Reviewer's report

Title: The effect of anaesthetist grade and frequency of insertion on epidural failure: a service evaluation in a United Kingdom teaching hospital.

Version: 1
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Reviewer: gilda cinnella

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Major comments

The paper by Heinink and coll is a prospective observational study on the evaluation of the relationship between failure of epidural anesthesia and anaesthetist grade and frequency of practice. This is an interesting topic, both in terms of clinical practice audit and of anaesthesia resident teaching requirements, however the paper has major drawbacks both in its design and results presentation that should be addressed.

Preliminarily, I am concerned by the statement in the discussion first paragraph, that “in absence of published guidelines […], it is unclear what degree of ongoing practice is required to maintain competence in providing epidural anaesthesia”. Authors cite three scientific societies of the utmost importance, but that are not the only ones entitled to be a reference in terms of anaesthesia training. To cite only two other cases, recent guidelines were recently published, that could have been taken into account:

a) European board of anesthesiology (http://www.eba-uems.eu/styled-2/): European Training Requirements in Anaesthesiology (new 2013) and Syllabus for Anaesthesiology Training These have just been approved by the UEMS council in April 2013


For both of them last access august-26-2014

Major comments

The study design present a major limitation that is to mix up all cases of epidural anaesthesia failure (i.e. technical failure, unacceptable side effects and inadequate analgesia), that are due to very different causes, such as technical skills (different for lumbar vs thoracic anaesthesia), drug delivery doses/volumes/concentrations (that are not discussed nor reported), level of catheter insertion, surgery classification in terms of pain induction or even genetic differences in pain threshold. Therefore it is impossible to really understand how many failures where explainable with practitioners grade and/or frequency of practice.

Data on how many physicians were involved in the study are presented only in
Table 1: There is a great difference between the number of consultant (670) and
the number of locums, trainees and speciality doctors (overall about 180) that
should be discussed since it can be a cause of bias in data analysis or a source
of other explanations for epidural failures. It is therefore difficult to understand the
real meaning of the results presented, nor is Fig. 3 more clear. A median of 8
epidural per anaesthetic year seems indeed too small to draw conclusions.

Minor comments

Figure 1 is unclear: instead of showing number of epidural inserted above, below
the umbilicus and their sum (which is confounding), a figure showing the ratio of
failures/insertions could have been more useful.

Fig. 2: Why to present only data for abdominal incisions?

Fig. 4 could be eliminated

Figure legends are overall too concise and not clear.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'