

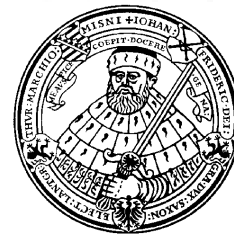
# QUIPS - Quality improvement in postoperative pain management

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## Introduction

Surveys from various countries show that the quality of acute pain management is far from being satisfactory. The reasons for inadequate pain treatment are mainly deficits in organisation and personal resources, not medical problems. Regular measurement and feedback of quality indicators is recommended to overcome these deficits <sup>1, 2)</sup>.

On the basis of our former experiences in this field <sup>3)</sup>, we developed a quality improvement program for postoperative pain over the past four years with the support of the German Ministry of Health (BMG).

## Methods

A set of outcome and process parameters of postoperative pain management is obtained from a random sample of surgical patients on the first postoperative day. These data are sent to a "benchmark server" for analysis and peer comparisons. Finally, immediate feedback is transferred to the local multidisciplinary pain management teams by means of a password secured, inter-active website.

Tab. 1: Questionnaire:

Demographic data

Pain intensity  
Pain interference  
Side effects  
Satisfaction

## Results

Up to now, more than 11.000 data sets are recorded, analyzed and fed back to thirty participating wards in six hospitals. Due to this large data base, it is possible to compare specific subgroups (i.e., visceral surgery) and even tracer surgeries (i.e., knee replacement). An example of a web-based feedback is shown in Fig. 1.

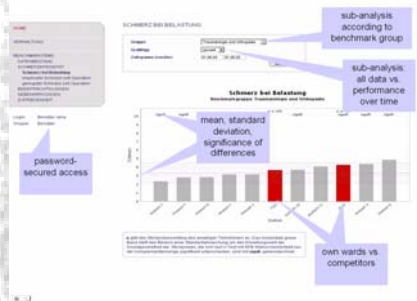


Fig. 1: Feed-back website

Changes in daily practice are mirrored in the outcome parameters: After replacement of one analgesic by another, pain intensity and functional interference increased clinically meaningful and significantly in one of the participating hospitals (Fig. 2).

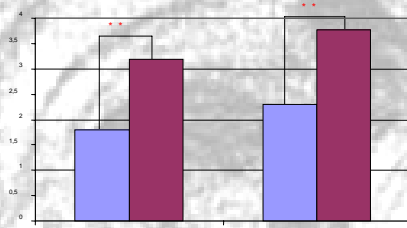


Fig. 2: Changes in pain intensity after change of analgesics (left column: analgesic A, right column: analgesic B)

Moreover, analysis of variance allows to identify the relative influence of different parameters on patients' satisfaction with pain management: Pain on movement and patients' complain not to have received enough analgesics revealed to be the most important factors.

## Conclusion

This project allows short-term on-line subanalysis, internal, and external benchmarking. It is possible to identify effects of pharmacological and non-pharmacological interventions and to compare departments on the basis of "tracer" surgeries.

Since spring 2006, the German Society of Anesthesiology and Intensive Care (DGAI) is in charge of QUIPS and encourages all their members to participate.

An international pilot project is planned together with the International Association for the Study of Pain (IASP).

## References

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- 2) Bardiau FM et al. Anesth Analg 2003; 96: 179-85.
- 3) Meissner W, Ullrich K, Zwacka S. Benchmarking as a tool of continuous quality improvement in postoperative pain management. Eur J Anaesthesiol 2006,23: 142-48

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