Complete Summary

GUIDELINE TITLE

Preoperative evaluation.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Sep. 34 p. [46 references]

COMPLETE SUMMARY CONTENT

SCOPE
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IDENTIFYING INFORMATION AND AVAILABILITY

SCOPE

DISEASE/CONDITION(S)

Conditions that require elective, low-risk operative procedures

GUIDELINE CATEGORY

Evaluation
Risk Assessment

CLINICAL SPECIALTY

Anesthesiology
Family Practice
Internal Medicine
Nursing
Pediatrics
Surgery

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To ensure appropriate preoperative history and exam, and to reduce preoperative diagnostics performed without clinical indications
- To eliminate canceled or delayed surgical procedures due to lack of appropriate preoperative assessment and reporting

TARGET POPULATION

Adult and pediatric patients under evaluation for elective, low-risk operative procedures

Note: Pediatric patients for whom this guideline is intended are those between the ages of 2 and 15 years. Patients over age 15 are considered adults for the purposes of this guideline

INTERVENTIONS AND PRACTICES CONSIDERED

Preoperative Assessment

1. Perform preoperative health assessment, including medical history, physical examination, and electrocardiography (ECG).
2. Perform further evaluation as appropriate if preoperative assessment is positive (e.g., tests for hemoglobin and potassium, coagulation studies, chest x-ray).
3. Communicate results to site where procedure will be conducted.
4. Determine if patient is considered high risk.
5. Perform immediate pre-procedure assessment.

MAJOR OUTCOMES CONSIDERED

- Risk of cardiac or other operative complications
- Identification of electrocardiographic abnormalities
- Morbidity and mortality due to surgery

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Key conclusions (as determined by the work group) are supported by a conclusion grading worksheet that summarizes the important studies pertaining to the conclusion. Individual studies are classed according to the system presented below, and are designated as positive, negative, or neutral to reflect the study quality.

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Study Quality Designations:

The quality of the primary research reports and systematic reviews are designated in the following ways on the conclusion grading worksheets:

Positive: indicates that the report or review has clearly addressed issues of inclusion/exclusion, bias, generalizability, and data collection and analysis.

Negative: indicates that these issues (inclusion/exclusion, bias, generalizability, and data collection and analysis) have not been adequately addressed.

Neutral: indicates that the report or review is neither exceptionally strong nor exceptionally weak.

Not Applicable: indicates that the report is not a primary reference or a systematic review and therefore the quality has not been assessed.

Classes of Research Reports:

A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Pilot Testing
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Institute Partners: System-Wide Review

The guideline draft, discussion, and measurement specification documents undergo thorough review. Written comments are solicited from clinical, measurement, and management experts from within the member medical groups during an eight-week period of "Critical Review."

Each of the Institute's participating medical groups determines its own process for distributing the guideline and obtaining feedback. Clinicians are asked to suggest modifications based on their understanding of the clinical literature coupled with their clinical expertise. Representatives from all departments involved in implementation and measurement review the guideline to determine its operational impact. Measurement specifications for selected measures are developed by the Institute for Clinical Systems Improvement (ICSI) in collaboration with participating medical groups following general implementation of the guideline. The specifications suggest approaches to operationalizing the measure.

Guideline Work Group: Second Draft

Following the completion of the "Critical Review" period, the guideline work group meets 1 to 2 times to review the input received. The original guideline is revised as necessary, and a written response is prepared to address each of the suggestions received from medical groups. Two members of the Committee on Evidence-Based Practice carefully review the Critical Review input, the work group responses, and the revised draft of the guideline. They report to the entire committee their assessment of two questions: (1) Have the concerns of the medical groups been adequately addressed? (2) Are the medical groups willing and able to implement the guideline? The committee then either approves the guideline for pilot testing as submitted or negotiates changes with the work group representative present at the meeting.

Pilot Test

Medical groups introduce the guideline at pilot sites, providing training to the clinical staff and incorporating it into the organization's scheduling, computer and other practice systems. Evaluation and assessment occur throughout the pilot test phase, which usually lasts for three months. Comments and suggestions are solicited in the same manner as used during the "Critical Review" phase.

The guideline work group meets to review the pilot sites' experiences and makes the necessary revisions to the guideline, and the Committee on Evidence-Based Practice reviews the revised guideline and approves it for implementation.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The recommendations for preoperative evaluation are presented in the form of an algorithm with 10 components, accompanied by detailed annotations. An algorithm is provided for Preoperative Evaluation; clinical highlights and selected annotations (numbered to correspond with the algorithm) follow.

Class of evidence (A-D, M, R, X) and conclusion grade (I-III, Not Assignable) definitions are repeated at the end of the "Major Recommendations" field.

Clinical Highlights

1. Provide a comprehensive preoperative basic health assessment for all patients undergoing a diagnostic or therapeutic procedure as defined in the guideline. (Annotation #4)
2. Laboratory tests are not necessary with routine procedures unless a specific indication is present. (Annotation #6)

Preoperative Evaluation Algorithm Annotations

1. Decision to Perform Elective Procedure
    - The decision to perform an elective procedure is usually made at the time of the surgical or other consultation. There may be exceptions; for example, a nonsurgical procedure such as a computed tomography

(CT)-guided lung biopsy might be arranged by the primary physician after discussion with a radiologist.
- A member of the surgical team explains the procedure and the need for anesthesia to the patient and may obtain and document consent. (These issues must be addressed but are not part of this guideline.)
- Patient education is essential to assist the patient in preparing for the surgical procedure and to reinforce compliance to preoperative instructions. The "Patient Preoperative Guide," an optional tool, may assist in these efforts. Please refer to Annotation Appendix A in the original guideline document.
- Patients undergoing high-risk or emergent procedures are beyond the scope of this guideline as a more extensive evaluation and risk assessment may be needed.

2. High-Risk Procedure?
   - High-risk referred to here is primarily surgical procedure-derived risk of cardiac/pulmonary complication. Cardiovascular complications are more common in adults, and pulmonary complications are more common in children. If a procedure presents other specific noncardiovascular associated high risk, that risk and its stratification are beyond the scope of this guideline and need to be individually addressed by the surgeon. For example, a neurosurgical procedure may have an inherent elevated hemostasis risk.
   - Although it is ultimately up to the involved providers to determine whether a particular procedure is considered to be high risk, it is generally accepted that most high-risk (greater than 5 percent combined incidence of cardiac death and nonfatal myocardial infarction) procedures fall into the following categories:
     - Cardiac procedures
     - Aortic and other major vessel vascular procedures
     - Peripheral arterial vascular procedures
     - Anticipated prolonged surgical procedures (usually greater than two hours) associated with large fluid shifts and/or blood loss (e.g., pancreas resection [Whipple procedure], major spinal surgery).
3. Out of Guideline
   - Although patients having high-risk procedures are not included in this guideline, a preoperative basic health assessment as defined by this guideline should also form the foundation of the preoperative evaluation for this group of patients.
   - Patients having high-risk procedures are not included in the guideline because further adjunctive evaluation may be needed even though not specifically suggested by the preoperative basic health assessment.

4. Preoperative Basic Health Assessment
   - A complete preoperative basic health assessment includes:

     <u>Medical History</u>

     Indication for surgical procedure
     Allergies and intolerances to medications or other agents (specify reaction type)
     Known medical problems

Surgical history
Trauma (major)
Current medications (prescription and nonprescription)
Focused review of issues pertinent to the planned anesthesia/procedure:

- current status of pertinent known medical problems
- cardiac status
- pulmonary status
- hemostasis status (personal or family history of abnormal bleeding)
- possibility of severe (symptomatic) anemia
- possibility of pregnancy
- past personal or family history of anesthesia problems
- smoking and alcohol history
- functional status

Physical Exam

Weight and height
Vital signs - blood pressure, pulse (rate and regularity), respiratory rate
Cardiac
Pulmonary
Other pertinent exam
Electrocardiogram (ECG) - recommended for all patients age 55 and over, within one year prior to procedure. Also, ECGs are not indicated, regardless of age, for those patients having cataract surgery. Preoperative ECGs are not predictive of cardiac risk. [Conclusion grade II: See Discussion Appendix A, Conclusion Grading Worksheet - Annotation #4 (ECGs not Predictive) in the original guideline document].

- A preoperative basic health assessment as outlined in this guideline is required for all patients undergoing a diagnostic or therapeutic procedure, regardless of setting, except for:
    1. Otherwise healthy patients receiving peripheral nerve blocks, local or topical anesthesia, and/or no more than 50% nitrogen oxide (N_2O) oxygen and no other sedative or analgesic agents administered by any route (for example, most dental procedures or excision of simple skin lesions).
    2. Patients receiving "sedation/analgesia" (often referred to as "conscious sedation") defined as "a state that allows patients to tolerate unpleasant procedures while maintaining adequate cardiopulmonary function and the ability to respond purposefully to verbal command and/or tactile stimulation." This technique is commonly used for procedures such as endoscopy and bronchoscopy, and may be used for certain surgical procedures. Patient history must be available at the time they receive sedation/analgesia.

- The preoperative basic health assessment may be done anytime within thirty days of the planned procedure. A brief interim history and physical may be required to satisfy regulatory agencies.
- The patient needs to be aware that the preoperative assessment is not a substitute for preventive services. But the preoperative evaluation may be used as an opportunity to address preventive services.
- This is another opportune time to initiate or augment patient education efforts including the use of the patient preoperative guide.

  A sample preoperative form is attached in Annotation Appendix B in the original guideline document.

  Evidence supporting these recommendations is of classes: A, B, C, D, R

5. Positive Findings Pertinent to Preoperative Evaluation?
   - Positive findings are results from the preoperative basic health assessment that suggest that further evaluation is needed in order to assess or optimize surgical/anesthesia risk and care. Examples of positive findings are a patient taking medication such as a diuretic suggesting the need for a recent potassium level, the presence of chest pains, or a markedly elevated blood pressure. Examples of positive findings in pediatric patients include a current upper respiratory infection (URI) or asthma.
   - There may be other positive findings that, although not relevant to the planned procedure, may be relevant to the patient's general health. The evaluation of these findings would follow standard medical practice and is beyond the scope of the guideline. This type of finding would not necessarily need to delay the procedure.

     Preoperative questionnaires for adult and pediatric patients to assist in determining positive findings are attached in Annotation Appendix C in the original guideline document.

6. Further Evaluation Performed and Evaluated for Surgical/Anesthesia Risk

   Further evaluation may be as simple as asking a few more questions, performing further physical examination, or ordering a laboratory or radiological exam. More in-depth evaluations may be needed such as a consultation or treadmill testing.

   The type and extent of evaluation required should be guided by standard medical practice with consideration of the patient's underlying medical condition and the planned procedure. For example, some practitioners will order a baseline preoperative hemoglobin if significant blood loss is anticipated. Recommendations for this type of testing are beyond the scope of the guideline.

   Positive findings might trigger a need for a specific laboratory test. Note that most laboratory tests (e.g., hemoglobin, potassium, coagulation studies,

chest x-rays, ECGs) are not necessary with routine procedures unless a specific indication is present.

Test - Consider performing if:

Hemoglobin: Patient has a history of anemia or history suggesting recent blood loss or anemia.

Potassium: Patient is taking digoxin or diuretics.

Coagulation studies: Patient has a known history of coagulation abnormalities or recent history suggesting coagulation problems or on anticoagulants; patient needs anticoagulation post-operatively (where a baseline may be needed).

Chest x-ray: Patient has signs or symptoms suggesting new or unstable cardiopulmonary disease.

ECG: No ECG within last year in all patients (regardless of age) with history of diabetes, hypertension, chest pain, congestive heart failure, smoking, peripheral vascular disease, inability to exercise, or morbid obesity; at time of preoperative evaluation, testing should occur in patients with any intercurrent cardiovascular symptoms or with signs and symptoms of new or unstable cardiac disease.

Evidence supporting the recommendation on ECG is of classes: A, B, C, D, M, R

7. Communicate Results to Site

   The results must be communicated to the location where the procedure will be conducted prior to the date of the scheduled procedure. The report should include a complete summary of the assessment, any adjunctive evaluation, and any specific recommendations.

   Preoperative forms for relaying preoperative assessment information for adult and pediatric patients are attached in Annotation Appendix C in the original guideline document.

8. High Risk Patient?
   - High-risk in this context refers particularly to the risk of cardiac complications in adults and airway complications in pediatric patients. However, noncardiac conditions in adults and cardiac conditions in pediatric patients, along with other conditions such as coagulopathy, severe symptomatic anemia, pregnancy, and anesthesia reactions can be significant problems in selected patients. These conditions also need to be screened for as indicated in the preoperative basic health assessment. The specifics of risk stratification for noncardiac conditions relative to an individual patient are beyond the scope of this guideline.

- The final determination of a patient as high risk occurs after review and analysis of the preoperative basic health assessment and any other adjunctive evaluation that was indicated for surgical/anesthesia risk. The determination is the responsibility of involved providers, including the primary care physician, surgeon, and/or anesthesiologist.
- Although it is ultimately the responsibility of involved providers to determine whether a particular patient is considered to be at high risk of complication, it is generally accepted that patients at high risk usually fall into the following categories:

  <u>Cardiovascular</u>

  - unstable coronary syndromes
    - recent* myocardial infarction (MI)

      *recent can mean less than 30 days if post myocardial infarction cardiac risk stratification is completed and patient determined to be low-risk; 3 to 6 months if formal risk stratification not done.

    - unstable or severe angina
  - decompensated congestive heart failure
  - significant arrhythmias
    - high grade atrioventricular block
    - symptomatic ventricular arrhythmias in the presence of underlying heart disease
    - supraventricular arrhythmias with uncontrolled ventricular rate
  - severe valvular disease
  - severe hypertension (diastolic >110, systolic >180)
  - congenital heart abnormalities in pediatric patients

  <u>Non-Cardiovascular</u>

  - pulmonary disease, severe or symptomatic (e.g., chronic obstructive pulmonary disease requiring oxygen, respiratory distress at rest, asthma, cystic fibrosis)
  - poorly controlled diabetes (causing symptoms with attendant risk of hypovolemia)
  - symptomatic anemia

9. Immediate Pre-Procedure Assessment

The immediate pre-procedure assessment is completed when the patient arrives for the procedure. The purpose is to assure that all necessary information is available and that the patient's medical condition is stable (i.e., he/she continues to be a low-risk patient). The nature of this review is beyond the scope of the guideline but is defined by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other regulatory agencies.

Definitions:

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

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A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study

- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

CLINICAL ALGORITHM(S)

A detailed and annotated clinical algorithm is provided for Preoperative Evaluation.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The guideline contains an annotated bibliography and discussion of the evidence supporting each recommendation. The type of supporting evidence is classified for selected recommendations (see "Major Recommendations").

In addition, key conclusions are supported by a conclusion grading worksheet that summarizes the important studies that pertain to the conclusion. The type and quality of the evidence supporting these key recommendations is graded for each study.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Decreased morbidity and mortality due to surgery
- Elimination of canceled or delayed surgical procedures
- Appropriate preoperative history taking and reduction of diagnostics performed without clinical indications

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This clinical guideline is designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. A guideline will rarely establish the only approach to a problem.
- This clinical guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients are urged to consult a health care professional regarding their own situation and any specific medical questions they may have.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Once a guideline is approved for general implementation, a medical group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment, and tobacco cessation.

Detailed measurement strategies are presented in the original guideline document to help close the gap between clinical practice and the guideline recommendations. Summaries of the measures are provided in the National Quality Measures Clearinghouse (NQMC).

RELATED NQMC MEASURES

- Preoperative evaluation: percent of patients between 40-54 having an electrocardiogram (ECG) performed as part of a preoperative assessment.
- Preoperative evaluation: percent of patients having a preoperative health assessment and any adjunctive evaluation prior to date of scheduled procedure.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Sep. 34 p. [46 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1997 Sep (revised 2003 Sep)

GUIDELINE DEVELOPER(S)

Institute for Clinical Systems Improvement - Private Nonprofit Organization

GUIDELINE DEVELOPER COMMENT

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers, Allina Medical Clinic, Altru Health System, Aspen Medical Group, Avera Health, CentraCare, Columbia Park Medical Group, Community-University Health Care Center, Dakota Clinic, ENT Specialty Care, Fairview Health Services, Family HealthServices Minnesota, Family Practice Medical Center, Gateway Family Health Clinic, Gillette Children's Specialty Healthcare, Grand Itasca Clinic and Hospital, HealthEast Care System, HealthPartners Central Minnesota Clinics, HealthPartners Medical Group and Clinics, Hutchinson Area Health Care, Hutchinson Medical Center, Lakeview Clinic, Mayo Clinic, Mercy Hospital and Health Care Center, MeritCare, Mille Lacs Health System, Minnesota Gastroenterology, Montevideo Clinic, North Clinic, North Memorial Care System, North Suburban Family Physicians, Northwest Family Physicians, Olmsted Medical Center, Park Nicollet Health Services, Pilot City Health Center, Quello Clinic, Ridgeview Medical Center, River Falls Medical Clinic, Saint Mary's/Duluth Clinic Health System, St. Paul Heart Clinic, Sioux Valley Hospitals and Health System, Southside Community Health Services, Stillwater Medical

Group, SuperiorHealth Medical Group, University of Minnesota Physicians, Winona Clinic, Ltd., Winona Health

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SOURCE(S) OF FUNDING

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GUIDELINE COMMITTEE

Committee on Evidence-Based Practice

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

In the interest of full disclosure, Institute for Clinical Systems Improvement (ICSI) has adopted the policy of revealing relationships work group members have with companies that sell products or services that are relevant to this guideline topic. The reader should not assume that these financial interests will have an adverse impact on the content of the guideline, but they are noted here to fully inform users. Readers of the guideline may assume that only work group members listed below have potential conflicts of interest to disclose.

No work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at www.icsi.org.

GUIDELINE STATUS

This is the current release of the guideline.

It updates a previously released version: Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2002 Mar. 27 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Preoperative evaluation. In: ICSI pocket guidelines. April 2003 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2003 Mar. pp. 374-378.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

PATIENT RESOURCES

None available

NGC STATUS

This summary was updated on December 4, 2002. The updated information was verified by the guideline developer on December 24, 2002. This summary was updated by ECRI on May 3, 2004.

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