

Ontario 2015 O Rh Negative RBC Audit

Background: In 2013/14 ORBCoN facilitated an audit of O Rh Negative RBC to non-Rh Negative recipients within all 3 regions of Ontario. The results of these audits identified a high percentage of O Rh Negative units were provided by CBS to hospitals that requested phenotyped units for special patient populations (e.g. sickle, thalassemia and patients with clinically significant RBC antibodies regardless of the recipient's blood type). Hospitals were also transfusing a significant percentage of O Rh Negative RBC units to non –Rh Negative recipients to prevent outdating.

Initiatives were recommended to hospitals to encourage best practices for the use of O Rh Negative RBC units such as:

- Careful review of inventories to decrease (where possible) the number of O Rh Negative RBC units held for stock if a high number are transfused to avoid outdating, or transferred to another site to avoid outdating
- Review of hospital policies on use of O Rh Negative RBCs in trauma to males and females over childbearing potential age
- Review of CIHI data on maternal age at delivery in Ontario to provide suggested risk for setting an age cut-off for females of child bearing potential at 45
- CBS to Increase phenotyping of more O Positive and A and B donors

ORBCoN facilitated the 2015 O Rh Negative RBC Audit to measure any changes that the above initiatives may have made.



Results:

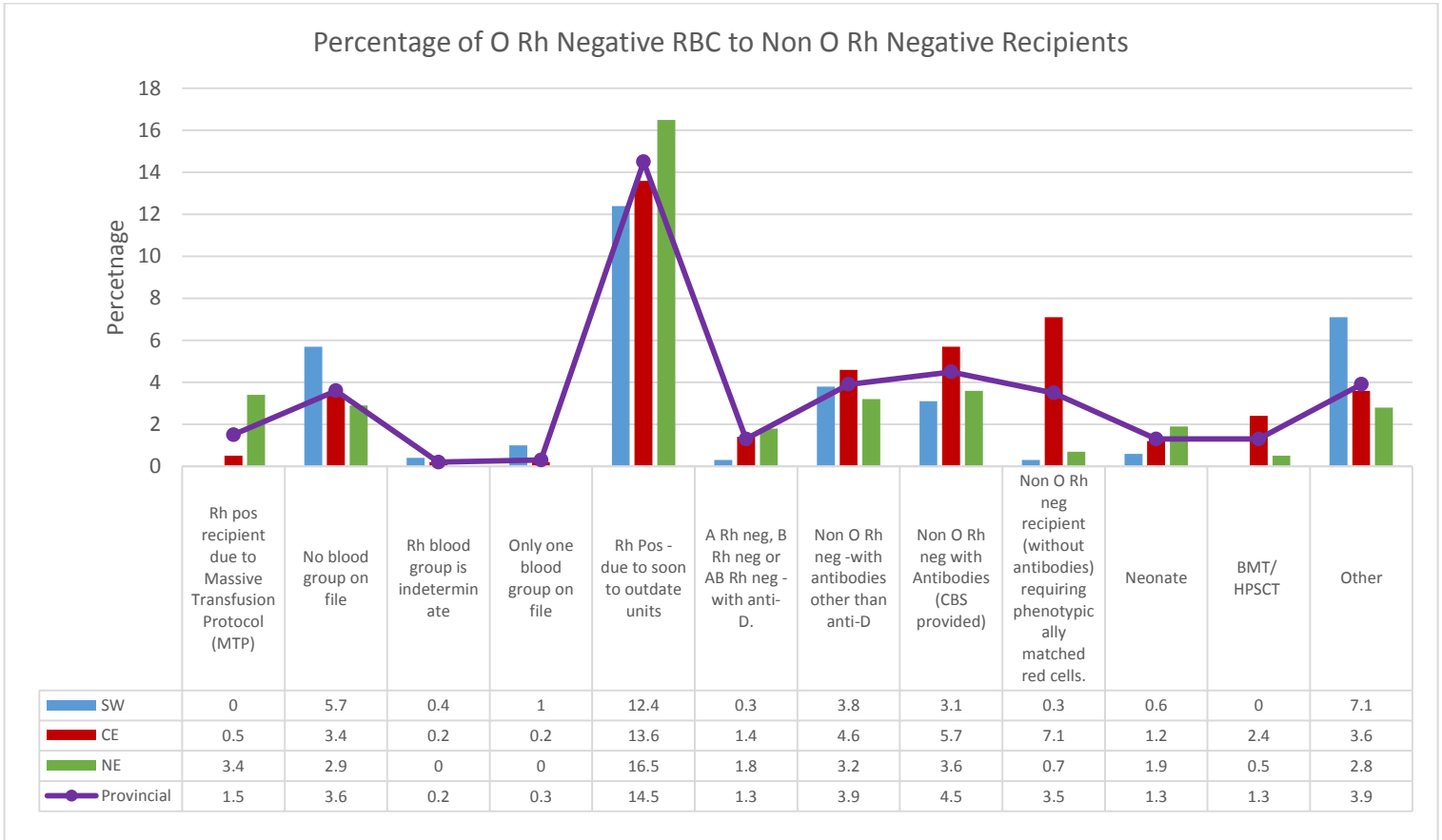


Figure 1 Provincial % of O Rh Negative RBC to non-O Rh Negative recipients



Table 1: Regional/Provincial O Rh Negative RBC Data

	Total Txd	Group O Rh neg recipient	Rh pos recipient due to Massive Transfusion Protocol (MTP)	No blood group on file	Rh blood group is indeterminate	Only one blood group on file	Rh Pos - due to soon to outdate units	A Rh neg, B Rh neg or AB Rh neg -with anti- D.	Non O Rh neg -with antibodies other than anti- D	Non O Rh neg with Antibodies (CBS provided)	Non O Rh neg recipient (without antibodies) requiring phenotypically matched red cells. (sickle cell, thalassemia, etc)	Neonate	BMT/ HPST	Other
SW	1051	678 (64.5%)	0 (0.0%)	60 (5.7%)	4 (0.4%)	11 (1.0%)	130 (12.4%)	3 (0.3%)	40 (3.8%)	33 (3.1%)	3 (0.3%)	6 (0.6%)	0 (0.0%)	75 (7.1%)
NE	2212	1385 (62.6%)	76 (3.4%)	64 (2.9%)	1 (0.1%)	1 (0.1%)	365 (16.5%)	39 (1.8%)	71 (3.2%)	75 (3.4%)	16 (0.7%)	41 (1.8%)	12 (0.5%)	62 (2.8%)
CE	2699	1510 (55.9%)	13 (0.5%)	91 (3.4%)	5 (0.2%)	6 (0.2%)	368 (13.6%)	38 (1.4%)	124 (4.6%)	155 (5.7%)	192 (7.1%)	33 (1.2%)	66 (2.4%)	98 (3.6%)
Total ON 2015 N= 84	5962	3573 (59.9%)	89 (1.5%)	215 (3.6%)	10 (0.2%)	18 (0.3%)	863 (14.5%)	80 (1.3%)	235 (3.9%)	267 (4.5%)	211 (3.5%)	80 (1.3%)	78 (1.3%)	235 (3.9%)

*8 units were unaccounted for



Comparison results:

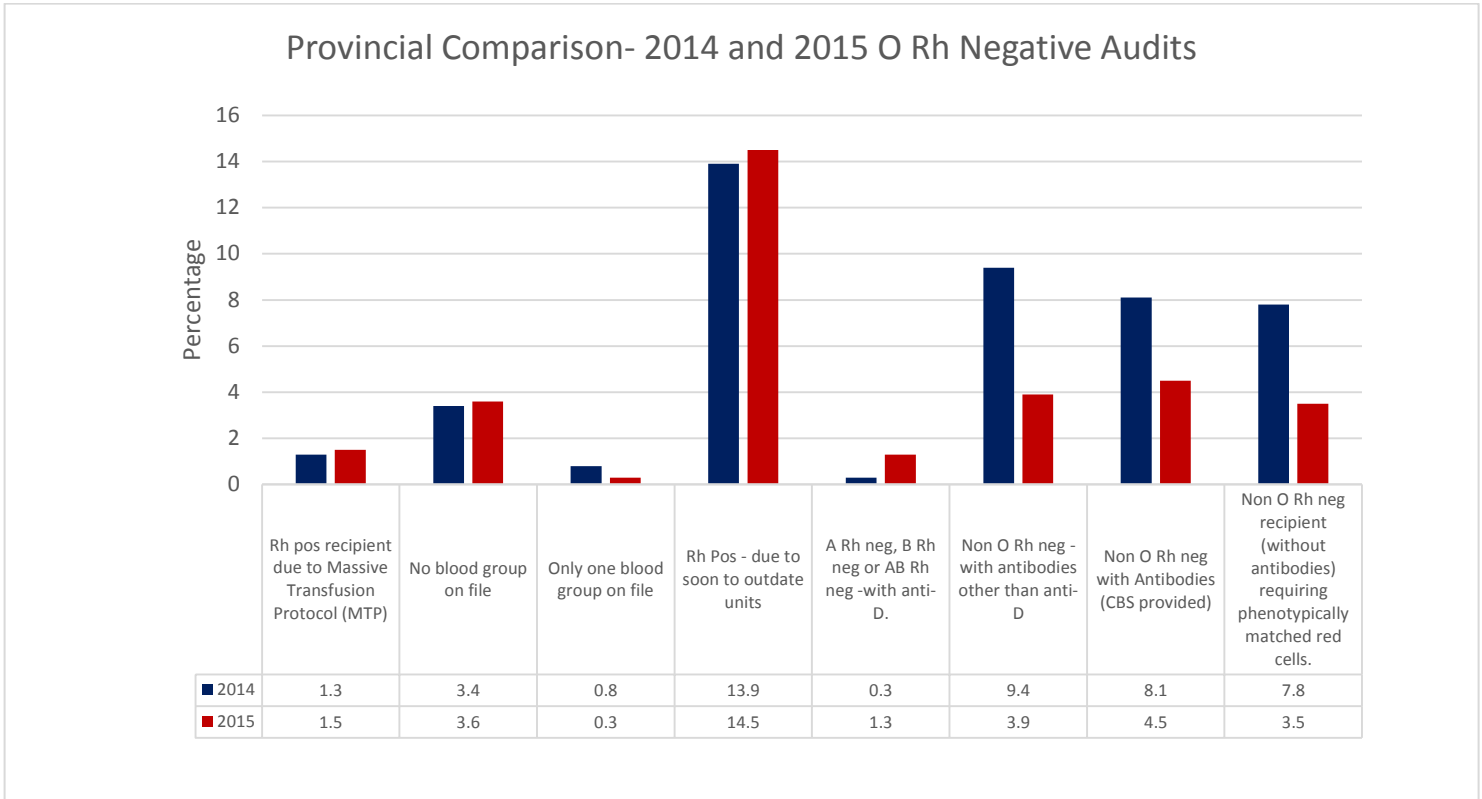


Figure 2. Comparison from 2014 audit to 2015 audit

Maternal Age Results

During the last month of data collection sites were asked questions regarding their policies on maternal age and use of O Rh negative RBC for males when issuing uncrossmatched units for urgent transfusion. The results show that the age cut off for females of child bearing potential among the sites participating in the audit most commonly used is 45 (42.7%).

The majority of the hospital sites taking part in the audit answered that their policy regarding males when issuing uncrossmatched units for urgent transfusion was:

“All males regardless of age are issued O Rh positive RBC uncrossmatched units for urgent transfusion” 28 (31.3%).

