- Blunt chest trauma -> normal CVP -> give IVF (target PCWP 15-20) -> + inotropes to increase cardiac output
- Blunt chest trauma -> tachypnic + tachy + JVD + tracheal dev -> tension pneumothorax -> needle thoracostomy
- Blunt chest trauma -> persistent JVD + tachy + hypoTN -> tamponade
- Blunt chest trauma -> dec. breath sounds + dullness + contralateral tracheal deviation + shock -> ipsi hemothorax
- Severe deceleration injury -> must rule out aortic disruption (HTN in upper extremities, hoarse voice, etc.)
- Blunt bladder injury -> bladder dome (intraperitoneal) -> peritonitis
- HypoTN, tachy, flat neck veins, cold limbs -> hypovolemic shock
- Blunt trauma upper abdomen -> pancreatic injury (missed by CT in first six hours) -> later becomes abscess/pseudocyst
- Aortic rupture usually -> death, if contained -> wide mediastinum + hemothorax
- Multiple contiguous rib fractures -> flail chest -> positive pressure mechanical ventilation
- Atraumatic massive hemoptysis -> bronch
- Burn victims with airway thermal injury -> endotrach
- Biliary colic -> gallbladder ctx against gallstones in cystic duct -> viscous distension
- Transfusion rxn -> preformed Ab -> immediately after transfusion -> fever/rigors
- Perf in pt on Coumadin -> reverse with FFP before laparotomy
- Aortoiliac occlusion (Leriche syndrome) -> hip/thigh claudication + impotence + symmetric atrophy of LE
- Periop beta-blockers lower MI in high risk pt after noncardiac surgery
- Suspected PAD -> ABI first
- RQ ~ 1 for pure carbs, 0.8 protein, 0.7 fats
- Arterial embolism -> sudden onset severe pain, asymmetric pulselessness
- Pain after forceful abduction/external rotation at shoulder -> anterior dislocation -> injury axillary nerve/artery
- Compartment syndrome – “pain out of proportion” -> pressure over 30 -> compartment syndrome -> fasciotomy (ischemia – reperfusion injury -> soft tissue swelling)
- Volume resuscitation before mechanical ventilation
- DVT -> heparin acutely -> Coumadin for several months
- Burn pt -> oliguria + tachy 3 d later -> bacterial infn (SIRS – systemic inflammatory response syndrome)
- Burn pt M&M -> #1 hypovolemic shock; #2 sepsis (SIRS)
- Solitary pulmonary nodule (<3cm) on CXR -> high-res CT chest
- Parotid surgery -> facial nerve palsy -> facial droop
- Abd pain to groin + N/V -> urinary calculi -> non-contrast CT
- Acute bacterial parotitis (S. aureus) -> preventable with fluids + oral hygiene
• Complete SBO -> N/V, bloating, dilated bowel (MCC post-op adhesions)
• Drop arm sign suggests rotator cuff injury.
• Splenectomy -> vaccines for S. pneumonia, N. meningitides, H. influenza
• Intermittent bloody nipple discharge -> intraductal papilloma (masses not appreciated, benign)
• Acute pain/swelling sacrococcygeal skin in young males -> pilonidal cyst
• Varicocele -> dull, aching testicular pain (MC left side) -> swelling of pampiniform plexus (“bag of worms”)
• High speed accident -> patchy irregular alveolar infiltrate -> lung contusion
• Tachypnic + hypotension despite fluids -> flail chest (contused lung)
• Blunt deceleration trauma -> r/o aortic trauma -> CXR -> mediastinal widening
• Constant visceral pain radiating to back -> jaundice -> wt loss + anorexia -> pancreatic cancer
• Dyspnea, tachypnea, CP, hypoxemia worse with fluids, patchy infiltrates -> pulmonary contusion
• Oliguria/anuria, azotemia, BUN/Cr > 20 -> prerenal failure -> IV fluid challenge
• Moving from supine to sitting can increase FRC by 20-35% (reduce risk of atelectasis)
• Post-operative ileus is compounded by morphine and other opiates.
• Atelectasis from shallow breathing + weak cough 2/2 pain. POD # 2-3.
• Epidural hematoma -> uncal herniation -> oculomotor nerve deficits
• Whiplash injury -> post-traumatic syringomyelia years later -> MRI for diagnosis -> impaired strength/pain/temp in UE
• Gastric outlet obstruction -> clinical dx -> early satiety, nausea, non-bilious vomiting, wt loss. Acid ingestion -> pyloric stenosis
• Acute cholecystitis -> tx with obs + support initially -> elective chole
• At least 3 tetanus vaccinations, toxoid only. No tetanus Ig (even if greater than 10 yrs since last vaccination).
• Blunt abd trauma -> hemodynam unstable -> fluids first -> U/S exam (FAST)
• Anatomical snuffbox pain -> assume scaphoid fracture -> place in spica cast -> reimage (XR) in 2-3 wks
• Esophageal perf -> contrast study -> if +, primary closure + drainage of mediastinum
• Postgastrectomy -> dumping syndrome -> cramps, weakness, sweating, light-headedness -> dietary modification -> octreotide if resistant
• Wind, water, walking, wound, wonder-drugs: Pt develops fever POD #6, think indwelling catheter infn (femoral >> subclavian)
• + Trendelenburg sign = contralateral hemipelvis drooping when standing on one foot (weakness of gluteus medius/minimus, innervated by superior gluteal nerve)
• S/p rhinoplasty -> whistling noise during respiration -> septal perf
• Acalculous cholecystitis (chronically ill ICU pt) -> GB distension, wall thickening, pericholecystic fluid -> emergent percutaneous cholecystostomy
• Air under diaphragm -> emergent surgical eval -> ex-lap
• Marjolin ulcer – SCC from burn wound (bx to confirm)
• Uncontrolled HTN + arrhythmia -> embolus -> bowel infarction
• First, gentle traction to align fragments of a fractured long bone -> prevent further neurovascular damage -> operative reduction later
• Inflammatory breast cancer -> erythema + edema -> axillary LAD -> bx for histology and tx based on findings (25% pt already have mets)
• Uric acid stones (needle) are radiolucent -> must CT or IVP (ureterolithiasis causes ileus)
• Splenic trauma related to HDS -> unstable but improves with fluids, then CT abdomen. Unstable and nonresponsive to fluids, emergent ex-lap
• Tension pneumothorax -> tachy, tachypnic, hypoTN, +JVD -> needle thorac.
• Blunt abd trauma w/ peritonitis or hemodyn instability -> ex-lap (if stable -> FAST)
• Traumatic decal injury -> veg state -> blurring grey-white interface on CT -> diffuse axonal injury
• Tension pneumothorax -> immediate needle of tube thorac.
• Hyperextension injuries of c-spine -> central cord syndrome -> UE > LE weakness
• Fever, dysphagia, drooling -> infln of 2nd or 3rd mandibular molar -> Ludwig’s angina -> swollen mouth -> Abx + remove infected tooth (MCC death: asphyxiation)
• SBO -> IVF + NPO + NG tube gastric decompression
• Torus palatinus -> growth from hard palate in young pt -> reassurance
• Spinal cord ischemia with lower spastic paraplegia is a rare complication of AAA. Presents like anterior spinal artery deficiency (dorsal columns in tact)
• MC location of stress fracture is the tibia (jumping sports, gymnasts, etc)
• Appendiceal rupture -> tender pelvic abscess (fever, inc. WBC, malaise, lower abd pain, palpable on DRE)
• MCC frank hematochezia in elderly is diverticulosis.
• Non-displaced scaphoid fracture – cast immobilization; open reduction if XR shows displacement or angulation
• WBC >2000 (>75% PMNs), <25 glucose (low), + culture = septic joint -> must be surgically washed out
• Peritoneal irritation shortly after onset of abd pain -> think ruptured peptic ulcer.
• Always do pregnancy test before XR. Then XR -> CT if UPT - (U/S if +)
• Traumatic event + “crunching noise” -> fracture of metatarsal
• Trauma to neck -> angio to r/o carotid injury -> intimal flap of carotid -> surgery recommended (stenting alternative)
• Left subscapular, lower rib injury -> hematuria + retroperitoneal extravasation -> CT with contrast (best for solid organ dmg in stable pt)
• Breast trauma or surgery -> fat necrosis (mimic cancer) -> bx mass shows fat + foamy histiocytes -> regular breast exam + f/u mammogram
• Long bone fracture -> dyspnea, confusion, petechiae -> fat embolism -> prompt respiratory support
• Uncomplicated diverticulitis -> complicated by pelvic abscess -> CT guided percutaneous drainage + abx
• Mammogram in all pt > 35 y/o with palpable lump (impt if FHx of breast ca)
• Ulcer under head of first metatarsal -> DM neuropathy – “diabetic foot”
• Elevated left diaphragm on XR -> think diaphragmatic hernia (also respiratory distress + mediastinal deviation)
• Seat belt sign -> blunt abd trauma -> IVF -> FAST -> if FAST not definitive then DPL -> if + hemoperitoneum, then laparotomy
• Ruptured AAA -> hypoTN + abd pain + CT evidence if stable (U/S if unstable) -> immediate surgery
• Wound pain + fever + tachy, cloudy-gray discharge, decreased sensitivity on edges, hx of DM -> necrotizing surgical infn -> surgical exploration
• Posterior urethral injury -> blood at meatus, pelvic fracture, scrotal hematoma, high riding prostate, inability to void despite urge, distended bladder -> retrograde urethrogram
• Knee “pop” -> meniscal tear -> gradual swelling (ligament tear has rapid swelling), + McMurray’s test -> MRI definitive dx
• Biconcex hematoma -> acute epidural -> unconscious -> lucid interval -> gradual decline in consciousness
• Fall on outstretched arm or direct shoulder injury -> clavicular fracture -> shoulder displaced inferior and posterior -> audible bruit -> angiogram -> r/o brachial plexus injury too
• Mild/moderate head injury -> d/c if CT normal with precautions for return
• Nonbleeding ulcers managed with beta-blockers. Encephalopathy -> lactulose, ascites -> oral diuretics, PUD -> PPI
• 4 y/o unilateral hip/knee discomfort -> Legg Calve Perthes dz -> avascular necrosis of femoral head -> progressive antalgic gait + thigh atrophy
• Slipped capital femoral epiphysis -> obese adolescent males
• Paget’s dz of bone - > inc. bone alk phos -> possible hearing loss 2/2 nerve impingement -> fractures or bone deformity
• Esophagitis (KCI, Candida infn) -> esophageal perf -> acute substernal pain -> gastrografin contrast esophagram
• Hematochezia in elderly -> c-scope negative -> bleeding restarts -> labeled erythrocyte scintigraphy
• Blunt abd/pelvic trauma -> r/o intraperitoneal bleeding (FAST and DPL) -> if -, r/o retroperitoneal bleeding with pelvic angiogram
• Subluxation of radial head (Nursemaid’s elbow) -> closed reduction by flexion and supination of forearm
• First changes in hypovolemic shock -> tachycardia and peripheral vasoconstriction
• **Bowel ischemia** 7% post-op aortoiliac vessel procedures -> dull pain + hematochezia
• Edema, stasis dermatitis, and venous ulcerations result from LE venous insufficiency 2/2 valve incompetence -> **venous HTN**
• Hyperventilation -> cerebral vasoconstriction -> **decrease ICP**
• **Developmental dysplasia of hip** -> abnl femur – acetabulum -> U/S of < 4 mo old, radiographs if > 4 mo
• **Polytrauma (abd + head)** -> tachypneic, tachy, hypoTN -> failed IVF response -> emergent ex-lap (continued bleeding)
• **Midshaft humeral fracture** -> injure radial nerve -> numbness + limited wrist extension
• Burst fracture of vertebra -> **anterior cord syndrome** -> loss of motor/pain below lesion bilaterally -> MRI for dx
• Always r/o **injury to spine** (even before CT head)
• Circumferential full-thickness burns of limbs/chest -> escharotomy to prevent vascular compromise/respiratory difficulty
• Colicky pain + episodic hyperactive BS typical of **complete SBO** -> laparotomy (especially if signs of strangulation)
• Give **tetanus toxoid** to a fully vaccinated pt if they have a severe injury and its been >5 yr since last booster
• Fat malabsorption or Crohn’s dz -> inc. oxalate absorption -> inc. renal stone risk
• MCC LE edema -> **venous insufficiency** -> worsens throughout day
• **Penile fracture** -> retrograde urethrogram (r/o urethral injury) -> emergent surgery
• Popping sound + severe pain -> locking of knee joint during extension -> medial meniscus tear
• HDS and needs for transfusion determine surg vs. non-surg mgmt. of **spleenic trauma**
• SLE pt (or anyone on chronic steroids) -> surgical procedure -> acute N/V, pain, hypoTN, hypoglycemia -> **adrenal insufficiency**
• Absent BS -> gaseous distention of bowels -> **paralytic ileus** -> often follows surgery or retroperitoneal hemorrhage associated with vertebral fracture
• EBV strongly related to **nasopharyngeal cancer**.
• Elderly pt with displaced femoral neck fracture -> **primary arthroplasty**
• **Volkmann’s ischemic contracture** -> final stage of compartment syndrome -> dead muscle replaced with fibrous tissue
• **Intraabdominal abscess** -> CT scan -> osteo/abscess from hematogeneous spread of another site (skin, like a furuncle)
• Pulsatile abdominal mass + hypoTN = **ruptured AAA** until proven otherwise -> immediate laparotomy
• **Femoral nerve** innervates anterior thigh compartment (knee extensors + hip flexion)
• **Femoral shaft fracture** -> closed intramedullary fixation of fracture
• Orotracheal intubation and surgical cricothyroidectomy preferred way to create an upper airway in apneic pt with head injury.
• Acute blood loss of 1500 mL usually requires transfusion.
• MCC peripheral artery aneurysms – popliteal and femoral -> pulsatile mass -> compresses adjacent structures (nerve/vein) -> thrombosis/ischemia
• CXR required after placing central line to assess positioning.
• Bowel ischemia and infarction are possible early complications after operating on abdominal aorta.
• Classic presentation of appendicitis should be operated on immediately to prevent perf.
• Severe pain (especially with passive motion), paresthesias, pallor, and paresis -> compartment syndrome -> go back to O.R. for fasciotomy
• EtOH user -> protracted vomiting (resisting urge to vomit) -> esophageal rupture -> pneumomediastinum
• Slipped capital femoral epiphysis -> obese early adolescent males -> emergency -> external fixation of hip to prevent avascular necrosis of femoral head
• Mastitis -> Abx, analgesics, continue breast feeding
• MCC knee ligament injury = MCL -> MRI to detect complete and partial tears
• Cystic pancreatic lesion on CT in the setting of acute pancreatitis -> must consider pancreatic abscess -> drained (if no system toxicity, assume pseudocyst and manage expectantly)
• Suspected child abuse in burn pt -> never send patient home, and never confront directly -> inform that abuse is suspected -> admit pt and do skeletal survey
• Perf peptic ulcer -> sudden onset epigastric pain -> spreads to whole abdomen 2/2 chemical peritonitis -> upright XR free air under diaphragm
• Hypoventilation after abdominal hernia repair -> uses respiratory exercises to prevent atelectasis + pneumonia.
• Trochanteric bursitis -> middle-aged pt, superficial, unilateral hip pain when pressure is applied or external rotation
• Isolated duodenal hematoma in MC in children after blunt trauma -> treat with NG suction + parenteral nutrition
• Rib fracture -> pain relief -> prevents atelectasis and pneumonia
• >5 days of appendicitis symptoms w/ localized RLQ findings -> IV hydration + cefotetan (gram – and anaerobe coverage)
• Duodenal rupture -> retroperitoneal free air on XR -> CT with oral contrast for better characterization
• Meniscal injury -> days/weeks pass -> “locking” w/ extension of knee (mechanical symptom) -> arthroscopy or MRI -> surgery to correct
• Blunt trauma -> continued air leak (pneumomediastinum + subQ emphysema) in spite of chest tube placement -> bronchial rupture
• All hemodynamically unstable pt with penetrating abdominal trauma (ie, GSW to RUQ) -> emergent lap (r/o perf viscus to prevent sepsis)
- In amputation injury -> wrap amputated parts in saline-moistened gauze -> place in plastic bag -> place on ice -> bring to ER with pt
- Carbon monoxide poisoning (burning building) tx with 100% oxygen via facemask -> early symptoms: agitation, confusion, somnolence
- Blunt trauma -> deviated mediastinum + mass in left lower chest -> diaphragmatic perf -> barium swallow -> operative repair
- Post tonic-clonic seizure -> posterior shoulder dislocation -> arm adducted and internally rotated
- Stress (hairline) metatarsal fracture -> rest + analgesia first -> second, plaster casting
- Osteosarcoma -> MC primary malignancy of bone -> typically metaphyses of long bones -> bone pain but no systemic sx
- All GSW to abdomen (anything before nipple or 4th intercostal space) -> ex-lap
- Acute pancreatitis with secondary ileus -> think choledocholithiasis -> RUQ U/S -> supportive tx (NPO, IVF, analgesia)
- Surgery in mediastinum -> widened mediastinum post-op + S/sx infn (fever, CP, leukocytosis) -> acute mediastinitis -> drainage, debridement, Abx
- Evidence of spinal injury (anterior cord syndrome) -> stabilize pt -> high dose methylprednisolone within eight hours of injury
- Abd wall ecchymosis + distended abd + dec. BS -> blunt abd trauma -> if hemodynamically unstable, first fluid resuscitate -> then U/S -> if blood, then laparotomy
- Infant with cystic and transilluminated scrotal mass -> hydrocele -> reassurance + observation (most regress by 12 months old)
- Fibrocystic breast dz (benign) -> age 30-50 -> FNA -> non-bloody aspirate + disappears after aspiration -> observe for recurrence
- Bee sting -> anaphylactic shock (type I hypersensitivity) -> pruritis, flushing, urticarial common -> tx w/ subQ epi