NICE National Institute for Health and Care Excellence

NICE Pathways

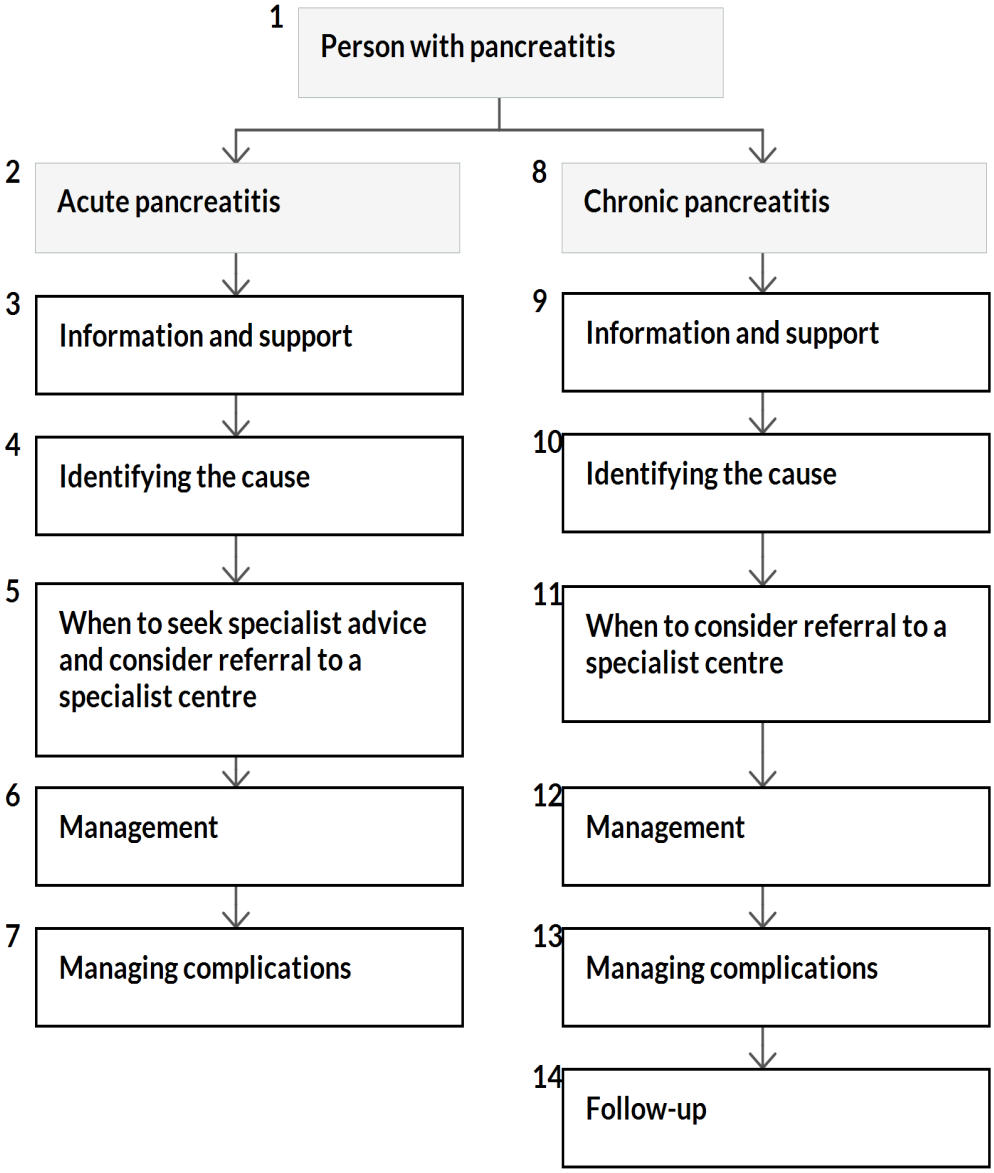
Pancreatitis overview

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/pancreatitis
NICE Pathway last updated: 16 December 2020

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Person with pancreatitis

No additional information

2 Acute pancreatitis

No additional information

3 Information and support for person with acute pancreatitis

Give people with pancreatitis, and their family members or carers (as appropriate), written and verbal information on the following, where relevant, as soon as possible after diagnosis:

- pancreatitis and any proposed investigations and procedures, using diagrams
- hereditary pancreatitis, and pancreatitis in children, including specific information on genetic counselling, genetic testing, risk to other family members, and advice on the impact of their pancreatitis on life insurance and travel
- the long-term effects of pancreatitis, including effects on the person's quality of life
- the harm caused to the pancreas by smoking or alcohol.

Advise people with pancreatitis where they might find reliable high-quality information and support after consultations, from sources such as national and local support groups, regional pancreatitis networks and information services.

Give people with pancreatitis, and their family members or carers (as appropriate), written and verbal information on the following about the management of pancreatitis, when applicable:

- why a person may be going through a phase where no treatment is given
- that pancreatitis is managed by a multidisciplinary team
- the multidisciplinary treatment of pain, including how to access the local pain team and types of pain relief
- nutrition advice, including advice on how to take pancreatic enzyme replacement therapy if needed
- follow-up and who to contact for relevant advice, including advice needed during episodes of acute illness
- psychological care if needed, where available (see the NICE Pathway on depression in adults)
- pancreatitis services, including the role of specialist centres, and primary care services for

- people with acute, chronic or hereditary pancreatitis
- welfare benefits, education and employment support, and disability services.

For more guidance on giving information, including providing an individualised approach and helping people to actively participate in their care, see the NICE Pathway on patient experience in adult NHS services.

Explain to people with severe acute pancreatitis, and their family members or carers (as appropriate), that:

- a hospital stay lasting several months is relatively common, including time in critical care
- for people who achieve full recovery, time to recover may take at least 3 times as long as their hospital stay
- local complications of acute pancreatitis may resolve spontaneously or may take weeks to progress before it is clear that intervention is needed
- it may be safer to delay intervention (for example, to allow a fluid collection to mature)
- people who have started to make a recovery may have a relapse
- although children rarely die from acute pancreatitis, approximately 15 to 20% of adults with severe acute pancreatitis die in hospital.

Tell adults with pancreatitis that the NICE Pathway on patient experience in adult NHS services will show them what to expect about their care.

NICE has written information for the public on pancreatitis.

Passing information to GPs

Ensure that information passed to GPs includes all of the following, where applicable:

- detail on how the person should take their pancreatic enzyme replacement therapy (including dose escalation as necessary)
- that the person should be offered HbA1c testing at least every 6 months and bone mineral density assessments every 2 years.

Lifestyle: alcohol

Advise people with pancreatitis caused by alcohol to stop drinking alcohol.

Advise people with recurrent acute or chronic pancreatitis that is not alcohol-related, that alcohol might exacerbate their pancreatitis.

For guidance on alcohol-use disorders, see the NICE Pathway on assessment for harmful drinking and alcohol dependence.

4 Identifying the cause of acute pancreatitis

People with acute pancreatitis usually present with sudden-onset abdominal pain. Nausea and vomiting are often present and there may be a history of gallstones or excessive alcohol intake. Typical physical signs include epigastric tenderness, fever and tachycardia. Diagnosis of acute pancreatitis is confirmed by testing blood lipase or amylase levels, which are usually raised. If raised levels are not found, abdominal CT may confirm pancreatic inflammation.

Do not assume that a person's acute pancreatitis is alcohol-related just because they drink alcohol.

If gallstones and alcohol have been excluded as potential causes of a person's acute pancreatitis, investigate other possible causes such as:

- metabolic causes (such as hypercalcaemia or hyperlipidaemia)
- prescription drugs
- microlithiasis
- hereditary causes
- autoimmune pancreatitis
- ampullary or pancreatic tumours
- anatomical anomalies (pancreas divisum).

NICE has published a medtech innovation briefing on Actim Pancreatitis for diagnosing acute pancreatitis.

NICE has published highly specialised technology guidance on Volanesorsen for treating familial chylomicronaemia syndrome. Symptoms of familial chylomicronaemia syndrome include unpredictable and recurrent episodes of acute pancreatitis.

5 When to seek specialist advice and consider referral to a specialist centre for person with acute pancreatits

If a person develops necrotic, infective, haemorrhagic or systemic complications of acute pancreatitis:

- seek advice from a specialist pancreatic centre within the referral network **and**
- discuss whether to move the person to the specialist centre for treatment of the complications.

When managing acute pancreatitis in children:

- seek advice from a paediatric gastroenterology or hepatology unit and a specialist pancreatic centre **and**
- discuss whether to move the child to the specialist centre.

Consider referring a person with pancreatic ascites and pleural effusion for management in a specialist pancreatic centre.

6 Managing acute pancreatitis

Fluid resuscitation

For guidance on fluid resuscitation see the NICE Pathway on intravenous fluid therapy in hospital.

Nutrition support

Ensure that people with acute pancreatitis are not made 'nil-by-mouth' and do not have food withheld unless there is a clear reason for this (for example, vomiting).

Offer enteral nutrition to anyone with severe acute pancreatitis or moderately severe acute pancreatitis. Start within 72 hours of presentation and aim to meet their nutritional requirements as soon as possible.

Offer anyone with severe or moderately severe acute pancreatitis parenteral nutrition only if enteral nutrition has failed or is contraindicated.

Preventing infection

Do not offer prophylactic antimicrobials to people with acute pancreatitis.

7 Managing complications of acute pancreatitis

Infected or suspected infected necrosis

Offer people with acute pancreatitis an endoscopic approach for managing infected or suspected infected pancreatic necrosis when anatomically possible.

Offer a percutaneous approach when an endoscopic approach is not anatomically possible.

When deciding on how to manage infected pancreatic necrosis, balance the need to debride promptly against the advantages of delaying intervention.

NICE has published interventional procedures guidance on the following procedures with **standard or normal arrangements** for clinical governance, consent and audit:

- endoscopic transluminal pancreatic necrosectomy
- percutaneous retroperitoneal endoscopic necrosectomy.

Pseudocysts

Offer EUS-guided drainage, or endoscopic transpapillary drainage for pancreatic head pseudocysts, to people with symptomatic pseudocysts (for example, those with pain, vomiting or weight loss).

Consider EUS-guided drainage, or endoscopic transpapillary drainage for pancreatic head pseudocysts, for people with non-symptomatic pseudocysts that meet 1 or more of the following criteria:

- they are associated with pancreatic duct disruption
- they are creating pressure on large vessels or the diaphragm
- they are at risk of rupture
- there is suspicion of infection.

Consider surgical (laparoscopic or open) drainage of pseudocysts that need intervention if endoscopic therapy is unsuitable or has failed.

Type 3c diabetes

Assess people with type 3c diabetes every 6 months for potential benefit of insulin therapy.

For guidance on managing type 3c diabetes for people who are not using insulin therapy, see the NICE Pathways on type 2 diabetes in adults and diabetes in children and young people.

For guidance on managing type 3c diabetes for people who need insulin, see:

- the NICE Pathway on insulin therapy for adults with type 1 diabetes, including the recommendation on rotating injection sites within the same body region
- insulin therapy in the NICE Pathway on type 1 diabetes in children and young people.

For guidance on education and information for people with pancreatitis and type 3c diabetes requiring insulin, see:

- education and information in the NICE Pathway on type 1 diabetes in adults
- education and information in the NICE Pathway on type 1 diabetes in children and young people.

For guidance on self-monitoring blood glucose for people with pancreatitis and type 3c diabetes requiring insulin, see NICE's recommendations on:

- blood glucose measurement and targets in the NICE Pathway on type 1 diabetes in adults
- blood glucose targets and monitoring in the NICE Pathway on type 1 diabetes in children and young people.

Pancreatic cysts

NICE has published a medtech innovation briefing on Cellvizio confocal endomicroscopy system for characterising pancreatic cysts.

8 Chronic pancreatitis

No additional information

9 Information and support for person with chronic pancreatitis

Give people with pancreatitis, and their family members or carers (as appropriate), written and verbal information on the following, where relevant, as soon as possible after diagnosis:

- pancreatitis and any proposed investigations and procedures, using diagrams
- hereditary pancreatitis, and pancreatitis in children, including specific information on genetic counselling, genetic testing, risk to other family members, and advice on the impact of their

- pancreatitis on life insurance and travel
- the long-term effects of pancreatitis, including effects on the person's quality of life
- the harm caused to the pancreas by smoking or alcohol.

Advise people with pancreatitis where they might find reliable high-quality information and support after consultations, from sources such as national and local support groups, regional pancreatitis networks and information services.

Give people with pancreatitis, and their family members or carers (as appropriate), written and verbal information on the following about the management of pancreatitis, when applicable:

- why a person may be going through a phase where no treatment is given
- that pancreatitis is managed by a multidisciplinary team
- the multidisciplinary treatment of pain, including how to access the local pain team and types of pain relief
- nutrition advice, including advice on how to take pancreatic enzyme replacement therapy if needed
- follow-up and who to contact for relevant advice, including advice needed during episodes of acute illness
- psychological care if needed, where available (see the NICE Pathway on depression in adults)
- pancreatitis services, including the role of specialist centres, and primary care services for people with acute, chronic or hereditary pancreatitis
- welfare benefits, education and employment support, and disability services.

For more guidance on giving information, including providing an individualised approach and helping people to actively participate in their care, see the NICE Pathway on patient experience in adult NHS services.

Tell adults with pancreatitis that the NICE Pathway on patient experience in adult NHS services will show them what to expect about their care.

NICE has written information for the public on pancreatitis.

Passing information to GPs

Ensure that information passed to GPs includes all of the following, where applicable:

- detail on how the person should take their pancreatic enzyme replacement therapy (including dose escalation as necessary)

- that the person should be offered HbA1c testing at least every 6 months and bone mineral density assessments every 2 years.

Lifestyle: alcohol

Advise people with pancreatitis caused by alcohol to stop drinking alcohol.

Advise people with recurrent acute or chronic pancreatitis that is not alcohol-related, that alcohol might exacerbate their pancreatitis.

For guidance on alcohol-use disorders, see the NICE Pathway on assessment for harmful drinking and alcohol dependence.

Lifestyle interventions: smoking cessation

Be aware of the link between smoking and chronic pancreatitis and advise people with chronic pancreatitis to stop smoking in line with the NICE Pathway on stop smoking interventions and services.

10 Identifying the cause of chronic pancreatitis

People with chronic pancreatitis usually present with chronic or recurrent abdominal pain. This guidance assumes that people with chronic abdominal pain will already have been investigated using CT scan, ultrasound scan or upper gastrointestinal endoscopy to determine a cause for their symptoms. The guideline committee looked at evidence on diagnosing chronic pancreatitis, and the evidence review can be found in the full guideline. We have made a research recommendation on the most accurate diagnostic test to identify whether chronic pancreatitis is present in the absence of a clear diagnosis following these tests.

Think about chronic pancreatitis as a possible diagnosis for people presenting with chronic or recurrent episodes of upper abdominal pain and refer accordingly.

Do not assume that a person's chronic pancreatitis is alcohol-related just because they drink alcohol. Other causes include:

- genetic factors
- autoimmune disease, in particular IgG4 disease
- metabolic causes
- structural or anatomical factors.

11 When to consider referral to a specialist centre for person with chronic pancreatitis

Consider referring a person with pancreatic ascites and pleural effusion for management in a specialist pancreatic centre.

12 Managing chronic pancreatitis

Nutrition support

Be aware that all people with chronic pancreatitis are at high risk of malabsorption, malnutrition and a deterioration in their quality of life.

Use protocols agreed with the specialist pancreatic centre to identify when advice from a specialist dietitian is needed, including advice on food, supplements and long-term pancreatic enzyme replacement therapy, and when to start these interventions.

Consider assessment by a dietitian for anyone diagnosed with chronic pancreatitis.

For guidance on nutrition support for people with chronic alcohol-related pancreatitis, see treatment (chronic) in the NICE Pathway on alcohol-related pancreatitis.

For guidance on nutrition support see the NICE Pathway on nutrition support in adults.

13 Managing complications of chronic pancreatitis

Pancreatic duct obstruction

Consider surgery (open or minimally invasive) as first-line treatment in adults with painful chronic pancreatitis that is causing obstruction of the main pancreatic duct.

Consider extracorporeal shockwave lithotripsy for adults with pancreatic duct obstruction caused by a dominant stone if surgery is unsuitable.

Pseudocysts

Offer EUS-guided drainage, or endoscopic transpapillary drainage for pancreatic head pseudocysts, to people with symptomatic pseudocysts (for example, those with pain, vomiting

or weight loss).

Consider EUS-guided drainage, or endoscopic transpapillary drainage for pancreatic head pseudocysts, for people with non-symptomatic pseudocysts that meet 1 or more of the following criteria:

- they are associated with pancreatic duct disruption
- they are creating pressure on large vessels or the diaphragm
- they are at risk of rupture
- there is suspicion of infection.

Consider surgical (laparoscopic or open) drainage of pseudocysts that need intervention if endoscopic therapy is unsuitable or has failed.

Neuropathic pain

For adults with neuropathic pain related to chronic pancreatitis, follow the NICE Pathway on neuropathic pain.

Type 3c diabetes

Assess people with type 3c diabetes every 6 months for potential benefit of insulin therapy.

For guidance on managing type 3c diabetes for people who are not using insulin therapy, see the NICE Pathways on type 2 diabetes in adults and diabetes in children and young people.

For guidance on managing type 3c diabetes for people who need insulin, see:

- the NICE Pathway on insulin therapy for adults with type 1 diabetes, including the recommendation on rotating injection sites within the same body region
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For guidance on self-monitoring blood glucose for people with pancreatitis and type 3c diabetes requiring insulin, see NICE's recommendations on:

- blood glucose measurement and targets in the NICE Pathway on type 1 diabetes in adults
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Pancreatic cysts

NICE has published a medtech innovation briefing on Cellvizio confocal endomicroscopy system for characterising pancreatic cysts.

Pancreatectomy and associated procedures

NICE has published interventional procedures guidance on laparoscopic distal pancreatectomy with **normal arrangements** for consent, audit and clinical governance.

NICE has published interventional procedures guidance on autologous pancreatic islet cell transplantation for improved glycaemic control after pancreatectomy with **normal arrangements** for clinical governance in units with facilities for islet cell isolation.

14 Follow-up for person with chronic pancreatitis

Pancreatic exocrine function

Offer people with chronic pancreatitis monitoring by clinical and biochemical assessment, to be agreed with the specialist centre, for pancreatic exocrine insufficiency and malnutrition at least every 12 months (every 6 months in under 16s). Adjust the treatment of vitamin and mineral deficiencies accordingly.

Offer adults with chronic pancreatitis a bone density assessment every 2 years.

Pancreatic cancer

Be aware that people with chronic pancreatitis have an increased risk of developing pancreatic cancer. The lifetime risk is highest, around 40%, in those with hereditary pancreatitis.

Consider annual monitoring for pancreatic cancer in people with hereditary pancreatitis.

For further information, see when to offer surveillance in the NICE Pathway for pancreatic cancer.

Diabetes

Be aware that people with chronic pancreatitis have a greatly increased risk of developing diabetes, with a lifetime risk as high as 80%. The risk increases with duration of pancreatitis and presence of calcific pancreatitis.

Offer people with chronic pancreatitis monitoring of HbA1c for diabetes at least every 6 months.

Glossary

Moderately severe acute pancreatitis

(characterised by organ failure that resolves within 48 hours (transient organ failure) or local or systemic complications in the absence of persistent organ failure (as defined by the revised Atlanta Classification))

Severe acute pancreatitis

(characterised by single or multiple organ failure that persists for more than 48 hours (persistent organ failure) (as defined by the revised Atlanta Classification))

Sources

Pancreatitis (2018 updated 2020) NICE guideline NG104

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in

their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.