

HOSPITAL INVENTORY PLANNING



Drivers of Blood Product Waste

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STANDING ORDER PLANNING IS DATA-DRIVEN

Blood centers typically review **6 to 12 months of historical distribution data** when working with hospitals to determine standing order levels and ABO mix. This includes reviewing ABO/Rh utilization trends and comparing them with population ABO distribution referenced in AABB guidance. One important point that came up is that **standing order strategy is not always designed to simply mirror historical hospital use**. It may also aim to move hospitals closer to a more balanced population ABO mix when appropriate, which can help reduce unnecessary pressure on universal donor blood while still maintaining preparedness for routine and urgent needs. ARC emphasized their Empower (Group O) programs and training.

2

HOSPITALS PROVIDE CRITICAL OPERATIONAL CONTEXT

While blood centers analyze distribution and utilization trends, **hospitals often provide additional operational input** such as outdate experience, product preferences, and local patient population needs. That hospital-level context can meaningfully shape the final standing order strategy, so collaboration between the hospital and supplier is essential.

3

PRODUCT SELECTION & END-USER BEHAVIOR IMPACT WASTE

A recurring theme from the supplier side was that **end-user ordering practices can significantly influence inventory pressure and wastage**. For example, routine selection of universal donor blood when patient typing could allow use of the patient's own ABO type can strain supply while allowing less commonly used units to age on the shelf. In that sense, waste is not just an inventory problem. It is also a product selection and education problem. Also, integration of Liquid plasma may help along with IFC for their flexibility if they fit needs of the hospital.

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STANDING ORDERS IMPROVE SUPPLY STABILITY

Blood centers generally encourage hospitals to **keep 50- 65%** (not required if transfuse less than 1000-1200 units year) **of red cell usage on standing order**. This gives suppliers a stronger ability to forecast demand, plan collections, and preserve flexibility for ad hoc requests during shortages or sudden changes in utilization.

5

PLATELET MANAGEMENT IS PARTICULARLY CHALLENGING

Due to their short shelf life, **platelets require more active inventory management**. Historically, hospitals accepted higher outdate rates for platelets, but many sites now aim for roughly 2 to 5% outdate rates, compared with less than 1% for red cells. Currently, LRBC levels of < 1% of LRBC is consider too much from a waste level (5000-unit hospital, 1% outdate= 50 units or 4 per month= around \$10- 12,000 in expense to the hospital. SDP outdate of < 2- 5% is acceptable if you are trying to keep platelets available at all times. **Both suppliers emphasized that platelet inventory is inherently harder to optimize and often requires closer monitoring and stronger communication with end users**. They also agreed with my idea of having a mix inventory of CSP and RT platelets can alleviate waste. If hospitals shift toward this, production of CSP can increase.

6

HEALTH SYSTEM COORDINATION HELPS REDUCE WASTE

Both suppliers noted that **sharing products between hospitals within a health system can significantly reduce outdates**, especially for shorter-dated products. Larger or busier facilities can often utilize units that smaller hospitals may not have time to transfuse. This kind of internal transfer strategy can be a very effective waste-reduction tool. Our supplier praised Danbury for putting procedures in place that have specific shelf life triggers that move a unit from "regular" inventory to a "transfer status" with sufficient shelf life for the receiving partner hospital to use the product at their location. Also, more suppliers should allow out of network transfers if both use the same supplier.

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ORDERING TIMING AND INVENTORY MONITORING MATTER

How and when hospitals place orders also affect waste rates. Frequent inventory monitoring, thoughtful ordering patterns, and close evaluation of ordering behavior can help maintain preparedness while minimizing unnecessary aging of units. Such as ordering STAT, ASAP and Routine can be examples.



Overall, effective blood inventory management requires active collaboration between hospitals and blood centers, with shared data and communication playing an important role in balancing preparedness with minimizing waste.

Follow the link below to see how MaxQ is helping blood centers and hospital blood banks reduce blood wastage and increase efficiency.