



# THROMBOLUX

QUALITY REASSURANCE

## **Platelet activation status could have more impact on outcomes than ABO matching for patients with AML**

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Results from a study on the potential impact  
of ThromboLUX-based inventory  
management at a US adult academic hospital.<sup>1</sup>



# Should prioritizing platelet activation status take priority over ABO matching?

For certain patients, like those with acute myeloid leukemia, the answer may be yes. A policy that prioritizes ABO matching can result in the transfusion of more activated platelets, which in turn, could result in lower count increments thereby leading to more transfusions. With platelets in such high demand, it's time to look at prioritization to optimize platelet use.

## STUDY

The ThromboLUX-based inventory management study demonstrated that allocating the right platelets to the right patients reduce the number of transfusions but lead to better clinical outcomes than ABO matching.

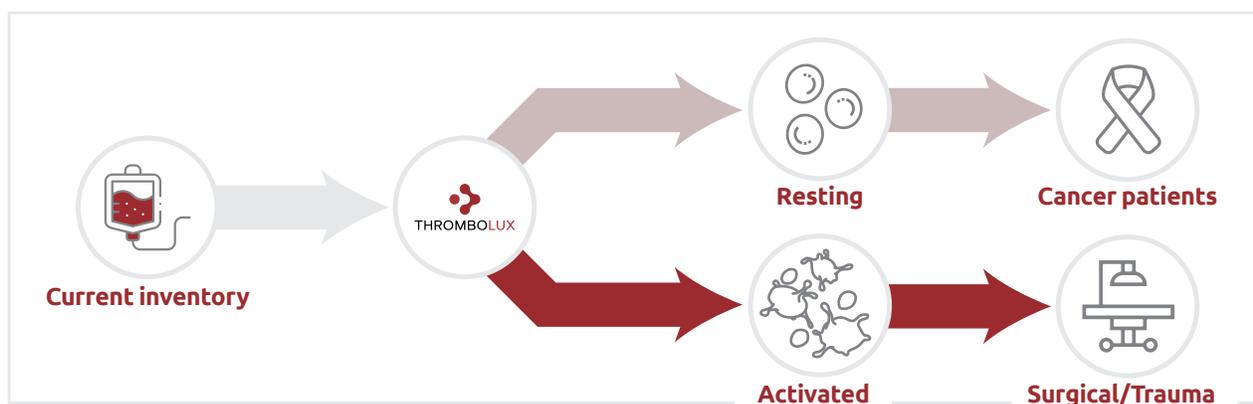
## STUDY OBJECTIVE

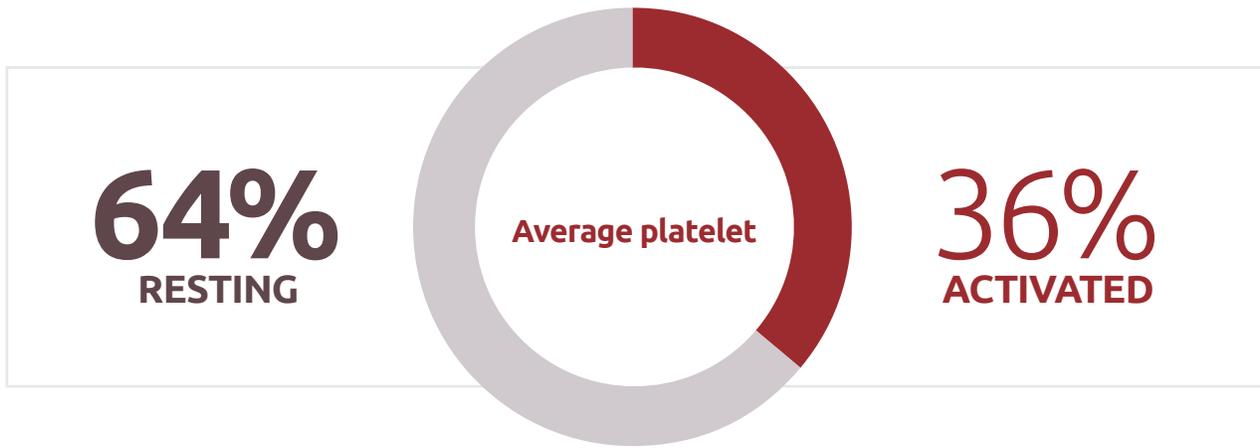
The main objective was to demonstrate improved transfusion outcomes in hematologyoncology patients by avoiding transfusion of activated platelets. Clinical transfusion outcomes were measured as: 1) count increment and 2) time to next transfusion.

## STUDY DESIGN

Over the 88-day quality improvement initiative, ThromboLUX was used as part of routine practice in the blood bank. ThromboLUX is a 5-minute walk-away test to definitively determine activation status 2.

- Resting platelets were intended to be allocated to hematology-oncology patients requiring prophylactic transfusions. For reasons including ABO matching, study compliance wasn't always feasible. Therefore, study results were extrapolated to full compliance with resting platelet allocation.
- Activated platelets were allocated to actively bleeding surgical and trauma patients.





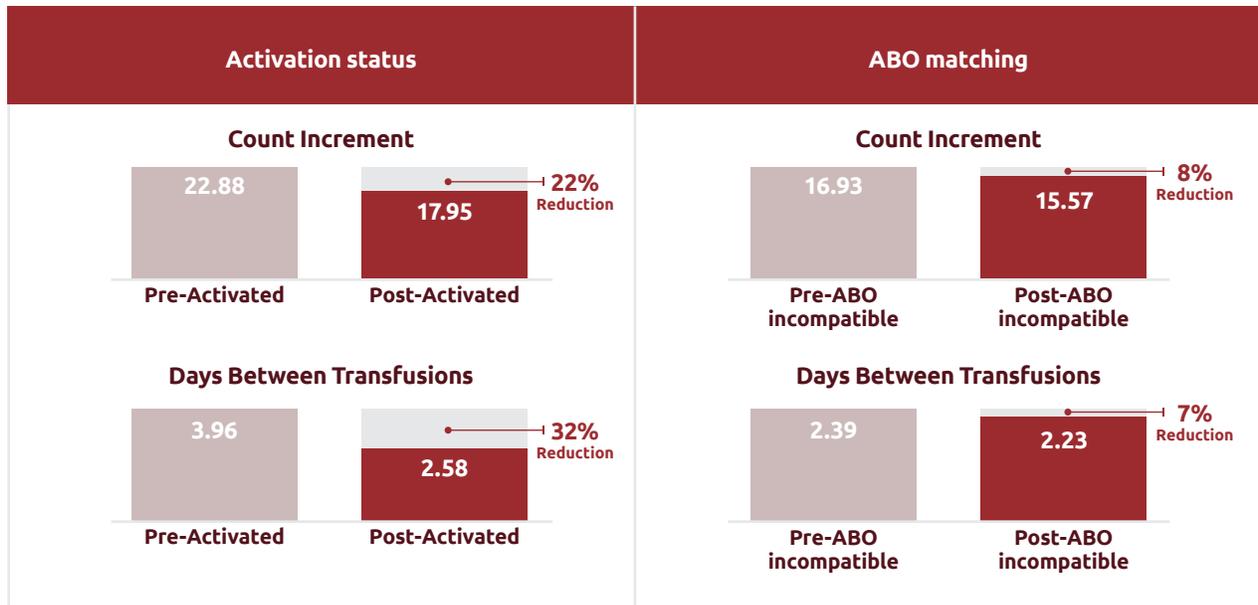
As complex cases are reduced, so are transfusions and costs.

Cost per transfusion	Reduction of complex cases	Reduction of transfusions per patient	Transfusions saved annually	Expected annual savings
\$2,260	68%*	47%*	372*	\$1,789,920*

Patients receiving a transfusion with activated platelets typically received 5 subsequent transfusions compared to patients receiving resting platelets<sup>2</sup>.

Activated	Resting	Median excess transfusions	95% Confidence interval
7	2	5	1 to 17.6

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\* Extrapolated to full compliance with resting platelet allocation

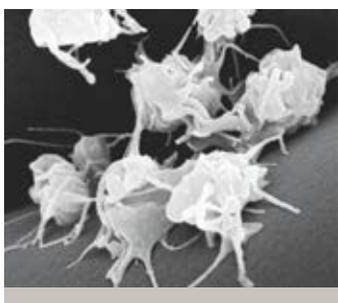
# Allocating the right platelets to the right patients helps make the most of a precious commodity



**Resting platelets** retain their discoid shape and are lifesaving for the most vulnerable patients—those with cancer.

## Potential impact of resting platelets on cancer patients

- Significantly reduced number of transfusions
- Reduced chance of immune refractoriness



**Activated platelets** have changed to an amorphous form through normal processes and are ideal for cold storage and use in trauma patients.

## Potential impact of activated platelets on cancer patients

- Reduced platelet count increments, increasing the need for more infusions
- Increased chance of refractoriness due to increased number of infusions
- May interfere with certain immunotherapies, complicating treatment

**Identifying and distributing platelet products based on activation status can result in improved patient outcomes and cost savings<sup>2</sup>**

The ThromboLUX System lets you assess activation status right when you get the product. Quickly. Safely. Definitively.

**It's time to take control over platelet variability with ThromboLUX. For more information or to read the full study, please visit:**

**THROMBOLUX.COM**