

PRIMARY CARE I AND II ROTATION LEARNING OBJECTIVES

(Also see Psychiatric and Geriatric objectives)

Primary Care I and II- 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 Family Practice 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 I and II end-of-rotation exams.

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)

Smiles for Life objectives:

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

Symptoms

Altered levels of consciousness

Chest Pain

Falls

Fatigue

Fever

Syncope

Vertigo

Weakness

Weight loss

Infectious Disease

Viral disease - Epstein-Barr infections, herpes simplex, HIV infection, influenza, human papilloma virus, roseola, rubella, measles, varicella-zoster, mononucleosis

Cardiovascular System

Cardiomyopathy - dilated, hypertrophic, restrictive

Conductive disorders - atrial fibrillation / flutter, atrioventricular blocks, bundle branch block, paroxysmal supraventricular tachycardia, premature beats, ventricular tachycardia, ventricular fibrillation.

Congestive heart failure
Hypertension - essential, secondary, urgency and emergency
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, Pulmonary
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 (bacterial, viral, fungal), influenza, tuberculosis
Obstructive pulmonary diseases - asthma, chronic bronchitis
Emphysema
Restrictive pulmonary diseases
Pleural effusion
Other pulmonary diseases - foreign body aspiration, pulmonary emboli, sleep apnea

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, 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, gingivitis and dental caries
Other - upper respiratory infection - viral

Endocrine System

Diseases of the Thyroid gland - hyperthyroidism (Grave's disease, thyroid storm), hypothyroidism (Hashimoto's Thyroiditis), thyroiditis, neoplastic disease
Diseases of the Parathyroid gland - hyperparathyroidism, hypoparathyroidism
Diseases of the Adrenal glands - Cushing's syndrome, corticoadrenal insufficiency
Diseases of the Pituitary gland - acromegaly / gigantism, dwarfism, diabetes insipidus, adenoma
Diabetes mellitus - type 1, type 2, hypoglycemia

The student will be able to recognize and apply knowledge of the following DM complications:

- Retinopathy
- Nephropathy
- Neuropathy
- Cardiovascular
- Depressed immunity
- Hypoglycemia reactions
- Ketoacidosis

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

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 - 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, sprains/strains

Rheumatologic

- Fibromyalgia, gout / pseudogout, rheumatoid arthritis

Genitourinary / Reproductive disorders

- Benign conditions of the female GU tract - endometriosis, menorrhagia, amenorrhea, incontinence, and dysmenorrhea
- Benign conditions of the male GU tract - benign prostatic hyperplasia, erectile dysfunction, hydrocele / varicocele
- Infectious/inflammatory conditions - cystitis - acute (simple and complicated)/ interstitial, 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, testicular torsion, sexually transmitted diseases, breast mass, contraception, menopause, and incontinence

Neurologic System

- Diseases of peripheral nerves - Bell's palsy, diabetic peripheral neuropathy
- Headache - migraine, tension, cluster, SAH
- Movement disorders - essential tremor, Huntington's disease, Parkinson's disease
- Seizure Disorders - generalized convulsive disorder, generalized nonconvulsive disorder, status epilepticus, absence
- Vascular diseases - cerebral aneurysm, stroke, transient ischemic attacks
- Acute head injuries in adults and kids
- Other: Alzheimer's disease, multiple sclerosis, nystagmus, chronic regional pain syndrome (CRPS)

Ophthalmological

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

Dermatologic System

Eczematous eruptions- dermatitis (atopic, contact, diaper, nummular eczematous, perioral, seborrheic, stasis), dyshydrosis, 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, nevi
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, hidradentis suppurativa, lipomas, epithelial inclusion cysts, melasma, urticarial (acute and chronic), dermagraphism, vitiligo, vasculitis
Appropriate dressing and wound treatments based on wound type

Gastrointestinal System / Nutrition

Stomach - Gastroesophageal reflux, gastritis, 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, pilonidal disease, polyps
Hernia - hiatal, incisional, inguinal, umbilical, ventral
Other - lactose intolerance, vitamin deficiency

Hematological

Anemias - iron deficiency, B12, folate, hemolytic, chronic disease

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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

Rheumatologic

Polyarteritis nodosa, polymyositis, reactive arthritis, systemic lupus erythematosus, Scleroderma

Neoplastic disorders

Prostate	Thyroid	Breast
Testicular	Gastrointestinal	Pituitary
Pulmonary	Leukemia	

Neurological

Infectious disorders - encephalitis, meningitis

Ophthalmological

Iritis, uveitis

Gastrointestinal System / Nutrition

Esophagus - esophagitis, motor disorders, strictures, varices

Dermatological

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

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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	Antilipemic drugs
Antiarrhythmics	Diuretics
Thrombolytic therapy	Pain management - acute, chronic
Asthma/ COPD medications	Antipsychotics
Mood/ Anxiety/ OCD drugs	Anticonvulsants

Antiparkinson agents	Alzheimer's dementia
ADHD / narcolepsy drugs	Antiinfectives – all forms, routes
Acne medications	Scabicides & pediculocides
Corticosteroids	Antidiarrheals
Antiemetics	Acid Controller and ulcer agents
Laxatives and Bowel evacuants	Anorectal preparations
Antispasmodics/anticholinergics	Contraception methods (hormonal and nonhormonal)
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	Creatinine	PSA
Albumin, Total Protein	CT scan	Pulse Oximetry
Alkaline Phosphatase	ESR	Qual/QuantitativeHCG
Amylase	Ferritin	MSK X-ray/MRI
AST/ALT	Folic acid	Rheumatoid factor
B ₁₂	Glucose	Serum Iron & TIBC
Bilirubin	Hepatitis Panel	Sodium
BUN	HgA _{1C}	Stool occult blood
Calcium	HIV ELISA & Western blot	T ₃ , T ₄ , TSH
Carbon Dioxide	Lipase	Therapeutic drug Levels
Cardiac enzymes	Lipid Panel	Uric acid
CBC & Differential	Magnesium	Urine Analysis
Chest X-ray	PFT & Peak Flow	
Chloride	Potassium	

END OF PRIMARY CARE I AND II LEARNING OBJECTIVES