

# Improving Blood Utilization in Cardiac Surgery





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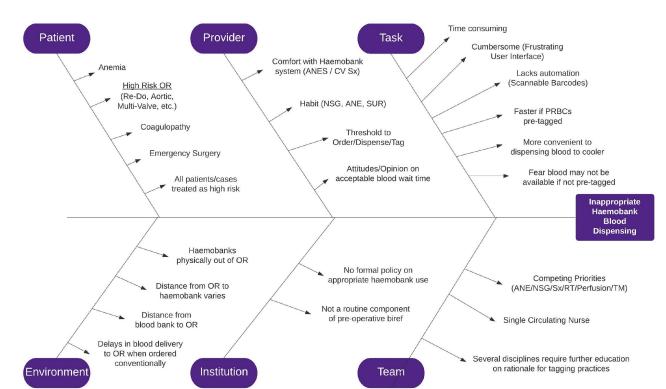
AIM Statement: By July 2024, for patients undergoing cardiac surgery at FMC, reduce the amount of haemobank blood unnecessarily removed from circulation by 50%

# PROBLEM DEFINITION

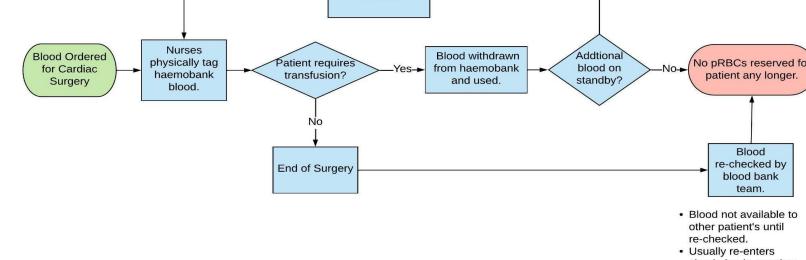
Because haemobank blood is being routinely tagged before cardiac surgery, it is unnecessarily removed from circulation for prolonged periods of time, limiting blood availability during an already critical blood shortage.

# ROOT CAUSE ANALYSIS

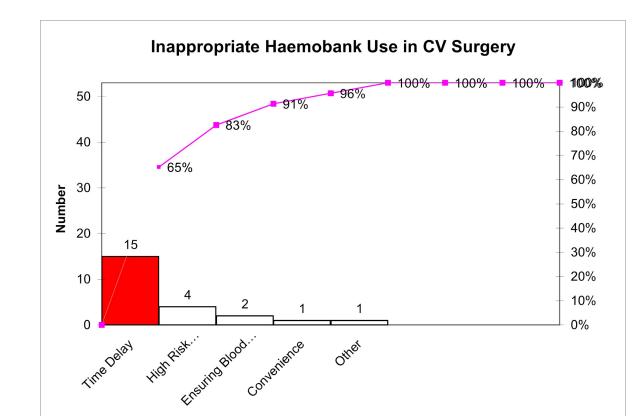
# Cause and Effect:



#### **Process Map:**



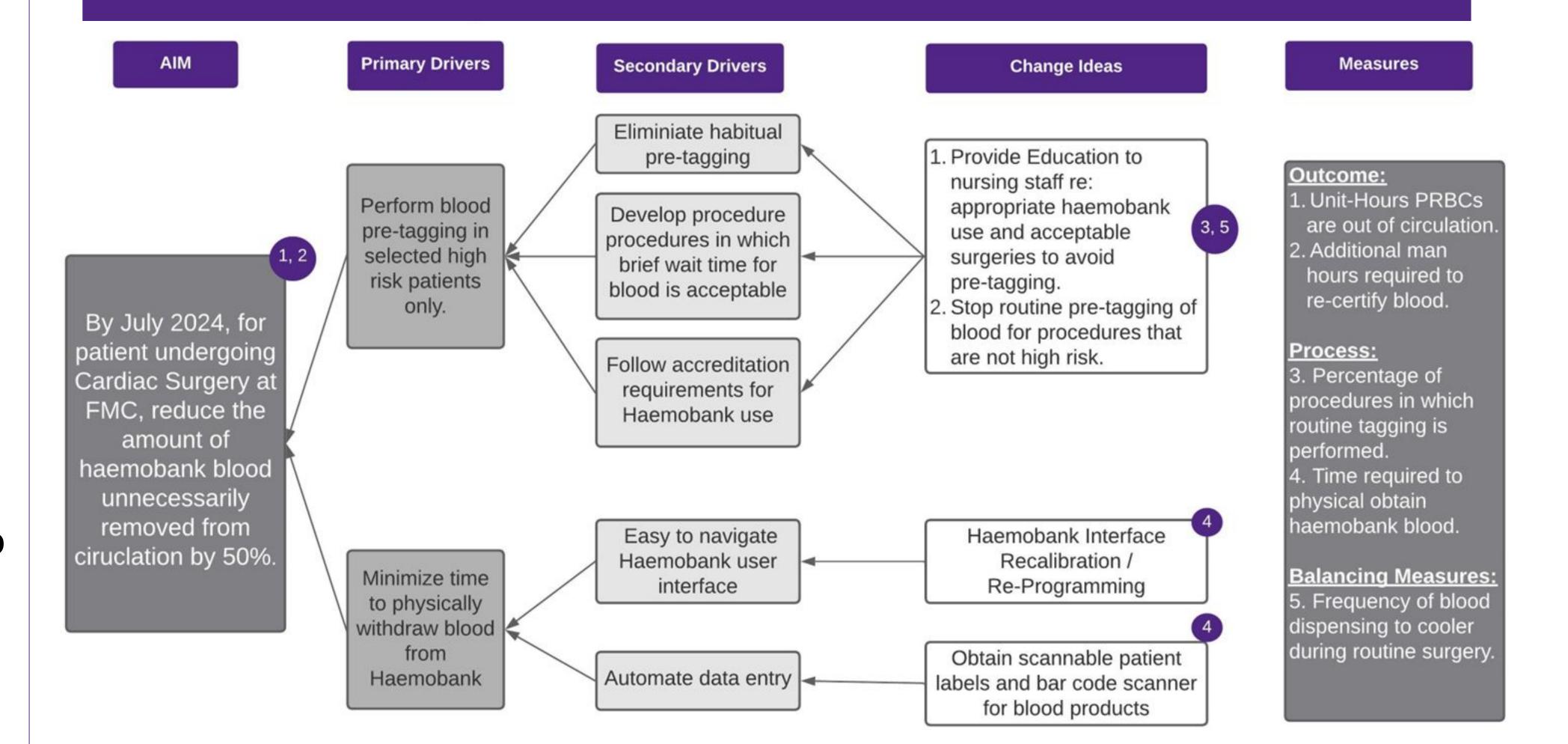
# Pareto:



#### **Take Homes from Stakeholders:**

- Time delay most critical factor in resistance to changing dispensing practices.
- Little concern for blood availability.
- Haemobank system cumbersome to use.

- Inappropriate triaging of all cardiac surgical cases as 'high risk' was the primary driver of inappropriate blood dispensing.
- Nursing concerns related to time delay in dispensing blood posed a significant barrier to changing local practices.

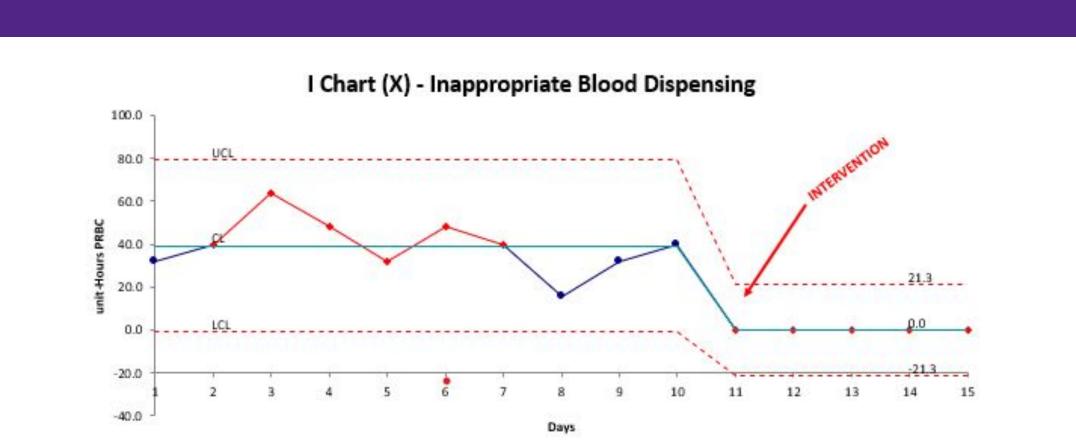


#### IMPLEMENTATION

- P Stop routinely tagging blood for low-risk surgeries. Decided at pre-operative brief.
   D June 21 28, 2024. All non-emergent CV
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- **S** No routine tagging observed. Significant reduction in unit-hours blood out of circulation.
- A Continue modified dispensing protocol.

**Lessons Learned:** Nursing education and input allowed for more rapid acceptance of new dispensing practices.

### MEASUREMENT & RESULTS



Process Measure: Unit-Hours Blood Unavailable.

Balancing Measure: Cooler Blood Dispensing

Analysis: Elimination of routine blood dispensing.

#### SUSTAINABILITY

**Process Owner:** Transfusion Safety Officer

**New Standard:** Use of modified WHO checklist before all surgeries including plan for blood dispensing.

Monitoring Plan: Quarterly assessment of dispensing practices and Unit-Hours out of circulation.