Reviewer's report

Title: Withdrawal of life-support in paediatric intensive care - a study of time intervals between discussion, decision and death

Version: 2 Date: 8 February 2011

Reviewer: Joel Frader

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Major compulsory revisions

1) The authors need to define some terms more clearly so that the reader understands precisely the phenomena described. In the Abstract, under Measurements and Main Results, the authors state: “The time from broaching the subject of withdrawal of life-sustaining treatment...” and go on to say “...from the time of decision....” Similar wording appears in the second paragraph of the Methods section (“...when the decision to withdraw....”) and later in that paragraph (“...time of first discussion about withdrawal...”). This kind of wording appears again in the third paragraph of the Discussion (“...from the first discussion about the subject to implementing the decision...”).

While I infer that the authors refer to discussion of and decisions with parents or legal guardians, the language leaves open the possibility that they mean discussions among and decisions by clinicians, without direct involvement of the families. In our research on PICU end-of-life decision making and in published sociological literature on ICU decisions of this sort (see Renee Anspach, Deciding Who Lives; Guillemin and Holmstrom, Mixed Blessings, two important books about NICUs in the US), it seems clear there is often a long lag time between discussions and even decisions among the staff and taking these thoughts and considerations to families.

If, as suspected, the authors refer to discussions and decisions with families, it would be good if they commented, if only informally, about any delay between when the staff talk about these matters amongst themselves and when they bring them up with families.

2) In the Results section the authors note that the report involves only cases of withdrawal of treatment. They do not include “withholding” cases. They need to justify this decision, as most of the literature “lumps” withholding and withdrawing life-sustaining measures.

Minor Essential Revisions

3) The authors indicate that they have ~1400 admissions/year with 51 deaths in the study year. The crude death rate then is ~3.6% which seems rather less than the 5-7% typically reported for North American PICUs. This lower mortality could affect the reported data in many ways and the authors should comment on matters such as a more restricted admissions policy, a greater reluctance to limit
life-sustaining treatment or other factors that might influence the way readers would interpret their report.

4) The authors, in the second paragraph of the Results section use the term “futility.” I am sure they know this term is value-laden and rather controversial, especially in the U.S. I am not sure the term adds much here and the authors should consider eliminating it.

5) It seems that in no cases did the patients who had life-sustaining treatment withdrawn survive more than seven hours following withdrawal of treatment. That differs substantially from our experience, where survival may continue for days or discharge from the PICU. This may again reveal something about the cases the authors treat (admit or deny admission to), the situations in which they withdrawal treatment, and so on. The authors should comment on this, as well, if they can.

6) In the fifth paragraph of the discussion, the authors discuss the chance for parents to hold or lie with their child in relation to certifying the time of death. This is unclear. In our unit parents lie with/hold their children nearly any time and certainly throughout the dying process when we forgo life-sustaining treatment. It is not clear how parental presence in the bed or holding the child would interfere confirming death.

Discretionary Revisions

7) In the third paragraph of the Discussion the authors say the data show “extreme” variations in time. Surely the data show considerable variation, but it seems hard to justify the label extreme.

8) The manuscript will have importance to clinicians working in pediatric and neonatal intensive care units as well as others doing related research. Having said that, the scope of the piece is quite narrow and the findings are not surprising. It is worth having documentation of the variability described, especially, as the authors note, in the era of organ donation after cardiac death.

Level of interest: An article whose findings are important to those with closely related research interests

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 interest that might influence my review of this manuscript.