### 2019 Internal Medicine In-Training Examination®

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<thead>
<tr>
<th>Content Area</th>
<th>Number of Items</th>
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<td>Cardiology</td>
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<tr>
<td>Endocrinology</td>
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<td>General Internal Medicine*</td>
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<td>Geriatric Medicine</td>
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<td>Hematology and Oncology</td>
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<td>Rheumatology</td>
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<tr>
<td>High Value Care (HVC)**</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>260</strong></td>
<td><strong>100</strong></td>
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*This content area includes, but is not limited to, adolescent medicine, allergy and immunology, complementary and alternative medicine, dermatology, ethics, genetics, literature interpretation, nutrition, ophthalmology, preventive care, psychiatry, sports medicine, statistics, and women’s health. Items associated with the content area High Value Care (HVC)** may appear in other content areas. These items are identified with a double asterisk.*

The following pages list examination educational objectives grouped by content area. One educational objective is provided for each item.
Cardiology
Counsel a patient with previous peripartum cardiomyopathy who wishes to become pregnant.
Diagnose acute coronary syndrome in a patient with a nondiagnostic electrocardiogram.
Diagnose cardiac catheterization-related retroperitoneal hemorrhage.
Diagnose cardiac tamponade.
Diagnose Eisenmenger syndrome.
Diagnose hypertrophic cardiomyopathy.
Diagnose mitral valve prolapse.
Diagnose myocarditis.
Diagnose peripheral vascular disease.
**Manage asymptomatic sinus bradycardia.**
**Manage chronic stable angina.**
**Manage Mobitz I second-degree heart block.**
  Manage multifocal atrial tachycardia.
**Manage patent foramen ovale in an asymptomatic patient.**
**Manage reperfusion accelerated idioventricular rhythm.**
  Optimize heart failure treatment in black patients.
Predict outcome of stenting in stable chronic angina.
Prevent heart failure readmission.
Prevent sudden cardiac death.
Select stroke prophylaxis in atrial fibrillation.
Select the appropriate cardiac stress test for a patient with a permanent pacemaker.
Select the appropriate diagnostic test for chest pain.
Treat a patient with cardiac arrest and ventricular fibrillation.
Treat aortic dissection.
Treat atrial myxoma.
Treat cardiogenic shock.
Treat cardiogenic shock.
Treat claudication in patients with peripheral artery disease.
Treat focal atrial tachycardia.
Treat isolated symptomatic premature ventricular contractions.
Treat mitral stenosis.
Treat obstructive hypertrophic cardiomyopathy.
Treat postmyocardial infarction pericarditis.
Treat ST-elevation myocardial infarction with thrombolytic therapy.
Treat venous stasis.
Endocrinology
Diagnose an insulinoma.
Diagnose anabolic steroid use.
Diagnose Cushing syndrome.
Diagnose Graves disease in a pregnant patient.
Diagnose hyperaldosteronism.
Diagnose latent autoimmune type 1 diabetes mellitus.
Diagnose multiple endocrine neoplasia type 2.
Diagnose obstructive sleep apnea secondary to testosterone replacement therapy.
Diagnose primary hyperaldosteronism.
Diagnose the endocrine changes of early pregnancy.
Diagnose vitamin D deficiency in a patient with osteomalacia.
Evaluate Paget disease of bone.
Treat a patient with worsening hypertriglyceridemia.
Treat diabetic ketoacidosis.
Treat Graves disease.
**Treat hyperlipidemia.
  Treat hypoglycemia unawareness.
  Treat inpatient hyperglycemia in type 1 diabetes mellitus.
Diagnose acute hepatitis C.
Diagnose acute mesenteric vein thrombosis.
Diagnose autoimmune gastritis.
Diagnose carcinoid syndrome.
Diagnose celiac disease.
Diagnose Crohn disease.
Diagnose esophageal stricture.
Diagnose gastroparesis.
**Diagnose Gilbert syndrome.
Diagnose hepatitis C–related arthritis.
Diagnose hepatocellular carcinoma.
Diagnose hereditary hemorrhagic telangiectasia in a patient with gastrointestinal bleeding.
Diagnose Meckel diverticulum.
Diagnose spontaneous bacterial peritonitis.
**Manage abdominal wall pain.
Manage adenomatous colon polyps.
Manage dyspepsia in a patient with alarm features.
**Manage gallstones in a pregnant patient.
Manage hepatocellular carcinoma.
Manage toxic megacolon.
Manage unsuccessful Helicobacter pylori eradication.
Treat ascites in end-stage liver disease.
Treat chronic pancreatitis.
Treat constipation-predominant irritable bowel syndrome.
General Internal Medicine

Assess the validity of a study.

**Avoid inappropriate screening for COPD.

**Calculate the number needed to harm.

  Counsel a patient about the risks of a low-carbohydrate diet.

Diagnose anserine bursitis.

Diagnose at-risk drinking patterns.

Diagnose bipolar disorder.

Diagnose carpal tunnel syndrome.

Diagnose drug rash with eosinophilia and systemic symptoms (DRESS syndrome).

Diagnose glaucoma.

Diagnose pollen-food allergy syndrome.

Diagnose red eye.

Diagnose sleep deprivation.

Diagnose the cause of restless legs syndrome.

**Diagnose vasovagal syncope.

**Evaluate sciatica as a cause of low back pain

  Evaluate syncope associated with high-risk features.

  Identify a normal physiologic vaginal discharge.

  Identify metabolic abnormalities associated with acanthosis nigricans.

  Manage a Jarisch-Herxheimer reaction.

**Manage episcleritis.

**Manage pityriasis rosea.

  Manage plantar fasciitis.

  Manage smoking cessation.

**Manage tinnitus.

**Perform appropriate preoperative evaluation before laparoscopic cholecystectomy.

  Perform appropriate preoperative laboratory testing.

  Prevent type 2 diabetes mellitus.

  Recognize the limitations of the BMI.

**Screen for carotid artery stenosis.

**Screen for cervical cancer.

  Screen for domestic violence.

  Treat bacterial vaginosis.

  Treat depression and associated weight loss.
Treat failure to respond to initial therapy for depression.
Treat medication-induced urinary retention.
Treat otitis externa.
Treat vasomotor rhinitis.
Understand the concept of positive predictive value.
Geriatric Medicine
Diagnose age-related functional decline in a hospitalized patient.
Diagnose apathetic hyperthyroidism.
Diagnose bullous pemphigoid.
Diagnose Lewy Body dementia in an older patient.
**Diagnose postprandial hypotension.
**Manage an abdominal aortic aneurysm in a frail older adult.
  Manage anticoagulation in a patient with deep venous thrombosis and stable coronary artery disease.
  Manage suspected elder abuse.
  Recommend a driving test for patient with mild dementia.
  Screen for breast cancer.
  Treat diabetes mellitus in older adults with comorbid conditions.
  Treat footdrop.
  Treat hand osteoarthritis.
  Treat Lewy body dementia.
  Treat medication-related urinary incontinence.
  Treat mixed urinary incontinence in an older patient with moderate dementia.
  Treat the adverse effects of medications.
Hematology and Oncology
Counsel a patient with hereditary breast cancer.
Diagnose acute myelocytic leukemia in a patient with Auer rods.
Diagnose acute promyelocytic leukemia.
Diagnose antiphospholipid syndrome.
Diagnose aplastic anemia.
Diagnose autoimmune hemolytic anemia.
Diagnose bevacizumab-associated toxicity.
Diagnose cancer of unknown primary.
Diagnose heparin-induced thrombocytopenia.
Diagnose multiple myeloma.
Diagnose primary amyloidosis.
Diagnose pure red cell aplasia.
Diagnose radiation-related coronary artery disease.
Diagnose secondary polycythemia.
Diagnose thalassemia.
Diagnose the presence of factor inhibitor.
Diagnose vitamin K deficiency.
Establish a diagnosis of hairy cell leukemia.
Prescribe hospice care appropriately.
Treat dyspnea in a patient at the end of life.
Treat early stage non–small cell lung cancer.
Treat estrogen receptor–positive/progesterone receptor–positive breast cancer.
Treat leukostasis syndrome.
Treat liver recurrence of colorectal cancer.
Treat mucosa-associated lymphoid tissue (MALT) lymphoma of the stomach.
Treat neutropenic fever.
Treat nonresectable pancreatic cancer.
Treat superficial bladder cancer.
Treat thrombotic thrombocytopenic purpura.
Treat warfarin-related gastrointestinal bleeding.
Infectious Diseases
Diagnose a perinephric abscess.
Diagnose Giardia lamblia infection.
Diagnose Lemierre syndrome caused by Fusobacterium necrophorum.
Diagnose malaria.
Diagnose osteomyelitis.
Diagnose parvovirus B19 infection.
Diagnose the cause of short-incubation, food-borne gastroenteritis.
Diagnose tuberculosis infection in a patient who received bacillus Calmette-Guérin vaccine.
Follow isolation precautions for preventing transmission of infectious agents in health care settings.
Identify risk factors for Clostridium difficile infection.
Identify the cause of primary central nervous system lymphoma.
**Manage a central venous catheter.
**Manage vancomycin-resistant enterococci colonization of the stool.
  Manage varicella virus exposure in a patient without immunity.
  Treat a dog bite in a penicillin-allergic patient.
** Treat acute rhinosinusitis.
  Treat cerebral toxoplasmosis in a patient with HIV infection.
  Treat disseminated gonococcal infection.
  Treat influenza infection.
  Treat latent tuberculosis in a patient with HIV.
  Treat Listeria meningitis.
  Treat Lyme arthritis.
  Treat mild Pneumocystis jirovecii pneumonia.
Nephrology
Diagnose acute tubular necrosis.
Diagnose acyclovir-induced nephropathy.
Diagnose beer potomania.
Diagnose lithium-related chronic tubulointerstitial disease.
Diagnose milk-alkali syndrome.
Diagnose minimal change disease.
Diagnose obstructive sleep apnea–related hypertension.
Diagnose postinfectious glomerulonephritis.
Diagnose propylene glycol–induced lactic acidosis.
Diagnose secondary hyperparathyroidism in chronic kidney disease.
Diagnose thin basement membrane disease.
Diagnose type 4 renal tubular acidosis.
Treat hyperkalemia.
Treat hypertension in a woman attempting to conceive.
Treat NSAID-related hyperkalemia.
Treat renovascular hypertension.
Neurology
Diagnose basilar artery stroke.
Diagnose carotid artery dissection.
Diagnose cervical myelopathy.
Diagnose vertebral artery dissection.
Manage drug-induced encephalopathy.
Prevent migraine.
Treat Bell palsy.
Treat myasthenia gravis.
Treat relapsing-remitting multiple sclerosis.
Treat tension-type headache.
Diagnose a pleural effusion on the basis of history and clinical evaluation.
Diagnose cystic fibrosis in an adult with the appropriate diagnostic studies.
Diagnose exercise-induced asthma.
Diagnose interstitial lung disease.
Diagnose intrapulmonary shunt as a cause of hypoxemia in a patient with pneumonia.
Diagnose lymphangioleiomyomatosis.
Diagnose malignant pleural mesothelioma.
Diagnose nocturnal hypoxemia in COPD.
Diagnose pulmonary veno-occlusive disease.
Diagnose reversible posterior leukoencephalopathy syndrome.
Manage an acute asthma exacerbation.
Select the appropriate mechanical ventilation for initial management of acute respiratory distress syndrome.
Treat an aspirin overdose.
Treat anaphylactic shock.
Treat cocaine toxicity.
Treat community-acquired pneumonia.
Treat hypercapnic respiratory failure.
Treat hypoxemia associated with acute respiratory distress syndrome.
Treat interstitial lung disease with pulmonary rehabilitation.
Treat persistent asthma.
Treat pneumonia in a patient with prolonged QT syndrome.
Treat propofol-related infusion syndrome.
Treat respiratory failure with mechanical ventilation.
Treat respiratory failure with mechanical ventilation.
Treat serotonin syndrome.
Rheumatology
Diagnose acute gout by crystal analysis of joint fluid.
Diagnose cervical compressive myelopathy in rheumatoid arthritis.
Diagnose chikungunya-related arthritis.
Diagnose complications of methotrexate therapy in rheumatoid arthritis.
Diagnose familial Mediterranean fever.
Diagnose gout.
Diagnose hypertrophic osteoarthropathy.
Diagnose inflammatory (erosive) osteoarthritis.
Diagnose limited cutaneous systemic sclerosis with the appropriate antibody.
Diagnose osteoarthritis of the hip.
Diagnose osteonecrosis of the hip.
Diagnose polymyalgia rheumatica.
Diagnose polymyositis.
Diagnose relapsing polychondritis.
Diagnose thyroid myopathy.
Evaluate a patient for giant cell arteritis.
Identify the crystals associated with calcium pyrophosphate dihydrate deposition disease.
**Manage primary Raynaud phenomenon.
   Treat fibromyalgia with the appropriate pain management.
   Treat granulomatosis with polyangiitis.
   Treat statin-induced myopathy.
   Treat systemic lupus erythematosus in a patient planning pregnancy.
**Treat upper lung lobe fibrosis in patients with ankylosing spondylitis.