

Perioperative Blood Management: Organisational Survey

This survey is designed to be completed for sites that provide adult surgical services which require anaesthetic input. Sites that exclusively do paediatrics are not included in this project.

The first survey you complete should cover the main site within your trust unless you have a co-lead completing this already. A separate survey should then also be completed for any other sites within the trust that provide surgical services with anaesthetic support that are >1 mile away from the main site. Hospital details will only be used to determine if there are any differences between sites and hospitals or trusts will be not be identifiable in any future publications.

This survey link is unique to your hospital site and should not be shared between sites. If you are site lead for more than one site you should have recieved more than one survey link, if not please contact us and we will send you the number unique survey links you require.

You can save the survey and return to it later to complete it at a later point. Once completed and submitted you will not be able to make any changes to the form without contacting us first. The deadline for survey submission is 31st January 2023.

Once you have submitted the organisational survey we will send out certificates within 1 month.

You can find a blank pdf copy of this survey on our website:
<https://www.rafrainees.org/perioperative-blood-management>

For any questions or further advice please contact us on: pbm.raft@gmail.com

Thank you for your participation!

Site Information

Name of NHS Hospital Trust / local health board

Start typing the name of your trust or health board and it should come up, if not select other and free text underneath

Other, please specify _____

Name of NHS Hospital Site _____

This first survey you complete should cover the main site within your trust unless you have a co-lead completing this already. A separate survey should then also be completed for any other sites within the trust that provide surgical services with anaesthetic support that are >1 mile away from the main site. For any questions or further advice please contact us on: pbm.raft@gmail.com

Does this site offer day-case surgery ONLY?

- Yes
 No

How many inpatient beds does this site have?

You can often find this answer on the trust website
(answer must be as a number not text)

Activity Information

Approximate number of elective operations per year at your hospital

Please answer to the nearest 50-100 cases (answer must be as a number not text)

Which surgical specialties does this hospital site provide? (please tick all that apply)

- Obstetrics
- Major Trauma Centre
- Vascular
- Cardiac
- Thoracic
- Elective Orthopaedics
- Orthopaedic Trauma
- Transplant Surgery
- Major Urology Cancer Resections
- Major Gynaecology Cancer resections
- Upper GI
- Lower GI
- Hepatobiliary
- Neurosurgery
- Major head and neck cancer resections
- Burns & plastics
- None of the above

Is there an Emergency Department on site?

- Yes
- No

Is there an Intensive Care Unit on site?

- Yes
- No

Are there dedicated emergency theatres on site?

- Yes
- No

Does this site have a blood bank?

- Yes
- No

Uptake and use of electronic data

Does your NHS Trust have an Electronic Medication Record?

- Yes
- No

If yes, which Electronic Medication Record (EMR) does your trust use?

- Allscripts (Oasis/ Sunrise)
- Atos (Sema-Helix)
- Cerner (Millennium/ FirstNet)
- DXC was CSC (Lorenzo/EDIS/i.PM)
- EMIS (Symphony)
- Epic
- Ideagen (Patient First)
- IMS Maxims
- Intersystems (TrakCare)
- Meditech
- NerveCentre
- Servelec (Oceano)
- Silverlink (iCS/PCS)
- System C (Medway/ Sigma)
- Other

If Other, please specify _____

Does your NHS Trust have electronic notes?

- Yes
- No

If yes, which electronic notes system does your site use?

- Allscripts (Oasis/ Sunrise)
- Atos (Sema-Helix)
- Cerner (Millennium/ FirstNet)
- was CSC (Lorenzo/EDIS/i.PM)
- EMIS (Symphony)
- Epic
- Ideagen (Patient First)
- IMS Maxims
- Intersystems (TrakCare)
- Meditech
- NerveCentre
- Servelec (Oceano)
- Silverlink (iCS/PCS)
- System C (Medway/ Sigma)
- Other

If Other, please specify _____

Intra-operative Documentation

	Electronic	Paper	Both
How is the anaesthetic chart documented?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How are intra-operative medication prescriptions documented?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How are intra-operative blood product prescriptions documented?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Intra-operative Blood Management

Does this site have access to point of care Hb measurements in theatre suites? (examples include blood gas analyser, HemoCue device)

- Yes
 No

If yes, do the point-of-care results link to the electronic system in real time?

(by this we mean once the point of care test is done does the result link to the electronic health records for the patient)

- Yes, all point-of-care tests link to the electronic system
 No, none of the point-of-care tests link to the electronic system
 Depends, some link up & some do not
 N/A, no electronic health records at this site

How are red cells ordered intraoperatively? (tick all that apply)

- Phone call
 Written request
 Electronic request

Do you have the facility for electronic remote issue?

(This is a process for obtaining blood units from a blood fridge positioned remotely from the blood bank. It is often done by submitting an electronic query to the blood bank regarding suitability of the patient for electronic issue and then going through a procedure for selecting the correct unit and printing a compatibility label.)

- Yes
 No

Anaemia Referral Pathway for Elective Surgery

This section of the survey refers to elective care only (not emergency surgery or trauma services)

At which point of the surgical pathway do patients who fulfil the NICE preoperative testing criteria usually have a full blood count at this site? (tick all that apply)

- At referral for surgery (e.g. from primary care)
 First surgical consultation
 When booked or listed for surgery
 Pre-operative assessment clinic (separate visit to when patient listed for surgery) >6 weeks prior to surgery
 Pre-operative assessment clinic (separate visit to when patient listed for surgery) < 6 weeks prior to surgery
 Day of admission for surgery
 Other

If other, please specify

Typically what proportion of patients referred for surgery who fulfil the NICE preoperative testing criteria have their full blood count (FBC) taken either at referral to surgery or at first surgical consultation?

- less than 50% of patients
 between 50-80% of patients
 >80% of patients

(Link to summary of guidance of when FBC should be taken from Centre of Perioperative Care Guideline for the Management of Anaemia in the Perioperative Pathway: https://cpoc.org.uk/sites/cpoc/files/documents/2022-09/6.%20CPOC_AnaemiaGuideline_Stepsforeachpatient.pdf)

Is there a formal elective anaemia referral pathway that patients with anaemia can be referred to prior to surgery?

- Yes, one formal pathway that covers all surgical specialties
 Yes, but different surgical specialties have different formal pathways
 Informal pathways that depend on local knowledge of processes rather than accessible protocol/guidelines
 No pathway

What is the haemoglobin threshold for referring patients to anaemia pathways?

- < 130g/L (all patients)
 < 120g/L females & < 130g/L males
 Other

(Note 120g/L is equivalent to 12g/dL as 130g/L is equivalent to 13g/dL)

Other, please specify _____

Which specialty manages perioperative anaemia referral pathways? (tick all that apply)

- Anaesthesia
 Surgery
 Haematology
 Other

Other, please specify _____

Typically what proportion of patients with newly identified anaemia, who are planned to undergo a surgical procedures with anticipated moderate to high blood loss (>500ml or >10% total blood volume), are assessed for the cause of their anaemia prior to surgery at this site?

- less than 50% of patients
 between 50-80% of patients
 >80% of patients
 This site does not do surgical cases where there is moderate to high anticipated/expected blood loss

When patients are found to be anaemic please select from the list below the tests that are done routinely to investigate the cause of anaemia at this site (either review protocol or review current practice)?

(Note: this list will only appear for sites that do surgical procedures with anticipated moderate to high blood loss)

	Yes	No	Unsure
Serum Ferritin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transferrin saturation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CRP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Renal function	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B12/folate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reticulocyte count	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reticulocyte haemoglobin content (CHr)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which professional group(s) decide if anaemia treatment should be initiated at this site? (tick all that apply)

- Anaesthetists
 Preoperative specialist nurses
 Surgeons
 Haematologists
 Anaemia specialist nurses
 Other

If other, please specify _____

If oral iron is prescribed, what is the dosing regimen as per your site's local guidelines? (tick all that apply)

- Three times a day dosing
 Twice a day dosing
 Once a day dosing
 Alternate day dosing
 No local hospital guidance on perioperative oral iron dosing
 Other

If other, please specify _____

If IV iron is prescribed, what is the most common product used?

- Ferinject (ferric carboxymaltose)
 Monofer (ferric derisomaltose)
 Venofer (iron sucrose)
 CosmoFer (iron dextran)
 Diafer (ferric derisomaltose)
 Other
 Site does not use IV iron

Where are preoperative intravenous iron infusions for elective surgical patients performed? (tick all that apply)

- Outpatient setting
 Primary care setting
 Medical day case unit/ambulatory unit
 Surgical day case unit/ambulatory unit
 Perioperative monitored area (e.g. recovery)
 Labour ward
 Other

If other, please specify _____

Typically what proportion of patients have a repeat haemoglobin check after iron therapy has been established prior to having an elective procedure?

- less than 50% of patients
 between 50-80% of patients
 >80% of patients

Tranexamic Acid (TXA)

This section refers to the use of tranexamic acid in adult elective & emergency surgical services

Is prophylactic TXA use on surgical safety checklists &/or theatre safety briefings for all surgical specialties when moderate to high blood loss (>500ml or >10% total blood volume) is possible/anticipated?

- Yes
 No
 N/A this site does not do operations where expected blood loss is >500ml (e.g. some day case surgery units)

If no, for which of the following specialties is this in place? (tick all that apply)

- Obstetrics
- Major Trauma Centre
- Vascular
- Cardiac
- Thoracic
- Elective Orthopaedics
- Orthopaedic Trauma
- Transplant Surgery
- Major Urology Cancer Resections
- Major Gynaecology Cancer resections
- Upper GI
- Lower GI
- Hepatobiliary
- Neurosurgery
- Major head and neck cancer resections
- Burns & plastics
- None of the above

What is the site's policy regarding intravenous TXA for patients undergoing surgical procedures with anticipated moderate to high (>500ml or >10% total blood volume) blood loss?

- Offer TXA & policy states defined inclusion & exclusion criteria (such as specific contraindications)
- Offer TXA & policy does not state exclusion criteria (administration at clinician discretion)
- No local policy guidance for this

In practice do patients consistently/routinely get offered prophylactic intravenous TXA if expected blood loss is >500ml (or >10% total blood volume) at this site (with the exception of obstetrics where TXA is often offered when blood loss reaches 1000ml)?

- Yes across all surgical specialties
- Specific surgical specialties only
- Not routinely considered/offered in any surgical specialties

(Routinely refers to 'care that is provided regularly', contraindications include recent stroke or recent myocardial infarction)

Which surgical specialties routinely use prophylactic TXA if expected blood loss is >500ml (or >10% total blood volume) and there are no contraindications?

- Obstetrics
- Major Trauma Centre
- Vascular
- Cardiac
- Thoracic
- Elective Orthopaedics
- Orthopaedic Trauma
- Transplant Surgery
- Major Urology Cancer Resections
- Major Gynaecology Cancer resections
- Upper GI
- Lower GI
- Hepatobiliary
- Neurosurgery
- Major head and neck cancer resections
- Burns & plastics
- None of the above

(contraindications include recent stroke or recent myocardial infarction)

Electronic

Paper

Both

Not applicable

- How is intraoperative INTRAVENOUS TXA (usually given by anaesthetists) documented in the patient notes?
- How is intraoperative TOPICAL TXA (usually given by surgeons at surgical site) documented in the patient notes?

What doses of prophylactic INTRAVENOUS TXA are typically given at your site? (tick all that apply)

- 500mg stat dose
 1g stat dose
 10-15mg/kg stat dose
 15-30mg/kg stat dose
 1g stat dose followed by infusion
 10-15mg/kg stat dose followed by infusion
 Not applicable

What dose of intraoperative TOPICAL TXA is typically prescribed when used at your site? (tick all that apply)

- Up to 1g
 1-2g
 2-3g
 Unsure
 Not applicable

Intraoperative Cell Salvage and resources available

This section refers to adult elective & emergency surgical services

What is your site's policy regarding indications for cell salvage use in non-obstetric cases? (tick all that apply)

- Use when anticipated/expected intraoperative blood loss is moderate (>500ml)
 Use when anticipated/expected intraoperative blood loss is high (e.g. >1000ml)
 Use when cell salvage can be expected to reduce the likelihood of allogeneic (donor) red cell transfusion
 Use when cell salvage can be expected to reduce the likelihood of severe postoperative anaemia
 Use when anticipated/expected blood loss is moderate/high and patient refusing allogeneic (donor) transfusion
 Use when anticipated/expected blood loss is moderate/high and patient has complex blood matching requirements (e.g. rare antibodies)
 No local policy on cell salvage, used at clinician discretion

Is the use of cell salvage avoided at your site in any of the following scenarios?

	Avoided	Not avoided	No site policy	Unsure
Cancer surgery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infected surgical field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sepsis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Haemoglobinopathies (e.g. sickle cell disease)

What is your site's policy regarding cell salvage use for obstetric cases? (tick all that apply)

- All elective regardless of bleeding risk
- All emergency regardless of bleeding risk
- Elective cases at risk of PPH
- Emergency cases at risk of PPH
- If PPH occurs
- In patients with anaemia
- In patients who refuse transfusion of blood products
- In patients with complex transfusion requirements (e.g. unusual antibodies, irradiated or CMV negative blood requirements)
- No local policy on cell salvage, used at clinician discretion
- No applicable to this site

Where is cell salvaged blood administration documented? (tick all that apply)

- Anaesthetic chart (electronic)
- Anaesthetic chart (paper)
- Operation note (electronic)
- Operation note (paper)
- Blood prescription record (electronic)
- Blood prescription record (paper)
- Medication prescription record (electronic)
- Medication prescription record (paper)
- Other

How many cell salvage machines are available at this site?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- >10

How many rapid infusers are available at this site?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- >10

Is point of care coagulation testing (e.g. TEG/ROTEM) available in at least one theatre department/environment?

- Yes
- No

Is point of care coagulation testing (e.g. TEG/ROTEM) available for use during cardiac surgery?

- Yes
 No
 Not applicable to this site

(by available we mean that there is a point of care machine with the relevant theatre department and that after a blood sample is taken from a patient point of care testing can reasonably expected to be initiated within 5 minutes)

Is point of care coagulation testing (e.g. TEG/ROTEM) available for use during major obstetric haemorrhage?

- Yes
 No
 Not applicable to this site

(by available we mean that there is a point of care machine with the relevant theatre department and that after a blood sample is taken from a patient point of care testing can reasonably expected to be initiated within 5 minutes)

Is there a blood fridge per theatre department at this site?

- Yes
 No

Is data on blood use fed back to clinicians/clinical teams/groups of surgeons/individual surgeons?

- Yes
 No

Please clarify this with your departmental transfusion lead or perioperative anaemia lead prior to answering this question if you are unsure

If yes, who is this for?

- Individual anaesthetists
 Individual surgeon
 Departmental - anaesthetists
 Departmental - surgeons

If yes, how frequent is this feedback?

- Weekly
 Monthly
 2-4 times a year
 Annually
 Other
 Don't know

Please discuss the following answers with your hospital site's transfusion department manager

Often internal and external audits of theatre blood use is managed by the hospital blood bank in liason with the transfusion lead for your department. Either your departmental transfusion lead &/or hospital transfusion department manager should be able to help you answer these questions.

How is data provided for routine INTERNAL audit?

(Internal audit is that which occurs within the hospital site or trust)

- Largely Paper based data collection
 Electronic patient records (EPR) data but this is rarely possible/often incomplete
 Electronic patient records (EPR) data and this is often possible
 Electronic data supplemented by LIMS data and/or EBTMS (blood transfusion) data
 No routine internal audit

How is data provided for routine EXTERNAL audit?

(External audit is when a hospital site/trust contributes to national audits, for example the National Comparative Audit of Blood Transfusion)

- Largely Paper based data collection
 Electronic patient records (EPR) data but this is rarely possible/often incomplete
 Electronic patient records (EPR) data and this is often possible
 Electronic data supplemented by LIMS data and/or EBTMS (blood transfusion) data
 No routine external audit

Is data on blood usage available to clinicians to look up in real time?

- Yes
 No

Does your hospital site use a bedside electronic blood transfusion system?

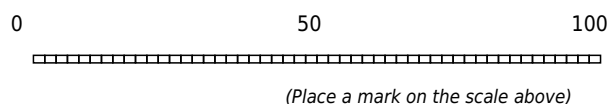
- Yes
 No

Please provide the name of the system

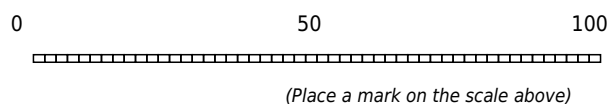
- BloodTrack Tx
 Blood 360
 EPR system
 Other

Other, please specify

What percentage of blood SAMPLES for group & save and cross matching are taken using a bedside electronic system?



What percentage of transfusions are ADMINISTERED using a bedside electronic system?



If blood products are ordered by electronic request, are the latest relevant parts of the FBC or coagulation results provided during the ordering process?

- Yes
 No

(For example: whilst requesting blood products there is a prompt or information box that appears with relevant results prior to you finishing the request designed to prevent unnessesary ordering)

Individual anaesthetist survey

Have you distributed the individual anaesthetist survey amongst colleagues at your site?

- Yes
 No

RAFT feedback and Site Lead names for certificates

We would really like to understand your experiences on how you found this project and if this is something RAFT should continue to work towards providing on a regular basis.

We would also like to confirm with you who the lead / co-leads are for this site and how names should be displayed on certificates and collaborator lists so that we can correctly recognise your contribution. Any names you put on this form will only be used for certification and collaborator list purposes.

If you would like to be kept up to speed with all things RAFT, including POPPY which will start later this year sign up to our mailing list on our website:

<https://www.rafrainees.org/contact-us>

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
This project has helped achieve my curriculum and/or career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RAFT and TRNs should continue to provide similar short snapshot project opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Very easy	Easy	Just right	Difficult	Very difficult
As site lead how challenging was this project?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us in you own words how your experience could have been made better

Site lead / co-leads full name(s) to be put on certificates and collaborator lists for any future publications

(please put one name per line)