

## ORTHOPAEDIC PRE-OPERATIVE TESTING PATHWAYS

### 1. Objectives

COA members are reporting that some carriers and utilization review companies are denying pre-operative laboratory testing, to clear a patient for surgery, as being medically unnecessary. The surgical procedure(s) requested are approved, but not the pre-operative laboratory tests. This is happening not only for Workers' Compensation patients for whom surgery has been requested and approved, but also potentially for group health patients. Surgeons request the "routine" battery of pre-op tests and the payor denies some or all of them. A report entitled, "*Cost Savings Opportunities in Perioperative Management of the Patients with Orthopedic Trauma*" published in the Orthop Trauma in December, 2016 does a good job of discussing this issue ([Attachment 1](#)).

COA's Task Force on Pre-Operative Testing has been charged with:

1. Educating our members on the issue that limiting pre-operative testing could be an emerging problem for their surgical patients;
2. Educating our members on their options; and,
3. Providing resources for our members to use when considering which pre-operative laboratory tests should be ordered.

The decision to order pre-operative tests should be guided by the patient's clinical history, co-morbidities, perioperative risk assessment, and physical examination findings. The goal of pre-operative evaluation is to identify and optimize conditions that increase perioperative morbidity and mortality. It may not be medically necessary to order a "routine" battery of pre-operative tests for otherwise healthy patients undergoing elective surgery as long as a complete history and physical examination is obtained; but, it is also important for the surgeon to be aware of any potential complications of taking the patient to surgery.

### 2. Why is this Issue Coming Up?

The root of what is causing this issue seems to be newer testing criteria that are suggesting limits to "routine" pre-operative testing in the absence of co-morbidities and other medical conditions suggesting such testing is warranted. Insurance carriers and Utilization Review organizations, particularly in the Workers' Compensation arena, have begun to use such guidelines as a cost-saving measure to limit, what they claim are unnecessary testing. Pre-operative testing guidelines are typically not included in treatment guidelines which generally deal with the procedure itself, but not the process of preparing for or the effects of going through

surgery. There are also financial considerations under bundled payment arrangements that may encourage surgeons to limit pre-operative testing. These limitations may come into conflict, not only with what is considered to be the "custom and practice" of many of our members, but also the requirements of acute care facilities and/or outpatient surgical facilities in which the surgical procedures are scheduled. These denials may result in delay in treatment for many patients.

In your evaluation of your patient, it is important to understand the American Society of Anesthesiologists (ASA) Physical Status Classification System.

### ASA Physical Status Classification System

ASA I	<i>A normal healthy patient Healthy, non-smoking, no or minimal alcohol use</i>
ASA II	<i>A patient with mild systemic diseases Mild diseases only without substantive functional limitations. Examples include, but are not limited to, current smoker, social alcohol drinker, pregnancy, obesity (30 &lt; BMI &lt; 40), well-controlled DM/HTN, mild lung disease.</i>
ASA III	<i>A patient with severe systemic disease Substantive functional limitations. One of more moderate to severe diseases. Examples include, but are not limited to, poorly controlled DM or HTN, COPD, morbid obesity (BMI &gt; 40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA &lt; 60 weeks, history (&gt;3 months) of MI, CVA, TIA or CAD/stents,</i>
ASA IV	<i>A patient with severe systemic disease that is a constant threat to life. Examples include, but are not limited to, recent (&lt; 3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis.</i>
ASA V	<i>A moribund patient who is not expected to survive without the operation. Examples include, but are not limited to, ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction.</i>
ASA VI	<i>A declared brain-dead patient whose organs are being removed for donor purposes</i>

In Attachment 2 (located at the end of the document), we present several case studies for your consideration. These cases do not necessarily mandate any certain pre-operative testing or suggest that pre-operative testing should be limited. They are just examples of pre-operative testing strategies that have worked for some of our Task Force members for you to consider. Each patient is unique and surgeons must decide which pre-operative tests are medically necessary for their specific patients.

Many surgeons follow the recommendations of the American Society of Anesthesiologists for pre-operative testing decisions. ASA recommendations are included as [Attachment 3](#).

In other cases, their hospital and the hospital's anesthesia department provides guidance on pre-operative testing. [Attachment 4](#), [Attachment 4A](#), and [Attachment 4B](#) are examples of how one hospital in California is advising surgeons.

As payors look for more cost-savings, COA is anticipating that getting authorization for pre-operative testing will become an increasing problem for surgical patients.

### 3. Options for Surgeons Facing Denials

- Request a peer review call with the utilization review physician to discuss the rationale for the denial. Be prepared to discuss justification for pre-operative testing, particularly the patient's baseline medical condition and co-morbidities, how you will change the surgical management of the patient as a result of the test results which may not have come under scrutiny of the reviewing physician.
- Request authorization for pre-operative medical and/or cardiac clearance when indicated. In those patients that have indemnity insurance and are also being treated for an industrial injury, consider asking the patient to have the surgical clearance testing performed by his or her own physician under their indemnity plan coverage.
- If the surgical procedure is being performed at a hospital, obtain necessary pre-operative testing on the day of surgery. This is less than ideal, since there may be a delay in the performance of the procedure or case cancellation in the event of testing abnormalities.
- Develop Pre-Operative Testing Pathways for MSK patients. This is an opportunity to work with your hospital or ASC to develop evidence-based pre-operative testing pathways for MSK patients with specific co-morbidities, (e.g., diabetes, cardiac, renal and hepatic disease, compromised immune deficiencies, etc.). The pathways should include not only guidelines for which tests should be ordered, but whether a previous test performed within a few months of the surgery, needs to be repeated. The surgeon's willingness to engage in discussions to provide value-based health care will be attractive to facilities looking to contract with orthopaedic surgeons under bundled care arrangements.
- Discuss this issue with the anesthesiologist scheduled to perform anesthesia (or the Chairman of the Anesthesia Department) in advance of the case to determine what laboratory testing is medically necessary from his/her perspective regarding the proposed procedure. In such circumstances, the pre-operative testing may not be needed or the anesthesiologist may provide assistance with documenting the need for pre-operative testing. Some facilities, particularly large hospitals, may have a pre-operative clinic staffed by an anesthesiologist or a mid-level provider that will be very helpful in providing assistance in dealing with these denials. In some cases, the payment for pre-operative testing may be included in the facility's DRG payment for the procedure itself.

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## 4. Conclusions

It appears that the era of ordering "routine" panels of pre-operative laboratory tests in all patients is coming to an end. Pre-operative tests ordered should have a direct impact on the patient's pre-operative management. Physicians should be able to show how abnormal or significant pre-operative testing results were dealt with prior to and/or after surgery.

Orthopaedic surgeons will need to be cognizant of evidence-based guidelines regarding pre-operative testing. In many cases, however, application of the guidelines without individual consideration may potentially result in patient harm. It is important, therefore, to ultimately perform the appropriate pre-operative testing that you determine is necessary for each patient on an individual basis.

## Case Studies

Case #1 - the patient was scheduled to undergo a very simple procedure to change a spinal cord stimulator battery/implantable pulse generator as an outpatient. The patient was misidentified as an "ASA Grade 1" patient (the patient was diabetic; hence she was at least an "ASA Class 2" and pre-operative testing was denied despite authorization of the surgical procedure. The denial was based upon the 2007 ACC/AHA Guidelines on Perioperative Cardiovascular Evaluation and Care for Non-Cardiac Surgery (Attachment 2-1). Attached is also the 2014 version of the guidelines (Attachment 2-2).

Discussion with the reviewing physician ultimately resulted in approval of a Complete Blood Count (CBC) and random (or fasting) glucose testing for this patient. The surgical procedure was performed without incident.

Case #2 – A healthy 22-year-old male with an L5-S1 disc herniation and unilateral S1 radiculopathy.

**Indicated laboratory studies:** None.

Case #3 – A 54-year-old female with degenerative spondylolisthesis at L4-5 with low back and lower extremity pain that is failed non-operative care is to undergo an instrumented lumbar fusion at L4-5. She is hypertensive and on diuretics. She states that she was told that she was "prediabetic" when she was pregnant with her second child. She is moderately obese (BMI 36.5). She has no cardiac history.

**Indicated laboratory studies:** Random (or fasting) glucose, basic chemistry panel. Some would consider obtaining an EKG, but this is somewhat controversial given that she has no true cardiac history.

Case #4 – A 33-year-old female with a C5-6 cervical disc herniation and a left C6 radiculopathy having failed non-operative care is to undergo cervical total disc replacement at C5-6. The patient is a mother of two children. She has a remote history of anemia associated with heavy menstrual periods. She has had no recent laboratory studies.

**Indicated laboratory studies:** Complete blood count (CBC) and urine pregnancy test.

Case #5 – A 63-year-old male with cervical spondylosis and radiculopathy at C5-6 and C6-7 is scheduled to undergo a two-level cervical discectomy fusion and plating. He has type II diabetes mellitus with peripheral neuropathy. Three years previously, he sustained a myocardial infarction which is treated with a stent. He subsequently developed atrial fibrillation and has been on chronic anticoagulant therapy. His anticoagulant therapy was discontinued five days pre-operatively in anticipation of the surgery. He also has a history of a bleeding ulcer.

**Indicated laboratory studies:** EKG, CBC, basic chemistry panel (including random or fasting glucose), coagulation studies including INR and hemoglobin A1c.

Case #6 – An out-patient trigger finger procedure in an otherwise healthy patient.

**Indicated laboratory studies:** None

Case #7 – For patients undergoing general or regional anesthesia:

Women – age 12-50 - **Indicated laboratory studies:** Pregnancy test

With anemia - **Indicated laboratory studies:** Complete Blood Count (CBC)

With diabetes – **Indicated laboratory studies:** Chem 7, Hgb A1

With bleeding disorder/coagulopathy (inc. on warfarin)

**Indicated laboratory studies:** Complete Blood Count (CBC), Coagulation Studies

With renal insufficiency - **Indicated laboratory studies:** Complete Blood Count (CBC), Chem 7

On a diuretic - **Indicated laboratory studies:** Chem 7

With Cirrhosis

**Indicated laboratory studies:** Complete Blood Count (CBC), Chem 7, Coagulation Studies, Liver Function Test (LFT)

With COPD, Heart Disease

**Indicated laboratory studies:** Complete Blood Count (CBC), Chem 7

Patients over the age of 60, with heart disease, sleep apnea, or other major health problems (diabetes, COPD, renal failure, etc.) **Indicated laboratory studies:** EKG

If major blood loss is expected during surgery

**Indicated laboratory studies:** Pre-op type and cross in addition to CBC, Chem 7, and coagulation studies