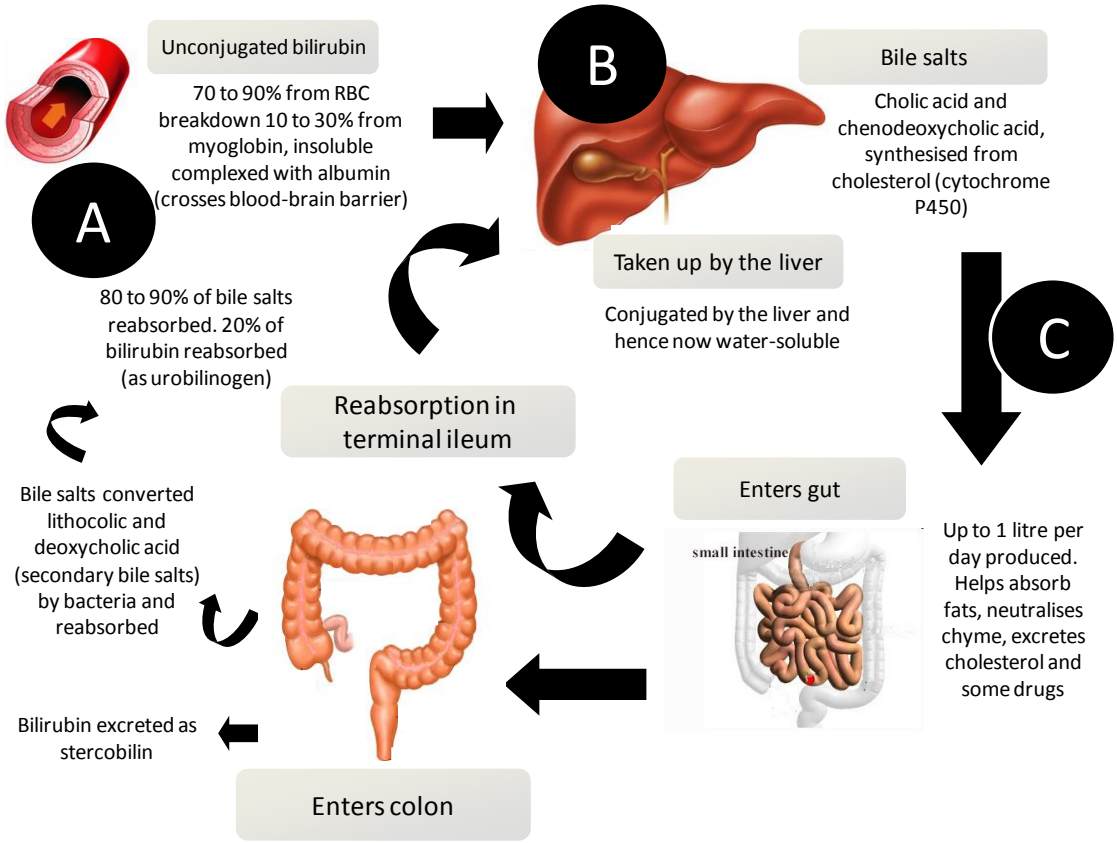
GP Refresher

LEICESTER HPB UNIT

Focus on Obstructive Jaundice

The term jaundice is derived from the French word 'jaune' meaning yellow and is typically observed when the serum bilirubin level reaches >35umol/L. Three main different types of jaundice exist which are 'prehepatic' (A), 'hepatic' (B) and post-hepatic (C) depending on where problem lies in the enterohepatic circulation (Figure 1). Leicester is one of the largest ERCP centres in the UK undertaking over 1,000 procedures annually.

Figure 1:



A - Prehepatic - Characterised by increased bilirubin production typically from haemoloytic states. Gilbert's syndrome is a common benign cause of an isolated raised bilirubin with the remaining liver function tests remaining normal. Bloods will show an elevated unconjugated bilirubin and no dilated ducts on USS.

B - Hepatic - Caused by hepatocyte damage. The most common cause being a cholestatic atypical drug reaction (e.g. antibiotics). Cirrhosis from any cause or viral hepatitis can also be implicated. Bloods will show excessively raised transaminases (e.g. ALT) and no dilated ducts on USS.

C - Post-hepatic - Caused by a mechanical blockage in the biliary tree. Characterised by markedly raised alkaline phosphatise and dilated ducts on USS.

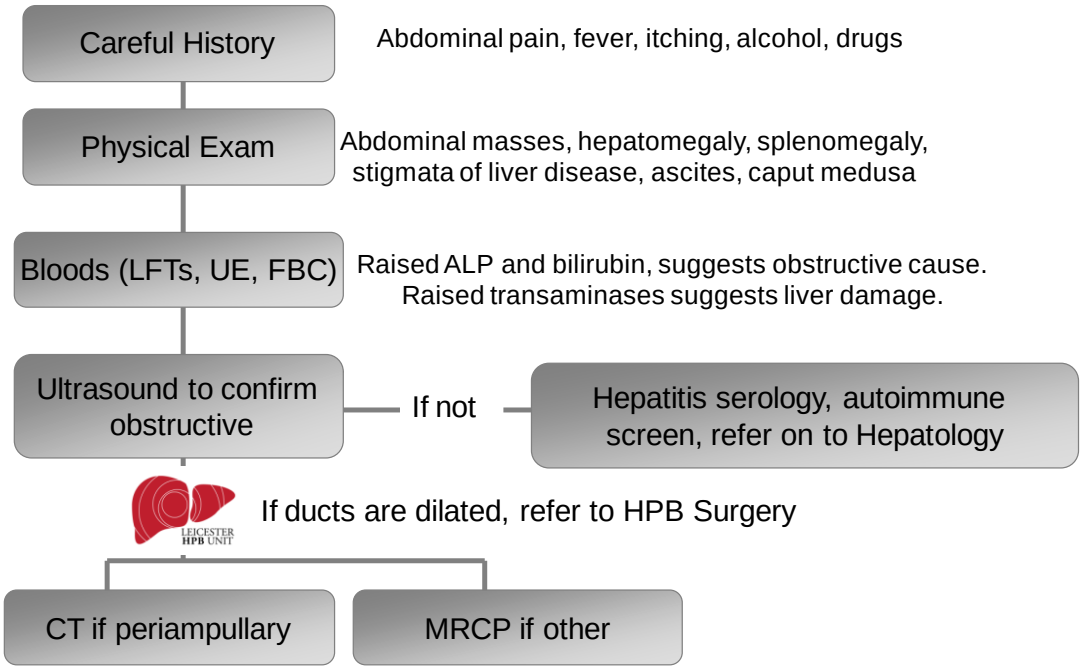
Symptoms of Obstructive Jaundice:

- Dark urine and pale stools
- Itch (which can be intense)
- Features of infection (e.g. temperature, raised white cell count)
- Listless with loss of appetite

Causes of Obstructive Jaundice:

- Gallstones are the most common surgical cause (about 60%), typically present with pain and often infection
- Cancer of the pancreas or the liver accounts for the majority of the remainder. This is typically painless and progresses rapidly over two weeks with markedly icteric patients. Weight loss or an abdominal mass is often a feature.
- Benign causes can be associated with autoimmune disease (such as sclerosing cholangitis), chronic pancreatitis or following gallbladder surgery (causing a bile duct stricture).

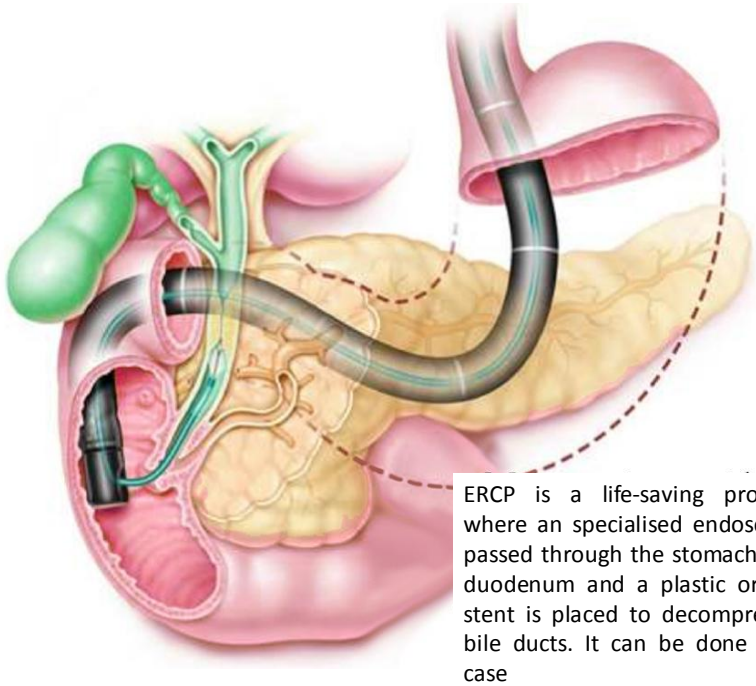
Obstructive Jaundice Workup:



Treatment of Jaundice:

The exact treatment of jaundice will depend on the underlying cause and the general fitness of the patient. Many patients will need an ERCP as a temporary or definitive procedure (Figure 2).

Figure 2:



ERCP is a life-saving procedure where an specialised endoscope is passed through the stomach to the duodenum and a plastic or metal stent is placed to decompress the bile ducts. It can be done as day case

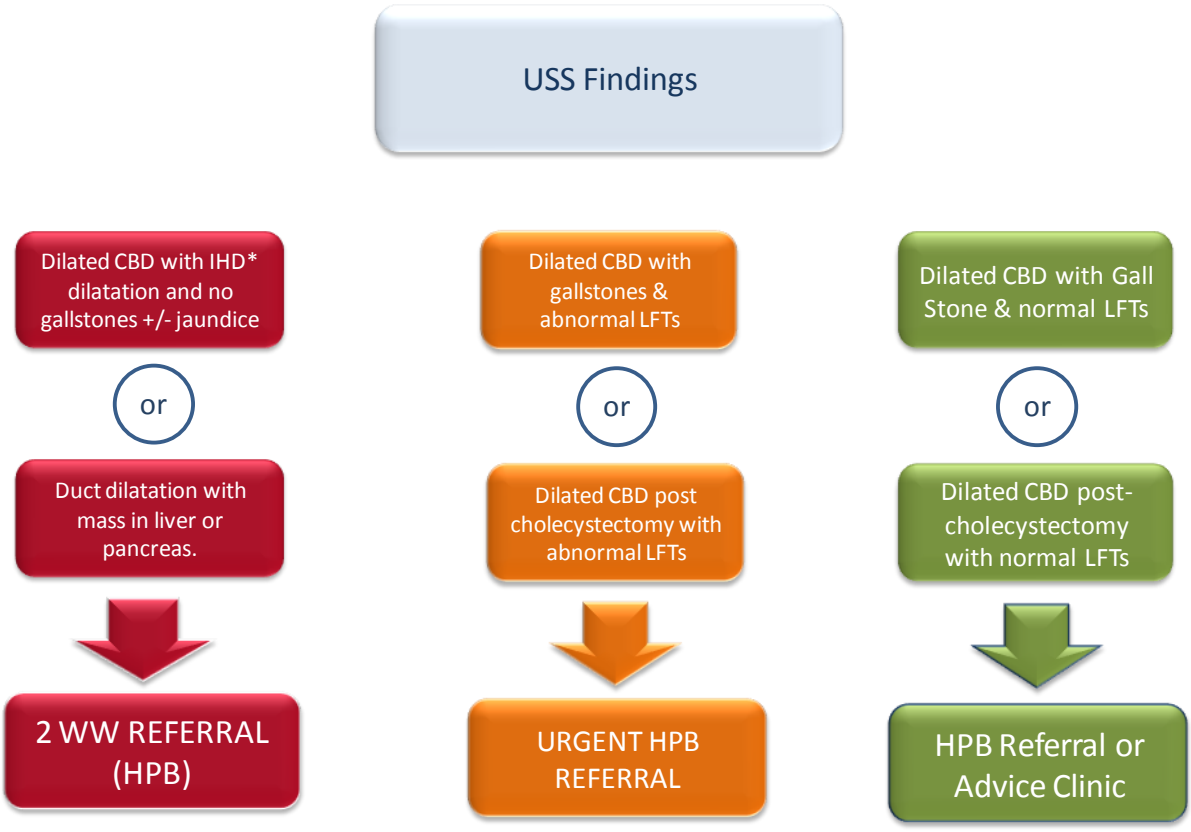
How to Refer a Patient with Suspected Obstructive Jaundice:

Nearly all patients with deranged LFTs suggestive of obstructive jaundice will need an USS to examine their biliary tree. Patients can be referred without an USS in the following scenarios:

- All patients with jaundice and a palpable mass require a two week wait (2WW) referral
- All patients with jaundice, pain **and** symptoms of sepsis require emergency admission to HPB (via Bed Bureau)
- Patients with a bilirubin greater than 100, require a 2WW referral. Please include U&E in the form to expedite definitive imaging
- Patients with associated acute kidney injury require emergency admission to HPB (via Bed Bureau)

How to Refer a Patient with USS Findings of Biliary Obstruction:

For patients who do not fit the criteria for direct 2WW referral or emergency admission, a USS is required to confirm if an obstruction is present and to confirm if gallstones are also present. The USS findings can be used to determine the nature of referral to HPB.



** = Intra hepatic ducts*

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