Blood transfusion practice in UK: National Audit Results

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BACKGROUND

The overall aim of the 2011 National Comparative Audit of Use in Blood in Adult Medical patient is to inform on existing guidance on the use of red cell transfusion in medical patients and provide recommendations for improved practice in this area.

Part 1 of the 2011 National Comparative Audit of Use of Blood in Adult Medical Patients appeared to show high levels of inappropriate or excessive blood transfusions, and wide variation between hospitals.

AIMS

In Part 2 of the 2011 National Comparative Audit of Use of Blood in Adult Medical Patients, the aim was to look in more detail at cases identified in Part One as having potentially avoidable transfusion:

• To understand why transfusions occurred outside the standards set in Part One
• To assess the appropriateness of transfusion in the opinion of the local consultant reviewer

PATIENT SELECTION

3138 cases were randomly selected from the 4833 falling outside the standards set for Part 1. The audit tools were sent to the audit lead in each site in May 2012 with instructions to ask the nominated Foundation Doctor / primary auditor to identify the patients and retrieve the case notes in order to collect the additional information required, and each Foundation Doctor / primary auditor was asked to discuss the anonymised patients with the consultant supervisor in order to conclude whether the transfusion could have been avoided or whether the transfusion was appropriate.

CONCLUSION

There is evidence of inappropriate use of red cell transfusion in medical patients in UK due to inadequate recognition, investigation and management of anaemia, transfusion at higher Hb thresholds than recommended in guidelines and transfusions to a higher Hb than necessary.

RESULTS 1 : POSSIBLE REVERSIBLE ANAEMIA

There were 747 patients with possible anaemia. 527 (71%) had a documented reason for transfusion in case notes. Transfusions could have been avoided in 187(25%) of those transfused. 18% were not investigated to determine the cause of anaemia. Anaemia was not adequately treated: of 552 patients with iron deficiency, 372 were documented as iron deficiency. Of the 371, only 75% were prescribed iron.

RESULTS 2 : TRANSFUSION DEFINED BY THE AUDIT ALGORITHM

There were 808 patients transfused above the threshold for transfusion defined by the audit algorithm. 438 (54%) had a documented reason for transfusion in the case notes. Transfusion was deemed to be inappropriate in 220 (27%) cases following review by consultant supervisors.

RESULTS 3 : TRANSFUSION TO MORE THAN 20g/L ABOVE THRESHOLD

The following recommendations have been proposed to help improve our collective use of red blood cells for transfusion purposes

1. Screen for and think of anaemia on assessing a patient
2. Investigate the cause of anaemia promptly
3. Treat reversible anaemia promptly and aggressively
4. Think carefully about the need for blood and document the decision process
5. Consent patients for transfusion and explain the risk and benefits of transfusion and whether any alternatives available
6. Transfuse one unit at a time and reassess (Restrictive transfusion practice)
7. Be aware that people of low body weight need less blood
8. Further research is required to provide evidence for appropriate transfusion decision making in medical patients with anaemia

REFERENCES

1. Part 1 and 2 audit report – web reference
2. Guidelines for the Clinical use of Red Cell Transfusions (2001) BCSH BJ Haem 113 24-31