### **Key recommendations**

**...** 2 

Accurate patient identification is fundamental to patient safety. Organisations must review all patient

identification errors and address the causes of patient misidentification with use of electronic systems, and empowerment of patients and staff



Clinical and laboratory staff should be trained in fundamentals of transfusion, human factors, cognitive biases,

investigating incidents and patient safety principles

All healthcare organisations should SAFETY I + II incorporate the principles of both Safety-I and Safety-II approaches to improve patient care and safety. Healthcare leaders should proactively seek signals for improvement from unsafe, suboptimal as well as excellent care

102 Healthcare management must recognise that safety and outcomes are multifaceted, a linear view of safety does not fully acknowledge the interdependencies of resources including their leadership, adequate staffing and knowledge. Healthcare leaders should ensure these are all in place to improve patient safety



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### Five critical elements for a good safety culture





Combining Safety-I and Safety-II approaches can help to understand the reasons for errors and improve patient safety

> To improve patient safety, a combined approach using both Safety-I and Safety-II principles is essential



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Investigation purpose: identify causes and contributory factors

Critica

points in the atory

The nine-step transfusion pathway

(🖻 1. REQUEST

4. TESTING

2. SAMPLE TAKIN

3. SAMPLE RECEIPT

8. PRESCRIPTION

9. ADMINISTRATION

5. COMPONENT SELECTION

6. COMPONENT LABELLIN

7. COMPONENT COLLECTION



opments and events

resource for system flexibility and resilience

understand how things usually go right to explain how things occasionally go wrong





The A-E decision tree to facilitate decision making in transfusion

Do not forget other measures (vitamin K, tranexamic acid, cell salvage, etc)

Do not hesitate to question colleagues regarding decisions made and ask for rationale Do not forget to document in patient's notes and in discharge summaries

Ensure timely communications to laboratory- need to be clear, concise and accurate Ensure all relevant transfusion checklists including TACO risk assessment and actions arising thereafter have been completed Evidence based decisions made weighing risks, benefits and options available

Ensure patient receives adequate post-transfusion information if transfusion given as a day case

# ANNUAL SHOT REPORT 2019 **SUMMARY**

### Paediatric SHOT summary from 2019



### UPTAKE areas to be covered in a robust competency assessment



Transfusion in the UK remains very safe with low risks of harm in relation to the number of blood components issued



Summary data for 2019, all categories (includes RBRP and NM) n=3397

NM: Near miss

Anti-D: Anti-D immunoalobulin errors

HSE: Handling and storage errors

RBRP: Right blood right patient

ADU: Delayed transfusion

ADU: Avoidable transfusion

HTR: Haemolytic transfusion reactions 49 ADU: Over or undertransfusion 35

TAD: Transfusion-associated dyspnoea 21

TTI: Transfusion-transmitted infection 2

PTP: Post-transfusion purpura 0

ADU: Prothrombin complex concentrates (PCC) 16

UCT: Uncommon complications of transfusion

TAGvHD: Transfusion-associated graft-vs-host disease 0

2857 (84.1%) Errors

TRALI: Transfusion-related acute lung injury

CS: Cell salvage 23

IBCT: Incorrect blood component transfused

FAHR: Febrile, allergic and hypotensive reactions

TACO: Transfusion-associated circulatory overload

### approximately1 in 135,705 and of serious harm 1 in 17.884 components issued in the UK

### 4248 reports submitted to SHOT in 2019

transfusion-transmitted infection are much lower than all other transfusion-related

Note: This is a representative image and not accurate to

Error

4 ABO-incompatible red cell transfusions

Headline 2019 data:

129 major morbidities

17 transfusion-related deaths

Not preventable

Possibly preventable

There were 17 transfusion-related deaths in 2019. Of these, 5 could have been prevented



TTI=transfusion-transmitted infections; TAD=transfusion-associated dyspnoea; PCC=prothrombin complex concentrate; UCT=uncommon complications of transfusion; TACO=transfusion-associated circulatory overload

### TACO and delays are the most prevalent cause of transfusion-related deaths year on year



TRALI=transfusion-related acute lung injury; TACO=transfusion-associated circulatory overload; TAD=transfusion-associated dyspnoea; HTR=haemolytic transfusion reaction; FAHR=febrile, allergic and hypotensive reaction Delays include 1 delay due to PCC in 2019; HTR includes 2 deaths due to ABO-incompatibility; 'Other' includes 1 each for posttransfusion purpura, transfusion-associated graft-versus-host disease (2012) and anti-D related; there were 7 in the avoidable, over or undertransfusion category, 3 transfusion-transmitted infections, and 9 deaths related to other unclassified reactions

### Most ABO-incompatible red cell transfusions could have been detected at the bedside



DH=Department of Health; CAS=central alerting system



## taking the blood sample









Most wrong blood in tube cases occurred due to patient identification errors when

### Key laboratory messages