

Project: Reducing O Negative Usage in a Tertiary Academic Medical Center

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Problem/Impact Statement:

O negative red blood cells are the universal donor and can be used for most patients in an emergency situation. Unfortunately, only 7% of the blood supply is O negative and there is the potential for misuse. We do not want to inappropriately use O negative red blood cells on non O negative patients. We strive to be good stewards of our blood products by respecting the donors in the blood supply and staying within blood supplier guidelines.

Scope:

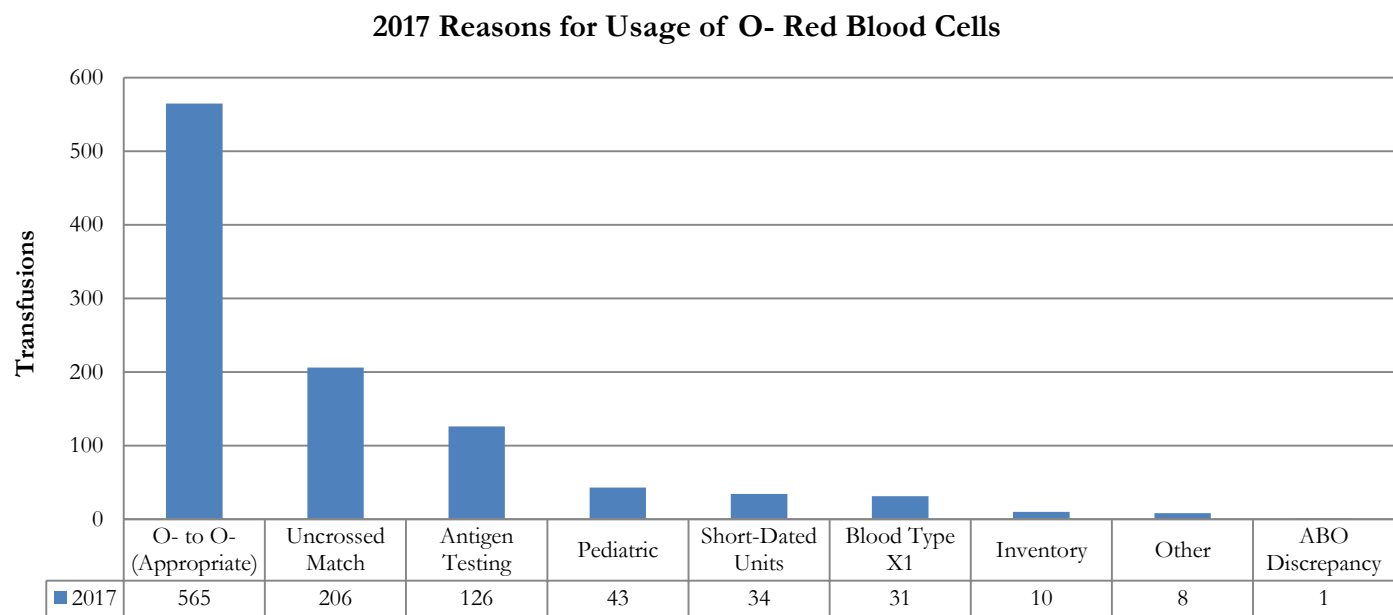
In: O Negative Red Blood Cell Transfusions at MMC

Out: O Negative Red Blood Cell Emergency Release Transfusions or appropriate transfusions of O negative red blood cells.

Goal/Objective:

O negative red blood cells should make up less than 12% of all blood types transfused by fiscal year 2018.

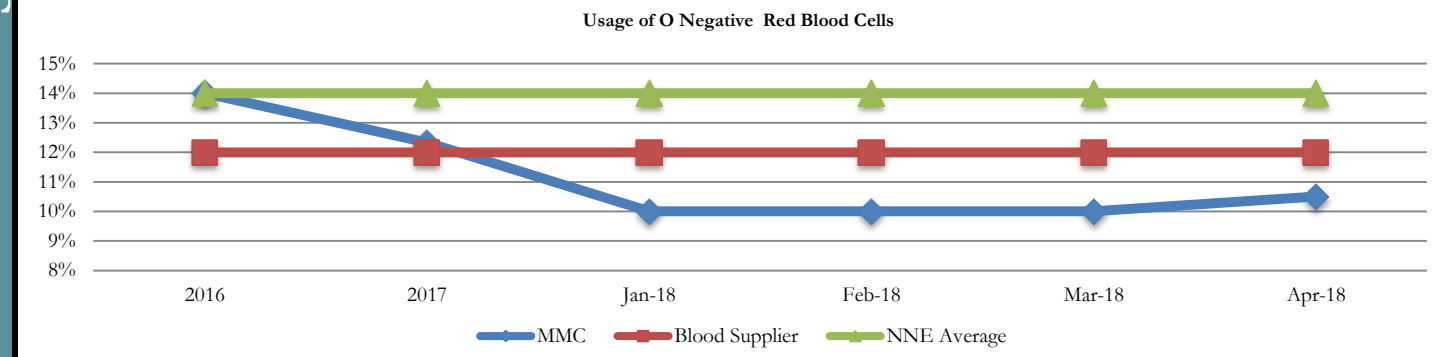
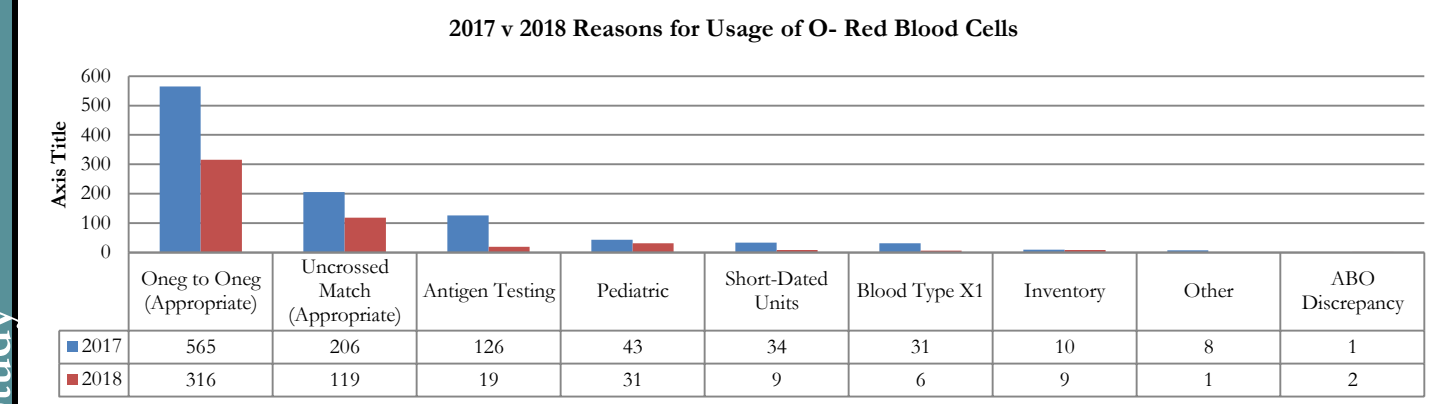
Baseline Metrics/Current State:



Countermeasures

Action	Owner	Due Date	Status
Staff meeting reviewed the need for conservation of O negative red blood cells. <ul style="list-style-type: none"> Be good stewards of the blood supply. Be aware of criteria to choose O negative red blood cells for non O negative patients. Be aware of the potential surcharge from our blood supplier for O negative red blood cell usage higher than industry standards. 	Blood Bank	4/1/18	Completed
Antigen testing PDSA: Choose Rh positive or type specific Rh negative red blood cells for appropriate antigen screening.	Blood Bank	4/1/18	Completed
Blood type x 1 PDSA: Retrieve other laboratory specimens or order a second specimen to complete confirmatory blood type x 2. and the biggest opportunity for improvement for the blood bank staff	Blood Bank	4/1/18	Completed
Pediatric PDSA: Order type specific antigen negative or cytomegalovirus negative units from supplier	Blood Bank	4/1/18	Completed
Inventory PDSA: Maintain appropriate inventory of A negative, B negative, AB negative red blood cells, avoiding the use of O negative	Blood Bank	4/1/18	Completed
ABO discrepancy PDSA: Review the use of O negative red blood cells for an ABO discrepancy with senior staff.	Blood Bank	4/1/18	Completed
Short dated units PDSA: Place older O negative red blood cells in trauma refrigerator to be used for emergency transfusions.	Blood Bank	4/1/18	Completed
Meeting with blood supplier to review O negative usage at Maine Medical Center in comparison to other Hospitals nationally and within the North Northeast region.	Blood Bank	6/1/18	Completed

Outcomes



Root Cause Analysis:

Problem	O negative usage rate was at 14%
Why?	O- is a universal donor, so using it was viewed as a convenience without staff having the larger context to the O- blood supply nationally
Why?	The importance of conservation was not communicated to staff and there was no clear SOP
Root Cause	Previously there had not been a sense of urgency created on the part of the blood supplier due to volume of O- RBCs nationally and the potential financial impact of our current usage rate

Next Steps

- Sustain average of <12% O negative red blood cell usage.
- Review usage monthly within the Blood Bank Quality Plan.
- Review usage quarterly with current blood supplier.

Plan

Do

Study

Act