Complete Summary

GUIDELINE TITLE

Clinical use of esophageal manometry.

BIBLIOGRAPHIC SOURCE(S)

An American Gastroenterological Association medical position statement on the clinical use of esophageal manometry. American Gastroenterological Association. Gastroenterology 1994 Dec;107(6):1865. [140 references] PubMed

Kahrilas PJ, Clouse RE, Hogan WJ. American Gastroenterological Association technical review on the clinical use of esophageal manometry. Gastroenterology 1994 Dec;107(6):1865-84. [140 references] PubMed

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SCOPE

DISEASE/CONDITION(S)

- Esophageal motility disorders, such as achalasia or diffuse esophageal spasm
- Esophageal motor abnormalities associated with systemic diseases (e.g., connective tissue diseases)

GUIDELINE CATEGORY

Assessment of Therapeutic Effectiveness
Diagnosis
Evaluation
Management

CLINICAL SPECIALTY

Gastroenterology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To assist physicians in the appropriate use of esophageal manometry in patient care.

TARGET POPULATION

1. Adults with esophageal syndromes, such as achalasia or diffuse esophageal spasm, or multisystem diseases that have esophageal dysmotility as one component.
2. Adults being considered for antireflux surgery if uncertainty remains regarding the correct diagnosis.
3. Adults requiring placement of intraluminal diagnostic devices.

INTERVENTIONS AND PRACTICES CONSIDERED

Esophageal manometry

MAJOR OUTCOMES CONSIDERED

1. Impact of manometry on management decisions in gastroesophageal reflux disease.
2. Prognostic value of manometric findings with regard to postoperative outcome in patients with esophageal motility disorders (i.e., control of reflux symptoms and incidence of symptomatic dysphagia).

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

This critical assessment was accomplished by retrieving and reviewing data reported in the medical literature. For each syndrome, relevant key words were used to search the National Library of Medicine database for the period from 1980 to July 1993. The key word combination of gastroesophageal reflux disease and surgery located 401 citations, gastroesophageal reflux in conjunction with diagnosis or manometry located 453 citations, chest pain and esophageal motility disorders located 189 citations, and deglutition disorders in conjunction with diagnosis or manometry located 217 citations. Reports were included in the discussion only if they met rather stringent criteria: (1) they were designed to address one of the clinically relevant objectives enumerated above, (2) the manometric findings under discussion were of potential physiological relevance as outlined in the first section of this report, (3) the manometric methodology used

was valid and consistent with the methodological principles outlined above, and (4) reported findings were based on an appropriate experimental design with an adequate number of subjects and controls when necessary.

NUMBER OF SOURCE DOCUMENTS

The key word combination of gastroesophageal reflux disease and surgery located 401 citations, gastroesophageal reflux in conjunction with diagnosis or manometry located 453 citations, chest pain and esophageal motility disorders located 189 citations, and deglutition disorders in conjunction with diagnosis or manometry located 217 citations.

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Reports were included in the discussion only if they met rather stringent criteria: (a) they were designed to address one of the clinically relevant objectives enumerated above, (b) the manometric findings under discussion were of potential physiological relevance as outlined in the first section of this report, (c) the manometric methodology used was valid and consistent with the methodological principles outlined above, and (d) reported findings were based on an appropriate experimental design with an adequate number of subjects and controls when necessary. In no case was there a sufficient number of comparable reports addressing clinical use found to allow combined statistical analyses of results.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The document was approved by the American Gastroenterological Association Patient Care Committee on May 15, 1994, and by the American Gastroenterological Association Governing Board on July 15, 1994.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

1. Manometry may be requested by any physician in compliance with the remainder of these guidelines.
2. Manometry is indicated to establish the diagnosis of suspected cases of achalasia or diffuse esophageal spasm. Because of the low prevalence of these diagnoses in patients with esophageal symptoms, more common esophageal disorders should be excluded with barium radiographs or endoscopy before manometric evaluation.
3. Manometry is indicated for detecting esophageal motor abnormalities associated with systemic diseases (e.g., connective tissue diseases) if their detection would contribute to establishing a multisystem diagnosis or to other aspects of management.
4. Manometric techniques are indicated for placement of intraluminal devices (e.g., pH probes) when positioning is dependent on the relationship to functional landmarks, such as the lower sphincter.
5. Manometry is possibly indicated for the preoperative assessment of peristaltic function in patients being considered for antireflux surgery and is indicated in this setting if uncertainty remains regarding the correct diagnosis.
6. Manometry is not indicated for making or confirming a suspected diagnosis of gastroesophageal reflux disease.
7. Manometry should not be routinely used as the initial test for chest pain or other esophageal symptoms because of the low specificity of the findings and the low likelihood of detecting a clinically significant motility disorder.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Not specifically stated for each recommendation.

The recommendations emanate from a comprehensive review of the medical literature pertaining to manometric technique and application.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate utilization of manometric studies in diagnosis and management of esophageal disorders.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

1. It has become increasingly clear that, along with pathophysiologically important abnormalities, manometry detects insignificant aberrations of esophageal motility that have no proven relevance to the symptoms or management of patients with esophageal syndromes. These minor manometric abnormalities may represent subclinical forms of motor dysfunction or insignificant deviations from normal, and their detection is of questionable clinical value.
2. In theory, the combination of abnormalities leading to gastroesophageal reflux disease in an individual patient might lead to customized treatment to correct the specific defects. However, there has not yet been any demonstration that the detection of any of these manometric aberrations predicts the appropriateness of a particular therapeutic agent.
3. No reports were found indicating a reversal of esophageal involvement as a result of specific therapy for collagen vascular disease. Similarly, there are no reported data showing that early diagnosis and treatment alters the clinical course of esophageal involvement in collagen vascular disease. Thus, the clinical outcome of "scleroderma esophagus" is entirely dependent on the severity of ensuing reflux disease and published reports have not shown any significant influence of a manometric assessment on the diagnosis, staging, or pharmacological treatment algorithms of gastroesophageal reflux disease.
4. Manometric screening for severe peristaltic dysfunction remains reasonable despite the lack of data because of the strong clinical impression that patients with these findings are at greater risk of poor outcome and might benefit from alternative management approaches.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

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

DATE RELEASED

1994 Jul 15 (reviewed 2001)

GUIDELINE DEVELOPER(S)

American Gastroenterological Association - Medical Specialty Society

SOURCE(S) OF FUNDING

American Gastroenterological Association

GUIDELINE COMMITTEE

American Gastroenterological Association Patient Care Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

According to the guideline developer, the Clinical Practice Committee meets 3 times a year to review all American Gastroenterological Association guidelines. This review includes new literature searches of electronic databases followed by expert committee review of new evidence that has emerged since the original publication date.

This guideline has been reviewed by the developer and is still considered to be current as of Dec 2001.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American Gastroenterological Association (AGA) Web site.

Print copies: Available from American Gastroenterological Association, 4930 Del Ray Avenue, Bethesda, MD 20814.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Kahrilas PJ, Clouse RE, Hogan WJ. American Gastroenterological Association technical review on the clinical use of esophageal manometry [140 references]. Gastroenterology 1994 Dec;107(6);1865-84.

Print copies: Available from American Gastroenterological Association, 4930 Del Ray Avenue, Bethesda, MD 20814.

NGC STATUS

This summary was completed by ECRI on June 30, 1998. It was verified by the guideline developer on December 1, 1998.

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