Complete Summary

GUIDELINE TITLE

Treatment of acute pancreatitis.

BIBLIOGRAPHIC SOURCE(S)

Society for Surgery of the Alimentary Tract (SSAT). Treatment of acute pancreatitis. Manchester (MA): Society for Surgery of the Alimentary Tract (SSAT); 2004. 3 p.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates the previously issued version: Society for Surgery of the Alimentary Tract. Treatment of acute pancreatitis. Manchester (MA): Society for Surgery of the Alimentary Tract; 2000. 3 p.

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SCOPE

DISEASE/CONDITION(S)

Acute pancreatitis

GUIDELINE CATEGORY

Evaluation
Treatment

CLINICAL SPECIALTY

Gastroenterology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To guide primary care physicians to the appropriate utilization of surgical procedures on the alimentary tract or related organs

TARGET POPULATION

Adult patients with acute pancreatitis

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Assessment of symptoms
2. Measurement of serum amylase and lipase levels
3. Establishing etiology of pancreatitis
4. Computed tomography scan (unenhanced and enhanced with oral and intravenous contrast)
5. Enhanced helical computed tomography scan
6. Other diagnostic tests, including arterial blood gases, complete blood count, serum chemistries

Treatment

1. Initial 24 to 48 hours: no oral intake, narcotics for pain relief, intravenous fluids
2. Cholecystectomy for patients with gallstone pancreatitis
3. Endoscopic papillotomy if common bile duct is obstructed by a stone
4. Referral to counseling/detoxification/rehabilitation program for patients with history of alcoholism
5. Diet and drug therapy for patients with hyperlipidemia
6. If indications of multiple organ failure, institute vigorous fluid resuscitation with electrolyte solutions
7. Swan-Ganz monitoring in patients with signs and symptoms of multiple organ failure (e.g., decreased perfusion of lungs and kidneys)
8. Antibiotic treatment to prevent or delay infection associated with severe pancreatitis in the initial 1 to 2 weeks of acute onset
9. Surgical excision of infected pancreatic and peripancreatic tissue, with reoperation if required
10. Aggressive nutritional support

MAJOR OUTCOMES CONSIDERED

- Morbidity and mortality rates associated with pancreatitis
- Length of hospital stay

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 applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The Society for Surgery of the Alimentary Tract (SSAT) guidelines are based on statements and recommendations that were overwhelmingly supported by clinical evidence. Each represents a consensus of opinion and is considered a reasonable plan for a specific clinical condition.

(See companion document Gadacz TR, Traverso LW, Fried GM, Stabile B, Levine BA. Practice guidelines for patients with gastrointestinal surgical diseases. J Gastrointest Surg 1998;2:483-484.)

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

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guidelines were reviewed by several committee members and then by the entire committee on several occasions. Each guideline was then sent back to the original author for final comment and reviewed again by the committee. Each guideline was approved by the Board of Trustees of the Society for Surgery of the Alimentary Tract and final comments were reviewed by the committee.

(See companion document Gadacz TR, Traverso LW, Fried GM, Stabile B, Levine BA. Practice guidelines for patients with gastrointestinal surgical diseases. J Gastrointest Surg 1998;2:483-484.)

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Symptoms and Diagnosis

Patients often complain of severe upper abdominal pain radiating straight through to the back, with associated nausea and vomiting. Abdominal findings vary from epigastric tenderness on deep palpation to an acute abdomen with distention. Serum amylase and lipase levels are usually elevated but correlate poorly with disease severity. It is therefore essential to establish the etiology of pancreatitis. In some cases, treatment of a specific cause of pancreatitis is indicated, such as cholecystectomy for patients with gallstone pancreatitis. It may initially be difficult to distinguish severely ill patients from those with mild disease. Early unenhanced computed tomography (CT) scan can confirm the diagnosis and serve as a useful indicator of severity. If the patient with severe pancreatitis is adequately resuscitated, a CT scan with oral and intravenous contrast should be obtained if renal function is adequate. Pancreatic necrosis, estimated on early, contrast-enhanced helical CT is a specific predictor of morbidity and mortality. The presence or absence of cholelithiasis should be determined as early as possible, usually with ultrasonography. Other useful diagnostic tests include arterial blood gases, complete blood count (CBC), and serum chemistries such as calcium, glucose, and creatinine.

Treatment

Patients with mild pancreatitis usually experience resolution of their pain within 24 to 48 hours after a regimen of no oral intake, narcotics for pain relief, and intravenous fluids. Once oral intake is tolerated, patients can be discharged from the hospital. Patients with pancreatitis secondary to gallstones should undergo cholecystectomy during the same hospitalization. Common bile duct obstruction from a stone at the ampulla requires urgent removal of the stone (preferably by endoscopic papillotomy) if there is evidence of cholangitis. Patients with a history of alcoholism should be counseled and encouraged to participate in a detoxification and rehabilitation program, while patients with hyperlipidemia should be placed on appropriate diet and drug therapy. Severe pancreatitis is often associated with a marked increase in microvascular permeability, leading to large volume losses of intravascular fluid into the tissues, thereby decreasing perfusion of the lungs, kidneys, and other organs. Probably the single most important element in preventing multiple organ failure is vigorous fluid resuscitation with electrolyte solutions in order to optimize cardiac index and maintain hemodynamic stability. Swan-Ganz monitoring is helpful in such patients. In this scenario, fewer patients develop multiple organ failure. Patients with severe pancreatitis should be treated in an intensive care unit because of the associated high mortality and morbidity rates. If these patients do not improve within 7 days referral should be made to a medical center with a team experienced in caring for severe pancreatitis. Nonoperative management is recommended for sterile pancreatic necrosis, while surgical debridement and drainage remains the preferred approach for infected pancreatic necrosis. Repeated scheduled reoperation for necrosectomy until all necrotic tissue has been debrided may be required. When infection supervenes two or more weeks after onset of symptoms, the infected pancreatic and peripancreatic tissue is more readily defined and removed at operation, with a decreased mortality rate. Treatment of infected fluid collections may include endoscopic, radiologic, and operative procedures. Preventing or delaying infection with appropriate antibiotics possibly reduces morbidity and mortality. Aggressive nutritional support is also essential for these patients.

Qualifications of Personnel Providing Care or Surgery

These patients should ideally be treated by a team of physicians qualified to care for critically ill patients and especially patients with severe pancreatitis. At a minimum, surgeons who are certified or eligible for certification by the American Board of Surgery, the Royal College of Physicians and Surgeons of Canada, or their equivalent should perform operations for pancreatitis. Pancreatic surgery should preferably be performed by surgeons with special knowledge, training, and experience in the management of pancreatic disease. These surgeons have successfully completed at least 5 years of surgical training after medical school graduation and are qualified to perform operations on the pancreas. The level of training in advanced laparoscopic techniques necessary to conduct minimally invasive surgery of the pancreas is important to assess. The qualifications of a surgeon performing any operative procedure should be based on training (education), experience, and outcomes.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- The mortality associated with severe pancreatitis and length of hospital stays should improve with adequate early resuscitation and the use of invasive procedures.
- Preventing or delaying infection with appropriate antibiotics possibly reduces morbidity and mortality.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

These guidelines have been written by the Patient Care Committee of the Society for Surgery of the Alimentary Tract (SSAT). Their goal is to guide primary care physicians to the appropriate utilization of surgical procedures on the alimentary tract or related organs and they are based on critical review of the literature and expert opinion. Both of the latter sources of information result in a consensus that is recorded in the form of these Guidelines. The consensus addresses the **range** of acceptable clinical practice and should not be construed as a standard of care. These Guidelines require periodic revision to ensure that clinicians utilize procedures appropriately, but the reader must realize that clinical judgment may justify a course of action outside of the recommendations contained herein.

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

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Society for Surgery of the Alimentary Tract (SSAT). Treatment of acute pancreatitis. Manchester (MA): Society for Surgery of the Alimentary Tract (SSAT); 2004. 3 p.

ADAPTATION

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

DATE RELEASED

1996 (revised 2004 May 15)

GUIDELINE DEVELOPER(S)

Society for Surgery of the Alimentary Tract, Inc - Medical Specialty Society

SOURCE(S) OF FUNDING

Society of Surgery of the Alimentary Tract, Inc.

GUIDELINE COMMITTEE

Patient Care Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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This guideline updates the previously issued version: Society for Surgery of the Alimentary Tract. Treatment of acute pancreatitis. Manchester (MA): Society for Surgery of the Alimentary Tract; 2000. 3 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Society for Surgery of the Alimentary Tract, Inc. Web site.

Print copies: Available from the Society for Surgery of the Alimentary Tract, Inc., 900 Cummings Center, Suite 221-U, Beverly, MA 01915; Telephone: (978) 927-8330; Fax: (978) 524-0461.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Gadacz TR, Traverso LW, Fried GM, Stabile B, Levine BA. Practice guidelines for patients with gastrointestinal surgical diseases. J Gastrointest Surg 1998;2:483-484.

Electronic copies: Not available at this time.

Print copies: Available from the Society for Surgery of the Alimentary Tract, Inc., 900 Cummings Center, Suite 221-0, Beverly, MA 01915; Telephone: (978) 927-8330; Fax: (978) 524-8890.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on March 28, 2000. The information was verified by the guideline developer as of May 30, 2000. This summary was updated by ECRI on September 9, 2004.

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