Scientific review for POCT CBC study

A point of care test is defined as ‘pathology testing performed near or at the site of the individual by a POCT operator at the time of the consultation or encounter’ (NPAAC POCT guidelines, 2015).

This study is being conducted to explore the option of using a point of care capillary full blood count analyser in obtaining rapid results for patients requiring regular blood tests. For this more convenient method to be acceptable, the results need to be comparable to the results obtained by the current standard method. The current standard method at our hospital is a venous blood sample analysed in the laboratory. This is especially important when results are low and decisions (for example, the need for transfusion of red cells or platelets) are made. To our knowledge, point of care methods have not been tested specifically in this group. Some studies that have been reviewed are:

1. Performance Evaluation of the Norma Icon-3 Haematology Analyser with capillary blood collection tubes. L Sule, B Medelle 2014.

* This report found that extremely comparable results were obtained from the point of care analyser compared to the laboratory analser (in this case an Abbott Cell-Dyn 3700). They, however, used venous samples for both methods. We would like to use capillary samples in our study because this would be more representative of the clinical setting.

1. C Briggs et al. Where are we at with point of care testing in Haematology? British Journal of Haematology 158(6);2012.
2. M Shephard (editor). A Practical Guide to Global Point-of-care Testing. CSIRO Publishing 2016.
3. National Pathology Accreditation Advisory Council. Guidelines for Point of Care Testing, 1st Edition, 2015.