

Use of O Blood in Emergencies and Massive Haemorrhage

Fridges on-site or off-site & wastage, appropriate use, and O-negative use

Spearman's rho correlations (Two tailed significance shown in brackets)	Total number of Blood Fridges	Total number of Blood Fridges corrected for usage volume	Number of Blood Fridges off-site from laboratory	Off-site Blood Fridges corrected for usage volume
WAPI – O ⁻ red cells	-0.19 (0.942)	0.133 (0.598)	0.265 (0.287)	0.346 (0.159)
WAPI - all red cells	-0.009 (0.973)	0.218 (0.385)	0.147 (0.559)	0.331 (0.180)
Percentage O ⁻ units given to O ⁻ patients ^a	-0.104 (0.692)	-0.080 (0.760)	0.191 (0.463)	0.101 (0.699)
O ⁻ as a percentage of all issues	0.475 (0.047)*	0.476 (0.046)*	0.384 (0.116)	0.313 (0.206)

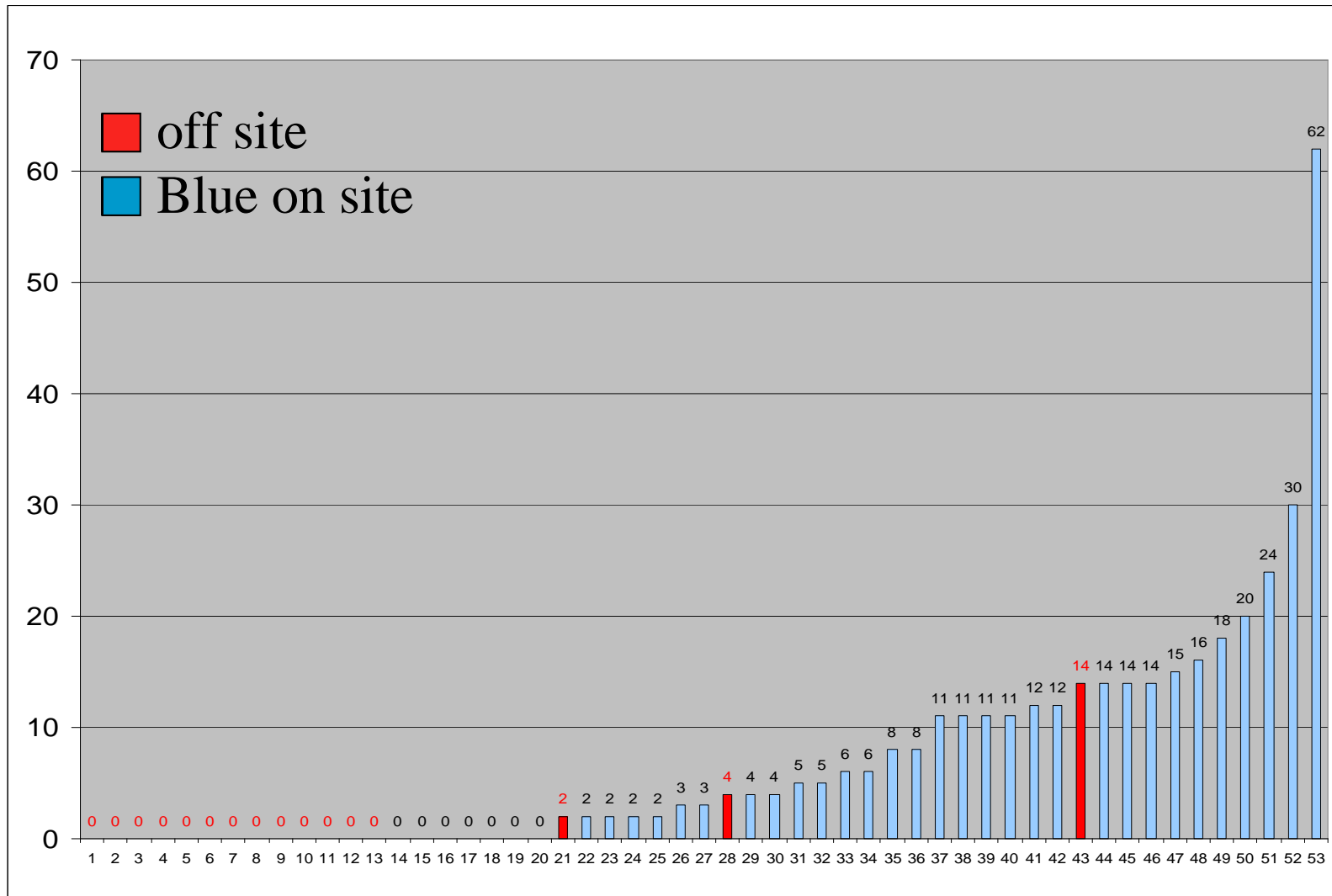
↑ fridges → ↑ O⁻ as % of all issues. No association - fridges and wastage or appropriate use

Stock rotation, appropriate use & wastage

Spearman's rho correlations (Two tailed significance shown in brackets)	Shelf-life on rotation back to stock	Percentage O ⁻ units given to O ⁻ patients ^α
WAPI O RhD negative red cells	-0.597 (0.009)*	-0.312 (0.222)
WAPI all red cells	-0.510 (0.031)*	-0.571 (0.017)*
Percentage O ⁻ units given to O ⁻ patients ^α	0.116 (0.657)	-
O ⁻ as a percentage of all issues	0.079 (0.755)	-0.599 (0.011)*

↑ shelf life on rotation back to stock → ↓ wastage
 Appropriate use → ↓ O⁻ as % issues and ↓ red cell wastage

O- use 53 fridges January – December 2010



Usage from other 19 fridges reported as 'not known'

20 fridges no use (13 off site)

36 of 48 on site fridges had resupply time ≤ 5 mins

BCSH Guidelines 2012

Pre-transfusion compatibility 2012

KEY RECOMMENDATION: Unless secure electronic patient identification systems are in place, a second sample should be requested for confirmation of the ABO group of a first time patient prior to transfusion, where this does not impede the delivery of urgent red cells or other components

CODE RED TRAUMA - MASSIVE HAEMORRHAGE

CODE RED

Take baseline blood samples prior to transfusion for:

- FBC, G&S, clotting screen and fibrinogen
- Near patient testing – ABG, FBC and ROTEM

Nominate a member of team to call blood bank on 61108 to activate **CODE RED**

- State “patient unique identifier & **CODE RED TRAUMA**”
- Request:
EITHER “**CODE RED PACK A**” (contains: 6 units RBC, 4 units FFP)
OR
“**CODE RED PACK B**” (contains: 6 units RBC, 4 units FFP, 1 unit platelets, 2 pools cryoprecipitate)
- Send porter to lab to collect pack immediately

Take Immediate Blood Transfusion (red cells) from RESUS fridge

- Use O NEG units in females or O POS units in males
- Use group specific blood as soon as available

Check Ca++ levels after 6 units of RBC

How can we ↓ O –ve use?

- Issue group specific blood if urgent after 1 sample
- Stock rotation of emergency O –ve units with > 10 days shelf life on return to stock
- Reconsider the need for O-ve in remote fridges –
 - ? necessary if < 5 mins from main fridge
 - ? keep O+ve in remote fridges where use is very unlikely (NPSA/2007/RRR003 & 2010/RRR017)
- O +ve initially in massive haemorrhage in men