Mothers, Babies & Blood

# A SHOT IN THE DARK

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# The Aims of the Session

What is SHOT?

To reflect on obstetric incidences that have been reported to SHOT in relation to PATIENT SAFETY

- Positive Patient Identification
- Appropriate transfusions
- Communication with the Hospital Transfusion Laboratory
- Checking procedures
- Blood component therapy in massive transfusion
- Documentation

# What is SHOT?

The Serious Hazards of Transfusion is:-

- Voluntary
- Confidential
- Anonymised
- Professionally led
- Launched in 1996

# What is SHOT?

Collects and analyses information on transfusion related events and reactions from **all** establishments involved in transfusion within the UK.

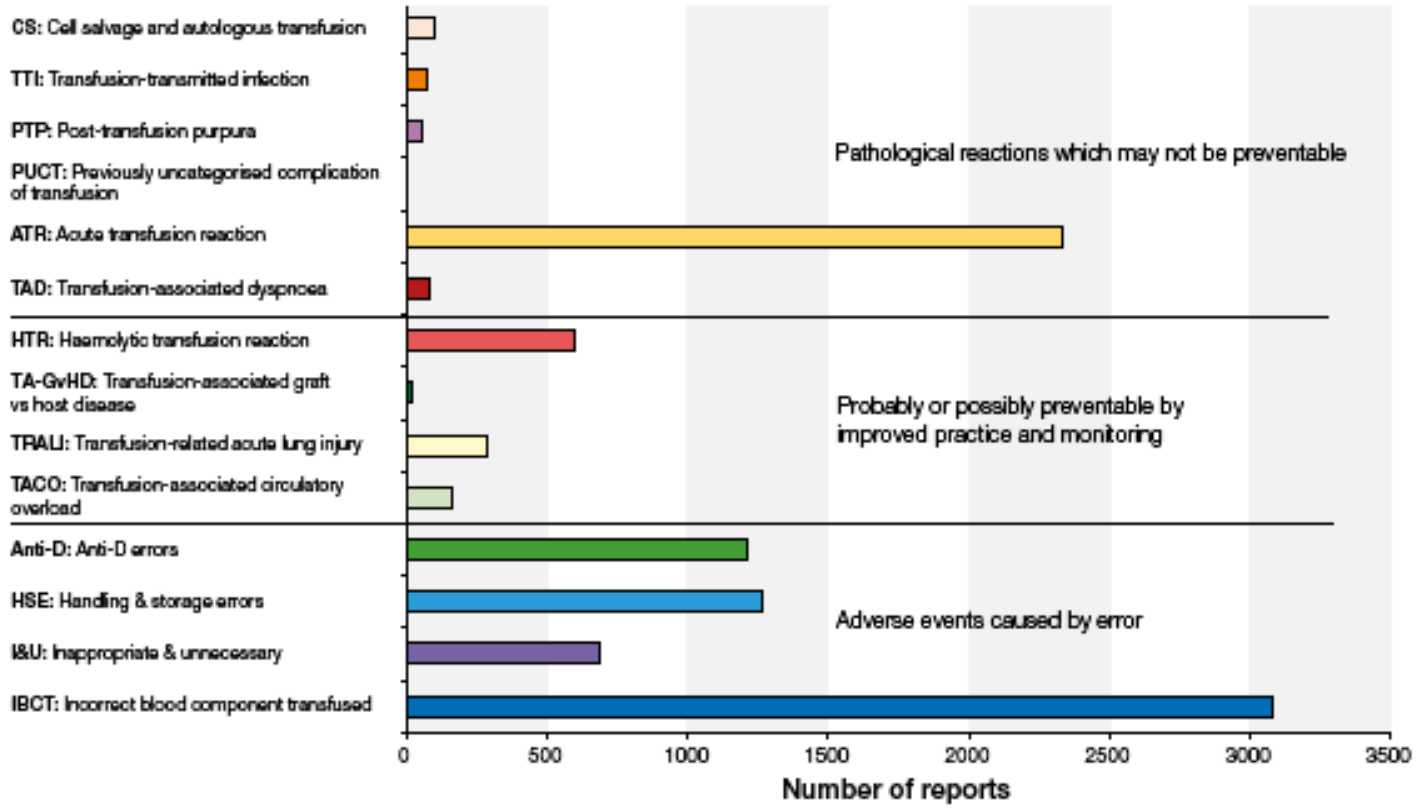
- Red Cells
- Platelets
- Granulocytes
- Fresh Frozen Plasma (FFP)
- Cryoprecipitate
- Autologous (ICS )  (2009)
- Anti-D

# SHOT data 1996 - 2011

**Figure 4.2**

**Cumulative data for SHOT categories 1996/7-2011**

**n=9925**

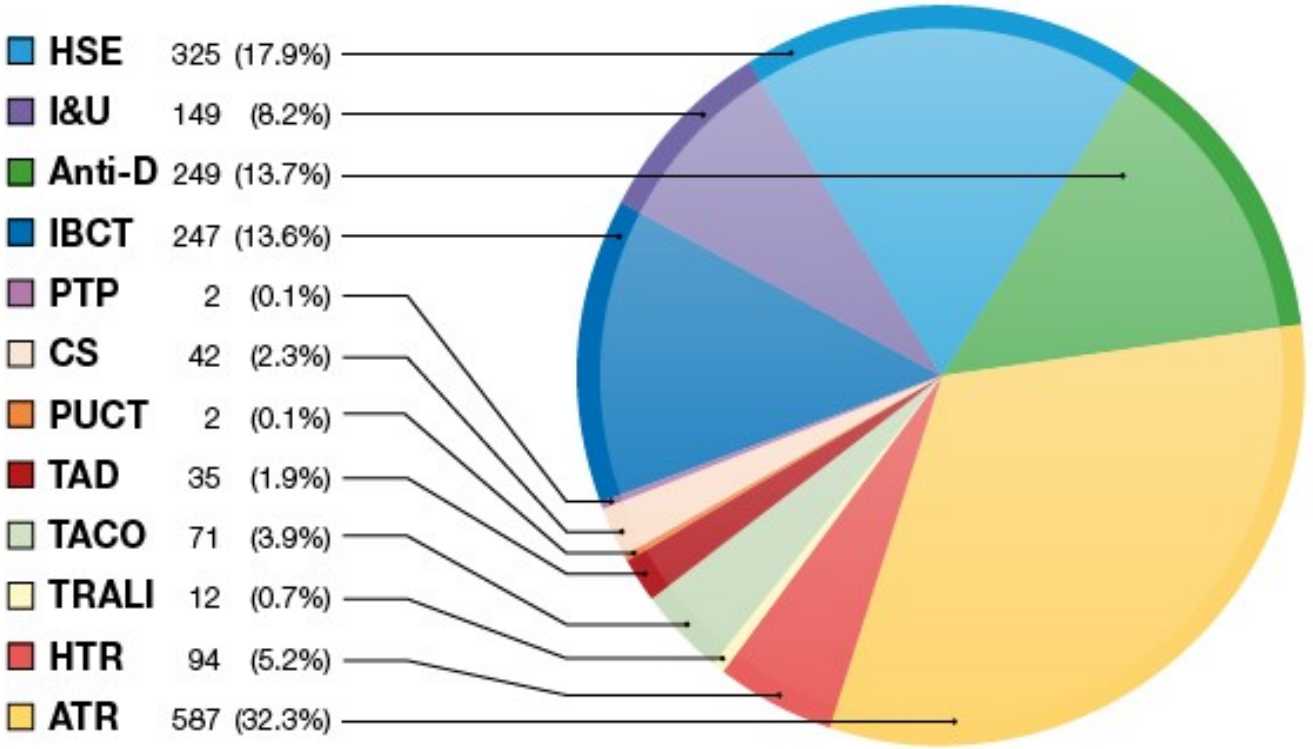


# 2011 SHOT incidents

Figure 4.1

Cases reviewed in 2011 (excluding near miss and instances where the patient received a correct component despite errors having occurred – RBRP)

n=1815



# Patient given a transfusion despite responding to oral iron (I & U)

- Following iron deficiency during pregnancy, a female delivered with a Hb of 7.8 g/ dL. A decision was taken in conjunction with the patient not to transfuse her, but to discharge her on oral iron. Nine days later, her Hb was checked by the midwife and found to have risen to 8.9 g/ dL. Two weeks later, without a further check on her Hb, she was admitted to the community hospital for a blood transfusion at the GP's request.

# Bedside check performed in the clinic room

- Anti-D Ig had been correctly issued by the laboratory for a named post-natal patient. Two qualified midwives performed the bedside check in the ward clinic room, then one went onto the ward and administered the anti-D Ig to a completely different patient, without any further checks.

# Lack of knowledge around anti-D prophylaxis results in omission of routine antenatal anti-D Ig dose

- A 1500 iu dose of anti-D Ig was issued to a GP surgery for use as RAADP at 28 weeks' gestation. The anti-D Ig was returned unused as the patient had previously received prophylaxis for a PSE while in hospital and the midwives thought the further dose was not necessary.

## Mistranscribed group results in omission of prophylaxis

A patient's RhD group was mistranscribed as 'positive' on the front of her notes, even though all grouping reports from the laboratory clearly stated that the patient was RhD negative. The discrepancy was noted at delivery, but the patient had missed out on any anti-D prophylaxis during her pregnancy.

## Use of patient notes in an ID check, in place of the patient's wristband or verbal confirmation

A midwife collected anti-D Ig, and then took it to the wrong patient along with the intended patient's notes.

She then proceeded to check identification details against the notes rather than with the patient and administered the anti-D.

# Incorrect units collected in place of emergency group O RhD negative blood

A patient was rushed to maternity theatres for a Caesarean Section as she was starting to haemorrhage. The anaesthetist requested emergency group O RhD negative blood. A midwife, who had received transfusion training, went to the maternity theatre's satellite blood refrigerator and collected two units of blood from the top drawer without any checks, assuming that it was the emergency blood.

The two units were given rapidly. The anaesthetist commented that the blood was group O RhD positive, but as the patient was group A RhD positive, the anaesthetist was happy it was compatible.

it was only when they took it down that they realised the blood was allocated to a different patient, and was not the emergency blood at all.

- ***Doctor unaware of provision of emergency neonatal specification units in satellite fridge***

*A baby was delivered prematurely by emergency LSCS and had an Hb of 6.2 g/ dL requiring emergency transfusion. The staff grade doctor borrowed a midwife's blood fridge access ID card. He removed a unit of adult emergency group O D negative blood, not the paediatric emergency unit which was also present..The baby received 100 mL of the adult unit with no adverse reaction. The incident came to light when the satellite fridge was being restocked by the transfusion laboratory BMS*

- **Assumption that positive antibody screen is prophylactic anti-D results in further administration and failure to monitor the mother**

An antenatal sample at 28 weeks gestation showed the presence of anti-D and a BMS reported ‘anti-D of probable prophylactic origin’. However, there was no record that the patient had been given any prophylactic anti-D. As a result of the report, further anti-D was administered, the mother was not closely monitored during the remainder of the pregnancy and the baby was born suffering from HDN.

## Young woman develops TACO after transfusion for massive obstetric haemorrhage

A 30-year-old woman had an emergency CS for pre-eclampsia with an estimated blood loss of 3000 mL associated with DIC. She received 1500 mL colloid, 3500 mL crystalloid, 9 units (2546 mL) RBC and 4 units of FFP (1127 mL). In the 24 hours prior to the reaction she was in positive fluid balance of 1813 mL. She developed dyspnoea, hypoxia and hypercapnia associated with pulmonary oedema. Her pulse was 82 bpm and BP 109/ 82. O2 was administered and she was transferred to ITU for ventilation. She was given diuretic therapy resulting in a 'good diuresis' and, after a second dose of diuretic, clinical improvement was evident.

# TACO following transfusion for massive obstetric haemorrhage

This female had a PPH post Caesarean section. She received 7 units of RBC, 2 units of FFP and 1 pool of platelets transfused rapidly, following which she starting coughing up frothy white sputum. The O2 saturation dropped to 85%, and she became hypotensive, tachycardic (140 bpm), temperature 39oC (pre-transfusion temperature unavailable), acidotic pH 7 and pO2 11 kPa on 100% oxygen. A CXR indicated pulmonary oedema. Furosemide and noradrenaline were given with a good response. An ECHO later showed good ventricular function.

# “A SHOT in the dark” - Conclusion

I hope you have:-

- Gained a greater understanding of SHOT
- Reflected and recognised the importance of :-
  - Good Positive Patient Identification
  - Appropriateness of treatment/transfusions
  - Good communication with teams/ Hospital Transfusion Laboratory
  - Good checking procedures
  - Good documentation

**THANK YOU!!**