Reviewer’s report

Title: Laparotomy in women with severe acute maternal morbidity: secondary analysis of a nationwide cohort study

Version: 0 Date: 23 Jul 2017

Reviewer: Ruth Curry

Reviewer’s report:

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The paper addresses an important, albeit rare, intervention which is becoming increasingly relevant in light of the continuing rise in Caesarean section rates, (in particular for maternal request with no obstetric indication), and I think these findings deserve to be reported.

I would make the following comments on the manuscript which mainly relate to phraseology and poor English, after which I would consider the paper would be suitable for publication.

Abstract

Line 36: 'we calculated the incidence of postpartum laparotomy during pregnancy, childbirth and the puerperium' - this sentence does not make sense, should state 'we calculated the incidence of postpartum laparotomy after vaginal and Caesarean deliveries' (as it does in line 44 in the results section of the abstract).

Line 40: specify if laparotomies following delivery before 24 weeks' gestation if this is what it was......otherwise could be mistaken for laparotomies during pregnancy where the pregnancy continued afterwards (this is done in the materials and methods section - line 108)

Introduction

Lines 69-70: poor English - consider using the wording from the WHO paper (reference 1) - a critical intervention required in the management of life-threatening and potentially life-threatening conditions

Line 71: poor English - ? 'severe maternal morbidity' or ? 'it's use may be indicative of severe maternal outcomes'. I know that 'severe maternal outcomes' is the precise term used by WHO but in this sentence it does not read well
Materials & Methods

Line 101: 'included in'

Line 110: why are women with CS hysterectomy excluded? - the WHO paper suggests it's inclusion and Caesarean hysterectomy is surely a marker of severe maternal morbidity

Line 111: 'The main outcome'

Line 121: '(non) obstetric sepsis' - what does this mean? obstetric sepsis only? all sepsis? intra-abdominal sepsis? Needs clarifying

Line 123: what does 'bleeding control by location' mean ? If it means bleeding control is the intervention which is then subdivided by location this should be re-phrased to reflect this

Results

Line 137: all percentages in brackets for consistency

Line 139: '61 women' should be start of a new sentence

Line 149: would be nice to state what the miscellaneous morbidities were

Lines 161/163: scarred uteri secondary to previous CS? previous myomectomy? previous rupture? Should be stated more clearly in text (I realise the table refers more specifically to previous CS - the text should reflect this)

Line 165: is this figure re: transfusion > 9 units for all women regardless of mode of delivery? what is the breakdown CS vs VD?

Lines 182-184: This sentence is unclear, needs rephrasing for clarity

Line 187/192: 'died in the intensive care unit'

Line 194: 'sustained persistent post part haemorrhage' - advise needs rephrasing - 'suffered'

Discussion

Line 199: advise rephrase 'sustained' as above

Line 200: as per line 36 in the abstract

Line 206: advise re-phrase as per line 71 in Introduction
Line 223-224: poor English, advise rephrase

Line 229: advised rephrase 'sustained' - 'underwent'

Line 230: 'infection or sepsis was no endpoint in any previous study' - poor English, needs rephrasing

Line 244: suggest rephrase 'as having severe acute maternal morbidity'

Line 260: The decision on timing of laparotomy will be made on a case-by-case basis and I don't think it is reasonable to say on the basis of this one study that it is safe to watch and wait in all cases for 4 days, which is what this sentence implies by the way in which it is phrased. If this is not what was meant then the phrasing needs to be changed.

Line 276-277: ' an intra-operative surgical complication requiring laparotomy' - unclear. Does this mean complications as a result of initial surgery requiring re-laparotomy? If so, needs rephrasing to reflect this

Line 285: are there more recent data?

Table 3: '* considering 1st laparotomy' - poor English, should be rephrased: 'for 1st laparotomy'

Intervention section: as per previously needs to be clear that the actual intervention is arrest of bleeding, and this is subdivided by location i.e. abdominal wall, intra-abdominal, CS scar

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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