

Health Delivery Systems

- In preoperative materials, develop patient-facing education on importance of presurgical optimization that includes glycemic control and anemia

Perioperative Glycemic Control

- Protocolize hyperglycemia screening and treatment for patients **with and without diabetes** in all surgical settings based on most updated guidelines.
 - Recommendations for clinicians should include the following at a minimum:
 - Screening for diabetes in preoperative evaluation
 - Day of surgery blood glucose screening for all major surgery
 - Intraoperative target glycemic control ranges based on surgery risk stratification and patient condition (e.g., most commonly <180mg/dL)
 - Postoperative workflow for patients who receive insulin intraoperatively, including threshold to consider inpatient admission for glycemic control
 - Standardized discharge steps for patients with new intraoperative hyperglycemia or diabetes
- Ensure equipment is available perioperatively to check capillary blood glucose at least every 1-2 hours for patients undergoing ~~elective major surgery~~
- Provide dedicated staff for support in scheduling follow up appointments, including with primary care and endocrinology for those with new intraoperative hyperglycemia

Preoperative Anemia Optimization

- Adopt standardized clinical pathway for identifying anemia and evaluation of underlying cause of anemia, and referral to primary care/hematology for ongoing management of anemia
- Promote adjustment of anemia policies through educational opportunities like in-services
- Incorporate auto-reflexive testing of ferritin, iron and transferrin for presurgical patients with Hb <13g/dL (regardless of sex at birth) for procedures with possibility of 500ml blood loss
- Dedicate quality improvement initiatives for anemia optimization in presurgical patients.
 - Identify surgical populations with highest risk for transfusion and/or blood loss in procedure to pilot anemia optimization protocols
 - Identify champion in each targeted surgical specialty to promote change

- Set relevant quality measures to track progress
 - % of patients receiving appropriate preoperative tests
 - % of patients with IDA receiving iron supplementation preoperatively
 - Blood transfusion rates
 - Postoperative anemia rates
- Consider developing dedicated resources/team to direct patients that need further evaluation of underlying cause of anemia

Level 1

Perioperative Glycemic Control

- Ensure equipment is available perioperatively to check capillary blood glucose at least every 1-2 hours for patients undergoing **elective** major surgery

Preoperative Anemia Optimization

- Promote adjustment of anemia policies through educational opportunities like in-services

Level 2

- In preoperative materials, develop patient-facing education on importance of presurgical optimization that includes glycemic control and anemia

Perioperative Glycemic Control

- Protocolize hyperglycemia treatment for patients **with and without diabetes** in all surgical settings based on most updated guidelines.
 - Recommendations for clinicians should include the following at a minimum:
 - Screening for diabetes in preoperative evaluation
 - Day of surgery blood glucose screening for all major surgery
 - Intraoperative target glycemic control ranges based on surgery risk stratification and patient condition (e.g., most commonly <180mg/dL)
 - Postoperative workflow for patients who receive insulin intraoperatively, including threshold to consider inpatient admission to treat glycemic control
 - Standardized discharge steps for patients with new intraoperative hyperglycemia or diabetes

Preoperative Anemia Optimization

- Adopt standardized clinical pathway for identifying anemia and evaluation of underlying cause of anemia, and referral to primary care for ongoing management of anemia

- Incorporate auto-reflexive testing of ferritin, iron and transferrin for presurgical patients with Hb <13g/dL (regardless of sex at birth) for procedures with estimated blood loss of 500ml or a risk of transfusion 10% or higher
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Level 3

Perioperative Glycemic Control

- Provide dedicated staff for support in scheduling follow up appointments, including with primary care and endocrinology for those with new intraoperative hyperglycemia
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Preoperative Anemia Optimization

- Dedicate quality improvement initiatives for anemia optimization in presurgical patients.
 - Identify surgical populations with highest risk for transfusion and/or blood loss in procedure to pilot anemia optimization protocols
 - Identify champion in each targeted surgical specialty to promote change
 - Set relevant quality measures to track progress
 - % of patients receiving appropriate preoperative tests
 - % of patients with IDA receiving iron supplementation preoperatively
 - Blood transfusion rates
 - Postoperative anemia rates
- Consider developing dedicated resources/team to direct patients that need further evaluation of underlying cause of anemia