

Surgical Patient Optimization Guideline Checklist Health Plan Level 2



The current state of the issue

Anemia and poor glycemic control are key modifiable risk factors that worsen perioperative outcomes in those undergoing major surgery. Both preoperative anemia and perioperative hyperglycemia are associated with longer hospital stays^[i], increased costs, higher morbidity and mortality^{[ii],[iii]}, and worse recovery. Even mild anemia can affect 30-day outcomes, and perioperative glucose levels predict short-term mortality^{5F}^[iv], while evidence shows hyperglycemia impacts non-diabetic patients more negatively than those with diabetes. In Washington state, there is significant variation in practices regarding anemia management and glycemic optimization in patients with and without diabetes.

General

- As able, route patients undergoing major elective surgery to preoperative coordinator and/or case management team** to support health education and coordinating care needs.
 - Incorporate standardized universal screening and addressing health-related social needs (e.g., food security, transportation)
- Payment Redesign**
 - Offer modest incentives** to facilitate preoperative optimization for anemia and/or glycemic control for those with diabetes

Preoperative Glycemic Optimization

- Approve inpatient admission for major elective procedures for patients with HbA1c > 9%
- Day of Surgery
 - Incorporate day of blood glucose screening and treatment** in coverage for major elective procedures regardless of diabetes status.
- Postoperative
 - Incorporate treatment for hyperglycemia that requires intravenous insulin infusion** as eligibility criteria for inpatient admission for procedures performed in an ambulatory setting.
 - Consider covering outpatient hospital-based team that manages glucose for 3-7 days postoperatively** and facilitates transition to primary care instead of admission.

Preoperative Anemia Optimization

- Minimize cost-sharing** for outpatient infusion therapy

Resources

- The Bree Report on Surgical Patient Optimization is meant to supplement these resources.
 - [Full Bree Report on Surgical Patient Optimization](#)
 - [Implementation Guide on Surgical Patient Optimization](#)
 - [Surgical COAP](#)
 - [Spine COAP](#)
 - [Guidelines - ERAS® Society](#)
 - [Clinical Strategies to Avoid Blood Transfusion](#)

Read the full Bree Report on Surgical Patient Optimizations online by scanning the QR code:



Connect with the Bree Collaborative at bree@qualityhealth.org

References: [\[1\]](#) Schatz C, Plötz W, Beckmann J, Bredow K, Leidl R, Buschner P. Associations of preoperative anemia and postoperative hemoglobin values with hospital costs in total knee arthroplasty (TKA). *Arch Orthop Trauma Surg.* 2023 Nov;143(11):6741-6751. [\[2\]](#) Musallam KM, et al. . Preoperative anaemia and postoperative outcomes in non-cardiac surgery: a retrospective cohort study. *Lancet.* 2011 Oct 15;378(9800):1396-407 [\[3\]](#) Myles, P. S., Richards, T., Klein, A., Wood, E. M., Wallace, S., Shulman, M. A., Martin, C., Bellomo, R., Corcoran, T. B., Peyton, P. J., Story, D. A., Leslie, K., Forbes, A., & RELIEF Trial Investigators (2022). Postoperative anaemia and patient-centred outcomes after major abdominal surgery: a retrospective cohort study. *British journal of anaesthesia*, 129(3), 346–354. <https://doi.org/10.1016/j.bja.2022.06.014> [\[4\]](#) van den Boom, W., Schroeder, R. A., Manning, M. W., Setji, T. L., Fiestan, G. O., & Dunson, D. B. (2018). Effect of A1C and Glucose on Postoperative Mortality in Noncardiac and Cardiac Surgeries. *Diabetes care*, 41(4), 782–788.