

## Outline of Topics for LU 6 students during ECQ

(Study these for your end of rotation exam and comprehensive exam at the end of school year)

Reference: Schwartz's Principle of Surgery  
(and any other textbooks of surgery / Journals)

### GENERAL TOPICS:

- Minor surgeries: use of local anesthetics, computation of dosing, maximum dose
  - Duration before removing sutures
- General Categories of Operating Room Instruments
- Classification of Shock / Fluid Resuscitations
- Acid-Base / Fluid and Electrolytes
- Nutritional support in managing surgical patients
- Classification of Wounds / Wound care
- Indications of antibiotic use in surgery (e.g. prophylactic, therapeutic)
- Common causes of fever after surgery
- Covid 19 and Surgery (Diagnosis of Covid; prevention; When to do surgery during /after covid infection)

### TRAUMA

- ABC(DE) in the initial assessment/management of Trauma patients
- Glasgow Coma Scale (GCS)
- AMPLE secondary survey of trauma patients
- Diagnostic tests for blunt abdominal trauma
  - FAST (focused assessment with sonography in trauma)
  - DPL (Diagnostic Peritoneal Lavage)
  - Abdominal CT scan
  - Diagnostic laparoscopy
- Management of contaminated / dirty wounds
- Indications for surgery (exploratory laparotomy) in trauma patients with clinically "non-surgical" abdomen
- Clinical findings in patients with the following:
  - Hemothorax / Pneumothorax / Cardiac Tamponade (Beck's Triad)
  - lifesaving intervention that can be done in the ER setting

## GS1 Head & Neck Surgery, Breast, Upper GI and Soft Tissue Surgery

Breast Cancer: risk factors

Biopsy methods (advantages and disadvantages of each)

Significance of ER/PR/HER2

Indications for surgery (types of surgeries, sentinel node biopsy, bilateral oophorectomy)

Neoadjuvant and adjuvant therapies (radiation, chemo, hormonal & targeted)

During MRM, what are the boundaries of surgery, what are the nerves that need to be identified (MPN, LPN, IBN, LT, TD) and their significance

## THYROID

Biopsy methods: how to diagnose Papillary and Follicular carcinoma

Surgical Treatments for Thyroid tumors (both benign & malignant)

Structures that need to be preserved during thyroidectomy and possible consequences if structures are injured

Complications of total thyroidectomy: immediately post-op (PACU) and beyond  
What are the things that you need to monitor?

Hyperthyroidism with thyroid nodule

## UGI

Caustic Ingestion : acid vs alkali, initial assessment and resuscitation

Upper GI bleeding: clinical SSx vs LGI bleed

Causes of UGIB / management (ER setting / Definitive Mx)

Basic knowledge: Gastric AdenoCA /GIST (diagnostic procedures / different Mx)  
Esophageal CA (squamous CA vs AdenoCA)

NICE to know: Salivary gland tumors, Nasopharyngeal CA, Tongue CA

## GS2 Colorectal Surgery

RECTAL adenocarcinoma:

Anatomy of the rectum

Diagnostic procedures (Digital rectal exam/ occult blood test/ colonoscopy / CTscan / MRI pelvis vs endorectal ultrasound)

Indications of outright surgery (Anterior resection / Low anterior Resection /APR)  
Neoadjuvant chemoRT (long course vs short course) or adjuvant chemoRT

Indications of bowel diversion after tumor resection instead of anastomosis

Hartmann's procedure / double barrel colostomy / end colostomy with distal mucous fistula

What are the advantages of doing colostomy with both ends near/beside each other?

What is the most common cause of LGIB

Staging of colorectal cancer

Common causes of Intestinal Obstruction: SSx based on the location of obstruction (e.g. ascending colon tumor, descending colon tumor, rectum)

Hemorrhoids: classification, staging of Internal hemorrhoids

Fistula-in-ano: Different types of FIA, Salmon Goodsall's rule

Nice to know: ERAS in colorectal surgery

## GS3 HepatoBiliaryPancreatic and Hernia Surgery

Cholangitis: Criteria for the diagnosis of Cholangitis and Mx (Tokyo guidelines 2018)

Also read on Charcot's Triad and Reynolds Pentad

Pathophysiology

Main principle in the management of severe cholangitis

Cholecystitis: gold standard for removing gallbladder

what's the significance of Murphy's sign, what is Calot's Triangle

Different types of gallstones

Mirizzi syndrome, SSx and findings in imaging studies (utz, mrcp)

Indications for IOC

purpose of putting T-Tube after common bile duct exploration,

how long will the tube stay before removing, how much daily

output will be acceptable in a post-op patient, what will happen

to the patient with high T-tube output

Pancreas: common causes of acute pancreatitis / criteria for diagnosis

Complications of acute pancreatitis

Differentiate Pseudocyst, peripancreatic fluid collection, necrotizing pancreatitis (sterile and infected), pancreatic abscess

Pancreatic tumor/malignancy: basic knowledge of the ff: pancreatic adenocarcinoma, Pancreatic neuroendocrine tumors (PNETs), Solid pseudopapillary tumors, cystic neoplasms (serous, mucinous, IPMN – which are pre-malignant lesions),

Clinical presentations of Pancreatic adenocarcinoma in terms of location  
indications for Whipples procedure and distal pancreatectomy in pancreatic malignancy

LIVER: common tumors of the liver, most common benign and malignant

CTscan/ MRI findings(with triphasic iv contrast) of hemangiomas, FNH,

Hepatocellular Carcinoma /adenoma, liver metastases, liver abscess

Most common causes of Hepatocellular carcinoma (HCC)

Clinical significance of Viral Hepatitis B/C and liver cirrhosis in HCC

HERNIA:

Anatomy of Inguinal Hernia/ Hesselbach's triangle/ inguinal canal

What are the structures (nerves/vessels) you need to preserve during open and laparoscopic hernia surgery

Pathophysiology of Direct and Indirect inguinal hernias; which type of inguinal hernia will need a mesh in all the repairs

## Common Emergencies:

### Acute Appendicitis:

- How to diagnose acute appendicitis (hx, PE, radiographic)
- What is the management of acute appendicitis
- Where is the most common site of ruptured and why?

### Diverticulitis

- How to diagnose Diverticulitis (hx, PE, radiographic)
- When is CTscan indicated and what is the best time to do colonoscopy
- What are the initial steps in the management of non-surgical diverticulitis
- What are the signs and symptoms of patient with surgical abdomen

### Incarcerated/Strangulated Hernia

- How to diagnose (hx, PE, radiographic)
- What are the initial steps in the management of the disease while in the E.R.
- What are the signs and symptoms of patient with surgical abdomen (strangulated bowels)

### Acute Cholecystitis

- How to diagnose Acute cholecystitis (Hx, PE, imaging)
- Management

### Cholangitis

- How to diagnose cholangitis using classical definition and Tokyo Guidelines 2018 (TG2018)
- Please read on the initial management of different degree of cholangitis based on TG2018
- Pathophysiology of cholangitis and what is the main objective of the initial management of cholangitis

### Pancreatitis

- How to diagnose acute pancreatitis (Hx, PE, and labs)
- What are the different causes of acute pancreatitis
- When is surgery indicated in acute pancreatitis

### GI bleeding

- How to differentiate upper and lower GIT bleeding in terms of clinical presentation
- Initial management in the ER, when is endoscopy indicated
- What are other diagnostic procedures that can be perform if endoscopy is non diagnostic

#### Perforated Peptic ulcer disease

- How to diagnose perforated PUD (hx, PE, radiographic)
- What are the initial steps in the management of this patient in the ER
- What are the common surgical procedures for this type of patient and which one is the most common

#### Partial Gut obstruction (PGO) / Complete Gut Obstruction (CGO)

- How to diagnose intestinal obstruction (hx, PE, radiographic)
- What are the initial steps in the management of non-surgical PGO
- What are the signs and symptoms of patient with surgical abdomen