Review of: "Factors Associated With Hospitalization Outcomes for Cases of Anemia in Pregnancy at a Regional Level in Burkina Faso"

Getachew Mesfin Bambo[1]

1 Mizan Tepi University

Major comments

Abstract:

Objective: This study aimed to analyze the hospital discharge results of cases of anemia for the mother-pregnancy entity at a regional level in Burkina Faso. I hope the study is identifying **Factors Associated With Hospitalization Outcomes for Cases of Anemia in Pregnancy**. The objective is out of the scope based on your research question. It seems to be reporting data on hospital maternal discharge by anemia. Needs further modification. The method section is not well stated. Data collection, sampling technique, and statistical analyses were not explicitly written.

Q#1: In the result section, a total of 1815 cases of biological anemia in pregnancy were included. What does this mean?. Age, income level, and reason for admission were not associated with unfavorable hospital discharge….better to remove the statement.

 Introduction: The pathophysiology, burden, and associated factors of anemia and its consequences were missed.

Q#2: What is the main gap to conceptualize this study?? I did not see a clear gap or statement of the problem.

Methods: The methods section is very poor. The target population, sampling technique, eligibility protocol or criteria, and case definition or operational definition for the outcome of interest are missed. Data collection: Design: We conducted a hospital-based historical cohort study….rephrase it.

All data were extracted from the pregnant women's hospital records using a standardized questionnaire by trained investigators. The standardized form had three sections devoted to sociodemographic characteristics, clinical data, and anthropometric measurements.

Q#3 If so, how did you get variables of interest, since you used secondary data? Even the income level of participants needs FAO guidelines to categorize into low, middle, and high levels. I am not sure about the data availability under women's charts: The study included the hospital records of pregnant women admitted for any reason to the maternity wards of the two hospitals between January 1, 2009, and December 31, 2011. Does not give sense….it could be rephrased.

Q#4 What is your outcome of interest? The dependent variable is clear and not defined well. The global outcome of hospitalization was favorable if it was favorable for both the mother and the pregnancy, and unfavorable in other cases….How did you categorize using different unfavorable conditions?

Bias management=> is better to modify as data quality management. To harmonize the understanding of the questionnaire, a pretest was conducted in a referral hospital in a neighboring region before the actual data collection. All questions were clarified with the investigators. At the end of the first day of data collection, a meeting was held to evaluate and correct the completion of the questionnaire; this evaluation was repeated once a week until the end of the data collection………needs modification. This section could be; quality on data collection (tool development, validation, statistical analysis (confounder management, model fitting). But, simply stated on completion of each item of the questionnaire.

 Q#5 How did you validate the questionnaire, or was it developed, adopted, or adapted? Any checklists you used?.

An eligible hospital record was one that reported a biological confirmation of anemia, i.e., a hemoglobin level below 11 g/dl. Before determining whether a woman is anemic or not, altitude should be considered, accounting for the decrease in blood oxygen saturation. The Hb level would be adjusted using the following adjusting formula (adjust = −0.032 (altitude * 0.0032808) + 0.022 (altitude * 0.0032808)2 and adjHb = Hb − adjust (for adjust > 0).

Q#5 Does the altitude level have an insignificant effect on Hb??

Statistical analysis: The purpose of the data analysis was to identify factors associated with unfavorable hospital discharge of cases of anemia for the mother-pregnancy entity…. less important, remove it. In univariate analysis, variables at a significance level of 0.20 were considered for inclusion…....it is better to list significant and insignificant variables.

Q#6 How did you manage confounders?. Variables in the final model were selected by a top-down stepwise …. Association, both before and after adjusting for a potential confounding factor, the two measures of association would be 10% or more.

Results: Tables should be clear. Provide legends; others for variable categorization should be specified under legend. Correct marital status to married and single (unmarried, divorced, widowed)

Q#7 In table one, how did you categorize the quality of anemia prevention as weak and acceptable?

Discussion: The whole discussion needs revision.

Minor points

There are a lot of typos and grammatical errors.

Generally, the study is not rigorous and robust and might not provide sufficient evidence in clinical practice.