Acute Gastroenteritis*	
Presentation	Diarrhea (3+ loose/watery stools per day), vomiting, fever, anorexia, cramping. Common, 2 episodes/ year on avg in children < 5.
Pathophys	• **Viruses** (**rotavirus, norovirus**, enteric adenovirus, calicivirus, astrovirus, enterovirus) are major cause → low-grade fever, vomiting, watery diarrhea WITHOUT blood. • Bacteria (SSYCE +C.Diff) cause infiltration of mucosal lining → fever, abdominal pain, **bloody stools, positive stool leukocytes** • Parasitic (*Giardia, Cryptosoporidia, Cyclospora, E. histolytica*)
Treatment	• Dehydration score determines management. If severe, obtain POC BG + lytes and start IVF. • Otherwise, oral rehydration solution, e.g. Pedialyte or ½ strength apple juice (theoretical risk that high osmolality fluids will worsen diarrhea and hypoNa fluids will lead to hypoNa, but one RCT demonstrated improved outcomes w/ ½ strength apple juice b/c Pedialyte = not tasty.) No evidence for bowel rest or bland diet.

Infectious Hepatitis	
Hepatitis A	
Transmission	Fecal-oral, blood
Epi	High in Mexico, S. America, Africa, Asia
Incubat	2-8 wks
Prophylaxis	HepA Vaccine. pre- / post-exposure with polyclonal IgG
Treatment	• Supportive • Vit K for coagulopathy
Prognosis	Usually self-limiting
Hepatitis B	
Transmission	Blood, sex, maternal-fetal (90% vertical transmission rate, but **infants almost always become chronic carriers**; OK to breastfeed)
Epi	• 1-2% in US • Higher in Asia and South America • 10-20% in China, sub-Saharan Africa
Incubat	1-4 mo
Prophylaxis	**Post-exposure with HBIg and HBV vaccine within 12 hours** (newborns born to HBV+, needlesticks)
Treatment	• **Entecavir** • **Tenofovir** • **Peginterferon alfa-2a** • **IFNa**: 20-50% will seroconvert, but lots of systemic side effects • **Lamivudine**: high rate of resistance
Prognosis	• Self-limited or progression to chronic HBV/carrier status (esp. neonates) • Cirrhosis in 3% • Increased risk of hepatocellular CA (yearly RUQ ultrasound, AFP level)
Serologies	• **HBsAg** (surface antigen): indicative of **acute** infection, disappears in 3-6 months • **HBsAg** for **>6 months: carrier state** • **HBeAg** (secretory protein) and **HBV DNA** by PCR suggest **active viral replication** • **IgM anti-HBc** (antibody to core protein): secondary indicator of **acute** infection • **HBsAb** (antibody to surface protein): neutralizing antibody, suggests **recovery or response to HBV vaccine**