

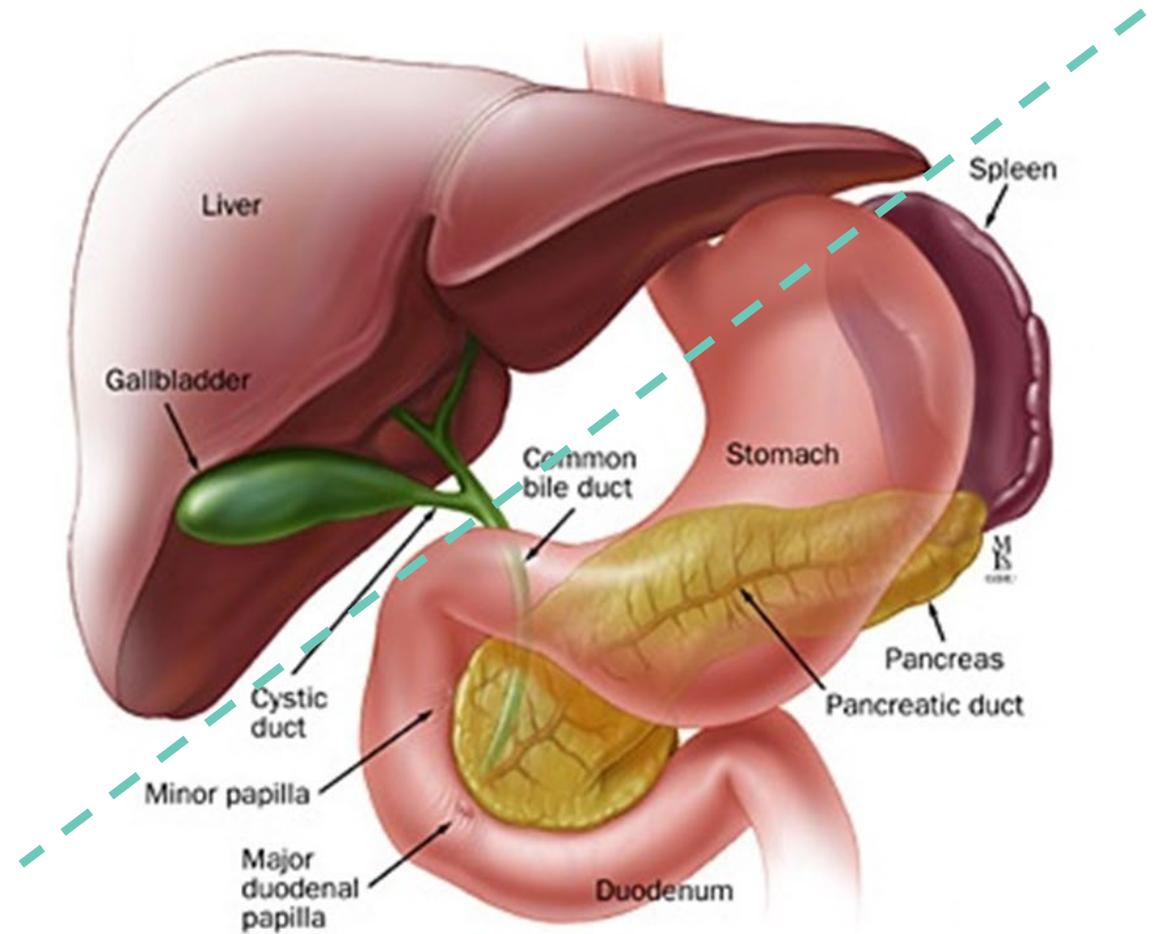
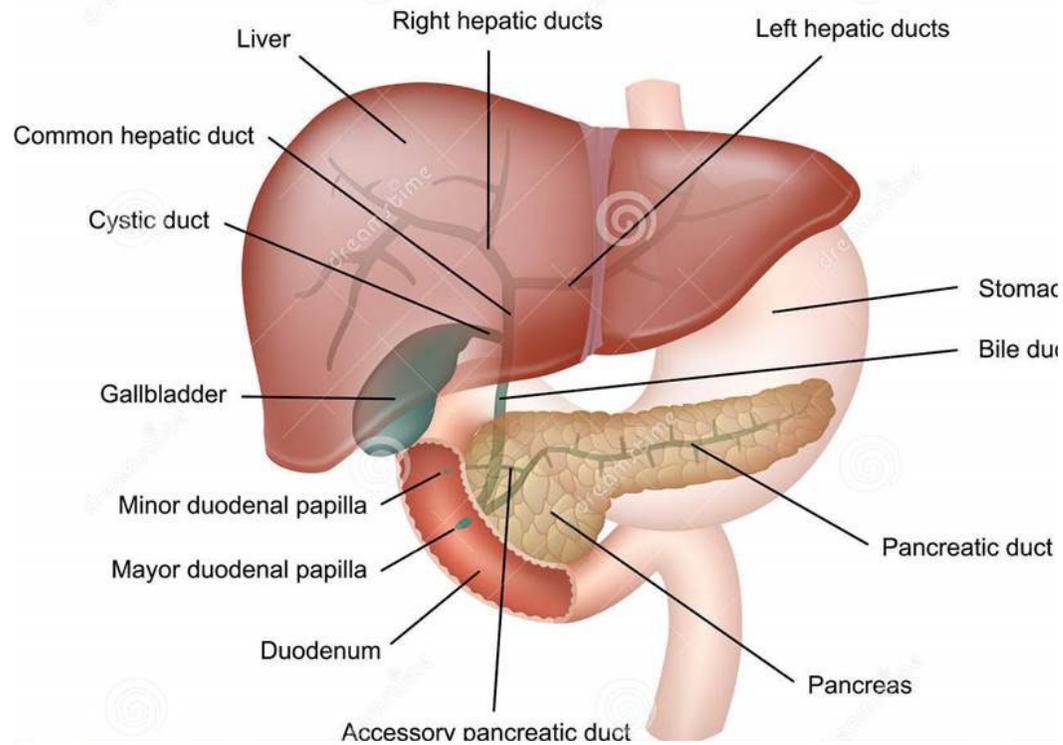


Liver, gallbladder, bile ducts, pancreas

Coding issues

Otto Visser
May 2021

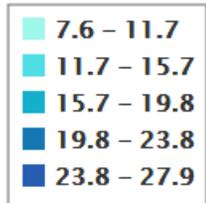
Anatomy



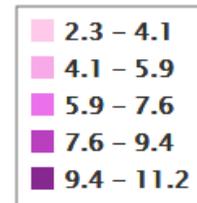
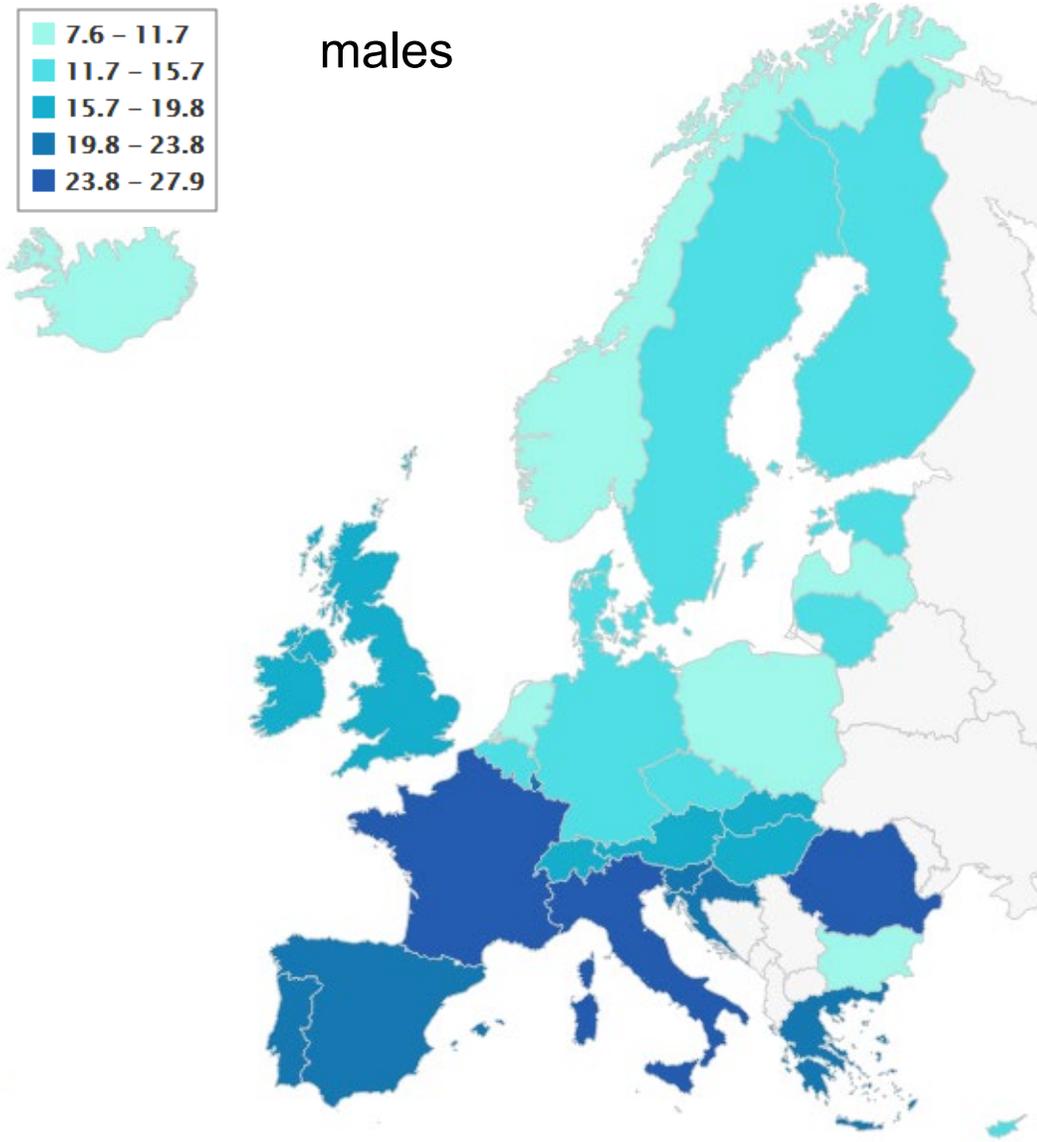


Liver, gallbladder and the proximal bile ducts

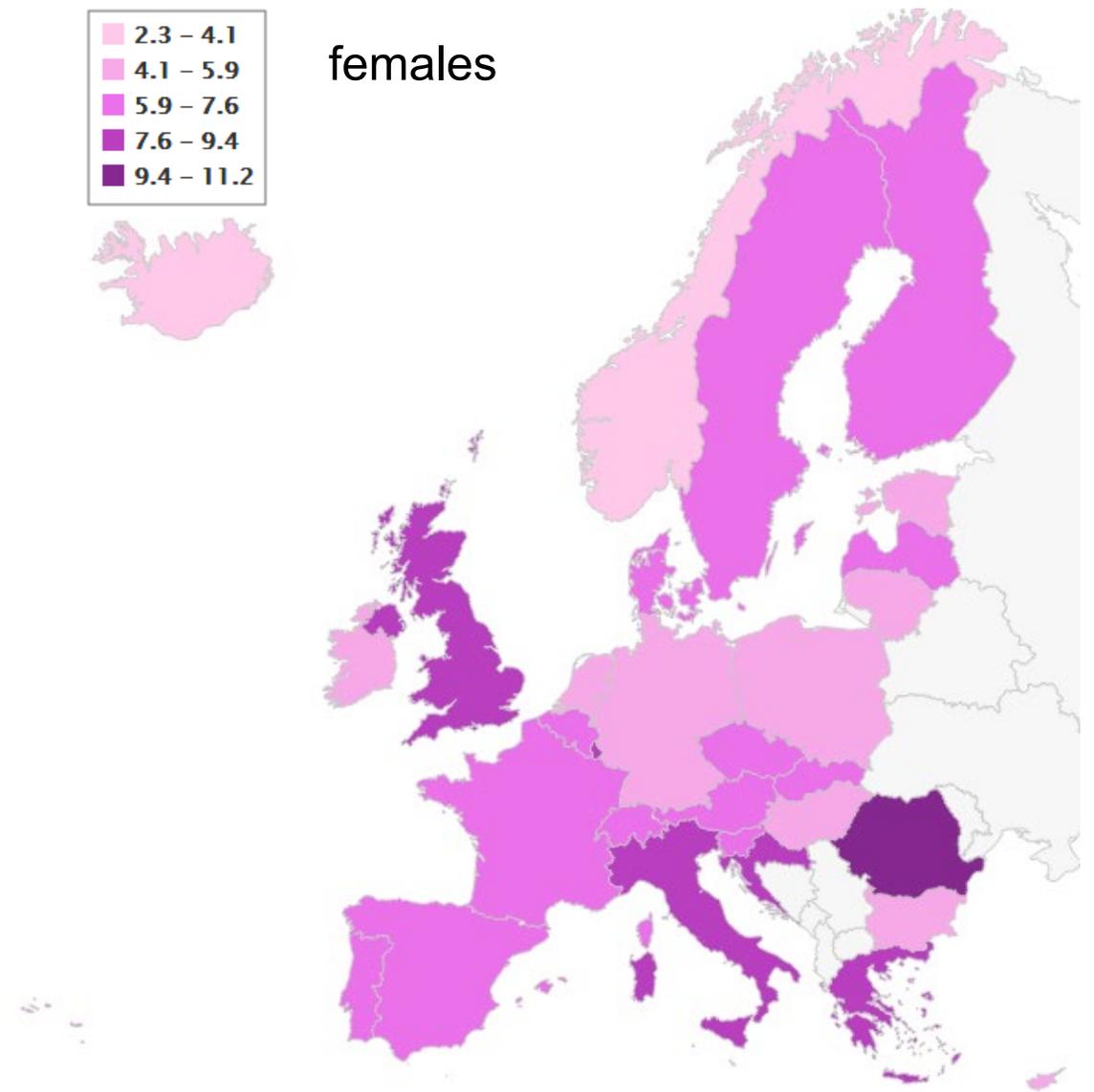
Incidence of liver cancer in Europe in 2018



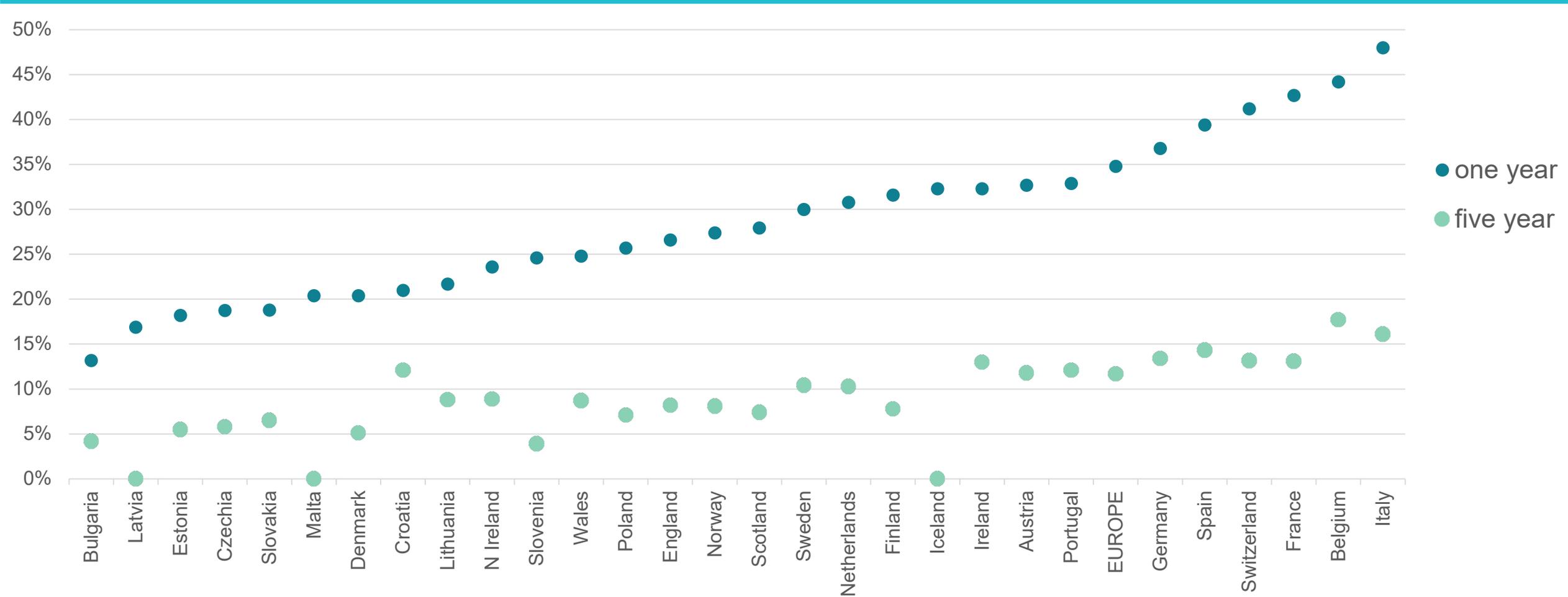
males



females



Relative survival of liver cancer (2000-2007)



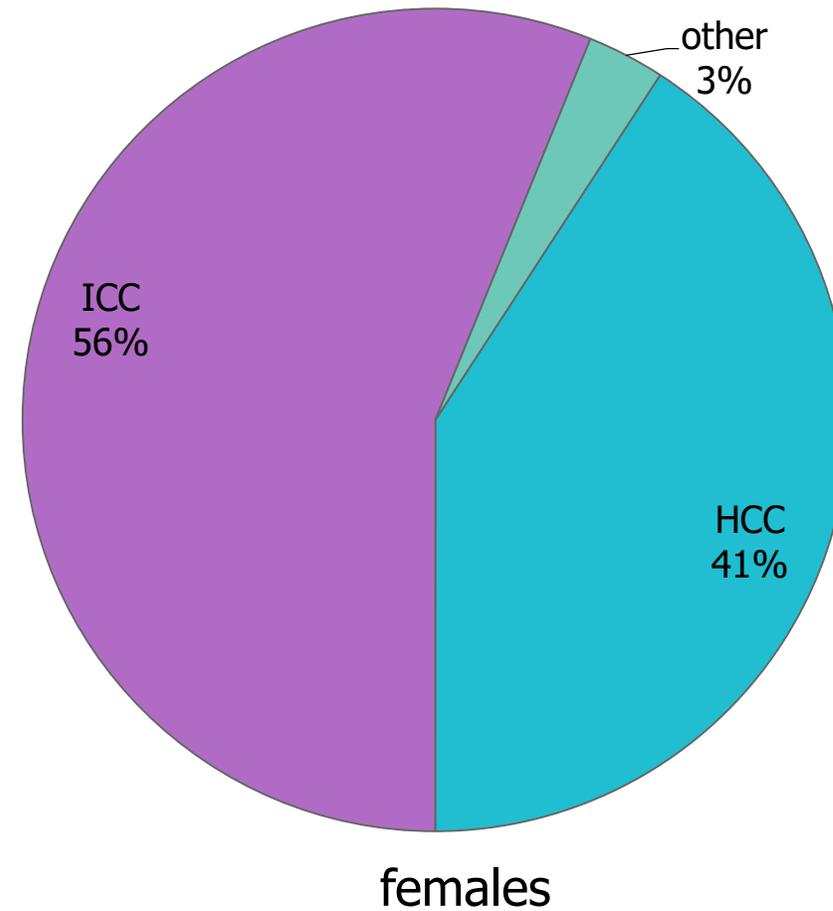
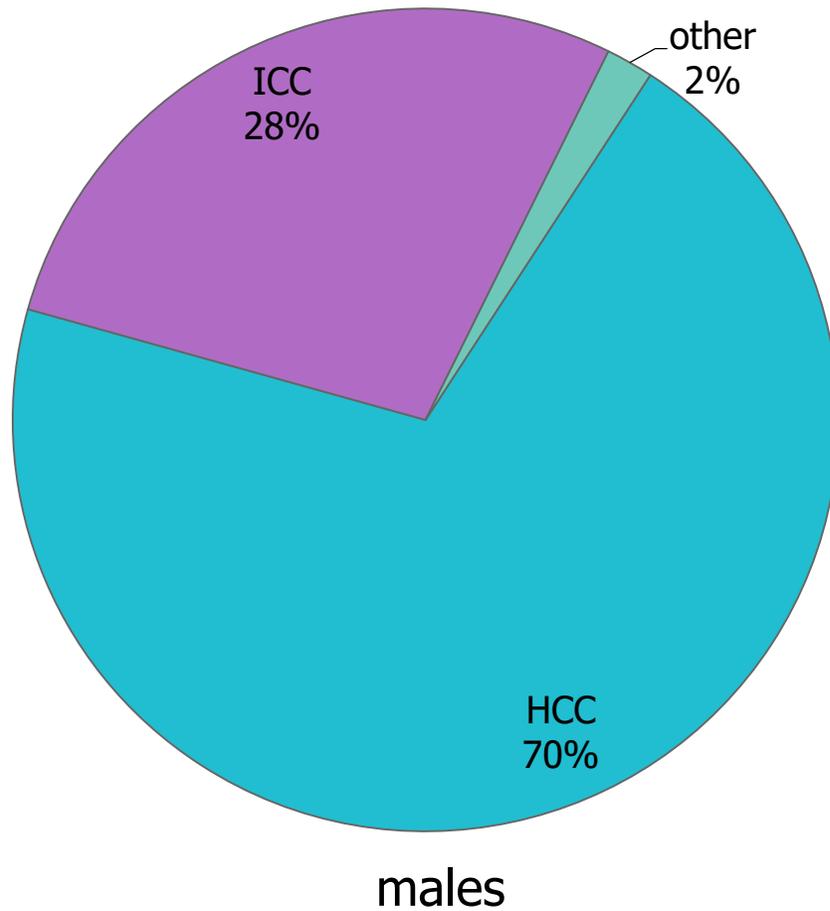
Liver: topography

- C22.1 = intrahepatic bile ducts
- C22.0 = liver, NOS

Liver: morphology

- Hepatocellular carcinoma=HCC (8170; C22.0)
- Intrahepatic cholangiocarcinoma=ICC (8160; C22.1)
- Mixed HCC/ICC (8180; TNM: C22.1; ICD-O: C22.0)
- Hepatoblastoma (8970; C22.0)
- Malignant rhabdoid tumour (8963; (C22.0)
- Sarcoma (C22.0)
 - Angiosarcoma (9120)
 - Epithelioid haemangioendothelioma (9133)
 - Embryonal sarcoma (8991)/rhabdomyosarcoma (8900-8920)

Morphology*: distribution by sex (NL 2011-17)

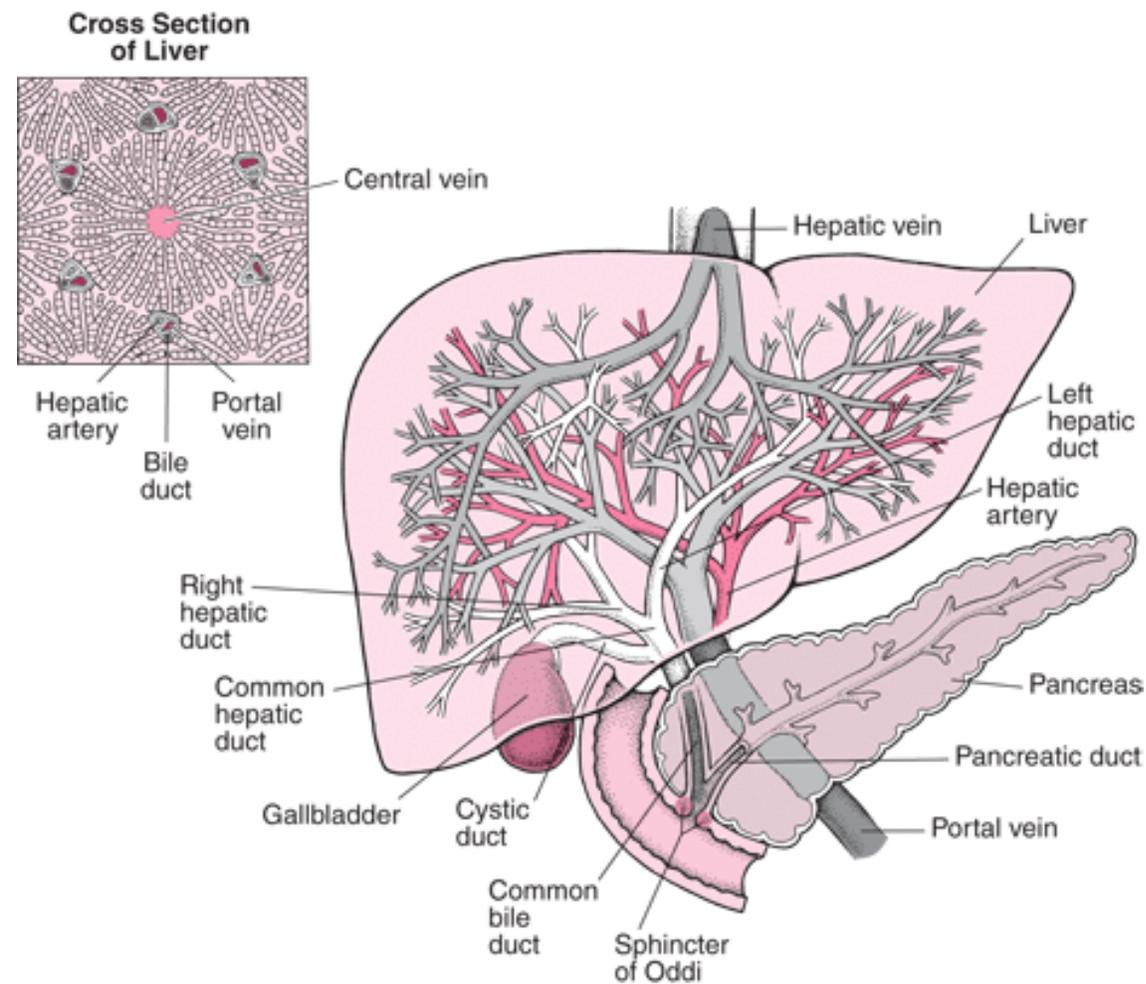
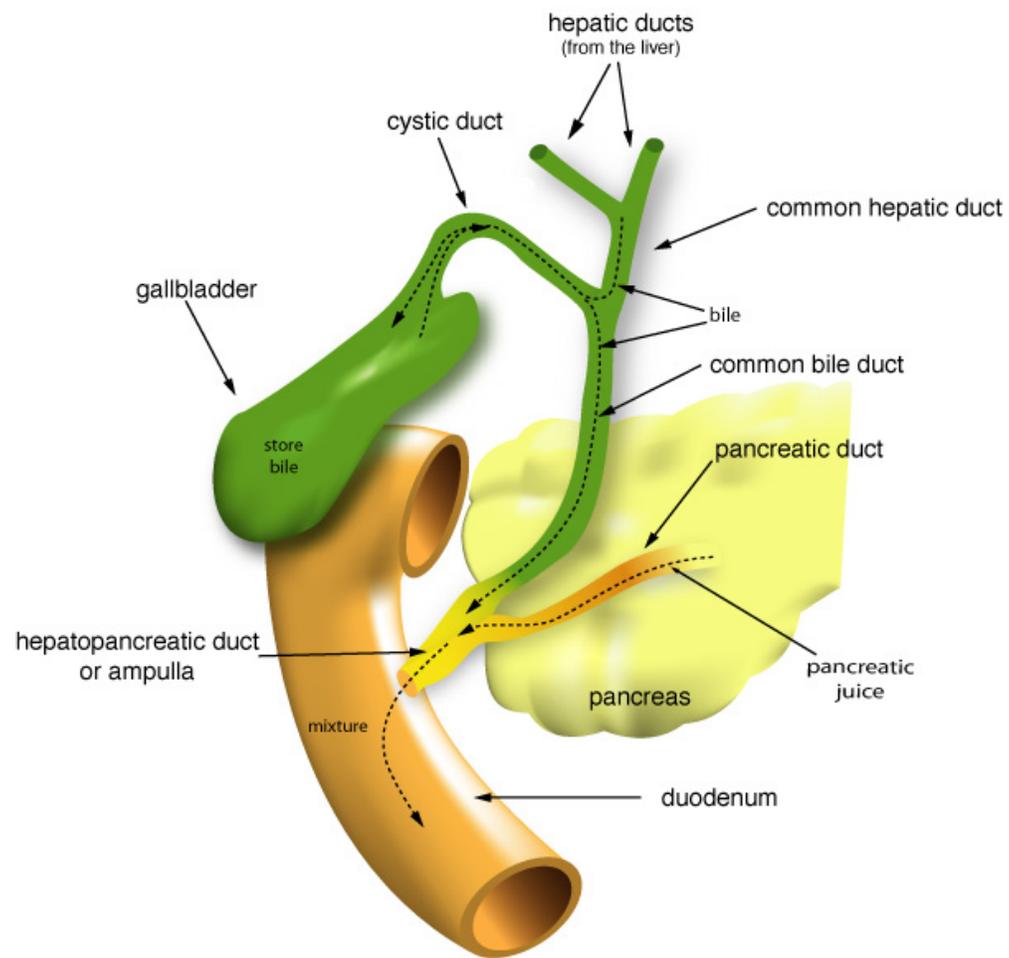


Liver cancer: primary or metastatic?

Be aware that other and unspecified morphologies are likely to be metastatic, unless there is evidence of the contrary.

For example, primary neuro-endocrine tumours (including small cell carcinoma) of the liver are extremely rare. So, when you have a diagnosis of a carcinoid or small cell carcinoma in the liver, this is probably a metastatic tumour.

Anatomy of the bile ducts



Gallbladder & proximal extrahepatic bile ducts: topography

- C23.9 = gallbladder
- C24.0 = extrahepatic bile ducts
 - Proximal/perihilar part: hepatic duct
 - Cystic duct
- C24.8/C24.9 = bile ducts, overlapping / NOS

Avoid codes C24.8 and C24.9

Gallbladder: morphology

- Adenocarcinoma (8140)
Biliary type (8163), intestinal (8144), clear cell (8310), mucinous (8480) signet cell (8490)
- Adenosquamous carcinoma (8560)
- (Intracystic) papillary carcinoma (8503 / 8260)
- Squamous cell carcinoma (8070)
- Undifferentiated carcinoma (8020)

Extrahepatic bile ducts: morphology

- Adenocarcinoma (8140) = “cholangiocarcinoma” (8160)
Biliary type (8163), intestinal (8144), clear cell (8310), mucinous (8480), signet cell (8490)
- (Intraductal) papillary carcinoma (8503 / 8260), ductal carcinoma (8500)

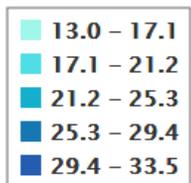
Intra- or extrahepatic cholangiocarcinoma?

- Klatskin tumour = tumour at the confluence of the hepatic bile ducts → always extrahepatic
- Liver hilus: extrahepatic
- Peripheral cholangiocarcinoma → intrahepatic
- Brush of the bile ducts → carcinoma → extrahepatic
- Liver biopsy → intrahepatic, but be aware of the possibility of distant metastasis of an extrahepatic tumour
- Liver surgery: intrahepatic or perihilar (extrahepatic)
- Pancreatic surgery ('Whipple'): extrahepatic (distal tumour)

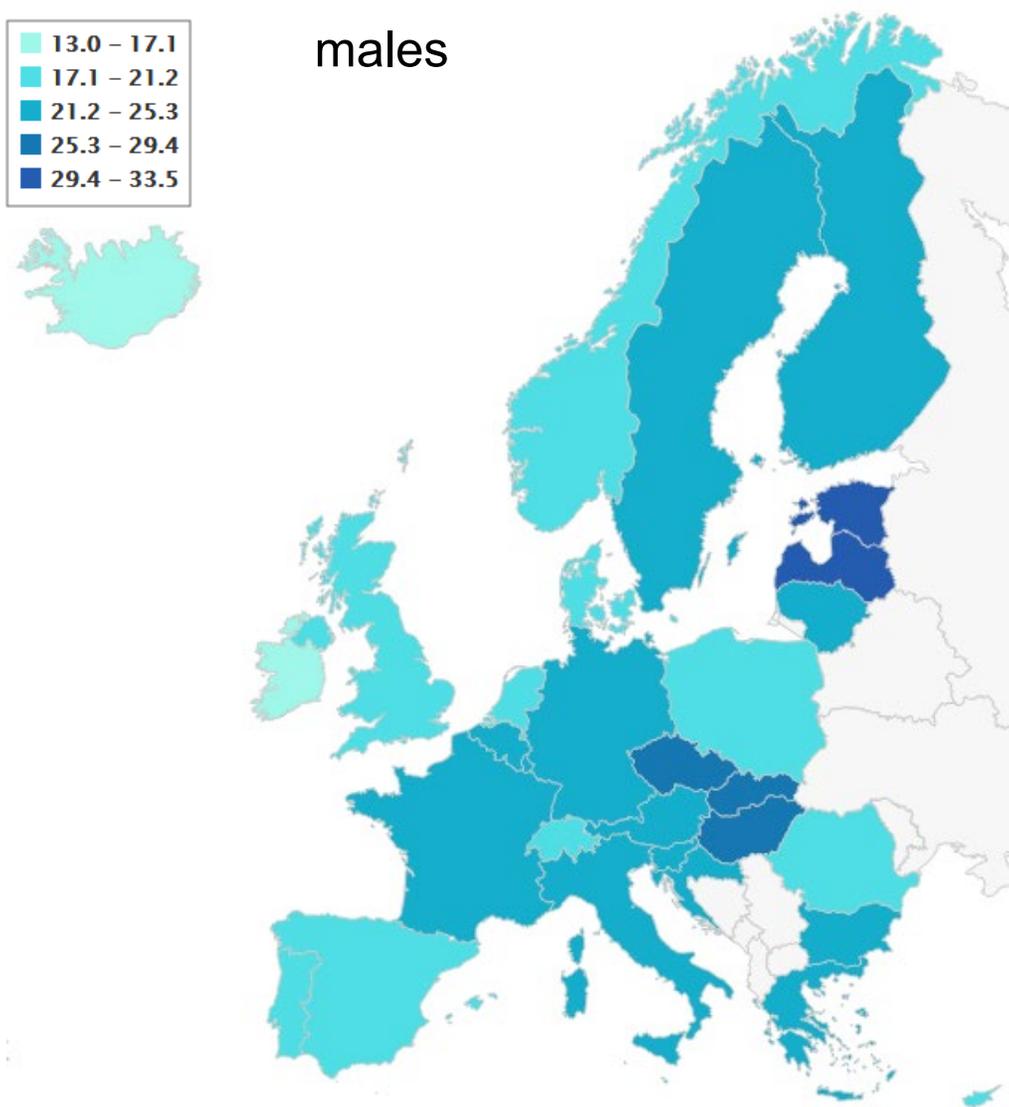


Pancreas & distal bile duct (incl. ampulla of Vater)

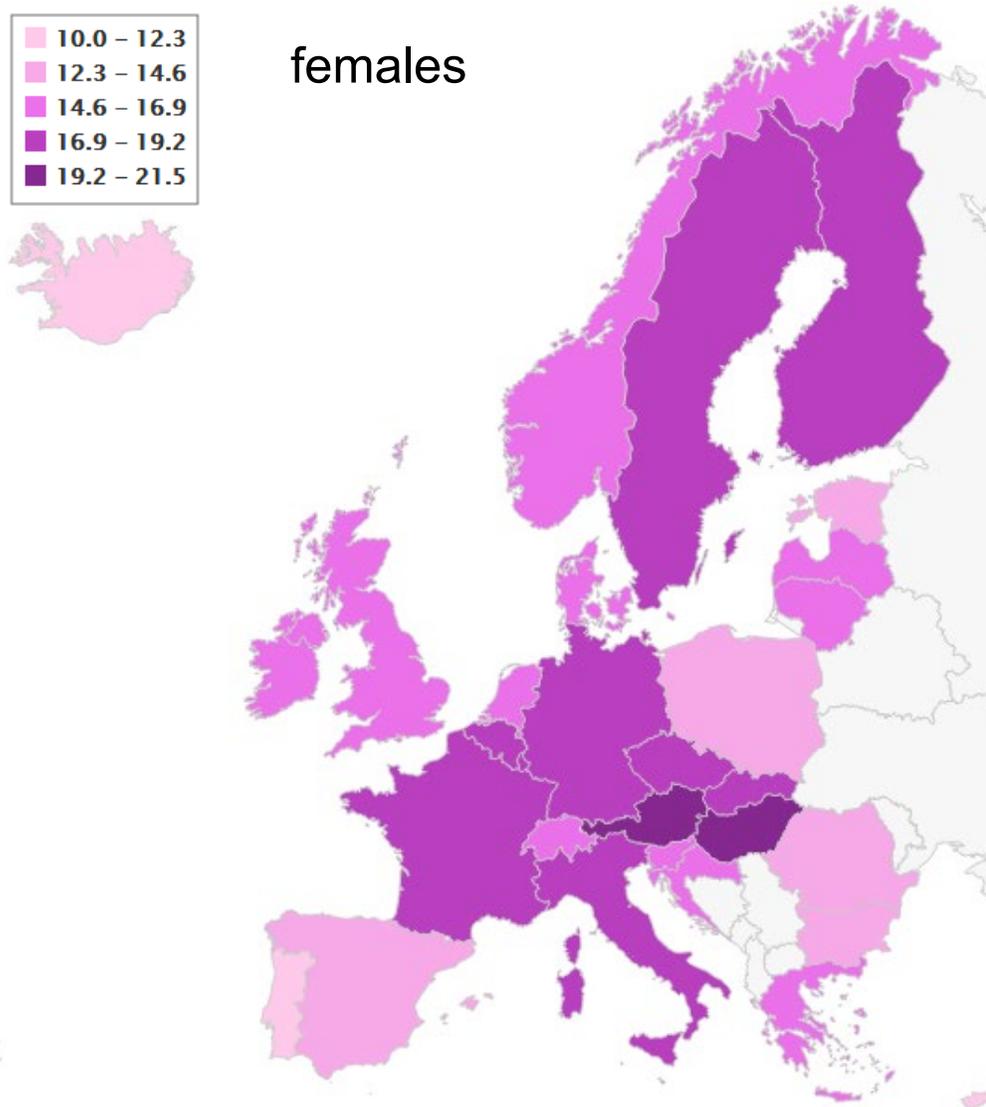
Incidence of pancreas cancer in Europe in 2018



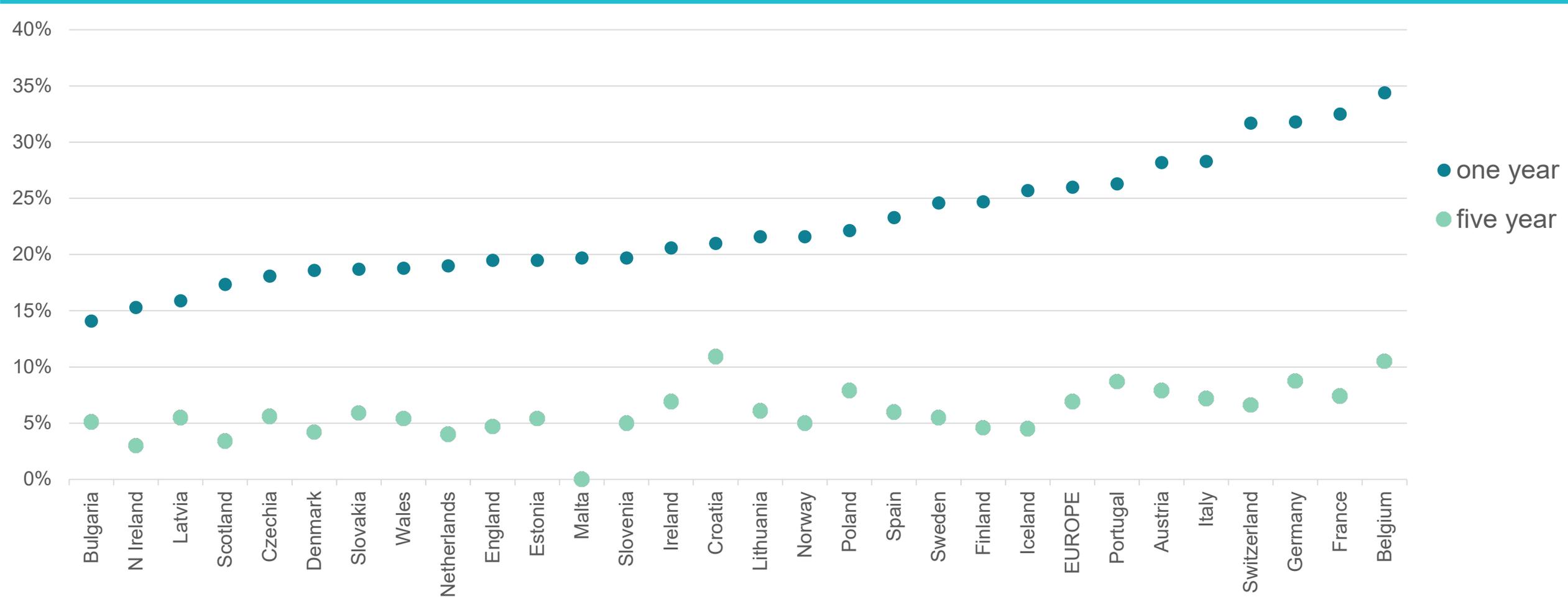
males



females

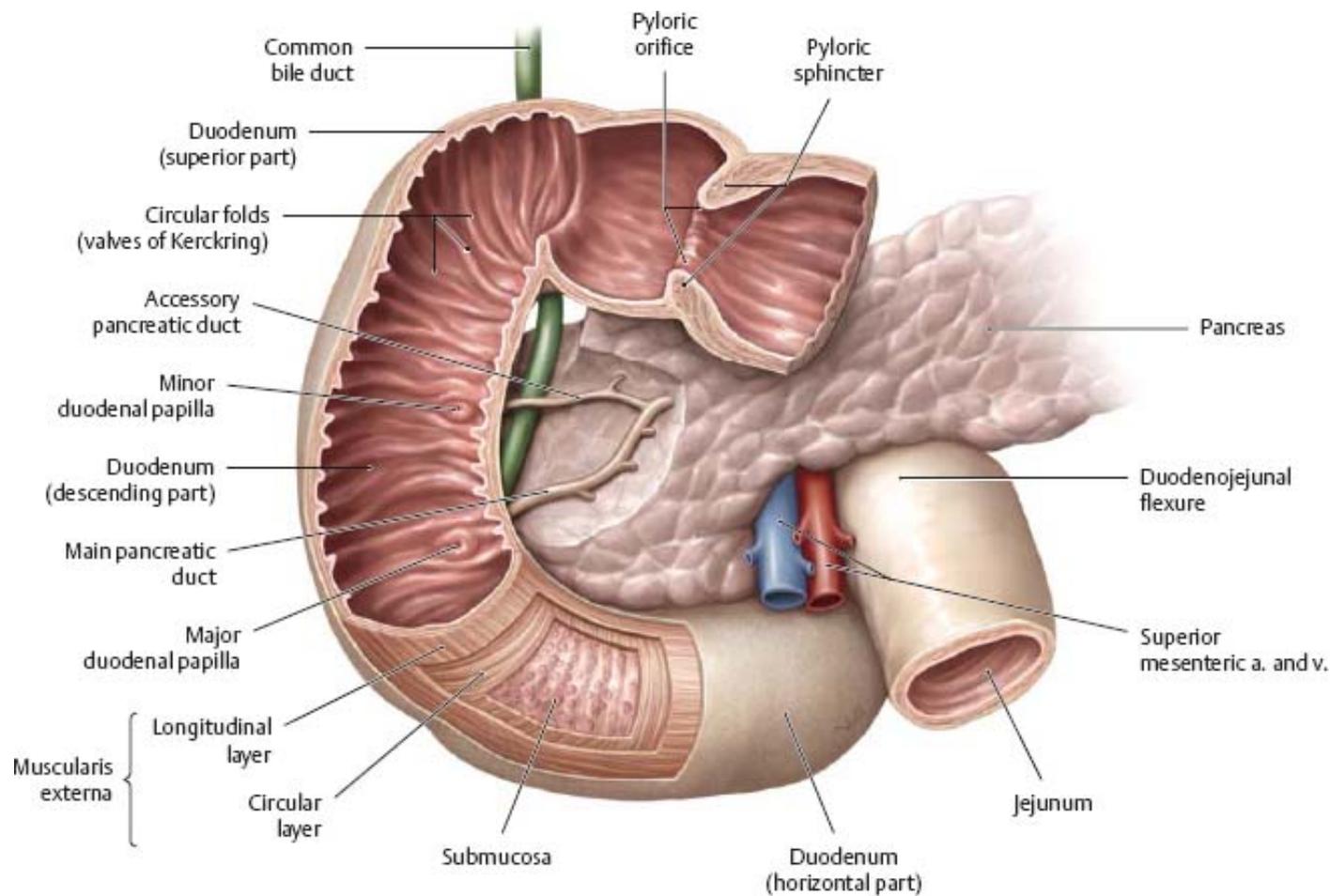
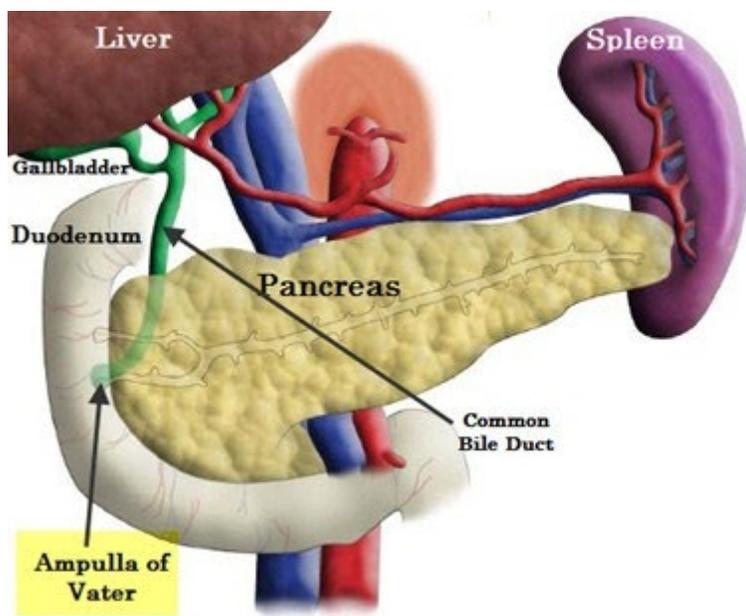


Relative survival of pancreas cancer (2000-2007)



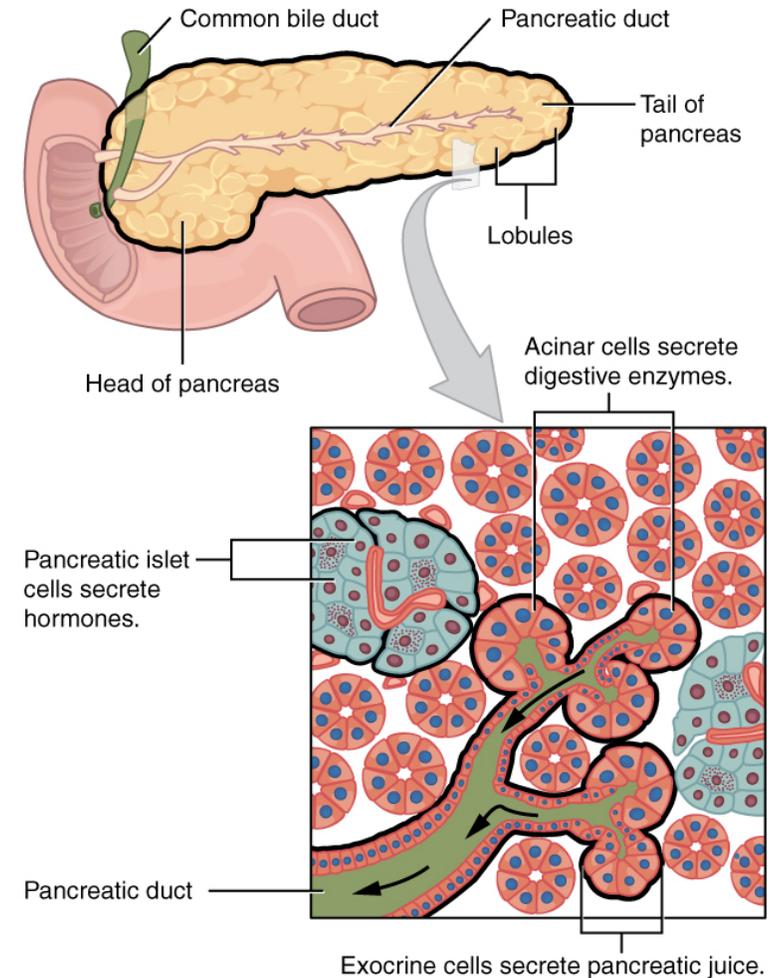
Distal bile duct (common bile duct) & duodenum

- Ampulla of Vater (24.1)
- Duodenum (C17.0)

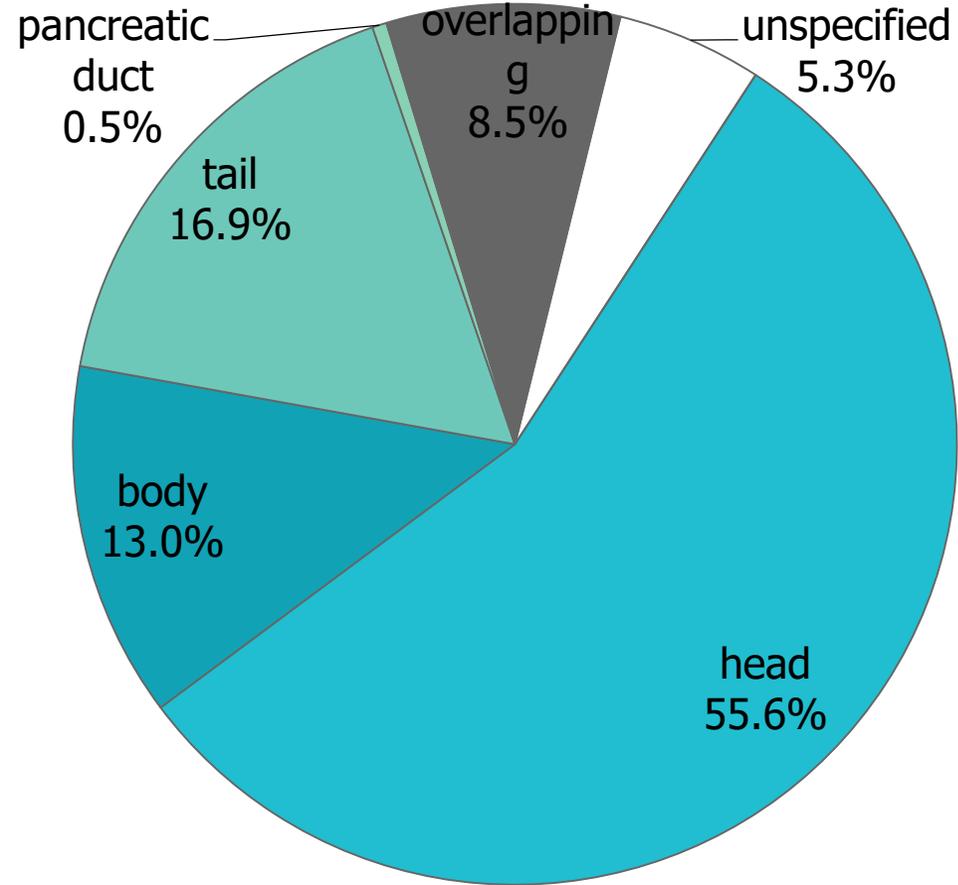


Pancreas: topography

- Head of pancreas (C25.0)
- Body of pancreas (C25.1)
- Tail of pancreas (C25.2)
- Pancreatic duct (C25.3)
- Islets of Langerhans (C25.4)
- Other parts (C25.7)
- Overlapping (C25.8)
- Not otherwise specified (C25.9)



Exocrine pancreatic cancers by subsite



Pancreas: morphology

- (Neuro)endocrine tumours
- Exocrine tumours
- Mixed exocrine-endocrine tumours
- Rare tumours (sarcoma, pancreoblastoma, etc.)

Exocrine tumours: non-invasive (/2)

- PanIN-3 = Pancreatic intraepithelial neoplasia, grade 3 (8148/2)
- Intraductal papillary-mucinous neoplasm with high-grade dysplasia (8453/2)
- Intraductal (tubulo)papillary neoplasm with high-grade dysplasia (8503/2)
- Mucinous cystic tumour with high-grade dysplasia (8470/2)

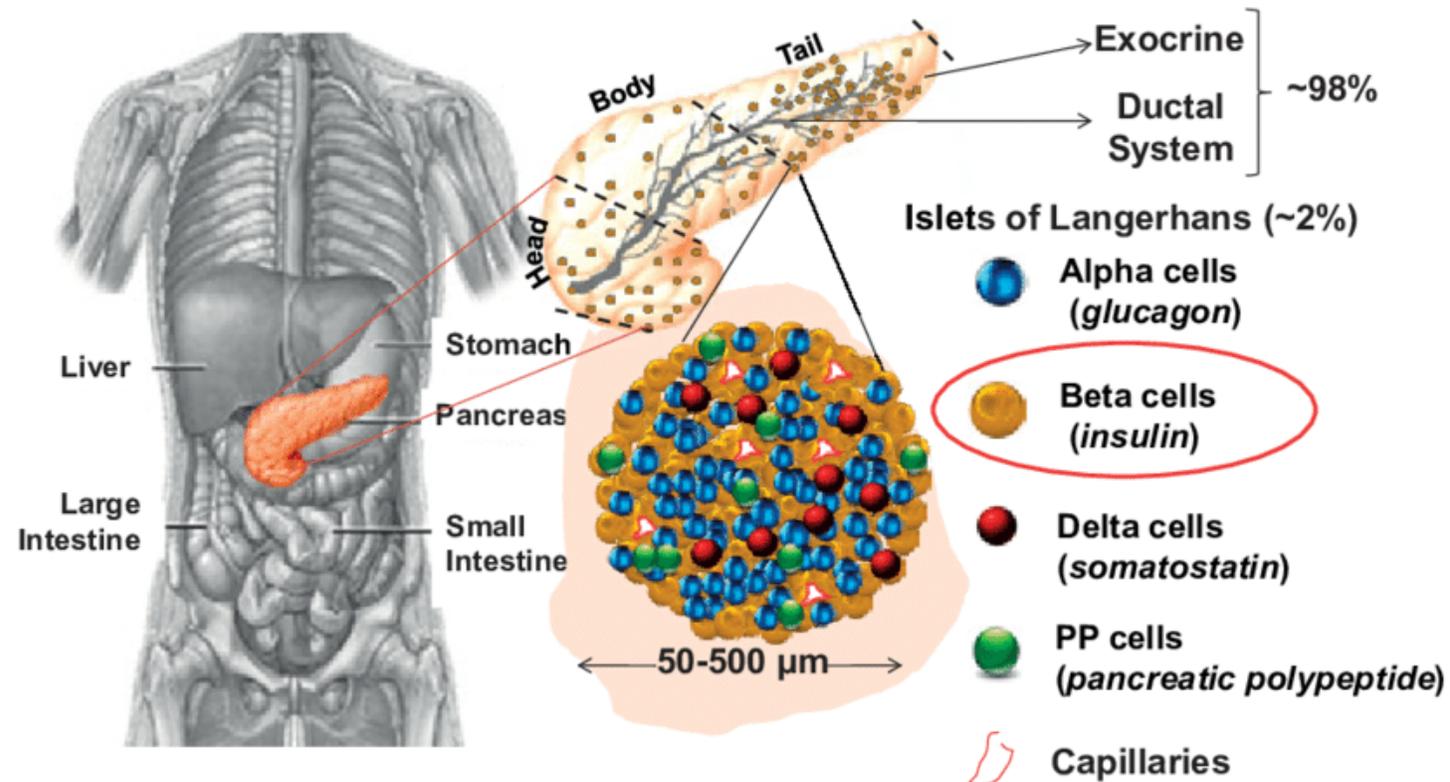
Exocrine tumours: invasive (/3)

- Ductal adenocarcinoma (8500)
 - mucinous (8480), signet cell (8490), medullary (8510)
 - adenosquamous (8560), undifferentiated (8020)
- Acinar cell adenocarcinoma (8550)
- Mixed acinar-ductal adenocarcinoma (8552)
- Pancreato-biliary-type carcinoma (8163)
- Solid pseudopapillary carcinoma (8452)
- Intraductal papillary-mucinous carcinoma (8453)
- Intraductal (tubulo)papillary carcinoma (8503)
- Invasive mucinous cystic tumour (8470)
- Adenocarcinoma, not otherwise specified (8140)

Islet cell tumours of the pancreas (/3)

Islet cell tumours are neuroendocrine tumours (NETs) of the islets of Langerhans in the pancreas:

- Non-functioning pancreatic NETs
- Functioning pancreatic NETs



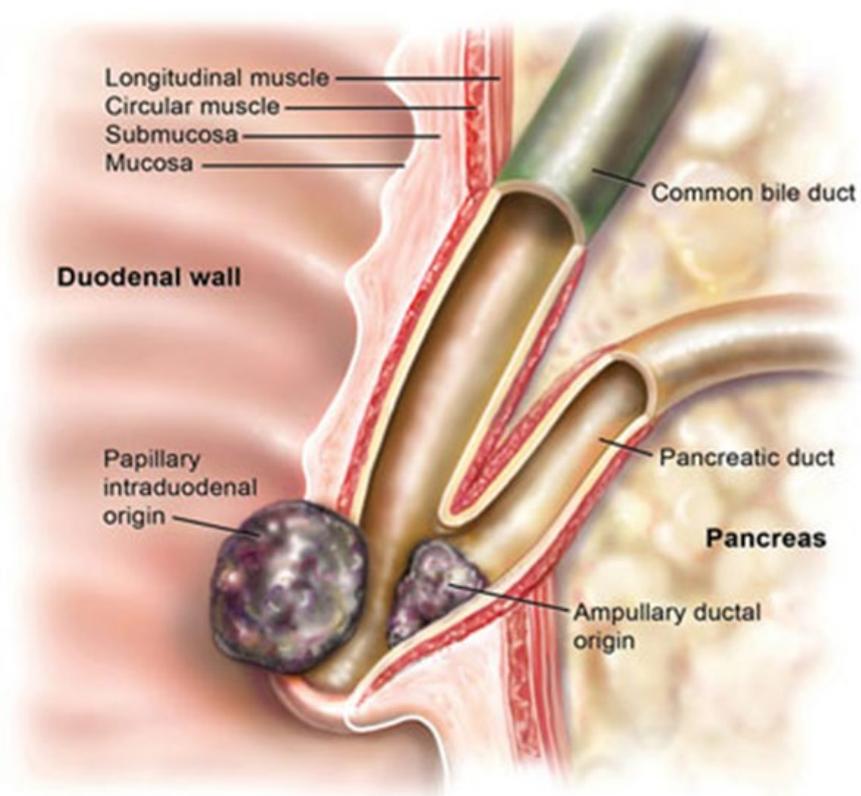
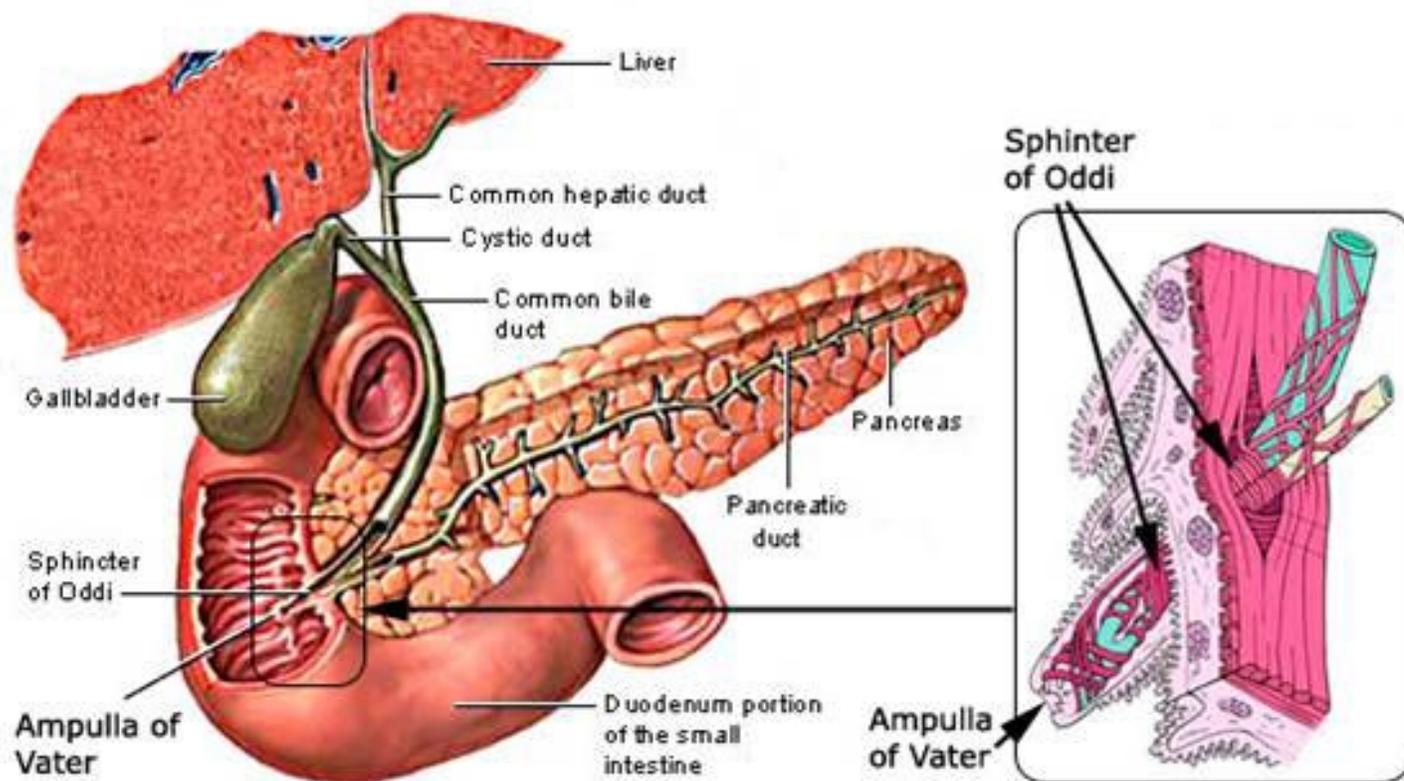
Islet cell tumours of the pancreas

- Functioning tumours are associated with clinical syndromes caused by abnormal secretion of hormones by the tumour cells
- Non-functioning tumours are not associated with clinical syndromes, but they may secrete hormones that do not cause symptoms
- Non-functioning tumours <5 mm (microadenomas) are considered benign

Islet cell tumours of the pancreas

tumour	morphology
Pancreatic NET, non-functioning	8150/3
Pancreatic NET, functioning:	
- insulin-producing (insulinoma)	8151/3
- glucagon-producing (glucagonoma)	8152/3
- gastrin-producing (gastrinoma)	8153/3
- VIPoma	8155/3
- somatostatin-producing (somatostatinoma)	8156/3
- ACTH (other)-producing	8158/3
- serotonin-producing	8241/3

Duodenum & ampulla of Vater



Distal extrahepatic bile ducts: topography

- C24.0 = extrahepatic bile ducts
 - Middle/distal part: common bile duct, choledochal duct
- C24.1 = ampulla of Vater



EXERCISES



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