CT Head w/o contrast
Headache (thunderclap, worst headache of life)
Trauma
Suspected intracranial hemorrhage
Altered mental status
Assess VP shunt malfunction or hydrocephalus
Suspected stroke

MRI Brain w/ and w/o contrast or CT w/ and w/o contrast
New-onset seizure (CT only if unstable / concern for hemorrhage or increased ICP / tumor)
Suspect tumor (CT if MRI unavailable)
Suspect infection / abscess (CT if MRI unavailable)

CTA Head
Suspected stroke w/in TPA window
Suspected aneurysm

CT Face
Trauma: w/o contrast
Suspected sinus disease: w/o contrast
Suspected infection incl. orbital cellulitis, abscess: w/IV contrast (orbital cuts prn)

CT Temporal Bone
Suspected mastoiditis or cholesteatoma: w/o contrast

CT Neck
Suspected tumor / malignancy: w/ IV contrast
Suspected infection / deep purulent collection (including retropharyngeal abscess): w/ IV contrast

CTA Neck
Suspected carotid or vertebral artery injury: w/ and w/o IV contrast

MRA neck
Suspected carotid or vertebral artery dissection: w/ and w/o IV contrast

CT Chest
Trauma: w/ IV contrast
Suspected pulmonary embolism: CT pulmonary angiogram
Suspected aortic aneurysm or dissection: CT angiogram w/ and w/o IV contrast (consider ECG gated CT if dissection suspected to involve aortic root)
Characterize pneumothorax: w/o contrast
Suspected complicated pleural effusion: w/ IV contrast (CT not indicated for simple effusion)
Mass or lung nodule: w/ IV contrast
Spine imaging
Trauma: CT spine w/o contrast (specify cervical, thoracic, or lumbar)
Neurologic deficit, radiculopathy: MRI spine w/o contrast (CT w/o contrast or CT myelogram if MRI unavailable)
Suspected mass or tumor: MRI w/ and w/o contrast (CT w/ and w/o contrast if MRI unavailable)
Suspected infection or abscess: MRI w/ and w/o contrast (CT w/ and w/o contrast if MRI unavailable)
Suspected spondylolysis: PA, lateral, and oblique plain films, or CT scan w/o contrast

CT Abdomen / Pelvis
Trauma: w/ IV contrast
Suspected nephrolithiasis: w/o contrast (consider using IV contrast if H&P is not completely specific for stone disease or if suspected complication)
Suspected appendicitis, SBO, diverticulitis, abscess, IBD, post-op complication: w/ IV and PO contrast (skip PO contrast if suspected high grade SBO with bowel ischemia)
Palpable mass: w/ IV contrast (limit to either CT abdomen or CT pelvis if possible)
Suspected abdominal aortic aneurysm: w/ IV contrast
Suspected retroperitoneal hemorrhage: w/ IV contrast

CT Cystogram
Suspected bladder injury or gross hematuria in trauma patient

Musculoskeletal plain films
Clavicle: dedicated clavicle (not CXR)
Shoulder: AP, lateral, scapular Y view
Humerus: AP, lateral
Elbow: AP, lateral (sometimes obliques)
Forearm: AP, lateral
Wrist: AP, lateral, dedicated scaphoid view if suspect fracture
Hand: AP, lateral
Finger: AP, lateral
Hip: AP pelvis and frogleg lateral
Femur: AP, lateral
Knee: AP, lateral, sunrise view
Tibia / fibula: AP, lateral
Ankle: AP, lateral, mortise view (add tibia/fibula if pronation external rotation fracture pattern)
Foot: AP, lateral

CT extremities
Trauma (r/o vascular injury): angiogram
Trauma (characterization of known fracture per ortho request): w/o contrast
Suspected infection or mass: w/IV contrast
Kidney and bladder ultrasound
Suspected hydronephrosis
Hematuria

Abdominal ultrasound
Abdominal pain, elevated liver enzymes, suspected pancreatitis: complete abdominal US
Suspected intussusception, pyloric stenosis: limited abdominal US
Suspected cholecystitis: Limited abdominal US: RUQ
Suspected appendicitis: Limited abdominal US: RLQ
Splenomegaly, LUQ pain, suspected mono: Limited abdominal US: spleen

Pelvic ultrasound
Suspected ovarian or uterine pathology
Intrauterine vs ectopic pregnancy
First trimester bleeding: transvaginal probe
Second, third trimester bleeding: transabdominal

Scrotal ultrasound w/Doppler
Suspected testicular torsion
Suspected epididymitis/orchitis
Testicular trauma

Venous ultrasound w/Doppler
Suspected DVT

Spine ultrasound
R/o spina bifida

Hip ultrasound
R/o developmental dysplasia of the hip
Suspected septic arthritis / hip effusion

STAT MRI at Harbor
Acute spinal cord injury, suspected spinal instability, suspected spinal compression or ischemia
Concern for epidural abscess or discitis, meningitis, encephalitis, or CNS vasculitis
Suspected acute/subacute myelopathy or focal neurological deficit
Concern for acute/subacute cauda equine/conus medullaris syndrome
Acute stroke symptoms with non-diagnostic head CT
Concern for CNS tumor or abscess with acute change in neurological status
Evaluation for cerebral hemorrhage
Emergent arterial imaging (aortic dissection, aneurysm leak, etc.) if IV contrast contraindication
Pregnant female with equivocal physical examination and ultrasound for appendicitis
Urgent Magnetic Resonance Cholangiopancreatography (MRCP)
Assessment of VP shunt malfunction