

Surgical Patient Optimization Guideline Checklist

Health Plan

Level 3



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

- Payment Redesign
- Where feasible, integrate preoperative screening for anemia and glycemic control into quality programs for surgical optimization
- Consider incentives for delivery systems that have accreditation from national organizations in patient blood management (e.g., The Joint Commission)
- Consider including requirement of preoperative anemia optimization and intraoperative glycemic control protocols in centers of excellence models for surgical centers (e.g., total hip/total knee replacement, spine surgery, etc.)
- Minimize penalties for appropriate delay of procedure when optimization not achieved
- Track relevant measures/metrics for glycemic control and anemia optimization. See Measurement section and Evaluation Framework



- Share data on the rate of preoperative screening for anemia and diabetes with providers and/or facilities for major elective procedures
- For instance, provider- or facility-facing dashboards with specific rates of HbA1c screening and Hb/Hct screening for major elective procedures

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.