NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Pancreatitis: diagnosis and management

Topic

The Department of Health in England has asked NICE to develop a clinical guideline on the diagnosis and management of pancreatitis.

This guideline will also be used to develop the NICE quality standard for pancreatitis (including acute pancreatitis).

The guideline will be developed using the methods and processes outlined in Developing NICE guidelines: the manual.

For more information about why this guideline is being developed, and how the guideline will fit into current practice, see the context section.

Who the guideline is for

- People using services, families, carers and the public.
- Healthcare professionals.
- Clinical commissioning groups.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK provinces are made by ministers in the Welsh Government, Scottish Government, and Northern Ireland Executive.

Equality considerations

NICE has carried out an equality impact assessment during scoping. The assessment identified no equality issues relevant to the scope.

1 What the guideline is about

1.1 Who is the focus?

Groups that will be covered

- Children, young people and adults with acute or chronic pancreatitis.

Groups that will not be covered

- Children, young people and adults with pancreatic cancer.

1.2 Settings

Settings that will be covered

- All settings in which NHS-commissioned care is provided.

1.3 Activities, services or aspects of care

We will look at evidence on the areas listed below when developing the guideline, but it may not be possible to make recommendations on all the areas.

Key areas that will be covered

1 Fluid resuscitation for people with acute pancreatitis.
2 Using antibiotics to prevent infection in people with acute pancreatitis (including who should be offered antibiotics and which type of antibiotic they should be offered).
3 Referring people with acute pancreatitis to specialist centres.
4 Managing necrosis in people with acute pancreatitis.
5 Managing nutrition in acute pancreatitis.
6 Assessing aetiology of acute pancreatitis.
7 Diagnosing chronic pancreatitis.
8 Assessing aetiology of chronic pancreatitis.
9 Managing pain in people with chronic pancreatitis.
10 Managing biliary obstruction in people with chronic pancreatitis.
11 Managing malabsorption or malnutrition in people with chronic pancreatitis.

12 Follow-up for people with chronic pancreatitis.
13 Surveillance for pancreatic cancer in people with chronic pancreatitis.
14 Managing pancreatic ascites and pleural effusion secondary to acute or chronic pancreatitis.
15 Managing diabetes secondary to pancreatitis (type 3c diabetes).
16 Lifestyle interventions for people with acute or chronic pancreatitis.
17 Information and support for people with acute or chronic pancreatitis, their families and carers.

Areas that will not be covered

1 Diagnosing and managing pancreatic cancer.
2 Diagnosing acute pancreatitis.
3 Managing gallstones.
4 Duodenal obstruction.
5 Managing haemorrhage secondary to pancreatitis.

1.4 Economic aspects

We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using an NHS and personal social services (PSS) perspective, as appropriate.

1.5 Key issues and questions

While writing this scope, we have identified the following key issues and draft review questions related to them:

1 Fluid resuscitation for people with acute pancreatitis
   1.1 What is the most clinically and cost-effective type of intravenous fluid for resuscitation in people with acute pancreatitis?
   1.2 What is the most clinically and cost-effective speed of administration of intravenous fluid for resuscitation in people with acute pancreatitis?

2 Using antibiotics to prevent infection in acute pancreatitis (including who should be offered antibiotics and which type of antibiotic they should be offered)

2.1 What is the clinical and cost effectiveness of prophylactic antibiotics to prevent infection in people with acute pancreatitis?

3 Referring people with acute pancreatitis to specialist centres

3.1 What are the indications for referring people with acute pancreatitis for specialist input or to a specialist centre?

4 Managing necrosis in people with acute pancreatitis

4.1 What is the most clinically and cost-effective method for managing necrosis in people with acute pancreatitis?

5 Managing nutrition in acute pancreatitis

5.1 What is the most clinically and cost-effective route of feeding for people with acute pancreatitis?

6 Assessing aetiology of acute pancreatitis

6.1 What is the clinical and cost effectiveness of assessing the aetiology of acute pancreatitis to prevent recurrent attacks?

7 Diagnosing chronic pancreatitis

7.1 What is the most clinically and cost-effective method for diagnosing chronic pancreatitis?

8 Assessing aetiology of chronic pancreatitis

8.1 What is the most clinically and cost-effective investigative pathway (including testing for genetic markers and auto-antibodies) for identifying the aetiology of chronic pancreatitis?

9 Managing pain in people with chronic pancreatitis

9.1 What is the most clinically and cost-effective strategy for managing pain in people with chronic pancreatitis secondary to pancreatic duct obstruction, with or without an inflammatory mass?

9.2 What is the most clinically and cost-effective strategy for managing pain in people with chronic pancreatitis secondary to pseudocysts?

9.3 What is the most clinically and cost-effective strategy for managing pain in people with chronic pancreatitis secondary to small-duct disease?

10 Managing biliary obstruction in people with chronic pancreatitis

10.1 What is the most clinically and cost-effective intervention for treating biliary obstruction in people with chronic pancreatitis?

11 Managing malabsorption or malnutrition in people with chronic pancreatitis

11.1 What is the most clinically and cost-effective intervention (including dietary advice) for managing malabsorption or malnutrition in people with chronic pancreatitis?

12 Follow-up for people with chronic pancreatitis

12.1 What investigations should be conducted during follow-up for people with chronic pancreatitis?

12.2 Where should follow-up for people with chronic pancreatitis take place – primary, secondary or tertiary care?

13 Surveillance for pancreatic cancer in people with chronic pancreatitis

13.1 What is the best assessment for surveillance for pancreatic cancer in people with chronic pancreatitis?

13.2 What is the clinical and cost effectiveness of routine surveillance for pancreatic cancer in people with chronic pancreatitis?

14 Managing pancreatic ascites and pleural effusion secondary to acute or chronic pancreatitis

14.1 What are the most clinically and cost-effective interventions for treating pancreatic ascites and pleural effusion secondary to acute or chronic pancreatitis?

15 Managing diabetes secondary to pancreatitis (type 3c diabetes)

15.1 What are the most clinically and cost-effective management strategies specifically for diabetes secondary to pancreatitis (type 3c diabetes) that is difficult to control?

16 Lifestyle interventions for people with pancreatitis

16.1 What is the effectiveness of stopping or reducing alcohol consumption in reducing recurrent episodes of acute pancreatitis and improving quality of life in people with both chronic and acute pancreatitis?

17 Information and support for people with acute or chronic pancreatitis, their families and carers

17.1 What information and support should people with acute or chronic pancreatitis, their family and carers receive after diagnosis?

1.6 Main outcomes

The main outcomes that will be considered when searching for and assessing the evidence are:

1 Health-related quality of life.
2 Mortality.
3 Pain.

2 Links with other NICE guidance, NICE quality standards, and NICE Pathways

2.1 NICE guidance

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to the diagnosis and management of pancreatitis.

- Patient experience in adult NHS services (2012) NICE guideline CG138
- Medicines adherence (2009) NICE guideline CG76
- Medicines optimisation (2015) NICE guideline NG5
- Antimicrobial stewardship (2015) NICE guideline NG15

NICE guidance that is closely related to this guideline

Published

NICE has published the following guidance that is closely related to this guideline:

- Intravenous fluid therapy in children and young people in hospital (2015) NICE guideline NG29
- Gallstone disease: diagnosis and initial management (2014) NICE guideline CG188

- Intravenous fluid therapy in adults in hospital (2013) NICE guideline CG174
- Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence (2011) NICE guideline CG115
- Alcohol-use disorders: diagnosis and management of physical complications (2010) NICE guideline CG100
- Alcohol-use disorders: prevention (2010) NICE guideline PH24
- Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition (2006) NICE guideline CG32
- Endoscopic transluminal pancreatic necrosectomy (2011) NICE interventional procedure guidance IPG411
- Percutaneous retroperitoneal endoscopic necrosectomy (2011) NICE interventional procedure guidance IPG384 https://guidance.nice.org.uk/IPG384
- Autologous pancreatic islet cell transplantation for improved glycaemic control after pancreatectomy (2008) NICE interventional procedure guidance
- Laparoscopic distal pancreatectomy (2007) NICE interventional procedure guidance IPG204

In development

NICE is currently developing the following guidance that is closely related to this guideline:

- Pancreatic cancer NICE guideline. Publication expected January 2018
- Endoscopic transluminal pancreatic necrosectomy NICE interventional procedure. Publication expected November 2016

2.2 NICE quality standards

NICE quality standards that may use this guideline as an evidence source when they are being developed

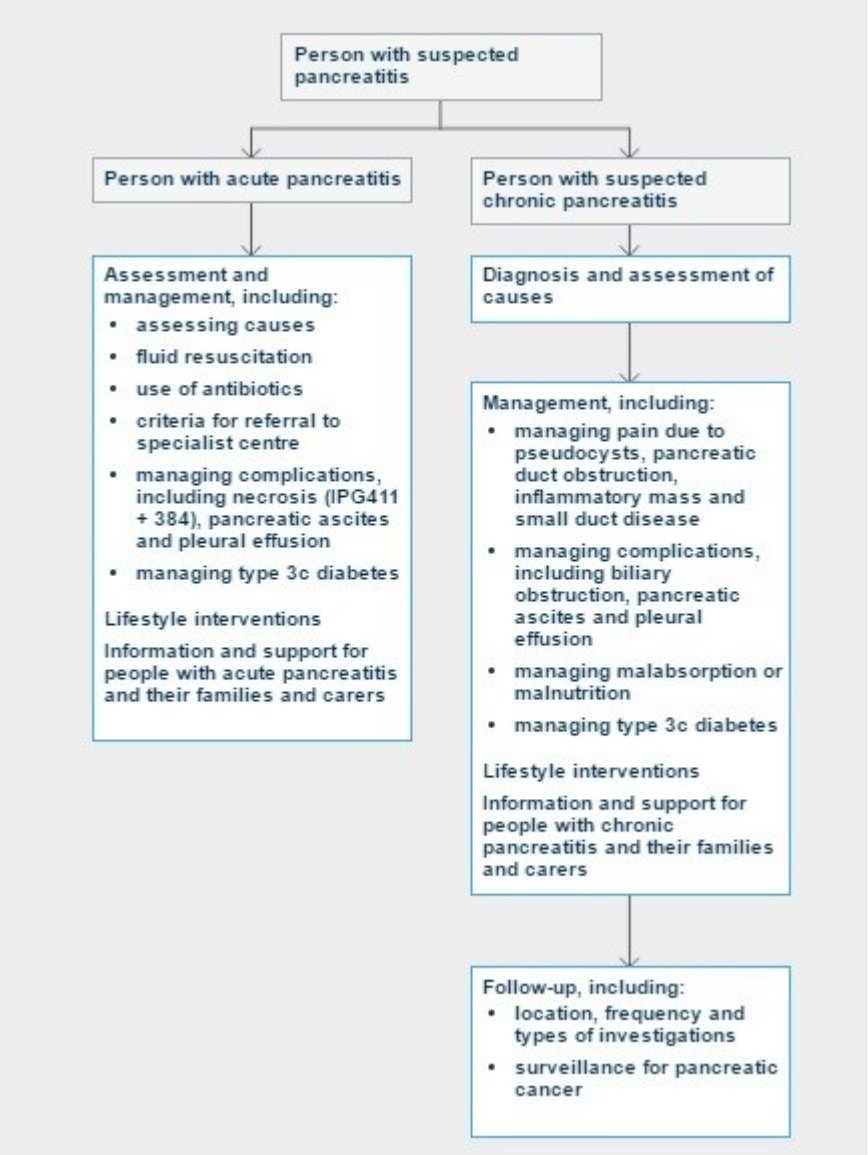
Pancreatitis (including acute pancreatitis) NICE quality standard. Publication date to be confirmed.

2.3 NICE Pathways

NICE Pathways bring together all NICE guidance and associated products on a topic in an interactive flow chart.

When this guideline is published, the recommendations will be incorporated into a new pathway on pancreatitis.

An outline of the new pathway, based on the scope, is included below. It will be adapted and more detail added as the recommendations are written during guideline development.



3 Context

3.1 Key facts and figures

Acute pancreatitis

Acute pancreatitis is acute inflammation of the pancreas and a common cause of acute abdominal pain. The incidence in the UK is approximately 56 cases per 100,000 people per year. In the UK approximately 50% of cases are caused by gallstones, 25% by alcohol and 25% by other factors. In 25% of cases acute pancreatitis is severe and associated with complications such as respiratory or kidney failure, or the development of abdominal fluid collections. In these more severe cases people often need intensive care and a prolonged hospital stay, and the mortality rate is 25%, giving an overall mortality rate in acute pancreatitis of approximately 5%.

A small proportion of people with severe acute pancreatitis will develop pancreatic necrosis, and some of these people will need treatment for infected necrosis. Treatment may be by surgery, endoscopy or interventional radiology. Acute pancreatitis is a self-limiting condition and the majority of people who recover will return to normal activities. They will then need treatment, often cholecystectomy, to eradicate the cause of the pancreatitis. If the cause can be found then appropriate treatment can prevent recurrent attacks.

Chronic pancreatitis

Chronic pancreatitis is a continuous prolonged inflammatory process of the pancreas that results in fibrosis, cyst formation and stricturing of the pancreatic duct. It usually presents with chronic abdominal pain but may be painless. The clinical course is variable but most people with chronic pancreatitis have had one or more attacks of acute pancreatitis that has resulted in inflammatory change and fibrosis. In some people, however, chronic pancreatitis has a more insidious onset. The intensity of pain can range from mild to severe, even in people with little evidence of pancreatic disease on imaging.

The annual incidence of chronic pancreatitis in western Europe is about 5 new cases per 100,000 people, although this is probably an underestimate. The male to female ratio is 7:1 and the average age of onset is between 36 and 55 years. Alcohol is responsible for 70–80% of cases of chronic pancreatitis. Although cigarette smoking is not thought to be a primary cause in itself, it is strongly associated with chronic pancreatitis and is thought to exacerbate the condition. Chronic pancreatitis may be idiopathic or, in about 5% of cases, caused by hereditary factors (in these cases there is usually a positive family history). Other causes include hypercalcaemia, hyperlipidaemia or autoimmune disease.

Chronic pancreatitis causes a significant reduction in pancreatic function and the majority of people have reduced exocrine (digestive) function and reduced endocrine function (diabetes). They usually need expert dietary advice and medication. Chronic pancreatitis can also give rise to specific complications including painful inflammatory mass and obstructed pancreatic duct, biliary or duodenal obstruction, haemorrhage, or accumulation of fluid in the abdomen (ascites) or chest (pleural effusion). Managing these complications may be difficult because of ongoing comorbidities and social problems such as alcohol or opiate dependence. Chronic pancreatitis significantly increases the risk of pancreatic cancer. This risk is much higher in people with hereditary pancreatitis.

3.2 Current practice

People with acute pancreatitis usually present to their local hospital as an emergency with acute abdominal pain. If organ failure (usually respiratory or kidney failure) occurs, then admission to intensive care is necessary. About 75% of people recover quickly; the remainder develop severe acute pancreatitis that is associated with organ failure, or with intra-abdominal fluid collections or pancreatic necrosis. The amount and type of fluid resuscitation varies. The use of prophylactic antibiotics also varies.

Interventions such as drainage of necrotic collections are offered locally or by referral to a pancreatic centre. There is uncertainty about where these interventions are best offered. Techniques used to treat infected necrosis

vary. Open surgery is the conventional technique but percutaneous (radiological) and endoscopic techniques have been developed and are in widespread use. These less invasive techniques are not used in all hospitals managing acute pancreatitis because of limited availability of expertise.

Variation also exists in the care of people with chronic pancreatitis. Newer techniques for the diagnosis and assessment of chronic pancreatitis are available but are not in widespread use. There is uncertainty about using tests for hereditary pancreatitis and autoimmune pancreatitis. This is of particular concern in children with pancreatitis.

The indications for referral to specialist centres vary significantly in chronic pancreatitis. Surgical and endoscopic management of complications is very well developed in some specialist centres and less so in others. Use of enzyme replacement therapy and specialist advice also varies.

There are many interventional treatments available for pain caused by pancreatic duct obstruction associated with chronic calcific pancreatitis. These include surgery, endoscopy and extracorporeal shockwave lithotripsy for pancreatic stone destruction. Availability of these treatments varies from hospital to hospital and region to region. For people whose only treatment option is total pancreatectomy, islet auto-transplant is available.

Support for people with pancreatitis, their families and carers also varies widely. In some regions there are specific pancreatitis nurse specialists and patient support groups.

3.3 Policy, legislation, regulation and commissioning

Policy

Service specifications for adults are set out in the NHS England 2013/14 standard contract for hepatobiliary and pancreas (adult). The Association of Upper Gastrointestinal Surgeons' provision of services document) also provides guidance on service configuration.

Legislation, regulation and guidance

The British Society of Gastroenterology's UK guidelines for the management of acute pancreatitis (2005) have been used extensively but are now out of date. The American College of Gastroenterology published a comprehensive guideline on the management of acute pancreatitis in 2013. However, this guideline is mainly written by and for US physicians, whereas the majority of people with pancreatitis in the UK are cared for by gastrointestinal surgeons.

Guidelines on chronic pancreatitis sponsored by United European Gastroenterology are in preparation, with publication expected in late 2016 or early 2017.

Commissioning

Services for pancreatitis are commissioned by clinical commissioning groups unless tertiary care is provided by pancreatic centres, in which case specialised commissioning is responsible.

4 Further information

This is the final scope, incorporating comments from registered stakeholders during consultation.

The guideline is expected to be published in September 2018.

You can follow progress of the guideline.

Our website has information about how NICE guidelines are developed.