PATIENT SELECTION CRITERIA: CLINICAL CONSIDERATIONS FOR ELEVATED HBA1C

Hemoglobin A1C (HbA1c) is a blood test used to diagnose or monitor type 1 and type 2 diabetes.[1] This test provides a more accurate estimation of the patient's blood glucose (BG) history compared to the patient's self-reported history, fasting BG levels, and random BG levels.[2] Patients with HbA1c levels above 6.5 to 7 percent are at a greater risk for intraoperative complications.[1,3] The diagnosis of diabetes is not a contraindication to ambulatory surgery. The patient's HbA1c level together with other comorbidities can help determine if elective surgery in an outpatient setting is the safest option for the patient.[4]

Preoperative Evaluation

All patients undergoing surgery should receive a preanesthesia evaluation. For patients with a known diabetes diagnosis, the anesthesia professional should document or verify documentation of the patient's disease type, current treatment, treatment compliance, history of hypoglycemic episodes (noting the occurrence, frequency, and symptoms of hypoglycemia, and BG level at which they occur), and any end-organ damage.[2,5,6] Knowledge of the patient's current fasting BG level and most recent HbA1c is also prudent.[7] Determine if the patient has a high probability to self-manage their diabetes once discharged.[13] Suggested testing prior to the preanesthesia assessment includes an electrocardiogram, HbA1c, and complete metabolic panel (specifically to include glucose, creatinine, and eGFR).[2]

Patient instructions for the morning of surgery:

- Stop oral hypoglycemic agents.[3,9]
- If the patient is insulin-dependent, take half (1/2) or one-third (1/3) of the intermediate or long-acting insulin dose.[2,3,10]
- Do not take short-acting insulin while fasting, unless the patient has a continuous subcutaneous insulin infusion pump.[2,3]

Preoperative considerations may include:

Finger sticks every 4-6 hours while NPO.[3,8]

Supplemental insulin to correct hyperglycemia back to normal values.[8]

Schedule diabetic patients first for surgery to lessen the disruption of their usual glycemic control regimen.[2,3,6]

POTENTIALLY DELAY SURGERY IF: [6,11,12]

OVER 8% — **The patient's HbA1c is over 8 percent.**

or

>250 — **The preoperative BG is greater than 250.**

Consider recommending that the patient to postpone surgery until the patient's diabetes is adequately managed as the risk of complications increase.

Delay surgery if:

Patient is exhibiting significant complications of hyperglycemia, such as severe dehydration, ketoacidosis, and hyperosmolar nonketotic states.[5]

Patient is in a compromised metabolic state, such as diabetic ketoacidosis, hyperglycemic hyperosmolar syndrome, etc.[8]

Patient's preoperative BG reading is above 400-500 mg/dL.[8]

Patient's HbA1c is greater than 8.5%.[6]

Disclaimer: Please note the information in this document is not written as requirements or standards. These considerations are largely based on expert opinion, as there is limited evidence to develop formal guidelines. This resource is for information only and is not medical or legal advice. These considerations may be used as reference when developing facility policy. CRNAs practice in accordance with professional ethics, scope and standards of practice, sound professional judgment, the best available evidence, the best interests of the patient, and applicable law.

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