An audit of compliance with the BCSH guidelines

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The College's Clinical Effectiveness Department wishes to encourage high-quality clinical audit. We therefore periodically publish interesting examples of audits that have been successfully evaluated through our clinical audit certification scheme. In this issue we feature an audit of compliance with the BCSH guidelines on documentation of patient consent for transfusion and documentation of the clinical rationale for transfusion.

Introduction

The transfusion of blood products is commonplace on surgical wards, however it carries with it many risks. Complications of transfusion include a host of immunological reactions, 'wrong blood' prescriptions, infection risk and fluid overload, amongst many others. Although complications are rare, they can be serious and even fatal. The 2013 Serious Hazards of Transfusion haemovigilance scheme (SHOT) report calculated the risk of death and major morbidity from transfusion as 8.0 and 51.8 cases per 1,000,000 units respectively. Approximately 1 unit in every 13,000 is given to the wrong patient and, of the 247 incorrect transfusions in 2013, there was one death and six major complications.[1]

Patients expect to be well informed about all aspects of their care, and it is a general legal and ethical principle that valid consent should be obtained prior to any treatment, including the administration of blood products. In 2011, the Advisory Committee on the Safety of Blood, Tissues and Organs (SaBTO) published the report, *Patient consent for blood transfusion*, which recommended that valid consent for transfusion be obtained and documented in the patient's clinical record.[2] This recommendation has been incorporated into the national guidelines of both the British Committee for Standards in Haematology (BCSH) and the Joint UK Blood Transfusion Services Professional Advisory Committee (JPAC).[3,4]

Rationale for audit

Although it is not yet a formal requirement, some hospitals do already have systems to ensure that informed patient consent has been obtained for transfusion. As there is no such system currently in place at our own institution, we chose this topic for audit in order to assess how well we perform against the guidelines and whether there was any need for us to implement a system for obtaining and documenting consent.

We also audited if there was any documentation of the clinical rationale for each transfusion, and whether or not there was any mention of a patient having received a transfusion in their discharge letter.

Aims

- To ensure that there is documented evidence of informed consent for all patients' prescribed blood products at our institution.
- To ensure that there is clear documentation of the clinical rationale behind each decision to transfuse.
- To ensure that all patients are aware they have received a transfusion, ideally with documentation in their discharge summary.

Guidelines

We used the BCSH's 2009 national *Guidelines on the Administration of Blood Components*.[3]

- Section 10.0: Decision to transfuse
  "The rationale for the decision to transfuse and the specific components to be transfused should be documented in the patient's clinical records."
- Section 10.1: Patient consent
  "Patients (and/or those with parental responsibility for children) who may require a transfusion should have the reasons for and the risks, benefits and alternatives to transfusion explained to them. All information given, written and verbal, and consent to proceed, should be clearly documented in the patient's clinical record."
  "Patients should be informed that they have received a blood component transfusion prior to discharge. This is particularly important where the patient may not be aware of the transfusion (e.g. transfused during surgery or emergency situations)."

Sample

We selected 15 patients who had most recently received a blood product transfusion (from the date of notes request on 15 February 2015). The patients were identified with the help of the blood bank laboratory.

Table 1

BCSH 2009 guidance	Audit result
"The rationale for the decision to transfuse and the specific components to be transfused should be documented in the patient's clinical records."	Only 11/27 episodes (41%) had a clearly documented rationale for transfusion in the notes.
"Patients... ...should have the reasons for and the risks, benefits and alternatives to transfusion explained to them. All information given, written and verbal, and consent to proceed, should be clearly documented in the patient's clinical record."	Only 7/27 episodes (26%) had any documentation of the patients' consent for transfusion. All of these were a simple tick-box on the operation consent form, with no other documentation in the clinical record.
"Patients should be informed that they have received a blood component transfusion prior to discharge. This is particularly important where the patient may not be aware of the transfusion (e.g. transfused during surgery or emergency situations)."	One patient died during admission and therefore did not have a discharge summary. Of the remaining 14 patients, only 4 (29%) had any documentation of them having received a blood transfusion on their discharge summary.

Data collection

Data was collected retrospectively from the patients' clinical notes, blood product prescription charts and electronic discharge summaries. In cases where any information was missing, the blood bank was contacted directly.

Results

We identified 15 patients who had received blood products between 23 September 2014 and 31January 2015. When divided by specialty, there were nine maxillofacial, four plastics and two burns patients. There were eight male patients and seven female. Nine were elective cases and six were acute admissions. The average age was 63 years (range 30–88 years).

A total of 60 units were prescribed between the 15 patients, with an average of 4 units given to each patient (range 1–16 units). In total, 49 units of packed red cells, 6 units of FFP and 5 units of platelets were used. There were no reported transfusion reactions.

The 60 units had been prescribed over 27 discrete episodes, an episode being a specific, isolated decision to prescribe and administer blood products.

We compared each of these 27 decisions to transfuse against the national guidelines (see Table 1).

Of interest, the prescription charts for one patient had all gone missing, despite the blood bank confirming that the patient had received 16 units during their admission. On reviewing the clinical notes, there was poor documentation throughout with regards to what was to be transfused, when it was transfused and why. Therefore had there been any serious untoward incident in this case, it would be hard to interpret the series of events, or to justify any actions taken with regards to blood transfusion, due to poor documentation.

Despite not being formally documented, it was found on discussion with the pre-operative assessment clinic that blood transfusion information leaflets are usually provided to elective patients who are expecting to undergo large or complicated procedures. However, other elective or acute trauma patients that have any unexpected transfusions would be unlikely to have received any information leaflet in advance of their transfusion.

Recommendations for change

We propose to add a simple checklist to the blood transfusion prescription charts to remind clinicians of the need for correct documentation. The checklist format will also help to ensure that, should the prescriber still not make any documentation in the patient's clinical notes, the completed checklist can act as a basic form of documentation in itself.

The checklist added to the transfusion prescription chart includes the following questions.

- Has the patient received the 'Receiving a blood transfusion' patient information leaflet? Y/N
- Has the patient given their consent for transfusion? Y/N
- What is the rationale for transfusion?
- Has the reason for transfusion and confirmation of patient consent been documented in the patient's notes? Y/N

Action plan

- Presentation of results at Blood Transfusion Committee meeting and Trust-wide audit presentation day in order to raise awareness. To be completed by C Jukes (achieved July 2015)
- Dissemination of information and raise awareness via email to all relevant staff. To be completed by C Jukes (achieved August 2015)
- Amendment to blood transfusion prescription charts to include new checklist. To be completed by C Jukes (achieved August 2015)
- Stockpile of blood transfusion information leaflets on wards for dissemination to patients. To be completed by ward matron (achieved August 2015)
- Re-audit is due to take place in March 2016. To be completed by C Jukes and A Borges.

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References

1. PHB Bolton-Maggs (ed), D Poles, A Watt and D Thomas on behalf of the Serious Hazards of Transfusion (SHOT) Steering Group. *The 2013 Annual SHOT Report*, 2014.
2. *Patient consent for blood transfusion, Report of the work undertaken by the Advisory Committee on the Safety of Blood, Tissues and Organs* (SaBTO). Department of Health, October 2011.
3. *Guideline on the administration of blood components*. British Committee for Standards in Haematology, 2009
4. Joint UK Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee. www.transfusionguidelines.org.uk

Dr Sadia Noorani

A3 thinking: A collaborative approach to improve turnaround times and identify waste

A3 problem solving is a method of analysing problems in a thorough and systematic way. A3 refers to the size of paper sheet that is used to report the analysis and the actions arising from that analysis. The A3 allows a standardised approach to problem solving which, if done correctly, can lead to robust and sustainable solutions to problems rather than the empirical and more risky solutions derived from a 'knee jerk' or superficial solution-generating methodology.

The immunology laboratory was approached by a genitourinary medicine (GUM) consultant with concerns about the turnaround times (TATs) for CD4 counts, which was a test referred to an external laboratory. GUM consultants request CD4 counts as part of diagnostic work-up for patients infected with HIV. This test is also routinely used for monitoring these patients as well, assessing response to their treatment.

These clinicians have asked if this test could be brought in house, not only to improve the TATs but also to improve access, which is currently limited by the stipulated time of sample arrival at the referral laboratory.

Bringing this test in house requires presenting a business case to the pathology director and finance manager with the objective evidence of likely significant improvement in TATs, which will be shown to be at least cost-neutral, if not improving financial efficiency.

A3 thinking is a visual, transparent and inclusive problem-solving method, which may incorporate several PDSA (plan, do, study, action) cycles. The A3 approach, referring to the size of the paper, enforces the clarity of understanding and explaining the problem in few sentences and illustrations. A collaborative approach leads to a comprehensive identification of issues and paves the way to the ownership of the quality improvement by all involved. It is likely to deliver a more sustained improvement process.

Applying the A3 thinking methodology and using process mapping for both Trust sites, I was also able to demonstrate significant waste in the pre-analytical stage of CD4 count requests.

Process mapping of the pre-analytical stage was carried out for all the samples taken at each clinic on different days of the week for each site. The data is representative of average waste identified. This process required collaboration with the GUM nursing and medical team as well as with the microbiology staff who were preparing the samples for dispatch to the reference laboratory. Data on current TATs was collected by the GUM administrative staff.

I started my A3 project addressing this particular issue in April 2014, as part of the excellent LTCC course organised through The Royal College of Pathologists.

There was change of middle-management structure for the GUM services in 2015, which inevitably delayed the sharing of the findings with the GUM team.

Over the last six months, the Sandwell and West Birmingham Hospitals NHS Trust has joined the Black Country Alliance, a collaborative alliance of three NHS Trusts within the region. One of the sites has access to flow cytometry equipment. The A3 project will recommence by assessing this site as one of the possible 'future states'.

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