SUMMARY OF LEARNING POINTS

LIVER SEGMENTAL ANATOMY (COUINAUD)

- The liver consists of **8 functional segments**
- The left and right branches of the **portal vein (P)** divide the liver into upper segments (II, IVa, VIII, VII) and lower segments (III, IVb, V, VI)
- The middle branch of the **hepatic vein (H)** divides the liver into a **left lobe** (segments II-IV) and **right lobe** (segments V-VIII)
  - The **falciform ligament** (dotted yellow line) divides the left lobe into segments II/III and Segment IV
  - The **right hepatic vein** divides the right liver into segments V/VIII and VI/VIII)
Terminology for surgical resection according to the Couinaud liver segmental anatomy
ARTERIAL ANATOMY AND VARIANTS

Standard anatomy:

1 = coeliac trunk
2 = left gastric artery
3 = splenic artery
4 = superior mesenteric artery (SMA)
5 = common hepatic artery
6 = gastroduodenal artery
7 = left hepatic artery
8 = right hepatic artery

Two common examples of variant anatomy:

Right replaced: right hepatic artery originates from the SMA
Left replaced: Left hepatic artery originates from left gastric artery
BILE DUCT ANATOMY AND VARIANTS

Standard anatomy:

1 = common bile duct
2 = cystic duct
3 = common hepatic duct
4 = left hepatic duct
5 = right hepatic duct, anterior branch
6 = right hepatic duct, posterior branch

Two common examples of variant anatomy:

Left: right posterior branch originating from left hepatic duct
Right: aberrant right branch originating from common hepatic duct