Blood and Transplan

PATIENT BLOOD MANAGEMENT – THE FUTURE OF BLOOD TRANSFUSION

ROYAL COLLEGE OF PATHOLOGISTS

18 JUNE 2012

Lectures

- blood usage
- data
- patient blood management
  - ~ individual strategies
  - ~ general strategies

Workshops

http://www.transfusionguidelines.org

NBTC>patient blood management

BLOOD USAGE

Dr Jonathan Wallis, Haematologist, Newcastle

18%decline 1999-2009

Mostly surgical ?TRICC, TPs, BBT 1,2,3

Varies within UK and Europe

ageing population, less donors

~ Need trials of transfusion policies in medical patients

~ Need data on who transfused and why

HIGH QUALITY EVIDENCE

Jeffrey Carson, New Jersey, USA

American Association of Blood Banks:

new transfusion guidelines

~ Need high quality evidence to change physicians' behaviour (eg. TRICC)

~ Need threshold trials for:

Acute coronary syndrome

Brain injury

GI bleeding

DATA - PLATELET USAGE

Janet Birchall, Haematologist, Bristol

Platelet usage has increased 16% recently

2010-11 0.3% increase in South-West (8.3% nationally)

~ RTC trend analysis data should used to effect change

DATA - TRACKING CLINICAL USE

Kate Pendry, Haematologist, Manchester

Americas Blood Centres (ABC)

- Encrypted patient level data from hospital IT systems sent to central database (AIMII)
- Working with NHSBT project team since Sept 2011
- Problems: data matching, indications, link with blood results

~ Indications need to be menu driven

DATA - TRACKING CLINICAL USE

Need:

~ national benchmarking

~ structured, collaborative, continuous improvement cycle

~ central co-ordinator

~ stakeholder workshops to explore practice variation

PBM – INDIVIDUAL STRATEGIES

Near patient haemostasis testing

G Murphy, Cardiac Surgeon, Bristol

Thromboelastometry

- Limited sensitivity and specificity (eg. Aspirin, clopidogrel)
- Lack of evidence of benefit

Platelet function testing

- Unproven accuracy

Thrombin generation

- ‘thromboscope’ may replace conventional tests

PBM - INDIVIDUAL STRATEGIES

Cell Salvage

John Thompson, Royal Devon and Exeter

- Part of QIP for aortic aneurysm surgery
- Need:
  - Champions
  - 0.5WTI doctor for PBM and IOCS
  - Theatre staff: training, rotas, staffing cases
  - Shared intranet diary
  - Audit, AIRS
  - Apprenticeship training
  - Demonstrate financial benefits

PBM - INDIVIDUAL STRATEGIES

Tranexamic Acid

Prof Ian Roberts, London School of Hygeine and Tropical Med

CRASH-2: bleeding trauma patients - 1/3 less died

~ need results implemented eg. QIPP

Surgical bleeding: transfused 1/3 less
less mortality
no evidence increased risk
potential saving £24m per annum

PBM – INDIVIDUAL STRATEGIES

Medical Anaemia

Prof Iain Macdougall, Renal Medicine, King's

Use of recombinant erythropoietin in 1990's - less transfusion

Safety (CVA, VTE, arterial TE, Ca recurrence) - restricted use

Transfusion in renal patients increasing

PBM – INDIVIDUAL STRATEGIES

Surgical Anaemia

Toby Richards, Vascular Surgeon, UCL

Surgery use most blood in UK

PBM 'pillars'

- Each has pre, intra and post-op components

1st pillar: optimise erythropoiesis

2nd pillar: minimise bleeding

3rd pillar: optimise physiological reserve of anaemia

PATIENT'S PERSPECTIVE

Mr Kenneth Halligan, Patient/ Carer Rep, NICE, Liverpool

Why?

Best thing?

Alternative?

What involves and how long?

Safe?

How do you know?

Keep informed?

Afterwards?

PBM - GENERAL STRATEGIES

Dr Erica Wood, Melbourne

1) 6 clinical modules - funded by NBA

2) 2011 - new national standards

3) 10yrs of collaboratives: health depts/ hosps/ Red Cross BS/TP

~ Need: government funding + support
clinical champions
data linkage + performance measures
research put into practice
effectiveness of education

PBM - GENERAL STRATEGIES

Prof Jonathan Waters, Pittsburgh

2007 Joint Commission (TJC)
Introduced performance measures:
1) Consent
Documented:
2) threshold indication
3) clinical indication
4) transfusion process
5) Identify no X-match but likely to bleed
6) Optimise Hb in major surgery

PBM - GENERAL STRATEGIES

- Regional Programme

Dr Kathryn Robinson, Adelaide

'Bloodsafe' - statewide safety and quality collaborative

1) National guidelines

2) Guidance team: clinical practice methodology
clinician driven

3) Statewide data linkage

4) Improvement toolbox (protocols, charts, patient info)

5) Multidisciplinary involvement, multiple approaches

WORKSHOPS

Resources

Data

Routine PBM

Support

Performance measures

WORKSHOPS – RECOMMENDATIONS

1) Finance
   - top slice budget + specific commissioning
2) Support
   - evidence based guidelines ?NICE
   - NBTC working group
   - national champions
   - collaboration with GPs/ Commissioning Board
3) IT
   - national dataset + IT linkage
   - IT support for HTT, E-ordering

WORKSHOPS - RECOMMENDTIONS

4) Performance measures

- consent
- indications (threshold + clinical)
- how much, who to
- pre-op anaemia treatment
- screening and Ab testing
- major haemorrhage supply times
- assessment/ education
- patient ID
- observations

WORKSHOPS - RECOMMENDATIONS

5) PBM measures

- anaemia screening + treatment
- 24hr IOCS/ endoscopy/ interventional radiology
- low volume sampling
- near patient coag monitor in major centres
- patient info

6) Education

- More TP time
- Courses esp middle grade Drs
- Work with Deaneries on junior Dr training
- Education re thresholds

WHAT NEXT?

Working party to discuss action plan

NBTC

? national database

? national guidelines

? Government backing/ funding