Choosing Wisely
Five Things Physicians and Patients Should Question

Don’t perform routine pre-operative testing before low-risk surgical procedures.
Pre-operative assessment is expected before all surgical procedures. This assessment includes an appropriately directed and sufficiently comprehensive history and physical examination, and, in some cases, properly includes laboratory and other testing to help direct management and assess surgical risk. However, pre-operative testing for low risk surgical procedures [such as cataract extraction] results in unnecessary delays and adds to significant avoidable costs, and should be eliminated.

Discussion
For low-risk surgical procedures, such as cataract extraction (the most common surgical procedure supported by Medicare), the value of performing pre-operative laboratory testing has been shown to be low.¹ Such low-risk procedures can safely be performed with only the history and physical examination, unless that assessment identifies urgent or acute medical conditions that by themselves deserve additional evaluation through laboratory testing, independent of the surgical procedure to be performed. A systematic review that included three large randomized trials found no benefit to routine testing prior to cataract surgery.¹

The recommendation to avoid preoperative surgical testing, including chest x-rays, in low-risk patients undergoing minor surgical procedures is supported by an increasing body of evidence:

1. A recent systematic review failed to show any benefit of complete blood count, basic metabolic panel, or pulmonary function tests in low-risk patients undergoing American Society of Anesthesiologists (ASA) grade 1 or 2 elective surgery².
2. Abnormalities in commonly performed blood tests or chest x-rays did not predict poor outcomes in a prospective (but not randomized) cohort of patients.³
3. A retrospective analysis of over 40,000 patients having elective hernia repair found that the presence of abnormalities on tests did not predict adverse outcomes.⁴
4. Because of the low incidence of expected abnormalities detected in a random population, and the ability of the preoperative history to detect the risk of bleeding better than prothrombin time and aPTT testing, even in neurosurgical patients, some authors are recommending the elimination of these preoperative measures when not indicated by a suspicious history.⁵,⁶
5. Preoperative testing in ambulatory surgery patients did not predict perioperative or 30-day adverse outcomes compared to patients randomized to no testing,⁷ and the American Society of Anesthesiologists recommends against routine preoperative testing if there are no clinical indications to justify the tests.⁸

The preoperative visit may be a time when neglected and needed testing can be conveniently performed on otherwise non-adherent patients. However, these tests are “indicated” rather than “routine” preoperative testing.
In summary, routine preoperative testing before minor, low-risk ambulatory surgeries such as cataract extraction can be eliminated. As more data accrue, other low-risk surgeries can be added to the list as we strive to minimize unnecessary and wasteful testing, yet still maintain adequate safety for our patients.

References
9. SGIM Choosing Wisely Ad hoc Committee:

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