General Surgery FY1 Induction

Dr Joyal Joseph

Surgical SHO

Shift pattern – FY1s

- Normal working day: 0730 - 1630
- 1st On (2586): 0800 - 2030
  - Monday – Friday: SAU/ ECU cover (1630 - 2000)
  - Saturday – Sunday: PTWR + SAU
- 2nd On (2587): 0800 - 2030
  - Monday – Friday: NWD with your primary team (0800 - 1630)/ ward cover for all surgical patients excluding ECU (1630 – 2030)
  - Saturday – Sunday: 'Discharge' ward round 0800 - 2030
- Urology weekend on call: 0730 – 1630 – ward cover
- Vascular weekend on call: 0730 – 1630 – ward cover

Shift pattern – SHOs

- Normal working day: 08:00 – 17:00
- All ‘on call’ shifts are primarily SAU shifts i.e. clerking new patients for general surgery/ vascular/ urology.
  May be asked to assist in emergency theatre depending on case load.
  - Day on call (2585): 0800 – 20:30
  - Twilight: 14:00 – 00:00
  - Night on call (2585): 20:00 – 08:30
- CEPOD shifts: 0800 - 1700
  - Monday to Friday
  - Emergency theatre cover

General Advice - On call shifts

- On call ward cover shifts for OOH – Prioritize urgent Jobs
- When handing over investigations to chase - clarify if they've been appropriately vetted and if there's a plan in place for what to do if abnormal findings are identified.
- From 16:30 onwards all CT scans have to be vetted by the on-call radiology registrar (4631). Clarify the indication with your senior if unsure.
- On weekend 2nd on call there is a dedicated SpR available until 1600. ACP also can help with jobs. Collate the upper GI/ HPB/colorectal lists on Friday.
- 1st on shifts - excellent learning opportunities to get involved. Present patients to the SAU SpR and get CBDs/ CEXs signed off.
- When clerking patients on SAU please ensure that regular medications/ VTE prophylaxis is prescribed in addition to current Rx.

General Advice - NWD

- Sick patients always take precedence over everything else. That includes even ‘urgent’ TTOs.
- Make a habit of leaving on time and taking your breaks during the day. The work never ends and there are a lot of things that can wait until the next day. If you don’t, exception report.
- Prep TTOs for long stayers as you go along.
- Please check the system around midday to chase up bloods. This gives you adequate time to react to abnormal findings/ send bloods for patients the phlebs weren’t able to bleed.
- Daily bloods are not needed for MFFD/ palliative patients.
- Know your patients. Know what they came in with, what they’ve had done so far, and what the plan going forward is. If there is any confusion regarding any of this, just ask.

Deteriorating patients on the ward

- Deteriorating surgical patient tend to go from bad to worse very quickly. If you think someone's unwell - early identification/ early escalation.
- A to E assessment. Start Abx, IVI, Sepsis 6 etc.
- Depending on the pathology, most patients will have a circulatory problem – ensure a set of bloods + VBG has been sent off. Maintain IV access.
- Ensure basic investigations e.g. ECG/ CXR have been arranged. Escalate to senior early and discuss prior to arranging CTs.
- 'Medical' problems in these patients often have a surgical basis. Ensure your immediate senior from the surgical team (SHO/ SPR) are involved prior to the medical SPR.
- Know how to contact your seniors – bleeps/ phones etc. If they are going to be scrubbed in, don't hesitate to go down to theatre to get advice.

Appendicitis

- Symptoms – Migratory RIF pain, anorexia, nausea/ vomiting.
- Signs: RIF tenderness with localized peritonism. Rovsing's/ Psoas/ Obturator signs etc.
- Investigations – Urine dip, BHCG (always presume lower abdominal pain in a woman of childbearing age to be a ruptured ectopic until proven otherwise), Bloods.
- Imaging – CTAP (peritonitic/ age > 40/ diagnostic ambiguity), USS (low sensitivity, mainly used to rule out ovarian pathology), MRI (pregnant women)
- If diagnosis established – admit, IV Abx, IVI if NBM. Prep for theatre (lap +/- open appendicectomy)

Diverticulitis

- Symptoms – LIF pain (mainly sigmoid), nausea/ vomiting, fever.
- Signs: LIF tenderness with localized peritonism. May be generally tender if perforated.
- Investigations – U-dip, BHCG (always presume lower abdominal pain in a woman of childbearing age to be a ruptured ectopic until proven otherwise), Bloods.
- Imaging – CTAP (diagnostic + helps stratify into complicated vs uncomplicated).
- If systemically well with uncomplicated diverticulitis – home with dietary advice. In complicated diverticulitis – If systemically well may be able to go home on PO Abx. If systemically unwell admit for IV Abx. May require intervention – IR guided drainage/ theatre (Hartmann's procedure)
- All patients with complicated diverticulitis need lower GI endoscopy (in 3/12) to rule out an underlying cancer if they haven't had one in the preceding 2 years.

Biliary Sepsis (Cholecystitis/ Cholangitis)

- Symptoms – RUQ pain, nausea/ vomiting, fever.
- Signs: RUQ tenderness with localized peritonism. Murphy's sign.
- Investigations – Bloods, CXR (always rule out lower lobe consolidation in patients presenting with upper abdominal pain)
- Imaging – US (cost-effective/ sensitive modality in assessing for gallstones), CTAP (if concerned about empyema/ perforation), MRCP (biliary obstruction). No indication for repeat US in patients who are known to have gallstones.
- Abx (oral vs IV), may need admission depending on how unwell they are, urgent decompression (ERCP/ cholecystostomy), laparoscopic cholecystectomy (elective vs urgent)

Pancreatitis

- Symptoms – Epigastric pain, nausea/ vomiting.
- Signs: Epigastric tenderness, tachycardia.
- Investigations – Bloods. Amylase 3.5 x ULN diagnostic however may be normal in patients with chronic/ recurrent pancreatitis.
- Imaging – CXR, US (to assess for gallstones), CTAP (if there is diagnostic uncertainty/ to assess for complications – usually done after 48-72 hours).
- IVI, monitor UO, analgesia (PCA if necessary). Abx only indicated in infected necrosis/ concurrent cholecystitis/ cholangitis. Pabrinex/ Chlordiaxepoxide (ETOH withdrawal).

Abscess Pathway

- Patients with abscesses (who are otherwise systemically well) are consented for an I&D and asked to come in the next day at 07:30. They will usually be discharged with analgesia/ antibiotics and asked to stay fasted from 02:00.
- Smaller abscesses, especially chest wall/ back etc may be done on SAU under local anaesthetic.
- Not suitable for patients who are systemically unwell (fever/ tachycardia) with significant co-morbidities (Type I DM) or have concerning local features (e.g. spreading cellulitis/ crepitus). Keep these patients fasted. Start them on IV Abx/ Insulin Sliding scale and ensure they are reviewed early.
- Not for general surgery – neck (excluding posterior triangle), extremities (T&O/vascular), genitalia (urology/gynecology), face (max fax/plastics).

Ischemic Bowel

- Symptoms – Pain out of proportion to clinical findings, tachycardic, hypotensive. Comorbidities: PAD, IHD, previous PEs/ DVT, CVA.
- Signs: Often nonspecific. Generalised tenderness.
- Investigations – Bloods + VBG. Lactate may be normal in the acute setting. Check for acidemia/ changes in base excess. Serial VBGs if suspecting ischemic bowel.
- Imaging – CT Angiogram.
- IVI, antibiotics, catheterize, prep for theatre.

Upper GI Bleeding

- Rarely ever a surgical problem sometimes seen on SAU.
- Symptoms – Melena, hematemesis.
- Investigations – Bloods + VBG. ‘Glasgow Score’
- Imaging – Urgent OGD – if suspected to have active bleed.
- MHP if hemodynamically unstable. Urgent gastro R/V, X match 4 units, start IV PPI (if suspected to have PUD), IV Abx (variceal bleeds), correct clotting derangements (if applicable).

Lower GI Bleeding

- Symptoms – fresh PR bleed, preceding CIBH/ weight loss.
- Investigations – Bloods + VBG.
- Imaging – If unstable: CTA to look for active bleeding point. Otherwise, colonoscopy/ flexible sigmoidoscopy (IP/ OP).
- MHP if hemodynamically unstable. G&S x 2. If unstable X-match 4 units. May require IR embolization/ urgent surgical intervention (rare). Generally minor bleeds which are worked up on an outpatient basis.
- Most common etiology: hemorrhoids/ diverticulosis.

Small bowel obstruction

- Symptoms – Crampy abdominal pain, vomiting (billous), constipation.
- Distended abdomen, empty rectum on PR, obstructed hernias, localized tenderness/ peritonism (always a worrying sign; may indicate dead bowel)
- Investigations – Bloods + VBG.
- Imaging – AXR (low sensitivity/ specificity), CTAP.
- 'Drip and suck' - IVI, analgesia, NBM, NG decompression, catheterize, gastrograffin, surgical Rx.
- Most common etiology: Adhesions (often managed conservatively especially if hx of previous surgery), hernias (will usually need surgical intervention).

Mechanical large bowel obstruction

- Symptoms – Abdominal distention, constipation, vomiting (late), preceding hx of CIBH, weight loss.
- Distended abdomen, empty rectum on PR, obstructed hernias, localized tenderness/ peritonism (always a worrying sign; may indicate dead bowel)
- Investigations – Bloods + VBG.
- Imaging – AXR (low sensitivity/ specificity), CTAP.
- IVI, analgesia, NBM, NG decompression, catheterize, prep for theatre – usually require surgical.
- Most common etiology: Strictures (malignancy/ diverticular).

Sigmoid Volvulus/ Pseudo obstruction

- Symptoms – Abdominal distention, constipation, vomiting (late), often repeat attenders. Usually very frail patients with significant comorbidities + limited mobility/ NH residents.
- Signs – Distended abdomen, empty rectum on PR, obstructed hernias
- Investigations – Bloods + VBG.
- Imaging – AXR – often sufficient in reaching diagnosis if recurrent presentations, CTAP.
- IVI, decompression (rigid vs flexible sigmoidoscopy + flatus tube), surgical intervention if suspected ischemic bowel.

Upper GI Perforation

- Symptoms – Epigastric/ LUQ pain/ generalized, Nausea/ vomiting, fever. Preceding hx of PUD/ NSAID use. Chest pain followed by prolonged period of retching/ vomiting
- Signs – Localized vs generalized peritonism
- Investigations – Bloods + VBG.
- Imaging – CXR (approximately 70% sensitive in picking up pneumoperitoneum in intraperitoneal perfs), CTAP.
- IV Abx, analgesia, IVI (Sepsis 6), IV PPI, catheterize, prep for theatre.
- Most common etiology: H Pylori (perf-ed DUs), NSAIDs, malignancy (esp gastric perfs).

Lower GI perforation

- Symptoms – Lower abdominal pain, may have a preceding history of constipation/CIBH.
- Signs – Localized vs generalized peritonism
- Investigations – Bloods + VBG.
- Imaging – CTAP.
- IV Abx, analgesia, IVI (Sepsis 6), catheterise, prep for theatre (may be managed conservatively if localized perf/ frail patient).
- Most common etiology: Diverticular, Malignancy.

Final Tips

- Introduce & Connect
- Make use of every opportunity to learn
- Don’t hesitate to ask
- Take breaks
- Be a helping hand
- Respect & politeness
- Enjoy your surgical rotation

Thank you