



## Complete Summary

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### GUIDELINE TITLE

ASGE technology status evaluation report: radiographic contrast media used in ERCP.

### BIBLIOGRAPHIC SOURCE(S)

Mishkin D, Carpenter S, Croffie J, Chuttani R, Disario J, Hussain N, Liu J, Somogyi L, Tierney W, Petersen BT. ASGE Technology Status Evaluation Report: radiographic contrast media used in ERCP. *Gastrointest Endosc* 2005 Oct;62(4):480-4. [23 references] [PubMed](#)

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

SCOPE  
METHODOLOGY - including Rating Scheme and Cost Analysis  
RECOMMENDATIONS  
EVIDENCE SUPPORTING THE RECOMMENDATIONS  
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
QUALIFYING STATEMENTS  
IMPLEMENTATION OF THE GUIDELINE  
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Pancreatic or hepatobiliary diseases including gallstones, cancers and pancreatitis

### GUIDELINE CATEGORY

Diagnosis  
Evaluation  
Technology Assessment

### CLINICAL SPECIALTY

Gastroenterology  
Radiology

## **INTENDED USERS**

Physicians

## **GUIDELINE OBJECTIVE(S)**

- To promote the appropriate use of new or emerging endoscopic technologies and those technologies that impact practice
- To review the use of contrast media (CM) in endoscopic retrograde cholangiopancreatography (ERCP), including its relation to image quality, the likelihood for systemic absorption, and the risk for, and means of, reducing adverse reactions

## **TARGET POPULATION**

Patients with known or suspected pancreatic or hepatobiliary diseases undergoing endoscopic retrograde cholangiopancreatography (ERCP)

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Endoscopic retrograde cholangiopancreatography (ERCP)
2. In patients at high risk for contrast media (CM)-related reactions:
  - Steroid pretreatment
  - Substitution of low osmolality contrast media (LOCM) during ERCP

**Note:** Routine addition of antibiotics to CM was considered but not recommended.

## **MAJOR OUTCOMES CONSIDERED**

Serious adverse events

## **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**

Not stated

**RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

**METHODS USED TO ANALYZE THE EVIDENCE**

Review

**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**

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

**METHOD OF GUIDELINE VALIDATION**

Not stated

**DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Not applicable

**RECOMMENDATIONS**

**MAJOR RECOMMENDATIONS**

The safety data derived from studies of the intravascular use of low osmolality contrast media (LOCM) cannot be translated to endoscopic retrograde cholangiopancreatography (ERCP) in view of their low incidence of serious adverse events with nonvascular use. The evidence is lacking to support LOCM as a method for decreasing ERCP complications.

There is no justification for the routine use of LOCM during ERCP. In patients considered at high risk for contrast media (CM)-related reactions (i.e., those with a prior serious anaphylactoid reaction to intravascular CM), premedication and/or substitution of LOCM may be considered as an option based on the above-mentioned theoretical considerations.

The low frequency of sepsis after adequate biliary and pancreatic drainage at ERCP and the lack of data argue against the practice of routinely adding antibiotics to CM. Additional data are needed regarding the use of antibiotics in contrast media for those disease states in which optimal drainage cannot be accomplished.

### **CLINICAL ALGORITHM(S)**

None provided

## **EVIDENCE SUPPORTING THE RECOMMENDATIONS**

### **TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

The type of evidence supporting the recommendations is not specifically stated.

## **BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

### **POTENTIAL BENEFITS**

Prevention of serious adverse reactions to intravascular administration of contrast media for endoscopic retrograde cholangiopancreatography

### **POTENTIAL HARMS**

- Systemic adverse reactions to contrast media (CM) used in endoscopic retrograde cholangiopancreatography (ERCP) have been documented, but their true incidence is unknown. Adverse reactions can be characterized as idiosyncratic or nonidiosyncratic, based on their proposed mechanisms. In general, nonidiosyncratic reactions are most likely dose and osmolality related, whereas idiosyncratic (anaphylactoid) reactions usually occur immediately. Acute CM reactions can be subdivided into minor, intermediate/moderate, and severe (see Table 1 "Categories of acute reactions" in the original guideline document).
- No statistical difference in the risk of clinical post-ERCP pancreatitis with the use of high osmolality contrast media (HOCM) vs. low osmolality contrast media (LOCM); however, high osmolar contrast was associated with an increased incidence of asymptomatic elevations of pancreatic enzymes.

## **QUALIFYING STATEMENTS**

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To promote the appropriate use of new or emerging endoscopic technologies and those technologies that impact on endoscopic practice, the American Society for Gastrointestinal Endoscopy Technology Assessment Committee has developed a series of status evaluation papers. This process presents relevant information about these technologies to practicing physicians for the education and the care of their patients. In many cases, data from randomized controlled trials are lacking and only preliminary clinical studies are available. Practitioners should continue to monitor the medical literature for subsequent data about the efficacy, the safety, and the socioeconomic aspects of these technologies.

## 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  
Staying Healthy

### IOM DOMAIN

Safety

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Mishkin D, Carpenter S, Croffie J, Chuttani R, Disario J, Hussain N, Liu J, Somogyi L, Tierney W, Petersen BT. ASGE Technology Status Evaluation Report: radiographic contrast media used in ERCP. *Gastrointest Endosc* 2005 Oct;62(4):480-4. [23 references] [PubMed](#)

### ADAPTATION

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

### DATE RELEASED

2005 Oct

### GUIDELINE DEVELOPER(S)

American Society for Gastrointestinal Endoscopy - Medical Specialty Society

**SOURCE(S) OF FUNDING**

American Society for Gastrointestinal Endoscopy

**GUIDELINE COMMITTEE**

Technology Assessment Committee

**COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Committee Members:* Daniel Mishkin, MD; Steven Carpenter, MD; Joseph Croffie, MD; Ram Chuttani, MD; James DiSario, MD; Nadeem Hussain, MD; Julia Liu, MD; Lehel Somogyi, MD; William Tierney, MD; Bret T. Petersen, MD (*Chair*)

**FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

**GUIDELINE STATUS**

This is the current release of the guideline.

**GUIDELINE AVAILABILITY**

Electronic copies: Available from the [American Society for Gastrointestinal Endoscopy Web site](#).

Print copies: Available from the American Society for Gastrointestinal Endoscopy, 1520 Kensington Road, Suite 202, Oak Brook, IL 60523

**AVAILABILITY OF COMPANION DOCUMENTS**

None available

**PATIENT RESOURCES**

None available

**NGC STATUS**

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