

Peer Review Report

Review Report on Spatial accessibility analysis of snake antivenom

Original Article, Int J Public Health

Reviewer: HATEM KALLEL

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EVALUATION

Q 1 Please summarize the main findings of the study.

In this study, the authors investigated the spatial accessibility of antivenom-equipped hospitals in Hainan Province, China.

Overall, they conclude that accessibility of hospitals equipped with antivenom in Hainan Province is uneven, except for the southern and northern regions.

Q 2 Please highlight the limitations and strengths.

This is a well conducted study.

The strength of the study is the robust and detailed methodology

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

In this study, the authors investigated the spatial accessibility of antivenom-equipped hospitals in Hainan Province, China.

Overall, they conclude that accessibility of hospitals equipped with antivenom in Hainan Province is uneven, except for the southern and northern regions.

This is an interesting and well-written article, and it is quite apparent that the authors have invested a lot of time in collecting data and conducting this research. However, I have some comments that are detailed below:

Title: Please specify "antivenom for snakebite envenoming."

Abstract, Objectives: please specify "antivenom for snakebite envenoming."

Abstract, methods: the first two sentences are redundant

The authors used the terms: antivenom, antivenin, and serum. Please use a single term for uniformity. Please specify if you mean antivenom serum or immunotherapy. Throughout the manuscript, please specify that you mean "antivenom against snakebite envenoming."

The "Introduction section" is well written. However, it would be more informative to provide more detailed epidemiological data on SB epidemiology in China and in the Hainan province. The authors set the problem at a global dimension, but a piece of local epidemiology would be interesting.

Page 4, Line 50: the reference "2" did not meet the required reference format.

Introduction section: it would be more informative to provide information on the culprit snakes in Hainan and the available antivenoms.

Overall: the quality of the figures should be improved.

Figure 1: the legend of the figure is illegible

Figure 2: Please provide a better resolution figure. The legend is illegible.

Page 9, Line 152: "the serum supply." please check if you mean "antivenom supply" or "immunotherapy supply."

Method section: The authors provided detailed information on how they collected and analyzed data. This is a very interesting approach. However, I am not qualified to review this part of the manuscript.

Result section:

First paragraph, Page 11, Lines 208–218: I suggest moving this paragraph to the method section.

Page 12, Table 1: Please explain what "Quantities" means.

Page 12, Line 231: "3.2.1 Accessibility results of 25 serum equipped hospitals in Hainan province" I suggest switching to "snake antivenom". The authors should specify if the available antivenom is a serum of antibodies-based antivenom. It would also be more informative if the authors provided the names and the manufacturers of the available antivenoms in the methods section.

Page 12, Line 234: "... in less than 30 minutes" Please correct to "30"

Throughout the manuscript: There is no need for two decimal places to express numerical values of percentages. Please use only one decimal place.

Table 1 is difficult to read. In the column "time," there is redundant and overwritten information. To make the table easier to read, I suggest moving the items "Population centroid point proportion (%), area (km²), population (thousands of people) » in the footnote of the table and referencing them in the table by numbers.

Table 1: no need for two decimal places to express numerical values of percentages.

Page 14, Line 246: For uniformity, please use "Snake antivenom" instead of "Antivenin".

Page 14, Line 249: please correct "... 30 minutes..." to "... 30 minutes..."

Figure 3: Please provide a higher-quality figure. The legend is difficult to read. Please use antivenom instead of antivenin.

Figure 4: Please provide a higher-quality figure. The legend is difficult to read. Please use antivenom instead of antivenin.

Figure 5: Please provide a higher-quality figure. The legend is difficult to read. Please use antivenom instead of antivenin.

Figure 6: Please provide a higher-quality figure. The legend is difficult to read. Please use antivenom instead of antivenin.

Figure 7: Please provide a higher-quality figure. The legend is difficult to read. Please check if "serum-equipped" is the right term. Antivenom can be either a serum or purified antibodies-based.

Figure 8: Please provide a higher-quality figure. The legend is difficult to read. Please specify "snake antivenom."

Figure 9: Please provide a higher-quality figure. The legend is difficult to read. Please specify "snake antivenom."

Discussion section:

Page 23, Line 367–368: I suggest changing the sentence "Different venomous snake bites can present different symptoms such as neurotoxins, which can cause respiratory paralysis ..." to "Venomous SB can result in different symptoms induced by the venom neurotoxins (e.g., respiratory paralysis) ..."

Page 24, Line 373: I suggest deleting "of limbs."

Page 26, Line 451: Please change "vomiting of blood" to "hematemesis."

Page 27, Line 477: the abbreviation "SBE" for snakebite envenoming was not explained before.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Need to be improved (see my comments above)

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

No.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Minor revisions.