

This document provides additional guidance to the online audit tool available here: [NICE Quality Standards Audit Tool Blood Transfusion](#)

Information to note:

- Audit/Clinical Governance Departments should be contacted beforehand to see if they already have something in place to assess compliance with NICE Blood Transfusion Quality Standard [QS138]¹ <https://www.nice.org.uk/guidance/qs138>
- This is a generic tool to support hospitals to establish basic compliance with QS138 (Quality Statements (QS) 1-4).
- QS 1b and QS 4a have been removed following feedback during pilot of challenges in routinely collecting data. This will be reviewed in the future for inclusion.
- This has been designed to be a national tool and therefore local 'tweaking' of the format is not possible as this would not allow for national benchmarking.
- It may be useful to keep a local record of patient groups being audited in each period for reference if a particular speciality is being targeted for ease of regional cross-referencing of progress.
- Audit a minimum of 10 patients for each question.
- Patient cases should be selected at random within the applicable patient group and date range. Selecting/Deselecting cases to include will bring bias to the results.
- This tool has been designed in a 'deck' format to allow one statement to be audited at a time.
- All questions on the tool are listed on the audit proforma which can be used to record audit findings before submitting on the online audit tool. Additional clarification for questions is shown in this guidance document.
- **Once you have entered your data, the tool will take you to a final report page which will show your compliance for the statement/s you have audited. Take a screenshot/print this to keep a local record of your results.**
- **Ensure you press 'SUBMIT' on the final page to submit your results to the tool or your results will not be recorded.**
- An anonymised benchmarking report of your results against other hospitals is available on request.

Additional information to audit questions:

Question 2: Enter your hospital Pulse code (mandatory)

This is a unique code which is allocated to each hospital by NHSBT. Your Transfusion Lab Manager should be able to provide you with this code.

Question 4: What quarter does this cover?

Please specify as follows: Quarter 1 (Apr-June), Quarter 2 (July- Sept), Quarter 3 (Oct-Dec), Quarter 4 (Jan-March).

Question 5: What speciality are you auditing (e.g. orthopaedics, gynae)

This is a 'free text' box to support your local record and will not be used for any benchmarking reports.

Question 6: Financial Year

Financial year: April 1st- March 31st e.g. 2017/18, 2018/19

Quality Statement 1: People with iron-deficiency anaemia who are having surgery are offered iron supplementation before and after surgery

Audit Population

- Elective surgical patients over the age of 1 year should be considered for audit.
- EXCLUDE patients who are on a chronic transfusion programme.
- Audit random cases regardless of the surgery type and risk of bleeding
- SELECT patients who showed signs of iron deficiency before surgery (see below for guidance on iron deficiency)

Quality Measures Structure:

This quality statement is divided into two segments:

- Evidence of local arrangements to ensure that people with iron-deficiency anaemia who are having surgery are offered iron supplementation before surgery.*
- Evidence of local arrangements to ensure that people with iron-deficiency anaemia are offered iron supplementation after surgery.¹*

- Following a pilot of this tool, it has been identified that capturing an 'auditable' amount of iron deficient cases post-operatively can be difficult. This tool has therefore been adapted to audit QS 1a cases only.
- To address part of QS 1b, an additional question has been added to the tool to record whether your hospital has an established arrangement to identify post-operative iron deficiency. Whilst this does not give a % compliance, it will give an indication as to whether there is a process for such patients to be identified and treated with iron where applicable.
- Use your local hospital reference ranges and policy to identify elective surgical pre-operative patients who showed signs of iron deficiency during the pre-assessment period. Following a pilot of this tool, it was noted that such ranges will vary between hospitals and may also depend on concurrent conditions. As long as a consistent approach is used each time by the user, this will allow progress to be monitored effectively.

Additional information to audit questions:

Question 8: Does your hospital operate a pre-operative anaemia pathway?

This refers to a process whereby iron deficient patients can be identified and treated prior to surgery.

Question 9: How many cases are included in this audit?

This refers to the number of pre-operative iron deficient patients that you are auditing.

Question 10: How many received iron supplementation before surgery?

Additional information from QS138 is as follows: *"People should have their haemoglobin levels checked at least 2 weeks before surgery, if possible and necessary for the procedure they are having. If they have iron-deficiency anaemia, they should be offered iron supplementation. Oral iron should be offered initially, and started at least 2 weeks before surgery. If oral iron is not appropriate, intravenous iron should be offered".¹*

Question 12: Does your hospital operate a post-operative anaemia pathway?

This refers to a process whereby iron deficient patients can be identified and treated after surgery.

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

Audit Population

- Audit 'Adult' patients only (aged 18 years and older).
- Audit patients who have undergone operations/codes as per the National Comparative Audit Re-Audit of Patient Blood Management in Adults undergoing elective, scheduled surgery² (see Table 1) or surgical trauma cases where a moderate blood loss is anticipated.
- Moderate blood loss is defined as >500 mls in the NICE Blood Transfusion Guideline [NG24]³
- Interpret QS 2 wording 'offered' tranexamic acid as 'received' tranexamic acid when auditing cases.
- EXCLUDE patients where the use of TXA is contra-indicated:

<https://bnf.nice.org.uk/drug/tranexamic-acid.html#contraIndications>

Table 1:

Procedure Descriptions	OPCS Codes
Primary unilateral total hip replacement	W37.1, W38.1, W39.1 with a Z94.2, Z94.3 or Z94.4
Primary bilateral total hip replacement	W37.1, W38.1, W39.1 with a Z94.1
Primary unilateral total knee replacement	W40.1, W41.1, W42.1 with a Z94.2, Z94.3 or Z94.4
Primary bilateral total knee replacement	W40.1, W41.1, W42.1 with a Z94.1
Unilateral revision hip replacement	W37.3, W37.4, W38.3, W38.4, W39.3 with a Z94.2, Z94.3, Z94.4
Unilateral revision knee replacement	W40.3, W40.4, W41.3, W41.4, W42.3 with a Z94.2, Z94.3, Z94.4
Colorectal resection for any indication (open or laparoscopic)	H29, H33 H048; H061; H062; H099; H103; H108; H41.1
Open arterial surgery e.g.: scheduled ((non-ruptured) aortic aneurysm repair, infrainguinal femoropopliteal or distal bypass)	L19.3 - L19.6, L21.3 - L21.6, L49, L51, L57, L59
Primary coronary artery bypass graft	K44.1
Valve replacement +/- CABG	K25 - K29 (INCLUSIVE)
Simple or complex hysterectomy	Q07 - Q08 (INCLUSIVE)
Cystectomy	M34.3, M34.4, M35.9
Nephrectomy	M02.1, M02.3, M02.5, M03.1, M03.9
# neck of femur (arthroplasty)	W19.1, W24.1, W46.1 to W46.9, W47.1 to W47.9, W48.1 to W48.9

ICD-10 codes for ACS Unstable Angina = I20.0 STEMI OR NSTEMI = I21.9

Quality Measures Structure:

*Evidence of local arrangements to ensure that adults who are having surgery and are expected to have moderate blood loss are offered tranexamic acid.*¹

Additional information to audit questions:

Question 13: How many cases are included in this audit?

This refers to the number of patients who have undergone operations/codes as per the NCA for Surgical PBM or surgical trauma cases where a moderate blood loss is anticipated.

Quality Statement 3: Reassessment after red blood cell transfusions

Audit Population

- Patients over the age of 1 year should be considered for audit
- Ensure the patients you are auditing are not bleeding or on a chronic transfusion programme (QS138)¹

Quality Measures Structure:

This quality statement is divided into two segments:

a) Proportion of red blood cell transfusions where a clinical reassessment of the person is carried out after each unit of blood transfused.

b) Proportion of red blood cell transfusions where the haemoglobin level of the person is checked after each unit of blood transfused. ¹

The number of cases which comply to both a) **and** b) will also be calculated for your reference only.

Additional audit definitions:

- Allow up to 24 hrs post completion of the transfused unit for a haemoglobin and clinical reassessment to be done.
- A clinical assessment as defined by QS138 is the following:
 - *Asking the person if their anaemia symptoms have resolved.*
 - *Asking the person about any new symptoms that might indicate an adverse response to transfusion (such as circulatory overload).*
 - *Reviewing the vital signs taken before, during and after the transfusion.*
 - *Any further clinical assessment that could be needed. ¹*

Additional information to audit questions:

Question 15: How many cases are you reviewing?

This refers to the total number of cases selected (irrespective of number of units transfused)

Question 16: How many of these cases (Q15) were clinically re-assessed after the red cell transfusion?

Note the definition above included in QS138 as to what constitutes a 'clinical reassessment'.

Where more than one unit of blood was given, select one 'post unit' episode.

Question 17: How many of these cases (Q15) had the haemoglobin level checked after the red cell transfusion?

Where more than one unit of blood was given, select one 'post unit' episode.

Question 18: How many of these cases (Q15) had BOTH a clinical re-assessment AND haemoglobin level checked after the red cell transfusion?

Where more than one unit of blood was given, select one 'post unit' episode. The patient being audited must have had both clinical re-assessment and haemoglobin checked to qualify for this question.

Quality Statement 4: Patient information

Audit Population

- Patients over the age of 1 year who have had a transfusion should be considered for audit

Quality Measures Structure:

This quality statement is divided into two segments:

- Proportion of people who **may** need a blood transfusion who are given verbal and written information about blood transfusion.*
- Proportion of people who **have had** a blood transfusion who are given verbal and written information about blood transfusion.¹*

- Following the pilot of this audit, feedback has identified that establishing compliance with QS 4a is difficult via a snapshot audit. Therefore, this tool will only measure compliance to QS 4b only, i.e. those who have had a blood transfusion.

Additional audit definitions:

- Verbal and written information as defined by QS138 should include:
 - *The reason for the transfusion.*
 - *The risks and benefits.*
 - *The transfusion process.*
 - *Any transfusion needs specific to them.*
 - *Any alternatives that are available, and how they might reduce their need for a transfusion.*
 - *That they are no longer eligible to donate blood.¹*
- QS 4b compliance relates to evidence of BOTH verbal and written information being given to a patient.

Additional information to audit questions:

Question 19: How many cases are being audited?

This refers to the number of cases selected (who have **had** a transfusion).

Results Summary page

Quality Statement 1:

You will be provided with one set of results which will inform you of your % compliance of your audited group to QS 1a. You will be provided a record as to whether you have a process in place to address QS 1b *for reference only*.

Quality Statement 2:

You will be provided with one set of results which will inform you of your % compliance of your audited group to QS 2.

Quality Statement 3:

You will be provided with three set of results:

% transfusions where a clinical re-assessment was carried out will give you % compliance for QS3a

% transfusions where the Haemoglobin level was re-checked will give you % compliance for QS3b

% transfusions where both a clinical re-assessment and haemoglobin level was re-checked *for reference only*.

Quality Statement 4:

You will be provided with three set of results:

% transfusions where verbal information was given – *For reference only, to allow review of practice.*

% transfusions where written information was given – *For reference only, to allow review of practice.*

Both verbal AND written information given –will give you a % compliance in your audited group with QS 4b.

Ensure you print and ‘Submit’ your results on this summary page.

References:

- 1 National Institute for Health and Care Excellence (NICE) (2016) *Blood Transfusion Quality Standard* [QS138] URL <https://www.nice.org.uk/guidance/qs138>
- 2 The PBM in Elective Surgery Working Group, on behalf of the National Comparative Audit in Blood Transfusion (NCABT) Steering Group. *The 2016 Patient Blood Management in adults undergoing elective, scheduled surgery* (2017). URL <http://hospital.blood.co.uk/audits/national-comparative-audit/surgical-audits/patient-blood-management-in-adults-undergoing-elective-scheduled-surgery-2016/>
- 3 National Institute for Health and Care Excellence (NICE) (2015) *Blood Transfusion* [NG24] URL <https://www.nice.org.uk/guidance/ng24>