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Orthopedic Surgery and Sports Medicine

Why You May Need a Pre-Operative Medical Clearance

Many times, we have patients complaining that we are asking them to get laboratory and EKG studies prior to surgery, even for some "minor" surgical procedures. There is a reason we ask for the studies. In surgery, we talk about how there are "no minor surgeries--just minor surgeons", meaning that surgeons who think what they are doing is minor are just wrong.

We make our decisions to obtain preoperative studies based on our patients' health and social history, not just his or her age. The lab tests we order have a specific purpose and are tailored to each patient's needs.

Sodium, potassium, and other blood chemistry factors affect how anesthetics work and how the heart responds to the stress of surgery. Basic kidney and liver function tests help us predict how the body will metabolize drugs before during and after surgery, which might potentially lead to medication over or underdosing.

A history of high blood pressure, diabetes, or breathing problems, even when well controlled, indicates to us that we need to be even more cautious than usual when administering medications during and after surgery.

Smoking compromises the body's ability to handle the alterations in metabolism and tissue oxygenation that accompany surgery. Quitting smoking only eight weeks before surgery can improve surgical outcomes.

Alcoholic liver disease significantly affects one's ability to metabolize medications, and also to respond to the stresses of surgery. Many years ago, I had a patient who told me she only had "one drink a day"--a martini with her evening meal. Her daughter confirmed this, but this kind lady went into acute alcohol withdrawal following a total knee replacement on the third day following her surgery. This condition, called DTs, is fatal 20% of the time, even if it occurs while in the hospital. When I challenged her and her daughter about this, I found out that her Martini glass was actually more of a fish bowl. It is never nice to be less than honest with your doctor!

An article published October 6, 2011 in the online edition of the British medical journal "The Lancet" points out one of the most important aspects of our preoperative evaluations. In a study involving more than 227,000 patients receiving major, non-cardiac surgery the researchers found that patients with even mild anemia had more than a 40% increased risk of death within 30 days following their surgery. Correcting the anemia before surgery dramatically reduced the risk.

The researchers also found that when anemia was present in addition to even only one other preoperative risk factor, such as those mentioned above, the 30-day serious complication and mortality rates were greatly increased compared with when only one risk factor was present.

Thus, the goal of our surgical preoperative evaluation is not to hassle patients, but to detect any conditions that can be improved prior to surgery in order to make it safer for them. We want to proactively determine how best to manage each individual during surgery, and to provide safe post-operative care. By asking the proper questions and obtaining the appropriate laboratory studies, we can discover hidden diseases which may have to be referred the patient to another specialist—typically a cardiologist—before proceeding with surgery.

The reason we are doing this is to make as certain as possible that our patients will not have an adverse outcome from our actions. All of this may be annoying and sometimes much more time consuming than our patients want to expend, but it is for their well being.

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