Strengthening Obstetric Transfusion Safety: Insights from Haemovigilance

Delayed and Avoidable Transfusions in Obstetrics

Vera Rosa, SHOT Incident Specialist

Shruthi Narayan, SHOT Medical Director

SHOT Serious Hazards of Transfusion

Outline

Overview of SHOT and of reported cases

Key themes of avoidable and delayed transfusions

Case-studies and resources

Q&A

All cases are anonymised

All based on information provided to SHOT via Dendrite reporting system

Are representative of the data supplied

All used for educational purposes

What is SHOT?

SHOT Serious Hazards of Transfusion

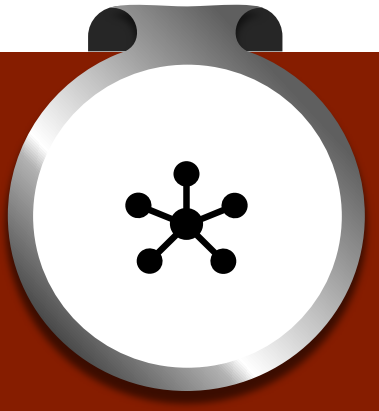
CELEBRATING 30 YEARS OF SHOT

Collects reports

Transfusion safety incidents (reactions, errors, near misses) from hospitals across the UK

Analyses data

To understand what went wrong, why it happened and how it can be prevented



Shares learning

Through annual reports, guidance documents and education to improve practices, both clinical and laboratory

Improve safety

Work collaboratively with patients and key stakeholders to promote best practices and reduce transfusion risks

Do you have a structured way of collecting transfusion-related incident reports in obstetrics such as delays, wrong component issued, or avoidable transfusions? (single response)

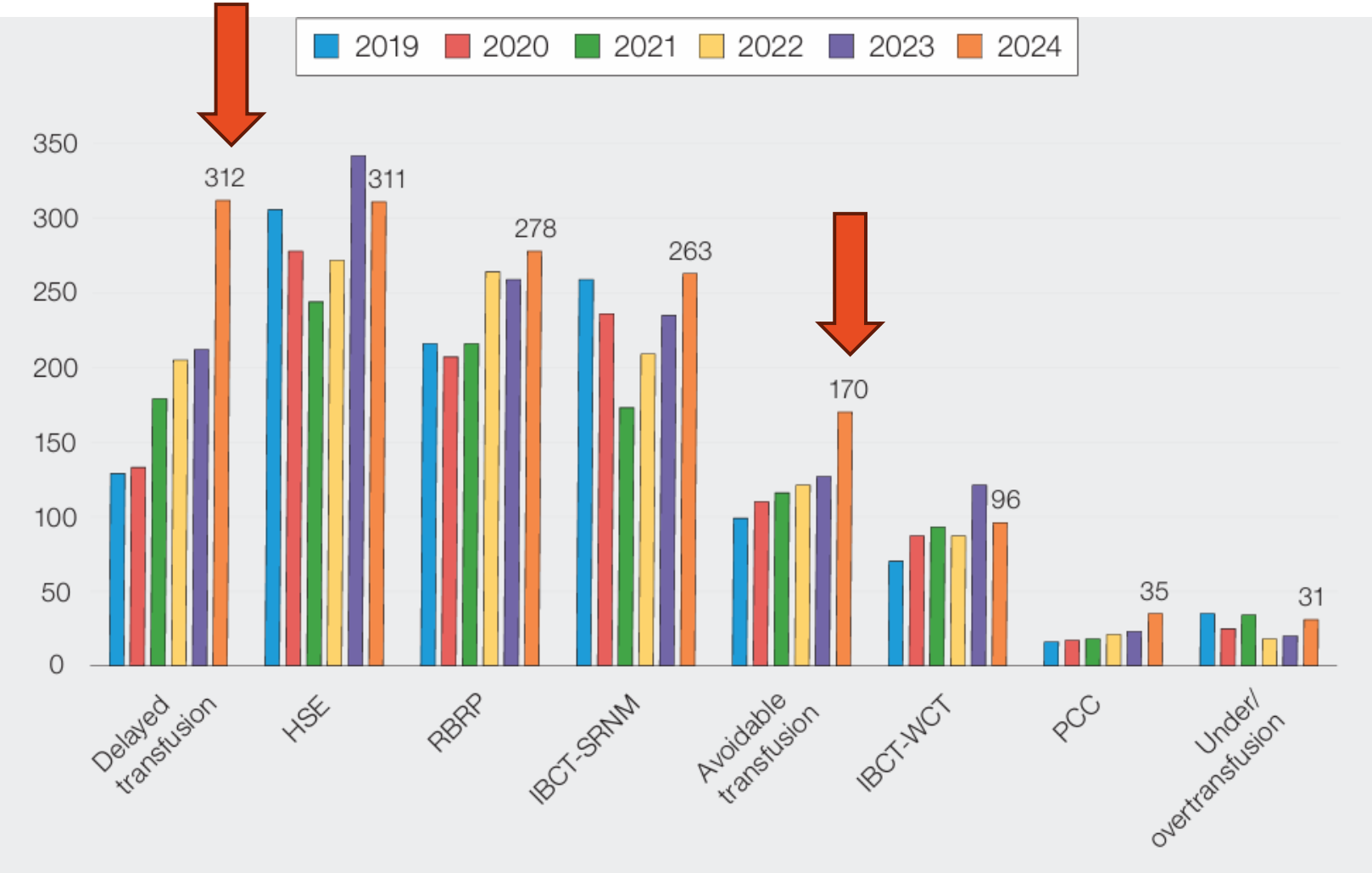
- Yes- in all these categories
- Yes- only in certain categories
- No
- Don’t know

If you collect these incidents, what are the **recurring themes** in your local investigations?

(Multiple responses)

- Clinical decision making
- Recognition of bleeding
- Communication gaps
- Documentation challenges
- Stock availability
- Team coordination issues
- Leadership and safety culture

5-years SHOT in numbers



HSE – Handling and storage

RBRP – Right blood right patient

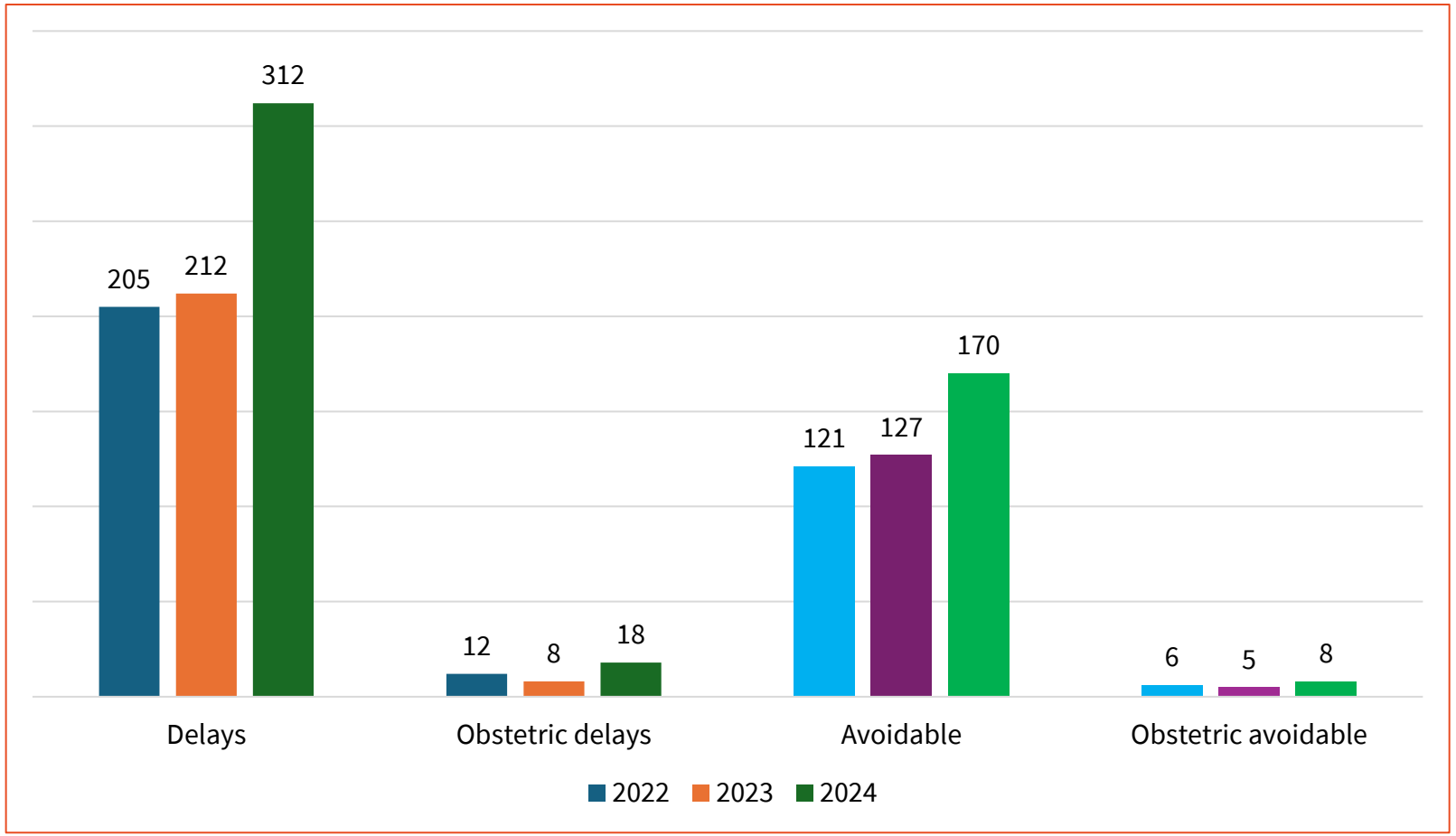
IBCT – Incorrect blood component transfused

SRNM – Specific requirements not met

WCT – Wrong component transfused

PCC – Prothrombin complex concentrate

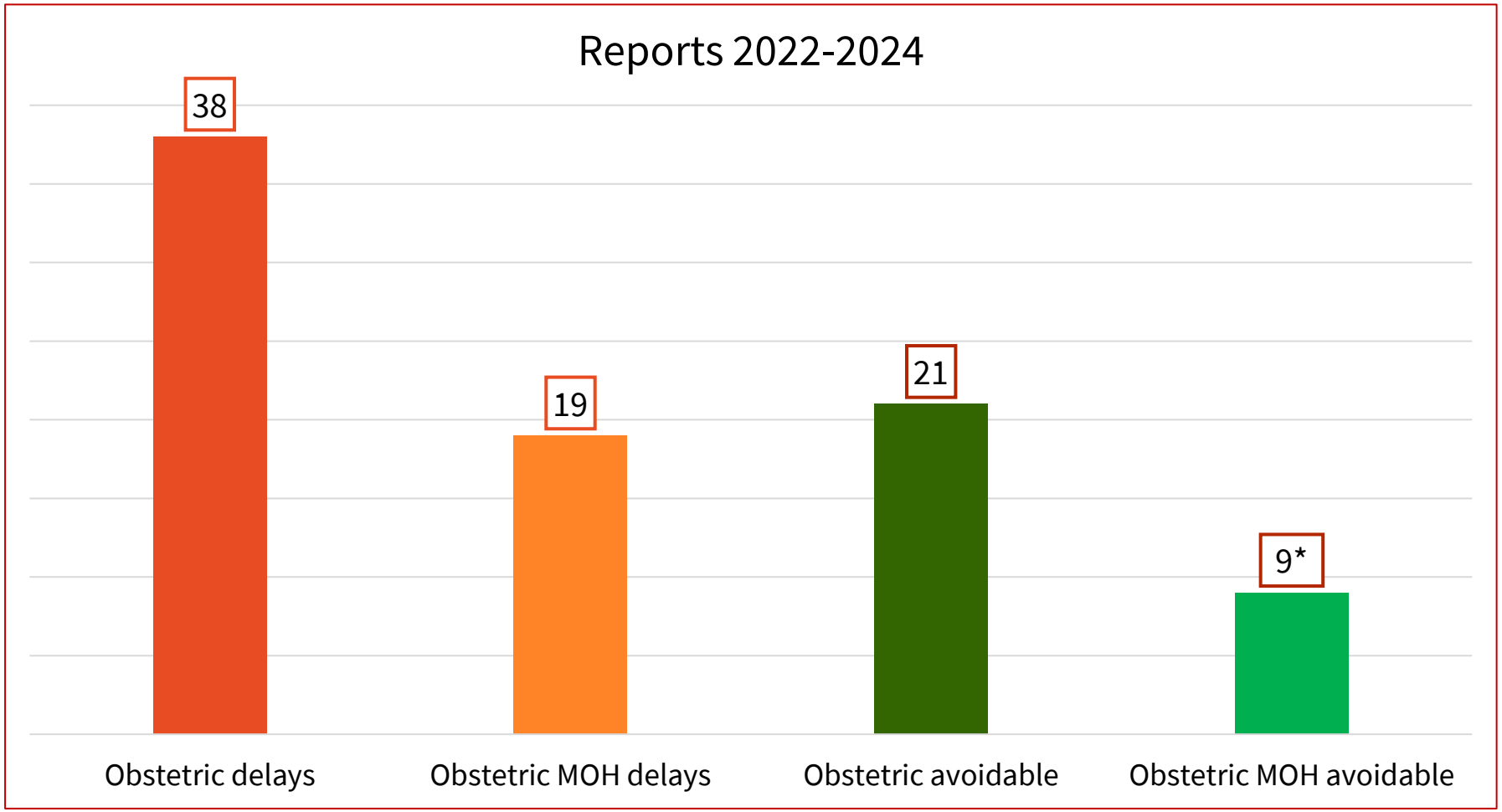
Delayed and avoidable transfusions in obstetrics



Delayed transfusions in obstetrics account for 5.1% of all delayed transfusions reported in the last 3 years

Avoidable transfusions in obstetrics account for 4.5% of all avoidable transfusions reported in the last 3 years

Delayed and avoidable transfusions in major obstetrics haemorrhage (MOH)

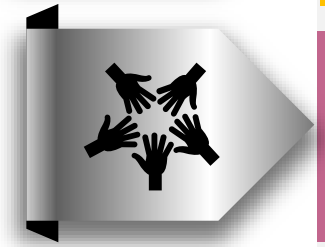


50% of delayed transfusions in obstetrics were in MOH situations

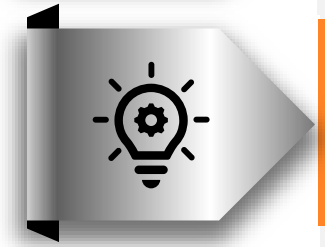
43% of avoidable transfusions in obstetrics were in MOH situations

Key themes in the errors reported

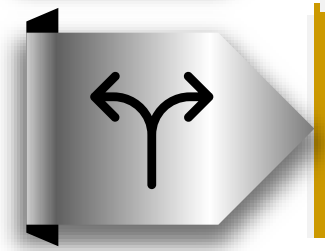
Communication gaps including urgency not communicated to the laboratory or between clinical teams; handover issues



Staffing issues- number, skill mix, experience



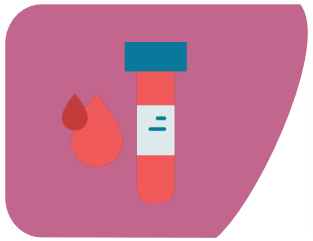
Staff training and knowledge gaps



Misinterpretation of point of care (POCT) results, poor management of haematinic deficiency

Pressure on laboratory staff to accept mislabelled sample during a MOH

A MOH was activated following a placental abruption requiring emergency hysterectomy. The activation didn't include a phone number for the laboratory staff to contact the clinical team.



When the laboratory staff got hold of the clinical team the biomedical scientist (BMS) requested a group and screen sample (G&S) as none was available to issue group-specific or crossmatched blood.

In this phone call the BMS explained that emergency blood was available if they could not wait for the sample to be processed. The clinical team informed the BMS they could wait.

When the sample arrived at the laboratory the BMS noted that the sample had been mislabelled and consequently was rejected as per protocol. The clinical team was informed and a new G&S sample requested.

Pressure on laboratory staff to accept mislabelled sample during a MOH

At this point two units of emergency O D-negative were issued. The BMS informed the clinical team that the stock of O D-negative units were low and for the clinical team to send a repeat G&S sample as soon as possible.

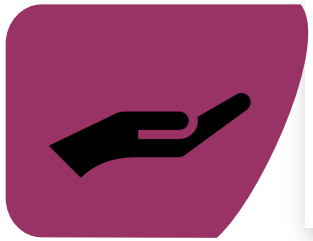
The clinical team contacted multiple times the laboratory afterwards asking to amend the labelling on the rejected sample. The BMS informed that was not possible as it was against local policy.

During these phone calls and upon BMS rejection to accept the amendments, the clinical team acused the BMS to allow the stock of emergency units of running out, and of the negative impact that could cause to the patient.

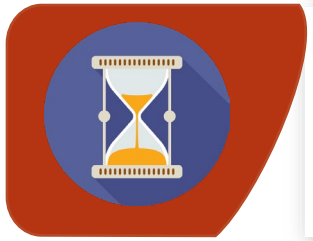
Following these phone calls, the BMS who was working alone out-of-hours felt pressurised, stressed and his decision-making affected. The BMS decided to escalate this situation and sought support from their manager.

Pressure on laboratory staff to accept mislabelled sample during a MOH

As the patient had a previous blood group, the laboratory manager advised the BMS to issue O D-positive red cells to avoid delays and maintain blood supply.



Due to these pressures added to a high workload, the BMS contacted later their manager asking for another member of staff as they felt they could not deal with the situation effectively.



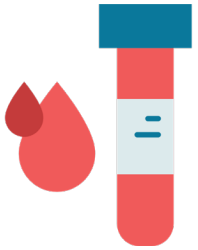
The laboratory manager arrived soon after reassuring the BMS of their decision and actions throughout the shift .

In total the patient received 4 units of O D-negative and 2 units of O D-positive red cells, 10 units of fresh frozen plasma (FFP), 4 units of cryoprecipitate and 2 pools of platelets. The patient recovered and survived.

Contributory factors

MHP activation with accurate contact details

Communication



Sample taking and labelling

Processes

Local policies and risks of deviations/ workarounds

Knowledge

Effective communication, respect and no-blame culture

Civility

SHOT resources

SHOT Serious Hazards of Transfusion

UK Transfusion Laboratory Collaborative

2023 SHOT and UKTL
Suggestions and ideas to discuss and

Aim of this document and its impo

- The 2023 SHOT and UKTLC laboratory culture in laboratories in hospitals and haemovigilance team. The summary re through this link: https://www.shotuk.
- The survey identified issues with safet with staff not feeling safe to raise conc mental health and ability to perform tl negative impact on performance, com patient safety. In contrast, civility emb of blame or reprimand as well as prom
- The suggestions provided in this docu activities already implemented in heal safety culture. They are shared here to space to for staff to speak up

Changing culture in workplace is nei and time. Start with small steps and

Compassionate leadersh training; open discussion a assumptions and bias

Team building events and v social events

Regular 'informal coffe mornings' or 'Lunch and le sessions on civility, workf policies and related topi

Include '360' element performance reviews f managers (e.g., feedback those managed as well as manager)

Learn Share Care

If in your organisation or process to impro

htt

SHOT Serious Hazards of Transfusion

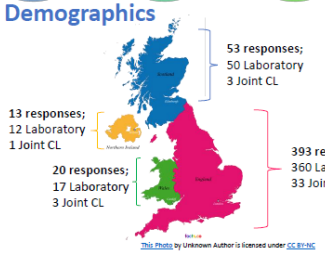
UK Transfusion Laboratory Collaborative

2023 SHOT and UKTLC Transfusion Laboratory Culture Survey (NHS, Independent hospitals and UK Blood Services) Summary

SHOT and UKTLC aimed to measure and understand the safety culture in laboratories in hospitals and Blood Services in the UK, with input from the MHRA haemovigilance team. In 2019, a survey found evidence of disciplinary action following single quality incidents and pressure from line management to present a false impression of safety within the laboratory. Further concerns have been raised regarding the safety culture within the laboratory and the SHOT and UKTLC laboratory culture survey 2023 was distributed to transfusion laboratory professionals to gain more information. A document with suggestions to improve safety culture has been created to support healthcare organisations: https://www.shotuk.org/resources/current-resources/uktlc/

Survey was live from 8th to 29th of November 2023 → 35 questions relating to psychological safety and civility → Completed by 543 individuals → 479 responses from UK laboratory and joint clinical and laboratory roles (CL) → Laboratory staff included HCPC registered and non-registered staff

1. Demographics



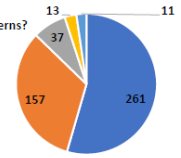
Staff grade or NHS Banding

- 37 unregistered staff
- 185 registered staff
- 159 registered/supervisory staff
- 98 Management

2. Psychological Safety and Civility

2a. Speaking up for safety

Q10: Do you feel empowered and safe to voice your concerns?



Nearly 1 in 5 laboratory staff do not feel psychologically safe in their workplace.
Over 2 in 5 felt concerns raised are not acted upon or felt unsafe to raise safety concerns

1

April 2024

SHOT Bite No. 24
Speaking up for safety

SHOT Serious Hazards of Transfusion

What will this document cover?

- Designed to **support staff** in raising their concerns regarding the safety culture within teams or their organisation
- Outlines what **Safety Culture** is, and the importance of **Speaking Up**

cerns are needed to ensure

es, values, and fety culture is one flourish. It ensures nd improvement of where staff feel

taff surveys state: ~60% of staff feel to speak up about cerns ~50% were ident that their anisation would ress their concerns

nisation with a

report problems,

raged and even r to everyone what

mstances and

e right conclusions ty reforms

ns. Questions are

Sept 2023

SHOT Bite No. 23
Civility in Healthcare

SHOT Serious Hazards of Transfusion

September 2023

A CULTURE OF CIVILITY AND RESPECT IN HEALTHCARE

WHAT IS CIVILITY AT WORK? DOES IT MATTER IN HEALTHCARE? In simple terms it is how we treat each other at work; And how we treat each other matters. Civility is the behaviour that helps to preserve mutual respect at work. Unfortunately, incivility, disrespect, bullying and harassment are often seen within organisations. It has been shown that working in an unkind and rude environment can have a detrimental impact on staff wellbeing, mental health and patient care. Dr Chris Turner from '*Civility saves lives*' has stated that when someone is mildly to moderately rude to us, our cognitive ability is reduced by 61%. Therefore, when there is no culture of civility and respect in the workplace the potential of the staff is never reached. Civility in healthcare matters because it reduces errors, fosters excellence and creates a safe environment for staff and patients. ***A kind word can change the world.***

Click here or type www.civilitysaveslives.com/infographics to see the **benefits from kindness at work**

INCIVILITY
THE FACTS

WHAT HAPPENS WHEN SOMEONE IS RUDE?

80% of recipients lose time worrying about the rudeness

38% reduce the quality of their work

48% reduce their time at work

25% take it out on service users

Less effective clinicians provide poorer care

WITNESSES

20% decrease in performance

50% decrease in willingness to help others

SERVICE USERS

75% less enthusiasm for the organisation

Incivility affects more than just the recipient
IT AFFECTS EVERYONE

CIVILITY SAVES LIVES

THE FOLLOWING MEASURES HELP INCREASE RESPECT AND CIVILITY IN THE WORKPLACE

Emotional Intelligence	• Allow time for positive reflection • Increase self awareness
Dignity	• Praise, recognise and support others • A culture of fairness, openness and compassion
Support	• Signpost to appropriate supportive interventions • Provide constructive feedback, positive coaching and mentoring
Psychological Safety	• Show compassion to your colleagues • Support culture and working relationships • Inspire confidence and trust
Acts of Kindness	• Looking out for others • Creating harmony for staff to speak up and flourish
Opportunity to Grow	• Support and encourage professional development • Mentor and support different professional aspirations
Effective Supervision	• Empowering behaviour • Recognise contributions and achievements • Share relevant information • Respect professional values • Fair and equal distribution of work and opportunities
Inclusiveness	• Actively listen and ensure everyone is heard • Ask staff how they are, listen to the response and act appropriately • Invite colleagues to meetings and gatherings

Infographic from: https://www.civilitysaveslives.com

Based on the infographic from Cheshire & Merseyside Health and Care Partnership
https://www.cheshireandmerseysidepartnership.co.uk/ civility-respect-and-the-importance-of-bystander-accountability/

SHOT Serious Hazards of Transfusion

Prescription based on incorrect haemoglobin result leads to an avoidable transfusion during MOH

A MOH was activated during an induction of labor of a twin pregnancy, where the estimated blood loss was approximately 2L.

The nurse got hold of the results from the venous blood gas machine (VBG) misreading the fraction of oxygenated haemoglobin (Fi02Hb) (87.4) as the haemoglobin (Hb) that was on the line above (116g/L).

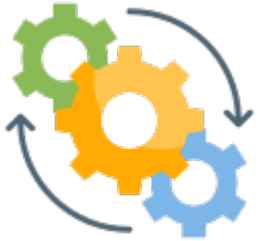
Based on the incorrect Hb result one unit of red cells was prescribed, requested and administered to the patient. After the transfusion, the error was identified, and no further units were given.

The cause for this event was the small print of the results from the VBG and the high number of different results available on the same print. This was identified as a potential cause for further events especially in emergency situations.

Contributory factors

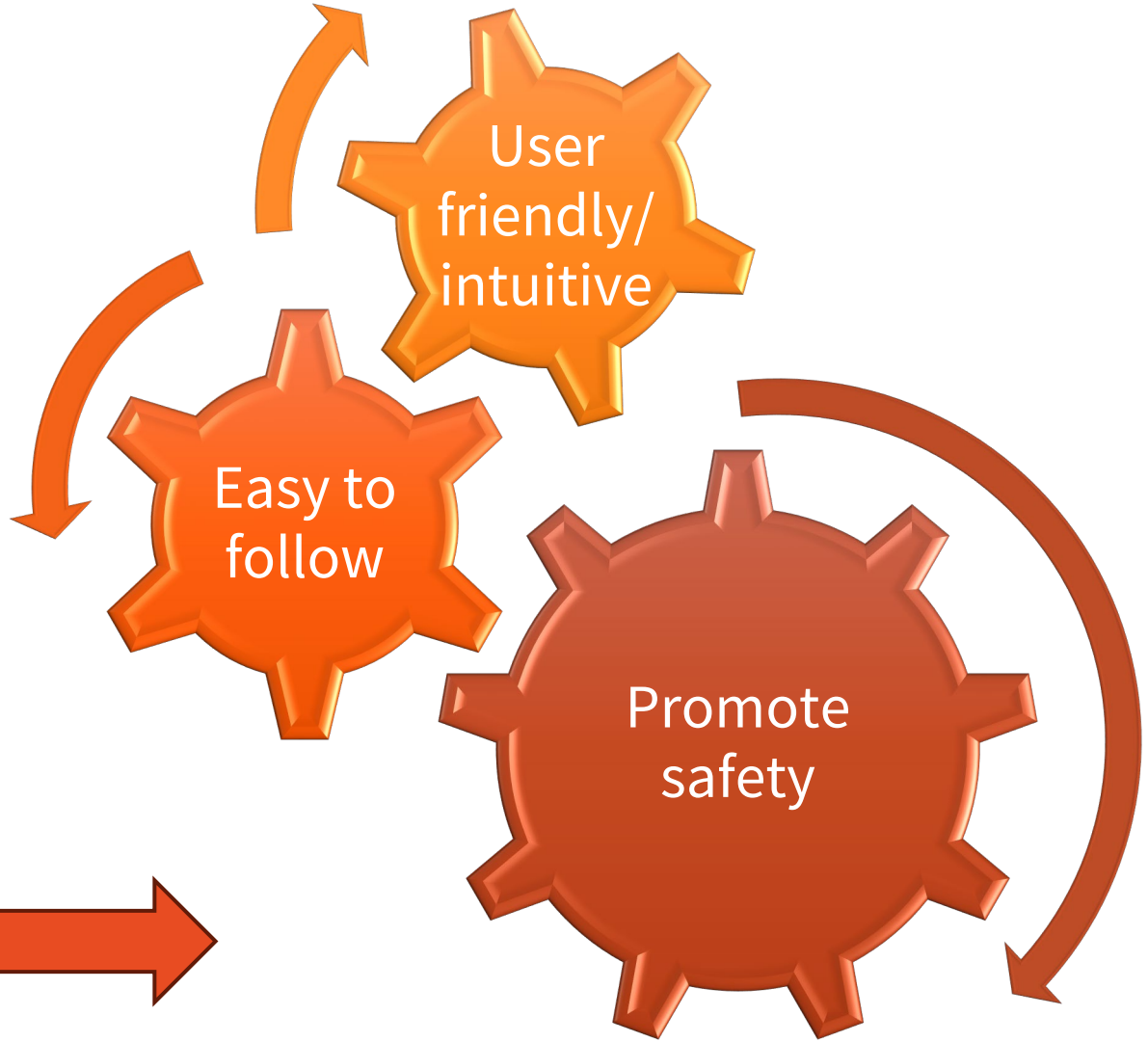
Emergency requiring quick intervention

Urgency



Design of the point of care results

Design

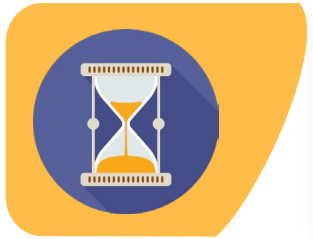


Incorrect sample labelling leads to avoidable use of emergency O D-negative blood

A MOH was activated for a bleeding pregnant woman with placenta accreta. There was no valid group and screen (G&S) sample available to issue crossmatched blood as none had been taken at admission.

The porter arrived at the laboratory with three unlabelled samples (1 for transfusion and 2 for haematology) with the addressographs in their hand. All samples were rejected and the clinical team was informed.

Due to the clinical urgency, emergency O D-negative units were issued. The laboratory staff proceeded to call the Blood Services for an urgent delivery of O D-negative blood as the stock was running low.



The Blood Services staff informed the BMS that they would only process the request once it had been received in their IT system. The BMS replied they would send the request as soon as possible, but that currently they were dealing with a MHP.

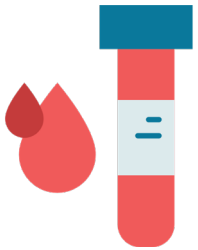
Incorrect sample labelling leads to avoidable use of emergency O D-negative blood

After the incident it was found out that emergency O D-negative units had to be wasted as out of temperature control. This was due to a failure to collect the units from the laboratory refrigerator and stored them in the satellite fridge.

In total the patient received 14 units of red blood cells, 4 units of FFP, 2 units of cryoprecipitate and 3 pool of platelets. The patient recovered and survived.

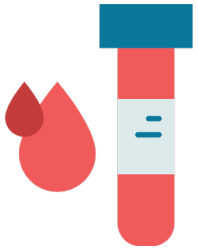
A G&S sample was later tested, and the patient was grouped O D-positive.

Contributory factors



Sample taking

Timing



Sample labelling

Processes

Urgency of the request

Communication

Avoid wastage

Handling and Storage

NHS
Blood and Transplant

Blood stocks are low!

Now at AMBER status

Key action

The Emer
activated

Fu

NHSBT

Amber Alert
l Actions Survey –
w

Specialist Blood Stocks Management Scheme

ommittee Presents:

Amber Alert and Major Haemorrhage

- Fatts Chowdhury - Consultant Haematologist, NHSBT and Imperial College Healthcare NHS Trust

Images from:
https://nationalbloodtransfusion.co.uk/recommendations
https://www.youtube.com/@PatientBloodManagementEngland

SHOT and external resources

Patient Blood Management

Patient blood management (PBM) is an approach to managing and preserving an individual's own blood.

We do this by applying best practices for managing anaemia, bleeding and coagulation, as well as alternatives to transfusion.

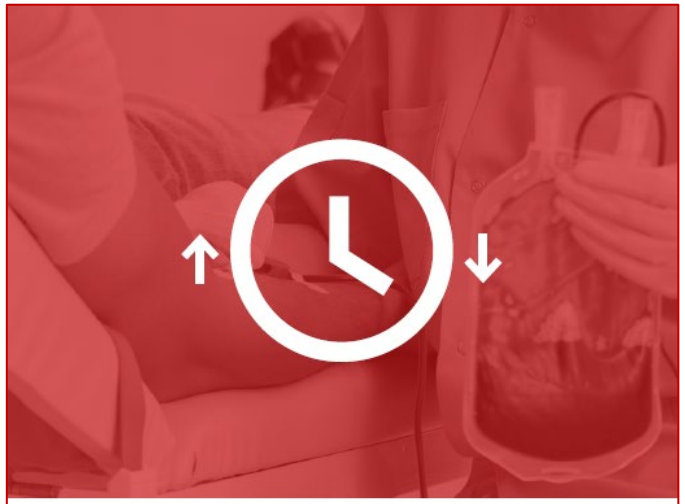
Research has shown that PBM strategies can reduce the risk of infection, heart attacks, stroke, death, time spent in hospital and the cost of healthcare.

PBM also helps protect the valuable gift of donated blood components and facilitates their appropriate use.

The resources on these pages are intended to support healthcare providers implementing PBM initiatives and raise awareness of why it matters to everyone.

Video transcript

Education and information



Avoidable, Delayed and Under or Overtransfusion (ADU)

National Blood Transfusion Committee

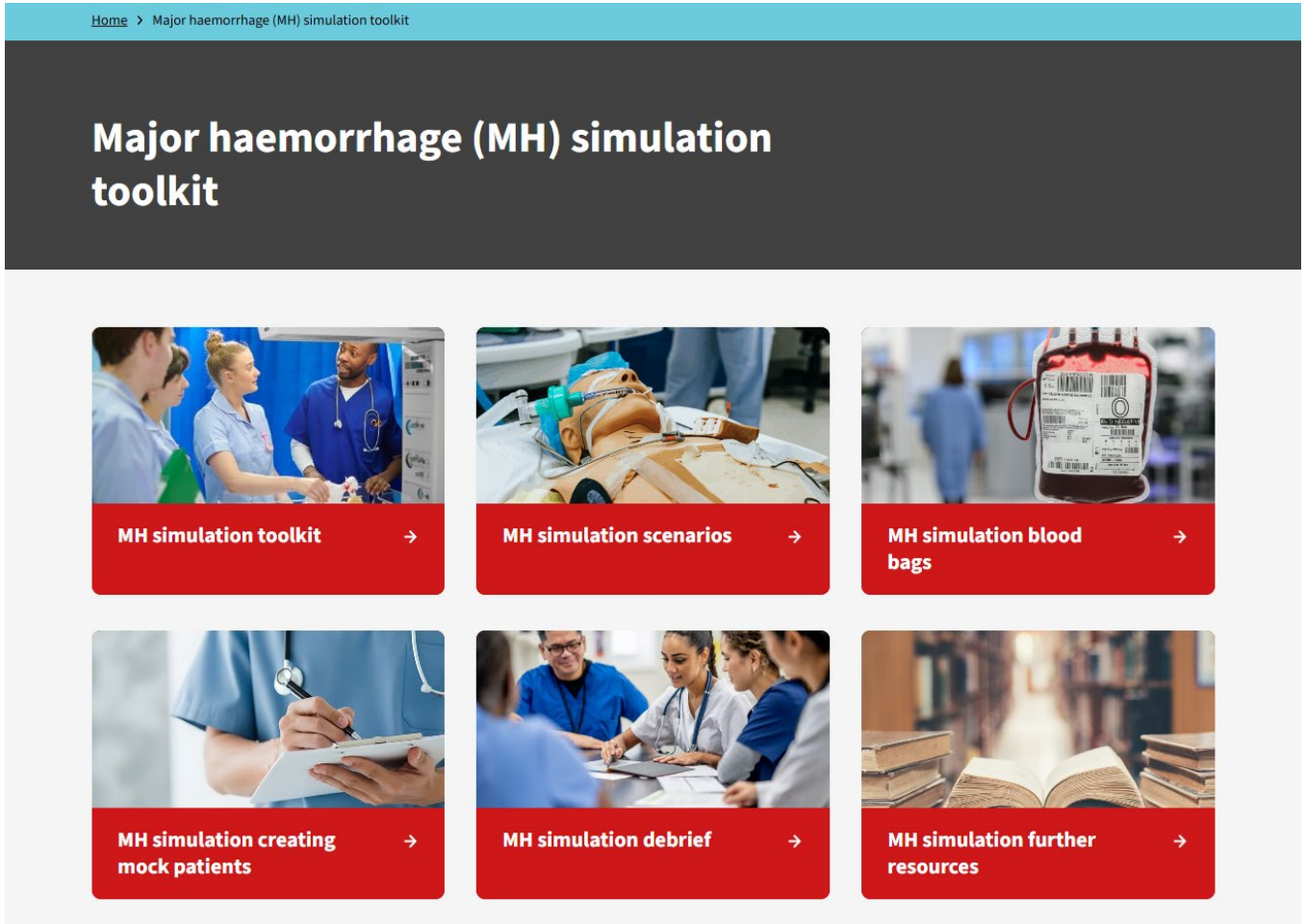
Home NBTC RTC Regions Education

Home / Transfusion Training Hub / National Blood Transfusion Committee (NBTC) - Indication ...

National Blood Transfusion Committee (NBTC) - Indication codes for Transfusion in Adults (2024 update)

https://nationalbloodtransfusion.co.uk/sites/default/files/documents/2024-10/NB...

MH simulation toolkit



SHOT Transfusion Safety Standards

SCAN ME

Your Questions Please