Reviewer's report

Title: A retrospective analysis of breast cancer subtype based on ER/PR and HER2 status in Ghanaian patients at the Korle Bu Teaching Hospital, Ghana

Version: 3 Date: 25 February 2015

Reviewer: Fiona M Blows

Reviewer's report:

The purpose of this study is to evaluate the occurrence of various breast cancer subtypes and their clinical and pathological behaviour in Ghanaian patients in the Korle-Bu Teaching Hospital.

This is a relatively small study with a broad age range and results from only three IHC markers available. However the data appears sound and has been carefully collated by reviewing the case notes of patients treated within the last five years.

Minor Essential Revisions

1. Ethnicity plays an important part in this study and the authors must be consistent when they are referring to racial background. In the first sentence of the background section, racial backgrounds are variously described as; whites, African Americans and blacks rather than using consistent terms (e.g. black Americans and white Ammericans)

2. The methods appear appropriate and are well described although the Bloom-Richardson grading system should either be referenced or briefly described.

3. A definition of T in the TNF classification system should be given (line 115).

4. It is unclear why both mean and median were included (line 107).

5. Line 182 states that this study has implications for the treatment of breast cancer but it is not clear what the implications are as the current modes of treatment for each subgroup of patients, and proposed changes to these treatments are not stated.

6. The limitations of this study were clear, however in line 171 the use of the word inability appears inappropriate. Is it the inability to retrospectively test for basal markers, or is it that this IHC test was not done and the data is therefore not available.

7. There is no consensus on what pathological complete response (line 189) is and it should therefore be clearly defined within the context of this study.

8. A large part of the discussion is dedicated to breast conservation but there is little new data for this and it is not a stated aim of the study. Similarly in the
conclusions the authors promote the need for a paradigm shift in the neoadjuvant/adjuvant treatment of breast cancer patients in Ghana, but evaluating this was not one of the stated aims of this work.

Minor essential revisions

9. This work would benefit from a grammar check. For example in line 172 the word will should be replaced with would.

10. Given the implication that basal markers are not routinely used, but would be helpful in subtyping the breast cancers in KBTH, it is surprising that including basal markers in the IHC panel is not suggested in the conclusions.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests