



BACKGROUND

Barnsley Hospital is a busy district general hospital located just off J37 M1, serving several towns around Barnsley in South Yorkshire. The laboratory is integrated with Rotherham District General forming BRILS.

500 Bed Hospital

Moderate RBC user – BSMS Category

Approx. 4000 RBC units transfused annually*

9.5% O Negative (% of total RBC issues)*

30 (ABO) units TIMEX*

*2019 data (extracted from VANESA)

IMPROVEMENTS (2018 ⇨ 2021)

BSMS workshop & stock review tool

Analysis & review of current red cell stock performance based on data



Adoption of JPAC guideline change

Implementation of “60 minute rule” for red cell stock “outside temperature control of laboratory” - OTCOL



Emergency red cell specification

Introduction of O Positive emergency red cell units for males



Ongoing staff education & support

BMS empowerment to challenge inappropriate requests & stock management



USING THE BLOOD STOCKS MANAGEMENT SCHEME STOCK REVIEW TOOL

The spreadsheet is populated with data extracted from VANESA. The aim is to use the data to optimise red cell stock levels, adjust levels accordingly **and monitor the impact of the change.**

Figure 1 Group O Positive RBC Issues vs. RBC Stock showing local trends over the past 24 months.

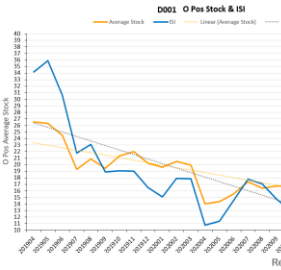
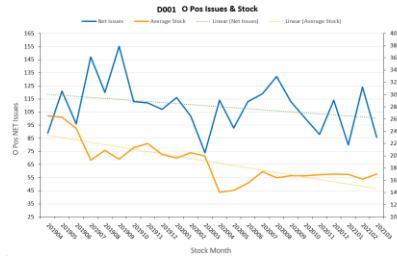


Figure 2 Group O Positive Stock vs. Issuable stock Index (ISI). ISI is a calculated measure demonstrating the number of days worth of stock being held. The impact of reducing stock on ISI can be seen.

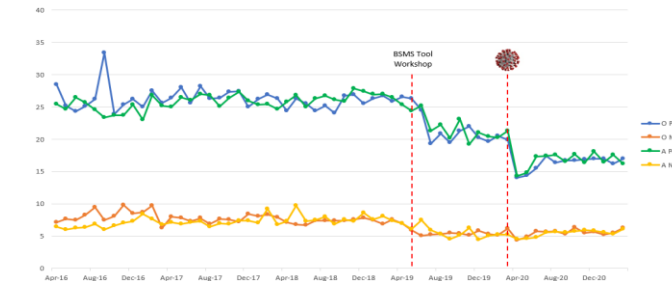


Figure 3 Average Red Cell stock (O & A) overview over the past 5 years including key influences and dates for stock changes.

Table 1: Barnsley Hospital Blood Stock Level using the BSMS Tool (Pre & Post COVID-19 Pandemic)									
	O+	O-	A+	A-	B+	B-	AB+	AB-	Total
Original stock levels	30	8	30	8	6	2	2	2	88
Pre-COVID (data guided)	25	6	25	6	6	2	2	2	74
COVID adjusted levels	17	5	17	5	3	2	2	2	53
Current (2021)	20	6	20	6	4	2	2	2	62

30%
reduction in hospital red cell stock

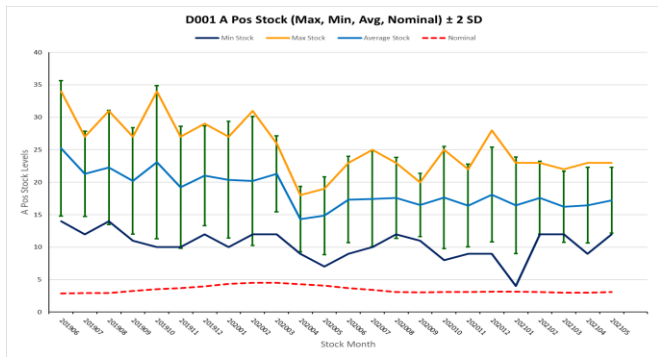


Figure 4 Group A Positive daily Max/Min/Average stock compared with A Positive nominal stock (Nominal stock equates to 1 days worth of stock minus wastage)

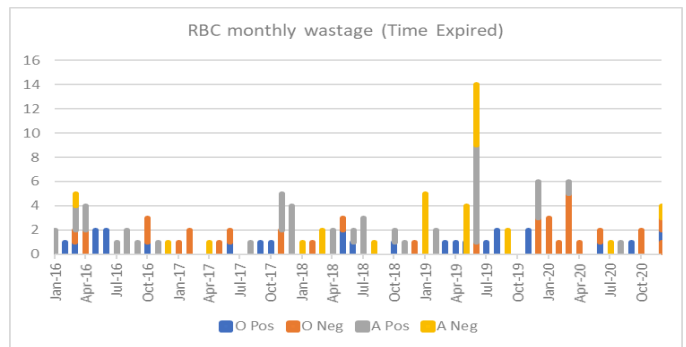


Figure 5 TIMEX (time expired) RBC wastage from 2016 to 2020.

VARIABLES

? COVID-19 Pandemic



Reduction in Hospital Admissions

CONSIDERATIONS

Cost of transportation Barnsley ⇨ Sheffield



£45.16 taxi round trip (26.6m) + £11 admin **£56.16 Total**



£138.83/RBC unit*2019/20 prices

60% cost saving from 1 RBC wasted – better to hold less stock and order regularly rather than waste a unit

Use of Blood Bikes reduce courier costing further



Takes time to reach optimum stock levels, a **small decrease has a huge impact!** Every unit saved helps support the supply chain.

TRUST ACHIEVEMENT'S

- Consistently amongst hospitals with lowest % O neg red cell issues (compared to similar sites)
- Excellent TIMEX red cell wastage figures - saves money and a resource in limited supply
- Saved 15 units using OTCOL '60-minute rule'
- 8.5% O Negative RBC % issue
- Less pressure on staff of units expiring from agile stock holding



Can YOU make a difference too?