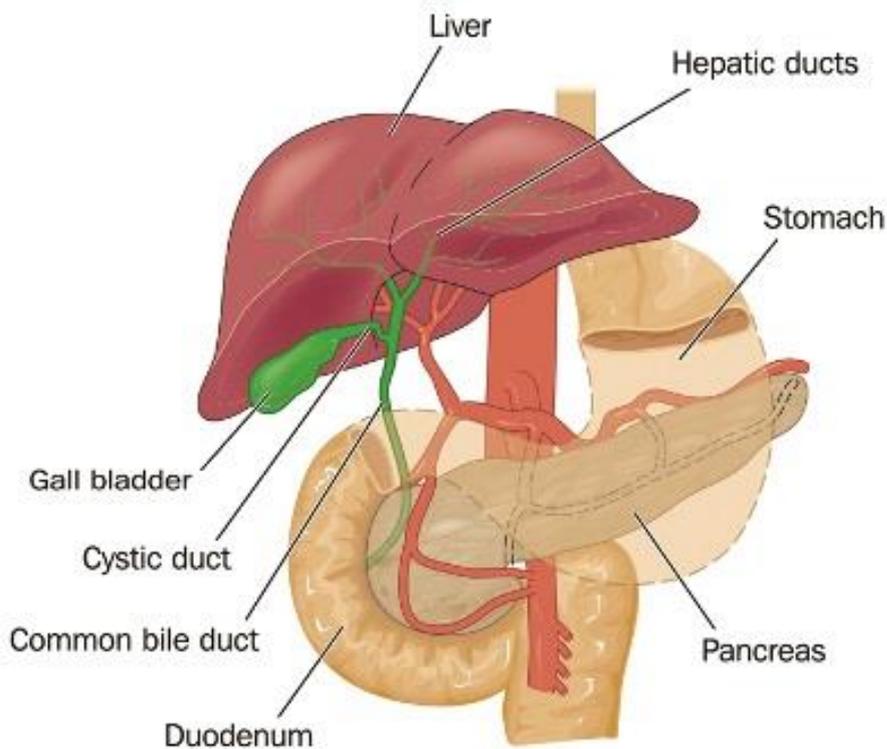


HPB: Hepato-Pancreato-Biliary system includes the liver (Hepatic), the pancreas, the gallbladder and the bile ducts.



HPB MDT

MDT Meeting - Multi disciplinary team meeting – all cancer patients are discussed in meetings to help make diagnosis and treatment decisions, these are weekly meetings which includes Surgeons, Medical Consultants, Oncologists, Radiologists and Nurses specialising in a Cancer type. HPB MDT is held at CMFT weekly and discusses all cases across the Manchester Cancer Network

MDT Team

AHP: Allied Health Professional (e.g. physio/dietician)

CNS: Clinical Nurse Specialist

Cytologist: A consultant that is concerned with the diagnosis of disease based on the laboratory analysis of bodily fluids such as blood and urine, as well as tissues.

Hepatologist: A specialist Consultant in disorders of the liver.

Hepatobiliary Surgeon: A Surgeon who specialises in operations including the liver, pancreas, gallbladder, and bile ducts.

Gastroenterologist: A specialist consultant in disorders of the oesophagus, stomach, small and large intestines, pancreas, gallbladder, and liver.

HPB Oncologist: A consultant who specialises in treating HPB cancers

Pathologist: is a Consultant who examines a tissue section for evidence of cancerous cells.

Radiologist: A specialist consultant in interpreting and reporting on scan images to help diagnose but also maybe an interventional radiologist who is required for any procedure under image guidance such as biopsies.

Hospitals under the Manchester Cancer Board

Bolton NHS Foundation Trust

CMFT: Central Manchester NHS Foundation Trust Manchester Royal Infirmary (MRI) – **main tertiary centre for all HPB referrals**

MACC: Macclesfield General Hospital or East Cheshire NHS Foundation Trust

PAT: Pennine Acute Trusts which includes North Manchester General, Oldham, Fairfield & Rochdale Hospitals

SHH: Stepping Hill Hospital or Stockport NHS Foundation Trust

SRI: Salford Royal NHS Foundation Trust

TGH: Tameside NHS foundation Trust

The Christie NHS Foundation Trust

UHSM: Wythenshawe Hospital / University Hospital of South Manchester NHS Foundation Trust

WWL: Wroughtington, Wigan & Leigh NHS Foundation Trust

Cancer (Malignancy) Types;

Ampulla Vater Cancer: The Ampulla Vater is formed at the junction where the fusion of common bile duct (CBD) and pancreatic duct enter the C-shaped curve of the duodenum. All of the pancreatic and biliary secretion enters the duodenum through the Ampulla Vater

Cholangiocarcinoma: Bile Duct Cancers are almost always a type of cancer called adenocarcinoma, which starts in the lining of the bile duct. If cancer starts in the part of the bile ducts within the liver, it is known as intra-hepatic. If it starts in bile ducts outside the liver, it is known as extra-hepatic.

Colorectal Liver Metastases: secondary cancers in the liver arising from a primary bowel cancer (dealt with by the HPB team)

HCC: Hepatocellular Carcinoma- Primary Liver Cancer

Pancreatic Tumours:

Endocrine Tumours: start in the hormone producing cells of the pancreas

NET: Neuroendocrine Tumours are often benign slow growing tumours although rarely they can be malignant and aggressive.

PDAC: Pancreatic ductal adenocarcinoma is the most common malignancy of the pancreas these are exocrine tumours.

General HPB related Conditions

Acute Pancreatitis: is where the pancreas becomes inflamed over a short period of time this can be caused by underlying malignancy.

Acute Cholangitis: acute inflammatory disease of the gallbladder often caused by gallstones underlying malignancy.

Biliary Obstruction: sometimes referred to as obstructive jaundice is a bile duct obstruction is a blockage in the tubes that carry bile from the liver to the gallbladder and small intestine this can be malignant or no malignant cause

Haemochromatosis: is an inherited disorder in which iron levels in the body slowly build up over many years, which is why it's sometimes called iron overload disorder. Patients with this condition are at higher risk of developing primary liver cancer.

Hepatitis B: sometimes called Hep B or HBV, is a virus carried in the blood and body fluids which infects and damages the liver and left untreated can cause jaundice and liver cirrhosis.

Hepatitis C: is a blood-borne virus that predominantly infects the cells of the liver. This can result in inflammation and significant damage to the liver. It can also affect the liver's ability to perform its essential functions and lead to jaundice and liver cirrhosis.

IBDI iatrogenic bile duct injury: Injury to bile duct caused through surgery.

Jaundice: yellowing of the skin, pale stools and dark urine caused by blocked bile ducts, which means bilirubin can build up in a patient's bloods and tissues. This can be obstructive as described above or non-obstructive cause for instance liver failure.

Liver Abscess: is a pus-filled mass inside the liver. Common causes are abdominal infections such as appendicitis or diverticulitis due to spread through the portal vein.

Liver Cirrhosis: is scarring of the liver caused by continuous, long-term liver damage. This liver damage can give patients a higher risk of developing primary liver cancers.

Liver/Pancreatic Trauma: An injury to the liver or pancreatic. This can occur through either a blunt force such as a car accident, or a penetrating foreign object such as a knife.

Procedures/Investigations;

Cholecystectomy: Removal of the gallbladder this can be done laparoscopically (keyhole) or as open surgery

CPET: Cardiopulmonary Exercise Testing is a non-invasive method used to assess the performance of the heart and lungs at rest and during exercise. Patients are also invited to attend surgery school where they are given the opportunity to meet with AHP involved in their pre and post-operative care.

CT scan: A computerised tomography (CT) scan uses X-rays and a computer to create detailed images of the inside of the body.

eGFR: estimated glomerular filtration rate is a number based on your blood test for creatinine. It tells how well your kidneys are working, this is checked before any patient is given a scan which involves dye (referred to as contrast) to ensure their kidneys are able to clear the dye effectively from their system afterwards.

EUS: An Endoscopic Ultrasound E is a type of endoscopic examination. It involves the insertion of a thin tube into the mouth and down into the stomach and the first part of the small intestine. At the tip of the tube is a small ultrasound probe that emits sound waves.

ERCP: Endoscopic Retrograde Cholangio-Pancreatography. It is an examination which uses an endoscope to examine the bile or Pancreatic ducts, which are located in the small bowel. These ducts will be located with x-ray dye.

FNA: Final Needle Aspiration – Type of Biopsy (used alongside EUS)

LFT: Liver function test performed by a blood sample this included the bilirubin levels which helps assess a patient's jaundice level.

MRCP: Magnetic resonance cholangiopancreatography or MRCP uses a powerful magnetic field, radio waves and a computer to evaluate the liver, gallbladder, bile ducts, pancreas and pancreatic duct for disease. It is noninvasive and does not use ionizing radiation

MRI: Magnetic resonance imaging is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body

Octreotide Scan: A type of scan used to find pancreatic neuroendocrine tumours (NET)

PET: stands for positron emission tomography. This type of scan can show how body tissues are working, as well as what they look like. Most commonly used with CT scan (PET-CT)

PTC: A percutaneous transhepatic cholangiogram is an x-ray of the bile ducts. X-rays are used to help the health care provider locate the liver and bile ducts. A long, thin, flexible needle is then inserted through the skin into the liver. The provider injects dye, called contrast medium, into the bile ducts. Contrast helps highlight certain areas so they can be seen. More x-rays are taken as the dye flows through the bile ducts into the small intestine. This can be seen on a nearby video monitor

Whipple's Surgery: Curative Surgery for pancreatic Cancer It is also occasionally referred to as a pancreaticoduodenectomy in reference to the organs that are removed. During the Whipple's operation, the head of pancreas, a portion of the bile duct, the gallbladder and the duodenum are removed, usually with part of the stomach. After removal of these structures, the remaining pancreas, bile duct and stomach are re-joined to the intestine. This allows pancreatic juice, bile and food to flow back into the gut, so that digestion can proceed normally.

Hepatectomy: (liver resection) is a surgical procedure to remove cancerous or non-cancerous tumours in the liver. Up to 70% of the liver may be removed as it has the ability to regenerate.

USS: Ultrasound involves using soundwaves to produce images.

Non-Surgical Treatments

Adjuvant Chemotherapy: Chemotherapy given after surgery.

BSC: Best Supportive Care is term used when no treatment, even palliative can be offered and the patient is supported by community teams for symptom management only

Chemoembolization: anti-cancer drugs are injected directly into the blood vessel feeding a cancerous tumor. In addition, synthetic material called an embolic agent is placed inside the blood vessels that supply blood to the tumor, in effect trapping the chemotherapy in the tumor. This used for primary Liver Cancer only.

IRE: Irreversible electroporation is a soft tissue ablation technique or electric energy to irreversibly destabilize cancer cells membranes which will ultimately kill the cancer cells to liver tumours and in locally advanced pancreatic cancer. Not currently used within Manchester but training is in progress at CMFT.

Neoadjuvant Chemotherapy: Given to patients before surgery to help reduce the size of the tumour, it can help make surgery possible or increase the chance of a successful operation.

Palliative Chemotherapy: intravenous or tablet form chemotherapy is given to help slow down or reduce the size of tumours but is a non-curative treatment.

Miscellaneous;

ACE project: initiated in June 2014, is a unique initiative supported by Cancer Research UK and Macmillan Cancer Support. ACE will run across England for approximately 2 years and was established as an early diagnosis programme that supports the NHS outcome of 'preventing people from dying prematurely'. Wave 1 incorporates 60 projects which are currently exploring innovative concepts such as referral pathways from primary care professionals other than GPs, primary care engagement to overcome barriers to cancer screening and how best to streamline lung cancer diagnostic pathways, amongst others. ACE will develop the knowledge base on early diagnosis, evaluating and spreading good practice, to inform cancer commissioning

Palliative: incurable disease, patients still may receive treatment to help reduce or slow down disease progression this will help with symptoms and hopefully improve prognosis but will not cure the cancer.

Performance Status: Helps members of MDT team measure of how the cancer is affecting the patient, it helps them assess a patient's suitability for treatment and how their disease is progressing. (See table below)

GRADE	ECOG PERFORMANCE STATUS
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours
3	Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours
4	Completely disabled; cannot carry on any selfcare; totally confined to bed or chair
5	Dead