PATIENT BLOOD MANAGEMENT – THE FUTURE OF BLOOD TRANSFUSION
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 (e.g. 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 Hygiene 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
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
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