1 NATIONAL INSTITUTE FOR HEALTH AND CARE
2 EXCELLENCE

3 Guideline scope

4 Pancreatitis: diagnosis and management

5 *Topic*

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

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

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

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

14 *Who the guideline is for*

15 • People using services, families, carers and the public.
16 • Healthcare professionals.
17 • Clinical commissioning groups.

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

21 *Equality considerations*

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

24 # 1 What the guideline is about

25 ## *1.1 Who is the focus?*

26 **Groups that will be covered**

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

28 **Groups that will not be covered**

29 • Children, young people and adults with pancreatic cancer.

30 ## *1.2 Settings*

31 **Settings that will be covered**

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

33 ## *1.3 Activities, services or aspects of care*

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

37 **Key areas that will be covered**

38 1 Fluid resuscitation for people with acute pancreatitis.
39 2 Using antibiotics to prevent infection inpeople with acute pancreatitis
40 (including who should be offered antibiotics and which type of antibiotic
41 they should be offered).
42 3 Referring people with acute pancreatitis to specialist centres.
43 4 Managing necrosis in people with acute pancreatitis.
44 5 Assessing aetiology of acute pancreatitis.
45 6 Diagnosing chronic pancreatitis.
46 7 Assessing aetiology of chronic pancreatitis.
47 8 Managing pain in people with chronic pancreatitis.
48 9 Managing biliary obstruction in people with chronic pancreatitis.
49 10 Managing malabsorption or malnutrition in people with chronic
50 pancreatitis.
51 11 Follow-up for people with chronic pancreatitis.

12 Surveillance for pancreatic cancer in people with chronic pancreatitis.

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

14 Managing diabetes secondary to pancreatitis.

15 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 Lifestyle interventions.

5 Duodenal obstruction.

6 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.

74 ## 1.5 Key issues and questions

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

77 1 Fluid resuscitation for people with acute pancreatitis
78 1.1 What is the most clinically and cost-effective type of intravenous fluid
79 for resuscitation in people with acute pancreatitis?
80 1.2 What is the most clinically and cost-effective speed of administration
81 of intravenous fluid for resuscitation in people with acute pancreatitis?
82 2 Using antibiotics to prevent infection in acute pancreatitis (including who
83 should be offered antibiotics and which type of antibiotic they should be
84 offered)
85 2.1 What is the clinical and cost effectiveness of prophylactic antibiotics
86 to prevent infection in people with acute pancreatitis?
87 3 Referring people with acute pancreatitis to specialist centres
88 3.1 What are the indications for referring people with acute pancreatitis
89 for specialist input or to a specialist centre?
90 4 Managing necrosis in people with acute pancreatitis
91 4.1 What is the most clinically and cost-effective method for managing
92 necrosis in people with acute pancreatitis?
93 5 Assessing aetiology of acute pancreatitis
94 5.1 What is the clinical and cost-effectiveness of assessing the aetiology
95 of acute pancreatitis to prevent recurrent attacks?
96 6 Diagnosing chronic pancreatitis
97 6.1 What is the most clinically and cost-effective method for diagnosing
98 chronic pancreatitis?
99 7 Assessing aetiology of chronic pancreatitis
100 7.1 What is most most clinically and cost-effective investigative pathway
101 (including testing for genetic markers and auto-antibodies) for identifying
102 the aetiology of chronic pancreatitis?
103 8 Managing pain in people with chronic pancreatitis
104 8.1 What is the most clinically and cost-effective strategy for managing
105 pain in people with chronic pancreatitis secondary to pancreatic duct
106 obstruction, with or without an inflammatory mass?

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

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

9 Managing biliary obstruction in people with chronic pancreatitis

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

10 Managing malabsorption or malnutrition in people with chronic pancreatitis

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

11 Follow up for people with chronic pancreatitis

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

11.2 Where should follow-up for people with chronic pancreatitis take place, for example, in primary care by GPs or in secondary care by gastroenterologists?

12 Surveillance for pancreatic cancer in people with chronic pancreatitis

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

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

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

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

14 Managing diabetes secondary to pancreatitis

14.1 What are the most clinically and cost-effective management strategies specific to diabetes secondary to pancreatitis where the diabetes is difficult to control?

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

15.1 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

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

167 • Intravenous fluid therapy in adults in hospital (2013) NICE guideline CG174
168 • Alcohol-use disorders: diagnosis, assessment and management of harmful
169 drinking and alcohol dependence (2011) NICE guideline CG115
170 • Alcohol-use disorders: diagnosis and management of physical
171 complications (2010) NICE guideline CG100
172 • Alcohol-use disorders: prevention (2010) NICE guideline PH24
173 • Nutrition support for adults: oral nutrition support, enteral tube feeding and
174 parenteral nutrition (2006) NICE guideline CG32

175 ***In development***

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

178 • Pancreatic cancer NICE guideline. Publication expected January 2018

179 ## 2.2 NICE quality standards

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

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

184 ## 2.3 NICE Pathways

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

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

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

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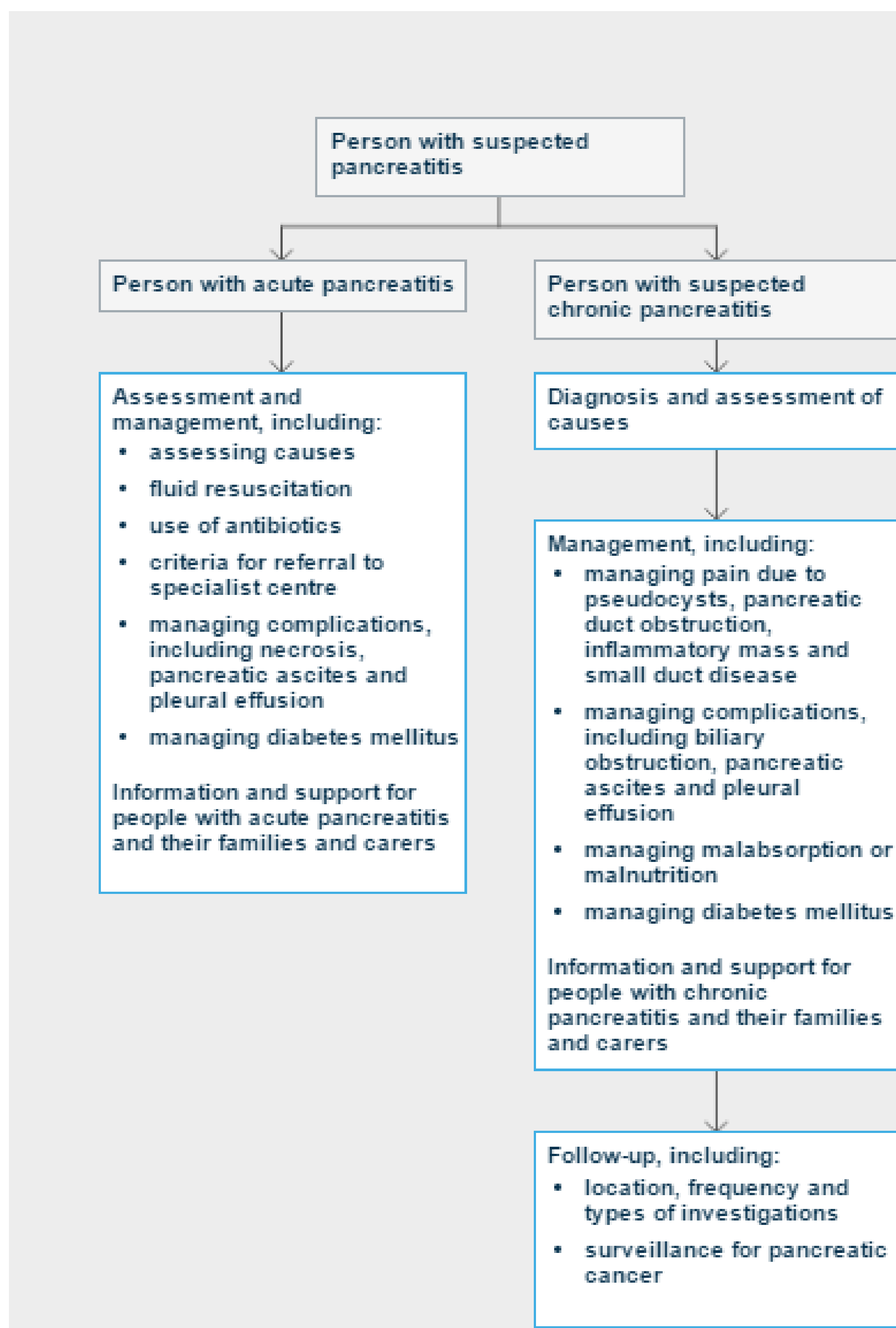

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3 Context

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 may range from mild to severe, even in people with little evidence of pancreatic disease on imaging.

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

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

245 *3.2 Current practice*

246 People with acute pancreatitis usually present to their local hospital as an
247 emergency with acute abdominal pain. If organ failure (usually respiratory or
248 kidney failure) occurs, then admission to intensive care is necessary. About
249 75% of people recover quickly; the remainder develop severe acute
250 pancreatitis that is associated with organ failure, or with intra-abdominal fluid
251 collections or pancreatic necrosis. The amount and type of fluid resuscitation
252 varies. The use of prophylactic antibiotics also varies.

253 Interventions such as drainage of necrotic collections are offered locally or by
254 referral to a pancreatic centre. There is uncertainty on where to best manage
255 these patients.Techniques used to treat infected necrosis vary. Open surgery

256 is the conventional technique but percutaneous (radiological) and endoscopic
257 techniques have been developed and are in widespread use. These less
258 invasive techniques are not employed in all hospitals managing acute
259 pancreatitis due to availability of expertise.

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

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

269 There are many interventional treatments available for pain caused by
270 pancreatic duct obstruction associated with chronic calcific pancreatitis. These
271 include surgery, endoscopy and extracorporeal shockwave lithotripsy for
272 pancreatic stone destruction. Availability of these treatments varies from
273 hospital to hospital and region to region. For people whose only treatment
274 option is total pancreatectomy, islet auto-transplant is available in 2 or 3
275 centres in the UK.

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

279 *3.3 Policy, legislation, regulation and commissioning*

280 **Policy**

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

285 **Legislation, regulation and guidance**

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

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

295 **Commissioning**

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

299 4 Further information

This is the draft scope for consultation with registered stakeholders. The consultation dates are 5 July to 2 August 2016.

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.

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