Peer Review Report

Review Report on Primary Stroke Screening and Hydroxyurea Treatment for Sickle Cell Anemia in Pediatric Healthcare Settings within East and Central Africa: A Narrative Review of Capacity Gaps and Opportunities

Review, Public Health Rev.

Reviewer: Ugochukwu Agbakwuru
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EVALUATION

Q 1 **Please summarize the main theme of the review.**

This paper was a summary/review of the literature describing the breadth of morbidity and morality of SCA. It then goes on to review one therapy (hydroxyurea) and one screening mechanism (TCD). It describes how this treatment and screening can be improved in low resource areas.

Q 2 **Please highlight the limitations and strengths.**

The paper has the strength of reviewing the SCA, describing the increased morbidity and mortality, and discussing 2 of the most important advances in the treatment of SCA. TCD screening for stroke.

This paper is unfortunately not detailed enough, does not appropriately highlight the most important treatment necessities for SCA patients, is too limited in scope and is not novel information.

Q 3 **Please provide your detailed review report to the authors, structured in major and minor comments.**

This paper has several deficiencies. Firstly it does not discuss the gentic inheritance pattern of SCA and the varied genotypes with differing phenotypic severitiies. It can be assumed that the author is only describing Hemaglobin SS and Hemaglobin SB0 disease as they are reccomended to have TCD screening and treatment with hydroxyurea (HU). However the authors never specify. A patient with sickle cell SC disease or SB+ or even SC trait are not treated the same (do not get TCD screening and do not get treated with HU). The author mentons the improvments that US protocols have made in young child survival by newborn screening, penicillin prophylaxis and pneumococcal vaccinations.However the author only mentions them once while focusing on TCD and HU. One could argue that these therapies are more critical in sub-saharan Africa given the infectious burden in the region. Stroke prophylaxis and anemia can to some degree be treated with chronic transfusions, whereas infections can only be amiliorated with these critical vaccines and antibiotitcs. Finally, the two advances (TCD screening and HU) have been well studied and well understood to have signficant positive impact on morbidity and mortality for SCA patients. This has been known for decades and is not novel. If it is the desire that this review to be used to introduce individuals to SCA and the therapies necessary and to highlight the resources needed in low income locations such as sub-saharan Africa, im afriad it is missing too much critical information necessary to the understading of SCA as described above.

PLEASE COMMENT

Q 4 **Does the reference list cover the relevant literature adequately and in an unbiased manner?**

Yes

Q 5 **Does this manuscript refer only to published data? (unpublished data is not allowed for Reviews)**

Yes.

Q 6 Does the manuscript cover the issue in an objective and analytical manner

Yes.

Q 7 Was a review on the issue published in the past 12 months?

No.

Q 8 Does the review have international or global implications?

No, unfortunately this is well known information in the field that does not offer international imapct.

Q 9 Is the title appropriate, concise, attractive?

Yes

Q 10 Are the keywords appropriate?

Yes

Q 11 Is the English language of sufficient quality?

Yes

Q 12 Is the quality of the figures and tables satisfactory?

Yes.

QUALITY ASSESSMENT

Q 13 Quality of generalization and summary

Q 14 Significance to the field

Q 15 Interest to a general audience

Q 16 Quality of the writing

REVISION LEVEL

Q 17 Please take a decision based on your comments:

Major revisions.