Achievable

USMLE STEP 1 DUMP SHEET

GI and hepatobiliary pathology

Esophagus

- **Achalasia:** LES fails to relax; bird's beak; Chagas
- **Zenker:** pulsion diverticulum, Killian triangle; halitosis
- **Mallory-Weiss:** mucosal tear after retching. **Boerhaave:** rupture
- **Barrett:** columnar with goblet cells → adenocarcinoma
- **Cancer:** squamous upper, middle (smoking, alcohol); adenocarcinoma lower (GERD)

Stomach

- **Type A gastritis:** autoimmune, body; pernicious anemia, ↑gastrin
- **Type B:** *H. pylori*, antrum; ulcer, cancer
- **Duodenal ulcer:** eased by food. **Gastric:** worse with food; can be malignant
- **Cancer:** intestinal or diffuse (signet ring, linitis plastica); Virchow node, Sister Mary Joseph, Krukenberg
- **GIST:** Cajal cells; KIT; imatinib

Small bowel

- **Celiac:** gliadin; anti-tTG IgA, anti-endomysial; villous atrophy; dermatitis herpetiformis
- **Whipple:** *T. whipplei*; PAS+ macrophages; joints, CNS
- **Lactose intolerance:** osmotic diarrhea, ↑breath hydrogen
- **Intussusception:** ileocecal; currant jelly stool; air enema
- **Appendicitis:** periumbilical pain → McBurney point

Inflammatory bowel disease

	Crohn disease	Ulcerative colitis
Where	Mouth to anus, mostly ileum; skip lesions; transmural	Rectum up, continuous; mucosa, submucosa
Look	Cobblestone; noncaseating granulomas; fistulas, strictures	Crypt abscesses, pseudopolyps; no granulomas
Links	NOD2; smoking worsens; ASCA; oxalate stones, B12 lack	p-ANCA; smoking protects; PSC, toxic megacolon

Colon

- **Diverticula:** false, at vasa recta, left colon. **Diverticulitis:** LLQ pain; CT, no scope
- **Angiodysplasia:** cecum; painless bleeding in the elderly
- **Volvulus:** sigmoid, cecum; coffee bean sign
- **Mesenteric ischemia:** pain out of proportion; AF embolus to SMA
- **Polyps:** APC → KRAS → TP53; villous adenoma highest risk; hyperplastic most common, low risk

Polyposis syndromes

FAP	APC, AD; thousands of polyps; cancer by 40
Gardner	FAP with osteomas, desmoids
Turcot	Polyps with brain tumors
Lynch	MLH1, MSH2; right colon, endometrium
Peutz-Jeghers	STK11; hamartomas, lip pigmentation
Juvenile	SMAD4; hamartomas
Cowden	PTEN; hamartomas; breast, thyroid

Liver

Gilbert	Unconjugated; mild UGT1A1 lack; fasting, stress
Crigler-Najjar	Unconjugated; type 1 no UGT, kernicterus; type 2 phenobarbital
Dubin-Johnson	Conjugated; MRP2; black liver
Rotor	Conjugated; OATP1B1, 1B3; benign

- **AST > ALT:** alcohol. **ALT > AST:** viral hepatitis
- **Autoimmune hepatitis:** women; ANA, anti-smooth muscle, anti-LKM1
- **NAFLD:** metabolic syndrome; zone 3 fat → cirrhosis, HCC
- **Varices:** esophageal (left gastric to azygos), caput medusae (paraumbilical), rectal
- **SBP:** ascitic neutrophils >250/mm^3; *E. coli*; cefotaxime
- **HCC:** HBV, HCV, cirrhosis, aflatoxin; AFP

Biliary tree and pancreas

- **Gallstones:** cholesterol most common; pigment in hemolysis
- **Cholecystitis:** stone in cystic duct; Murphy sign; HIDA fails to fill gallbladder
- **Cholangitis:** Charcot triad (fever, jaundice, RUQ pain); Reynolds adds shock, confusion; ERCP
- **Gallstone ileus:** fistula to bowel; terminal ileum; pneumobilia
- **PBC:** women; antimitochondrial antibody. **PSC:** men, UC, p-ANCA, beaded ducts, onion-skin fibrosis; cholangiocarcinoma
- **Acute pancreatitis:** gallstones, alcohol, ↑triglycerides, ↑calcium; lipase; Cullen, Grey Turner; pseudocyst
- **Chronic pancreatitis:** calcification, steatorrhea, diabetes
- **Biliary atresia:** infant jaundice, pale stools; Kasai procedure
- **Porcelain gallbladder:** calcified wall; cancer risk, so removed