

## **PROSPECT – Procedure-specific clinical decision support for postoperative pain management**

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### **Background and Goal of Study**

The PROSPECT Working Group of European anaesthetists and surgeons was convened to develop a new instrument to support clinical decision making in the management of post-operative pain. It was agreed that the program should be evidence-based and procedure-specific. Laparoscopic cholecystectomy was selected as the first procedure to be reviewed.

### **Materials and Methods**

A systematic review was conducted to compare the efficacy and safety of analgesic, anaesthetic and operative techniques in influencing post-operative pain in adult patients undergoing laparoscopic cholecystectomy. The review was conducted according to the methods of the Cochrane Collaboration. MEDLINE was searched from 1966 – June 2002 and EmBASE from 1988 – June 2002. The data from 59 studies were reviewed by the PROSPECT Working Group and, with additional data and experience, classified into four groups: laparoscopic cholecystectomy evidence; transferable evidence from other procedures; practice-based evidence and practice recommendations.

### **Results and Discussions**

The knowledge base was integrated with Arezzo® technology, which uses a powerful inference engine to process knowledge about clinical conditions. The combination of this sophisticated software and the data from the review resulted in a user-friendly program in which the clinician is presented with a range of therapeutic solutions and the supporting arguments for each. The clinical decision support pathway can be accessed from four different entry points: the complete anaesthetic/surgical pathway from pre-assessment to discharge; an individual step in the pathway (e.g. intra-operative); all management options (for all stages in the pathway); an individual management option.

### **Conclusion(s)**

This interactive procedure-specific guideline provides the user with the evidence to make optimal decisions for postoperative pain management in everyday clinical practice. It is the intention of the PROSPECT Working Group to develop clinical decision support programmes for a variety of commonly performed procedures.