

# LEVEL 1 BILIARY ULTRASOUND

This is a limited biliary ultrasound that aims to:

1. Determine the presence or absence of gallstones
2. Determine the presence or features of cholecystitis
3. Determine the presence of CBD obstruction where possible

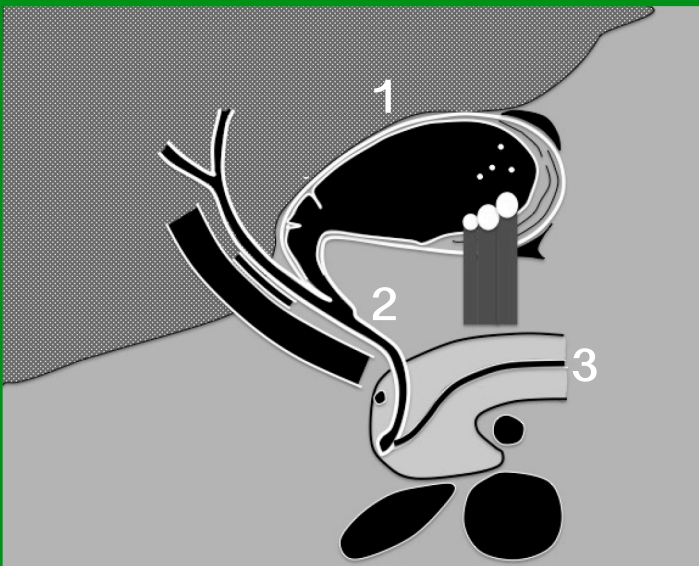
Patient details

History: \_\_\_\_\_

## IMAGES

## NOTES

## FINDINGS



### Normal values

- 1 Gall bladder wall thickness <3mm
- 2 CBD diameter (inner wall to inner wall)  
<6mm (add 1mm each decade over 60 years)  
May be up to 100mm post cholecystectomy (any age)
- 3 Pancreatic duct <2mm

### Cholecystitis

\*No sign is 100% sensitive or specific  
Sonographic Murphy's sign  
Thickened gall bladder wall >3mm  
Pericholecystic fluid  
Hyperaemia in GB wall  
Gall stones esp if impacted (unless acalculous)  
Distended GB (unless chronic)  
Debris in the GB (unless sludge)

### Biliary obstruction

Dilated CBD  
Intrahepatic duct dilatation  
Obstructing lesion esp stones or tumour

### Gall bladder wall thickening

Contracted postprandial GB  
Adenomyomatosis  
Cholecystitis  
Malignancy  
Adjacent inflammatory process  
Hepatitis, pancreatitis, pyelonephritis  
Hypoproteinaemic states  
Liver failure, nephrotic syndrome  
Raised hydrostatic pressure  
Heart failure, aggressive fluid rehydration

### Pitfalls

Miss stone impacted in GB neck  
Assume thick GB wall is cholecystitis  
Misinterpret bowel gas as stones  
Misinterpret stones and cholecystitis as bowel gas  
Miss emphysematous cholecystitis  
Miss porcelain gall bladder

### Gall bladderviews

☐ Inadequate ☐ Adequate

### GB wall thickness

\_\_\_\_\_mm

### Gall stones

☐ Absent ☐ Present (describe) \_\_\_\_\_

### Any cholecystitis features

- ☐ Sonographic Murphy's sign  
☐ GB wall thickening  
☐ Pericholecystic fluid  
☐ Hyperaemia  
☐ Distended GB  
☐ GB debris

### Common bile duct views

☐ Inadequate ☐ limited ☐ Adequate

### CBD diameter

\_\_\_\_\_mm

### Intrahepatic duct dilation

☐ Absent ☐ Uncertain ☐ Present

### Other comments:

---

---

---

---

---

---

---

---

---

---

Conclusions: \_\_\_\_\_

USS findings must be consistent with clinical suspicion; intergrate history, examination, investigations and USS findings to reach a conclusion. Seek urgent comprehensive USS or CT if uncertainty remains

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_