INTERCEPT® Blood System for Platelets
Pathogen Reduction System

Case Study: Optimizing Platelet Availability and Access to a 100% Pathogen Reduced Inventory

Community Blood Bank of Northwest Pennsylvania and Western New York (NWPA/WNY) supplies blood products, including 3,000 apheresis platelet products, to 21 hospitals throughout Northwest Pennsylvania and Western New York.

The Challenge

In light of eBDS culture obsolescence, NWPA/WNY needed to implement either the BacT/Alert® culture or INTERCEPT® pathogen reduction (PR) to maintain safety of their apheresis platelet products.

The Solution

NWPA/WNY opted to implement PR for all apheresis platelets to supply their hospitals. Decision criteria included:

- Attaining optimal patient safety with PR’s ability to proactively mitigate transfusion-transmitted infections including bacteria, viruses and protozoans
- Ability release products earlier for improved product availability
- Streamlined operations versus culture-based methods, including the replacement of irradiation and CMV testing

Getting to 100% PR

NWPA/WNY implemented the following production measures to attain a ~100% PR inventory:

- Volume adjustment: remove volume from collection to accommodate PR input specifications
- Collection device optimization: adjust settings to the collection device
- Pre-splitting: Dividing a double or triple collection into separate bags
- Low yield platelet doses: Production of PR PC with <3.0x10^11 for a small portion of inventory.

Measures implemented over time which resulted in an inventory of ~100% pathogen reduced platelets.
Increasing Platelet Availability

Through elimination of culture holds, and implementation of PR, NWPA/WNY was able to ship products a day earlier (D1) when compared to culture (D2); this translated to a reduction in outdate rate from 12% to 3%, and a savings of over $120,000 per year. Estimated costs are based on culture and PR costs, Trima® sets used, as well as lost product revenue.

Increased platelet availability was also realized at NWPA/WNY hospitals with PR:

- Decreased expiry rate from 14% to 9% in one hospital
- Regarding emergency release products, some physicians have expressed a preference to receive PR products in lieu of bacterially tested units due to increased product safety

“Pathogen reduction enabled us to increase platelet availability through early product release, resulting in a 75% decrease in expiry rate, corresponding to about $120,000 per year in cost savings for our blood center.”

- Tracy Collier, Technical Director, Community Blood Bank of NWPA and WNY


CONTRAINDICATIONS. Contraindicated for preparation of platelet components intended for patients with a history of hypersensitivity reaction to amotosalen or other psoralens. Contraindicated for preparation of platelet components or plasma intended for neonatal patients treated with phototherapy devices that emit a peak energy wavelength less than 425 nm, or have a lower bound of the emission bandwidth <375 nm, due to the potential for erythema resulting from interaction between ultraviolet light and amotosalen. WARNINGS AND PRECAUTIONS PLATELETS: Pulmonary events: Acute Respiratory Distress Syndrome (ARDS). INTERCEPT processed platelets may cause the following adverse reaction: Acute Respiratory Distress Syndrome (ARDS). An increased incidence of ARDS was reported in a randomized trial for recipients of INTERCEPT processed platelets, 5/318 (1.6%), compared to recipients of conventional platelet components 0/327. Monitor patients for signs and symptoms of ARDS.