

Aquifer Family Medicine

40 cases, including 33 Family Medicine cases, 4 Pediatrics cases, and 2 Internal Medicine cases.
Covering the Society of Teachers of Family Medicine clerkship curriculum.

Case	Differential Diagnosis	Final Diagnosis
Family Medicine 01: 45-year-old female wellness visit	N/A	Women's health maintenance exam
Family Medicine 02: 55-year-old male wellness visit	N/A	Men's health maintenance exam
Family Medicine 03: 65-year-old female with insomnia	N/A	Depression
Family Medicine 04: 19-year-old female with sports injury	Lateral ankle sprain, medial ankle sprain, syndesmototic sprain, peroneal tendon tear, fibular fracture, tibial fracture, talar dome fracture, subtalar dislocation, arthritis	Ankle sprain, dysuria
Family Medicine 05: 30-year-old female with palpitations	Cardiac dysrhythmias, anxiety / panic disorder, dehydration / hypovolemia, anemia, aortic stenosis, hyperthyroidism, drug abuse (including caffeine)	Graves disease
Family Medicine 06: 57-year-old female diabetes care visit	N/A	Type 2 diabetes mellitus
Family Medicine 07: 53-year-old male with leg swelling	Muscle strain, lymphedema, cellulitis, popliteal cyst, deep venous thrombosis, venous insufficiency, peripheral arterial disease	Deep vein thrombosis (DVT)
Family Medicine 08: 54-year-old male with elevated blood pressure	N/A	Hypertension
Family Medicine 09: 50-year-old female with palpitations	Dysrhythmia, valvular heart disease, hyperthyroidism, anxiety/panic attack, coronary artery disease, vasomotor symptoms of the climacteric, anemia, pulmonary embolism, illicit drug use	Anxiety disorder
Family Medicine 10: 45-year-old male with low back pain	Lumbar strain, lumbar disc herniation, spinal stenosis, degenerative arthritis, spinal fracture, cauda equina syndrome, pyelonephritis, ankylosing spondylitis, spondylolisthesis, prostatitis	Back pain with herniated disk
Family Medicine 11: 74-year-old female with knee pain	Knee sprain, osteoarthritis, lyme disease, rheumatoid arthritis, gout/pseudogout, septic arthritis, baker's cyst, psoriatic arthritis, ankylosing spondylitis, systemic lupus erythematosus	Osteoarthritis, carpal tunnel syndrome
Family Medicine 12: 16-year-old female with vaginal bleeding and UCG	Spontaneous abortion (miscarriage), ectopic pregnancy, molar pregnancy (gestational trophoblastic disease), vaginal trauma, cervical abnormalities (e.g., excessive friability, malignancy, polyps, trauma), idiopathic bleeding in a viable pregnancy	Miscarriage

Family Medicine 13: 40-year-old male with a persistent cough	Asthma, non-asthmatic eosinophilic bronchitis, vocal cord dysfunction, chronic obstructive pulmonary disease (COPD), gastroesophageal reflux disease	Asthma, chronic sinusitis
Family Medicine 14: 35-year-old female with missed period	N/A	Prenatal care
Family Medicine 15: 42-year-old male with right upper quadrant pain	Cholecystitis, biliary colic, pneumonia or pleurisy, myocardial infarction, renal pain or colic, duodenal ulcer pyelonephritis, hepatitis, acute pancreatitis, herpes zoster, appendicitis	Biliary colic
Family Medicine 16: 68-year-old male with skin lesion	Eczema (dermatitis), psoriasis, squamous cell carcinoma of the skin, actinic keratosis, basal cell carcinoma of the skin, melanoma, lichen planus, seborrheic keratosis, fungal skin infection	Skin cancer, benign prostatic hypertrophy
Family Medicine 17: 55-year-old postmenopausal female with vaginal bleeding	Cervical polyp, endometrial hyperplasia, hormone-producing ovarian tumor, endometrial cancer, proliferative endometrium, physiologic uterine bleeding	Menopause
Family Medicine 18: 24-year-old female with headaches	Migraine headache, tension-type headache, cluster headache, bacterial meningitis, Intracranial hemorrhage, brain tumor, medication overuse headache, headache due to anxiety disorder or depression	Migraine headache
Family Medicine 19: 39-year-old male with epigastric pain	Anxiety, pneumonia, gastroesophageal reflux disease (GERD), abdominal wall muscle strain, acute pancreatitis, peptic ulcer disease (PUD), diverticulitis, angina pectoris, gastritis	H. pylori gastritis
Family Medicine 20: 28-year-old female with abdominal pain	Gallbladder disease, gastritis, irritable bowel syndrome, inflammatory bowel disease peptic ulcer disease, urinary tract infection, vaginitis	Domestic violence, trichomonas vaginitis
Family Medicine 21: 12-year-old female with fever	community acquired pneumonia, viral pneumonia, atypical pneumonia, acute bronchitis, influenza, viral upper respiratory tract infection, asthma exacerbation, streptococcal pharyngitis, bronchiolitis	Influenza, obesity
Family Medicine 22: 70-year-old male with new-onset unilateral weakness	Brain tumor, seizure, hypoglycemic episode, stroke, transient ischemic attack (TIA), coronary artery disease, temporal arteritis, hypokalemic periodic paralysis, medication side effects, hemiplegic migraine	Atrial fibrillation, transient ischemic attack (TIA)
Family Medicine 23: 5-year-old female with sore throat	Epiglottitis, viral pharyngitis, pertussis, infectious mononucleosis, group A Beta-hemolytic Streptococcus (GABHS) pharyngitis, retropharyngeal abscess, viral croup, allergic rhinitis/pharyngitis	Streptococcal pharyngitis, health maintenance
Family Medicine 24: 4-week-old female with fussiness	Pyloric stenosis, intussusception, milk allergy, colic, gastroesophageal reflux, infection, failure to thrive	Colic, postpartum depression in mother

Family Medicine 25: 38-year-old male with shoulder pain	Rotator cuff tendinopathy, impingement/subacromial bursitis, rotator cuff tear, biceps tendinopathy, degenerative glenohumeral arthritis, shoulder instability, acromioclavicular (AC) joint separation, labral tear, adhesive capsulitis	Rotator cuff tendinopathy
Family Medicine 26: 55-year-old male with fatigue	Depression, obstructive sleep apnea, diabetes mellitus, anemia, occult malignancy, sleep restriction (i.e., physiologic fatigue), hypothyroidism, coronary artery disease, chronic fatigue syndrome	Iron deficiency anemia, colon cancer
Family Medicine 27: 17-year-old male with groin pain	Trauma, testicular torsion, epididymitis, inguinal hernia, hydrocele, henoch-schonlein purpura, torsion of the appendages, tumor, varicocele, referred pain	Testicular torsion
Family Medicine 28: 58-year-old male with shortness of breath	Acute bronchitis, angina, asthma, bronchiectasis, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), lung cancer, panic disorder, pneumonia, pulmonary embolism (PE), pulmonary tuberculosis	Chronic obstructive pulmonary disease (COPD)
Family Medicine 29: 72-year-old male with dementia	Electrolyte disturbance, depression, urinary tract infection, withdrawal, respiratory infection, pain, cerebrovascular event, urinary retention*, adverse drug effects	Delirium, urinary tract infection, caregiver stress
Family Medicine 30: 27-year-old female labor and delivery	N/A	Normal labor and vaginal delivery of full term infant
Family Medicine 31: 66-year-old female with shortness of breath	Myocardial infarction (MI), anemia, arrhythmia, ischemic cardiomyopathy, non-ischemic cardiomyopathy, pulmonary embolism, diastolic dysfunction, thyroid dysfunction, valvular disease	New onset diastolic congestive heart failure
Family Medicine 32: 33-year-old female with painful periods	Adenomyosis, cervical stenosis, chronic pelvic inflammatory disease, endometriosis, leiomyoma (fibroids), inflammatory bowel disease, irritable bowel syndrome, ovarian cysts, psychiatric illness, uterine polyps, primary dysmenorrhea, endometrial adenocarcinoma, leiomyosarcoma	Secondary dysmenorrhea due to leiomyomas
Family Medicine 33: 28-year-old female with dizziness	Anemia, anxiety, benign paroxysmal positional vertigo (BPPV), cardiac arrhythmia, cerebellar infarct, Meniere's disease, orthostatic hypotension, acute labyrinthitis, transient ischemic attack (TIA), vestibular migraine, vestibular neuritis	Acute vestibular neuritis
Internal Medicine 02: 60-year-old female with chest pain	Angina, myocardial infarction, GERD, pulmonary embolism	Stable angina pectoris
Internal Medicine 16: 45-year-old male who is overweight	N/A	Obesity, Dyslipidemia

Pediatrics 01: Newborn male infant evaluation and care	maternal tobacco use; poor maternal nutrition; fetal alcohol syndrome; chromosomal abnormalities; prematurity; congenital infection	SGA newborn due to poor maternal nutrition and tobacco use
Pediatrics 02: Infant female well-child visits (2, 6, and 9 months)	hepatic neoplasm, hydronephrosis, neuroblastoma, teratoma, Wilms tumor Final Diagnosis: neuroblastoma	
Pediatrics 03: 3-year-old male well-child visit	N/A	iron deficiency, eczema, dental caries
Pediatrics 04: 8-year-old male well-child check	N/A	obesity, elevated blood pressure, ADHD
Pediatrics 13: 6-year-old female with chronic cough	asthma, allergic rhinitis, sinusitis, gastroesophageal reflux, tuberculosis, atypical pneumonia	moderate persistent asthma

Aquifer Geriatrics

26 cases covering the AGS National Online Curriculum.

Case	Differential Diagnosis	Final Diagnosis
Geriatrics 01: 85-year-old female using anticoagulants	Fatigue: frailty, medication side effects (anticholinergic medications), hypothyroidism, anemia, malignancy, heart failure, arrhythmias, and depression.	Atrial Fibrillation. Medication drug-drug interaction (warfarin/trimethoprim/sulfamethoxazole) for elevated INR presentation.
Geriatrics 02: 85-year-old female with hypoglycemia	Hypoglycemia, stroke/TIA, seizure, panic attack, delirium.	Fall due to hypoglycemia caused by duplicate inappropriate medications along with excessively tight blood sugar control and age-related changes increasing likelihood for severe hypoglycemia.
Geriatrics 03: 88-year-old female with urinary incontinence	Stress incontinence, urge incontinence, overflow/bladder outlet obstruction incontinence, mixed incontinence, functional incontinence, and overactive bladder.	Urge urinary incontinence with functional urinary incontinence due to mobility impairment contributing.
Geriatrics 04: 85-year-old female with dementia	Vascular dementia, Mixed dementia, Depression, Parkinson dementia, Alzheimer disease, Normal pressure hydrocephalus (NPH), Frontotemporal dementia (FTD), Normal aging, Dementia with Lewy bodies.	Dementia, most likely Alzheimer disease.
Geriatrics 05: 79-year-old female with agitation	N/A	Recent aggravated agitation due to multiple factors; underlying agitation secondary to dementia.
Geriatrics 06: 85-year-old female with delirium	Delirium, less likely dementia.	Delirium (positive CAM) which has multifactorial causes, likely secondary to Alzheimer dementia and precipitated by impacted bowel, recent hospitalization, intake of OTC nighttime cold medicine.
Geriatrics 07: 78-year-old male with depression	N/A	Major depression given, positive PHQ-2 test, score of 15 on PHQ-9 test, and negative Mini-Cog and clock drawing test.
Geriatrics 08: 86-year-old female and elder abuse	N/A	Lacks the capacity to live independently without supervision; is living in a state of neglect and may be a victim of physical abuse; dementia; untreated hypothyroidism; untreated hypertension.
Geriatrics 09: 82-year-old female and functional status and home safety	N/A	Multi-factorial functional impairment.

Geriatrics 10: 72-year-old male and sexuality in older adults	Depression, Dementia, HIV, Malignancy.	Depression
Geriatrics 11: 75-year-old female with neck pain	Muscle spasms, Somatic dysfunction of cervical/thoracic and upper extremity, Cervical radiculopathy or disk herniation, Chronic degenerative disk disease of cervical spine.	Muscle spasm, Somatic dysfunction of cervical, thoracic, and upper extremity.
Geriatrics 12: 78-year-old female and falls	Office visit: syncope, mechanical fall (based on risk factors)	Office visit: High risk for falls with modifiable risk factors
Geriatrics 13: 75-year-old male and 80-year-old female, prognosis and screening for older adults	N/A	
Geriatrics 14: 88-year-old female with dementia and feeding issues	Aspiration pneumonia, pulmonary embolism (PE), atelectasis, congestive heart failure (CHF)/pulmonary edema and COPD exacerbation.	Aspiration pneumonia, Feeding options in advanced dementia.
Geriatrics 15: 75-year-old male with abdominal pain	bowel obstruction, peptic ulcer disease, gastritis, cholecystitis, pancreatitis, constipation, diverticulitis, gallbladder disease, urinary tract infection, urinary retention, gastroenteritis, nonspecific abdominal pain.	bowel obstruction due to metastatic colon cancer
Geriatrics 16: 87-year-old male with low back pain	lumbar muscle strain, spinal stenosis, metastatic prostate cancer, degenerative joint disease, DISH (diffuse idiopathic skeletal hyperostosis), and osteoporosis with compression fracture	osteoarthritis leading to muscular strain with a possible component of spinal stenosis with functional decline
Geriatrics 17: 86-year-old female with pneumonia	Urinary tract infection, pneumonia, diverticulitis, colitis, cholecystitis, appendicitis, congestive heart failure, acute myocardial infarction, stroke, constipation/fecal impaction.	Nursing home-acquired pneumonia complicated by delirium.
Geriatrics 18: 83-year-old female with urinary tract infection	urinary tract infection, urinary incontinence, vaginitis, uncontrolled diabetes mellitus, fecal impaction, and medication side effect.	uncomplicated urinary tract infection, mixed urinary incontinence.
Geriatrics 19: 70-year-old male with urinary concerns	Normal aging related genitourinary changes, acute urinary retention secondary to	Benign prostatic hyperplasia

	medications, benign prostatic hyperplasia	
Geriatrics 20: 79-year-old male with severe pain and low health literacy	Depression, Limited health literacy, Miscommunication by provider.	Severe pain secondary to metastatic lesion to right femur. Urinary retention secondary to local bladder cancer recurrence, causing obstruction. Limited health literacy.
Geriatrics 21: 70-year-old female with symptomatic end-stage COPD	N/A	End Stage COPD with secondary symptoms of shortness of breath, pain, and anxiety all exacerbated by psychosocial and spiritual stressors.
Geriatrics 22: 74-year-old male and hazards of hospitalization: geriatric patient safety in the acute care setting	Functional decline, peri-operative medication management, delirium, bedrest, hospital-acquired infection, pressure injury.	
Geriatrics 23: 70-year-old female and hazards of hospitalization: transitions of care and discharge planning for geriatric inpatients	Readmissions, functional decline, interprofessional teams, discharge planning.	
Geriatrics 24: 78-year-old female with pressure injuries	Pressure injury	Pressure Injury
Geriatrics 25: 85-year-old male and restraints	Delirium, Dementia, Restraint Use	Restraint Use
Geriatrics 26: 78-year-old male and cultural competency in geriatric care	early stage neurodegenerative dementia (e.g. Alzheimer dementia), vascular dementia secondary, depression, hypothyroidism, apathetic hyperthyroidism, B12 deficiency, neurosyphilis.	Alzheimer dementia

Aquifer Internal Medicine

36 cases covering the Clerkship Directors in Internal Medicine's (CDIM) General Internal Medicine Core Medicine clerkship curriculum.

Case	Differential Diagnosis	Final Diagnosis
Internal Medicine 01: 49-year-old male with chest pain	Unstable Angina, Non ST elevation MI	Acute ST elevation myocardial infarction
Internal Medicine 02: 60-year-old female with chest pain	Angina, myocardial infarction, GERD, pulmonary embolism	Stable angina pectoris
Internal Medicine 03: 54-year-old female with syncope	Obstructive cardiac disease; Arrhythmia; Cardiac Ischemia; Peripheral vascular or circulatory dysfunction; Central nervous system disorder: including transient ischemic attack (TIA) and stroke. Metabolic derangement: including hypoglycemia. Potassium, magnesium and calcium disorders can cause arrhythmias which can lead to syncope. Hyponatremia can lead to seizure presenting like syncope.	Syncope related to atrial fibrillation and mitral stenosis
Internal Medicine 04: 67-year-old female with shortness of breath and lower-leg swelling	Congestive heart failure, asthma, chronic obstructive pulmonary disease (COPD), pneumonia, cardiac ischemia, interstitial lung diseases; psychogenic causes	Heart failure with reduced ejection fraction
Internal Medicine 05: 55-year-old male with fatigue		Major depression
Internal Medicine 06: 45-year-old male with hypertension	N/A	Stage 2 hypertension
Internal Medicine 07: 28-year-old female with lightheadedness	hypotension, polyuria, nausea, vomiting, and diarrhea: pregnancy, urosepsis, acute hyperglycemia, gastroenteritis, adrenal insufficiency	Hyperosmolar hyperglycemic state, newly diagnosed Type 2 diabetes mellitus
Internal Medicine 08: 55-year-old male with chronic disease management	N/A	Type 2 diabetes mellitus with micro and macrovascular complications
Internal Medicine 09: 55-year-old female with upper abdominal pain and vomiting	cholecystitis, gastritis, pancreatitis, peptic ulcer disease, small bowel obstruction, spontaneous bacterial peritonitis	Acute pancreatitis, acute alcohol withdrawal

Internal Medicine 10: 48-year-old female with diarrhea and dizziness	Causes of upper gastrointestinal bleed (UGIB): peptic ulcer disease esophageal or gastric varices, erosive esophagitis erosive gastritis Mallory-Weiss tear gastric cancer epistaxis Causes of lower gastrointestinal bleed (LGIB): angiodysplasia diverticulosis ischemic colitis hemorrhoids anal fissures colon cancer inflammatory bowel disease	Bleeding peptic ulcer, H. pylori infection, febrile non-hemolytic transfusion reaction
Internal Medicine 11: 45-year-old male with abnormal liver chemistries	acetaminophen toxicity, alcoholic liver disease, autoimmune hepatitis, hemochromatosis, hepatitis B, hepatitis C, non-alcoholic steatohepatitis (NASH), metastatic liver cancer, hepatitis A.	Active hepatitis C infection
Internal Medicine 12: 55-year-old male with lower abdominal pain	pseudomembranous colitis (Clostridium difficile infection), inflammatory bowel disease, gastroenteritis, small bowel obstruction, renal colic, appendicitis	Acute sigmoid diverticulitis
Internal Medicine 13: 65-year-old female for annual physical	N/A	Osteopenia
Internal Medicine 14: 18-year-old female for pre-college physical	N/A	UTI, chlamydia
Internal Medicine 15: 50-year-old male with cough and nasal congestion	Allergic rhinitis, acute bacterial sinusitis, acute bronchitis, influenza, Streptococcal pharyngitis, bacterial pneumonia	Viral upper respiratory infection (common cold); Tobacco use disorder
Internal Medicine 16: 45-year-old male who is overweight	N/A	Obesity, Dyslipidemia
Internal Medicine 17: 28-year-old male with a pigmented lesion	DDx: pigmented lesion--melanoma, benign nevus; seborrheic keratosis; cafe au lait spots;Melasma; Freckles; Post-inflammatory hyperpigmentation hemosiderin deposition DDx:Acute erythematous maculopapular erythematous rash	Melanoma, adverse drug reaction, psoriasis, seborrheic dermatitis, MRSA abscess, and contact dermatitis
Internal Medicine 18: 75-year-old male with memory problems	N/A	Major neurocognitive disorder, Alzheimer's dementia subtype
Internal Medicine 19: 42-year-old female with anemia	anemia, B12 deficiency, iron deficiency	Iron deficiency, pernicious anemia
Internal Medicine 20: 48-year-old female with HIV	tuberculosis, Pneumocystis jiroveci (formerly Pneumocystis carinii), cryptococcosis, viral hepatitis, cytomegalovirus (CMV), mycobacterium avium complex (MAC), toxoplasmosis, endocarditis, lymphoma, protozoan infection (Microspora, Isospora, Cryptosporidium), disseminated histoplasmosis, Bartonella infection, coccidioidomycosis, visceral leishmaniasis.	Disseminated Mycobacterium avium infection
Internal Medicine 21: 78-year-old male with fever, lethargy, and	cardiogenic shock, hypovolemic shock, neurogenic shock, anaphylactic shock, adrenal crisis, and septic shock	Urosepsis, mesenteric ischemia, metastatic colon cancer

anorexia		
Internal Medicine 22: 71-year-old male with cough and fatigue	Common cold, acute bronchitis, influenza, acute COPD exacerbation, pulmonary embolism, CHF, pneumonia, lung cancer, aspiration	Right lower lobe pneumonia
Internal Medicine 23: 54-year-old female with fatigue	chronic kidney disease	Chronic kidney disease probably due to hypertensive nephropathy
Internal Medicine 24: 52-year-old female with headache, vomiting, and fever	Bacterial meningitis, cerebral vasculitis, cerebrovascular accident, cluster headache, intracerebral abscess, migraine, primary central nervous system lymphoma, subarachnoid hemorrhage, temporal arteritis, tension headache, toxoplasmosis, viral meningitis	Bacterial meningitis
Internal Medicine 25: 75-year-old female with altered mental status	Electrolyte imbalance, medication adverse reaction	Delirium due to thiazide-induced euvolemic hypotonic hyponatremia
Internal Medicine 26: 58-year-old male with altered mental status and experiencing homelessness	electrolyte abnormality, toxic ingestion, infection, hypoxia, hypercarbia, intracranial hemorrhage	Ethylene glycol toxicity, hypernatremia
Internal Medicine 27: 65-year-old male with hypercalcemia	Primary hyperparathyroidism (sporadic) Familial: Familial isolated hyperparathyroidism, Multiple endocrine neoplasia (MEN) 1 and 2a, Familial hypocalciuric hypercalcemia (FHH) Hypercalcemia of malignancy; Parathyroid hormone-related protein (PTHrp);Osteolytic bone metastases and local cytokines Vitamin D intoxication Chronic granulomatous disorders Medications: Lithium, thiazide diuretics, vitamin A excess Miscellaneous Hyperthyroidism Acromegaly Pheochromocytoma Adrenal insufficiency Immobilization Parenteral nutrition Milk alkali syndrome	Stage II squamous cell lung cancer and neutropenic fever
Internal Medicine 28: 70-year-old male with shortness of breath and cough	COPD, lung cancer and pneumonia. Less likely diagnoses are also discussed.	COPD exacerbation, cor pulmonale
Internal Medicine 29: 55-year-old female with fever and chills	community-acquired pneumonia, CHF, tuberculosis, lung malignancy, pulmonary embolism, lymphoma, sarcoidosis, acute bronchitis	Active pulmonary tuberculosis
Internal Medicine 30: 55-year-old female with leg pain	cellulitis, DVT, ruptured popliteal cyst and superficial thrombophlebitis.	Lower extremity deep venous thrombosis and pulmonary thromboembolism
Internal Medicine 31: 40-year-old male with knee pain	bursitis, crystal arthropathy, and osteoarthritis	Osteoarthritis

Internal Medicine 32: 39-year-old female with joint pain	SLE, RA, systemic sclerosis and Sjögren syndrome.	Systemic lupus erythematosus (SLE)
Internal Medicine 33: 49-year-old female with confusion		Prerenal acute renal failure due to hypovolemia
Internal Medicine 34: 55-year-old male with low back pain	vertebral metastasis, vertebral or epidural infection, acute mechanical back pain, spinal stenosis, herniated disk, pyelonephritis	Acute mechanical back pain with sciatica
Internal Medicine 35: 35-year-old female with three weeks of fever	Acute HIV infection; Acute viral hepatitis; Drug Reaction; Endocarditis; Hodgkin disease; Adult Still disease; Systemic lupus erythematosus (SLE); Urinary tract infection; Venous thromboembolism	Adult Still disease
Internal Medicine 36: 49-year-old male with ascites	Alcoholic hepatitis; Ascending cholangitis; Gastrointestinal hemorrhage; Hepatorenal syndrome; Spontaneous bacterial peritonitis; Urinary tract infection	Spontaneous bacterial peritonitis (SBP), hepatitis C cirrhosis

Aquifer Pediatrics

32 cases covering the Council on Medical Student Education in Pediatrics (COMSEP) clerkship curriculum.

Case	Differential Diagnosis	Final Diagnosis
Pediatrics 01: Newborn male infant evaluation and care	maternal tobacco use; poor maternal nutrition; fetal alcohol syndrome; chromosomal abnormalities; prematurity; congenital infection	SGA newborn due to poor maternal nutrition and tobacco use
Pediatrics 02: Infant female well-child visits (2, 6, and 9 months)	hepatic neoplasm, hydronephrosis, neuroblastoma, teratoma, Wilms tumor Final Diagnosis: neuroblastoma	
Pediatrics 03: 3-year-old male well-child visit	N/A	iron deficiency, eczema, dental caries
Pediatrics 04: 8-year-old male well-child check	N/A	obesity, elevated blood pressure, ADHD
Pediatrics 05: 16-year-old female health maintenance visit	hypothyroidism, infectious mononucleosis, depression, eating disorder, anemia, substance abuse	anemia secondary to von Willebrand disease
Pediatrics 06: 16-year-old male preparticipation evaluation	vasovagal syncope, hypoglycemia, postural hypotension, seizure Differential Diagnosis (chest pain): asthma, GE reflux, precordial catch syndrome, costochondritis, myocardial ischemia, pericarditis	vasovagal syncope, precordial catch syndrome
Pediatrics 07: 2-hour-old male newborn with respiratory distress	respiratory distress syndrome (RDS), transient tachypnea of the newborn (TTN), pneumothorax, meconium aspiration, congenital heart disease, neonatal sepsis, congenital diaphragmatic hernia, hypoglycemia	transient tachypnea of the newborn (TTN)
Pediatrics 08: 6-day-old female with jaundice	physiologic jaundice, breast-feeding jaundice, breastmilk jaundice, hemolysis, neonatal sepsis, hypothyroidism	breast-feeding associated jaundice
Pediatrics 09: 2-week-old female with lethargy	congenital hypothyroidism, nonaccidental trauma, genetic abnormality, congenital adrenal hyperplasia, inborn error of metabolism	congenital hypothyroidism
Pediatrics 10: 6-month-old female infant with a fever	meningitis, roseola, sepsis, urinary tract infection, acute otitis media, pneumonia	febrile urinary tract infection
Pediatrics 11: 4-year-old male with fever and adenopathy	adenovirus, Kawasaki disease, enterovirus, meningococemia, measles, Rocky Mountain spotted fever, scarlet fever, Stevens-Johnson syndrome, varicella, erythema infectiosum, roseola.	Kawasaki disease

Pediatrics 12: 10-month-old female with a cough	upper respiratory infection, pneumonia, asthma, bronchiolitis, croup, foreign body aspiration, gastroesophageal reflux, pertussis	airway foreign body
Pediatrics 13: 6-year-old female with chronic cough	asthma, allergic rhinitis, sinusitis, gastroesophageal reflux, tuberculosis, atypical pneumonia	moderate persistent asthma
Pediatrics 14: 18-month-old female with congestion	allergic rhinitis, otitis media, pneumonia, sinusitis, upper respiratory infection	recurrent acute otitis media complicated by chronic effusion and speech delay
Pediatrics 15: Two siblings: 4-year-old male and 8-week-old male with vomiting	viral gastroenteritis, bacterial gastroenteritis, gastroesophageal reflux, intestinal malrotation, pyloric stenosis, intussusception, increased intracranial pressure, milk protein allergy, inborn error of metabolism, urinary tract infection	Caleb - Acute gastroenteritis; Ben - Pyloric stenosis
Pediatrics 16: 7-year-old female with abdominal pain and vomiting	gastroenteritis, intestinal obstruction, pyelonephritis, DKA, increased intracranial pressure, appendicitis	DKA
Pediatrics 17: 4-year-old female refusing to walk	transient synovitis, septic arthritis, Lyme disease, musculoskeletal trauma, SCFE, avascular necrosis of femoral head, JIA, reactive arthritis, osteomyelitis, leukemia	transient synovitis of the hip
Pediatrics 18: 6-week-old male with poor feeding	congestive heart failure, respiratory infection, hyperbilirubinemia, sepsis, GE reflux, hypotonia, metabolic disorder	ventricular septal defect (VSD)
Pediatrics 19: 16-month-old male with first seizure	toxic ingestion, febrile seizure, syncope, closed head injury, intracranial hemorrhage, brain tumor, CNS infection	febrile seizure; roseola
Pediatrics 20: 7-year-old male with a headache	migraine headache, tension headache, sinusitis, brain tumor, idiopathic intracranial hypertension	cerebellar astrocytoma
Pediatrics 21: 6-year-old male with bruising	coagulation disorder, HSP, ITP, leukemia, viral infection, sepsis, Rocky Mountain spotted fever, bacterial endocarditis	Henoch-Schönlein purpura (HSP)
Pediatrics 22: 16-year-old female with abdominal pain	appendicitis, pregnancy, ovarian torsion, PID, UTI, cholecystitis, hepatitis, pancreatitis, gastroenteritis, mesenteric adenitis	pelvic inflammatory disease (PID)
Pediatrics 23: 15-year-old female with lethargy and fever	Differential Diagnosis #1 (altered mental status): CNS infection, toxic ingestion, increased intracranial pressure, trauma, metabolic disturbance Differential Diagnosis #2 (fever and petechiae): meningococcal sepsis, toxic shock syndrome, Rocky Mountain spotted fever, bacterial endocarditis	meningococemia/meningococcal meningitis
Pediatrics 24: 2-year-old female with altered mental	CNS infection, sepsis, toxic ingestion, trauma, seizure, intracranial mass	accidental ingestion (nortriptyline, glipizide)

status		
Pediatrics 25: 2-month-old male with apnea	CNS infection, closed head injury, sepsis, respiratory infection, gastroesophageal reflux, breath holding spell	acute subdural hematoma secondary to nonaccidental trauma
Pediatrics 26: 9-week-old male not gaining weight	inadequate diet, congestive heart failure, formula allergy, gastroenteritis, hypothyroidism, malabsorption	cystic fibrosis
Pediatrics 27: 8-year-old female with abdominal pain	functional abdominal pain, inflammatory bowel disease, celiac disease, bacterial gastroenteritis, giardiasis	Crohn disease
Pediatrics 28: 18-month-old male with developmental delay	cerebral palsy, chromosomal/genetic abnormality, metabolic disorder, autism spectrum disorder	cerebral palsy
Pediatrics 29: Infant male with hypotonia		Down syndrome/trisomy 21
Pediatrics 30: 2-year-old male with sickle cell disease	acute chest syndrome, pericarditis, congestive heart failure, rib infarction, sepsis	sickle cell disease with acute chest syndrome
Pediatrics 31: 5-year-old female with puffy eyes	Differential Diagnosis #1 (periorbital swelling): infectious conjunctivitis, upper respiratory infection, allergic rhinitis/conjunctivitis, sinusitis, acute allergic reaction; nephrotic syndrome (pathogenesis, diagnosis and classification, treatment, natural history and prognosis) Differential Diagnosis #2 (generalized swelling): acute glomerulonephritis, nephrotic syndrome, congestive heart failure, hepatic failure, allergic reaction	nephrotic syndrome
Pediatrics 32: 5-year-old female with rash	Differential diagnosis #1 (erythematous wheals): papular urticaria, streptococcal infection, erythema multiforme, urticaria due to type 1 hypersensitivity, drug eruption Differential diagnosis #2 (scaling rash in infancy): eczema, candida, seborrheic dermatitis, psoriasis Differential diagnosis #3 (pustules): staphylococcal folliculitis, acne, hydradenitis suppurativa, rosacea, perioral dermatitis Differential diagnosis #4 (annular scaling lesion(s)): tinea corporis, tinea versicolor, nummular eczema, psoriasis, pityriasis alba, pityriasis rosea Differential diagnosis #5: warts vs molluscum contagiosum Differential diagnosis #6 (diaper rash): irritant dermatitis, diaper candidiasis, bacterial infection, zinc deficiency, Langerhans cell histiocytosis	acute urticaria / seborrheic dermatitis / acne / contact dermatitis / head lice / scabies / tinea corporis / warts

Aquifer Radiology

19 cases covering the Association of University Radiologists (AUR) and the Alliance of Medical Student Educators in Radiology (AMSER) medical student curriculum.

Case	Diagnosis
Radiology 01: 23-year-old male Chest - Infection	Pneumonia, Pleural effusion, HIV+
Radiology 02: 51-year-old male Chest - Masses	Cancer - lung, Pneumothorax
Radiology 03: 65-year-old male Chest - Trauma	Trauma - thoracic, Pneumothorax, pneumomediastinum
Radiology 04: 65-year-old female Chest - Vascular and COPD	Final Diagnosis: Pulmonary embolus, Pulmonary edema, Aortic Dissection
Radiology 05: 25-year-old male GI - Colon and small bowel	Final Diagnosis: Inflammatory bowel disease, Cancer - colon
Radiology 06: 42-year-old female GI - Hepatobiliary and pancreas	Final Diagnosis: Cholelithiasis, Cholelithiasis, additional patients-choledocholithiasis, appendicitis, pancreatitis, pancreatic cancer
Radiology 07: 40-year-old female - Renal/GU	Final Diagnosis: Renal and ureteric calculi, Renal disease and failure - acute, hypertension; renal cell carcinoma
Radiology 08: 18-year-old female & 19-year-old male GI - Trauma	Final Diagnosis: Trauma - abdominal, Trauma - thoracic, perinephric hematoma; kidney injury; fracture; Tension pneumothorax; Lung contusion; Hemothorax; Hepatic laceration; Splenic laceration; Duodenal perforation; bladder rupture; diaphragmatic rupture
Radiology 09: 34-year-old male Neuro - Trauma	Trauma - head, Fracture
Radiology 10: 40-year-old male Neuro - Vascular and HIV	Final Diagnosis: Infection - HIV, Aneurysm - cerebral
Radiology 11: 8-week old male - Pediatrics A	Final Diagnosis: Malrotation / volvulus, Neglect & abuse, Fracture
Radiology 12: 2-month old female - Pediatrics B	Final Diagnosis: Intussusception, Bronchiolitis, Epiglottitis / tracheitis
Radiology 13: 59-year-old female MSK - Arthritis, osteomyelitis	Final Diagnosis: Arthritis - rheumatologic, Osteopenia / osteoporosis, Foot ulcer, compression fracture
Radiology 14: 28-year-old female - Female imaging - Pregnancy and infertility	Final Diagnosis: Infertility, Pregnancy - ectopic, Pregnancy - intrauterine
Radiology 15: 43-year-old female - Female imaging - Malignancy and screening	Final Diagnosis: Cancer - breast, Cancer, Gene mutation

Radiology 16: 24-year-old male MSK - Trauma	Final Diagnosis: Joint pain and injury - foot & ankle, Joint pain and injury - knee, Joint pain and injury - hip, joint pain and injury - wrist, joint pain and injury - shoulder, joint pain and injury - elbow
Radiology 17: 65-year-old male - Cardiac and Cardiovascular	Final Diagnosis: Aneurysm - aortic , Myocardial infarction, Claudication
Radiology 18: Professionalism in Radiology	
Radiology 19: 53-year-old female - Oncology	Final Diagnosis: Cancer - colon, Liver disease, Sarcoidosis, Cancer - colon Liver disease, Sarcoidosis