



**Royal United Hospitals Bath**  
NHS Foundation Trust

# Chronic transfusion project

Review of the impact of  
transfusion treatment  
plans on the  
Haematology Day Unit

**Everyone** Matters  
Working **Together**  
Making a  
**Difference**

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## NICE 24 Blood transfusion 18<sup>th</sup> November 2015

- Clear advice on transfusion thresholds in general clinical settings
- Introduced concept of setting **individual targets** for chronic transfusion dependent patients
- Aware strict application of NICE guidance can cause issues with this patient group
- Discussed project with Haem Day Unit medic and sister

**NICE** National Institute for  
Health and Care Excellence



### Blood transfusion

NICE guideline

Published: 18 November 2015

[nice.org.uk/guidance/ng24](https://www.nice.org.uk/guidance/ng24)

## Aims of treatment plan

- Plan on Millennium system so accessible to all areas
- Developed with IT
- Clear advice to nurse led unit when (and when not) to transfuse – avoid unnecessary transfusion
- Efficient use of clinical space and staff
- Accounts for relevant co-morbidities and patient's symptoms
- Quality of life a key factor

### Basic Information

#### Primary Diagnosis

Myelodysplasia

#### Relevant Co-Morbidities

see recent clinic letter

#### Relevant Medications

see recent clinic letter

#### Haemoglobin Threshold (i.e. Transfusion Trigger)

Maintain Hb above 85 g/L

If Hb <70g/L, transfuse 3 units

If Hb ≥70g/L, transfuse 2 units

If Hb ≥86g/L transfuse 1 unit

If Hb ≥93g/L, do not transfuse

\*\*slower transfusion rate - suggest 3 hourly.\*\*

\*\*will need frusemide after 2nd unit - 20mg as per PGD\*\*

#### Haemoglobin Target Range (Should not exceed 100 g/L)

Do not exceed Hb 100g/L

#### Platelet Threshold (i.e. Transfusion Trigger)

Do not transfuse unless wet bleeding (WHO bleeding scale 2-4)

#### EPO Result (If Applicable) : Serum Erythropoietin (mu/mL)

14/Sep/17 13:02 BST Serum Erythropoietin 325.0 mu/ml HI

#### Serum Ferritin (Advise check after 20 units of packed red cells) : Serum Ferritin

08/Sep/17 19:29 BST Serum Ferritin 212 nanogram/mL Normal

If serum ferritin >1000ng/mL inform consultant haematologist to consider suit therapy (BJH 2014,164,503-525)

## The MPN group – route to regular transfusion programme

- 25 to 30 patients at any time receiving chronic transfusion support
- Liaise with senior nursing staff and day unit doctor
- Discuss transfusion plan detail with each patient – variable requirements
- Programme to run with senior nurses and doctor to prescribe as required



## Best laid plans and problems....

- May 2017 – trouble at t'mill...
- Doctor and senior nurse on long-term sickness – Haem day unit in crisis
- Ambulatory Care area unhappy about number of haem/onc referrals
- Started project solo with haematology medical staff permission
- Approved to authorise blood transfusions from April 2016
- Lots to learn!

## Getting started – setting limits

- Transfusion Treatment plan template launched on Millennium
- Patient list on Millennium – all haem clinical staff given access
- Completed for all relevant patients
- Education for day unit staff re. my role managing chronic tx dependent group
- New referrals from haematology
- Not ad hoc transfusions from clinic

## Checklist for transfusion management

*Daily appointment lists on ARIA*

*Patients given next appointment letter and blood forms – advised to have bloods 2 days before next appointment*

- **Check blood test results 24-48 hours before appointment**
- **Assess and authorise number of units required as per plan**
- **Cancel and inform patients who do not require transfusion**
- **Check transfusion waiting list for one-off referrals and book in where possible**
- **Inform lab of number of units required for each patient**
- **Document EVERYTHING centrally**

## Results (expected and unexpected)

- Results being monitored so...
- Patients cancelled in time to book in replacements, therefore....
- Referral waits shorter than before and...
- Fewer referrals to Ambulatory Care due to lack of capacity
- Better use of Haem Day Unit capacity
- Laboratory %issue rates improved – less units issued then returned unused

Patients transfused	Haem/Onc DU	Amb Care	Haem/Onc referrals to AC
Jan-May 17	204	122	33
Jun-Oct 17	249	131	16



## Platelets...

- Started implementation of BJH 2016 guidance for platelet transfusions
- Previously using platelet count  $<10$  to transfuse in chronic BMF
- Platelet transfusions now rare for this group
- Only transfused if reporting bleeding (WHO 2-4) and/or additional risk factors
- Platelet wastage due to 'just in case' orders for chronic BMF – no longer an issue

## Assessment so far

- Feedback from Day Unit staff overwhelmingly positive
  - Supported – point of reference
  - Greater control of unit chair space
- Patients delighted with service –
  - can feel ‘abandoned’ when referred for chronic transfusion support
  - medical response to any queries or concerns on the day
- Laboratory staff not issuing unnecessary units – better stock management

## The future

- More transfusion referrals to community hospitals
- **Empower unit to manage their own patients**
  - Staffing issues
- Senior nurses on Haem Day Unit to become non-medical authorisers of blood
- Take on new referrals and manage list
- Introduce PGDs for supporting medication - **done**



Thank you!

