- 21100 Varese, Italy

(2) Second Medico-Legal Department-54, Monte Bianco St.- 20149 Milan, Italy

(3) National Medico-Legal Department–11, J.E. de Balaguer Sq, 00142, Rome, Italy

(4) Director of National Medico-Legal Department – 21, Ciro il Grande St., 00144, Rome, Italy

Speaker: Federico Cattani

#### Introduction

The wide diffusion of Evidence Based Medicine (EBM) in medical and surgical treatment of cancer diseases has significantly changed patient's outcome in latest years, with an increased rate of "Not Evidence of Disease" (NED) status in the follow-up period. The Italian Republic Law n. 222/1984 [1] provides a "Disability Allowance" (DA) for the insured patients with a permanent (less than 1/3) reduced working capacity in occupations suitable to their bents/skills, due to illness and/or impairment. The economic benefit is paid for a three years period and is in addition to other specific cares. Nevertheless, the same law states the revocation of DA every time a change for better in clinical conditions is ascertained or when the patient continues to work with a stable income per year [2].

#### Purpose of the Study

to evaluate the efficacy of short-term follow-up (one year) in making more appropriate the allocation of social security benefits provided by the law [1] in oncological patients treated by Oncologic Units of the Italian National Health Service (SSN) following the EBM therapeutic protocols in Cancer Treatment.

#### Methods

Observational report. Neoplastic patients enrolled in the study from 2010 to 2012 were divided by year of acceptance of the application (DA granted). At diagnostic time, the stage tumor was  $\geq$  2 with no multi-organ metastatic disease (MO). A second evaluation was made one year after the acceptance of benefit. In the absence of instrumental or biochemical evidence of recurrent or persistent neoplastic disease, the benefit was revoked. No increased litigation was observed.

#### Results

Benefits were revoked in: 30% of the patients enrolled in 2010; in 36.% of the enrolled in 2011 and in 46% of the enrolled in 2012. Data are summarized in Table 1.

Table 1	Age (yrs)	<21	21-30	31-40	41-50	51-60	60	Total
Year of accep-	2010	0	7	41	126	122	12	308
	2011	0	7	28	80	97	13	235
tanse	2012	0	1	18	50	72	8	148
	Total	0	15	87	256	291	33	691
Year of	2011	0	5	16	30	40	1	92
benefit revoca- tion	2012	0	1	15	30	37	3	86
	2013	0	0	13	24	27	5	69
	Total	0	36	44	84	104	9	247

#### Discussion

Medico-legal evaluation of working disability may represent a real challenge in neoplastic patients, mainly when the law's expected functional impairment is not well recognizable after medical or surgical treatment. In our observation, patients achieved their overall therapeutic path in about one year from diagnosis and then they underwent a complete restaging. The status of NED at restaging time has been considered as the end of the observational period for granted benefit only in absence of detectable clinical and functional impairment due to primary tumor, recurrence or persistence of primary tumor or coexisting/new disabling diseases. An additional criterion in evaluation has been the persistence of working activity.

#### Conclusions

The present observation confirms our previous report about the usefulness of a shortterm follow-up (one year) in neoplastic DA-receiving patients selected on the basis of the previous criteria and undergone an EBM treatment, to improve appropriacy and allocative efficiency of the social security resources.

#### Bibliography

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### Health, coping, functional limitations, work ability and work status of long-term sick-listed cancer survivors

Ton Schellart (1,2,3), Peter van Muijen (1,2,3), Allard van der Beek (2,3)

(1) Dutch Social Security Agency, Amsterdam, the Netherlands

(2) 2Research Center for Insurance Medicine, collaboration between AMC-UMCG-UWV-VUmc

(3) Department of Public and Occupational Health, EMGO Institute for Health and Care Please observe the presentation will be made by Peter van Muijen.

Speaker: Peter Van Muijen

#### Introduction

Health complaints of cancer survivors may have influence on their work ability and work status. Coping may play a role in these relations. Knowledge about these relations may be important for the assessment of functional limitations of cancer survivors.

#### Purpose of the study

Our study among cancer survivors at long-term sick leave had two goals (1) to disclose the associations between self-reported health complaints and (a) functional limitations as assessed by an insurance physician (IP), (b) self-assessed work ability and (c) work status; (2) to investigate a mediating role of coping between health complaints and functional limitations, self-assessed work ability and work status, respectively.

#### Methods

We used the baseline measurement of a Dutch longitudinal cohort study (n=484) [1]. Claimants who applied for a work disability benefit due to cancer were sent a questionnaire. Validated existing questionnaires were used for self-reported health complaints (ten scales), self-assessed work ability, coping (two scales) and work status. Available functional limitations of the respondents (n=364) as assessed by an IP were transformed into (three) scales. SPSS was used for the analysis of the reliability of the scales. Using Lisrel we assessed a structural model of all variables (i.e. 14 background variables and 17 health-, copingand work related variables), with coping in a mediating role.

#### Results

The final structural model had a good fit (P=0.991; Normed Fit Index=0.975). More physical limitations as assessed by an IP were associated with more physical health complaints, and with not having paid work. More IP assessed mental limitations were associated with less cognitive functioning, more self-reported fatigue, and with lower self-assessed work ability. More limitations in working hours as assessed by an IP were associated with more self-reported fatigue and with lower self-assessed work ability. More limitations in working hours as assessed by an IP were associated with more self-reported fatigue and with lower self-assessed work ability. More active coping mediated between less self-reported physical limitations, more depressive symptoms, better cognitive functioning and more fatigue on the one hand, and more physical limitations and limitations in working hours as assessed by an IP, on the other hand. More passive coping was associated with more self-reported depressive symptoms. Self-assessed work ability was associated with being at work.

#### Conclusions

The associations between more self-reported health complaints, lower self-assessed work ability, and more functional limitations as assessed by an IP, could partly be demonstrated in cancer survivors at long-term sick leave. However, mental limitations as assessed by an IP were not associated with aspects of functioning (social, role and emotional) that seem important for work participation. Active coping could mediate the relation between self-reported health complaints and functional limitations as assessed by IPs. The results suggest that more fatigued cancer survivors choose an active coping strategy. As we expected, more functional limitations as assessed by an insurance physician were associated with less self-assessed work ability of cancer survivors and also with not being at work, whereas higher self-assessed work ability was associated with being at work.

#### References

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### Job matching in vocational rehabilitation - integrating approaches from return to work and organisational research.

Urban Schwegler (1, 2), Bruno Trezzini (1)

(1) Swiss Paraplegic Research, Nottwil, CH

(2) Department of Health Sciences and Health Policy, University of Lucerne, CH

#### Introduction

Successful and permanent return to work (RTW) requires that a person's work-related capabilities and characteristics be compatible with the demands and characteristics of his or her job. Therefore, job placement programs in vocational rehabilitation (VR) aim at matching the client's work-related skills and needs with the demands of the intended job and the characteristics of the workplace. In this process, job matching tools are important for job-specific assessment and documentation of the goal setting and goal evaluation process.

#### Purpose

We aimed at providing an overview on research involving job matching in the fields of RTW and organizational research.

#### Methods

We performed a systematic literature review on research involving job matching in the fields of RTW and organizational research.

#### Results

Preliminary results show that recent RTW research aims at developing a conceptual framework for VR of persons with disabilities and at establishing health condition-specific information on various aspects influencing RTW. A biopsychosocial framework is proposed for conceptualizing the RTW process which could also be applied for job matching in VR. In addition, a number of generic assessment tools have been developed in RTW research. These tools, however, have shortcomings regarding three essential requirements for job matching: (1) They are not occupation-specific and do not include the demands and characteristics of particular occupations; (2) they are not health condition-specific and do not capture work-related limitations and needs of persons with a particular health condition; and (3) they do not comprehensively address the fit between occupational and individual attributes and environmental factors influencing RTW.

In organizational research, particularly in the areas of career selection and vocational psychology, job matching has been studied more extensively than in the RTW context with different types of person-job fit having been investigated. This research, however, has dealt almost exclusively with non-disabled individuals and does not address person-job fit in a comprehensive way. In addition, organizational research aimed at providing occupational information systems such as, for instance, the Occupational Information Network (O\*NET) which may serve for developing job matching tools that address occupation-specific demands and characteristics.

#### Conclusion

Approaches to job matching in RTW and organizational research have largely been developed independently so far. Integrating these approaches may be essential to further improve VR intervention outcomes. VR on persons with spinal cord injury, for instance, represents a case in point of the need to develop job matching tools that comprehensively address occupation- and health condition-specific aspects in RTW. Therefore, in a upcoming project we aim at developing a documentation and assessment tool for job matching in VR of persons with spinal cord injury by integrating research approaches from RTW and organizational research. With this project we hope to fill a crucial gap in the work reintegration of persons with disabilities.

#### Applying the ICF and ICF core sets in medical work capacity evaluation in Switzerland - promises and challenges.

Urban Schwegler (1, 2), Jessica Anner (3), Wout de Boer (3), Bruno Trezzini (1)
(1) Swiss Paraplegic Research, Nottwil, CH
(2) Department of Health Sciences and Health Policy, University of Lucerne, CH
(3) Academy of Swiss Insurance Medicine, University Hospital Basel, CH

#### Introduction

Medical work capacity evaluations (MWCE) are crucial for deciding on eligibility for disability benefits. Recently emerging criticism points to their low transparency and comparability. In Switzerland, MWCE are reported in a poorly standardized way and focus on the determination of a claimants' health condition rather than on the documentation of their functioning at work. Modern medical thinking, however, defines disability as the consequence of biopsychosocial interactions and not of a health condition alone. The reporting of MWCE should, therefore, follow a comprehensive biopsychosocial framework. This is also true for the determination of work capacity in claimants with chronic pain which is affected by a variety of biopsychosocial factors.

The ICF framework could facilitate transparent reporting of MWCE as it conceptualizes functioning comprehensively as the interplay between body functions and structures, activities and participation as well as environmental and personal factors. Moreover, the ICF taxonomy claims to provide a comprehensive spectrum of categories for standardized documentation of functioning assessments in MWCE. However, the ICF taxonomy classifies aspects of the state of functioning and disability, but neither the time perspective nor causal relations between these aspects. It is thus an open question whether and to what extent the ICF and existing ICF Core Sets indeed cover the crucial aspects of MWCE.

#### Purpose

To examine the applicability of the ICF and health condition-specific ICF Core Sets in capturing the content of medical reports on disability claimants with chronic widespread pain (CWP) and low back pain (LBP).

#### Methods

The study design is based on a retrospective qualitative and quantitative content analysis of a sample of medical reports on Swiss disability claimants. The ICF taxonomy and a personal factor categorization are used for data coding.

#### Results

Two-thirds of the content of the CWP and LBP reports could be coded to ICF categories. A combination of the health condition-specific ICF Core Sets for CWP, LBP and their major co-morbidities (i.e. depression and obesity) captured the relevant aspects of functioning and environmental factors of the particular context to a fair extent. However, context-specific additions to the ICF taxonomy had to be determined for properly coding specific pain-related issues, work activities and personal factors. Personal factors which are not classified by the ICF taxonomy such as occupational and educational background, behavior patterns as well as personal cognitions or emotions were commonly reported in the evaluations, especially in psychiatric assessments, and appear to be crucial features of MWCE.

#### Conclusion

The ICF and health condition-specific ICF Core Sets show a potential for facilitating transparent and standardized reporting of MWCE in terms of what to document. An ICF-based documentation of functioning aspects, impairments as well as influencing environmental and personal factors complementary to diagnostic information illuminates the process of determining work capacity and ensures comprehensibility of eligibility decisions. However, context-specific additions to the ICF should be documented, the issue of how to report on personal factors should be discussed and the question of how to operationalize and measure ICF categories should be solved when applying the ICF for comprehensive reporting of MWCE. Moreover, practical validation studies are needed to truly establish the value of the ICF for MWCE.

### Collaboration between the national authority for health and the national health insurance: The ALD coverage system.

Anne Solesse (1) (1) Cnamts – Direction Régionale du Service Médical IIe de France - France

#### Background

The improvement of chronic illness care is one of the greatest challenge facing any health care system, and partly relies on collaboration between stakeholders as assessed by Wagner (1).

The Haute Autorité de Santé (HAS) is an independent scientific public body. One of its missions is to provide clinical practice guidelines, chronic diseases management models and guidance.

The Medical Service of the National Health Insurance (SM-AM) is involved in the control of the Healthcare expenses while ensuring the best affordable care to patients. The long term chronic diseases (ALD) are diseases requiring long term and expensive care. Patients suffering from those diseases are exempted of copaiment. Thirty diseases have been listed by decree.

#### Objectives

To develop a collaboration between the HAS and the SM-AM in order to facilitate the identification of patients suffering from these diseases and to ensure a relevant disease management.

To measure the gap between Health Professionals practices and HAS diseases management models and to tend to reduce this gap.

#### Methods

The HAS assesses the ALD listed by decree, aswell as any considered addition or radiation, defines the relevant medical criteria for each ALD and formulates recommendations on the medical procedures and services required in managing the different considered diseases. The SM-AM acknowledges the ALD status for a given patient, based on the analysis of a protocol filled in by the GP including diagnosis, relevant complementary examination results, current and planned therapeutics, procedures and services. The medical adviser in charge of the medical control confronts the protocol with the HAS criteria : listed diagnoses, opposable medical criteria defining the severity of the disease, medical procedures and services considered as relevant for this disease management.

He can give a full agreement, a partial agreement or reject the request. He can also ask the GP for more information. The agreement is given for a period of maximum 5 years. A HAS guide for information of patients is sent to the GP, together with a sample of the agreed protocol.

The GPs' reward program based on public health indicators includes the care management of two ALD (diabetes and high blood pressure).

#### **Results and Conclusion**

In 2012, 493630 requests for ALD recognitions have been treated by the regional medical control services of Paris and its suburbs.

In France, more than 9 millions of people benefit of the ALD system coverage, which represents nearly 60 percent of the national Healthcare expenses. Therefore, it is an important target for a strict, scientific and ethical control.

At a European level, the scientific and regulatory frame surrounding costly chronic diseases management could benefit from a global reflection.

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### From biomedical disability to ability-based health in psychiatrists' and psychology experts' social security certificates.

Hans Magnus Solli (1), António Barbosa da Silva (2), Jens Egeland (1)

(1) Research Department, Clinic Mental Health and Addiction Treatment, Vestfold Hospital Trust, Tønsberg, Norway

(2) Ansgar School of Theology, Kristiansand, Norway

#### Introduction

There is a variety of conceptualizations of work (dis)ability in social security medicine. The traditional and dominating one is the biomedical disability model (BDM) that describes functional limitations and work requirements. But conceptualizations based on concepts of health are emerging [1]. One of these concepts of health takes ability, standard or accepted circumstances, and vital goals as the basic factors of health [2]. Based on this concept of health, we define two other models to assess work (dis)ability: a) A mixed disability model (MDM), which supplements the BDM with one or two of the following factors: abilities, environments beyond work requirements, or goals/intentions. b) An ability-based health model (AHM), where all these three factors are described jointly.

#### Purpose

To analyze whether social security claimants in mental health care are described according to the BDM, the MDM or AHM, and if the use of the AHM adds something significant to work (dis)ability assessments that are not present when the BDM and MDM are used.

#### Methods

A theoretical design consisting of textual analysis of social security certificates, regarded as texts, was used. Informed consent was given for use of 86 certificates from 68 cases (28% of a chosen study group). Twelve psychiatrists and 12 psychology specialists wrote these certificates (65% of the eligible experts).

#### Results

According to our interpretation, a few certificates described the patients by using the BDM (n = 9). The rest of the certificates added environments beyond work requirements (n = 59), goals/intentions (n = 54), and abilities (n = 28) to the descriptions. The model mostly used was the MDM (n = 60). Some used the AHM (n = 17). There were 20 assessments of steps towards recuperation of work ability. Assessments based on BDM described facilitators, e.g., "extremely gradual increase of work", or psychological barriers. Some assessments based on MDM added ability descriptions, possibly backed by neuropsychological examinations. Some assessments based on MDM also described goals/intentions, or non-work environments, or abilities, but not linked together. Assessments based on the AHM described abilities and goals/intentions related to specific opportunities in the work environment. These factors were joined together to describe the work (dis)ability of an individual person.

#### Conclusion

The work (dis)ability assessment models BDM, MDM and AHM were all found in use in social security certificates.What is new and fruitful by using AHM, compared with the other two models, is that a picture of the patient's concrete evaluation of his/her own work opportunities comes to the fore.

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## Medico-legal problems in the evaluation of eyelids pathologies, in range of workers' protection.

Simona Sorrentino (1), Valeria Marino (2), Antonella Masullo (3), Alessandro Feola (3), Luigi Tonino Marsella (4)

(1) Department of Ophthalmology, University of Rome "Campus Bio-Medico", Rome, Italy
 (2) Section of Legal Medicine, University of Rome "Tor Vergata", Rome, Italy
 (3) Department of Experimental Medicine, Second University of Naples, Naples, Italy
 (4) Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Italy

#### Background

The essential role of the eyelids is to guarantee the mechanical protection of the eyeballs, corneal and conjunctival hydration by means of the physiological distribution of the tear film and the regulation of light inside the eye [1]. Moreover, eyelids and their eyelashes and eyebrows are an essential element of the eye with its aesthetic and relational significance through mimicry. The eyelid disorders are divided in 1) Static disorders : congenital or acquired ectropion (2,9% : 5,1% M 1,5% W) or entropion (2.1%: 1,9% M, 2,4% W); 2) dynamic disorder: ptosis(different incidence related to the etiology) lagophthalmos, eyelid retractions [1,2]. We can deduce that eyelids anomalies can cause visual problems to workers (i.e. visus reductions caused by eyelid ptosis or tenderness related to keratitis (Bell's palsy).

#### Objectives

The aim of this study is an evaluation of eyelids pathologies damage in the Italian legislation concerning study of work injuries. The partial loss of field of vision is a severe disability, for it alters the orientation of the body, and this has consequences on certain categories of workers. A revision on specific literature is therefore useful, with a special attention on framing each pathology in current regulations

#### Method

Critical analysis of specific literature can be used, with special regards to methods to diagnose eyelids pathologies and to quantify their damage. It is necessary, to correctly evaluate the damage, a careful – even thug difficult – ophtalmologic evaluation with clinical, functional and instrumental tests. The clinical investigation should be as complete as possible, and include: position of the head, status of the chin, ptosis of the eyebrow, qualitative and quantitative monitoring of the tear film, the presence of Bell's phenomenon and corneal sensivity tests. If ptosis is present, a usual clinical evaluation (margin-reflex distance, vertical palpebral fissure height, upper eyelid crease position, levator function, presence of lagophthalmos) must be performed.

Moreover, every patient must undergo visus investigation, extraocular eyes muscle tests and tests to evaluate the visual field.

#### **Results and Conclusions**

This group of eyelid diseases cause important functional consequences in given types of workers, so a comparison between the clinical evaluation of these pathologies and the protection granted by the Italian Government to these workers, so to compare it with other European countries' regulations.

#### Indication of the relevance of the study for international audiences

Eyelids pathologies have important functional implications in certain types of workers, then it became useful a comparison between the relevance of these diseases and the protection that the Italian State grants these workers in order to achieve a comparison with European neighbors.

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### Effects of a training in the disability assessment structured interview on Dutch insurance physicians.

Jerry Spanjer (1,3), Sijrike van de Mei (3), Bert Cornelius (1,2,3), Sandra Brouwer (2,3), Jac van der Klink (2,3)

(1) Dutch National Institute for Employee Benefits Schemes, Groningen, the Netherlands

(2) Research Center for Insurance Medicine, Amsterdam, The Netherlands

(3) University Medical Center Groningen, University of Groningen, The Netherlands

#### Introduction

The Disability Assessment Structured Interview (DASI) is a semi-structured interview for assessing functional limitations in work disability assessment of claimants. Since this year a three day DASI training course is part of the basic training of all Dutch insurance physicians (IP's).

#### Purpose

The aim of the present study is to evaluate the effects of the DASI training on knowledge and attitude of the IP's and the quality of the assessment interviews in daily practice.

#### Methods

Pretest-posttest study among 55 IP's working for the Dutch Institute of Employee Benefit Schemes who completed a three day DASI training. Before (T0) and after (T1) the training with a follow-up after 3 months (T2) the IP's filled out questionnaires, delivered data on 10 actual disability assessments and three random reports of disability assessments. Outcome measures were: knowledge, skills, attitude, self-efficacy, interview duration and satisfaction, amount of acquired information, confidence of judgement and the amount of information mentioned in assessment reports.

#### Results

Knowledge, self-efficacy and skills showed a significant improvement after the training. The attitude of the IP's changed towards keeping an open mind and controlling and structuring the interview. The mean duration of the interview increased from 39 to 43 minutes. The scores on satisfaction of the interview, amount of acquired information and confidence of their judgement all did increase. On four of the five DASI topics the number of items which were mentioned in the reports increased directly after and three months after the training.

#### Conclusion

The DASI training increased knowledge and skills and resulted in more satisfaction in the interviews. The IP's experienced an increase in amount of information and confidence in judgement and reported significantly more information

### Increased employment rate after multimodal rehabilitation, in patients with no prior sick leave

Kjerstin Stigmar (1, 2), Birgitta Grahn (2, 3,. 4), Anna Jöud (2,3), Anja Nyberg (5), Ingemar F Petersson (2, 3),

(1) Department of Health Sciences, Lund University, Sweden

(2) Epidemiology and Research Centre South, Region Skåne, Sweden

(3) Department of Ortophedics, Clinical Sciences, Lund University, Sweden

(4) R&D Kronoberg, Kronoberg County Council, Växjö, Sweden

(5) Head Office, Department of Health Care Governance, Region Skåne, Sweden

#### Introduction

Musculoskeletal disorders (MSD) are a major reason for impaired work ability, work productivity and sick leave. In 2009, a national rehabilitation program was introduced in Sweden, in order to supply evidence-based rehabilitation. Patients with MSD were offered multimodal rehabilitation (MMR) within Primary care. The main focuses were on promoting work ability and decrease the need for sick leave.

#### Purpose of the study

The purpose was to analyse the effects of MMR within a national rehabilitation program, for patients with MSD. Special attention was on aspects closely related to work ability.

#### Methods

We conducted a prospective, observational cohort study, including 406 patients with MSD attending MMR in primary care in Region Skåne [1]. Patient Registered Outcome Measures (PROMS) on work ability and employment rate were reported at baseline, end of rehabilitation and at three month follow-up. Register data on sick leave (SL) and disability pension (DP), 12 month before MMR and four month after MMR start, was linked to the cohort.

#### Results

The cohort was divided into three groups based on prior SL and DP the year before MMR; no SLDP, part-time SLDP and full SLDP. At MMR start 73.6 % in the group with no SLDP, 76.2 % in the group with part-time SLDP and 61.1 % in the group with full SLDP, reported work ability as impaired. No significant differences between the three groups were seen. After MMR, 34.1 %, 56.9 % and 61.1 %, respectively, reported work ability as impaired. There were differences between the group with no SLDP and part-time SLDP (p= 0.001) and the group with full SLDP (p= 0.032). These differences were also seen at three month follow-up (p= 0.001 respectively p= 0.022). There were differences in self-reported employment rate between the group with no SLDP and full-time SLDP (p< 0.0001) and the group with part-time SLDP and full-time SLDP (p< 0.0001). both at MMR start, after MMR and at three month follow-up (fig.1). The group with no SLDP increased the employment rate with 4.9 % and the two other groups, there were no statistical differences in self-reported employment rate between MMR start and three month follow-up (p=0.109; p=0.071; p= 0.344).

#### Conclusions

After MMR, MSD Patients with no SLDP the year before participating in MMR, reported work ability as less impaired compared to patients with prior sick leave. Patients with no

SLDP also had a slight increased employment rate at three month follow-up and patients with SLDP had a slight decrease in employment rate, but these differences were not statistically significant.

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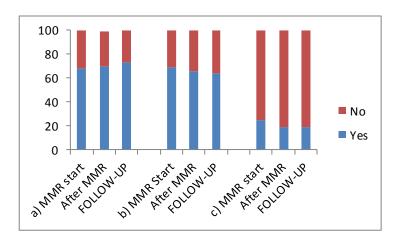


Fig.1 Employed (Yes/no) at MMR start, after MMR and at three month follow up, in patients with a) No SLDP (n=123); b) Part-time SLDP (n=214);c) Full-time SLDP (n=69) the year before MMR.

#### Arts and culture in rehabilitation improves health related quality of life

Kjerstin Stigmar (1, 2), Ulf Hallgårde (3), Charlotte Bergknut (2), Christina Gedeborg-Nilsson (3), Rikke Schau (3), Anja Nyberg (3), Ingemar F Petersson (2, 4)

- (1) Department of Health Sciences, Lund University, Sweden
- (2) Epidemiology and Register Centre South, Region Skåne, Sweden
- (3) Head office, Department of Healthcare Governance, Region Skåne, Sweden
- (4) Department of Orthopedics, Clinical Sciences, Lund University

#### Introduction

Patients with musculoskeletal disorders (MSD) and/or mental disorders are common patient groups in primary health care (PHC) also causing 2/3 of all sick leave in Sweden. The need for rehabilitation in these patients groups is extensive, and there is no consensus in what type of rehabilitation is to prefer. Ongoing discussions suggest avoiding medicalization for larger patient groups [1, 2]. An initial pilot project of non-health care based interventions including arts and culture in rehabilitation was tried out in 2010 and later on a full-scale model was settled.

#### Purpose of the study

The purpose of this interim analysis of the project is to evaluate the impact of arts and culture in rehabilitation on health related quality of life.

#### Method

Patients with MSD and/or mental disorders, at sick leave or at risk for sick leave, are offered arts and culture in rehabilitation, prescribed by the physician or rehabilitation coordinator in PHC. The rehabilitation lasts for 10 weeks and takes place outside PHC, three times a week. The interventions include visiting art exhibitions, museums and concerts but also creative activities, such as participating in choir rehearsals and different handicrafts. Contacts with the Social Insurance Agency and Employment Service are established. The patients are followed with questionnaires at baseline, end of rehabilitation, three and twelve month follow-up. The questionnaires comprise questions on demographics, work situation, work ability and sick leave, health related quality of life (HRQoL), function, pain, anxiety and depression, living habits and willingness to pay. Register data on sick leave, is to be linked to the data. Matched controls are identified in the Swedish population register.

#### Results

55 patients were included in this current pilot study. Preliminary results indicate an improved HRQoL in both men and women. The mean level of HRQoL, measured with EQ-5D, improved significantly from 0.24 to 0.44 for men and from 0.28 to 0.44 for women (p= 0.038). There were no gender differences. The project is running and more outcomes on sick leave and self-reported work ability will be presented at the conference.

#### Conclusion

Arts and culture in rehabilitation thus seems to be an alternative outside the health care system in the rehabilitation for individuals suffering from milder forms of MSD and/or mental disorders resulting in significant improvement of HRQoL Presumable this improvement could be parallel to an improvement in function and work ability in individuals with an unstable work situation.

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#### The welfare challenge in Sweden

Kristina Ström Olsson (1) (1) Insurance Sweden

Sweden faces, like many other countries in Europe and the rest of the world, major challenges when it comes to meeting the needs and the future funding of health care and long term care. With an ageing population increasing need will follow. At the same time the proportion of employed contributing to the tax revenues is declining and medicine technological development is creating new opportunities but also increasing costs.

The welfare systems need to be developed in several respects. Primarily, and most fruitful from a long-term societal perspective, are efforts increasing employment and improving public health. In the short term these welfare systems also need to become more efficient by modifying organization, resource usage, and operating procedures. Replacement models must be designed to create the right incentives among health care providers. Other important parameters that promote quality are consistent monitoring, evaluation and supervision.

In addition to the above mentioned efforts, the financing of future welfare requires additional preparedness. It's important to maintain the confidence in the welfare state and to guarantee its purpose – equal access to welfare regardless of social or economic individual conditions. In Sweden, there is a broad support for a largely publicly funded welfare. However, the limit for what is included within the public welfare system and what lies within the individuals own responsibility to care for is unclear. The public commitment needs to become more transparent, otherwise it will threaten the credibility of the common welfare and might lead to a two-tier society where only those individuals and families who hold the social and economic conditions can get the health care they need, by paying for it through individual-/group insurance or from out-of-pocket payments.

We face different choices in financing our future welfare. One possibility is to raise taxes. However, there is a risk that this solution creates skewed incentives. Too high taxes can lead to reduced growth through lower consumption and reduced labor supply. Another choice is to supplement taxes and co-payments with insurance solutions. Attitude surveys show that there is an acceptance among the public for additional solutions. Private insurance is holding strong incentives for prevention and rapid injury management. These contribute to keeping the claims incurred down and speeding up the care process for the individual. The insurance company in a competitive market is also keen to maintain satisfied customers and to constantly seek new and better therapies. It has been shown that these drivers collectively contribute to today's health care, i.e. insurance is facilitating the return to work in case of health problems.

Other countries in the western world are as well as Sweden facing major welfare challenges. In efforts finding alternative solutions, studying and discussing with politicians, insurance companies and other actors in different countries constitute important contributions. We will compare solutions in Sweden with countries such as Germany, Netherlands, Switzerland, Canada and Japan. We will also show statistics and examples of how private health insurance works in relation to public health in Sweden.

### Conditions for implementing motivational interviewing in sickness insurance: The challenge of developing and maintaining skills

Christian Ståhl (1), Maria Gustavsson (2), Kerstin Ekberg (1) (1) National Centre for Work and Rehabilitation, Linköping University (2) Department of Behavioural Sciences and Learning, Linköping University

#### Introduction

Motivational Interviewing (MI) has been evaluated with convincing results in several areas, e.g. smoking cessation and drug rehabilitation. While it has also been adapted to social work, its effect in such areas is less documented. In 2012, the Swedish Social Insurance Agency decided to implement MI as a new method for promoting return-to-work and labor market reintegration. In the implementation of the MI method all insurance officials (approx. 2500) participated in a 2+2 day long off-the-job training with homework; selected officials were also given the role of coaching the others in their use of MI in the daily work. Managers participated in a 1 day off-the-job training.

#### Purpose of the study

To investigate conditions for implementation of MI as a tool for developing sickness insurance officials' competence in managing return-to-work processes.

#### Methods

The study had an explorative design, comprising 43 interviews with officials and managers at four local insurance offices, and 13 interviews with key respondents on a higher organizational level. The material was analyzed using qualitative content analysis.

#### Results

There were different conditions that constrained the implementation of the MI method: 1) Lacking support in developing and maintaining skills for managing return-to-work processes after the training.

2) Available resources to facilitate the implementation after the training were scarcely used.

3) Managers had limited knowledge of the method and this created a barrier for pro moting its use.

4) After the training, using MI was little prioritized by managers compared to other tasks, where fulfilling quantitative organizational goals (number of cases managed) outweighed focus on the process.

Most respondents were positive towards MI as a method, where it was thought to have potential to improve the quality of meetings with clients. However, many officials emphasized difficulties related to the use of MI, where lack of support in developing and maintaining skills were emphasized. Officials perceived that managers soon considered the implementation to be finished, and that using MI thereafter was mainly an individual concern for the officials. As a consequence, officials described how they at best used fragments of the method, while disregarding several other elements.

#### Conclusions

Although the implementation of MI was relatively ambitious in terms of resources, the result was meager. The study illustrates the need for developed support structures for competence development when implementing new methods, where opportunities for training and facilitation is insufficient if using them is not given managerial priority, and where continuous day-today support is lacking.

# Evaluation of an implementation strategy for individual placement and support for people with severe mental illness. A collaboration between the Dutch Social Security Agency, the Municipality of Amsterdam, a mental health institution and a Dutch insurance.

Yvonne Suijkerbuijk (1), Frederieke Schaafsma (1), Han Anema (1)(1) Research Center for Insurance Medicine/ VU University Medical Center

#### Speaker: Frederieke Schaafsma

#### Introduction

The employment rate of people with severe mental illness is very low both in the Netherlands and internationally. In contrast, these people often report a desire to participate in society and preferably enjoy a partly working life. A promising vocational rehabilitation instrument developed in the USA to increase work participation for this group is Individual Placement and Support (IPS ). Recently, a study in the Netherlands with IPS also reported good results regarding effective work participation. IPS is characterized by rapid placement in regular paid employment with prolonged intensive supervision by an IPS trained coach who is a member of the mental health care team. Despite the demonstrated effectiveness IPS proves difficult to implement in the Netherlands. Organizational and financial barriers play a major role. A mental health institution, the Dutch Social Security Agency (SSA) and the municipality of Amsterdam took the initiative to develop an implementation strategy focusing on the removal of financial and organizational barriers to apply IPS for people with severe mental illness.

#### Purpose of the study

1. To evaluate the (cost ) effectiveness of this organizational and market-oriented implementation strategy aimed at removing financial and organizational barriers for the implementation of IPS for people with severe mental illness who wish to acquire and keep regular paid work.

2. To evaluate the process of the implementation of IPS with an organizational and market-oriented implementation strategy.

#### Methods

It is a quasi - experimental implementation study with a follow-up period of 30 months. The intervention group receives the organizational and financial implementation strategy for IPS and the control group receives the usual implementation of IPS. There will be a (cost) effectiveness analysis of the implementation strategy. A qualitative process evaluation of the implementation strategy will also be conducted. The study population will be adults with severe mental illness who are treated and monitored in an outpatient health care team of a mental health institution. These people have indicated a wish to perform regular paid work. They all receive social assistance benefits from the municipality or benefits for work disability from the SSA. This study has started 1st of February 2014 with including participants.

#### Results

The primary outcome measure will be the proportion of participants who have performed at least 1 day of regular paid work during the follow - up period measured after 18 and 30 months. Secondary outcome measures include other forms of work or participation in society, quality of life , general health, mental health, self-esteem and job satisfaction. First results are expected in 2016.

#### Conclusion

If the implementation strategy proves to be more (cost) effective in the number of people finding and keeping a paid job, this strategy can be used for further implementation of IPS within the Netherlands.

#### ICF Support in the medical certificate in Jönköping county

Eva-Marie Sundkvist (1), Ann-Britt Ekvall (1) (1) Jönköping County Council

#### Background

The design of the Medical certificate [1] in Sweden is based on the World Health Organization's (WHO's) International Classification of Functioning, disability and health (ICF) [2]. In the County of Jönköping, Sweden we discovered that there were often deficiencies when it came to describe how the diagnosis and the functional impairments affected the activity capacity. The physicians asked for support.

#### Objectives

The physicians in the county of Jönköping.

#### Method

In 2008 six different workshops were hold with licenced physician Orvar Nyström [3]. The goal was to develop an ICF-support for the most common diagnosis within the primary care, which might lead to sick listing. Physicians, occupational therapist, physiotherapists, psychologists, social workers, nurses and rehabilitation coordinators participated in the workshops. The workshops were based on the Swedish National Board of Health and Welfare's recommendations for sick leave and the WHO's ICF classification [4,3]. 2011 the ICF-support was expanded with diagnosis within psychiatric and orthopaedic diseases. In 2013 the ICF-support was digitalized and included in the medical certificate in digital medical record. The ICF-support is reached through selectable parameters in scroll bars that appear in the medical certificate.

#### Results and relevant follow-up

There is an ICF-support for 45 different diagnosis (19 primary care, 21 orthopaedic, 4 psychiatric and 1 oncological) in total. The Swedish Social Insurance Agency evaluates the quality on the medical certificates. The results showed that in 2010, when looking at field number four and five in the medical certificate, the county of Jönköping was above the average level among the other counties in Sweden. (Field number 4 describes the functional impairments of a disease and field number 5 describes the activity limitations.)

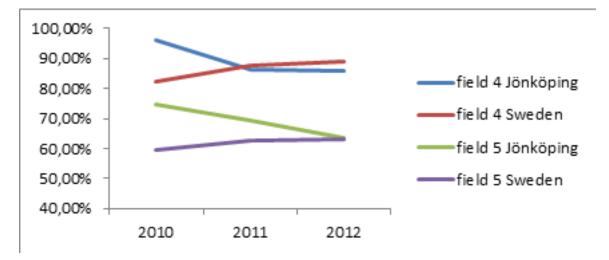


Diagram 1 Percentage of medical certificates with correctly filled fields

We are now, together with the Swedish Social Insurance Agency, evaluating the outcomes of the digitalized support. We are also analysing the fact that our quality is decreasing in the yearly follow up by the Swedish Social Insurance Agency. Could it be that the county of Jönköping have embraced the ICF faster than the Swedish Social Insurance Agency?

#### Indication of the relevance of the study for international audiences

It might be relevant to an international audience to hear/see how you can describe functional impairments and activity limitations based on the ICF classification and use it in a medical certificate.

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## Effects of health behaviors on disability pension due to musculoskeletal diagnoses: A Swedish twin study

Pia Svedberg (1), Annina Ropponen (2)
(1) Division of Insurance Medicine, Karolinska Institutet. Stockholm, Sweden
(2) Finnish Institute of Occupational Health, Helsinki, Finland

#### Introduction

Disability pension (DP) is considered a public health problem [1]. DP is often the result of a long-lasting process and it may contain several interrelated factors, such as socioeconomic status and health, acting throughout the life span [1-4]. Health behaviors, including suboptimal diet, physical inactivity, tobacco use, and excessive alcohol consumption are the leading causes of preventable diseases [5] and it has been proposed that even modest improvements in health behaviors could substantially influence the disease risk and subsequently also the risk for DP.

#### Purpose of the study

This prospective cohort study aimed to investigate single and additive effects of health behaviors on the risk of future DP due to musculoskeletal diagnoses (MSD). A secondary aim was to evaluate the role of familial confounding in these associations.

#### Methods

A sample of 31 206 Swedish twin individuals was followed from 1998-2003 (time of baseline survey) to the end of 2008 with national registries for DP supplemented with additional questionnaire data. Cox proportional hazard ratios (HRs) were estimated.

#### Results

The single effect of moderate to heavy alcohol consumption was associated with decreased risk of DP in analyses accounting for background factors (HR 0.64-0.77). Low frequency of physical activity (HR 1.24) or being past or regular user of tobacco products (HR 1.23-1.50) predicted increased risk for DP in analyses accounting for background and familial factors. Interactions between physical activity and alcohol or tobacco consumption were significant for DP due to MSD.

#### Conclusion

Health behaviors are important risk factors for DP due to MSD. The effect of health behaviors is mainly independent from familial effects (genetics and shared environment) pointing to a direct effect of health behaviors on DP. However, level of education, body mass index, number and severity of diseases, and marital status may confound the associations. The interrelationships between the health behaviors revealed by interactions suggest that prevention of future DP due to MD should attempt to influence these co-existent behaviors.

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#### Work capacity evaluation for patients on long-term sick-leave

A Tenenbaum (1), Ewa Book (2), L Gerhardsson (3)

- (1) Hälsan & Arbetslivet, Skaraborgs Sjukhus, SE-541 85 Skövde, VGRegionen Sweden
- (2) Hälsan & Arbetslivet, Södra Älvsborg, Borås, Västra Götalandsregionen, Sweden.
- (3) Occupational and Environmental Med, Sahlgrenska Academy and Univ. Hosp. Sweden

#### Speaker: Ewa Book

#### Background

The Occupational Health Service Centre, Health & Working Life (H&A) is responsible for Occupational Health Service (OHS) for approximately 50 000 employees at Region Västra Götaland (VGR), in the southwest of Sweden. Helping employers to reduce sick leave and facilitate return to work are two important objectives for OHS. Another important task is to support the regional work to obtain the personnel policy visions and work environment goals set up by VGR. A team-based evaluation of work capacity has been developed and tested as a tool to reduce sick-leave and to promote the return to work among patients treated at H&A.

#### Objectives

The aim was implement a work capacity evaluations (WCE) and to evaluate the patients' and their employers' experience of the WCE.

#### Methods

The project includes 128 patients on long-term sick-leave in need of work capacity evaluations. Approximately half of the patients suffered from psychiatric disabilities, e.g. burnout. The WCE is a team based method that includes separate assessments of a nurse, physician, physiotherapist and psychologist. After the interviews and investigations an overall assessment was made based on the information obtained from the team members. The results were first presented to the patient and then jointly for the patient and the employer. The WCE process was evaluated by two questionnaires, one to the patient (7 questions), and one to the employer (8 questions). The responses to all questions were graded from 1 (lowest) to 6 (highest). Sick-leave was measured six months later for all participants. No control group was used. The entire process was evaluated by an independent researcher.

#### Results

The WCE method is a feasible method to use in OHS practice for patients on long-term sick leave. The results from the evaluation showed that both the patient and the employer were very positive and the mean values of the responses to the questions varied between 4.8 and 6.0 for both groups. At the 6-month follow-up, the full-time sick leave had been reduced by about 50 %.

#### **Discussion/Conclusions**

The evaluation of the WCE team approach that has been introduced by H&A was evaluated as positive by both patients and employers. Due to the promising outcome, WCE is now used on a larger scale among employees with long-term sick-leave in VGR.

## Development of combined use of SASSAM and work capacity evaluation in occupational health service

Artur Tenenbaum (1), Eva Ulvsgärd (2), Anette Lillhammar (3), Per Johansson (4)

(1) Hälsan & Arbetslivet, Skaraborgs Sjh. Västra Götalandsregionen. Sweden

(2) Hälsan & Arbetslivet, Fyrbodal. Västra Götalandsregionen. Sweden

(3) Hälsan & Arbetslivet, Göteborg. Västra Götalandsregionen. Sweden

(4) Hälsan & Arbetslivet, Göteborg. Västra Götalandsregionen. Sweden

#### Speaker: Eva Ulvsgärd

#### Background

The Occupational Health Service Centre, Health & Working Life (H&A) is responsible for Occupational Health Service (OHS) for approximately 50 000 employees at Region Västra Götaland (VGR), in the southwest of Sweden. Helping employers to reduce sick leave and facilitate return to work are two important objectives for OHS. A team-based evaluation of work capacity (WCE) has previously been developed and we know from previous work that it is important to include the patient's view in work capacity evaluation. The SASSAM (Strukturerad Arbetsmetodik vid Sjukfallsutredning och SAMordnad rehabilitering) method offers the possibility of describing the patient's resources, barriers and motivation in work as well as private life factors. Thus, including the SASSAM assessment in the work capacity evaluation offers the possibility of better overall assessment of both life and work situation. The original SASSAM method, however, does not provide sufficient description of work and thus additional aim of this project was to develop a Work-SASSAM as a complement to SASSAM.

#### Objectives

The aim was to evaluate the use of SASSAM when performing WCEs of patients at OHS. The second aim was to develop Work-SASSAM as a complement to SASSAM.

#### Methods

The WCE is a team-based methods that includes separate assessments of a nurse, physician, physiotherapist and psychologist. After the interviews and investigations an overall assessment is made based on the information obtained from the team members. The result is first presented to the patient and then jointly to the patient and the employer. The SASSAM assessments were performed by occupational health nurses, and its' use in WCE was qualitatively evaluated by the nurses together with physicians A team from H&A develop a Work-SASSAM as a complement to SASSAM.

#### Results

Use of the SASSAM in WCE performed by occupational health nurse was experienced as positive and offers a potential to describe patient resources, barriers and motivation to return to work. The need of engaging other professions such as physiotherapist and/or psychologist could easily be identified by the nurse while using the SASSAM map.

The development of Work-SASSAM as a complement to the original SASSAM provides greater knowledge in the following areas: work content, work quantity, physical work environment, organization of work, leadership, colleagues, and possibilities to influence the work situation.

#### **Discussion/Conclusions**

The SASSAM assessment was experienced as a valuable complementing tool when performing a WCE. Such relatively simple questions asked by a OHS nurse, also about work, gives information useful in the return to work process.

The combined use of the original SASSAM and our complement Work-SASSAM seem to be a feasible approach to assess the patient's whole situation both at work and in private life when performing work capacity evaluation.

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#### New instrument for testing physical ability in work capacity evaluations in Sweden

Artur Tenenbaum (3), Christer Knutsson (1), Ann-Charlotte Johansson (2), Lena Stuivers (3)
(1) Hälsan & Arbetslivet, Fyrbodal, Västra Götalandsregionen Sweden.
(2) Hälsan & Arbetslivet, Göteborg. Västra Götalandsregionen Sweden.
(3) Hälsan & Arbetslivet, Skaraborgs Sjh, Skövde, Västra Götalandsregionen. Sweden
Speaker: Christer Knutsson

#### Background

The Occupational Health Service Centre, Health & Working Life (H&A) is responsible for Occupational Health Service (OHS) for approximately 50 000 employees at Region Västra Götaland (VGR), in the southwest of Sweden. Helping employers to reduce sick leave and facilitate return to work are two important objectives for OHS. Within in the frame of a team-based evaluation of work capacity, physical ability is tested by physiotherapist. Since 2000, the so called Test Instrument for Profile of Physical Ability (TIPPA) method has been used to assess physical ability in OHS (1). Here, we tested the feasibility of using a new test instrument to assess physical ability. This method (Aktivitetsförmågeutredning (AFU)) has recently been developed by The Karolinska Institute for The Swedish Social Insurance Agency (2).

#### Objectives

The aim of this study was to clinically evaluate a new test instrument for assessment of physical ability and to compare this test with previously used instrument TIPPA. The second aim was to design a computer-based assistance tool for the user of the new test.

#### Methods

Twelve subjects were included in the evaluation of the new test instrument. Seven were patients and the other five subjects were co-workers at the OHS. Both qualitative and quantitative information was collected in order to evaluate the new test. This includes;

Time used to assess the patient, documentation of the procedure, what information regarding physical ability and physical disability was obtained and how easy it was to learn the method and to understand the instructions. Qualitative data through interviews was then collected.

#### Results

The new test takes more time in the beginning in a clinical work. Both performers and subjects experience that the instructions in the new test are easy to understand. The new test does more specifically describe the patient's limitations and abilities and it is more clearer in regard to which functions are tested, such as balance and coordination skills. Also, the new method is better related to the ICF system. TIPPA, however, provides more in detail information about the patient's behaviour and awareness of their own abilities. Furthermore, the presentation of the results from the TIPPA test are easier to understand as it only offers information in text format. The test protocol was difficult to deal with in a paper format and thus a computer-based tool was developed.

#### **Discussion/Conclusions**

The new test instrument describes the patient's limitations and abilities more specifically. In some parts TIPPA provides more information and more details about the patient's behaviour and awareness of their own abilities.

The interpretations of the test results match the patient's own perception of their physical abilities well.

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#### The employers' perspective on RTW support of employees with breast cancer

*Corine Tiedtke (1), Peter Donceel (2), Angelique De Rijk (1), Bernadette Dierckx de Casterlé (2)* 

(1) Faculty of Health, Medicine and Life Sciences, Soc. Med. Maastricht University,

(2) Center of Environment and Health, KU Leuven

#### Introduction

Return-to-work (RTW) after cancer is important as it contributes to a better financial situation and to the quality of life. Employers seem to play a key-role in this RTW process. They seem to be willing to create good working conditions for cancer patients, but feel confronted with doubts and difficulties when handling RTW issues1,2. However, research on employers' experiences with RTW of employees with (breast) cancer is scarce and fragmented. The current study focused on breast cancer in Belgium, a condition with a high incidence (106.2 per 1000.000 females in 2010)3.

#### Purpose

Our aim is to explore how Belgian employers experience their role and responsibility in RTW of employees with breast cancer to better understand their position.

#### Methods

A qualitative approach was used with convenience sampling using diverse methods. Seventeen employers from the public, private and non-profit sector – directly involved in the RTW process – were interviewed at the employer's place of work. The interview guide consisted of questions related to the employer's experiences with 'sickness absence' and 'diagnosis disclosure', 'work disability' and 'return to work' related to employees with breast cancer. For analysis, we used the Qualitative Analysis Guide of Leuven (QUAGOL), a practical guideline based on principles of Grounded Theory.

#### Results

Employers perceived the guidance of sickness absence and RTW of employees with breast cancer as an intangible process which is difficult to manage. This was expressed in (1) concern, referring to the employer's emotional involvement, (2) uncertainty about the course of illness and the guidance needed by the employee and (3) specific dilemmas in the RTW process (incursion on the employee's privacy; employee versus organization interest; employers' personal versus professional role). Furthermore they felt not much supported in their tasks. The experiences about concern, uncertainty and dilemmas were not experienced to the same extent by all the employers. Variation was related to differences regarding (a) the organization, (b) the individual employer and (c) the individual employee. A few organizations had organizational policies for RTW, but these were not experienced as helpful in the very specific case of the employee with breast cancer.

#### Conclusions

The results showed that the interviewed employers did their best to grasp the experienced intangibility and the findings contribute to a better understanding of the intrinsic complexity of the RTW process for breast cancer patients. Further research is needed to nuance these findings and to discover the specific needs of employers with regard to supporting RTW of cancer patients. Also it is advisable to use the current framework of experience as a

starting point for research among other populations, and to find out the employer perspectives on other (oncological) disorders.

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3. 3. Belgian Cancer Registry. http://www.kankerregister.org/default.aspx?PageId=100. Download 2014 January 31 Proposition d'une méthode de calcul d'invalidité personnelle lors d'une atteinte à l'intégrité physico-psychique relative à une incontinence urinaire. (Proposal for a method of calculation individual disability during a breach of physio-physic integrity on urinary incontinence)

Luc Timmermans (1,2,3,4), Freddy Falez (1), Christian Mélot (1,4), Eric Wespes (4) (1) Department of Corporeal Evaluation CP629, Erasme University Hospital, Université (2) Department of Urology, CH Nivelles, 1400 Nivelles, Belgium (3) Department of Urology, CHU A. Vésale, Montigny-le-Tilleul, Belgium

(4) Department of Emergency Medicine CP520, Erasme University Hospital, Université L

#### Introduction

Le concept récent d'invalidité personnelle traduit un préjudice (résultant soit d'un traumatisme, soit d'une affection médicale) encouru par une victime ou un patient dans sa vie personnelle (actes de la vie courante). La difficulté rencontrée par les experts est l'évaluation objective des atteintes séquellaires. Des outils comme le Guide Barème Européen ont été élaboré à la suite de conférences de consensus. Il convient toutefois de remarquer que dans le cadre de l'incontinence urinaire, les taux imputés varient de 0 à 30% sans critères nettement objectivables.

#### But du travail

Le but de ce travail est de fournir une méthode fiable, objective et reproductible de calcul d'une invalidité personnelle dans le cadre de l'incontinence urinaire.

#### Population et méthode

Sur base d'une étude prospective réalisée sur 120 patients, nous avons déterminé par la méthode de régression logistique multivariable que les meilleurs prédicteurs d'une incontinence urinaire sont l'âge et le score global au questionnaire ICIQ-UI-SF. Par transformation de régression logistique, nous avons construit une équation déterminant une probabilité d'incontinence.

#### Résultats

Cette équation a permis la création d'une grille évaluative en fonction de l'âge du patient et de son score global au questionnaire ICIQ-SF-UI.

ICIQ/ Age	20	30	40	45	50	55	60	65	70	80	90
1	0,09	0,17	0,28	0,36	0,44	0,52	0,6	0,68	0,75	0,85	0,92
2	0,11	0,2	0,32	0,4	0,48	0,57	0,65	0,72	0,78	0,88	0,93
3	0,13	0,23	0,36	0,44	0,53	0,61	0,69	0,76	0,81	0,89	0,94
4	0,15	0,26	0,41	0,49	0,57	0,65	0,73	0,79	0,84	0,91	0,95
5	0,17	0,3	0,45	0,54	0,62	0,69	0,76	0,82	0,86	0,92	0,96
6	0,21	0,34	0,5	0,58	0,66	0,73	0,79	0,84	0,88	0,94	0,97
7	0,24	0,38	0,54	0,63	0,7	0,77	0,82	0,87	0,9	0,95	0,97
8	0,27	0,42	0,59	0,67	0,74	0,8	0,85	0,89	0,92	0,96	0,98
9	0,31	0,47	0,63	0,71	0,77	0,83	0,87	0,9	0,93	0,96	0,98
10	0,35	0,51	0,67	0,74	0,8	0,85	0,89	0,92	0,94	0,97	0,98
11	0,39	0,56	0,71	0,78	0,83	0,87	0,91	0,93	0,95	0,97	0,99
12	0,44	0,6	0,75	0,81	0,85	0,89	0,92	0,94	0,96	0,98	0,99
13	0,48	0,65	0,78	0,83	0,88	0,91	0,93	0,95	0,96	0,98	0,99
14	0,53	0,69	0,81	0,86	0,89	0,92	0,94	0,96	0,97	0,98	0,99
15	0,57	0,73	0,84	0,88	0,91	0,93	0,95	0,97	0,98	0,99	0,99
16	0,62	0,76	0,86	0,9	0,92	0,95	0,96	0,97	0,98	0,99	0,99
17	0,66	0,79	0,88	0,91	0,94	0,95	0,97	0,98	0,98	0,99	1
18	0,7	0,82	0,9	0,93	0,95	0,96	0,97	0,98	0,99	0,99	1
19	0,74	0,85	0,92	0,94	0,96	0,97	0,98	0,98	0,99	0,99	1
20	0,77	0,87	0,93	0,95	0,96	0,97	0,98	0,99	0,99	0,99	1
21	0,8	0,89	0,94	0,96	0,97	0,98	0,98	0,99	0,99	1	1
0	0,08	0,14	0,25	0,32	0,39	0,48	0,56	0,64	0,71	0,83	0,91

Sachant selon divers barèmes que le taux maximum imputé à une incontinence urinaire est de 30%, nous pouvons proposer que l'Atteinte à l'Intégrité Physico-Psychique est calculé par le produit de 0.3 par le taux déterminé par la grille évaluative ;

%AIPP= 0,3 . P(incont.ICIQ/âge)

#### Conclusion

Nous pouvons appliquer ce principe à des exemples concrets ainsi un patient âgé de 40 ans présente une incontinence objectivée ICIQ=21 (bref maximum), sans état antérieur. Le

calcul est 0,3. (0,94-0,25)= 0,3. 0,69= 0,21 donc 21%.

Supposons que ce même patient présente un état antérieur objectivé à ICIQ=10, le calcul devient 0,3 . (0,94-0,67)= 0,3 . 0,27= 0,08 donc 8%

#### Référence

L.TIMMERMANS, F.FALEZ, C.MELOT, E.WESPES "Validation of the

International Consultation on Incontinence Questionnaire-Urinary Incontinence-Short

Form (ICIQ-UI-SF) use for impairment rating : A Transversal Retrospective Study of

120 Patients" Neurourol.Urodyn. 2013,32,974-979, DOI 10.1002/nau.22363

## Objectivation de l'impact qualitatif d'une infirmière référente en consultation d'urologie. (Qualitative assessment of the impact of a specialist nurse in outpatient urology consultations)

Luc Timmermans (1,2), Annick Larroumets (1), Paul Hoffmann (1), Chantal Defourny (1), Freddy Falez (2)

(1), Centre Hospitalier Tubize-Nivelles – 1, rue Samiette – 1400 Nivelles – Belgiqu

(2) Département d'évaluation des atteintes à la santé, Université Libre de Bruxelles Introduction

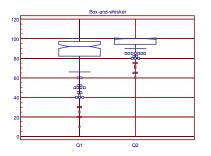
Nous proposons une étude prospective sur une population ambulatoire de patient(e)s afin de démontrer la valeur de l'infirmièr(e) référent(e) dans une consultation générale en urologie.

#### Population et méthode

135 patients (40 femmes, 95 hommes) ont été inclus prospectivement. Les troubles de la fonction urinaire ont été définis par la Classification Internationale du Fonctionnement, du Handicap et de la Santé (CIF) de l'Organisation Mondiale de la Santé (OMS). La composante activité –participation a été analysée dans le domaine de la communication. Nous avons utilisé les résultats obtenus sur base d'une échelle visuelle analogique (EVA), L'EVA a également déterminé un pourcentage qualifiant le facteur facilitateur de l'environnement créé par l'infirmière spécialisée. L'analyse statistique comporte une étude de la population ainsi qu'une comparaison par analyse de la variance (ANOVA) de la composante activité-participation.

#### Résultats

La population était âgée de 4 ans et 10 mois à 96 ans (m=63,29 ; ET=19,71). Le code qualificatif médian du trouble urologique observé était 2. L'analyse de la variance de la composante activité-participation a objectivé une différence significative entre les deux groupes (F= 6,4172 ; p< 0,001). La troisième question posée qualifiait le facteur facilitateur de l'environnement créé par l'infirmière sur base d'une EVA avec une moyenne de 97,79%(ET=4,67).



Analyse comparative des résultats de l'EVA pour les deux premières questions. Q1 correspond à la question posée avant prise en charge paramédicale, Q2 correspond à la question posée après prise en charge paramédicale

#### Conclusion

Notre travail prospectif s'est porté sur l'évaluation de l'impact qualitatif d'une infirmière spécialisée dans le décours d'une consultation ambulatoire urologique à caractère général. Le caractère qualitatif d'environnement facilitateur d'un personnel paramédical spécialisé est important dans le cadre participatif de la communication et de la compréhension du message médical.

#### Référence

L.TIMMERMANS,A.LARROUMETS,P.HOFFMANN,C.DEFOURNY,F.FALEZ « Objectivation de l'impact qualitatif d'une infirmière référente en consultation d'urologie » Santé Publique 2013,25,163-167

## New resection guide assisted endoprosthetics promises better joint mechanics and less disability

Tomaz Tomazic (1,2), Slavko Kramberger (2), Tomaz Brajlih (3), Igor Drstvensek (3)

(1) Pension and Disability Insurance Institute of Slovenia, Zagrebska 84, SI 2000

(2) Teaching Hospital Murska Sobota, Ul. dr. Vrbnjaka 6, SI-9000

(3) Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, SI 2000

#### Introduction

Joint wear in about 15–20% leads to invalidity and 0.2% of the population needs endoprosthesis. The aim of our resection guide technology with Patient-Specific Instruments (PSI) is creating an individual joint model and manufacturing new resection guides for hip-, shoulder- and knee-endoprosthesis (Slovenian technology), promising exact bone cuts, optimal component positioning and better long-term joint mechanics [1].

#### Methods

For 18 patients in the PSI-group (6 Hip, 6 Knee, 6 Shoulder), joint CT images in DICOM format were transferred to software EBS ver. 2.2.1 (Ekliptik, Slovenia), to detect the mechanical axis, centre of rotation, inclination and joint version angles (Fig.1a). On the basis of these scans, we created a personalised 3D-joint model, with determination of optimal and exact resection levels for endoprosthesis placement due to available bone stock. In collaboration with mechanical engineers, the resection guides in EU-certificated PA2200 polyamide material were created (Fig.1b–e). The jig underside is a practical impression of the bone, fitting perfectly to the joint surface and allowing exact determination of bone cuts, which is the basis for proper positioning of endoprosthesis (Fig.1f). Component placement due to 3D-CT analysis, OP-time, alignment, joint movements, the ability of walking and joint scores were tested.



1a1b1c1d1e1fFigure 1a: Centre of rotation, retroversion and inclination of glenoid. 1b-c: Position of the humeraljig. 2d-e: Placing of the glenoid jig and drilling of the glenoid central hole. 1e: Postoperative 3D placement of the shoulder endoprosthesis.

#### **Results (knee group)**

In the PSI knee group, postoperative mechanical axis was 89.7°±2.1° and 92.2°±2.8° (control group). The axis outliers in the PSI group were ±2.3° and in the control group ±4.6°. In PSI group, the resection time was reduced for 7.2 minutes (average), and the OP-time for 12.4 minutes. Postoperative bold-loss was not significantly different in both groups (p=0.542). The hospital stay was 3.8 days in the PSI group (4-day control group). At 6,5 weeks, all PSI-patients walked independently, 2 patients judged their knee as "normal" and 3 patients as "nearly normal." The Combined Knee Society score was 170±19 points in the PSI group and 157±23 points in the control group.

#### Conclusion

PSI technique enables better and more accurate planning of the resection lines, easier, quicker, more precise endoprosthesis fit and less invasive component placement, with rare postOP-3D-CT mechanical axis outliers. We get better functional joint scores, higher patient satisfaction and expect less patient disability and faster return to normal lifestyle, professional occupation and social environment.

#### Literature

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#### Applying the MINI-ICF-APP in psychiatric disability evaluation: An empirical illustration of its promise and limitations

Bruno Trezzini (1), Urban Schwegler (1,2), Jörg Jeger (3) (1) Swiss Paraplegic Research, Nottwil, Switzerland (2) Dep. of Health Sciences & Health Policy, University of Lucerne, Switzerland (3) MEDAS Zentralschweiz, Lucerne, Switzerland

#### Introduction

To improve the reliability and transparency of psychiatric evaluations of the work capacity of social insurance claimants, ICF-based tools such as the Mini-ICF-APP have gained in popularity. The Mini-ICF-APP allows assessors to describe and quantify the activity and participation limitations of persons with mental health problems [1]. Unlike other ICF-based tools such as the core set for social security evaluation [2], the Mini-ICF-APP provides detailed descriptions of the different activity dimensions as well as specific anchor definitions for the rating process. While the tool's validity and reliability have been tested [3], less is known about its utility in the context of social insurance benefits decisions and its actual use in clinical practice of work capacity evaluation of social security claimants in Switzer-land [4, 5].

#### Purpose

By drawing on operating data of a medical assessment center in Switzerland, we wanted to gauge the utility of the Mini-ICF-APP in effectively enhancing the transparency and consistency of work capacity evaluation for claimants with mental health problems.

#### Methods

In 2010, MEDAS Zentralschweiz started to roll out the Mini-ICF-APP in its daily assessment practice. The present data were originally collected as part of a continuous quality improvement process. Mini-ICF-APP scores and percentage work capacity assessments by four psychiatrists, who attended to 431 claimants between February 2010 and April 2013, were used. Descriptive analyses and nonparametric tests (Kruskal-Wallis H-test; Spearman's rho) were performed to detect any differences and inconsistencies across assessors, claimant groups, and time.

#### Results

The four assessors' shares in the total number of claimants varied considerably (23%, 41.8%, 9.1%, and 26.2%). Claimants' age and gender were neither associated with their overall Mini-ICF-APP score nor with their percentage work capacity (both in the previous job and in an adapted job). Although graphical inspection of frequency distributions and scatterplots indicated some divergent rating tendencies among assessors, these did not prove to be statistically significant for the overall Mini-ICF-APP score (H=6.479, df=3, p=0.0905). However, graphical inspection also revealed some bunching patterns in the data and some variation among assessors as to how they seemed to "translate" the Mini-ICF-APP information into percentage work capacity estimates for the former job (H=14.529, df=3, p=0.0023) and for adapted new jobs (H=14.640, df=3, p=0.0022). Finally, the average values of 12 Mini-ICF-APP items were highly correlated with comparable data in Linden et al. [1].

#### Conclusion

The Mini-ICF-APP can be useful in clinical practice by providing guidance and reference points for assessors. It provides a basis for enhanced consistency and transparency of evaluation outcomes and for continuous quality improvement. However, it has also become clear that variations across assessors do persist and that a major challenge lies in the appropriate "translation" of Mini-ICF-APP profiles into percentage work capacity. Further comparative data from other assessment centers and, in particular, controlled studies are needed in order to properly quantify the effect of the Mini-ICF-APP on the test-retest and interrater reliability of expert assessments. The application of a tool like the Mini-ICF-APP can contribute to more transparency but it cannot solve all procedural shortcomings of current disability determination systems.

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#### Evidence based underwriting in health and life insurance

Paul Triggs () (1) RISK-CONSULTING Prof. Dr. Weyer GmbH, Hatzfeldstrasse 5, D-51069 Cologne, Germany

Evidence based underwriting is a much used expression in the insurance of medical risks but the evidence in many cases is very thin or even inexistent. Most underwriting manuals today are based much more on medical opinion rather than real evidence, and it is no surprise that the manuals vary strongly in their recommendations.

RISK-CONSULTING has pursued the aim of establishing truly evidence based underwriting since the early 1990s, through the development of a unique database of personal medical histories. The data comes from health insurance companies who pool their data with RISK-CONSULTING in order to benefit from highest achievable underwriting quality. Private health insurers in Germany receive the entire claims data of their insured customers, consistently coded with ICD codes. The database currently covers 20 years of continuous medical history, with over 100 million contract-years of data and over 700 million medical claims. In recent years insurers from other countries have joined the pool, which now contains data from over 180 countries.

The size of this pool means that real, statistically significant evidence is available for thousands of different medical conditions. The length of the continuous medical histories allows correlations to be found which reveal the true significance of each medical condition for future health.

The use of this data for underwriting in health insurance is well established. More recent research has demonstrated that this approach can also lead to significant improvements in underwriting in long term care, life and disability. In these lines, the amount of evidence linking previous medical conditions directly with claims is very unsatisfactory. In this presentation we demonstrate how health insurance data, in combination with publicly available mortality and disability data, can be used to predict the development of those conditions which lead to claims for death and disability, or for the need for care. This new, two step process significantly improves the accuracy of underwriting of these coverages.

This new development has recently been introduced in the German market. In combination with interactive technology for diagnosis exploration, it allows the complete underwriting of over 95% of applications to take place in real time at the point of sale. The impact on process costs and closure rates is very significant.

#### Occupational diseases in healthcare sector in Croatia

Nada Turčić (1), Bojana Knežević (2),Željka Sokolović Pavić; (1), Tamara Stević (1) (1) Croatian Institute for Health Protection and Safety at Work 994078 (2) Clinical hospital center Zagreb

#### Introduction

According to the data from National strategy for development of healthcare 2012 -2020, at the end of 2011 there were 73 077 employees permanently employed in Croatian health care system, 55 781 of which were health professionals and associates. Persons employed in health care can be exposed to various risks and hazards during their working activities such as infectious diseases, ionizing radiation, cytotoxic substances, chemicals, overuse syndromes, repetitive movements and statodynamic strains.

Treatment of injuries at work and occupational diseases is under the jurisdiction of general practitioner while preventive examinations determined by legislation and assessment of work capacity are exclusively within the competence of occupational medicine specialists.

#### Purpose of the study

Purpose of this study is to evaluate (investigate) the types of occupational diseases in healthcare workers in Croatia in the last four years and to focus prevention activities on reducing the occurrence of occupational diseases in Croatia.

#### Methods

Within Croatian Institute for health Protection and Safety at Work, Registry of Occupational Diseases was established and operates as the activity of the Institute that is carried out continuously On behalf of Ministry of Health. Registry monitors occupational diseases acknowledged at the national level thus providing the foundation for preventive activities in the field of health protection of the working population (workers). Analyzed are causes of occupational diseases and characteristics of patients (age, sex, years of employment, qualifications), as well as economic activities and qualifications. Additionally, the analysed are harmful effects or types of hazard that caused certain occupational disease.

#### Results

Health and social care activity is ranked fourth according to the number of occupational diseases in Croatia, with an average rate of 15.3/100,000. Evaluating the three-year period from 2010 to 2013, a total of 1237 occupational diseases were acknowledged, of which 51 were work-related illnesses in health care sector. Out of total number of acknowledged occupational diseases in the health care sector, 40 were infectious diseases, five were overuse syndromes, two were allergic dermatitis, two asthmas and two neoplasms (caused by ionizing radiation).

#### Conclusion

The highest number of infectious diseases as occupational diseases were acknowledged in health. It can be concluded that the activities related to the prevention of infectious diseases such as education and surveillance of adequate use of protective personal equipment could lower the incidence of occupational diseases in the Republic of Croatia.

#### Literature:

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#### Natureassisted therapy in the Swedish region Västmanland

Alf Uttermalm (1), Catrin Nilsson (1), Bo Simonsson (2), Tuula Wallsten (2)

- (1) Social insurance agency, Västerås, Sweden
- (2) Västmanland County Council, Västerås, Sweden

#### Introduction

The use of nature in the rehabilitative purposes has long been well-documented. Research suggests that the use of nature is a powerful instrument for treating and preventing mental and physical disease.

There is likely a quality in outdoor experiences that dampens feelings of anxiety. A possible distortion of anxiety triggers can perhaps explain this phenomenon. The distortion in question is produced by signals of shelter and safety, which is linked to a natural environment. This produces a soothing feeling for the participants.

The project was conducted in two periods. 41 participants underwent the process in 2008 and 198 participants in 2010 – 2012.

The participants had a clinical picture of psychiatric disorders (F) or musculoskeletal disorders (M). The absence from the labor force ranged from 1-7 years.

#### Purpose of the study

The project was aimed at increasing the rehabilitation potential of people within working age (16-64 years of age), and to strengthen participants' cognitive self-image, physical fitness and social skills.

#### Method

An essential element is to move people away from the environment in which their anxiety triggers are activated and into an environment that dampens these feelings, which is described in the background portion.

An employment worker can, in forestry / natural environment, easily capture the participant's desire for job training without it being obscured by diffuse anxiety. The participants went through eight weeks of nature-based group activity in the forest environment, with cognitive training elements around significant areas such as self-image, self-esteem, coping strategies, and stress management. The participants were also engaged in training aimed at helping them to articulate their dreams for the future. Eight weeks of vocational rehabilitation followed. This was done through an internship, of which the participant felt was interesting.

#### Results

The project was conducted in two sessions. In 2008 a total of 41 people participated in the project. 25 of those went on to continued vocational rehabilitation. Of these, 22 started to work or study immediately after. A three-year follow-up of these in 2011 showed that 18 of them were still engaged in work or studies.

During the second period there were 198 clients started the project. 102 went through the

process. 45 of them went back to work or study, the majority in full-time work. 41 participants are in continued vocational rehabilitation. An active workable plan exists and continued rehabilitation progress is made. 34 of the 198 participants have received disability pension. 78 clients are on sick leave. This shows that the participants are very fragile even if the percentage of participants within the group that has returned to work is high.

#### Conclusions

Natureassisted rehabilitation with cognitive elements, for patients with psychiatric and musculoskeletal diagnoses, is an effective method. The economic costs for these patient groups are significant. If results appear to hold, there are large gains to be made for both the individual and society.

The outcome of the project was convincing.

#### Horticultural rehabilitation is proven effective

Alf Uttermalm (1), Catrin Nilsson (1), Bente Eriksson (2), Per Axell (2), Camilla Holm (2), Bo Simonsson (3), Tuula Wallsten (3)

- (1) Social insurance agency, Västerås, Sweden
- (2) City of Västerås, Sweden
- (3) Västmanland County Council, Västerås, Sweden

#### Background

Vägen in and Gröna Arenor are two projects involving nature as a method, which have now merged into the pilot model Samordningsteam Västerås.

Through Samordningsförbundet Västerås, the model has been developed through a dynamic cooperation between the Municipality, the Job Centre, the Social Insurance Administration and the County Council.

The team includes a physiotherapist, a CBT level 1 therapist, a behavioral scientist, a researcher, a Job Centre advisor, personal case worker, supervisors and gardeners.

#### Method

The positive experiences will be utilized and built on. The participants in the project are 16-64 years of age and are unemployed.

The project consists of three different groups: the focus of the first group is on gardening, where the participants work in the garden for six months. The second group is experience-based, where the participants spend time in the countryside, with eight weeks of rehabilitation and eight weeks of work experience. The final group consists of young adults in need of a motivational intervention.

Our method is based on rehabilitation with the assistance of nature, and includes cognitive and existential training elements focusing on key areas such as self-image, self-esteem, coping strategies and stress management.

A vocational rehabilitation group, an assessment group and a behavioral medical group are actively involved in the project; a research team observes the progress of the project.

#### Results

Our research findings show that nature is a powerful tool when used in a rehabilitative context, and that exposure to natural environments not only prevents ill health but also has a healing effect.

The outcome of previous projects was convincing: of those who finished their time in the Gröna Arenor project, 42.3 % have moved on to be either financially independent or to study.



When it comes to the participants of Vägen in, the results show that about 45 % go on to find work or to study. What the participants have in common is that they are a vulnerable group and their rehabilitation needs to be given time.

#### From activity compensation to employment.

Emelie Waldemarsson (1) (1) Försäkringskassan (Swedish Social Insurance Agency), Malmö

#### Background

In connection with the reformation of the Swedish retirement system in 2003, major changes concerning early retirement for young people between 16 and 29 years of age were introduced. Persons below the age of 30 were no longer eligible for sickness compensation and a new social benefit, activity compensation, was instituted. In addition to the financial benefits the target population was offered voluntary spare time activities reimbursed by the Social Insurance Agency (SIA). It was assumed that activities would be conducive to bringing these young adults closer to the labor market or education. However, the activity compensation system has not yielded the intended results. On the contrary, thousands of young people are still far away from adult life, yielding negative consequences for the individual as well as the whole society.

#### Objectives

The aim of the present project, called AMA, is to break the isolation felt by young people with activity compensation by creating a common framework procedure to be used by the Social Insurance Agency and the Employment Agency that supports the young people taking the leap from receiving benefit to employment.

#### Method

In the AMA project six coaches from the SIA and four coaches from EA, are working on the creation of individual plans for each young disabled client enrolled in the project. The 300 clients in the target group are between 19 and 29 years of age, Swedish residents and granted activity compensation from the SIA. Project participants are also estimated to have a reduced work capacity for at least one year. In addition the clients receive customized support by the SIA and the EA according to the supported employment format.

#### Results and/or relevant follow-up

Two hundred and eighty-seven persons have been enrolled so far, which is very close to the intended number of 300. The 97% received activity compensation due to psychiatric disorders.

Among the participants to the AMA project 170 displayed an increased activity capacity, 87 were unaltered, and 18 clients showed a decreased activity capacity. The average client has increased his/her activity capacity by 9 hours/week. Forty-seven clients have found full or partial employment and have thus been discharged from the activity compensation system.

#### Indication of the relevance of the study for international audiences

Longstanding unemployment in young adults is widespread not only in Sweden, but also in the rest of Europe and slef-reported mental ill health by young individuals has risen dramatically in the past years (1,2). The risk of permanent isolation from mainstream society cannot be ignored. Thus, it is of utmost importance to develop methods with the aim of supporting young people in the process of getting a job. To obtain this objective a great deal of commitment is needed from all relevant stakeholders in the society.

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## Perspectives of unemployed cancer survivors and insurance physicians on job loss and return to work

Martine Van Egmond (1,2,3), Saskia Duijts (1,2), Anne Loyen (1,2), Sylvia Vermeulen (0), Allard van der Beek (1,2), Han Anema (1,2,3)

(1) VU University Medical Center, Amsterdam, The Netherlands

(2) EMGO+ Institute for Health and Care, Amsterdam, The Netherlands

(3) Dutch Research Center for Insurance Medicine, AMC-UMCG-UWV-VUmc, The Netherlands

Speaker: J R Anema

#### Introduction

An increasing group of cancer survivors is living with long-term or permanent health problems, which may negatively affect work ability and employment status [1,2,3]. Eventually, 62% of cancer survivors return to work (RTW) [4]. It is suspected that RTW is even more challenging for unemployed persons compared to employed persons, as they lack support of employers and colleagues, and generally experience a worse health condition. Therefore, RTW may be a different process for unemployed cancer survivors compared to employed cancer survivors.

#### Purpose of the study

It is important to gain insight in the experiences of job loss and RTW of unemployed cancer survivors and to identify relevant barriers and facilitators for RTW. Results from this study may be used to develop tailor-made means of support for unemployed cancer survivors to help them RTW.

#### Methods

We conducted three focus group interviews with seventeen cancer survivors who had become unemployed due to cancer. In addition we conducted three focus group interviews with 23 insurance physicians (IP's), as, in the absence of an employer, they are involved in the RTW process of unemployed cancer survivors. Patients were invited to interviews at the VU University Medical Center in Amsterdam, The Netherlands. For IPs, local peer review groups were used to host their interview. Topics included: experience of job loss, guidance by IP, barriers, needs and facilitators regarding RTW. Data was collected using an audio recording device and collection continued until saturation was reached. Data was transcribed verbatim and analysed according to the principles of thematic analysis.

#### Results

Job loss was a traumatic experience for cancer survivors. Their experiences with the IP's guidance during their unemployment ranged from supporting to obstructing. Survivors identified several obstacles in guidance by IP's that can be improved in daily practise. IP's also expressed the need for improvement in their guidance, e.g. opportunities for extended consultation with cancer survivors. Most survivors were motivated to RTW, but were challenged by both internal (intrapersonal) and external (environmental and societal) barriers and facilitators for RTW.

#### Conclusion

Becoming unemployed after a cancer diagnosis has a major impact on the lives of cancer patients and survivors. Most survivors are motivated, but struggle to RTW. Survivors and IP's identified several barriers, needs and facilitators in order to successfully RTW. This knowledge can be used to change RTW experiences and perhaps the outcome of RTW efforts in daily practise.

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## Factors associated with work disability in employed cancer survivors at 24-month sick leave

Peter van Muijen, MD (1,2,3), Saskia F.A. Duijts, PhD (1), Karin Bonefaas-Groenewoud, MSc (1,3), Allard J. van der Beek, PhD (1,3), Johannes R. Anema, MD PhD (1,3)

(1) Department of Public and Occupational Health, EMGO+ Institute / VU University Medical Center, Amsterdam;

(2) Dutch Social Security Agency;

(3) Research Center for Insurance Medicine.

#### Introduction

In the last decade, work participation of cancer survivors has received growing attention worldwide [1]. Previous studies have shown that cancer survivors are at risk for job loss, unemployment and work disability [2]. Cancer survivors who are unable to resume a former job not only face the risk of a financial loss. That is, job loss can have a negative effect on recovery as well. Return to work (RTW) may help cancer survivors to regain control, lead the way back to the former normal life, strengthen their self-confidence and support them to overcome negative side-effects of treatment [3]. Also, enhancement of work participation of cancer survivors is to the advantage of society at large, in reducing the costs of sick leave and work disability benefits, as well as productivity loss. Therefore, the prevention of work disability in cancer survivors needs ongoing attention.

#### Purpose of the study

Identification of factors associated with work disability in cancer survivors on long term sick leave may support these survivors in choosing effective measures to facilitate vocational rehabilitation and return to work. Therefore, this study aims to disclose factors associated with work disability in cancer survivors at 24 months of sick leave.

#### Methods

A cross sectional study was conducted. The study population consisted of 392 employed sick-listed cancer survivors, aged between 18 and 64 years. They received a questionnaire at 24-month sick leave, the maximum period of sick leave allowed by Dutch social security legislation. Data were linked with the outcome of work disability assessment, as performed by the Dutch social security agency. A hierarchical multivariate logistic regression analysis was performed to identify factors associated with work disability.

#### Results

Data of 351 valid cases were analysed. The mean age of these respondents was 51.1 years (SD 7.4 years) and 36% were men. Related to the category health determinants, more specifically tumor type, breast cancer was reported in 40%, haematological cancer in 14%, and cancer of the digestive system in 13% of the cases. The multivariate analysis showed that, for cancer survivors at 24-month sick leave, native ethnicity, education above lower vocational level, receiving hormone therapy, metastatic disease, physical limitations and low self-reported work ability were associated with an increased risk for work disability

#### Conclusions

This study identified factors associated with work disability of employed cancer survivors at 24 months of sick leave. The results of the current study may serve as a starting point to investigate the course of work disability beyond the maximum period of 24 months of sick leave. In order to enhance work participation of cancer survivors beyond this term, prospective data on work disability in the Netherlands are required.

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#### Sickness absence in Belgian companies: Extent of the problem and monitoring

Karolien Van Nunen (1,2), Katrien Mortelmans (1)

(1) Mensura Occupational Health Services, Belgium

(2) Epidemiology and Social Medicine, University of Antwerp, Belgium

#### Introduction

Many companies face problems in addressing their sickness absence (SA). To tackle the SA, it is important to have an insight in the type and extent of the absenteeism in the organization. Also, it is essential that SA is discussed within the company. Only then, absenteeism can be influenced.

#### Purpose of the study

This large scale quantitative study is conducted to describe the extent of the problem of SA in Belgian companies and how this SA is monitored by the companies: do they possess enough insight in their absenteeism, and are SA conversations (both ad hoc and preventive to avoid SA) performed?

#### Methods

In November 2012, an online survey of 25 questions was sent to Belgian companies that were clients of Mensura Occupational Health Service. A total of 673 surveys were completed, mostly by CEO's or HR-directors (69%). Both small (<20 employees) (36%) and large companies (>100 employees) (34%) participated.

#### Results

In 44% of all companies, SA is considered a serious problem. 28% sees SA as a small problem, and for 26% SA is not a problem in their company. Especially in large companies, SA is recognized as a serious problem: 64% in large companies sees SA as a serious problem, compared to 27% in small companies. Of all companies, more than one out of three (39%) does not succeed to address the SA in their company.

One out of four (26%) has detailed SA data (data per department, gender, age, function, seniority, length of the sick leave, etc.). 43% has data, but not detailed, and one out of four (25%) does not have any data at all. 16% claims to have a clear image of the costs related to SA in their company.

In 39% of the companies, no SA conversations were performed. In 32%, a SA conversation takes place when an employee is frequently absent, in 31%, a SA conversation is held when an employee is absent for a long period. In 15% of the companies, a preventive SA conversation takes place to avoid the absence of an employee. In 66% of the companies, managers are not trained to perform SA conversations with individual sick listed workers.

#### Conclusion

Many companies see SA as a serious problem and indicate that they are not able to tackle their SA. Nevertheless, SA is too often monitored insufficiently, as few companies possess accurate and detailed data concerning SA and its related costs. Too few companies perform SA conversations, and when they do take place, managers are often not trained for it. Organizations should take into account these parameters when they want to address their SA.

### Socio-demographics, health care, and sickness absence as risk indicators for suicidal behaviour in depressed patients

Mo Wang (1), Kristina Alexanderson (1), Bo Runeson (2), Ellenor Mittendorfer-Rutz (1) (1) Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska (2) Centre for Psychiatric Research, Department of Clinical Neuroscience, Karolinsk

#### Introduction

Depressive disorder is strongly associated with suicide attempt and suicide. Still, studies based on large populations investigating the association between sickness absence measures and subsequent suicidal behaviour in depressed patients are lacking to date.

#### Purpose of the study

This study aimed to examine the association of sick-leave measures on the one hand and socio-demographics, socio-economic factors, medication, and health care on the other hand with suicide attempt and suicide among depressed patients.

#### Methods

This is a population-based prospective cohort study using nationwide register data. All individuals who lived in Sweden 31.12.2004, then were aged 16-64 years, and had psychiatric in- or outpatient care due to depressive disorder in 2005 were included (N=21,096). Univariate and multivariate hazard ratios (HR) and 95% confidence intervals (CI) with regard to suicide attempt and suicide in 2006-2010 were estimated by Cox regression.

#### Results

During the follow-up period full-time sickness absence, sickness absence more than 365 days,  $\geq 1$  sick-leave spells, and mental sickness absence increased the risk of suicide attempt in separate analyses. In addition female sex, young age, lower education, living without partner and without children, combined prescription of antidepressants and anxiolytics, inpatient mental and somatic health care, and previous suicide attempt increased the risk of suicide attempt in the multivariate analyses. Hazard ratios ranged from 1.17 to 3.29. Mental sickness absence, male sex, combined antidepressant and anxiolytic prescription, as well as mental inpatient health care and previous suicide attempt predicted suicide (range of HRs 1.51 to 3.35).

#### Conclusion

Several risk indicators with regard to different measures of sickness absence and characteristics on socio-demographics, socio-economic status, medication, and health care were identified for suicidal behaviour among depressed patients. These findings should be considered when monitoring individuals with depressive disorder.

#### The development of a tool to support the insurance physician with the work disability assessment of people with medically unexplained physical symptoms

Kristel Weerdesteijn (1), Frederieke Schaafsma (1), Allard van der Beek (1), Han Anema (1) (1) Research Center for Insurance Medicine/ VU University Medical Center

Speaker: Frederieke Schaafsma

#### Introduction

In 2012 more than 11,000 work disability assessments from clients with medically unexplained symptoms (MUPS) were carried out by insurance physicians employed by the Dutch Social Security Agency (SSA). Of these, approximately 30 % were eligible for full benefits. This shows that many people with MUPS are not able to fully participate, resulting in an enormous economic burden for society. Insurance physicians of the SSA have reported difficulty to assess disability claims of this group of clients in an uniform manner due to the broad range of complaints and the complex relation with functioning. To improve the quality of the disability assessment of clients with MUPS and to improve the advice of the insurance physician regarding prognosis for return to work and/or effective interventions for these people a practical tool may be helpful. This tool should be based on the available scientific knowledge about MUPS and on consensus between medical specialists.

#### Purpose of the study

To develop a practical tool for the insurance physician to support the disability assessment in people with long-term sickness absence due to MUPS. To evaluate scores on satisfaction by insurance physician when using the tool.

#### Methods

The project will consist of a modified Delphi study with medical experts on MUPS and insurance physicians. They will be asked to come to agreement on what factors can be deducted from the scientific knowledge on MUPS that are relevant for the insurance physician to use for his work disability assessments. Using one or two rounds via email the experts are asked to prioritize the most relevant factors. Next, a meeting with these experts will be organized to come to full agreement on the remaining factors using the nominal group technique. At the end of the meeting participants will be asked to once more score a list of remaining factors based on the highest medium group score. Based on the results a tool will be developed to assist the insurance physician. Next, two groups of 25 insurance physicians are asked to assess the work disability of two paper cases with MUPS. The intervention group will have received the tool and a training how to use the tool. Difference in satisfaction with their work disability assessment of the cases will be assessed.

#### **Outcome measures**

The primary outcome of the modified Delphi study is consensus on relevant factors for a work disability assessment for patients with MUPS. Secondary outcome is the degree of satisfaction according to the insurance physician when using the tool. Results are expected in 2015.

#### Conclusion

This study expects to develop a useful tool for the insurance physician to help increase the quality of the work disability assessment for people with long term sickness absence due to MUPS.

## Impaired lung function, a criteria for sickness compensation from the Swedish Social Insurance Agency regardin COPD?

Jan Weibring (1)

(1) Swedish Social Insurance Agency, Umeå, Sweden

## Introduction

This study was carried out to investigate what impact the medical check-up of lung function had on the decision taken by the Swedish Social Insurance Agency concerning sickness compensation when someone suffers from the lung disease COPD. When someone suffers from COPD a check-up of that person's lung function forms the basis of the medical investigation. The Swedish Social Insurance Agency is expected to have access to the result of this check-up of lung function when a decision on sickness compensation is taken. The extent to which lung function is impaired when the amount of sickness compensation is decided upon can be expected to relate to the severity of COPD measured in terms of impaired lung function capacity but also to other factors such as other simultaneous diseases or special reasons, for instance, age.

## Purpose of the study

The purpose of the study is to find out whether or not the doctors presented the result of pulmonary function test in there medical certificate for patients who suffered from COPD and whether or not the Swedish Social Insurance Agency asked for the result of pulmonary function test for these patients.

## Method

The study is a case study where the cases have been taken from the register of the Swedish Social Insurance Agency and includes individuals in the county of Vasterbotten who were given newly granted sickness compensation/disability pension from 2003 to 2007 based on a major COPD diagnosis, diagnosis code J44 (ICD10). To assess the extent of the impaired function capacity caused by COPD an international classification (GOLD) has been used.

#### Result

In 20 of the 28 cases the documents from the Swedish Social Insurance Agency showed that check-ups of lung function capacity had been done (71%). In two of the 28 cases, 7%, there was a documented impairment of lung function capacity corresponding to an inability to work in relation to all jobs on the regular labor market (GOLD class 4). In another eight cases, 29 %, there was a documented lung function impairment corresponding to a clear inability to work in relation to physically heavy jobs (GOLD class 3). All in all, 10 cases, some 35 %, had a documented lung function impairment of a more severe degree. For the remaining 18 cases, some 65 %, there was no documented lung function impairment of a more severe degree.

#### Conclusion

The possibility to generalize was limited since the study only includes a regional sample. However, the study comprehends all subjects in the study population except for individuals with protected identity, which means that internal validity is good. The study shows large shortcomings regarding the quality of the documents used for the assessment of the impaired ability to work when sickness compensation were granted because of COPD. There is a great risk that the assessments will not be understood by the people insured or by nursing staff and that the demands for basic understanding of the rule of law are not met when assessments are made.

The study indicates that the competence of the Swedish Social Insurance Agency needs to be improved when it comes to requiring and assessing elementary information in the medical documents. To be able to assess whether the results are valid for the whole country more regions need to be studied. Moreover, also national criteria for the granting of permanent sickness compensation for people suffering from COPD could be considered and there spirometric values should form a natural point of departure for the assessment. Such criteria could form a natural part of "Guidelines for sick listing" and would contribute to a standardization of the work ability concept concerning people suffering from COPD.

## Long-term effects of a participatory RTW program for sick workers with musculoskeletal disorders.

Sylvia Vermeulen (1,2,3), Han Anema (1,2,3)
(1) Dutch Research Center for Insurance Medicine AMC-UMCG-UWV-VUmc
(2) VU University Medical Centre, Department of Public and Occupational Health
(3) EMGO+ Institute for Health and Care Research, Amsterdam, the Netherlands

## Introduction

Global integration of economies worldwide has led to a strong demand to make labour markets and employment more flexible. However, flexible employment practice has a downside. Sick workers without an employment contract represent a vulnerable group within the working population as they are characterised by a poorer health status, a greater distance to the labour market, and an increased risk for (long-term) work disability. When sick-listed, these workers have in most cases no workplace to return to. A participatory return-to-work (RTW) program with offering a workplace for (therapeutic) work resumption, effectively improved RTW for temporary agency workers and unemployed workers, sick-listed due to musculoskeletal disorders (MSD), compared to usual care, after one-year follow-up1. The net societal benefit of the new program was more costly. Mainly due to training costs and payment of supportive benefit during placement in a temporary workplace2.

## Purpose of the study

To enhance implementation of the participatory RTW program at the SSA insight in longterm effects are important, i.e. effects on RTW, paid work and inflow into long term disability benefits. The objective of the study is to evaluate the effectiveness of the participatory RTW program on RTW and work disability after two-year follow-up.

## Methods

Participants in this study were temporary agency workers and unemployed workers 2-8 weeks sick-listed due to MSD. The new RTW program consisted of a stepwise program aimed at making a consensus-based RTW implementation plan with the possibility of a (therapeutic) workplace. Outcomes were measured at baseline, 3, 6, 9 and 12 months. And additional follow-up measurement will be performed after 24 months. The primary outcome measure was time to first sustainable RTW. In the two year follow-up measurement work status and inflow in long term work disability benefits will be assessed.

## Results

The median time until sustainable first RTW was 161 days (IQR 88–365 days) in the participatory RTW program group and 299 days (IQR 71–365 days) in the usual care group. The RTW rate at one-year follow-up was 71% in the intervention group and 60% in the control group. Results of the two-year follow-up measurement will be presented at the congress.

## Conclusion

The new participatory RTW program seems to be a promising intervention. However, it is important to gain more insight into long-term effects on RTW and work disability. Results from the two-year follow-up measurement can enhance implementation of the program in daily practice.

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## Occupational lung cancer: Autospy findings regarding 139 cases from Bresica (Italy) Institute of Forensic Medicine

Andrea Verzeletti (1), Marzia Vassalini (1), Paola Bin (1), Mario Restori (1), Francesco De Ferrari (1)

(1) Università degli Studi di Brescia

## Introduction

A retrospective study was carried out on post-mortem examination data of lung-cancer patients recorded by the Brescia (Italy) Institute of Forensic Medicine between the years 2004 and 2013.

## Purpose of the study

The objective was to investigate the role of occupational factors in causing lung cancer and the relationships between occupational carcinogens and cell type of pulmonary carcinoma.

## Method

The case study was carried out on 139 autopsies pursuant to an order by the District Attorney's Office and performed to investigate their occupational aetiology. The following variables were considered: gender, age, lifetime occupational history (type and duration of job-exposure), non-occupational risk factors (tobacco smoking habits), time of clinical diagnosis and ante-mortem histologic cell types of lung cancer, autopsy findings.

## Results

The relationships between occupational exposure and lung-cancer is illustrated in Table 1. In the proportion of lung cancer attributable to occupational factors, histologic findings have identified in 32% of cases a squamous cell carcinoma, in 30% an adenocarcinoma and in 14% a small cell lung cancer. 23% of cases were classified in the spectrum of non-small cell lung cancer: in some cases the autopsy features confirmed these clinical diagnosis, in other cases the bad condition of post-mortem lung tissue and the absence of a clinical diagnosis didn't allow an accurate histological diagnosis. A definitive cell type diagnosis requires an appropriate immunohistochemistry (ICH): all specimens obtained from the lungs were analyzed using the immunohistochemical method with the p63, TTF-1, CK7, CK5/6 and CD56 antibodies. The relationship between occupational agents and cell type of pulmonary carcinoma is illustrated in Table 2.

## Conclusion

In disagreement with previous study, we found predominance of squamous cell carcinoma in silica exposure and in asbestos exposure. No significant relationship were found between polycyclic aromatic hydrocarbon exposure and a cell type of pulmonary carcinoma. For other carcinogens, the paucity of cases and their dispersion doesn't allow substantial conclusions.

	n	%
Population attributable fraction	90	65%
Insufficient exposure	18	13%
No exposure	31	22%
Tot.	139	100%

Table 1. Relationships between occupational exposure and lung-cancer

## A national research program; REHSAM /rehabilitation and collaboration

## Clairy Wiholm (1) (1) Uppsala university and Försäkringskassan (Social Insurance Agency Sweden)

Workshop: Rehabilitation of individuals with mental or musculoskeletal disorders in primary care. Examples from a national research program (REHSAM) in Sweden.

The Swedish Association of Local Authorities and Regions (SALAR) represents the governmental, professional and employer-related interests of Sweden's 290 municipalities and 20 county councils. In 2008 the Government and SALAR made an agreement, the "National Rehabilitation Programme The purpose of this agreement was to prevent sickness absence, increase work ability and return to work among, women and men aged 16-67 years with mild to moderate mental disorders and/or unspecific pain in the neck and back region. The rehabilitation or treatment methods used should be evidence-based. The agreement was made timely with the introduction of a rehabilitation chain, meaning that after a medical evaluation the patient was offered cognitive behavioral therapy (CBT), Interpersonal Therapy (ITP) for anxiety, depression or stress.

Patients suffering from chronic musculoskeletal pain should were offered multimodal rehabilitation (MMR), based on activities composited and conducted of different professionals in at least three professions during 4-8 weeks. The county councils report to the Swedish Social Insurance Agency the number of people who benefited from CBT / IPT or MMR and receive compensation for these efforts. SALAR expressed in the negotiations the importance of further research to gain additional knowledge of what methods can help to prevent sickness absence and to support return to work.

A consequence of this requirement was the establishment of a research program called REHSAM (rehabilitation and collaboration) as a part of the National Rehabilitation Programme. The purpose was to enlarge the evidence based knowledge of which rehabilitation methods contribute in enhancing work capacity and return to work in patients with unspecific pain in the neck and back and/or mental disorders. The REHSAM research program started 2009.

The main applicant had to represent the County Council authorities in close collaboration with universities. Except for ordinary research requirements for controlled studies the application had to cover a genus perspective on the intervention, cost-effectiveness calculations and how the collaboration between the parties was planned. Totally more than 5000 patient are involved in 24 projects, of which twelve are focusing on mental disorders and twelve on musculoskeletal pain. Outcome measures are; return to work and work capacity.

Secondary outcome measures are up to the project to define. In the end of 2014 most projects have delivered their final reports including a one year follow up. The REHSAM research program has offered the county councils to scientifically evaluate allready existing rehabilitation activities in primarty health care and support concurrent. Except from the contribution to an enlarged evidence knowledge body the REHSAM program will and alreday has improved the clinical research process in the primary heath care. A network with reserachers and the operational developers and coordinators in the county councils is established.

The network has been a competence source for the projects in problem solving and good practices during the three yeras project time.

# Do cochlear implants (CI) improve work ability? Could the outcome of "deafened adults" give an answer?

Viveka Westergren (1), Karl Weinreich (2), Ralph Nilsson (1,3)

(1) Försäkringskassan

(2) Weinreich Smärtmottagning

(3) Enheten Arbets- och miljömedicin, Sahlgrenska universitetssjukhuset, Göteborg

To examine if there is evidence available today on the efficacy of cochlear implant (CI) on work ability of the adult deaf users, we have made the literature search. There was no study that evaluated changes in work ability after a CI intervention .

But in seven published studies there were parameters related to work ability (change in income, employment / unemployment and perception of job satisfaction). With these seven we have chosen to proceed with an evaluation of to achieve as close as possible an answer to the question "Can CI give an improvement of work ability?".

The studies are either based on data collected from regular patient visits before and after surgery for CI or by mailed questionnaires by mail, as well as a qualitative study. In several of the publication it is not clearly indicated if the patient material were post-lingual at on-set of hearing loss, if presence of comorbidity and whether they had been active in work before the CI intervention.

Results varied between unchanged to an improvement of the selected data with a majority of the parameters showed a tendency for improvement. At present, there is not an evidence-based support that CI in deafened adults provides an improvement in work ability.

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# Incidence and recurrence of sickness absence periods in university and college educated self-employed

Elisabeth Wijnvoord (1,2,5), Sandra Brouwer (1), Jan Buitenhuis (1,3,5), Jac van der Klink (1), Michiel de Boer (1,4)

- (1) UMCG, University of Groningen, The Netherlands
- (2) Medical Department Movir Insurance, The Netherlands
- (3) Medical Department Univé Insurance, The Netherlands
- (4) EMGO, VU University, Amsterdam, The Netherlands
- (5) Dutch Academic Center for Insurance Medicine

#### Introduction

Sickness absence, and especially recurrent sickness absence, is a large problem for the self-employed. In the absence of colleagues to take over work, it impacts on the continuity of business and often leads to loss of personal income. Information on incidence and recurrence of sickness absence is important to provide a base for preventive actions to avoid or shorten recurrences of sickness absence.

#### Purpose of the study

The aim of this study is to evaluate the incidence and recurrence of periods of sickness absence in a population of self-employed. We especially focused on the influence of the number of prior periods of sick leave on the risk of subsequent sickness absence and on the influence of the diagnostic category of the first episode of sickness absence.

#### Methods

This study is based on a dynamic cohort of 15,868 applicants for private disability insurance at a company insuring college and university educated self-employed. Data on the number and causes of periods of sickness absence were collected from the insurance company files. To analyse the effect of the number of previous periods of sickness absence the Andersen– Gill extension of the Cox proportional hazards model for recurrent events was used for the whole sample as well as stratified for diagnosis of the first period of sickness absence.

#### Results

For all causes of sickness absence we found that hazard rates of experiencing another period of sickness absence increased with the number of previous periods of sickness absence (see table 1).

When stratifying for major diagnostic categories in first episodes of sickness absence a higher hazard rate was found for experiencing a recurrent episode of sickness absence (see table 2).

Table 1.

Hazard ratio of experiencing a new period of sickness absence related to the number of previous periods of sickness absence regardless of cause.

	Hazard ratio	р
1 previous period	2.88	<0.001
2 previous periods	4.87	<0.001
3 previous periods	6.05	<0.001
4 previous periods	7.05	<0.001

Table 2

Hazard ratios stratified for diagnostic categories of first episodes of sickness absence related to hazard ratio for experiencing a recurrent episode of sickness absence.

Diagnosis first episode of sickness absence	Hazard ratio experiencing second episo- de	р	Hazard ratio experiencing third episode	р
Musculoskele- tal disorders	6.04	<0.001	11.78	<0.001
Mental and behavioural disorders	8.61	<0.001	16.08	<0.001
Cardiovascular disorders	48.26	<0.001	35.12	<0.001
Pregnancy re- lated disorders	34.12	<0.001	58.02	<0.001
Infectious disorders	55.45	<0.001	97.33	<0.001
Malignant disorders	58.96	<0.001	37.72	<0.001

## Conclusion

In this population of college and university educated self-employed it was found that the hazard of experiencing a new period of sickness absence increased with every previous period. This effect was found for all diagnostic categories of the first period of sickness absence. These findings are important to recognize vulnerable groups of self-employed in order to develop strategies to prevent health problems and sickness absence.

## Disability, a concern of women or not? A view behind the numbers

Haije Wind (1), Monique Frings-Dresen (1)(1) Research Center for Insurance Medicine, Coronel Institute of Occupational Health, Academic Medical Center, University of Amsterdam

#### Introduction

In the Netherlands, we see a growing participation rate of women on the labor market. Although the work participation of women on older age is still lower than of men, on younger age the difference disappears. But do women have equal access to disability procedures and regulations? That is the question. Since legislation does not differentiate between gender when it comes to disability procedures, it is interesting to evaluate the differences in disability assessments. If these differences exist, it is interesting to know what lies behind these numbers.

#### Purpose

The aim is to know more about differences between men and women in outcome of disability assessments, and about gender differences in return to work.

#### Methods

The outcomes of disability assessments in the Netherlands of the years 2007-2010 were studied on differences between women and men. Both age and medical cause of disability were included as variables. Literature (2010-2013) was searched on gender differences in return to work after sickness absence. Key words were: gender, disability, RTW.

#### Results

Women applied more often a disability benefit, but were significantly more often denied this benefit. In 2010, 55% of the women were denied a disability benefit to 45% of the men. Women were also more often temporary fully disabled in comparison to men. In 2010, 57% of the women were considered to be temporary disabled vs 43% of the men. Men were more often considered to be permanent full disabled (men 52% and women 48%). Psychological disorders were the main cause of disability in young women, but not in older women. Older men were more often disabled because of cardiovascular disorders, older women because of cancer. The literature revealed that in general women had a higher risk of disability and returned less frequent to work. Being female, lower education and higher age were most frequent mentioned as negative predictors for RTW. However, not all studies revealed differences in outcome of RTW between men and women.

#### Conclusion

Men are more often considered to be full and permanent disabled. The differences disappear on older age. The literature reveals that women have a worse position when it concerns return to work after a period of sickness absence. It is important to pay attention to these gender differences for instance in developing guidelines for occupational and insurance physicians that are aimed at work participation.

# Sick leave among first-time parents in Sweden – the role of education, economy and occupation

Margaretha Voss (1,2), Mats Johansson (1,3), Ulrik Lidwall (1,2), Carl Högfeldt (1), Erik Jönsson (1), Daniel Melén (1), Patric Tirmén (1)

(1) Department for Analysis and Forecast, Swedish Social Insurance Agency, Stockholm

(2) Dep. of Clin. Neurosc., Div. of Insurance Medicine, Karolinska Inst., Stockholm

(3) Stockholm Univ. Linnaeus Center on Social Policy and Family Dynamics in Europe

#### Introduction

Sick leave increases among women when they become a first-time parent. However, the reasons for this increase are not well understood. It has been suggested that socio economic factors may be of importance in this context.

Purpose of the study - The purpose of the study was to analyse medically certified sick leave among women and men in first-time parents in relation to income, educational level and occupation.

#### Methods

The study population consisted of first time parents in 2005 in Sweden (44 906 women and 39 332 men). All individuals in the study population were identified from national registers at the Swedish Social Insurance Agency including information about medically certified sick leave, income, education, occupation as well as socio demographic factors. The relative risk (RR) of a new medically certified sick-leave spell (>14 days of duration) up to seven years after the first child and three years after the second child's birth, respectively, was estimated by Cox proportional hazard regression with a 95% confidence interval (95%CI), taking into account age, country of birth, living area, employment status and sector, as well as previous history of sick leave.

## Results

During the follow up 39% among women and 21% among men experienced at least one new medically certified sick-leave spell. Women had an increased risk of sick leave compared to men already the year before the first pregnancy (RR=1.32; 95%CI= 1.29-1.35) and a similar risk of sick leave was observed after the first child was born (RR=1.26; 95%CI= 1.16-1.38). Among parents who had a second child a more than doubled risk of sick leave was seen among women compared to men three years after the birth of the second child (RR=2.42; 95%CI=1.82-3.22).

Lower level of education increased the risk of sick leave among women compared to those with a university degree (RR=1.19; 95%CI=1.19-1.20) and this was even more pronounced among men. Higher income implied a lower relative risk of sick leave compared to lower income. Occupations with an increased risk of sick leave among women were for instance preschool teachers (RR=1.24; 95%CI=1.14-1.36) and health- and social-care workers (RR=1.16; 95%CI=1.10-1.23), compared to women in other occupations. This increased risk of sick leave was more pronounced after the second child. Men in male-dominated manual occupations, e.g. mining-, building-, and construction workers (RR=1.29; 95%CI=1.18-1.40) and machine operators and assemblers (RR=1.24; 95%CI=1.13-1.35) had an increased risk of sick leave compared to men in other occupations.

#### Conclusion

Sick leave is frequent among first-time parents, with an increased risk among women compared to men. Comparatively low education and low income as well as certain factors related to occupations influenced the risk of sick leave among both women and men. A large proportion of women in Sweden are employed within the area of health care, education, and social care. Improving working conditions in this area would be of great importance for many women, including women with small children at home.

# A systematic review whether return to work rate changes after 3-6 months of sick leave

Helene Wrede (1), Agneta Glennsten (1) (1) Försäkringskassan/ Swedish Social Insurance Agency

## Aim

To perform a systematic review of whether there is there any scientific evidence that the return to work (RTW) drastically deteriorates after 3-6 months of sick leave? In Sweden this is a widespread opinion, regardless of diagnosis. The model for this view was launched in the form of a diagram in the mid-80s and this perception still exists 30 years later.

## Method

We find no studies that answer the exact question: whether and if so how, RTW changes over time? We had to focus on finding studies that demonstrated how RTW changes over time. We limited the search to minor mental illness/depression, common mental disorder CMD. We made searches only in the Pub med database.

The criteria for inclusion were besides CMD, age: 30-55 years, both men and women, publication language, English, year of publication, from 2008 and later and country, Scandinavia and northern Europe. The searches in Pub med resulted in 152 potentially interesting studies. After exclusions of irrelevant abstracts 12 studies remained. After reading these in full text another 3 were excluded. Nine studies of good quality for our purpose remained. The studies described the time when the studied population regained its full working capacity in a population with psychiatric diagnoses set according to generally accepted criteria.

## Keywords

Sick leave, return to work, minor mental disorders (depression or depressive or mental).

## Results

Our conclusion of reading the studies was that there is no evidence that RTW changes dramatically at 3-6 months of sick leave for persons suffering from common mental disorders. This is regardless of whether an intervention was made or not. We found that the change rate of return to work is slightly higher during the first 3-6 months, and then the RTW is more linear in relation to time - even for a fairly long time. It also feels hopeful that even long sick leave for milder mental disorders have a good prognosis. In the largest registry study of nearly 52 000 surveyed, as many as 95 % were back in full work after 24 months.

# An implementation strategy to improve the guideline adherence of insurance physicians

Feico Zwerver (1), Ton Schellart (2), Han Anema (3), Allard Van der Beek (4)

(1) Dutch Social Security Agency, Amsterdam, The Netherlands

(2) 2Research Center for Insurance Medicine, collaboration between AMC-UMCG-UWV-VUmc

(3) Department of Public and Occupational Health, EMGO Institute for Health and Car

## Introduction

In a previous efficacy study it appeared that a newly developed implementation strategy for the insurance medicine guidelines improved the guideline adherence of insurance physicians (IPs) in a controlled setting. Now we carried out the implementation strategy in real practice.

## Purpose of the study

The aim of this study was to investigate the effectiveness of the developed implementation strategy for the insurance medicine guidelines for depression in the Netherlands.

## Methods

Seventeen IPs who conducted disability assessments in practice at the Amsterdam front-office of the Social Security Agency were involved in this study. From each of them seven disability assessment reports of clients with the diagnosis depression were collected over a one year period. Performance indicators for measuring guideline adherence of the guidelines for depression in disability reports were developed. The PI's existed of six decision trees measuring guideline adherence of six different aspects of the disability assessment of a client with depression, such as: diagnosis, severity of the disorder, co morbidity, prognosis, evaluation of care and cure, and assessment of the work ability. Six staff IPs were trained in applying the performance indicators. At the baseline measurement, each disability report was made anomymous and judged by two staff IPs. The score per PI was 'adequate' or 'not adequate'. In case of disagreement on a certain PI-score between the two staff IPs, the definite PI-score was defined in a consensus meeting. The implementation strategy consisted of a workshop in which the evidence-based theory of the guidelines was translated for use in practice, with the help of various tools. This workshop was adjusted on basis of the results required from the process evaluation that was carried out alongside the efficacy study. For the follow-up measurement in the one-year period after the workshop, again seven disability reports of clients with depression per IP will be collected and judged. Outcome measure is the guideline adherence of the IPs. Univariate analyses were performed with SPSS version 20 and Excel version 2007, multilevel regression analysis with MLwin version 2.26.

## Results

The results of the baseline measurements of the effectiveness study are shown here. The mean guideline adherence of the IPs in 116 disability reports of clients with depression was 37%. The IPs scored highest number of adequate at the PI that measured the assessment of work ability (84%) and lowest at the assessment of the prognosis (14%). Apart from these results, we will present some results from previous studies out of the same research project. These studies have been published in the references below.

## Conclusions

The mean guideline adherence of insurance physicians in practice was rather low. However, the guideline adherence of the most relevant aspect of a disability assessment, the assessment of the work ability, was high. The performances of the insurance physicians at baseline leave room for improvement of their guideline adherence supported by the developed implementation strategy for the guidelines for depression.

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## Sick-listing compliance in Sweden

Niklas Österlund (1), Ola Leijon (1,2), Malin Josephson (1,3)

- (1) The Swedish Social Insurance Inspectorate
- (2) Karolinska institutet, Institute of Enviornmental Medicine
- (3) Uppsala university, Department of Medical Sciences

#### Introduction

In Sweden, at the eighth day of sick leave a person must prove incapacity to work with a sickness certificate issued by a physician. The physician should assess the needed degree and length of sick leave, and prescribe sick leave as part of care and treatment. It is common that physicians find it problematic to assess the level and duration of work incapacity. It is also known that diverse factors may affect sick-listed persons' decision to terminate an ongoing sick leave and return to work (RTW). However, it is not known to what extent persons complete their sick leave in accordance with the length of sick leave prescribed in their sickness certificates (sick-listing compliance).

#### Purpose of the study

To investigate how common it is that persons sick-listed >14 days with sickness benefit RTW earlier than prescribed length of sick leave in their sickness certificates, and if so, do this differ between different groups.

## Methods

A national register on sickness certificates issued in 2009–2012, including last or most recent sickness certificate for each spell, were used for analysis combined with all sick leave spells that lasted > 14 days. Registry coverage was 69–76% per year out of 381,848–429,532 sick leave spells. The probability for RTW was estimated with Cox proportional hazard models.

#### Results

Less than one out of five who fully terminated their sick leave during the first year of sick leave, returned to work earlier than the prescribed length of sick leave in their sickness certificate (Figure 1). The result is similar for early partial RTW, i.e. reduced degree of sickness benefit earlier than prescribed.