Reviewer's report

**Title:** Interactive Decision Support in Hepatic Surgery

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**Version:** 1  **Date:** 19 Feb 2002

**Reviewer:** Prof Christian Ohmann

**Level of interest:** A paper whose findings are important to those with closely related research interests

**Advice on publication:** Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

The article describes an application for cooperative work of physicians on patients that undergo hepatic surgery. The database and interactive decision-support tools are accessible via Intranet. Up-to-date software tools were used to develop the system. A comparison of cases can be performed and an survival analysis can be made based on pre-existing cases. The survival analysis is visualized as a Kaplan-Meier plot.

There are several points that are left unclear:

1. The technique to search for similar cases in the database is unclear (Which similarity measures are used? Which arguments in which parameters?)

2. Assumptions for using Kaplan-Meier are not verified in the paper. There is a sample size problem. What about survival curves in small samples.

3. The evaluation process is poor.
   - The influence on decision-making was not studied, although the system is described as an interactive decision-support system.
   - The accuracy of risk assessment (survival estimation) is studied only for short term outcomes in a selected sample. There is e.g. no follow-up in patients with liver-resection.

**Competing interests:**

None declared.