

## The Evaluation and Optimization of the Clinical Process with a Network Planning Method

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To reduce the time needed in patient stays, the possibility and effectiveness of application of Program Evaluation and Review Technique (PERT) method in clinical process was assessed in a clinical setting. Recent development of hospital information systems made it possible to collect exact data on the time when each medical intervention was made.

The authors determined logical relation of each element of clinical process, retrieved the time data on the elements from a hospital information system and made up the model for standard clinical process with PERT using an arrow diagram. With this model, it is shown to be possible to estimate and evaluate the course of clinical process.

## WWW-Based Collaborative Knowledge Acquisition: Establishing Knowledge Base Modules via Internet

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Computer-assisted diagnosis has been shown to be able to support the physician with a second opinion especially in rare and complex diseases. Along with the progress of the Internet an increasing number of WWW-based medical expert systems have been introduced. To establish and maintain knowledge bases for the web-based expert system MedFrame in various clinical domains, we use the facilities of the web to allow multiple experts to manage the task of knowledge acquisition. This exhibit will demonstrate how to transfer medical knowledge into a systematic and structured form as required in an expert system environment by using web technologies.

The access via Internet led to an improved acceptance of the system by the experts. As a result the task of building medical knowledge bases is accelerated and the maintenance cycles of existing knowledge bases are shortened.