

Preventing Platelet Wastage

An audit of platelet use and wastage at Salisbury District Hospital

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Introduction

The rate of increase in demand for platelets is continuing to increase on a yearly basis by around 1.5% nationally. This is in part due to an ageing population, increase in liver disease associated with bleeding and changes in massive haemorrhage management (1).

Around 67% of all platelets are used for patients with haematological malignancies, 7-10% in cardiac surgery and 5-9% in ITU.

Platelet wastage as a percentage of issue is estimated at around 3% nationally (2).

Wastage can occur for a number of reasons, including time expiry, wasted imports, bloods medically or surgically ordered but not used, stock time expired or miscellaneous reasons. The main emphasis of this audit was to look at ways of reducing wastage of platelets that had been issued for transfusion.

Standards

Standard 1 – No clinically indicated platelets should be wasted after ordering (3).

Method

Data Collection

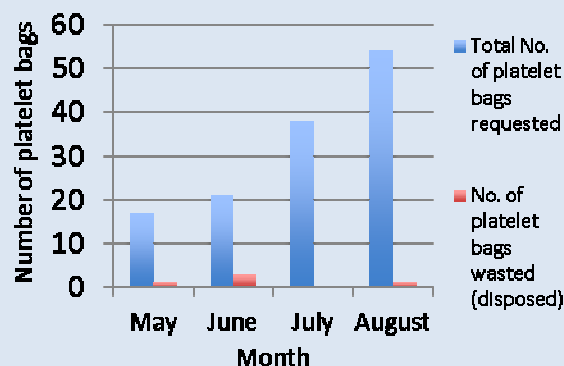
A 4 month retrospective audit was carried out from May to August 2016. The audit was designed to look at consecutive platelet transfusions and identify cases where platelets were issued for transfusion and subsequently not used.

Platelet requests were analysed by a transfusion practitioner and cases were passed on for further analysis of patient notes. Appropriate governance arrangements were applied and no patient details were included in the audit.

Data Analysis

Patients note records were located through the records department. Each case file was investigated to ascertain the reason for platelet wastage by cross correlating the date of platelet wastage with clinician records.

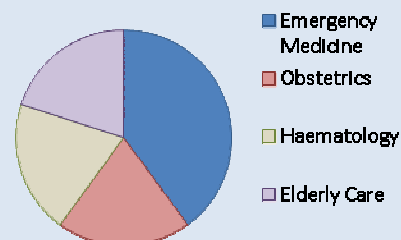
Results



There were a total of 130 platelet bags ordered between May and August 2016. 5 bags of platelets (3.8%) were wasted during this period. 6 bags were returned and subsequently reused.

Emergency medicine was responsible for the highest number of wasted platelets (2 bags). One bag of platelets was disposed of after ordering by obstetrics, haematology and elderly care.

Total No. of platelets wasted by department



References (1) E. Massey. NHS Blood and transplant. Use of platelets in hospitals: Factors that are driving up demand. May 2012. (2) Anne Davidson. Brief audit of platelet use: Yorkshire and the Humber Regional Transfusion Committee. 2014. (3) Lise J Estcourt et al. Guidelines for the use of Platelet transfusions: A British society for haematology guideline. 2016. (4) American society of anesthesiologists Task force on Perioperative blood transfusion and adjuvant therapies. Practice guidelines for perioperative blood transfusion and adjuvant therapies 2006; 105 198-208

	Details	Reason for wastage
46 M	Spontaneous splenic rupture. Emergency laparotomy + splenectomy. Plts 200 26/5/16.	No plan in notes for platelets ordered. Likely ordered as part of the MTP.
71 M	Large DU, haemorrhagic gastritis. Hb 44 Plts 123. 4 Units RBCs given.	Ordered as part of the MTP
35 F	Forceps delivery. 3a Tear.	Ordered as part of the MTP
69 M	AML - DA + Myelotarg	Ordered in outpatients. Date wasted between clinic appointments
89 M	Haematemesis. Malena. 2 Units RBCs given. (Plts 101)	Ordered as part of the MTP

The most common reason for platelet wastage was failure to stand platelets down after they had been requested as part of the MTP (Massive transfusion protocol).

Discussion

Platelet wastage is an important issue at all hospitals. A general decline in the number of donors is being seen for the first time and the increasing age of the population limits the number of donors being attracted and retained (4). There is also a strong financial incentive, with a standard unit of platelets costing £193.

Failure to stand platelets down when not required as part of the MTP has been highlighted by this audit. This can be challenging in a time pressured and clinically difficult situation. On-going education is required for clinical and transfusion staff to ensure platelets are monitored and withdrawn when appropriate.

Regular audit of platelet wastage is vital to maximise appropriate utilization. On-going review of the MTP is necessary to reduce wastage.