

Noncardiac Surgery Not Riskier in Heart Patients

BY DENISE NAPOLI
Assistant Editor

Many heart disease patients can forgo attempts to “fix” their conditions with coronary bypass grafting or other procedures in advance of noncardiac surgery.

That is one of the recommendations put forth in newly updated guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery. The 82-page recommendations, which were last revised in 2002, were published jointly in *Circulation* and the *Journal of the American College of Cardiology* (doi: 10.1161/CirculationAHA.107.185699).

The guidelines contain provisions for both emergency and nonemergency surgery, wrote the authors. “The overriding theme of this document is that inter-

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vention is rarely necessary to simply lower the risk of surgery unless such intervention is indicated irrespective of the preoperative context.”

In a statement, Dr. Lee A. Fleisher, guideline writing committee chair, said an

update was overdue. “Statin use wasn’t even addressed in the previous guidelines.” In this version, “New trials have shown us that patients should continue taking them” in advance of noncardiac surgery, added Dr. Fleisher, chair of the department of anesthesiology and critical care at the University of Pennsylvania, Philadelphia.

The authors also recommend that in the case of nonemergency procedures, intervention—like bypass surgery or angioplasty—isn’t necessary unless the patient would need the procedure anyway. “Mortality on the day of surgery, for most ambulatory surgical procedures, is actually lower than mortality on day 30, which suggests that the incremental risk of ambulatory surgery is negligible or may be protective,” the authors wrote (*Arch. Surg.* 2004;139:67-72). “Therefore, interventions based on cardiovascular testing in stable patients would rarely result in a change in management, and it would be appropriate to proceed with the planned surgical procedure.”

The guidelines recommend taking an in-depth patient history before any noncardiac surgery. This should include a determination of functional capacity, they wrote. “An assessment of an individual’s capacity to perform a spectrum of common daily tasks has been shown to correlate well with maximum oxygen uptake by treadmill testing.” Moreover, “the preoperative consultation may represent the first careful cardiovascular evaluation for the patient in years or, in some instances, ever.”

Of course, the authors noted, most true surgical emergencies and even some semielective procedures “do not permit more than a cursory cardiac evaluation,”

heightening the need for “close communication among consultant, surgeon, and anesthesiologist.”

Dr. Fleisher and his associates acknowledged that approaches to preexisting heart disease in noncardiac surgical patients have changed over the years. In the past, “we would do a lot of screening, and we might fix their heart disease to get them ready for the noncardiac surgery. We know now that surgical outcomes are the same in many people whether or not we fix the

heart disease first,” Dr. Fleisher said. This is especially true for nonsymptomatic patients. “Several trials now show that in people without symptomatic heart disease, fixing the heart first doesn’t make much of a difference in how well they do in surgery.”

The guidelines also emphasize continuing antiplatelet therapy as soon as possible after urgent noncardiac surgery, especially in patients with drug-eluting coronary stents.

The authors concluded by highlighting

areas that require further study. “Although randomized trials have examined the effect of perioperative β -blockers on cardiac events surrounding surgery, and observational studies have shown the benefit of statins during the perioperative period, further evidence is needed with regard to the length of time medical therapy needs to be initiated before noncardiac surgery to be effective,” including management of antiplatelet drugs perioperatively, they wrote. ■



*Model is for illustrative purposes only.

Indications and usage

Levemir is indicated for once- or twice-daily subcutaneous administration for the treatment of adult and pediatric patients with type 1 diabetes mellitus or adult patients with type 2 diabetes mellitus who require basal (long-acting) insulin for the control of hyperglycemia.

Important safety information

Levemir is contraindicated in patients hypersensitive to insulin detemir or one of its excipients. Hypoglycemia is the most common adverse effect of all insulin therapies, including Levemir. As with other insulins, the timing of hypoglycemic events may differ among various insulin preparations. Glucose monitoring is recommended for all patients with diabetes. Levemir is not to be used in insulin infusion pumps. Any change of insulin dose should be made cautiously and only under medical supervision. Concomitant oral antidiabetic treatment may require adjustment. Inadequate dosing or discontinuation of treatment may lead to hyperglycemia and, in patients with type 1 diabetes, diabetic ketoacidosis. Levemir should not be diluted or

mixed with any other insulin preparations. Insulin may cause sodium retention and edema, particularly if previously poor metabolic control is improved by intensified insulin therapy. Dose and timing of administration may need to be adjusted to reduce the risk of hypoglycemia in patients being switched to Levemir from other intermediate or long-acting insulin preparations. The dose of Levemir may need to be adjusted in patients with renal or hepatic impairment.

Other adverse events commonly associated with insulin therapy may include injection site reactions (on average, 3% to 4% of patients in clinical trials) such as lipodystrophy, redness, pain, itching, hives, swelling, and inflammation.

*Whether these observed differences represent true differences in the effects of Levemir, NPH insulin, and insulin glargine is not known, since these trials were not blinded and the protocols (eg, diet and exercise instructions and monitoring) were not specifically directed at exploring hypotheses related to weight effects of the treatments compared. The clinical significance of the observed differences in weight has not been established.

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