Cardiac surgical procedures have become less invasive, leading to lower likelihood of blood transfusion but preoperative blood ordering practices have not changed. Over ordering of blood products increases costs of patient care and wastes scarce blood resources. Creating an evidence-based maximum surgical blood ordering schedule (MSBOS) improves appropriate ordering of blood products.

**Purpose:**

To optimize the blood ordering process for cardiothoracic surgeries at the University of Iowa Hospitals and Clinics (UIH)

**Objectives:**

1. To develop a maximum surgical ordering schedule (MSBOS) for cardiothoracic surgical procedures.
2. To implement the cardio MSBOS at UIH.
3. To decrease the crossmatch to transfusion ratio (C:T) for cardiothoracic surgical services at UIH by 50% six months after implementation of the MSBOS.

**Methods:**

Project was deemed not human subjects research.

Data then categorized by surgical procedure and analyzed for:
- % transfused
- Median EBL
- Transfusion index
- Risk for major bleeding
- ≥ 4 units in > 10% of patients

**Conclusions:**

- Data analysis revealed areas for improvement and areas of appropriate preoperative T&C ordering.
- This MSBOS offers practitioners a reference when ordering preoperative lab work and blood products.
- Data and recommendations presented to cardiothoracic surgical team so order sets can be adapted to recommendations.
- Implementation will improve C:T ratios and decrease RBC waste and unnecessary laboratory testing.
- C:T ratios should be monitored for each procedure after implementation of the MSBOS and adjustments made.
- Future projects can create MSBOS recommendations for other surgical specialties at UIH.

**References:**


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