



American
Red Cross

Low Titer O Whole Blood

Implementation Statement



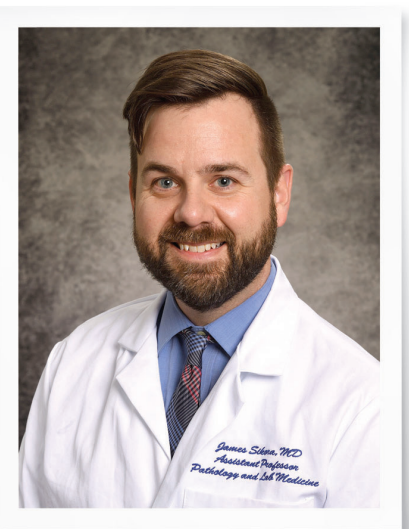
Implementing LTOWB at a Large Metropolitan Level 1 Trauma Center

Grady Health System

Our journey of introducing the use of low titer type O whole blood (LTOWB) at Grady Health System began in 2018. The previous medical director of transfusion services was aware of the reported benefits of using LTOWB and wanted to introduce it for use in trauma. Grady is the only level one trauma center in downtown Atlanta, GA. The research and data available for using LTOWB in the civilian setting was still in its infancy, and to keep the use of the product safe, it was decided to implement many criteria for its use. Initially, LTOWB was only to be used in male trauma patients that were 18 and older. Furthermore, the request to use LTOWB was limited to certain individuals with the intent to keep it from being released to be used in a patient that did not meet the criteria. This abundance of criteria that needed to be met with each case led to confusion among the teams wanting to transfuse LTOWB and the blood bank. Each time a request would come to the blood bank the person requesting the product would have to be checked against a list of approved LTOWB users. The confusion and inefficiency led to LTOWB not being used in many of the cases where it would have been beneficial. The inventory of LTOWB began to get wasted from non-use. The increased waste, in turn, led to the blood bank taking on an unnecessary and unsafe role of advocating for use of LTOWB when a massive transfusion protocol (MTP) was initiated. In early 2019, the LTOWB program at Grady was close to dead.

New faculty in both trauma and transfusion medicine joined Grady in mid-to-late 2019 with a renewed interest in LTOWB. The program was restarted slowly with open access given to any male trauma patient 18 or older. Having advocates within the trauma surgery group greatly helped the adoption of LTOWB this time. However, the protocol required the surgical team to request the LTOWB and this did not always happen. In late 2020, the decision was made between the transfusion service and trauma surgery that the request portion of the protocol would be eliminated. All male trauma cases 18 and over would receive LTOWB, 6 units, in the first cooler of the MTP. This step was a great success in getting more LTOWB to trauma patients. The blood bank was not wasting LTOWB, and the surgical service was pleased with the speed at which the first package of the MTP was prepared and how the LTOWB performed once transfused.

Continued.



James Sikora, MD
Medical Director
Blood Bank & Transfusion Service

“The blood bank was not wasting LTOWB, and the surgical service was pleased with the speed at which the first package of the MTP was prepared and how the LTOWB performed once transfused.”

A year later in late 2021, the decision was made to not only allow LTOWB for use in males 18 and older, but females as well. Literature was available at this point to support use in this group of patients. The rationale being that if the use of LTOWB could save the life of a female of reproductive age, the possibility of the patient forming antibodies that may cross the placenta in future pregnancies was outweighed by giving her the opportunity to live and get pregnant if desired. Additionally, forming of antibodies is not a death sentence for the mother or child. Methods of treating this occurrence successfully exist and are used often.

By 2022, the blood bank and trauma service were impressed with LTOWB and its role in MTPs. On a case-by-case basis, LTOWB was also being used later in an MTP if blood loss control continued to be difficult. This has led to amending our MTP to give LTOWB when available in the first three packs of the MTP. We continue to collect data on this journey of implementing LTOWB to share the trials and successes along the way.

Learn more about implementing LTOWB. Visit [RedCrossBlood.org](https://www.redcrossblood.org), explore the LTOWB Implementation Guide or contact your Red Cross Account Manager or Medical Director.

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