



# **Patient Blood Management and transfusion services in the UK**

**Dr Suzy Morton**

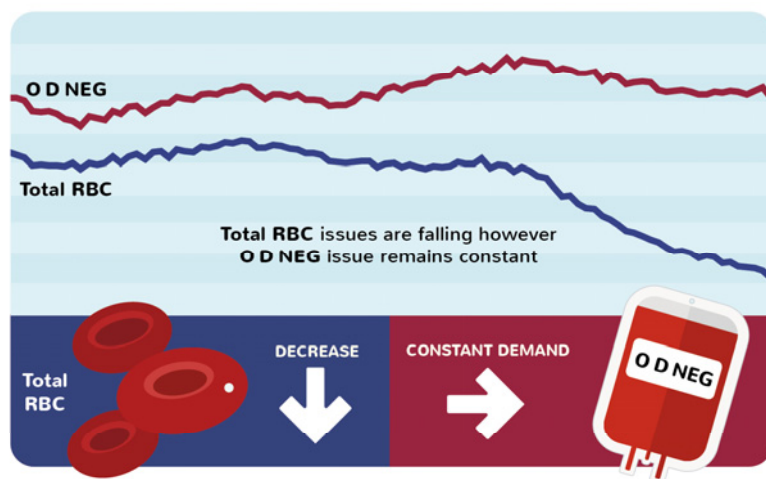
Consultant in haematology and transfusion medicine

University Hospitals Birmingham &

NHS Blood and Transplant

# Overview

- Patient blood management
- UK transfusion services
- NHS Blood and Transplant PBM initiatives
- Key messages



**“multidisciplinary,  
evidence-based approach  
to optimising the care of  
patients who might need a  
blood transfusion”**

- Resource
- Hazards
- Cost



**NHS**  
**Blood and Transplant**



Department  
of Health

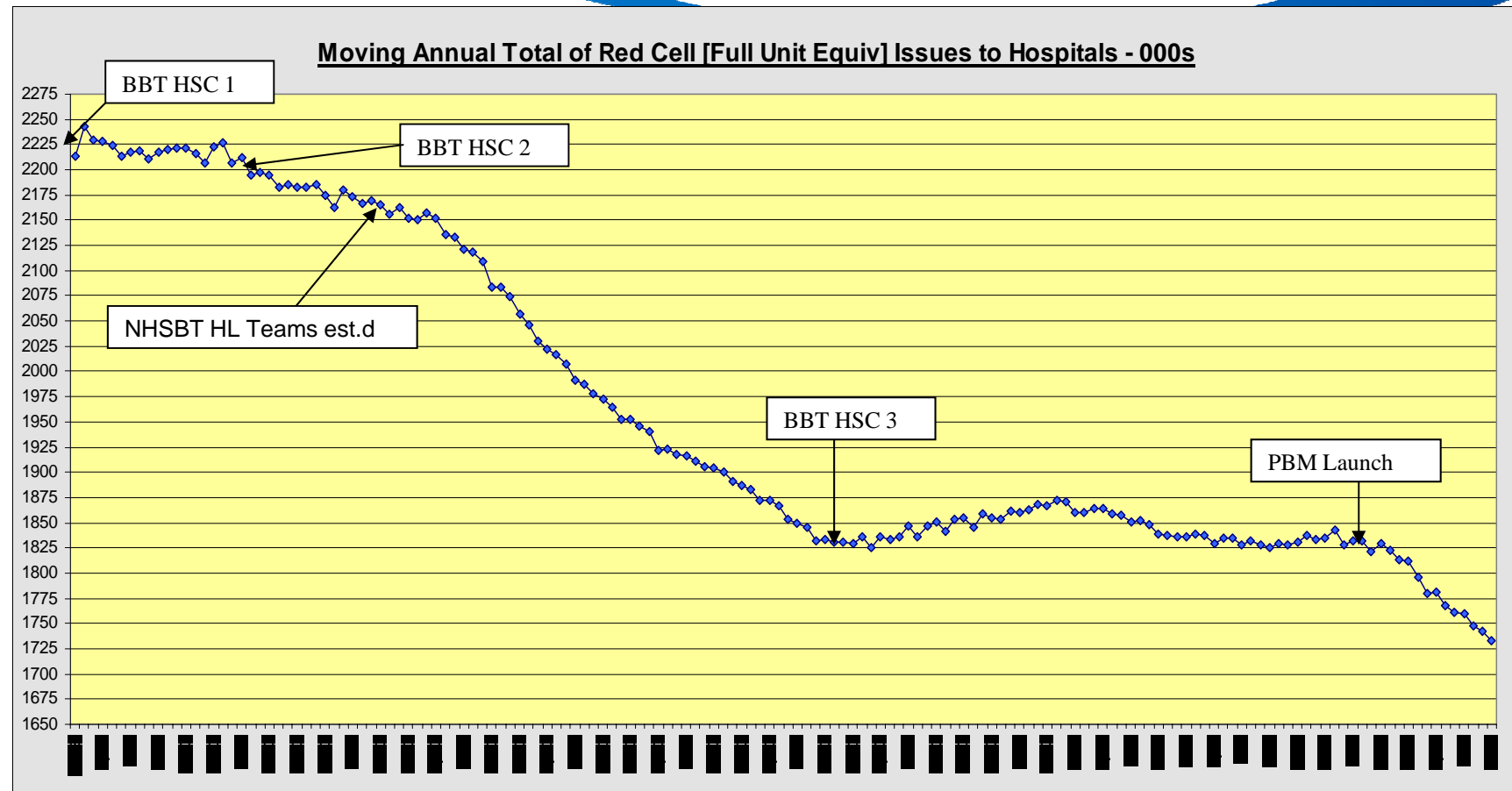
**NHS**  
National Blood Transfusion Committee

@TransfusionWM



# Change in Red cell usage 1999-2014

**NHS**  
*Blood and Transplant*



**Hospital teams:**

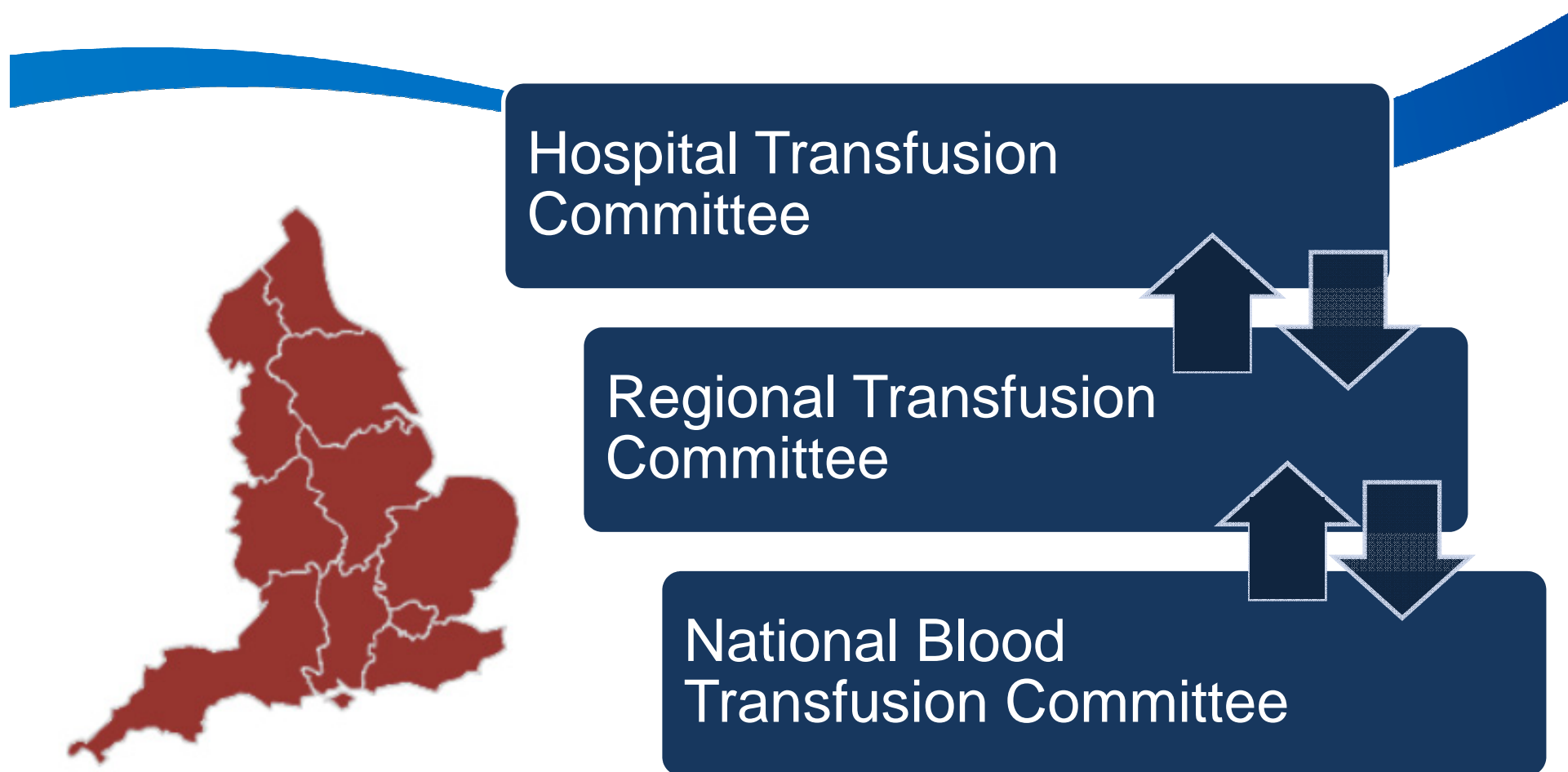
Haematology consultant  
Other doctors  
Transfusion practitioners  
Clinical nurse educators  
Biomedical scientist/blood bank manager  
Quality manager

**NHSBT PBM teams:**

PBM practitioners  
Consultant Haematologists

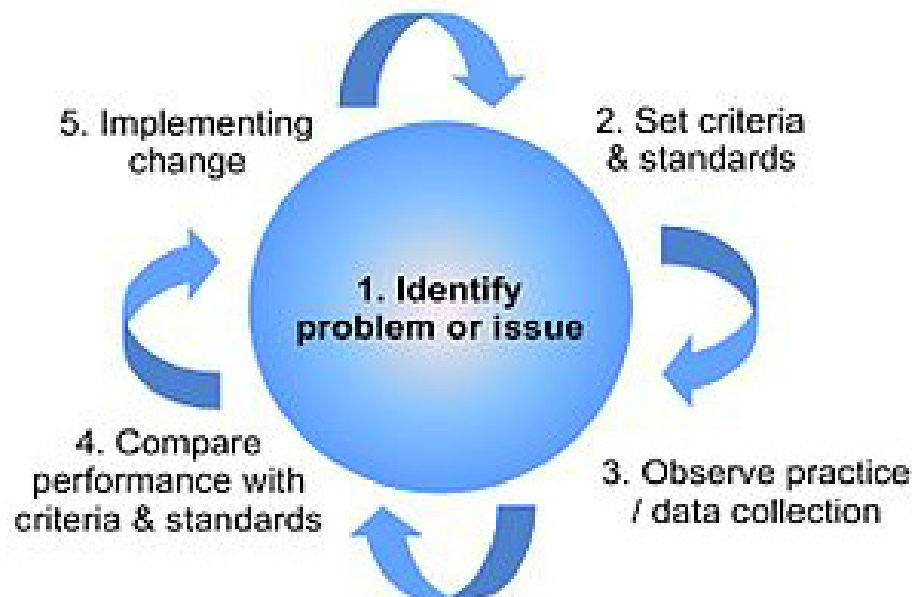
Education and Audit Team  
Research and Development

Transfusion Evidence Library and  
Systematic Reviews Initiative



# National Audits

- Benchmarking
- Evidence to support change



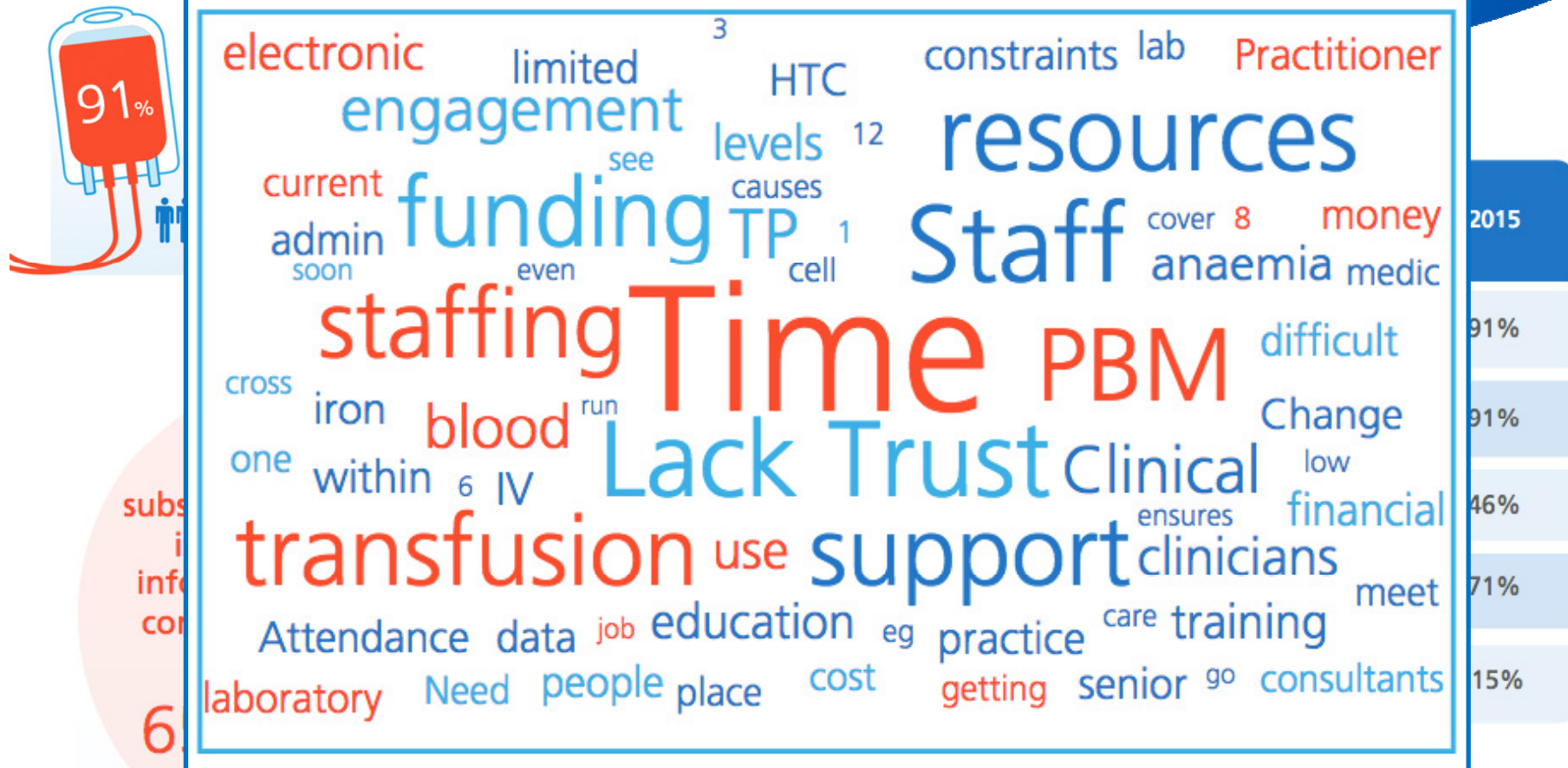
## Recent examples

- Red Cell & Platelet transfusion in adult haematology patients
- Patient Blood Management in adults undergoing elective, scheduled surgery
- Palliative care
- Patient information and consent
- Blood sample collection and labelling



# 2015 Survey of Patient Blood Management

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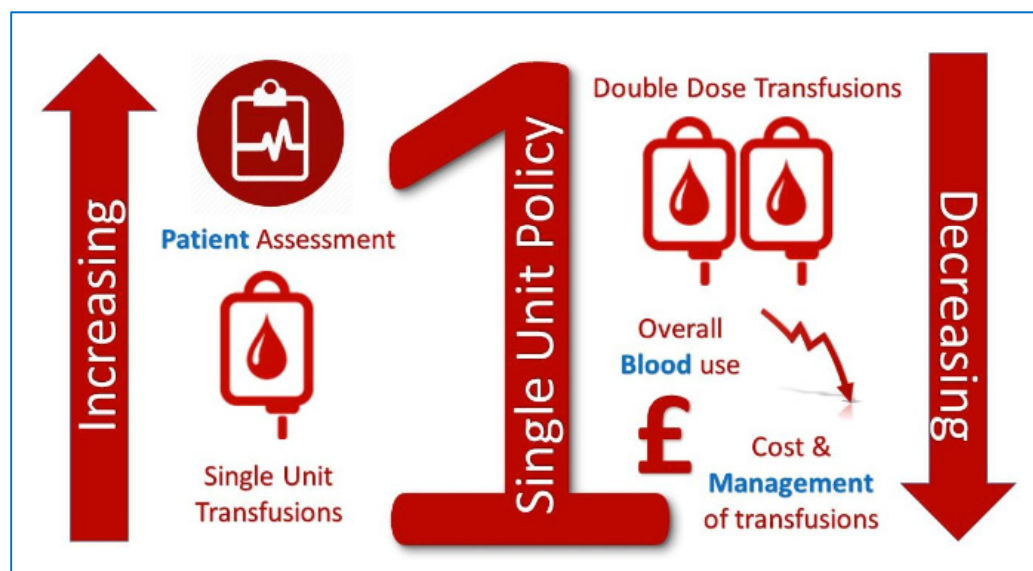
# Single unit transfusions *Blood and Transplant*

Pilot study in London

28 → 55% single unit transfusions  
“do once and share”



*“Transfuse one dose of blood component at a time e.g. one unit of red cells or platelets in non-bleeding patients. Reassess the patient clinically and with a further blood count to determine if further transfusion is needed.”*



**Blood and Transplant**

**SINGLE Unit Blood Transfusions**  
reduce the risk of an adverse reaction

**Don't give two without review**

**THINK!**

- Is your patient symptomatic?
- Is the transfusion appropriate?
- What is the haemoglobin trigger level?
- What is the patient's target haemoglobin level?

**Each unit transfused is an independent clinical decision**

**DO!**

- ✓ Clinically re-assess the patient after each unit transfused.
- ✓ Only one unit should be ordered for non-bleeding patients.
- ✓ Document the reason for Transfusion.<sup>1</sup>

<sup>1</sup> British Committee for Standards in Haematology: Addendum to Administration of Blood Components, 2012

Version 1 – August 2014

SAVE



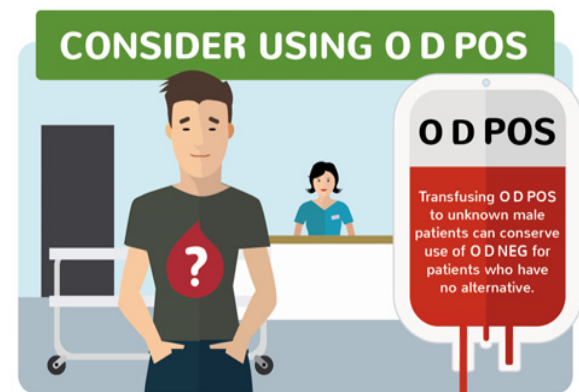
A WEEK

**NHS**

## *Blood and Transplant*



- O RhD negative blood demand remains constant
- Continual demand > supply
- National guidelines on strategies to reduce use

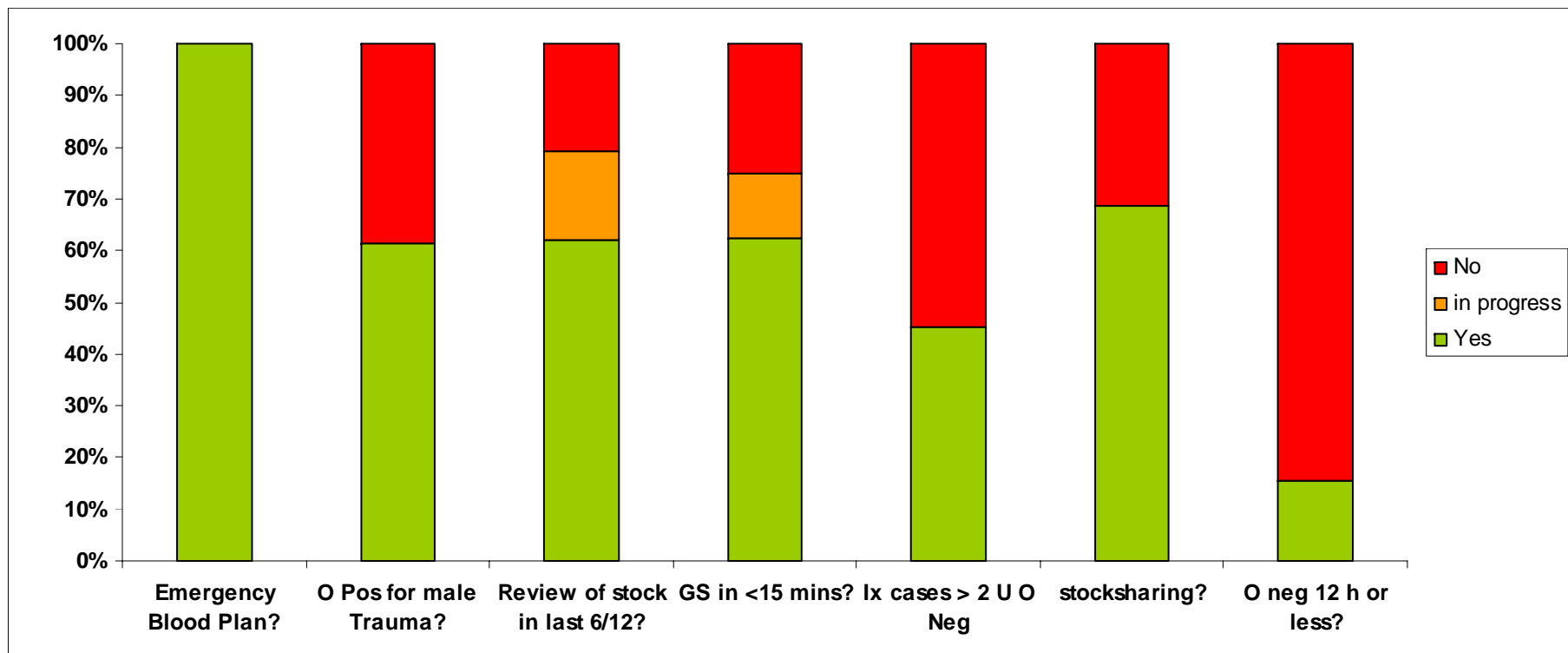


# O RhD negative shortages 2016



## *Blood and Transplant*

- 33 hospitals selected
  - higher than expected daily stocks
  - % O neg demand
- Hospital transfusion team contacted by regional PBM consultant



Improving health and social  
care through  
evidence-based guidance

Blood transfusion

NICE guideline [NG24] Published date: November 2015

- Baseline assessment tool
- Guideline algorithm
- Costing statement
- Key priorities for implementation

**Recommendations**

The guideline includes recommendations on:




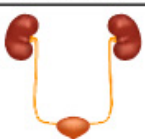
- alternatives to transfusion for patients having surgery
- thresholds, targets and doses for red blood cells, platelets, fresh frozen plasma, cryoprecipitate, and prothrombin complex concentrate
- patient safety
- patient information

**Who is it for?**

- healthcare professionals who assess for and manage blood transfusions and their alternatives
- commissioners and providers of transfusion services
- people over 1 year old who may need a blood transfusion, their families and carers



**Serious Hazards of Transfusion = national reporting scheme**

Diagnostic Category	Status	Score
 <b>Respiratory</b>	Acute or worsening respiratory distress with no apparent alternative cause	2
	Acute or worsening respiratory distress with possible alternative cause	1
 <b>Imaging</b>	Pulmonary oedema (+/- cardiomegaly) not on pre-transfusion image, OR worsening compared to pre-transfusion image	2
	Pulmonary oedema (+/- cardiomegaly) on imaging with no pre-transfusion image for comparison, OR no change from previous image	1
	Pulmonary oedema not present on image, OR no image available	0
 <b>Fluid Balance</b>	Clinically significantly positive fluid balance	1
	Unable to assess fluid balance	0
	Neutral or negative fluid balance	-1
 <b>Diuretics</b>	Improvement with diuretics and/or morphine and nitrates alone (not administered with steroid, anti-histamine or bronchodilator)	2
	Improvement with diuretics and/or morphine and nitrates (also administered with steroid, anti-histamine or bronchodilator)	1
	No improvement or worsening after diuretic	-1
	Unable to assess response to diuretic or diuretic not given	0



3. Only consider transfusing platelets for patients with chemotherapy-induced thrombocytopenia where the platelet count is  $< 10 \times 10^9/L$  except when the patient has clinical significant bleeding or will be undergoing a procedure with a high risk of bleeding.

4. Use restrictive thresholds for patients needing red cell transfusions and give only one unit at a time except when the patient has active bleeding.

Evidence/guidance

- [NICE Guidance: Blood transfusion](#)

5. Only transfuse O Rh D negative red cells to O Rh D negative patients and in emergencies for females of childbearing potential with unknown blood group.



Kate Pendry @KatePendry · Oct 26

I'm pleased to see one of our @UKchoosewisely transfusion recommendations in Daily Mail yesterday @RCPath @PBM\_NHS



# Key messages

**NHS**  
*Blood and Transplant*

**Patient blood management focuses on  
patient care**

**Principles are evidence-based but simple**

**Communication and education are key**

