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2019 Re-Audit of the Medical Use of Red Cells


South West RTC

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NHSBT

Aims

- To reduce the variation in the medical use of blood so that quality becomes more consistent, reducing the risk to patients
 - Audit a representative sample of physician decisions to prescribe red blood cells
 - Gather information from a sample of patients under the care of a physician, such as reason for transfusion, clinical picture, co-morbidity and testing.
 - Identify which areas of physician transfusion practice are amenable to practice
 - Provide a national picture of process performance for comparative and benchmarking purposes.
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Key Findings

- 5155 patients were audited from a variety of medical specialities and locations where the transfusion took place
 - 3390 (65.8%) patients were reported to have symptoms of anaemia
 - Upper GI bleeding and malignancy were the most common causes of anaemia, but cause was still under investigation for 1596 (31%) patients
 - Wards (2780, 54%) and AMU/Admissions Unit (982, 19%) were the most common clinical areas where patients were transfused
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Standard 1 : A pre-transfusion haemoglobin (Hb) is taken in 100% of cases within 3 days of transfusion (and preferably the same day)

National	4930/5129 (96%)
Regional	324/339 (96%)
Dorset County Hospital NHS Foundation Trust	13/13 (100%)
Great Western Hospitals NHS Foundation Trust	40/40 (100%)
North Bristol NHS Trust	21/22 (95%)
Northern Devon Healthcare NHS Trust	35/35 (100%)
Poole Hospital NHS Foundation Trust	31/32 (97%)
Royal Cornwall Hospitals NHS Trust	23/24 (96%)
Royal Devon and Exeter NHS Foundation Trust	38/40 (95%)
Royal United Hospitals Bath NHS Foundation Trust	37/40 (93%)
Salisbury NHS Foundation Trust	9/10 (90%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	39/39 (100%)
University Hospitals Bristol NHS Foundation Trust	25/28 (89%)
Yeovil District Hospital NHS Foundation Trust	13/16 (81%)

This slide shows the number and % of patients **who did have** a pre-transfusion Hb taken

Standard 2a : No patient is transfused with a pre-transfusion Hb > 70g/L without adequate clinical reason



Blood and Transplant

National	816/2745 (29.7%)
Regional	38/157 (24.2%)
Dorset County Hospital NHS Foundation Trust	1/4 (25%)
Great Western Hospitals NHS Foundation Trust	7/17 (41.2%)
North Bristol NHS Trust	1/9 (11.1%)
Northern Devon Healthcare NHS Trust	5/18 (27.8%)
Poole Hospital NHS Foundation Trust	1/14 (7.1%)
Royal Cornwall Hospitals NHS Trust	2/10 (20%)
Royal Devon and Exeter NHS Foundation Trust	5/14 (35.7%)
Royal United Hospitals Bath NHS Foundation Trust	0/21 (0%)
Salisbury NHS Foundation Trust	3/7 (42.9%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	9/21 (42.9%)
University Hospitals Bristol NHS Foundation Trust	1/8 (12.5%)
Yeovil District Hospital NHS Foundation Trust	3/14 (21.4%)

This slide shows the number and % of patients who **did not have** an adequate clinical reason for their transfusion

Standard 2b : No patient with Acute Coronary Syndrome or Cardiorespiratory Disease is transfused with a pre-transfusion Hb > 80g/L without adequate clinical reason

National	209/534 (39%)
Regional	16/25 (64%)
Dorset County Hospital NHS Foundation Trust	0/1 (0%)
Great Western Hospitals NHS Foundation Trust	1/1 (100%)
North Bristol NHS Trust	0/2 (0%)
Northern Devon Healthcare NHS Trust	2/3 (67%)
Poole Hospital NHS Foundation Trust	2/4 (50%)
Royal Cornwall Hospitals NHS Trust	1/1 (100%)
Royal Devon and Exeter NHS Foundation Trust	1/1 (100%)
Royal United Hospitals Bath NHS Foundation Trust	3/3 (100%)
Salisbury NHS Foundation Trust	-
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	3/4 (75%)
University Hospitals Bristol NHS Foundation Trust	-
Yeovil District Hospital NHS Foundation Trust	3/5 (40%)

This slide shows the number and % of patients **who did have** an adequate clinical reason for their transfusion

Standard 3 : A post-transfusion Hb is taken in 100% of cases within 3 days following transfusion (and preferably the same day) to assess the effectiveness of the red cell transfusion

National	4421/4715 (90%)
Regional	283/321 (88%)
Dorset County Hospital NHS Foundation Trust	11/12 (92%)
Great Western Hospitals NHS Foundation Trust	35/39 (90%)
North Bristol NHS Trust	20/22 (91%)
Northern Devon Healthcare NHS Trust	33/34 (97%)
Poole Hospital NHS Foundation Trust	27/32 (84%)
Royal Cornwall Hospitals NHS Trust	22/23 (96%)
Royal Devon and Exeter NHS Foundation Trust	30/38 (79%)
Royal United Hospitals Bath NHS Foundation Trust	30/36 (83%)
Salisbury NHS Foundation Trust	6/8 (75%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	36/37 (97%)
University Hospitals Bristol NHS Foundation Trust	26/28 (93%)
Yeovil District Hospital NHS Foundation Trust	7/12 (58%)

This slide shows the number and % of patients **who did have** a post-transfusion Hb taken

Standard 4 : People are clinically reassessed and have their haemoglobin levels checked after each unit of red blood cells they receive, unless they are bleeding or are on a chronic transfusion programme.



Blood and Transplant

National	383/1891 (21%)
Regional	16/82 (20%)
Dorset County Hospital NHS Foundation Trust	0/6 (0%)
Great Western Hospitals NHS Foundation Trust	2/9 (22%)
North Bristol NHS Trust	5/7 (71%)
Northern Devon Healthcare NHS Trust	0/8 (0%)
Poole Hospital NHS Foundation Trust	0/5 (0%)
Royal Cornwall Hospitals NHS Trust	2/5 (40%)
Royal Devon and Exeter NHS Foundation Trust	5/15 (33%)
Royal United Hospitals Bath NHS Foundation Trust	0/9 (0%)
Salisbury NHS Foundation Trust	0/2 (0%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	1/5 (20%)
University Hospitals Bristol NHS Foundation Trust	1/7 (14%)
Yeovil District Hospital NHS Foundation Trust	0/4 (0%)

This slide shows the number and % of patients who had more than one unit of red cells and **who did have** their Hb checked between units

Standard 4 : People are clinically reassessed and have their haemoglobin levels checked after each unit of red blood cells they receive, unless they are bleeding or are on a chronic transfusion programme.



Blood and Transplant

National	507/1891 (27%)
Regional	24/82 (29%)
Dorset County Hospital NHS Foundation Trust	1/6 (17%)
Great Western Hospitals NHS Foundation Trust	4/9 (44%)
North Bristol NHS Trust	4/7 (57%)
Northern Devon Healthcare NHS Trust	1/8 (13%)
Poole Hospital NHS Foundation Trust	0/5 (0%)
Royal Cornwall Hospitals NHS Trust	3/5 (60%)
Royal Devon and Exeter NHS Foundation Trust	5/15 (33%)
Royal United Hospitals Bath NHS Foundation Trust	1/9 (11%)
Salisbury NHS Foundation Trust	0/2 (0%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	5/5 (100%)
University Hospitals Bristol NHS Foundation Trust	0/7 (0%)
Yeovil District Hospital NHS Foundation Trust	0/4 (0%)


This slide shows the number and % of patients who had more than one unit of red cells and **who did have** a re-assessment between units

Standard 5 : People who may need or who have had a blood transfusion are given verbal and written information about blood transfusion.


National	2581/5155 (50%)
Regional	171/340 (50%)
Dorset County Hospital NHS Foundation Trust	11/14 (79%)
Great Western Hospitals NHS Foundation Trust	8/40 (20%)
North Bristol NHS Trust	19/22 (86%)
Northern Devon Healthcare NHS Trust	3/35 (9%)
Poole Hospital NHS Foundation Trust	14/32 (44%)
Royal Cornwall Hospitals NHS Trust	1/24 (4%)
Royal Devon and Exeter NHS Foundation Trust	12/40 (30%)
Royal United Hospitals Bath NHS Foundation Trust	29/40 (73%)
Salisbury NHS Foundation Trust	10/10 (100%)
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	38/39 (97%)
University Hospitals Bristol NHS Foundation Trust	18/28 (64%)
Yeovil District Hospital NHS Foundation Trust	8/16 (50%)

This slide shows the number and % of patients **who were given** information

Recommendations

- Significant numbers of patients without moderate or severe symptoms of anaemia are being transfused when their Hb levels are above the recommended thresholds. **Trusts should ensure that there is an appropriate reason for selecting red cell transfusion at the treatment of choice.**
 - Over 80% of patients diagnosed with iron deficiency received iron replacement in some form during their admission. It is not clear why the remainder were not documented as receiving this, but there are several plausible explanations. **Trusts should look at their own cases here to ensure that correctable anaemia is not being missed.**
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Recommendations

- 21% of transfused patients had their haemoglobin level checked after transfusion, and 27% did had a clinical re-assessment. **Trusts should assure themselves that the NICE and British Society of Haematology recommendations, amongst others, are supported within their medical settings, and practice audited as required.**
 - Only 50% of transfusions had documentation of informed consent (for this or a previous transfusion). **Trusts should assure themselves that there is a robust system in place to help transfusion authorisers to remember to take consent and to have access to patient information sources.**
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Audit Project Group



Blood and Transplant


- **Medical**

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- **Ben Chadwick**, Consultant Physician, University Hospital Southampton
- **Sarah Hearnshaw**, Consultant Gastroenterologist, Newcastle upon Tyne Hospitals NHSFT
- **James Reid**, Consultant Physician, University Hospitals of Leicester & RCP Rep on NBTC
- **Jacob de Wolff**, Consultant Acute Physician, Northwick Park Hospital

- **Nursing/Scientific**

- **Aimi Baird**, Transfusion Practitioner, Newcastle NHS Foundation Trust
- **Tanya Hawkins**, Transfusion Practitioner, Royal Berkshire NHS Foundation Trust
- **Frances Sear**, Patient Blood Management Practitioner, NHSBT
- **Selma Turkovic**, Patient Blood Management Practitioner, NHSBT

- **Audit Support**

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