



Glucose Management Tenets

1. Develop and implement an institutional protocol for peri-operative blood sugar management with goal of 120-180 mg/dL.
2. Use an insulin infusion for blood sugar management in the intra-op phase and during the first 24 hours postop.
3. Check pre-op HA1C levels for all diabetic (at risk/suspected) patients.
4. For non-urgent cases in patients with HA1C > 10%, consider delaying surgery and obtaining better glucose control if possible.
5. Establish periodic surveillance of compliance of blood sugar target goals.
6. Inpatient consult for diabetic education for newly diagnosed patients and those with uncontrolled blood sugars pre-op.
7. Social work consult prior to discharge for assistance with obtaining affordable medications at discharge.
8. Schedule specialty (Endocrinology) or primary care follow-up at discharge for blood sugar management.

References:

1. Association Between Hemoglobin A1c and Major Adverse Coronary Events in Patients with Diabetes Following Coronary Artery Bypass Surgery. Turgeon RD, et al. *Pharmacotherapy*. 2020. PMID: 31883378 Clinical Trial. <https://accpjournals.onlinelibrary.wiley.com/doi/10.1002/phar.2359>
2. Elevated preoperative hemoglobin A1c level is predictive of adverse events after coronary artery bypass surgery. Halkos ME, et al. *J Thorac Cardiovasc Surg*. 2008. PMID: 18805264
3. Elevated preoperative hemoglobin A1c level is associated with reduced long-term survival after coronary **artery** bypass **surgery**. Halkos ME, Lattouf OM, Puskas JD, Kilgo P, Cooper WA, Morris CD, Guyton RA, Thourani VH. *Ann Thorac Surg*. 2008 Nov;86(5):1431-7. doi: 10.1016/j.athoracsur.2008.06.078.
4. Is there a role for HbA1c in predicting mortality and morbidity outcomes after **coronary artery bypass graft surgery**? Tennyson C, Lee R, Attia R. *Interact Cardiovasc Thorac Surg*. 2013 Dec;17(6):1000-8. doi: 10.1093/icvts/ivt351. Epub 2013 Sep 10.
5. Relationship between preoperative **hemoglobin A1c** levels and long-term mortality after **coronary artery bypass** grafting in patients with type 2 diabetes mellitus.
6. Kuhl J, Sartipy U, Eliasson B, Nyström T, Holzmann MJ. *Int J Cardiol*. 2016 Jan 1;202:291-6. doi: 10.1016/j.ijcard.2015.09.008. Epub 2015 Sep 12.