

# MIE 2003

## Proposal for a tutorial

### Organizers

EFMI WG Assessment of Health Information Systems

IMIA WG Technology Assessment and Quality Development in Health Informatics

### Planned Instructors

?? Dr. Jytte Brender, Aalborg University, Dept. of Health Science and Technology, 9220 Aalborg, Denmark

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### Title

An introduction into the evaluation of information technology in health care

### Summary

Information and communications technologies (ICTs) are being used increasingly in health care. It is evident that the use of modern ICT offers tremendous opportunities to reduce clinical errors, to support health care professionals, and to increase the efficiency of care. However, there are also hazards associated with such technologies in health care: modern systems are costly, their failures may cause negative effects on patients and staff, and possibly, when inappropriately designed, they may result in spending more time with the computer than with the patient. This all could have a negative impact on the quality of patient care. Therefore, rigorous evaluations of ICT applications in health care during their whole life cycle (from development to routine use) are absolutely necessary and of great importance for decision makers and users of future information systems.

However, evaluation of ICT applications in health care is rather difficult, due to the complexity of the evaluation object, comprising technical and human aspects, and the complexity of the changing clinical environment. Evaluators are thus confronted with the following problems:

- ?? Which methods and tools are available to evaluate ICT in health care?
- ?? Which methods and tools should be applied to which evaluation question?
- ?? How to overcome typical problems of evaluation studies?

### Goals

The goal of the tutorial is to:

- ?? Introduce how to define what should be evaluated, and how to formulate adequate evaluation questions.
- ?? Introduce into available evaluation methods and tools, including both the quantitative and the qualitative approach.
- ?? Introduce how to select adequate methods and tools for a given evaluation question.
- ?? Introduce how to choose an adequate study design, and how to overcome typical problems of evaluation studies.

**Intended audience**

Researcher and practitioners planning to conduct evaluation studies, and searching for some advice how to best design and execute them.

**Tutorial level**

Basic

**Duration**

Half-day (3 hours)

**Prerequisites**

None.

**Equipment required**

Beamer, laptop, blackboard.