Author’s response to reviews

Title: Interventions to reduce neonatal mortality from neonatal tetanus in low and middle income countries - a systematic review

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Version: 7 Date: 12 February 2013

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Query: The studies of iron, folic acid and the community based interventions are not directly related to the objective of their review i.e., neonatal tetanus. Study no.1, 3, 5 have no direct relationship with the objective.

In the light of recommendations from the respected reviewer, authors have revisited the manuscript in terms of the alignment of objectives with the interpretation of results. The objective of the study was:

“To conduct a systematic review to understand the interventions that have had a substantial effect on reducing neonatal mortality rate due to neonatal tetanus in LMICs and come up with feasible recommendations for decreasing neonatal tetanus in the Pakistani setting.”

With this objective we reviewed the study on iron and folic acid supplementation. The study revealed that iron and folic acid supplementation along with tetanus toxoid immunization enhanced chances of neonatal survival by improved immune status. In this study, it was also revealed that infants whose mothers received more than 2 tetanus toxoid doses but not the iron and folic acid supplementation remained unprotected against neonatal mortality while interestingly, infants whose mothers received less than 2 tetanus toxoid doses along with adequate iron and folic acid supplementation had significantly better chance of survival during neonatal period (adjusted HR: 0.46; 95% CI: 0.29–0.73).

However we take the reviewer’s point in this regard that this study could not elaborate on specific reduction of neonatal mortality due to tetanus by iron and folic acid supplementation

Hence we remove this study from our review.

Nevertheless, the study on community based interventions illustrated that immunization of pregnant women does result in an impact on disease burden, but could not achieve levels that were sufficient to achieve neonatal tetanus elimination without combination of other community based interventions.

While the importance of facility-based services for maternal and newborn care cannot be denied, this study provides sufficient evidence to scale up
community-based care through packages which can be delivered by community health workers.

Community based interventions are practical and feasible in the context of low income countries like Pakistan, India, Gambia etc. There is evidence from other studies conducted in Pakistan showing that almost half of the newborn deaths due to infections including tetanus can be prevented by developing integrated community-based intervention packages complemented by developing and strengthening local health systems and working through peripheral lady health workers.

All the recommended changes have been highlighted in the text.