RCS
ADVANCING SURGICAL STANDARDS

NHS
Blood and Transplant

2016 Repeat Audit of Patient Blood Management in Adults undergoing elective, scheduled surgery

The Faculty of
Intensive Care Medicine

RCoA
Royal College of Anaesthetists

PBM Audit Sep to Nov 2016

156 hospitals participated, **138** hospitals also participated in the 2015 audit

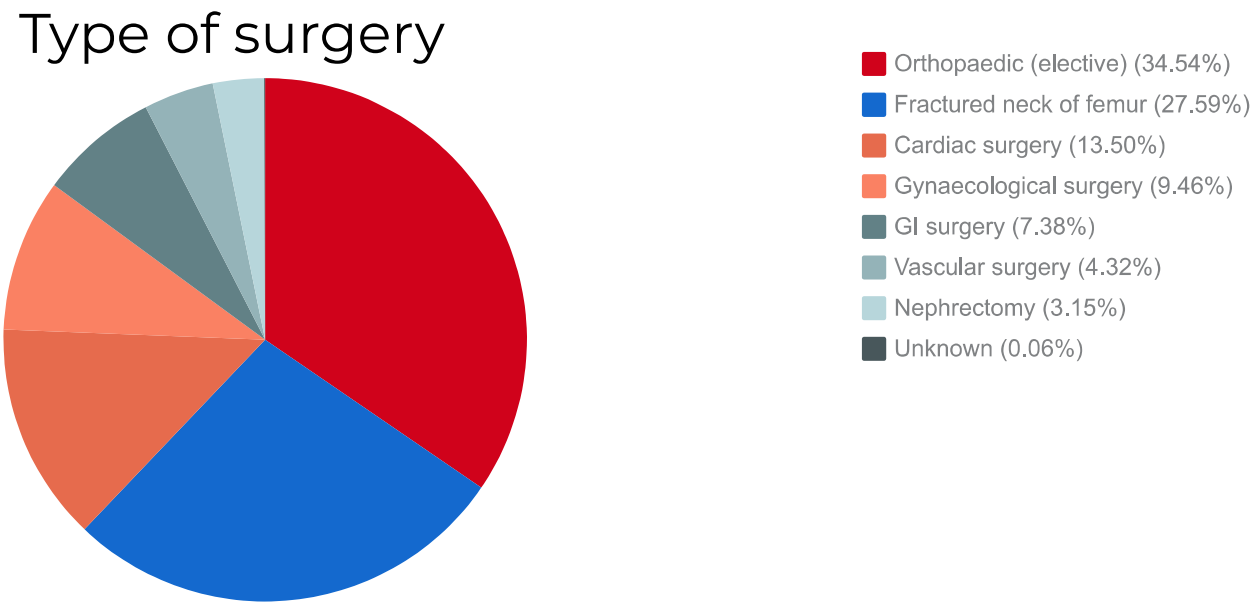
3266 patients

median age 76 years

7000 red cell units

There has been an improvement in PBM practice since 2015, when the original audit was performed

---



Pre-Operative Patient Blood Management

50% (1175/2361) of elective surgery patients received appropriate pre-operative anaemia management before surgery

Compared to **46%** (1004/2185) in 2015

Data excludes patients with fractured neck of femur

6.3% (207/3262) of all patients received a pre-operative transfusion

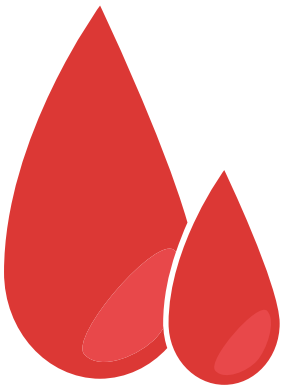
13% (25/188) received a transfusion when the Hb threshold was below the national guidelines, compared to 8.9% (18/203) in 2015

34% (62/186) of patients received a transfusion using a single unit approach

Compared to **27%** (57/213) in 2015

2% (2/90) of patients that had pre-operative anaemia management and received a transfusion were given the transfusion appropriately

Patient Blood Management in theatre and recovery



26% (860/3266) of patients received an intraoperative transfusion

81% (572/704) of patients who had received an intraoperative transfusion had received at least one appropriate PBM measure

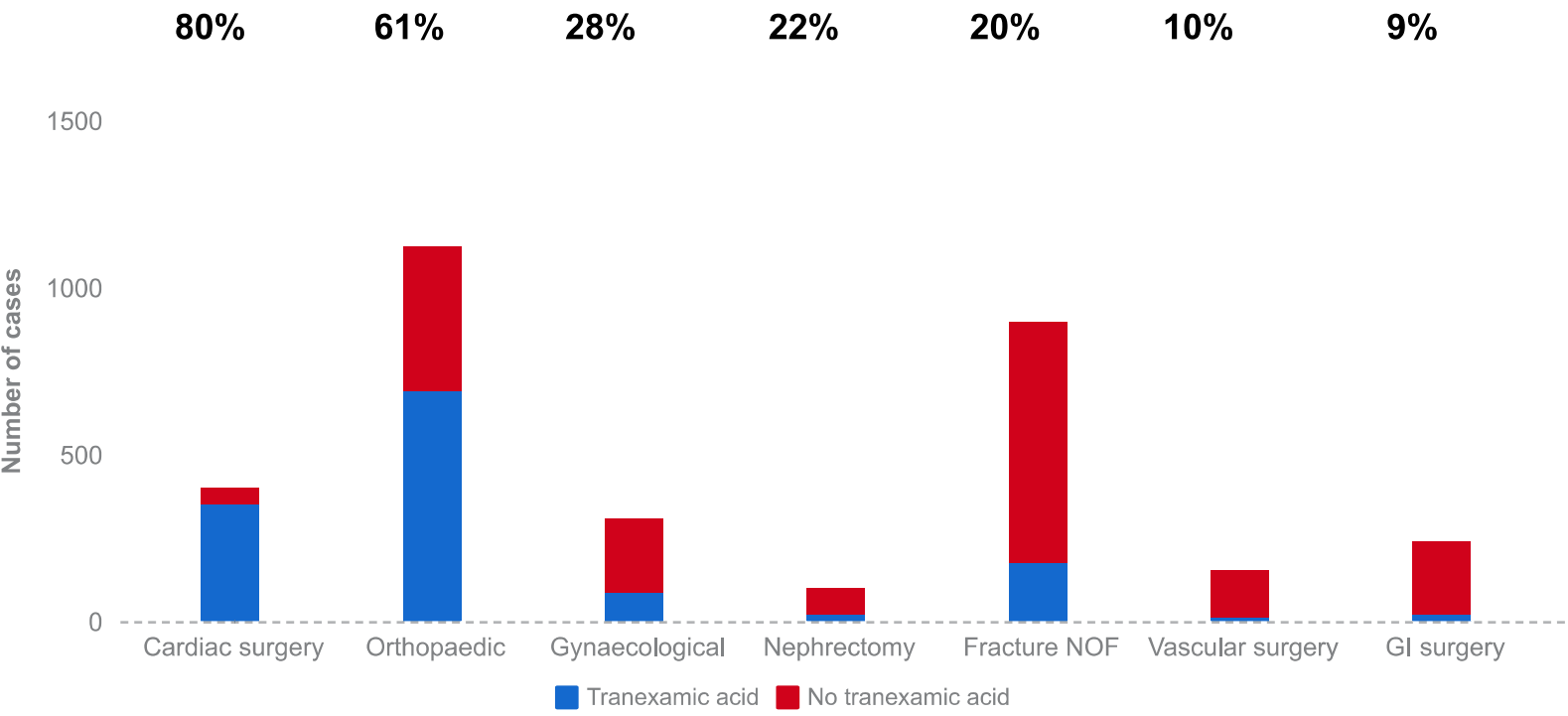
20% (141/705) had received all appropriate PBM measures

Tranexamic Acid

42% (1367/3255) of all patients received tranexamic acid

Compared to **32%** (981/3025) in 2015

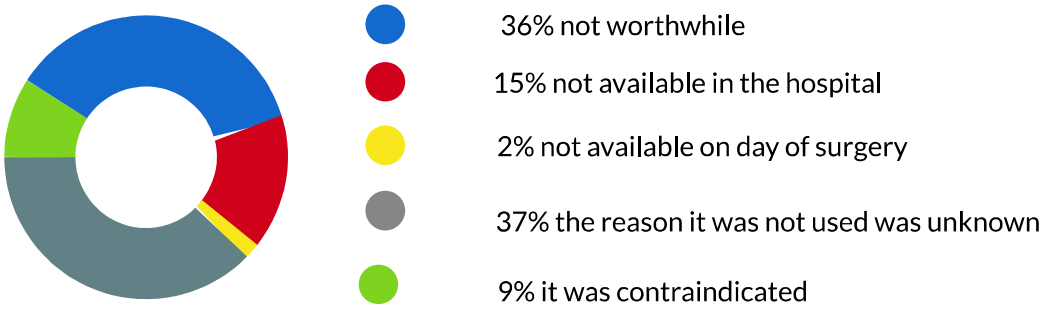
Number of surgical cases and percentage that used tranexamic acid



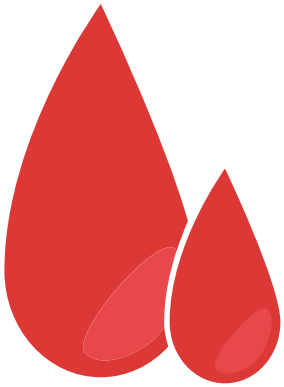
Intra-operative cell salvage

Intra-operative cell salvage was commenced in **17%** (539/3261) of all patients

Reasons why cell salvage was not started



Post-Operative Patient Blood Management



74% (2396/3256) of patients received a post-operative transfusion

84% (1494/1672) of patients who had received a post-operative transfusion had received at least one appropriate PBM measure

10% (172/1668) had received all appropriate PBM measures, compared to

7.5% (113/1515) in 2015

34% (797/2356) of patients received their first post-operative transfusion when actively bleeding or when the Hb was less than the national guidelines

Compared to **23%** (503/2158) in 2015

Clinical staff used a single unit transfusion approach in **49%** (903/1825) of patients who were not actively bleeding

Compared to **37%** (703/1900) in 2015

Key Recommendations

Pre-operative anaemia management

Clinical Staff

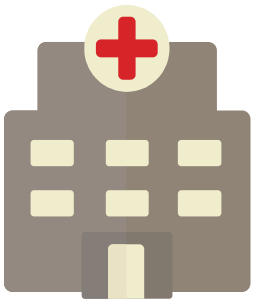
Use whatever time is available before operation for anaemia investigation and treatment initiation (if appropriate), even when surgery is urgent

Ensure surgeons know whether patient is anaemic or not when they undergo the informed consent process for surgery, they discuss the patient's individual clinical risks, and implement any Patient Blood Management required.

Ensure anaemia screening occurs as soon as possible after the decision to proceed (ideally same visit) to allow investigation and correction if appropriate.

Ensure blood results are reviewed in a timely fashion, and that patients with previously undetected and potentially serious anaemia are appropriately referred, including deferring non-urgent non-cancer surgery where appropriate.

Hospital Transfusion Committee/Hospital Transfusion Team



Ensure healthcare pathways are structured to enable anaemia screening and investigation/ correction before surgery

Work with Commissioners to formalise integrated pathways and funding for the referral of patients found to be anaemic during surgical workup, if the nature of the anaemia suggests unexpected significant underlying disease.

Transfusion Practice

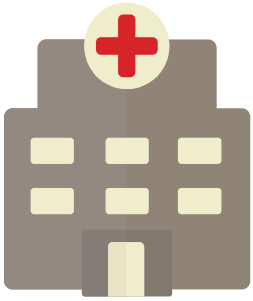
Clinical Staff

Only prescribe a red cell transfusion in stable, asymptomatic, non-bleeding patients who have a pre-transfusion Hb of less than 70g/L, or less than 80g/L in those with cardiovascular disease.

In stable non-bleeding patients, recheck Hb after each transfused unit.

Record the reason for transfusion in the patient's case notes and record a justification for transfusion if the transfusion was prescribed for a patient with a Hb higher than the recommended thresholds.

Hospital Transfusion Committee/Hospital Transfusion Team



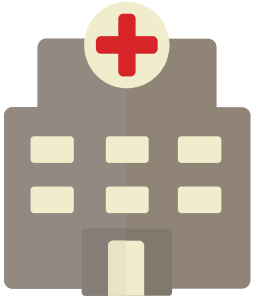
For hospitals with access to electronic order comms systems, the team should work with the IT department to design a decision support system that supports best practice.

Ensure education programmes for clinical staff include randomised trial findings which compare the patient outcomes of different red cell transfusion strategies

Support transfusion laboratory staff to query requests that are outside recommended guidelines prior to issuing blood.

Patient Blood Management Measures

Clinical Staff



The theatre team, anaesthetists and surgeons should ensure that the PBM measures are implemented as appropriate.

Where available, peer data should be applied to compare individual surgical teams and encourage participation in PBM

Hospital Transfusion Committee/Hospital Transfusion Team

Identify the need for intra-operative cell salvage and resource appropriately

Ensure local guidelines exist regarding the use of PBM measures

Ensure tranexamic acid use is the standard of care for surgical patients expected to have moderate or severe blood loss unless contraindicated.