

Patient Blood Management Seminar
18 June 2012

Summaries of the workshops

Workshop 1

What resources are needed to implement Patient Blood Management?

Chaired by John Thompson and Jonathan Wallis

1. Resources. The budget should be top sliced.
2. Champions - Hospital Transfusion Team
 - a) Increase transfusion practitioners
 - b) Dedicated medical time
 - c) Clerical/data support
3. Rules and guidelines – evidence based.
4. IT. Electronic blood ordering/standard (nationally agreed) data input/output.
5. Good quality research and benchmarking
6. Access to middle grade medical staff (mandatory courses akin to ATLS course)
7. Equipment.
 - a) 24/7 intraoperative cell salvage
 - b) 24/7 gastro intestinal endoscopy

Workshop 2

What data is needed to support Patient Blood Management?

Chaired by Kate Pendry and Erica Wood

1. Agree National Minimum Dataset (NBTC).
2. Ensure specification for Laboratory Information Management Systems (LIMS) allows for collection of the laboratory data in the dataset; develop standardised method of transfusion requesting ideally through electronic order communication using a mandatory menu of choices (BCSH IT guidelines, NBTC).
3. Support the development of linkage between IT systems (e.g. laboratory PAS).
4. Registries to allow for extraction of patient level data into central warehouse for analysis e.g. AIM II (NHSBT, DH).
5. Enhance IT and data analyst support for Hospital Transfusion Teams.
6. Facility to house national database with access provided to clinical users to allow analysis and benchmarking (intra/inter hospital). Central facility will require statistical support and a team to ensure data collection and data comparison are valid and accurate (NHSBT, DH).
7. The data collected should be accessible in electronic format and hospitals/Trusts with electronic order communications; electronic blood tracking and data warehouse facilities may be targeted to be early adopters of a system such as AIM II.
8. Pilot study to show benefit of QIPP.

Detailed intelligence on 'where blood goes' is an essential facet of Patient Blood Management.

Workshop 3

What approaches to Patient Blood Management (are effective) and should be routine?

Chaired by Alwyn Kotze and Toby Richards

Before planned surgery:

Our group's brief was to discuss which approaches to PBM are effective, and which should be routine. I think it's fair to say there was consensus that the evidence base isn't yet complete, and that these are therefore "practice points" rather than firm recommendations. Most of our discussion was focused on the surgical patient, but we felt the points would also hold for non-surgical patients at risk of transfusion (e.g. inflammatory bowel disease, GI bleeds, pregnancy). We agreed that the haemato-oncology patient group would require separate consideration.

Before planned surgery and/or other procedures

1. Anaemia is more than a laboratory variable. An Hb determination is often made as consequence of an important life event (e.g. surgery), and unexpected anaemia should be investigated to exclude previously undetected disease.
2. Patient blood management services should be specifically commissioned.
3. When anaemia is detected during work-up for planned care (e.g. elective surgery), treatment of the anaemia should proceed at the same time as investigation of its cause. In this way it may not be necessary to cancel or postpone what is planned.
4. Trusts and/or General Practitioners should design referral pathways such that initial tests are performed in good time, to avoid postponement and/or cancellation of planned surgery for the purpose of anaemia management.
5. A PBM team or service should be identified for each pathway. Such a team should have both the responsibility to review Hb results consistently, and the authority to initiate further investigations and treatment.
6. Protocol-based sequential investigations may be useful within laboratory services. In this way, patients would only have the tests they require, thus minimising both unnecessary testing and returns for repeat blood sampling.
7. Pre-operative assessment clinics (PAC) are ideally placed in most patient pathways to take the role of PBM service. However, initial testing may need to take place before the PAC visit.
8. Treatment thresholds should take into account the amount of peri-operative blood loss expected. This may be substantially more than the intra-operative loss, for example in the case of joint replacement surgery.
9. Iron deficiency (with or without anaemia) may be present, and may be exacerbated by expected blood loss. In this way, functional iron deficiency before a procedure may be converted into iron deficiency anaemia by loss of an iron bolus.
10. Iron replacement may be by the oral or intravenous routes. Although more expensive, newer parenteral iron preparations have important advantages over enteral formulations in terms of compliance, patient morbidity and the magnitude and speed of the Hb response.

11. There is insufficient evidence to recommend the routine "blanket" use of Erythrocytosis-stimulating agents (ESA), except in selected cases and after a risk-benefit consideration.
12. Referral to haematology and/or renal services should be available for complex cases.

During admission

1. There is good evidence that the use of low-volume blood sampling decreases transfusion risk during prolonged hospital admissions and in critical care.
2. Cell salvage should be available 24 hours per day in all hospitals that deal with significant haemorrhage.
3. There is insufficient evidence to recommend similar 24/7 availability of near-patient coagulation monitoring. However, these have important practical advantages over laboratory monitoring in major haemorrhage and would be justified in major centres.
4. Further education of clinicians and nurses about the safety (and in some situations, superiority) of restrictive transfusion practices is necessary.
5. The group considered whether moving away from the concept of a "transfusion trigger" altogether would be advantageous, with transfusion decisions instead being based solely on symptoms and signs of tissue oxygen deficit.

Workshop 4

What more should NHSBT, NBTC and DH do to support hospitals delivering Patient Blood Management?

Chaired by Adrian Newland and Rebecca Gerrard

- Need a basic dataset e.g. national blood order form with commonality in terms of indication. Minimum dataset that can form part of specification for LIMS system.
- Need to improve data collection systems.
- Establish a NBTC Patient Blood Management Working Group
- Set a few priorities – keep to a manageable number.
- Lead time for pre-assessment and admission for surgery is getting shorter so optimisation of patients will have to be done in primary care. GPs are a gap and we need to work in partnership with them for pre-op anaemia.
- Consider national champions for clinical areas and key opinion leaders.
- From April 2013, the Commissioning Board will become the key player not DH. Discuss with to Bruce Keogh for the Commissioning Board
- NICE guidelines – important to get the right strategic people together to make the right guidelines.
- Blood is ordered by junior doctors – what is making them over-prescribed? Answer – minimal training and unless the consultant understands, the junior doctor works on the site of caution.
- Deaneries could drive transfusion competencies. In the East of England the RTC makes contact with deaneries and offers to do talks/training on transfusion.
- Is there anything that can be done to incentivise hospital management to take this more seriously? Wrong blood is on the list of ‘never events’ so if they are to have a serious consequence is there a leverage that could be applied if there is a big financial penalty for having a transfusion ‘never event’.
- The patient needs to know what questions to ask.

Workshop 5

What performance measures should be used for Patient Blood Management?

Chaired by Megan Rowley and Teresa Allen

1. Transfusion consent: Patients with a signed consent form who received information about the risks, benefits and alternatives before the initial blood transfusion was deemed a medical emergency.
2. RBC transfusion indication: Number of RBC units with pre-transfusion Hb or Hct result and clinical indication documented.
3. Plasma transfusion indication: Number of plasma units with pre-transfusion laboratory testing and clinical indication document.
4. Platelet transfusion indication: Number of platelet doses with pre-transfusion platelet testing and clinical indication documented.
5. Pre-operative anaemia screening: Patients with pre-operative anaemia screening 14-45 days before anaesthesia start date.
6. Pre-operative blood type screening and antibody testing.
7. Timely supply of component (massive haemorrhage).
8. Assessment education/learning.
9. Blood administration documentation: Number of transfused blood units/goes with documentation for all of the following –
 - Patient identification and transfusion order (or blood identification number) confirmed before the initiation of transfusion.
 - Date and time of transfusion.
 - Blood pressure, pulse and temperature recorded before, during and after transfusion.