

Haematology platelet audit 2022



Reported by the Blood Health Team (BHT), Welsh Blood Service (WBS)

On Behalf of the Blood Health National Oversight Group (BHNOG)

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EXECUTIVE SUMMARY

Background

This audit was performed to assess compliance with the British Society for Haematology (BSH) guidelines for platelet transfusion (1). It was conducted over a two-week period in November 2022, with representation requested from all Health Boards in Wales. Patients over the age of sixteen with haematological disorders were included in this data. In addition, a survey was sent out to staff participating in the audit, to gather further useful information.

Standards for the audit were drawn from the BSH guidelines for the use of platelet transfusion, with results reported as a percentage against each of the following standards:

Results

Platelet Standard 1: In patients with a reversible cause for bone marrow failure and no other risk factors for bleeding, the threshold for prophylaxis is a platelet count of $10 \times 10^9 /L$

Audit finding: 76% compliance

Platelet Standard 2: When platelets are prescribed for prophylactic use, this should not be more than one adult therapeutic dose

Audit finding: 91% compliance

Platelet Standard 3: Patients with chronic bone marrow failure (BMF) are not routinely given prophylactic platelet transfusions

Audit finding: 100% compliance

Platelet Standard 4: Prior to procedure, if no additional risk factors are present, the appropriate threshold for platelet count is as stated in the BSH platelet guideline

Audit finding: 100% compliance

Platelet Standard 5: Patients do not require platelet transfusion prior to bone marrow biopsy

Audit finding: 100% compliance

Conclusions

A total of 85 records of platelet transfusion were returned from 5 out of the 6 Health Boards across Wales. Unfortunately, due to severe staffing issues, one health board was unable to submit returns. Results from this audit show a continued improvement in adherence to guidelines for platelet use in Haematology patients, as compared with the BHNOC audit performed in 2020 (2) and National Comparative Audit (NCA) UK data from 2017 (3).

However, responses from the survey highlighted areas that should be targeted for further improvement, in particular availability of **local hospital guidelines**, which should:

- Reflect national guidelines which state that prophylactic platelet transfusions are not required:
 - (i) Prior to bone marrow aspirate or trephine
 - (ii) In stable patients with chronic bone marrow failure.
- Highlight that double dose prophylactic transfusions should not routinely be used
- In pre-procedure platelet transfusion, consider the size of the patient, and target platelet count
- Highlight the importance of performing TACO assessments
- Consider a link to the Welsh Blood Service platelet algorithm, available on the BHNOC website.

Education

- To ensure continued improvements, ideal subject groups to target for training include medical students, new-to-post specialist registrars and haematology nursing staff responsible for blood component ordering.

References:

1. Estcourt, L.J, Birchall, J. Allard, S., Bassey S. J., Hersey, P., Kerr, J. P., Mumford, A. D., Stanworth, S. J., Tinegate, H. (2017) Guidelines for the use of platelet transfusions, British Journal of Haematology, 176(3) 365-394
2. Blood Health National Oversight (BHNOC) website.
<https://bhnog.wales.nhs.uk/home-page/platelets/>
3. National Comparative Audit of blood transfusion 2017 Audit of red cell and platelet transfusion in adult haematology patients