

Online supplementary Table S1. Classification: types of control populations

Category	Subcategory 1	Subcategory 2	Include
<b>1. Controls with premalignant diseases</b>	<i>Premalignant gastric diseases</i>	Not applicable	pre-malignant lesions of the stomach; gastric epithelial dysplasia; dysplasia (high-risk group); metaplasia (high-risk group); low-grade gastric dysplasia (high-risk group); hyperplastic/fundic polyp; high grade dysplasia (high risk group); atypical hyperplasia; gastric adenoma not specified; gastric mucous membrane high-grade intraepithelial neoplasia
	<i>Premalignant pancreatic diseases</i>	Not applicable	intraductal papillary mucinous neoplasm/tumour without pancreatic ductal adenocarcinoma; pre-pancreatic cancer; solid-cystic papillary neoplasm; mucinous cystic neoplasm; solid pseudopapillary tumours
	<i>Premalignant oesophageal diseases</i>	Not applicable	oesophageal basal cell hyperplasia; oesophageal intraepithelial neoplasia; oesophageal dysplasia; oesophageal precancerous lesions; Barrett's Oesophagus diagnosis
	<i>Premalignant biliary tract diseases</i>	Not applicable	adenomyomatosis of gallbladder; adenoma of gallbladder
<b>2. Controls with non-malignant diseases</b>	<i>non-malignant gastric diseases</i>	gastritis	chronic atrophic gastritis; atrophic gastritis; stomach mucosal atrophy; chronic/simple/superficial/mild gastritis; mild chronic atrophic gastritis; minimal gastritis; antrum limited chronic gastritis/atrophy; antrum-predominant atrophic gastritis; multifocal atrophic gastritis affecting the antrum and corpus; non-atrophic gastritis; corpus chronic gastritis; corpus-predominant atrophic gastritis; chronic-active gastritis
		gastric ulcer	gastric ulcer; complex ulcer; gastric lesions
		polyps/tumours	gastric polyps; stomach polyps; gastric stromal tumours, stomach secrete melanoma; gastric adenoma (low grade tubular adenomas without evidence of local cancerous transformation)
		non-malignant gastric diseases not specified	Any reference to non-malignant gastric diseases without providing further description. Also include cardia retardation (could not be classified otherwise)
	<i>non-malignant pancreatic diseases</i>	pancreatitis	pancreatitis; acute pancreatitis; chronic pancreatitis; autoimmune pancreatitis; non-autoimmune pancreatitis; non-hereditary pancreatitis; ordinary chronic pancreatitis
		cystic/neoplastic pancreatic diseases	haemangioma; pseudocysts; serous/mucinous cystadenoma; simple cysts; epithelial cysts; pancreatic benign neoplasms; cystic neoplasms; other benign pancreatic neoplasms/tumours; pancreatic pseudocyst; benign pancreatic adenomas
		non-malignant pancreatic diseases not specified	Any reference to non-malignant pancreatic diseases without providing further description (e.g. miscellaneous pancreatic diseases; focal pancreatic lesion)
	<i>non-malignant oesophageal diseases</i>	oesophagitis	reflux esophagitis; esophagitis; acute suppurative esophagitis
		oesophageal tumours	benign oesophageal tumour; oesophageal polyps; oesophageal leiomyoma
		other oesophageal	benign oesophageal stenosis; achalasia; oesophageal varicose, oesophageal stricture; oesophageal hiatal hernia

Category	Subcategory 1	Subcategory 2	Include
		non-malignant oesophageal diseases not specified	Any reference to non-malignant gastric diseases without providing further description.
	<i>non-malignant biliary tract diseases</i>	Biliary obstruction, stricture, dilatation, inflammation and injury	benign biliary obstruction; acute benign biliary obstruction; bile duct stricture; congenital cystic dilatation of bile duct; iatrogenic bile duct injury, cholecystitis; cholelithiasis; sclerosing cholangitis; primary sclerosing cholangitis
		non-malignant biliary tract diseases not specified	Any reference to non-malignant biliary tract diseases without providing further description
	<i>Other non-malignant diseases</i>	Not applicable	type 2 diabetes; chronic hepatitis B; liver cirrhosis; dyspepsia; duodenitis; duodenitis with/without erosion; duodenal ulcer; H. pylori infection; other gastroenterology disease; "stones"; haemorrhoids; benign pulmonary disease; chronic obstructive lung disease; pulmonary fibrosis; chronic bronchitis; sarcoidosis; goitre surgery; hernias; surgery for hernia repair; other small surgical procedures; varicose veins; minor vascular surgery; chronic inflammation not otherwise specified; benign diseases not otherwise specified
<b>3. Healthy/normal controls</b>	<i>Not applicable</i>	Not applicable	<ul style="list-style-type: none"> <li>• healthy donors/visitors/patients attending routine/annual health check-ups/examinations (general, physical examinations); individuals scheduled for a medical health check-up</li> <li>• non-pancreatic disease controls; cancer-free controls; normal gastric mucosa; normal pancreas; normal biochemistry; no evidence of gastric disease; no benign nor malignant tumours; free of pancreatic malignancy; showed no evidence of the disease; volunteers known to be in good health; healthy volunteers without oesophageal inflammation; healthy with no evidence of pancreatic diseases; no endoscopic abnormality; normal biochemistry; normal pancreas without any risk factors for pancreatic cancer; no personal history of benign/non-malignant conditions, systemic/autoimmune/inflammatory diseases/ GI abnormalities/serious underlying diseases; not diagnosed with any GI disease nor cancer; without digestive tract disease; endoscopy showed normal upper GI tract; normal oesophageal epithelia; controls not suffering from any physical ailment or acute illness and not hospitalised; normal results; without other digestive tract disease; control without Barrett's Oesophagus</li> <li>• described as healthy from other data sources such as screening/cardiovascular surveys, previous studies, biobanks, blood banks, labs, or databases (cancer, health insurance); no family history of cancer</li> <li>• Any healthy/normal controls that are described as such, but no further information is provided on what is meant by healthy, or on how these controls were identified. E.g. normal controls; healthy controls; healthy adults accompanying patients to clinics; general screening population; postmenopausal women attending an ovarian cancer screening trial; women attending local, population-based screening programmes; health conscious participants; good health on the basis of self-report</li> </ul>