



The Role of Continuous Education and Work Place Issues in Patient Safety

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Guidelines for safety and quality in anaesthesia practice in the European Union

SECTION and BOARD OF ANAESTHESIOLOGY¹, European Union of Medical Specialists

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Charter on continuing medical education/continuing professional development
approved by the
UEMS Specialist Section and European Board of Anaesthesiology

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Presentation Outline

- Patient safety
- CME
- Working hours

The 5 Million Lives Campaign



The 5 Million Lives Campaign is an initiative to protect patients from five million incidents of medical harm over the next two years (December 2006 – December 2008).

How Often Are Patients Injured by Care?

How Often Are Patients Injured by Care?

40 to 50 Patient Injuries per 100 Hospital Admissions

Source: IHI "Global Trigger Tool" Guiding Record Reviews



Kohn KT, Corrigan JM, Donaldson MS. To Err Is Human: Building a Safer Health System. Washington, DC: National Academy Press; 1999.

Types of Errors

■ Diagnostic

- Error or delay in diagnosis
- Failure to employ indicated tests
- Use of outmoded tests or therapy
- Failure to act on results of monitoring or testing

■ Treatment

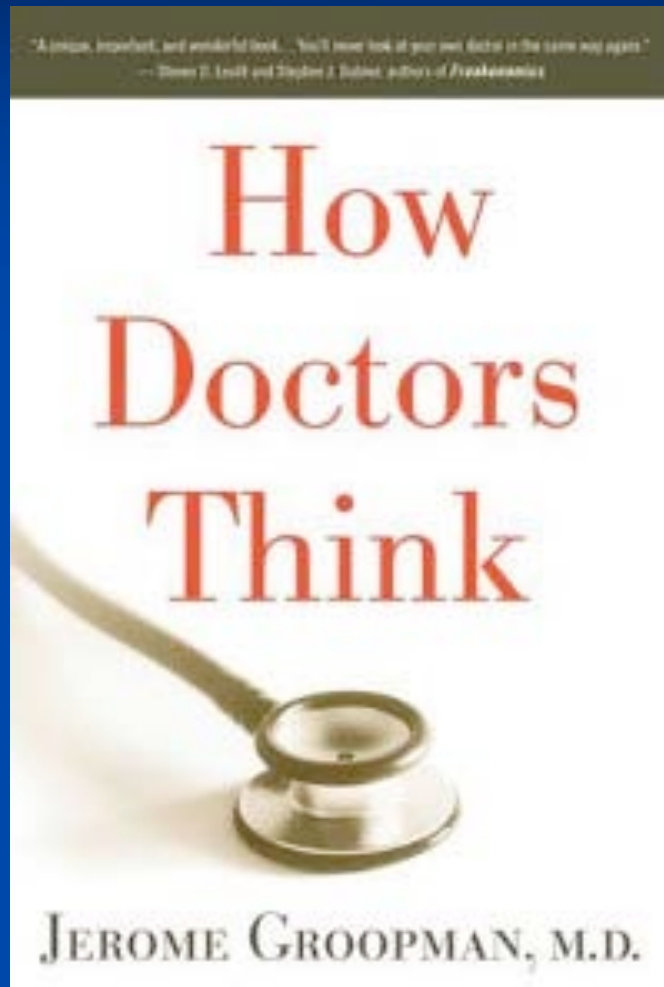
- Error in the performance of an operation, procedure, or test
- Error in administering the treatment
- Error in the dose or method of using a drug
- Avoidable delay in treatment or in responding to an abnormal test
- Inappropriate (not indicated) care

■ Preventive

- Failure to provide prophylactic treatment
- Inadequate monitoring or follow-up of treatment

■ Other

- Failure of communication
- Equipment failure
- Other system failure



- Recognize the type
- Just saw a case like this
- I've got to do something
- I hate (or love) this patient

2007



*European Commission
DG Health and Consumer Protection*



*Présidence luxembourgeoise
du Conseil de l'Union européenne*

Patient Safety – Making it Happen!

Luxembourg Declaration on Patient Safety

Luxembourg , 5 April 2005

The conference recommends to the National Authorities:

- National voluntary confidential reporting systems of adverse events and near misses.
- To establish national fora to discuss patient safety and national activities.
- To create a culture that focuses on learning from near misses and adverse events as opposed to concentrating on “blame and shame” and subsequent punishment

Naming, shaming, blaming

- Promotes anxiety, not learning
- Reporting of untowards events will be perceived as enemity action
- Continuous learning: Utilises learning potential of adverse events: System approach

Framework, example from Norway

- National classification and grading of adverse events non-existing
- No standard of criteria for what should be reported –neither for risk assessment nor for teaching purposes
- → should aim at joint definition of:
 - Adverse event type
 - Adverse event reason
 - Adverse event seriousness

Self-counteracting system

- Adverse event registration goes directly to the sanction body
- The sanction threat counteracts appropriate registration of adverse events

CME Range

- Passive, didactic, large-group presentations
- Highly interactive learning methods

Effect of Didactic CME

Overall, none of the 4 interventions altered physician performance.

Why would the medical profession persist in delivering didactic CME?

Ease of designing and providing such activities

Pharmaceutical sponsorship that promotes the transfer of information about new medications

Dependence on traditional undergraduate models of education that are easy-to-mount and revenue generating.

Implications

- Medical licensing boards and others must rethink the value of the CME credit system
- Medical schools, specialty societies, and other providers of CME must reconsider
- Physicians must reflect on what they perceive as the best CME experience

Accuracy of Physician Self-assessment Compared With Observed Measures of Competence

A Systematic Review

David A. Davis, MD

Paul E. Mazmanian, PhD

Michael Fordis, MD

R. Van Harrison, PhD

Kevin E. Thorpe, MMath

Laure Perrier, MEd, MLIS

Context Core physician activities of lifelong learning, continuing medical education credit, relicensure, specialty recertification, and clinical competence are linked to the abilities of physicians to assess their own learning needs and choose educational activities that meet these needs.

Objective To determine how accurately physicians self-assess compared with external observations of their competence.

Data Sources The electronic databases MEDLINE (1966-July 2006), EMBASE (1980-

20 comparisons between self and external assessment
13 demonstrated little, no or inverse relationship

Worst accuracy in self-assessment among physicians that were the least skilled and those who were the most confident (like in other professions)

Physicians have a limited ability to accurately self-assess








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Budapest Declaration on Ensuring the Quality of Medical Care

-  Personal
-  Peer and team – all team members
-  Workplace – environment and employer
-  National
-  International

Personal

- Education – reading, models, clinical experience
- Personal responsibility to address any area where they do not achieve standards
- Professional conscience most important regulatory component
- Personal and team training

Workplace

- Education must be recognised as an investment in safe, high quality care
- Sufficient time and resources must be allocated to provide education
- Funded study leave/allocation of practice budget

Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organisation of working time

- Minimum daily rest period of 11 consecutive hours/ 24-h period
- Rest break if the working day is longer than six hours
- Minimum uninterrupted rest period of 24 h/ each 7-d period which is added to the 11 hours' daily rest
- Max weekly working time of 48 h, incl. overtime
- Paid annual leave of at least four weeks.



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UEMS Motion on the organisation of working time

It is in the interest of specialist doctors to have the possibility to work more than the average 48 weekly hours.

This is not the case for doctors in training that are subject to both direct and indirect pressure to opt out of the protection Provided by the Directive

Effects of sleep deprivation

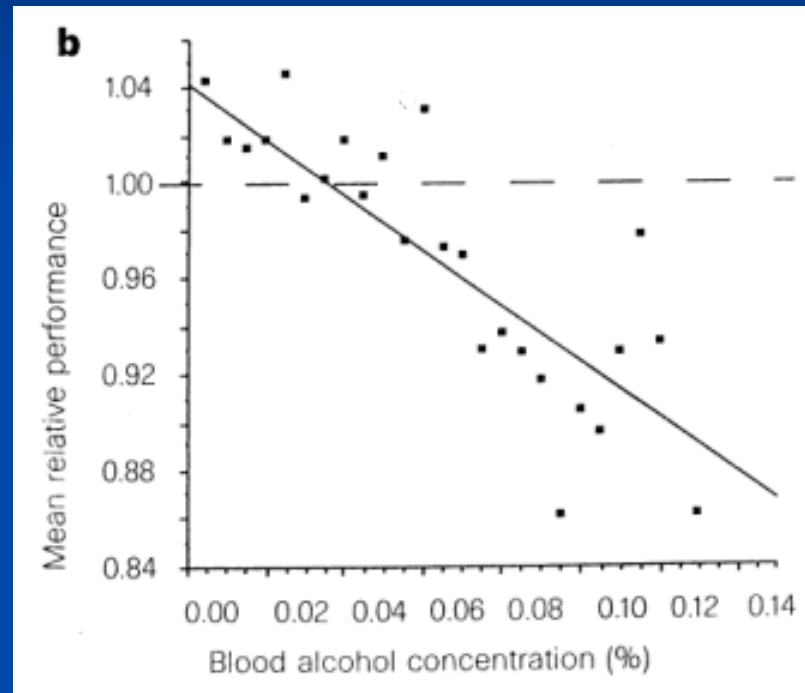
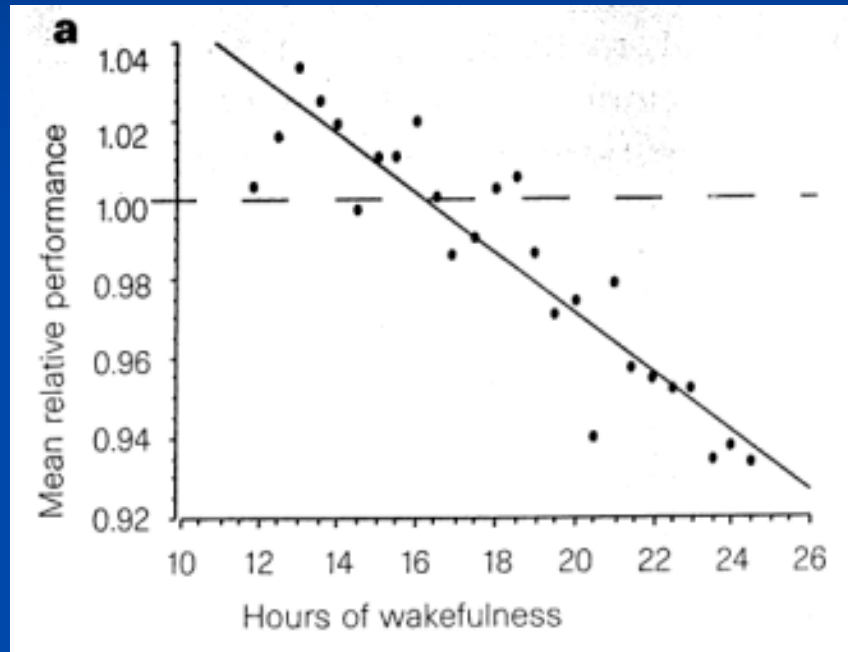
- **Sleep deprivation**
 - Self-evaluation of performance and critical thinking deteriorate, attitude to take risks increases (fast decisions without criticism)
 - Perception slips increase - function towards easy solutions
 - Negativity, depression, aggressiveness, paranoia and impulsiveness become pronounced

Effects of sleep deprivation

■ 24 hour rhythm

- Exercise is a greater stress to the cardiovascular system at night than during the day
- Insulin, coagulation, coronary heart disease, CRP, inflammatory processes increase (“sleep functions like antioxidants”)

Wakefulness & alcohol vs. Performance



Both continuous wakefulness and increasing blood alcohol correlate strongly with deteriorating performance

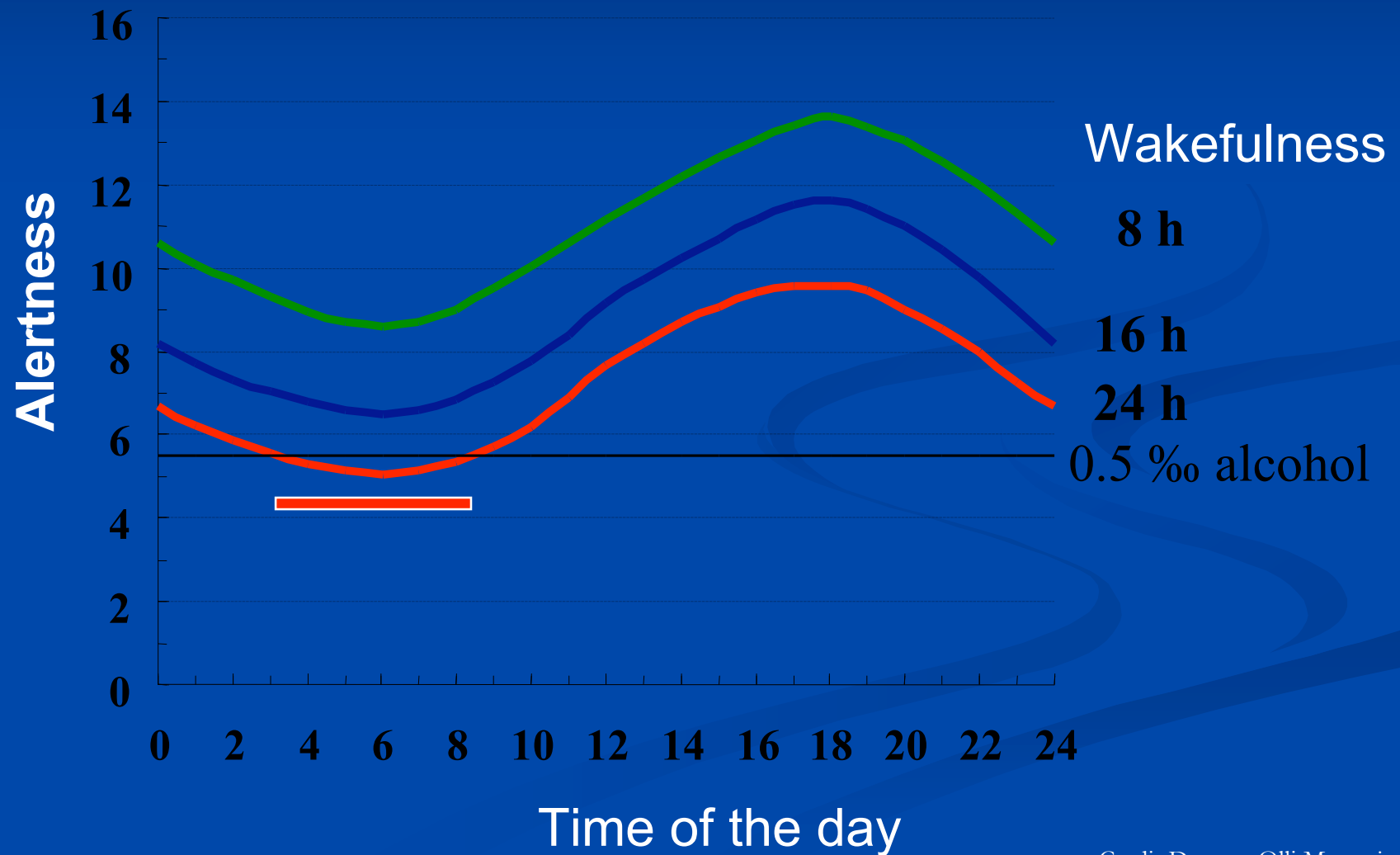
Dawson et al. Nature 388:235, 1997

Credit Docent. Olli Meretoja

Wakefulness and sleepiness

- Sleepiness at the end of first night without sleep
 - corresponds to
 - 0.5 ‰ alcohol at 03 and
 - 1.0 ‰ alcohol at 07.
-
- Acute (one night) and chronic (7d -2h) sleep deprivation corresponds to 0.9 ‰ alcohol (Powell et al. 2001)

Rhythmic variation of alertness



Sleep deprivation: Doctor's performance

Laparoscopic performance deteriorates in direct correlation with sleep deprivation (Lancet 1998, BMJ 2001)

Intubation becomes slow (Smith-Coggins ym. 1994, 1997)

Interpretation errors of X-ray images increase (Mann ym. 1993)

Errors in reading an ECG increase (Smith-Coggins ym. 1997)

Responses to ventilator alarms deteriorate (J Clin Monitoring 1987)

Laparoscopy and sleep deprivation

Six registrars were tested 6 times at one weeks intervals:

- normal sleep
- phone at 00, 03 & 06
- 24 h sleep deprivation

Sleep deprivation: Doctor's performance

- **Obstetric epidurals:** Risk of accidental dural puncture is 6.3-fold at night time compared to day time (n=1489 consecutive epidural procedures)

Aya et al. Can J Anaesth 46:665-669, 1999

- **Coronary balloon dilatation:** Failure rate is 1.8-fold and a 30-day mortality 2.2-fold when dilatation attempted at 18-08 vs. 08-18 (n=1702 consecutive angioplasties)

Henriques et al. J Am Coll Cardiol 41:2143-2146, 2003

Night work and health risks

- Risk of accidents increases in exponential correlation with the length of the work shift
- Recovery from a night duty takes much longer than 24 h

Conclusion

- There still is a gap between knowing what to do and doing what we know
 - In patient safety
 - CME
 - Working time
- That means sub optimal patient treatment