My conflict of interest

Swiss Academy Insurance Medicine at the University Hospital in Basel, is funded in part by donations from public insurers and a consortium of private insurers.

Furthermore, I am a clinical epidemiologist and convinced about the power of ebm and Cochrane in improving health and social care.

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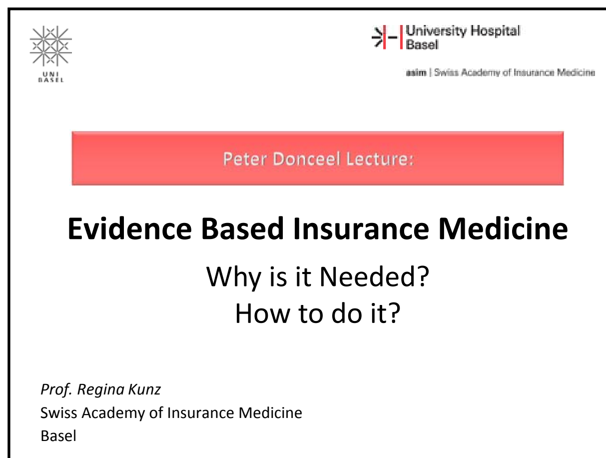

Overview

- Insurance medicine – a complex field
- Evidence-based medicine: revisited
- Needs and initiatives in insurance medicine
- Evidence-based insurance medicine
- How to do it

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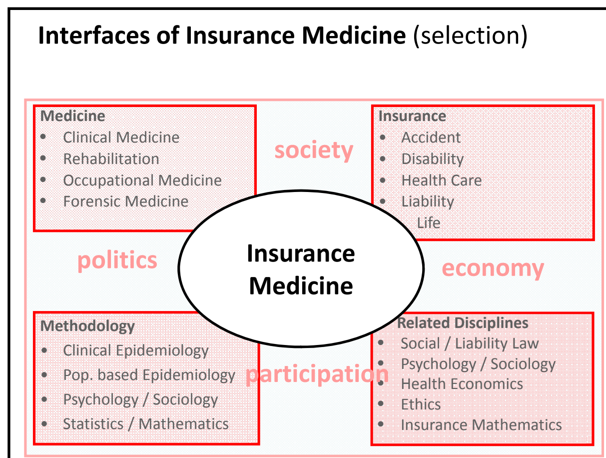
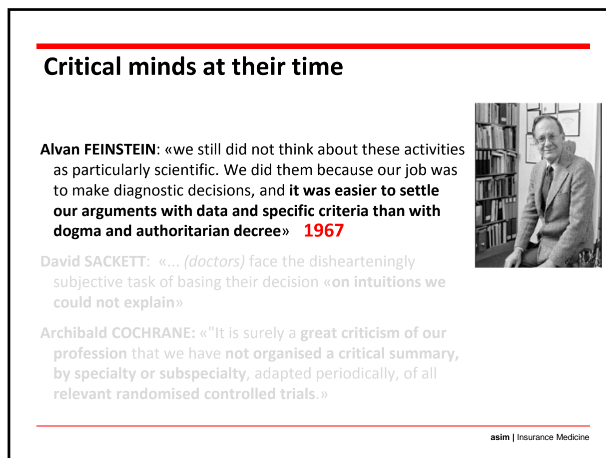


What do insurance physicians do?

1. Assessing the health risks of individuals applying for insurance coverage (e.g. life, work capacity, health care)
2. Assessing impairments and causality (e.g. accident) in individuals
3. Certifying sick leave
4. Evaluating long-term disability for work and for social participation
5. Promoting return to work
6. Promoting the participation of disabled persons in the society
7. Monitoring use of health care and social care

Source: EUMASS



Critical minds at their time

Alvan FEINSTEIN: «we still did not think about these activities as particularly scientific. We did them because our job was to make diagnostic decisions, and **it was easier to settle our arguments with data and specific criteria than with dogma and authoritarian decree»** 1967

David SACKETT: «... *(doctors)* face the dishearteningly **subjective task** of basing their decision «**on intuitions we could not explain**» 1972

Archibald COCHRANE: «"It is surely a **great criticism of our profession** that we have **not organised a critical summary, by specialty or subspecialty**, adapted periodically, of all **relevant randomised controlled trials.**»

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What do others say? Needs and initiatives

- The Swedish Government through SBU
- the Dutch Advisory Council on Health Research
- Ministry of Research and Education / German Pension Fund
- WHO: World report on disability

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Swedish Government reacts to a crisis in sickness absence by collecting evidence ...

The dramatic increase in sickness absence in recent years, the subsequent increase in cost, has focused attention on the issue of sick leave.

and commissions an evidence report

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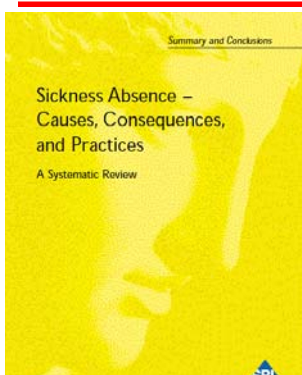

Conclusions:

Despite the scope of sickness absence and **its heavy impact on society and the individual**,

there is **limited knowledge** about the causes and consequences of sick leave and on how they can be influenced.

This field of research is under-developed in terms of **theory**, **methodology**, and **concepts**.

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Advisory Council on Health Research (2004)

triggered by sickness rate of 8% and > 900'000 people with disability pension

Status Quo:

- Assessment of work disability based on empiricism and expert knowledge, not on scientific evidence
- No infrastructure to develop scientific knowledge relevant to insurance medicine

Recommendations:

- Research programs targeted at insurance medicine
- Good connection between the research and the need for knowledge in everyday practice
- Good cooperation and the opening up of the work floor to research

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Ministry of Research and Education
German Pension Fund

The long German tradition of medical rehabilitation in Germany is mainly grounded in experience.

It lacks a scientific foundation of what works and what does not work

Koch 1991
Koch 2001

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Task of the Insurance Physician

	EUMASS terminology	Clinical Epidemiology - terminology
1.	**Assessing the health risks** of individuals applying for insurance coverage (e.g. life, work capacity, health care)	**Screening** **Prognosis** about future events
2.	Assessing **impairments in health** **Assessing causality** (e.g. accident) in individuals	**Diagnosis:** applying one or several *tests* to determine a disease, its severity and consequences on function **Causality:** establishing a causal link between an event and impaired health
3.	**Certifying sick leave**	**Diagnosis** with 'ability to work' as reference outcome **Monitoring** health status and functioning **Prognosis** on function and ability to work
4.	**Evaluating long-term disability** for work and for social participation	**Diagnosis** with 'ability to work' as outcome **Prognosis** about a person's health status to improve **Interventions** that improve health status
5.	**Promoting return to work**	**Interventions** that facilitate return to work **Diagnosis / prognosis** on people who will or will not benefit
6.	**Promoting the participation** of disabled persons in the society	**Interventions** that facilitate participation

Evidence based insurance medicine: What it is and what it isn't

It is about integrating individual clinical expertise and best external evidence

- Ebm is the **conscientious**, **explicit**, and **judicious** use of **current best evidence** in **making judgments** and **decisions** about the claims and social care of insured individuals
- The practice of evidence based insurance medicine means **integrating individual clinical expertise** with the best available **evidence from systematic research**.
- By **individual clinical expertise**, we mean the **proficiency and judgment** that insurance physicians **acquire through their experience and practice**.

Modified
based on Sackett BMJ 1996

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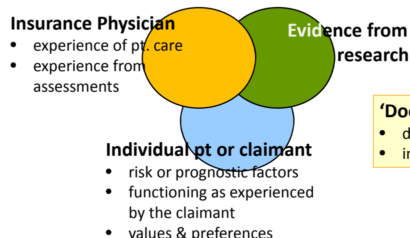
Can we apply knowledge from research to the individual claimant the same way we apply it to the individual patient?



Insurance Physician
- experience of pt. care
- experience from assessments

Evidence from research

Individual pt or claimant
- risk or prognostic factors
- functioning as experienced by the claimant
- values & preferences

'Does it match?'
- direct evidence
- indirect evidence

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Need for knowledge / Perspective (1)

Compile the evidence: What is available?

- **The Report model:**

  Quebec task force on whiplash
  WHO – Mild traumatic brain injury (2004 and 2014)
  SBU- Swedish HTA-agency: Sickness absence

  - Task much to big for one organisation or one country
  - It will require huge effort, human and financial resources, longterm dedication
  - No space for duplication of work

- **The Cochrane model**

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Who is the Cochrane Collaboration?

- international non-profit and independent organisation
- dedicated to making up-to-date, accurate information
- about the effects of healthcare readily available worldwide

- production of systematic reviews
- dissemination through the The Cochrane Library

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Countries with representation in the Cochrane Collaboration (blue)

Workplace interventions for preventing work disability (Review)

van Oostrom SH, Driessen MT, de Vet HCW, Franche RL, Schonstein E, Loisel P, van Mechelen W, Anema JR

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2009, Issue 2

http://www.thecochranelibrary.com

ABSTRACT

Background

Work disability has serious consequences for all stakeholders and society. Workplace interventions are considered appropriate to facilitate return to work by reducing barriers to return to work, involving the collaboration of key stakeholders.

Objectives

To determine the effectiveness of workplace interventions compared to usual care or clinical interventions on work-related outcomes and health outcomes; and to evaluate whether the effects differ when applied to musculoskeletal disorders, mental health problems, or other health conditions.

Search methods

We searched the Cochrane Occupational Health Field Trials Register, CENTRAL, MEDLINE and EMBASE (EMBASE.com), and PsycINFO databases (to November 2007).

Selection criteria

We included randomized controlled trials of workplace interventions aimed at return to work for workers where absence from work because of sickness was reported as a continuous outcome.

Data collection and analysis

Two authors independently extracted data and assessed risk of bias of the studies. Meta-analysis and qualitative analysis (using GRADE levels of evidence) were performed.

Workplace interventions for preventing work disability (Review)

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Main results

We included six randomized controlled trials (749 workers): three on low back pain, one on upper-extremity disorders, one on musculoskeletal disorders, and one on adjustment disorders. Five studies were rated as having low risk of bias for the sickness absence outcome. The results of this review show that there is moderate-quality evidence to support the use of workplace interventions to reduce sickness absence among workers with musculoskeletal disorders when compared to usual care. However, workplace interventions were not effective to improve health outcomes among workers with musculoskeletal disorders. The lack of studies made it impossible to investigate the effectiveness of workplace interventions among workers with mental health problems and other health conditions. A comparison of a workplace intervention with a clinical intervention, in one study only, yielded similar results for sickness absence and symptoms for workers with mental health problems.

Authors' conclusions

As a result of the few available studies, no convincing conclusions can be formulated about the effectiveness of workplace interventions on work-related outcomes and health outcomes regardless of the type of work disability. The pooled data for the musculoskeletal disorders subgroup indicated that workplace interventions are effective in the reduction of sickness absence, but they are not effective in improving health outcomes. The evidence from the subgroup analysis on musculoskeletal disorders was rated as moderate-quality evidence. Unfortunately, conclusions cannot be drawn on the effectiveness of these interventions for mental health problems and other health conditions due to a lack of studies.

PLAIN LANGUAGE SUMMARY

Workplace interventions for preventing work disability

Six randomized controlled trials involving 749 workers were included in this systematic review. In five studies the workers had musculoskeletal disorders and in one study they had mental health problems. The results of this review show that there is moderate-quality evidence to support the use of workplace interventions to reduce sickness absence among workers with musculoskeletal disorders when compared to usual care. However, workplace interventions were not effective to improve health outcomes among workers with musculoskeletal disorders. Considering all the types of work disability together, the results showed low-quality evidence that workplace interventions are more effective than usual care in reducing absence from work because of sickness. Unfortunately, no conclusions could be drawn regarding interventions for people with mental health problems and other health conditions due to a lack of studies. In conclusion, care providers could implement workplace interventions in guiding workers disabled with musculoskeletal disorders if the main goal is return to work.

What Cochrane could contribute to insurance medicine

- International network, not for profit, collaborative
- Infrastructure and rules
- Aims for high quality evidence and transparency
- Established methodology
- Tool for disseminating reviews: The Cochrane Library
- Registry for primary studies: CENTRAL
- Recently developments: Systematic reviews on diagnostic accuracy and prognostic studies
- Applicable knowledge useful to stakeholder s
- Non-exclusive: everybody with the necessary skills can contribute
- Contribute to work attractiveness and professional pride *(Kok, 2014)*

How can the community contribute to the Cochrane Field Insurance Medicine?

Stakeholders

- ... are content experts in insurance medicine
- ... express their evidence needs and priorities
- ... educate their local work environment about evidence-based insurance medicine and Cochrane Collaboration

Active contributions

- ... by screening references
- ... by hand-searching national journals
- ... by organising workshops
- ... by becoming a reviewer

Perspective (2): Train stakeholders to use of evidence

- **Education of the community**
  - Education on how to read – understand – apply evidence in the practice of insurance medicine
  - Target audience:
    - medical (insurance physicians)
    - non-medical people (insurers; administration; policy makers)

Perspective (3): «Further research needed»

Systematic reviews summarize evidence and document gaps

- Close the gaps by generating research
  - prioritize gaps and generate a research agenda
  - Find and train researchers
  - Ensure funding
- ➔ new material for systematic reviews to summarize the evidence and narrow the gaps

Conclusions

Insurance medicine has long **lagged behind** the evidence-based advances observed in clinical medicine

Evidence-based insurance medicine is the **basis of best practice** and **quality assurance**

The **framework** of the international Cochrane Collaboration can **facilitate to launch** and **disseminate** evidence based insurance medicine

It will require **dedicated insurance physicians**, interested **policy makers** and skilled **researchers** to make it work.

Proposal of a Cochrane Field insurance Medicine

The Initiators:

International Network of evidence based Insurance Medicine, ebIM research network:

the Netherlands: Jan Buitenhuis; Sandra Brouwer; Jan Hoving

Sweden: Kristina Alexanderson

Canada: Jason Busse; Shanil Ebrahim; Gordon Guyatt

Switzerland: Regina Kunz, Wout deBoer