

# **Their Life in Your Hands**

## **How to get what you need from the Transfusion Laboratory**

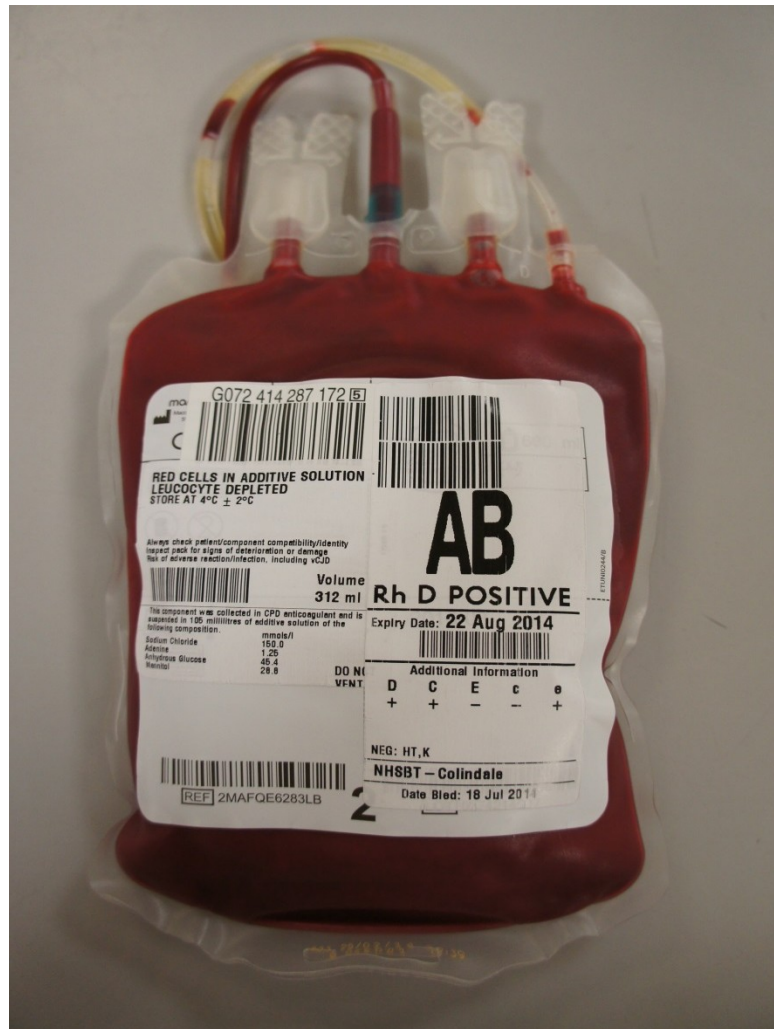
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**Integrated Blood Transfusion Manager**

# Summary

- Blood components and products available
- Zero tolerance
- The “Two Sample” Rule
- MBOS
- Cross-matching problems
- Massive haemorrhage
- Regulations
- Hazards of Transfusion

# Blood Components



- Red blood cells
- Shelf life: 35 Days at 4°C
- Cost: £121.85

# Blood Components



- Platelets
- Shelf life:  
Up to 7 Days at 22°C
- Cost: £196.96

# Blood Components



- Fresh Frozen Plasma
- Shelf life:  
36 Months at -25°C  
[24 hrs at 4 C after thawing]
- Cost: £28.46

# Blood Components



- Cryoprecipitate
- Shelf life:  
36 Months at -25°C  
[4 hrs after thawing]
- Cost: £180.54

# Blood Products

- **Human albumin solution [HAS]**
- **Immunoglobulins**
- **Prothrombin complex concentrate**
- **Factor VIII concentrate**
- **Factor IX concentrate**
- **vWF concentrate**



# Zero Tolerance

- ABO incompatible blood transfusions
- Labelling
- Electronic solutions



# The “Two Sample” Rule

- BCSH guidelines
- Canadian model

# Maximum blood order schedule

- **Group and screen**
- **Electronic issue**
- **When is cross matched blood required to be available?**

**Revision hip replacement – 2 units**

**Revision Knee replacement – 2 units**

**Splenectomy – 4 units**

**Radical Nephrectomy – 4 units**

# Cross-matching Problems

- Importance of pre-admission sample
- Viability of transfusion sample:

If transfusion or pregnant with last 3 months – 72 hrs

If not, sample viable for 3 months

- Red cell antibodies: Other Rh antigens, Kell, Duffy, Kidd, MNS,
- Special requirements

# Massive Haemorrhage

- **Definition**
- **Successful management – communication**
- **Activation of massive haemorrhage protocol**
- **Role of the Co-ordinator:**
  - Samples**
  - Component availability**
  - Minimising telephone calls**
- **Drills**

# Regulations

- **CPA/UKAS**
- **MHRA**
- **SABRE / SHOT**

# Hazards of Transfusion

- **Transfusion transmitted infection – Rare**
- **ID of patient blood samples:**
  - **positive patient ID to prevent WBIT incidents – no addressograph labels on samples**
- **Transfusion of blood components:**
  - 1 in 13,000 is transfused to the wrong patient.**
- **Electronic signing out of blood components**

# Conclusion

- **Blood transfusion:**
  - Lifesaving**
  - Expensive**
  - Occasional adverse effects**
  - Finite**