



SDI Review Form 1.6

Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	2013_IJTDH_7251
Title of the Manuscript:	Prevalence, characteristics of and risk factors for early pediatric mortality at Zomba Central Hospital, Malawi
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that NO manuscript should be rejected only on the basis of 'lack of Novelty', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (<i>if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here</i>)
<u>Compulsory</u> REVISION comments	1. Abstract: Please delete the following sentence from the conclusion: "Achieving the 4th millennium development goal of reducing under-5 mortality remains a significant challenge". The conclusion should be based on the data in the manuscript. Also the data in the manuscript is not limited to under five mortality which is the focus of MDG-4. 2. Results: Did low BCS mean cerebral malaria? Were children with Cerebral malaria more likely to die as compared to those who did not have CNS involvement? What was the type of malaria parasite in these children? 3. Did pallor in malaria children reflect haemolysis and more severe type of malaria? 4. The recording of vital signs on admission is very poor. None of the patients had a blood pressure recorded. Is it due to lack of nursing numbers or training? 5. The antibiotic regime did not include a good gram negative cover e.g. an aminoglycoside. Similarly the fluid resuscitation and management is not documented. Only 3 among those who died had received oxygen. This reflects serious shortfalls in the referral centre. We don't know what would be the status in the centre from which these children were referred. These health system problems need to be highlighted and discussed. 6. Many points in the results should be moved to discussion and only actual results retained in their section. If the results	1. Response: We have deleted this sentence from the abstract. 2. Response: Thank you for your comments – we have added the malaria parasite as <i>P.falciparum</i> in the text (highlighted yellow) and the following statement to the results: Among malaria patients, mortality was associated with meeting the WHO criteria for a diagnosis of cerebral malaria (ie.severe <i>P.falciparum</i> with BCS<3); 37.4% of cases met criteria vs. 18.4% of controls (p=0.001) 3. Response: As we discuss in section 3.4.1. HgB levels and blood films were poorly documented, therefore we are unable to correlate the clinical finding of pallor with HgB levels. 4. Response: Unfortunately due to the retrospective nature of this study we are unable to explore reasons for vital signs not being recorded in a rigorous manner for publication. From experience it is multi-factorial including poor equipment, lack of staff and lack of a practice standard and we have added the following statement to the discussion to clarify " Although we do not have secondary information on available equipment and staff to patient ratios... this finding may support the use of critical care or vital sign flow sheets to standardize and improve documentation"



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	are given in the table, then just refer to the table instead of describing these results. 7. Discussion: The authors have very rightly identified the problems in the health system as well as the risk factors in each individual patient. The system problems need to be highlighted e.g. the number of nurses available, staff patient ratio and the available equipment. It seems lopsided that there is no problem in getting blood for transfusion but there is no Oxygen for those who are dying due to circulatory and respiratory failure. 8. Conclusions: Well justified but the authors need to write some specific recommendations to improve their health care system.	5. Response: Thank you for your comment. Indeed we have highlighted three important systems issues in the 4,5, and 6th paragraphs of the discussion that we could reliably address given the evidence within the study. These highlighted areas are strengthening referral centres and emergency interventions such as antibiotics and transfusion. Regarding fluid management, our ability to comment on these practices is limited by the lack of documentation. Regarding oxygen delivery, the table in fact states that only 3 of those controls received oxygen (not cases) and that cases were 21.5 times more likely to receive oxygen. 6. Response: Thank you for your suggestion. We have rearranged several statements to better reflect succinct results: Section 3.4.1: 68.9% of cases with missing HTC data died before 12 hours likely impeding the organization and completion of HTC. And section 3.1 “reflecting the seasonal burden of malaria during the study period.” Additionally we feel the statements in 3.4.2 to be better placed in the results section than in the discussion. 7. Response: Thank you again for highlighting the challenges in the systems in these and similar settings. We have changed the following statement in the discussion to reflect that, given the limitations of the study design, we do not have more information on staffing etc: “Although we do not have secondary information on available equipment and staff to patient ratios, this finding may support the use of critical care or vital sign flow sheets to standardize and improve documentation”.
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		Regarding oxygen use we again refer you to Table 3 which shows that 28% of cases received oxygen and those who died were 21.5 times more likely to receive oxygen and thus were appropriately getting oxygen. We have no more information on availability of oxygen supplies. 8. Conclusions: We have deleted the following as per your request in the abstract as well: "Achieving the fourth MDG...." We have additionally added the following: "Additionally, several areas were identified for quality improvement includes assessment and strengthening of referring health centre capacity and availability of emergency treatment (ie. antibiotics and transfusions) as per validated guidelines for these patients."
<u>Minor REVISION</u> comments		
<u>Optional/General</u> comments		