

FATE OF O D NEG RED CELLS

In the NE RTC Region

30th Jan – 12th Feb

20th Feb – 5th Mar 2017

BACKGROUND

- Proportionate rise in demand
 - Recommendations around 2-sample rule
 - Reorganisation of pathology services
 - Increasing numbers of allogeneic BMTs
 - Protocolisation of major haemorrhage management
 - Increasing need in the haemoglobinopathy population
-
- Occasional supply alerts
 - Possibility of differential pricing

METHODS

- Collection of the fate of each O D neg red cell unit transfused in the NE&Cumbria over a four week period:
 - 30th Jan – 12th Feb
 - 20th Feb – 5th Mar 2017
- Patient sex and age
- Wastage data
- O D neg proportion in each hospital / Trust population

METHODS

- Snap survey accessed via link

North East
Regional Transfusion Committee

NHS
Blood and Transplant

Where does O negative blood go?

Q1 Please select your hospital/trust from the drop down menu
--Click Here--

Other - please state
[Text Input]

Q2 What was the total number of group and screens carried out by the laboratory in the time periods given above?
[Text Input]

Q3 What was the number of group and screens carried out by the laboratory for each blood group in the time period given above?

O+	[Text Input]
O-	[Text Input]
A+	[Text Input]
A-	[Text Input]
B+	[Text Input]
B-	[Text Input]
AB+	[Text Input]
AB-	[Text Input]
Total unresolved/unconfirmed (indicate "0" if none)	[Text Input]

← Back Reset Next →

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North East
Regional Transfusion Committee

NHS
Blood and Transplant

Where does O negative blood go?

Q1 Please select your hospital/trust from the drop down menu
--Click Here--

Other - please state
[Text Input]

Q2 What is the age of the patient?
[Text Input]

Q3 Patient sex?
--Click Here--

Q4 Patient blood group?
--Click Here--

Q5 Transfusion category?
--Click Here--

Other?
[Text Input]

Q6 Wastage Category?
--Click Here--

Thank you for completing details for this unit. Please click on "submit" to send your data

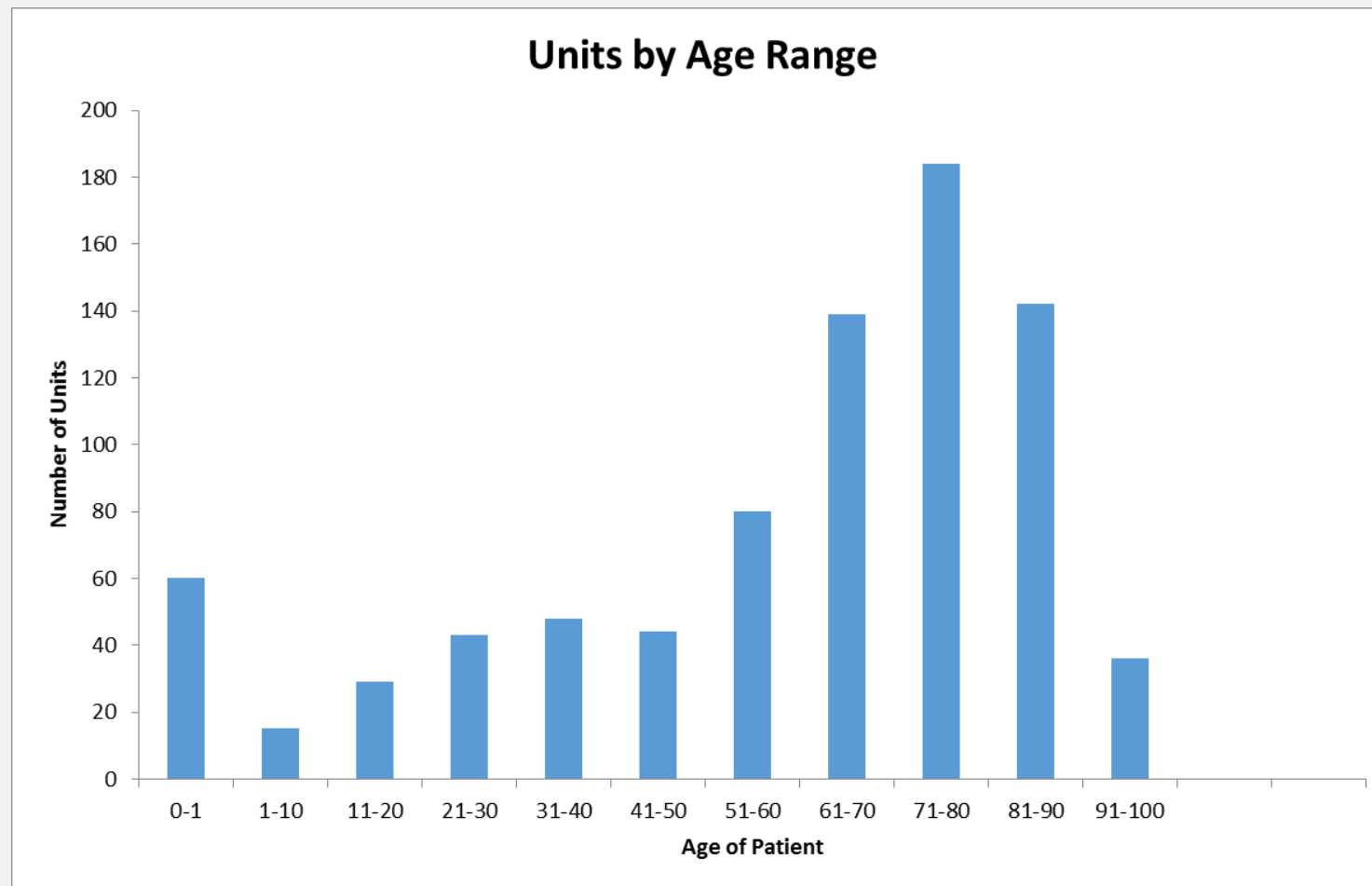
← Back Reset Submit ✓

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RESULTS (A)

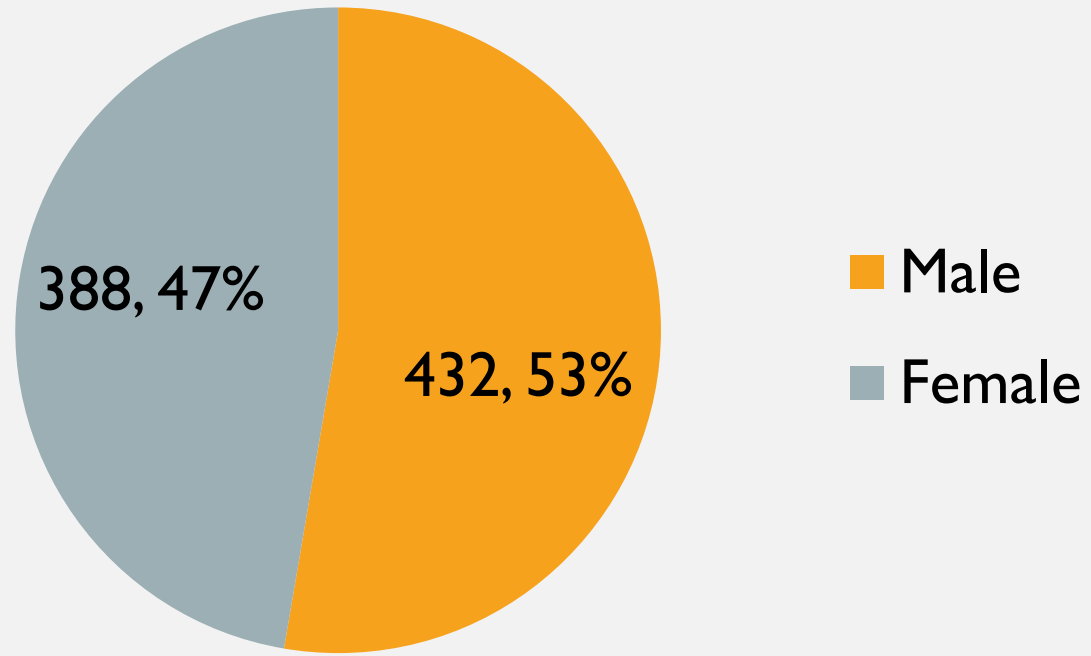
- Survey A: data on 820 units returned
- Average monthly issue in NE region over year to Jan 2017 – 947
- 4-weekly average therefore 855
- 95.9% (estimated) capture
- Survey B: denominator of 20457 G&S

RESULTS (A)

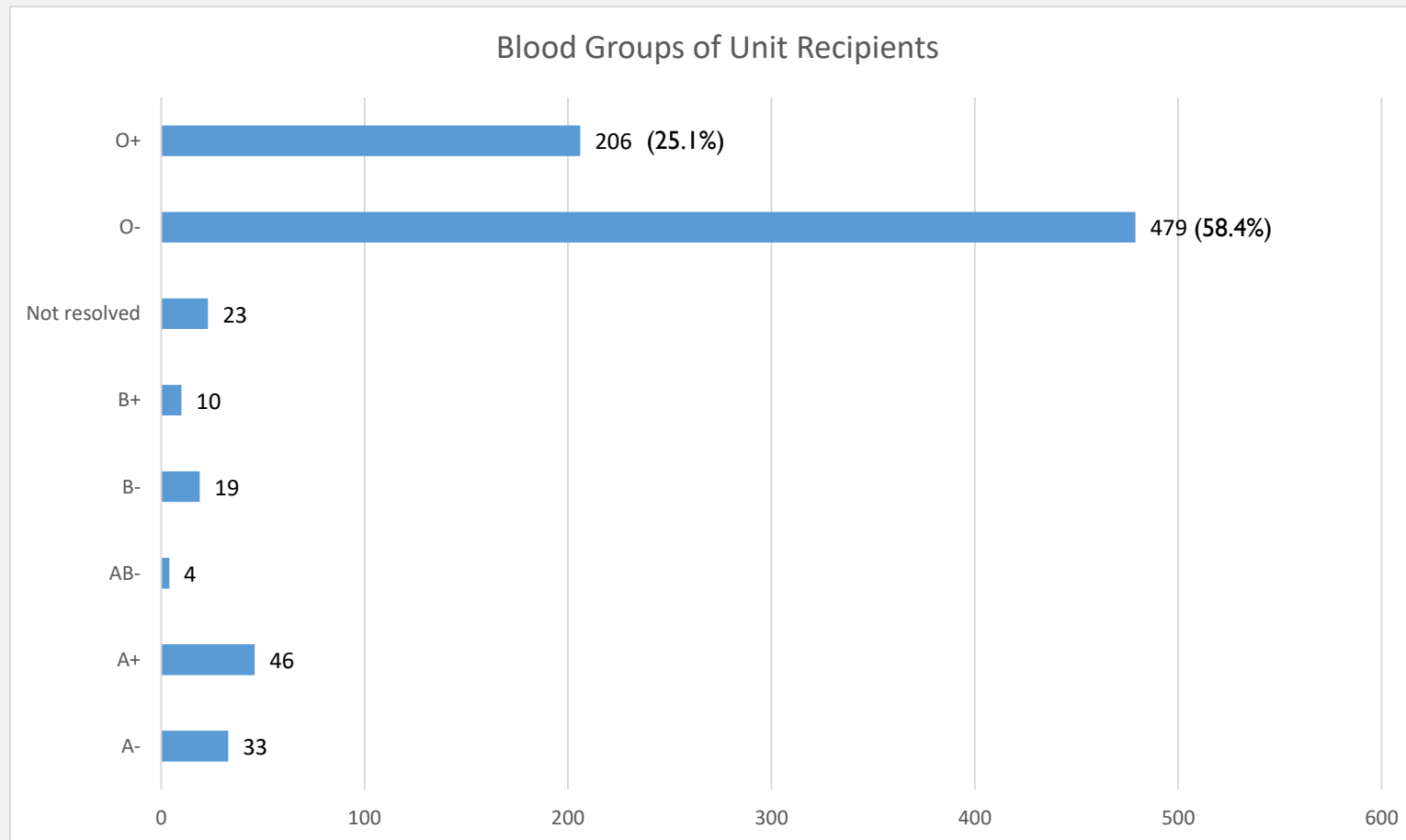


RESULTS (A)

Units by Sex

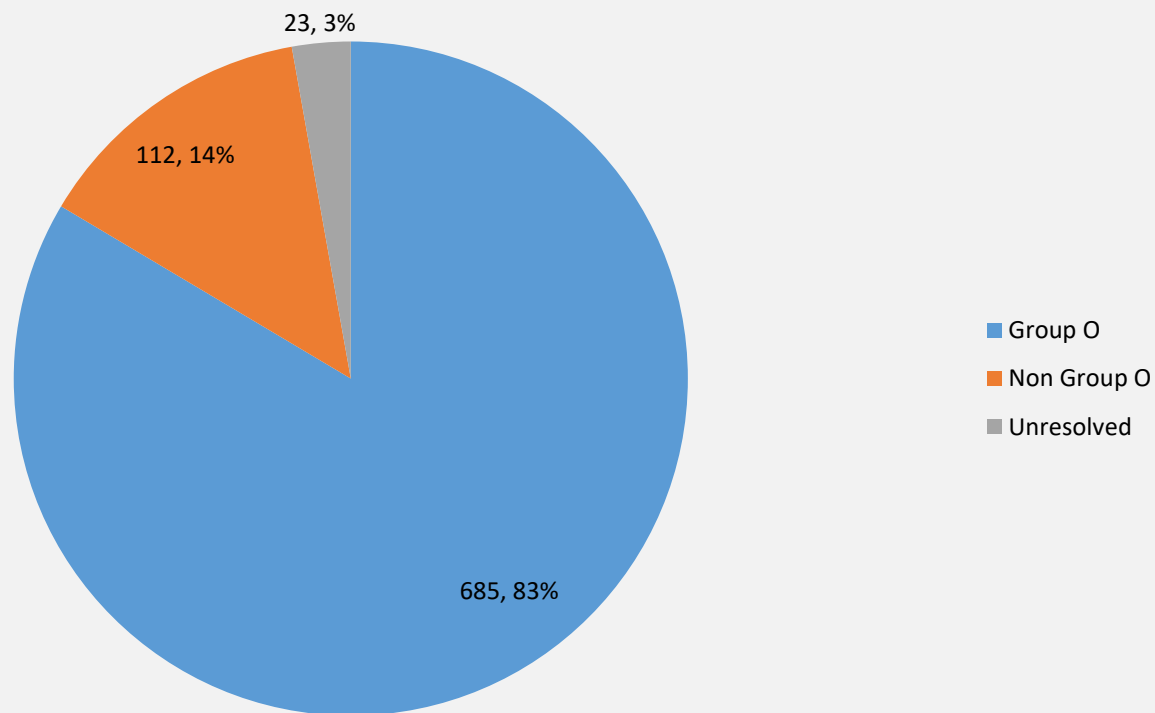


RESULTS (A)

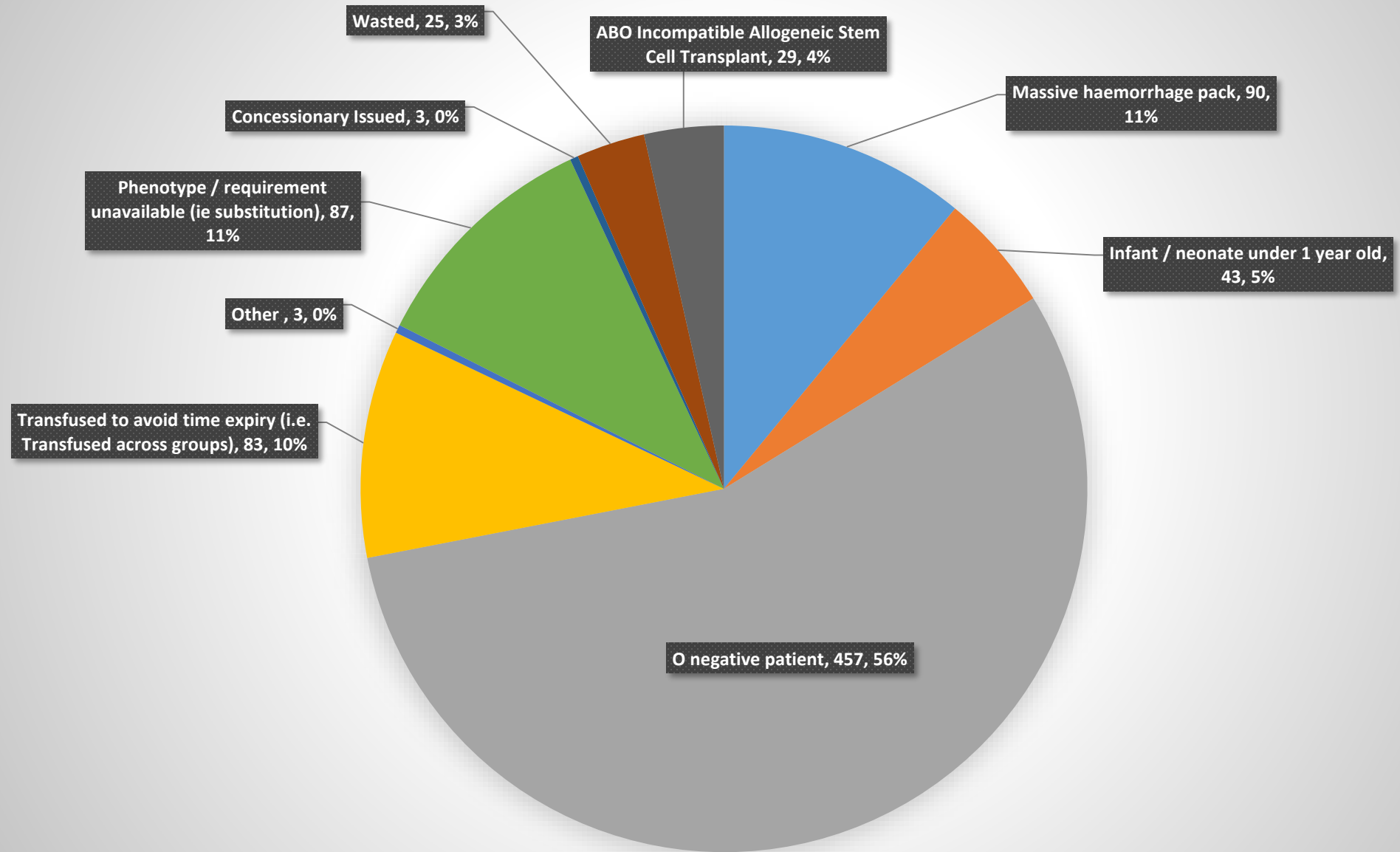


RESULTS (A)

Blood Groups of Unit Recipients

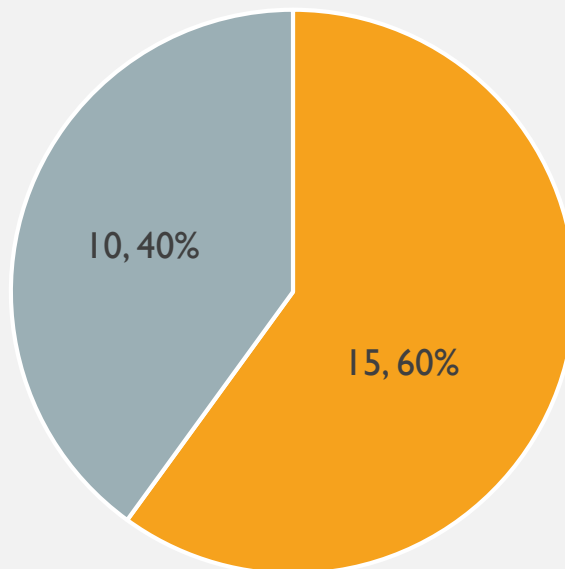


Fate of O Neg Units



RESULTS (A)

Wastage Category

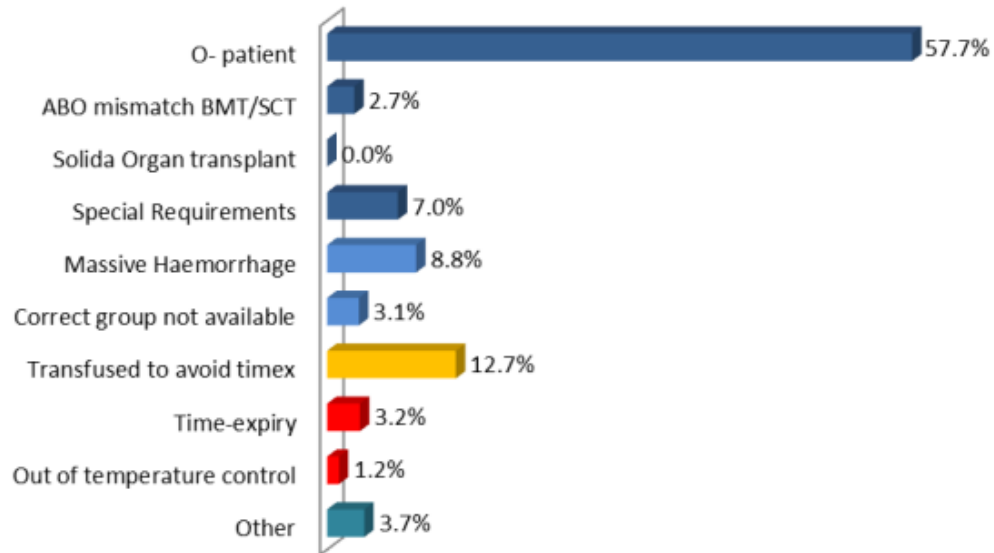


■ Time Expired

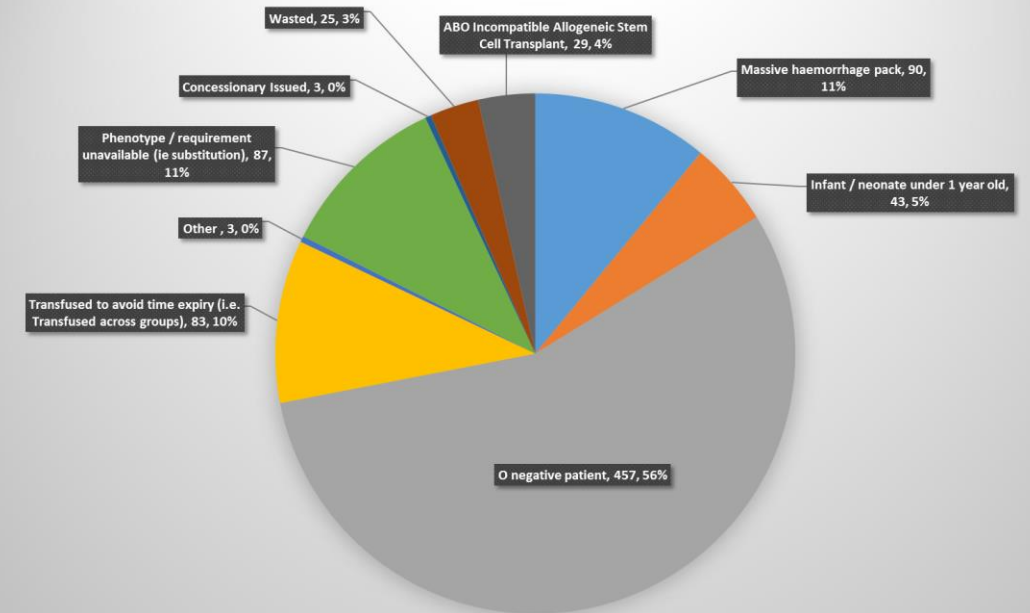
■ Out of Temp Control

RESULTS / COMPARISON (A)

All O D- results from Survey



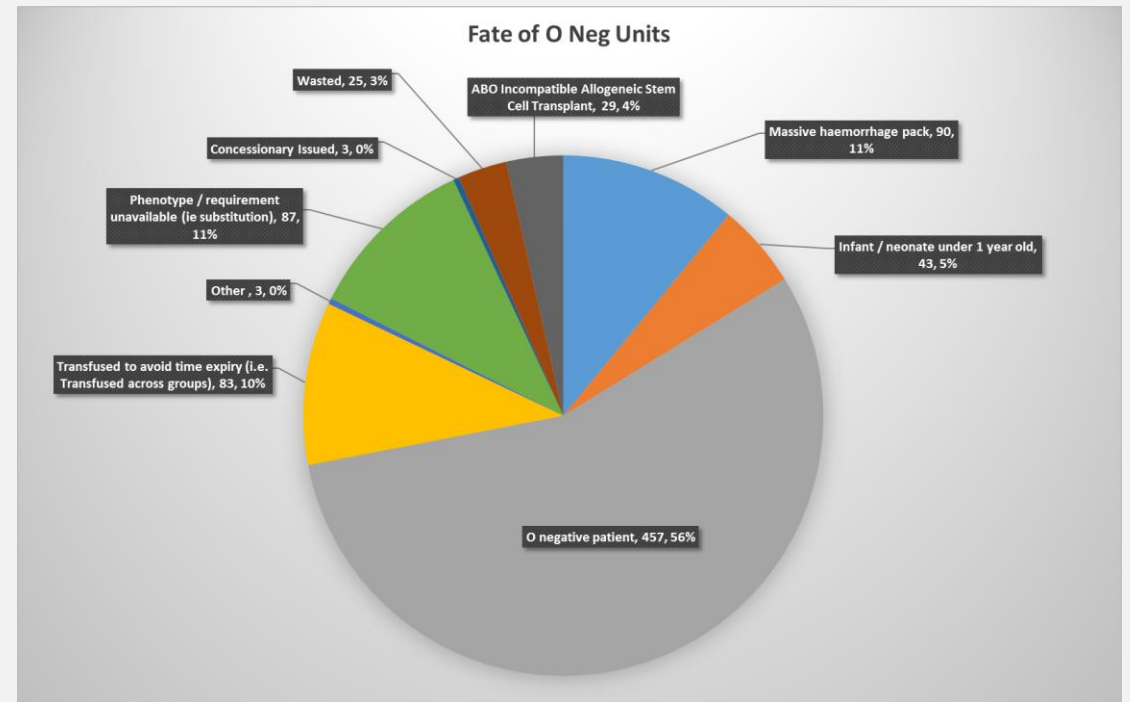
Fate of O Neg Units



INTERNATIONAL COMPARISON (A)

- Australia (ARCBS)
- 5 weeks in 2015
- 6387 units
- 47% into Gp O D Neg
- 17.4% pheno / special req
- 24.5% TIMEX
- 7.9% wastage

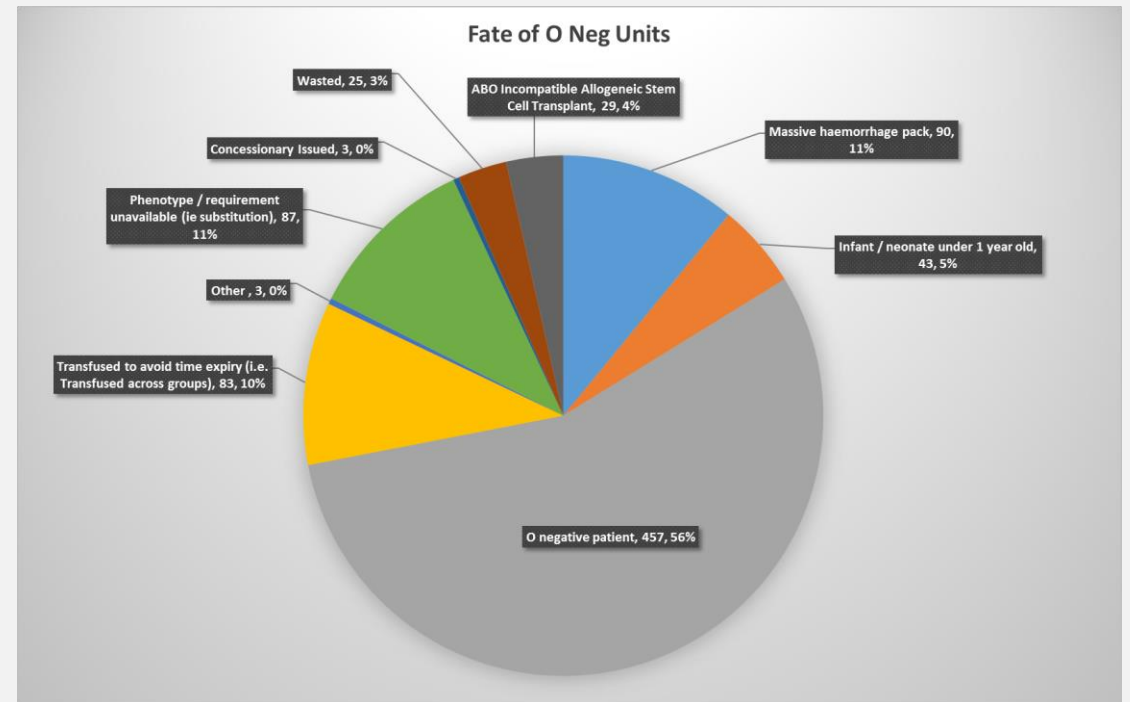
Hirani, R. *et al.* Transfusion
2017(57):1254-1261



INTERNATIONAL COMPARISON (A)

- Ontario (TRUST database)
- April 2002-Mar 2014
- 314,968 all transfusions
- 8.9% O into non-O
- 23.7% pheno / special req
- 10% NICU
- 4.2% trauma
- TIMEX 2.5%

Barty, R. L. *et al.* Vox Sanguinis
2017(112):336-342



RESULTS (B)

- Survey B:
- Overall O D Neg: 8.8%
- Range 7.5 – 10.7%

RESULTS / COMPARISON (B)

Table 1 provides a summary of the mean distributions of ABO and RhD types across England, Northern Ireland and Wales. Table 2 further breaks the distribution of ABO and RhD types by regional transfusion committees (RTCs) in England and North Wales.

Table 1: Blood group distributions within national regions

	O+	O-	A+	A-	B+	B-	AB+	AB-	Sample size	Responses
England All	37.66	7.81	32.90	6.94	9.32	1.68	3.04	0.64	1339911	101
England (Excl. London)	37.48	8.09	33.26	7.21	8.71	1.69	2.92	0.65	1171045	90
Wales	38.19	8.20	33.05	6.76	7.94	1.54	2.81	0.51	60308	9
NI*	36.96	14.62	25.65	9.13	8.00	2.83	2.05	0.75	10809	2

Table 2: Blood group distributions within RTC regions

	O+	O-	A+	A-	B+	B-	AB+	AB-	Sample size	Responses
East Midlands	35.35	8.83	34.90	8.33	7.54	1.70	2.68	0.67	40607	5
East of England	35.59	8.67	34.14	8.50	7.80	1.78	2.85	0.67	116116	8
London	39.01	5.90	30.52	5.05	13.53	1.60	3.88	0.51	168866	11
North East	39.17	9.04	31.30	6.96	8.40	1.90	2.39	0.83	169274	4
North West (Inc. N Wales)	39.12	7.90	31.81	6.36	9.64	1.64	2.99	0.54	219455	19 ¹
South Central	37.14	7.49	33.48	7.03	9.34	1.65	3.27	0.61	133418	13
South East Coast	36.57	7.70	34.87	7.26	8.08	1.73	3.01	0.77	124931	10
South West	36.91	7.89	34.83	7.74	7.69	1.49	2.84	0.61	159057	11
West Midlands	37.41	7.86	33.11	7.08	9.26	1.64	3.04	0.59	130693	12
Yorkshire & The Humber	37.47	7.92	32.83	6.89	9.42	1.69	3.19	0.60	107256	10

¹ Of which, 3 were from North Wales

CONCLUSION

- Practice in the NE RTC region is comparable to the rest of England
 - Wastage level appears to be good overall
 - Slightly higher substitution rate
 - Higher MHP use
 - Still space for improvement (10% TIMEX use)
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- Higher O D neg proportion in the NE&C population – possibly falling

THANKS

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