# Single Unit Transfusions

London RTC PBM in Surgery

Jan 2015

# The need for single unit RBC Tx?

- Patient Blood Management principles
  - Each red blood cell transfusion should be an independent clinical decision based on the risk, benefits and alternatives.
  - Transfusion should not be based on haemoglobin level alone but should also be based on assessment of the patient's clinical status
- Restrictive transfusion triggers – increasing evidence to support
  - TRICC, FOCUS, TRACS

# BCSH Administration guidelines addendum 2012 www.bcshguidelines.org

- ‘Single unit red cell transfusions are recommended where possible, especially in non-bleeding patients’

| Reference | Findings implementing restrictive/single unit policy |
|---|---|
| **Yerrabothala et al (2014)** | The total number of red blood cells transfused/1000 patient days decreased from 60.8 to 44.2 and the proportion of 2-unit transfusions decreased from 47% to 15% |
| **Berger et al (2012)** | Reduced red cell usage by 25% with no evidence of more severe bleeding or reduction in survival in patients receiving intensive chemotherapy or stem cell transplantation. |

# www.blood.gov.au/**single-unit-transfusion**

NATIONAL BLOOD AUTHORITY
AUSTRALIA

## Single Unit Transfusion Guide


- Single Unit Transfusion Guide Summary June 2014
- Appendix 1: Example Clinical Guideline Format
- Appendix 2: Consideration and Guidance for Implementation
- Appendix 3: Example Handout
- Appendix 4: Example PowerPoint Presentation
- Appendix 5: Example Newsletter (pdf)
- Appendix 6: Example Posters (pdf)

# UK experience

- Dr Ciara Donohue
  - Anaesthetics Specialist Registrar, Royal Free Hospital
- Dr Allamedine
  - Consultant Haematologist, Pennine Acute Hospitals Trust
- Open discussion & way forward

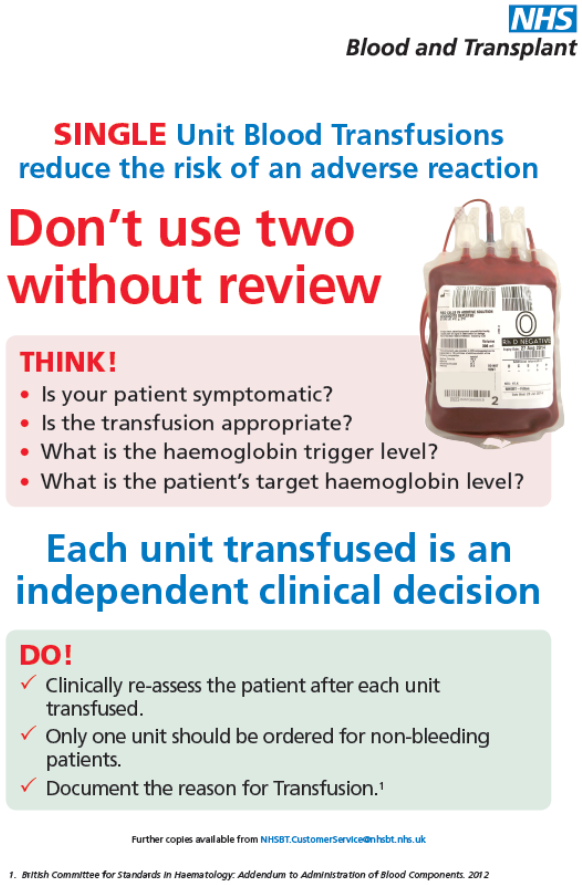
# Single unit transfusions – the way forward?

Discussion

# Resources needed?

- **Hospital policy**
  - supported by HTC/PBM committee
  - senior medical/nursing/management support

- **Hospital wide awareness and education**
  - medical, nursing, laboratory staff, in all clinical areas that administer blood products
  - Clinical champions
  - Include in induction for new staff
  - Clear messages: posters, intranet, newsletters
  - PBM App



# Resources – single unit Tx

- **Empower** laboratory staff to question the appropriateness of a request for blood with medical support

- **Prompt patients** to enquire about blood transfusion requirements

- **Computerised Physician Order Entry systems**
  - if available to guide transfusion decisions and compliance to the guideline

# Resources – single unit Tx

- **Data collection**– consider benchmark internally, locally, externally

- **Feedback** statistics and reports to relevant teams

# London RTC - Single Unit Transfusion Pilot led by Jen Heyes, NHSBT PBM Practitioner

**AIM:**

To reduce inappropriate red cell transfusions in **acute medical wards** by introducing a single unit transfusion policy

**INITIAL RETROSPECTIVE DATA:**

72% of transfusion episodes involved 2 or more red cell units

Hb measured after a single unit in 24% of red cell transfusions

**IMPLEMENTATION:**

Retrospective and prospective data collection over 6 months,

Multidisciplinary training, advertising, policy writing and development of tools (patient assessment, lab algorithm, posters, screensavers, training package)