Reviewer's report

Title: Mortality following acute pancreatitis: social deprivation, hospital size and time of admission: record linkage study

Version: 2

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Reviewer: Marcel M Spanier

Reviewer's report:

Acute pancreatitis (AP) related mortality is an important issue. Normally the 30 days mortality rate is reported, the authors focus on the 60 days mortality rate.

Besides the general mortality, the authors also analyze the influence of five different factors for two main causes of AP (gallstones and alcohol).

The strength of this study is that the data are linked with different databases. However the aetiology is known of by 35% of the total population.

Major concern, it is not known/ discussed if the authors checked and corrected for unique cases (normally only 80% cases are really unique).

Another major concern is the fact that first attack AP's and recurrent AP's are not separatedly analyzed (see p 7 definition of new cases).

Minor concerns:

The five factors analyzed are very mixed from social deprivation to influence of EWTDs. To create a more easily to read manuscript the authors can probably skip some two of them.

-the five factors analyzed should be discussed through the manuscript in the same order.

-p 10 the percentage of total aetiology is not 100% but only 70.5%
-p 10 how can galstones ( in 13%) lead to death? This needs an explanation

-p 14 study limitations: some should be added to the methods section, not in the discussion section. some cases were excluded.

-table 2, 3 and 4 have a great overlap, they should be shorter.

-the five factors analyzed should not be mentioned as prognostic factors in the text of the different tables, this is not the correct term and even misleading.