

GUIDELINES & PROTOCOLS

ADVISORY COMMITTEE

Preoperative Testing

Reviewed 2003

Scope

This guideline applies to testing prior to surgery in patients of all ages.

RECOMMENDATION 1: Test only when indicated

Preoperative testing should be performed only when indicated by the:

- history
- physical examination
- specific procedure being performed
- type of anesthesia being used.

In most cases of low-risk surgery performed without general anesthesia, such as cataract removal or cystoscopy, no preoperative testing is required.

RECOMMENDATION 2: Avoid repeat testing when possible

Avoid retesting if recent results are available and within normal limits, unless the patient's clinical status has changed significantly. For example:

- laboratory tests and ECGs performed within the previous three months
- chest x-rays performed within the previous six months.

Rationale

Peri-operative mortality and morbidity are known to increase with the severity of pre-existing disease. Surgeons and anesthesiologists are therefore justifiably concerned with the underlying health status of patients undergoing surgery and anesthesia. A careful preoperative assessment allows the surgeon and anesthesiologist to optimize the patient's condition before surgery and tailor the approach to the individual patient's situation.

Routine laboratory tests, i.e., diagnostic tests performed regardless of the clinical status of the individual patient, have long been used as part of the preoperative assessment. The current literature, however, demonstrates that there is little justification for routine diagnostic investigations. Moreover, patient management is rarely affected by the results of routine tests, given the low rates of positive findings and poor predictive values of tests in asymptomatic populations.

Accordingly, a number of recent guidelines have recommended that routine testing of asymptomatic patients be discontinued, particularly prior to procedures that do not involve significant blood loss. The literature also supports limited routine testing of symptomatic patients prior to surgery.

The table on page ii of the attached Preoperative Outpatient Diagnostic Requisition summarizes the tests most likely to be considered for particular categories of patients. However, it must be stressed that each patient may require additional tests according to individual clinical circumstances.

References

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Sponsors

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The principles of the Guidelines and Protocols Advisory Committee are:

- to encourage appropriate responses to common medical situations
- to recommend actions that are sufficient and efficient, neither excessive nor deficient
- to permit exceptions when justified by clinical circumstances.

PREOPERATIVE OUTPATIENT DIAGNOSTIC REQUISITION

No Tests Required

Hemoglobin Only

Hematology profile

Platelets

Glucose - Fasting

Creatinine

Potassium

Sodium

INR

Group & Screen

Crossmatch

Rh(D)

Chest X-ray

ECG

OTHER TESTS

INSURER CODE

MSP

WCB

ICBC

OTHER: _____

SIGNATURE OF PHYSICIAN

DATE

SAMPLE

Hospitals may adapt this sample requisition as they see fit provided that no additional tests are added to the requisition and that the summary of the Preoperative Testing guideline (see reverse) is included.

Guideline Summary: Preoperative Testing Reviewed 2003

1. Preoperative testing should be performed only when indicated by the:

- history
- physical examination
- specific procedure being performed
- type of anesthesia being used.

In most cases of low-risk surgery performed without general anesthesia, such as cataract removal or cystoscopy, no preoperative testing is required.

2. Avoid retesting if recent results are available and within normal limits, unless the patient's clinical status has changed significantly. For example:

- normal laboratory tests and ECGs performed within the previous three months
- chest x-rays performed within the previous six months.

Preoperative tests to be considered for common clinical problems and symptoms

Patient Category	Test
Neonates and infants up to one year	Hemoglobin
Women who cannot rule out pregnancy	Pregnancy test
Pregnant women undergoing procedures where they may be exposed to fetal red blood cell antigens	Rh(D) typing
Hepatic disease	INR, hematology profile, platelets, ALT
Renal disease	Na, K, creatinine, hemoglobin, platelets
Diabetes	Na, K, creatinine, FBG, ECG after age 40
Diuretic use	Na, K
Coumadin use	INR, hemoglobin

Note: Patients may require additional tests according to individual clinical circumstances.