Reviewer's report

Title: Regional Anesthesia and Lipid Resuscitation for Local Anesthetic Systemic Toxicity in China: Results of a Survey by the Orthopedic Anesthesia Group of the Chinese Society of Anesthesiology

Version: 3  Date: 15 July 2015

Reviewer: Ahmed Abdelaal Ahmed Mahmoud

Reviewer's report:

The author is introducing an interesting subject about the availability and the incidence of the use of lipid emulsion rescue therapy in the treatment of local anesthetic systemic toxicity, however the following comments must be considered:

1- Page 1 row 2-4: Please make the font of the title unified (all bold and not italic).
2- Page 1 row 11: please correct "affliated" into "affiliated".
3- Page 3 row 47: please start the words of "local anesthetic systemic toxicity" with capital letters to be "Local Anesthetic Systemic Toxicity", this would be more appropriate to denote the abbreviation mentioned afterwards.
4- Page 3 row 50: please add "the" before "current approaches".
5- Page 3 rows 60 and 61: please modify "and 22 (61%) low-utilization (< 50%) of RA." To "and 22 departments (61%) with low-utilization (< 50%) of RA."
6- Page 3 row 62: please correct "was" to "were".
7- Page 4 row 70: please modify "Lipid emulsion is generally unavailable in China" to "Lipid emulsion is not widely available in China". This would be a better expression of the fact you are presenting.
8- Page 5 row 90: please add "Tab" to the first line of the paragraph.
9- Page 5 row 90: please modify "Increases in the use of regional anesthesia (RA)" to "The increased use of regional anesthesia (RA)"
10- Page 5 row 92: please modify "epidurals" to "epidural blocks".
11- Page 5 row 94: please remove "however".
12- Page 5 row 94: references [6-8] must be corrected to be [6, 7].
13- Page 5 row 99: references [9, 10] must be corrected to be [8-10].
14- Page 5: it is more appropriate to mention and discuss reference number [15] in the background before mentioning it in the methods section.
15- The section of the background is relatively short and did not present the following points:
   - The presence of any previous data in china about the annual rate of peripheral nerve blocks or epidural blocks in china.
- Why the author selected the field of orthopedic anesthesia only and did not include other fields as obstetric anesthesia or peripheral vascular surgeries (for example) to obtain a better idea about the availability and the incidence of the use of lipid emulsion rescue therapy in the treatment of local anesthetic systemic toxicity.

16- Page 6 row 112: please add "Tab" to the first paragraph.

17- Page 6 rows 114 and 115: please modify arrangement of references to be [12-15].

18- Page 6 row 115: Please add the references after "the AAGBI and ASRA".[8, 9]

19- Page 6 row 116: please modify "about current RA practices" to "about the current RA practices".

20- Page 6: the first paragraph did not include the clinical trial registry of the study.

21- Page 6 row 123: please modify "indicated consent to study participation" to "indicated a consent to the study participation"

22- Methods section is deficient in the following items:
- What is the 23 questions of the questionnaire?
- The duration over which the questionnaire was applied is not cleared in the methods, i.e. what is the actual period did your study cover? Since you e-mailed the questionnaire or covered a certain period before that?
- It is not clear why did you include only orthopedic patients? Did you include both epidural and peripheral nerve blocks or there were any sort of inclusion and exclusion criteria? Why other fields as obstetric or peripheral vascular surgeries were not included?
- What is the deadline to receive the feedback e-mails?
- Did you register the trial with any clinical trial registry?

23- Statistical analysis must be revised to provide the following points:
- What is the program did you use for statistical analysis and which version?
- Page 6 row 127: you did not mention the names of the groups (that utilized more and less than 50% of RA. Although you mentioned them in the results, you should mention names of the groups in the methods first)
- The section of statistics must be re-formatted.

24- Results:
- Page 7 row 133: please modify "from 36 of the 41 (88%)" to "from 36 out of the 41 (88%)"
- Page 7 row 134: please modify "Of the 36 institutions," to "Out of the 36 institutions,"
- Page 7 row 136: you mentioned intrathecal block and you did not comment on epidural block which is a major block in your survey?
- The last sentence (rows 137, 138) need to be re-written to be clear to the reader or better placed in a table?

- Page 7 row 138: the phrase "performed > 60 PNBs per month"; is this the average over a certain year? Which year?

25- Table 1:
- The inter-quartile range should be written in the form of "2500-7200" and not "200, 7200"
- Are you sure about the item hand and foot surgery or did you mean upper and lower limb surgeries? (please revise)
- You mentioned in the last row of the table the intra-thecal and you did not mention the epidural or the neuro-axial blocks although this is the focus of the survey.

26- Page 7 row 140-142: you counted 37 institution while you received response from only 36 centers??

27- Figure 1: according to what you mentioned in page 7 row 143, 98% used two drugs (ropivacaine and bupivacaine), please revise your figure other drugs are presented for more than the remaining 2%??

28- Again in page 7 rows 148-151; you counted 38 centers while you received response from only 36 centers, please revise your data??

29- The section RA practice (page 7 row 139-152): you did not mention any data about the number and percentage of epidural block or peripheral nerve block or the incidence of systemic toxicity, also you did not correlate between the technique used for the block (ultrasound guided or nerve stimulator guided…etc.) and the risk of systemic toxicity, this is an important outcome that you should present in your study.

30- Page 8 row 155: please modify "The distribution of LAST was" to "The distribution of LAST among techniques used was"

31- Please insert corresponding references in rows 166-168.

32- Page 9 row 193: please modify "poisoning" to "toxicity"

33- Page 9 rows 193-196: please mention if you have any data about the use of electrical cardioversion and its relation to the use of lipid emulsion if any.

34- Page 10 row 211: please modify "availability" to "non-availability" or "unavailability"

35- Page 12 row 251: please insert reference after "AAGBI guidelines"

36- Page 12 and 13 rows 260-271: please add to your limitations that you did not report incidents of local anesthetic toxicity with other fields as obstetric and peripheral vascular surgeries.

37- The discussion is clear and satisfactory

38- Page 19 row 414: you mentioned in the figure legend "in 2013" this gives an impression that the survey was applied for the year 2013 while you mentioned before that you asked institutions about incidents and LRT over last five years.
Please clear this confusion and revise your data and the figure legend. 39- Please revise the reference arrangement in the text (comment 18).

Thank you

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

i declare that i have no competing interest