

A close-up photograph of a medical blood transfusion setup. A red plastic tube is connected to a clear plastic drip chamber. The drip chamber has a black stopcock valve. Below the drip chamber, a clear plastic collection tube is shown, partially filled with dark red blood. In the background, a white paper label with a barcode and some text is visible, though it is out of focus. The text on the label includes "Important! Transfusion checks on the..." and "Blood type".



2021 National Comparative Audit of NICE Quality Standard QS138

Background

Patient Blood Management (PBM) is a multidisciplinary, evidence-based approach to optimising the care of patients who might need a blood transfusion. The deployment of PBM initiatives reduces inappropriate transfusion, which improves patient safety, reduces hospital costs and helps to ensure the availability of blood components when there is no alternative. Audit of PBM practice is vital to help us to understand the quality of care and to indicate where corrective measures are needed.

The Transfusion 2024 plan outlines four key areas for clinical and laboratory transfusion practice for safe patient care across the NHS for the next 5 years. The strategy for PBM includes the development of a self-assessment tool for use by hospitals to allow assessment of compliance with the NICE Quality Standard, progress with implementation of PBM and benchmarking between hospitals. This audit should be an initial step in the pathway towards external accreditation in PBM.

Participation



153 hospitals/trusts enrolled in the organisational audit



4679 patients were audited

Key findings of 2021 audit



665/1131 (59%) of the patients who were known to have iron deficiency anaemia prior to being admitted for surgery were treated with iron before surgery.



1079/1599 (67.5%) patients undergoing surgery with expected moderate blood loss received tranexamic acid.



893/1534 (58%) patients receiving elective red blood cell transfusions had both their Hb checked and a clinical re-assessment after a unit of red cells was transfused.



1032/1622 (64%) of transfused patients had evidence of receiving written or verbal information about the risks, benefits and alternatives to transfusion.



Only 422/1622 (26%) received both written and verbal information

Standards and Results

Audit Standard

Quality Statement 1: People with iron deficiency anaemia are treated with iron supplementation before surgery.

Quality Statement 2: Adults who are having surgery and expected to have moderate blood loss receive tranexamic acid.

Quality Statement 3: People are clinically reassessed and have their haemoglobin levels checked after each unit of red blood cells they receive, unless they are bleeding or are on a chronic transfusion programme.

Quality Statement 4: People who have had a transfusion are given verbal and written information about blood transfusion.

Audit Findings

665/1131 (59%) of the patients who were known to have iron deficiency anaemia prior to being admitted for surgery were treated with iron before surgery.

The audit found that 1079/1599 (67.5%) eligible surgical patients were given tranexamic acid, while potentially all were eligible to receive it.

893/1531 (58.3%) patients receiving elective red blood cell transfusions had both their Hb checked and a clinical reassessment after a unit of red cells was transfused.

The audit found that there was absence of any documentation that any written or verbal information was provided to 36% of transfused patients, and fewer than 30% of patients received any written information. Only 422/1622 (26%) received both written and verbal information

Recommendations



Hospitals should examine their procedures for implementing the NICE Quality Statements for Blood Transfusion. They should explore the barriers to their implementation and work to overcome them.



Hospitals should take advantage of regular repeats of this audit to monitor effectiveness of interventions.

List of resources

Resources that cover all the NICE quality statements audited

PBM toolkit information for clinicians <https://hospital.blood.co.uk/pbm-toolkit/>

Blood Assist App: blood component administration, available for mobile download on android and IOS, web-based version also available here <https://www.bloodassist.co.uk/terms>

QS1 – Iron supplementation pre surgery

Education for teams

eLearning: available on eLfH; ESR (certificates provided) or on the [Hospital & Sciences website](#) (no certificate provided):

- Anaemia - the only introduction you need

- Anaemia in primary care patients

- Anaemia in hospital patients

- Coming soon – Anaemia of inflammation and chronic disease modules

Business planning

Commissioning for Quality and Innovation (CQUIN): 2022/23 – See CCG6: Anaemia screening and treatment for all patients undergoing major elective surgery <https://www.england.nhs.uk/publication/combined-ccg-icb-and-pss-commissioning-for-quality-and-innovation-cquin-guidance/>

Commissioning for Quality and Innovation (CQUIN) scheme for 2022/23 Annex: Indicator specifications – See CCG6: Anaemia screening and treatment for all patients undergoing major elective surgery <https://www.england.nhs.uk/publication/combined-ccg-icb-and-pss-commissioning-for-quality-and-innovation-cquin-indicator-specification/>

Toolkits & further information

Obstetric anaemia toolkit <https://hospital.blood.co.uk/patient-services/patient-blood-management/obstetric-anaemia-toolkit/>

Pre op Anaemia: Guidance; toolkits; Information for patients (Anaemia, Iron in your diet); Quality Improvement; Blood education; Research <https://hospital.blood.co.uk/patient-services/patient-blood-management/pre-operative-anaemia/>

QS2 – Tranexamic acid

Joint Surgery guidance

NICE Joint replacement (primary): hip, knee and shoulder NICE guideline NG157, June 2020: 1.4 Tranexamic acid to minimise blood loss

Full evidence base for Tranexamic acid ; research studies, financial analysis, benefits are available in full NICE NG24 guidance section 6, P75, [NICE Guideline Template](#)

QS3 – Reassessment after red cell transfusion

Implementation examples

Single Unit transfusion resources <https://hospital.blood.co.uk/patient-services/patient-blood-management/single-unit-blood-transfusions/>

Guidance for when to transfuse

NBTC indication codes <https://hospital.blood.co.uk/the-update/revised-nbtc-indication-codes-for-transfusion-are-now-available/>

Blood components: Indication codes App, available for mobile download on android and IOS, web-based version also available here <https://www.bloodcomponents.org.uk/terms>

Information specific to implementing one unit transfusions to reduce TACO risk

NCA 2017 Audit of transfusion-associated circulatory overload <https://hospital.blood.co.uk/audits/national-comparative-audit/>

SHOT TACO resources <https://www.shotuk.org/resources/current-resources/data-drawers/transfusion-associated-circulatory-overload-taco-data-drawer/>

QS4 – Verbal & Written Information for patients

Consent for transfusion resources: SaBTO recommendations 2020; Montgomery v Lanarkshire Health Board; Sticker pads; Information for clinical staff; Patient Information leaflets; Teaching resources <https://hospital.blood.co.uk/patient-services/patient-blood-management/consent-for-transfusion/>