

PRIMARY CARE III ROTATION LEARNING OBJECTIVES

(Also see Psychiatric and Geriatric objectives)

Primary Care III– Students will be placed in a primary care outpatient and/or inpatient setting, with a primary care provider, to obtain exposure to primary care medicine. This rotation’s examination will focus on Internal medicine. The following pages outline the learning objectives for this clinical experience. They are designed to guide students in their clinical activities and supplemental reading. It is not the Program’s intention that students will be exposed to this complete list of objectives during the clinical experience. This section is designed to assist students in their preparation for the Primary Care III end-of-rotation exam.

LEARNING OBJECTIVES FOR MEDICAL KNOWLEDGE

Upon completion of this clinical experience, the student will be expected to competently *recognize and apply knowledge to compare, differentiate and evaluate* the:

- **etiology, epidemiology, risk factors and pathophysiology (if appropriate)**
- **clinical manifestations**
- **differential diagnosis**
- **assessment (including recommendation and interpretation of laboratory, diagnostic and radiological studies/findings)**
- **management (including pharmacological/ non-pharmacological, patient education, procedural and necessary referrals)**
- **prognosis, complications, prevention and patient education**

of the following diseases/disorders/symptoms:

General

Health promotion/disease prevention (IZ and health screening tests/schedules)

End of Life/Palliative Care/Hospice

Smiles for Life objectives:

<http://www.smilesforlifeoralhealth.org/buildcontent.aspx?tut=555&pagekey=62948&cbreceipt=0>

Symptoms

Altered LOC

Chest Pain

Edema

Falls

Fatigue

Fever

Syncope

Vertigo

Weakness

Weight loss

Infectious disease

Viral disease - Epstein-Barr infections, erythema infectiosum, herpes simplex,

HIV infection, human papillomavirus infections, roseola, rubella, measles, varicella-zoster virus infections, influenza, pneumocystis

Other – salmonellosis, shigellosis, tetanus, toxoplasmosis, botulism

Cardiovascular System

- Cardiomyopathy - dilated, hypertrophic, restrictive
- Conductive disorders - atrial fibrillation / flutter, atrioventricular block, bundle branch block, paroxysmal supraventricular tachycardia, premature beats, ventricular tachycardia, ventricular fibrillation
- Congestive heart failure
- Hypertension - essential, secondary
- Hypotension - orthostatic / postural
- Ischemic heart disease - acute myocardial infarction, angina pectoris (stable, unstable, Prinzmetal's/variant)
- Valvular disease - Stenosis, insufficiency/regurgitation of:
Aortic/Mitral/Tricuspid/Pulmonic, Mitral valve prolapse,
- Other forms of Heart Disease - acute and subacute bacterial endocarditis
- Vascular disease - acute rheumatic fever, aortic aneurysm / dissection, arterial embolism / thromboembolism, peripheral vascular disease, bruits, thrombophlebitis
- Lipid disorders - hypercholesterolemia, hypertriglyceridemia

Pulmonary System

- Infectious disorders - acute bronchitis, acute bronchiolitis, pneumonia(viral, bacterial and fungal), influenza, tuberculosis
- Obstructive pulmonary diseases - asthma, chronic bronchitis, emphysema
- Restrictive pulmonary diseases
- Pleural effusion
- Other pulmonary diseases - foreign body aspiration, pulmonary emboli, apnea
Acute respiratory distress syndrome , solitary pulmonary nodule, Cor pulmonale

Eyes, Ears, Nose & Throat

- Ear disorders - acute/chronic otitis media, barotrauma, cerumen impaction, hearing impairment, mastoiditis, Meniere's disease, labyrinthitis, otitis externa, tympanic membrane perforation, vertigo, tinnitus, acoustic neuroma
- Nose/sinus disorders - acute/chronic sinusitis, allergic rhinitis, epistaxis, nasal Polyps, vasomotor rhinitis
- Mouth/throat disorders - acute pharyngitis, acute tonsillitis, aphthous ulcers, dental abscess, epiglottitis, laryngitis, oral candidiasis, oral herpes simplex, oral leukoplakia, peritonsillar abscess, parotitis, sialadenitis, neoplasm
- Other - upper respiratory infection - viral

Endocrine System

- Diseases of the Thyroid gland - thyroid nodules,
hyperthyroidism (Grave's disease, thyroiditis, thyroid storm)
hypothyroidism (Hashimoto's thyroiditis), thyroiditis
- Diseases of the Parathyroid gland - hyperparathyroidism, hypoparathyroidism
- Diseases of the Adrenal Glands - Cushing's syndrome, corticoadrenal insufficiency,
Pheochromocytoma
- Diseases of the Pituitary Gland - acromegaly / gigantism, dwarfism, diabetes insipidus,
hirsutism, gynecomastia, adenoma

Diabetes mellitus - type 1, type 2, hypoglycemia

The student will be able to describe the following DM complications:

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|-------------------|---------------------------|
| a. Retinopathy | e. Depressed immunity |
| b. Nephropathy | f. Hypoglycemia reactions |
| c. Neuropathy | g. Ketoacidosis |
| d. Cardiovascular | h. Somogyi phenomenon |

Other: Metabolic syndrome, obesity, PCOS, hirsutism, gynecomastia, osteoporosis and osteopenia

Neoplastic disorders

Prostate	Lymphoma
Testicular	Leukemia
Pulmonary	Breast
Thyroid	Pituitary
Gastrointestinal	

Rheumatologic

Fibromyalgia	rheumatoid arthritis
gout / pseudogout	systemic lupus erythematosus
polyarteritis nodosa	polymyalgia rheumatic

Musculoskeletal system

Disorders of the forearm / elbow/ wrist / hand - tenosynovitis, carpal tunnel syndrome, de Quervain's tenosynovitis, trigger finger, epicondylitis, olecranon bursitis

Disorders of the shoulder - bursitis, tendonitis, calcification tendonitis, rotator cuff tear, frozen shoulder

Disorders of the back / spine - ankylosing spondylitis, low back pain, cauda equine, spinal stenosis, Herniated disk pulposis, kyphosis / scoliosis

Disorders of the hip - aseptic necrosis, trochanteric bursitis

Disorders of the knee - bursitis, ligament tear, meniscal injury, patelofemoral pain

Disorders of the leg/ foot/ ankle - sprains, plantar fasciitis, bunions, hammer toes, shin splints

Infectious - Osteomyelitis, septic arthritis

Osteoarthritis

Other - ganglion cyst, Baker's cyst, Morton's neuroma, TMJ, Costochondritis, over use syndromes

Genitourinary/ Reproductive Systems

Benign conditions of the GU tract - benign prostatic hyperplasia, erectile dysfunction, hydrocele / varicocele, incontinence (male and female), vaginitis

Infectious/inflammatory conditions - cystitis, epididymitis, orchitis, prostatitis, pyelonephritis, urethritis, vaginitis

Renal Diseases - acute / chronic renal failure, glomerulonephritis, nephrotic syndrome, polycystic kidney disease, renal calculi, hydronephrosis

Other: scrotal mass, scrotal pain, sexually transmitted diseases, breast mass, Hematuria

Neurologic System

Diseases of peripheral nerves - Bell's palsy, peripheral neuropathy, Guillain- Barre syndrome, myasthenia gravis, chronic regional pain syndrome (CRPS)
Headache - Migraine, tension, cluster, temporal arteritis
Infectious disorders - meningitis, encephalitis
Movement disorders - essential tremor, Huntington's disease, Parkinson's disease
Seizure Disorders - generalized convulsive disorder, generalized nonconvulsive disorder, status epilepticus
Neuro-Vascular diseases - cerebral aneurysm, stroke, transient ischemic attacks
Acute head trauma in adults
Other: Alzheimer's disease, multiple sclerosis, nystagmus,

Ophthalmological

Vision change - blurred vision, floaters, macular degeneration, retinal detachment, retinal artery occlusion
Infectious - conjunctivitis, iritis, uveitis, dacryocystitis, orbital cellulitis, blepharitis
Other - hordeolum, chalazion, foreign body, cataract, glaucoma, corneal abrasion

Dermatologic System

Eczematous eruptions- dermatitis (atopic, contact, diaper, nummular eczematous, perioral, seborrheic, stasis), dyshidrosis, lichen simplex chronicus.
Papulosquamous diseases - dermatophyte infections (tinea versicolor, tinea corporis / cruris/ pedis), candida, drug eruptions, lichen planus, pityriasis rosea, psoriasis
Acneiform lesions - acne, rosacea, folliculitis
Verruciform lesions - seborrheic keratosis, actinic keratosis
Insects / parasites - lice, scabies, spider bites
Neoplasms - basal cell carcinoma, melanoma, squamous cell carcinoma
Hair and Nails - alopecia areata, androgenic alopecia, onychomycosis, paronychia
Viral Diseases - condyloma acuminatum, exanthems, herpes simplex, molluscum contagiosum, verrucae, varicella-zoster virus infections
Bacterial infections - cellulitis, erysipelas, impetigo, MRSA
Other - acanthosis nigricans, burns, pressure ulcers / leg ulcers, hidradentius suppurativa, lipomas, epithelial inclusion cysts, melasma, urticaria, vitiligo, vasculitis
Appropriate dressing and wound treatments based on wound type

Gastrointestinal System / Nutrition

Esophagus - esophagitis, motor disorders, strictures, varices, Mallory-Weiss tear
Stomach - Gastroesophageal reflux, gastritis, neoplasms, peptic ulcer disease
Gallbladder - acute / chronic cholecystitis, cholelithiasis
Liver - acute / chronic hepatitis, cirrhosis
Pancreas - acute / chronic pancreatitis
Small intestine / colon - appendicitis, constipation, diverticular disease, inflammatory bowel disease, irritable bowel syndrome, obstruction, diarrhea - infectious/noninfectious, malabsorption, cholera
Rectum - anal fissure, anorectal abscess / fistula, fecal impaction, hemorrhoids, neoplasms, pilonidal disease, polyps
Hernia - hiatal, incisional, inguinal, umbilical, ventral

Other - lactose intolerance, peritonitis, vitamin deficiencies

Hematological

Anemia - iron deficiency, B12, folate, hemolytic, chronic disease
Thrombocytopenia

Electrolyte and Acid/Base disorders

hypo / hypernatremia, hypo / hyperkalemia, hypo / hypercalcemia

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Upon completion of this clinical experience, the student will be expected to *recognize, compare, differentiate and evaluate* the **etiology, epidemiology, risk factors, pathophysiology, clinical manifestations, and differential diagnosis** of the following diseases/disorders/symptoms. In addition, the student will be expected to **recognize strategies for prevention and the most common complications** of the following disease/disorders/ symptoms.

Infectious Disease

Spirochetal disease - lyme borreliosis (Lyme disease), Rocky Mountain spotted fever, syphilis
Sepsis

Cardiovascular

Cardiogenic shock
Cardiac tamponade
Acute pericarditis
Pericardial effusion

Pulmonary

Sarcoidosis

Neoplastic

Brain
Stomach
Gallbladder
Liver
Esophagus
Pancreas
Renal Cell
Bladder

Rheumatologic

Polymyositis
Reactive arthritis
Sjogren's syndrome
Polymyalgia rheumatica
Scleroderma
Paget's disease

Neurologic

Encephalitis, cerebral palsy

Dermatological

Desquamation - Stevens-Johnson syndrome, toxic epidermal necrolysis, erythema multiforme, erythema nodosum
Vesicular Bullae - bullous pemphigoid
Scalded skin syndrome

Hematological

Leukemia
Sickle cell disease/trait
Lymphoma
DIC
Polycythemia Vera
Von Willebrand's

Bleeding disorders
Thalassemia
ITP
Multiple Myeloma
G6PD Deficiency

Electrolyte and Acid/Base disorders

Hypomagnesemia
Metabolic alkalosis / acidosis
Respiratory alkalosis / acidosis

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LEARNING OBJECTIVES FOR PHARMACOTHERAPEUTICS

Students will also be expected to *discern* the **properties of the following drug or drug classes including mechanism of action, interactions, contraindications, and major and common side effects**. Students will also be expected to *discern* the appropriate **patient education and necessary follow up** required for the following drugs or drug classes.

Antihypertensives	Alzheimer's dementia
Antilipemic drugs	ADHD / narcolepsy drugs
Antiarrhythmics	Antiinfectives - all forms, routes
Diuretics	Acne medications
Thrombolytic therapy	Corticosteroids
Pain management - acute, chronic	Scabicides & pediculocides
Asthma/ COPD medications	Antidiarrheals/ Antiemetics
Antipsychotics	Acid Controller and ulcer agents
Mood/ Anxiety/ OCD drugs	Laxatives and Bowel evacuates
Anticonvulsants	Anorectal preparations
Antiparkinson agents	Antispasmodics/ anticholinergics
Ophthalmological - anti-inflammatory/ Allergy/ antibiotic/ steroid preparations	

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LEARNING OBJECTIVES FOR DIAGNOSTICS

Students will be expected to appropriately **recommend, interpret** the findings, and **recognize the indications/clinical significance** of the following diagnostic studies. In addition students will be expected to discern appropriate **management** (including counseling and informed consent) when *abnormalities* are found in the following routine tests, and recognize the **potential complications** for each:

12 Lead ECG& Rhythm Strip	Amylase	BMP
Albumin	ANA	BUN
Alkaline Phosphatase	AST/ALT	Calcium

Carbon Dioxide	HIV ELISA & Western blot	Rheumatoid factor
Cardiac enzymes	Lipase	Serum Iron & TIBC
CBC & Differential Glucose	Lipid Panel	Sodium
Chest X-ray	Magnesium	Stool occult blood
Chloride	MSK X-rays & MRIs	T ₃ , T ₄ , TSH
CPK	PFT & Peak Flow	Therapeutic drug Levels
Creatinine	Potassium	Troponin
D-Dimer	Pre-albumin	Uric acid
ERCP	PSA	Urine Analysis
ESR	PT & INR	Vascular U/S
Ferritin	Pulse or Ear Oximetry	Vitamin B ₁₂
Folic acid	Qualitative/Quantitative	
Hepatitis Panel	HCG	
HgA _{1C}	Reticulocyte count	

END OF PRIMARY CARE III OBJECTIVES