

## ONTARIO RED CELL OUTDATE BENCHMARKS

Hospitals with transfusion services in Ontario have been very successful in meeting the red blood cell (RBC) outdate benchmarks identified in 2009 by ORBCoN, using a model developed in collaboration with (using expertise of) McMaster Centre for Transfusion Research (MCTR).

In 2012 and 2014, the RBC outdate benchmarks for Ontario were re-calculated. The reasons that the 2012 benchmarks were not officially re-communicated were:

1. The benchmark model originally designed with a regression analysis model, identified two variables as being vital to the categorization of hospitals and benchmark levels
  - a. Distance to the blood supplier
  - b. Number of RBC units transfused at a hospital site
2. In 2012, 102 hospitals formerly served by the Toronto, Hamilton and London Canadian Blood Services distribution sites began receiving blood from the Brampton site. This changed the original distances and assumptions on which the first benchmarks were set.
3. As a result of the CBS distribution centres consolidating to Brampton, it was thought there was a need for a one year stabilization period.

The results of the 2014 re-calculation, along with the previous results are shown in the table below. Please note that some hospitals may have moved categories due to the blood supplier being closer or further away from them after the Brampton consolidation.

Category 1:  $\leq 64$  km to supplier and/or transfuse  $\geq 200$  RBC/month.

Category 2: 65-484 km and transfuse  $\leq 199$  RBC/month.

Category 3:  $\geq 485$  km and transfuse  $\leq 199$  RBC/month

BM Category	1 <sup>st</sup> check point Data Apr.2006-Dec.2007		2 <sup>nd</sup> check point Data Jan.2008-Jun.2009		3 <sup>rd</sup> check point Data Jul.2009-Feb.2012		4 <sup>th</sup> check point Data Jul.2012-Mar.2014	
	Median	25 <sup>th</sup> %ile	Median	25 <sup>th</sup> %ile	Median	25 <sup>th</sup> %ile	Median	25 <sup>th</sup> %ile
1	0.9	0.4	0.6	0.2	0.6	0.2	0.3	0.1
2	5.0	1.1	1.8	0.5	1.7	0.4	0.5	0.0
3	41.8	20.3	30.7	17.0	11.1	6.7	1.6	0.2

At the 4<sup>th</sup> checkpoint, outdate rates throughout the province are very low. It is important to balance these low outdate rates with other inventory management practices to ensure the best management occurs. Inventory levels need to be optimized (i.e. ensure you stock sufficient inventory to meet your patients' needs), redistribution of near to expiry units needs to be kept as low as possible and frequency of orders to the blood supplier need to be kept to a minimum.

