



Effective Health Care

Routine Preoperative Testing Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Routine preoperative testing will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.
- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/>.

Topic Description

Nominators: 3 health care professional associations

Nomination Summary: The nominators question whether the use of routine preoperative testing improves patient outcomes compared to patients receiving no preoperative testing or alternative testing strategies. In addition, they question whether the benefits and harms of these tests vary by the risk of the surgical procedure, the clinical condition, or comorbidities and risks of particular patients.

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Population(s): Patients undergoing elective surgery who have had a thorough history and physical examination during which no suspected clinical abnormalities are identified which might require further evaluation

Intervention(s): Routine preoperative testing: electrocardiogram, chest x-ray, complete blood count, prothrombin time/partial thromboplastin time, basic or complete metabolic panel, urinalysis, and urine pregnancy test

Comparator(s): No routine preoperative testing or alternative testing

Outcome(s): Surgical complications, morbidity, mortality, patient delays, harms from unnecessary follow-up of abnormal tests, improved system efficiency, decreased postponement of surgery, improvement of patient experience, improved patient safety, cost savings

Key Questions from Nominator:

1. Does routine preoperative testing compared to no testing or alternative testing strategies improve outcomes (such as surgical complications, other morbidity, and mortality) among patients undergoing elective surgery?
2. What are the harms of routine preoperative testing compared to no testing or to an alternative testing regimen?

3. Do the benefits or harms of routine preoperative tests vary by the risk of the surgical procedure (low vs. medium vs. high risk)? Do the benefits or harms of routine preoperative tests vary by the clinical conditions, comorbidities, or risks of the particular patient? (e.g., potassium in patients on diuretics, pregnancy test in women of child-bearing age)
4. Do routine preoperative tests change patient management decisions?

Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Traditionally, preoperative testing has been part of the screening process for appropriate preoperative care and patient selection to determine fitness for anesthesia and to identify patients at high risk of postoperative complications. During the past three decades this approach has been challenged by several academic publications indicating that nonselective testing produces many false positive, false negative, or borderline results which may cause unnecessary psychological and economic burdens and may result in a postponement of surgery.
- No recent comprehensive review related to preoperative testing in ambulatory surgery patients was identified. Therefore, this topic will move forward as a new systematic review to help inform the care of preoperative patients.