

2014 Internal Medicine

In-Training Examination™

Educational Objectives

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2014 Internal Medicine In-Training Examination™

| Content Area | Number of Items | Percentage of Total Items |
|--------------------------------------|-----------------|---------------------------|
| Cardiology | 40 | 13.3 |
| Endocrinology | 20 | 6.7 |
| Gastroenterology | 28 | 9.3 |
| General Internal Medicine* | 45 | 15.0 |
| Geriatric Medicine | 18 | 6.0 |
| Hematology and Oncology | 35 | 11.7 |
| Infectious Diseases | 27 | 9.0 |
| Nephrology | 18 | 6.0 |
| Neurology | 12 | 4.0 |
| Pulmonary and Critical Care Medicine | 30 | 10.0 |
| Rheumatology | 27 | 9.0 |
| High Value Care (HVC)** | 48 | 16.0 |
| TOTAL | 300 | 100 |

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.

2014 Internal Medicine In-Training Examination™

Educational Objectives

Cardiology

**Assess a patient for cardiovascular risk before noncardiac surgery.

Diagnose an acute ventricular septal defect.

Diagnose atrial septal defect.

Diagnose cardiac tamponade.

Diagnose ischemia-induced papillary muscle dysfunction.

Diagnose ischemic cardiomyopathy.

**Diagnose low-risk ventricular arrhythmia.

Diagnose mitral valve prolapse.

Diagnose myocarditis.

Diagnose pericardial effusion.

Diagnose pulmonary valve stenosis.

Diagnose right ventricular infarction.

Diagnose Takotsubo cardiomyopathy.

Diagnose torsades de pointes as a complication of long QT syndrome.

Emergently treat hyperkalemia.

Manage acute pericarditis.

Manage anticoagulation therapy in a patient with a mechanical prosthetic valve.

**Manage asymptomatic aortic stenosis.

Manage cardiogenic shock.

**Manage chronic stable angina.

**Manage immunizations in a patient with cardiovascular disease.

**Manage multifocal atrial tachycardia.

**Manage peripheral vascular disease.

**Manage progressive angina.

Manage venous ulceration.

Manage ventricular fibrillation in a patient with acute myocardial infarction.

Predict the auscultatory findings in mitral stenosis.

**Preoperatively manage coronary artery disease.

Prevent recurrent supraventricular tachycardia.

Recognize the indications for abdominal aortic aneurysm screening.

**Select appropriate endocarditis prophylaxis.

Select the appropriate cardiac stress test for a patient with a permanent pacemaker.

Select the appropriate diagnostic test for patients with chest pain who take digoxin.

Treat aortic dissection.

Treat atrial fibrillation with warfarin.

Treat digoxin toxicity.

Treat hypertension in a woman attempting to conceive.

Treat obstructive hypertrophic cardiomyopathy.

Treat stage III heart failure in a patient who is black.

Treat ventricular arrhythmias in a patient with an implantable cardioverter-defibrillator.

Endocrinology

Adjust insulin dosage in type 1 diabetes mellitus.

Adjust insulin in type 1 diabetes mellitus.

Diagnose a functional pituitary adenoma.

Diagnose an insulinoma.

Diagnose autoimmune adrenalitis.

Diagnose drug-induced hypoglycemia.

**Diagnose male hypogonadism.

Diagnose multiple endocrine neoplasia type 1.

Diagnose primary hyperparathyroidism.

Diagnose the cause of secondary amenorrhea.

Manage a prolactinoma.

Manage a thyroid nodule.

Manage asymptomatic primary hyperparathyroidism.

**Manage diabetic retinopathy during pregnancy.

**Manage primary hypothyroidism.

**Manage thyroid function studies in critical illness.

**Screen for osteoporosis.

Treat diabetic ketoacidosis.

Treat myxedema coma.

Treat postmenopausal osteoporosis.

Gastroenterology

Diagnose angioedema.

Diagnose autoimmune gastritis.

Diagnose Crohn disease.

Diagnose drug-induced cholestasis.

Diagnose eosinophilic esophagitis.

Diagnose gastroparesis.

**Diagnose Gilbert syndrome.

Diagnose gluten ingestion in a patient with recurrent symptoms of celiac disease.

Diagnose iron-overload syndromes.

Diagnose malabsorption after gastric bypass surgery.

Diagnose Meckel diverticulum.

Diagnose microscopic colitis.

Diagnose oropharyngeal dysphagia.

Diagnose pill-induced esophagitis.

Diagnose primary biliary cirrhosis.

Diagnose schistosomiasis.

Diagnose sclerosing cholangitis.

Diagnose the cause of obscure gastrointestinal bleeding in chronic kidney disease.

Manage acute cholecystitis in a high-risk patient.

Manage acute diverticulitis.

Manage bile salt–induced diarrhea.

**Manage chronic constipation.

Manage colorectal cancer screening when the bowel preparation is poor.

Manage Helicobacter pylori–associated peptic ulcer disease.

Manage toxic megacolon.

Treat ascites in end-stage liver disease.

Treat hepatic encephalopathy.

Treat spontaneous bacterial peritonitis.

General Internal Medicine

**Calculate the number needed to treat.

Diagnose arrhythmogenic syncope.

Diagnose at-risk drinking patterns.

Diagnose lateral femoral cutaneous nerve entrapment.

Diagnose lumbar spinal stenosis.

Diagnose malignant melanoma.

Diagnose obstructive sleep apnea.

Diagnose Osgood-Schlatter disease.

Diagnose panic disorder.

Diagnose plantar fasciitis.

Diagnose trochanteric bursitis.

**Manage a hyperplastic colonic polyp.

**Manage a varicocele.

Manage acute prostatitis.

**Manage an uncomplicated urinary tract infection.

**Manage benign paroxysmal positional vertigo.

Manage benign prostatic hyperplasia.

Manage chest pain in a patient with elevated serum troponin levels.

**Manage chronic, nonspecific abdominal pain.

**Manage episcleritis.

Manage epistaxis.

**Manage low-risk alcohol withdrawal.

**Manage lymphadenopathy.

**Manage mechanical low back pain.

Manage pharmacotherapy for depression.

**Manage pityriasis rosea.

Manage subacute cough.

**Manage tinnitus.

**Manage vasovagal syncope.

**Manage viral conjunctivitis.

Order appropriate immunizations in an adolescent.

Prevent recurrent lower extremity cellulitis.

Prevent urinary tract infection.

Recognize indications for human papillomavirus immunization in male patients.

Screen a patient for alcohol misuse.

Screen for cervical cancer.

Screen for domestic abuse.

**Select appropriate preoperative testing for a patient at low risk.

Treat allergic rhinitis.

Treat contact dermatitis.

Treat cutaneous psoriasis.

Treat obesity with medical complications.

Treat obesity.

Treat symptoms of restless legs syndrome.

Understand why family members cannot act as interpreters.

Geriatric Medicine

Diagnose apathetic hyperthyroidism.

Diagnose dementia with Lewy bodies.

Diagnose medication-related syncope.

Diagnose mild cognitive impairment.

Diagnose sensory impairment as a cause of dizziness and falls.

Identify decisional capacity.

Manage agitation in a hospitalized patient with dementia.

Manage dysphagia in an older patient.

Prevent dementia.

Reduce the risk of motor vehicle collisions in older drivers.

Screen for breast cancer.

Select an appropriate fall risk assessment tool.

Treat atrial fibrillation with anticoagulation.

Treat depression and associated weight loss.

Treat footdrop.

**Treat insomnia.

Treat osteoarthritis.

**Treat urinary incontinence.

Hematology and Oncology

- Determine duration of anticoagulation in a patient with a pulmonary embolism.
- Diagnose hemophilia.
- Diagnose Hodgkin lymphoma.
- Diagnose iron deficiency anemia.
- Diagnose myelodysplastic syndrome.
- Diagnose myelofibrosis.
- Diagnose porphyria cutanea tarda.
- Diagnose primary amyloidosis.
- Diagnose radiation-induced hypothyroidism.
- Diagnose secondary erythrocytosis.
- Diagnose the cause of a prolonged activated partial thromboplastin time.
- Diagnose the cause of microcytic anemia.
- Manage familial adenomatous polyposis.
- Manage fertility in adults receiving chemotherapy.
- Manage testicular cancer.
- **Prescribe hospice care appropriately.
- Recognize prognostic factors for breast cancer.
- Screen for heart failure in patients receiving trastuzumab.
- Stage non-Hodgkin lymphoma.
- **Treat a patient with a family history of deep venous thrombosis.
- Treat acute leukemia with leukapheresis.
- Treat acute promyelocytic leukemia.
- **Treat chronic lymphocytic leukemia.
- **Treat cold agglutinin disease in a patient with mononucleosis.
- Treat colon cancer in a patient with positive lymph nodes.
- Treat essential thrombocytosis.
- Treat estrogen receptor–positive breast cancer in postmenopausal women.
- Treat immune thrombocytopenia.
- Treat neutropenic fever.
- Treat newly diagnosed breast cancer.
- Treat ovarian cancer.
- **Treat postchemotherapy cytopenia.

Treat prostate cancer.

Treat resected stage II-III lung cancer with adjuvant chemotherapy.

Treat small cell lung cancer with prophylactic cranial irradiation in patients who enter remission.

Infectious Diseases

Diagnose babesiosis.

Diagnose Giardia lamblia infection.

Diagnose nonmenstrual toxic shock syndrome.

Diagnose Plasmodium falciparum malaria.

Diagnose the cause of malignant external otitis.

Diagnose the cause of thrombotic thrombocytopenic purpura–hemolytic uremic syndrome.

Diagnose West Nile virus encephalitis.

Follow isolation precautions to prevent transmission of infectious agents in health care settings.

Give HIV-infected patients the appropriate immunizations.

Manage a brain mass in a patient with HIV.

**Manage a Jarisch-Herxheimer reaction.

**Manage asymptomatic bacteriuria.

Manage latent tuberculosis.

Treat a cat bite.

Treat acute bacterial rhinosinusitis.

Treat an HIV-infected patient with cryptococcal meningitis.

Treat cervicofacial actinomycosis.

Treat Clostridium difficile–associated colitis.

Treat ehrlichiosis.

Treat group A streptococcal pharyngitis.

Treat health care–associated pneumonia.

Treat latent tuberculosis.

Treat pyelonephritis.

Treat septic arthritis.

Treat Streptococcus pneumoniae meningitis.

Treat Trichomonas vaginalis infection.

Treat urethritis.

Nephrology

Diagnose a mixed acid-base disorder.

Diagnose acute interstitial nephritis.

Diagnose acute tubular necrosis.

Diagnose D-lactic acidosis.

Diagnose membranoproliferative glomerulonephritis in hepatitis C.

Diagnose nephrogenic diabetes insipidus.

Diagnose NSAID-induced interstitial nephritis.

Diagnose posthypercapnic metabolic alkalosis.

Diagnose the cause of a mixed metabolic acidosis and respiratory alkalosis.

Diagnose the cause of hypocalcemia.

Diagnose the cause of nephrolithiasis after bariatric surgery.

Identify masked hypertension.

**Recognize indications for ACE inhibitors in patients with type 2 diabetes mellitus.

Slow progression of chronic kidney disease.

Treat hypernatremia.

Treat hypertensive urgency.

Treat obstructive uropathy.

Treat stage 2 hypertension.

Neurology

Diagnose a subdural hematoma.

Diagnose carotid artery dissection.

Diagnose essential tremor.

Diagnose Meniere disease.

Diagnose normal pressure hydrocephalus.

Diagnose vitamin B12 deficiency.

Manage hypertension after an acute ischemic stroke.

**Manage syncope.

Provide migraine prophylaxis.

Select the appropriate method of monitoring the respiratory system in a neuromuscular disorder.

**Treat medication overuse headache.

Treat myasthenia gravis.

Pulmonary and Critical Care Medicine

- Diagnose a malignant pleural effusion.
- Diagnose abdominal compartment syndrome.
- Diagnose asbestos-related pleural plaques.
- Diagnose cystic fibrosis in an adult.
- Diagnose hypersensitivity pneumonitis.
- Diagnose idiopathic pulmonary fibrosis.
- Diagnose respiratory failure in the setting of restrictive lung disease.
- Diagnose right main-stem bronchus intubation.
- Evaluate a pulmonary nodule.
- Manage an acute asthma exacerbation.
- **Manage anticoagulation after a pulmonary embolism.
- Manage *Candida albicans* in the sputum.
- Manage delirium in the intensive care unit.
- **Manage exercise-induced asthma.
- Manage fluids in acute respiratory distress syndrome.
- Manage ventilator weaning in a patient with COPD.
- Treat a patient with COPD.
- Treat a pleural effusion.
- Treat an overdose of a tricyclic antidepressant.
- Treat anaphylactic shock.
- Treat community-acquired pneumonia.
- Treat hypothermia-related bradycardia.
- Treat hypoxemic respiratory failure.
- Treat intensive care unit–acquired weakness
- Treat moderate persistent asthma.
- Treat pulmonary edema.
- Treat respiratory failure due to COPD.
- Treat stable COPD.
- Treat transfusion-related acute lung injury.
- **Use D-dimer measurement to exclude pulmonary embolism.

Rheumatology

Diagnose adhesive capsulitis.

Diagnose anserine bursitis.

Diagnose antisynthetase syndrome.

Diagnose complications of methotrexate therapy in rheumatoid arthritis.

Diagnose diffuse cutaneous systemic sclerosis.

Diagnose hemochromatosis.

Diagnose inflammatory back pain.

Diagnose limited cutaneous systemic sclerosis with the appropriate antibody.

Diagnose olecranon bursitis.

Diagnose osteoarthritis of the hand.

Diagnose osteoarthritis of the hip.

Diagnose polyarteritis nodosa.

Diagnose seronegative rheumatoid arthritis.

Diagnose Sjögren syndrome.

Diagnose statin-induced myopathy.

Diagnose Still disease.

Diagnose systemic lupus erythematosus.

Diagnose thyroid myopathy.

Identify the crystals associated with calcium pyrophosphate dihydrate deposition disease.

Treat acute gout.

**Treat osteoarthritis of the hip.

Treat osteoarthritis of the knee.

Treat polymyalgia rheumatica.

Treat psoriatic arthritis.

Treat rheumatoid arthritis with arthroplasty.

Treat systemic lupus.

Treat temporal arteritis.