Reviewer's report

**Title:** Gastrointestinal failure in intensive care: a retrospective clinical study in three different intensive care units in Germany and Estonia.

**Version:** 3 **Date:** 20 March 2006

Reviewer: Durk Zandstra

Reviewer's report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The major question really is whether gastro-intestinal failure (GIF) can be considered as an independent organ failure in itself or can be considered as a separate clinical entity (whether real disease or iatrogenesis) with inherent risks not related to any other type of organ failure. In the present study, of retrospective character there seems to be an additional mortality risk in the patients with low SOFA scores (<8) in predominantly postcardiacsurgery patients. This category patients can be complicated by low output syndrome resulting in cardiovascular failure and usually intestinal failure follows. GIF can be considered as a proxy parameter for the severity of cardiac failure. In the discussion authors should elaborate on this matter. Statistical analysis should made clear that GIF is not related to SOFA 3 and 4 points in the SOFA category for cardiovascular failure.

Furthermore: the criticism the authors put forward on the Goris score (lack of definitions in the gastrointestinal items) holds also true for their proposed score.

Vomiting: how much how often, what about regurgitation? Gastric retention: what cut-off values are used to discontinue feeding/tube feeding? Inability to feed: what percentage of target caloric/volumetric intake? Presence of blood in retention or stools: coffee grounds, bright red blood, positive guaiac test? It is also not clear when a patient was considered as a GIF positive patient: only once one of their gastrointestinal problems occurred? or during more consecutive days? The score used in the study is not categorised i.e. GIF severity is not categorised. A gastric retention of 500 ml/24 hours with 400 ml of feed is as severe as a gastrointestinal hemorrhage. Authors should comment on this matter in the discussion.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Figure 1 the ROC curve can be omitted. Does not provide additional information to support the stated issues.

Discretionary Revisions (which the author can choose to ignore)
**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

'I declare that I have no competing interests'