



Paper: “Prevalence of Thalassemia Among Children Aged 0 to 15 Years in Africa from 2007 to 2025: A Systematic Review and Meta-Analysis”

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Peer review:

Reviewer 1: Mvong Vendeline Amaelle Goretti
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Reviewer 2: Malika Belkacemi
Djillali Liabes University of Sidi Bel Abbès, Algeria

Reviewer 3: Zainab Ali Hassan El saadany
Assistant Professor, Cairo University, Egypt

Reviewer 4: Blinded

ESJ Manuscript Evaluation Form 2025

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Please respond within the appointed time so that we can give the authors timely responses and feedback.

NOTE: ESJ promotes peer review procedure based on scientific validity and technical quality of the paper (not perceived the impact). You are also not required to do proofreading of the paper. It could be recommended as part of the revision.

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Reviewer Name: MVONG Vendeline Amaelle Goretti	
University/Country: University of Picardie Jules Vernes, Amiens, France	
Date Manuscript Received: 1.12.2025	Date Review Report Submitted: 04.12.2025
Manuscript Title: Prevalence of thalassemia in children in Africa: a systematic review and meta-analysis	
ESJ Manuscript Number:	
You agree your name is revealed to the author of the paper: Yes	
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Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

Questions	Rating Result [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article.	4
<i>The title is somehow clear. There is a need to specify the age-range. The title takes into account the disease, the population to be studied, the location. place but not the year and age group of the childrens.</i>	
2. The abstract presents objects, methods, and results.	4
<i>Its takes into account the studies object, method and results but does not state a clear statement of the context e.g if it's a scorge in Africa, an emergency, and or Public Health concern.</i>	

3. There are a few grammatical errors and spelling mistakes in this article.	3.5
<i>There is need to go through the manuscript and correct the missing words and or letters</i>	
4. The study methods are explained clearly.	4
<i>Clearly stated</i>	
5. The results are clear and do not contain errors.	4
<i>Clear and do not contain errors</i>	
6. The conclusions or summary are accurate and supported by the content.	3.5
<i>Accurate</i>	
7. The references are comprehensive and appropriate.	4
<i>Comprehensive and appropriate. It follows APA referencing as required and was done with Zotero.</i>	

Overall Recommendation (mark an X with your recommendation) :

Accepted, no revision needed	
Accepted, minor revision needed	X
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

Please take into account the comments.

Comments and Suggestions to the Editors Only:

Reviewer A:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

yes, i have only added one word the title

The ABSTRACT clearly presents objects, methods, and results.

yes

There are a few grammatical errors and spelling mistakes in this article.

only few spelling mistakes

The study METHODS are explained clearly.

yes

The body of the paper is clear and does not contain errors.

yes

The CONCLUSION or summary is accurate and supported by the content.

yes

The list of REFERENCES is comprehensive and appropriate.

Random check of references revealed that intext references are included in the references list

Please rate the TITLE of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the ABSTRACT of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the LANGUAGE of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the METHODS of this paper.

[Poor] 1-5 [Excellent]

5

Please rate the BODY of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the CONCLUSION of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the REFERENCES of this paper.

[Poor] **1-5** [Excellent]

4

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

Make corrections to spelling mistakes highlighted in yellow and revise table one for points and commas

Reviewer C:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

The title is clear, concise, descriptive, and keyword-rich

The ABSTRACT clearly presents objects, methods, and results.

The ABSTRACT clearly presents objects, methods, and results.

There are a few grammatical errors and spelling mistakes in this article.

The study METHODS are explained clearly.

The study METHOD is explained clearly.

The body of the paper is clear and does not contain errors.

The body of the paper is clear and error-free.

The CONCLUSION or summary is accurate and supported by the content.

The conclusion is too short. There is a need to improve it.

The list of REFERENCES is comprehensive and appropriate.

The list of references is comprehensive and appropriate.

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent]

5

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the LANGUAGE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the METHODS of this paper.

[Poor] **1-5** [Excellent]

5

Please rate the BODY of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the CONCLUSION of this paper.

[Poor] **1-5** [Excellent]

1

Please rate the REFERENCES of this paper.

[Poor] **1-5** [Excellent]

5

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

The conclusion section is too short. There is a need to improve it.

Reviewer D:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

The title is clear and reflects the main focus of the article. However, you may consider specifying the years covered by the meta-analysis to provide clearer temporal scope. Additionally, since some included studies involve newborns and adolescents (>5 years), refining the term “children” or clarifying the age range may improve accuracy and alignment with the study’s contents.

The ABSTRACT clearly presents objects, methods, and results.

Overall, the abstract presents the objectives, methods, and principal findings; however, several elements require clarification to enhance accuracy and coherence. There is inconsistency in the reported publication years of the included studies (2007-2023), which should be reviewed for alignment with the Results section. The abstract would also benefit from explicitly stating the number of subjects diagnosed with thalassemia to provide clearer context for the prevalence estimates. Given the extremely high heterogeneity observed in the meta-analysis, it is important to acknowledge this limitation briefly within the abstract. Finally, the link between the pooled findings and their implications for designing or strengthening thalassemia screening and management programs should be made more explicit to ensure the concluding statements follow logically from the results.

There are a few grammatical errors and spelling mistakes in this article.

Beyond grammatical and spelling issues, several sentences throughout the manuscript are incomplete, while others are repeated or structured incoherently. A thorough language edit is

recommended to correct these errors, remove redundancies, and improve overall clarity and readability.

The study METHODS are explained clearly.

While the Methods section provides a general outline of the search strategy, screening approach, and analytical tools, several important methodological elements require clarification for the study to be fully transparent and reproducible. First, the rationale for conducting this meta-analysis should be strengthened: if previous research already suggests a high prevalence of thalassemia in sub-Saharan Africa, it is important to explain clearly what gap this study addresses and why an updated pooled estimate was needed. The age range of the target population also needs clearer definition. “Children” is used broadly, yet included studies span newborns to adolescents. This inconsistency should be addressed in both the Methods and inclusion criteria. The use of subgroups (newborns, <5, >5) should be justified, particularly if primary studies report age categories differently, as this may introduce misclassification bias. Additionally, lengthy descriptive portions (e.g., MMAT explanation) could be summarized and readers should be referred to Supplementary Table 1. Overall, the Methods are understandable but would benefit from added precision, clearer justification of decisions, and more explicit reporting of population definitions and subgroup strategies.

The body of the paper is clear and does not contain errors.

Several areas of the manuscript would benefit from improved organization and clearer alignment with the study’s objectives. Paragraphs currently transition abruptly between epidemiology, screening gaps, genetic variability, and policy recommendations, which can make the narrative difficult to follow. Adding subheadings throughout the Discussion would help structure the content more effectively and guide readers through the major themes. A dedicated “Limitations” subsection is particularly important to acknowledge and interpret the extreme heterogeneity across studies, which affects generalizability. Additionally, some evidence cited (e.g., prevalence data from Saudi Arabia) does not pertain directly to Africa; focusing more consistently on Africa-specific findings or clearly separating external comparisons would strengthen the argument.

The CONCLUSION or summary is accurate and supported by the content.

The conclusion is generally aligned with the findings presented in the manuscript; however, it would be strengthened by briefly summarizing the key prevalence results before moving to the broader implications. Adding one concise sentence that links the pooled estimates to the discussion on diagnostic variability and surveillance gaps would create a clearer bridge between the results, their interpretation, and the proposed next steps for improving screening, counseling programs, and public health strategies.

The list of REFERENCES is comprehensive and appropriate.

The reference list is generally comprehensive and the cited sources are appropriate for the topic. However, careful revision is needed to ensure full consistency between in-text citations and the reference list, as well as to correct some formatting issues. For example, some references are incomplete or truncated (e.g. “Laghmich et al., 2019” and “Macharia et al., 2020” with “& ...” and missing full journal details) and “Smith Yolanda, 2022” is missing the initial “h” in “https”. I recommend checking that every in-text citation appears in the reference list with full and accurate details, that every listed reference is cited in the text, and that all entries follow a consistent format in line with the journal’s style.

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the ABSTRACT of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the LANGUAGE of this paper.

[Poor] 1-5 [Excellent]

2

Please rate the METHODS of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the BODY of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the CONCLUSION of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the REFERENCES of this paper.

[Poor] 1-5 [Excellent]

4

Overall Recommendation!!!

Return for major revision and resubmission

Comments and Suggestions to the Author(s):

Thank you for the opportunity to review this manuscript. The topic is important and the authors have compiled valuable data on thalassemia prevalence in Africa. However, several areas require clarification and restructuring to strengthen the manuscript and ensure methodological transparency.
