

PRIMARY CARE 4: LEARNING OBJECTIVES

Primary care rotations are the bedrock of your curriculum during the clinical year, comprising 4 of the 8 rotations. Students are placed in a primary care outpatient and / or inpatient setting, with a primary care provider. PC1 and PC2 rotation exams focus on both Family Medicine and Internal Medicine. PC3 rotation exams focus on Geriatrics and Mental Health. PC4 rotation exams focus on Pediatrics and Women's Health.

For the PC4 rotation, students are placed in an outpatient and/or inpatient setting, with a family practitioner, pediatrician and/or OBGYN, to obtain exposure to primary care medicine, with an emphasis on pediatrics and women's health. The following learning objectives are designed to guide you in your clinical activities and supplemental readings during the PC4 rotation as you study for the end-of-rotation exam. It is not the Program's intention that you will be exposed to this complete list of objectives during this rotation. However, you are expected to learn all of the objectives listed below.

MEDICAL KNOWLEDGE

Upon completion of this clinical experience (PC4), the student will be able to:

- **Understand etiology, epidemiology, risk factors and pathophysiology**
- **Evaluate clinical manifestations**
- **Formulate a differential diagnosis**
- **Develop an assessment (including recommendation and interpretation of laboratory, diagnostic and radiological studies/findings)**
- **Construct a patient-specific plan (including pharmacological/ non-pharmacological, patient education, procedural and necessary referrals)**
- **Describe prognosis, complications, prevention, patient education, and treatment goals**

of the following diseases/disorders/symptoms (for base and rotation-specific lists).

Pediatric Objectives

General / Multisystem

- Abuse (physical, sexual) & neglect
- Chest Pain
- Cough
- Crying / Colic
- Cyanosis
- Dehydration
- Failure to thrive
- Fetal Alcohol Syndrome
- Fever, F/UO
- Kawasaki's
- Syncope
- Vomiting
- Smiles for Life online module objectives

Adolescent Gynecology

- Abnormal vaginal bleeding & irregular menses
- Breast asymmetry & masses
- Physiologic leucorrhea
- Primary dysmenorrhea

Cardiovascular System

- Acute rheumatic fever
- Congenital heart disease (Tetralogy of Fallot, VSD, PDA, ASD, Coarctation of the Aorta)
- Congestive heart failure from neonate to late adolescent
- Hypertension
- Hypertrophic cardiomyopathy
- Innocent murmurs

Dermatology

- Acne (including neonatal)
- Bullous Impetigo
- Café au lait macules
- Candidiasis
- Cellulitis
- Congenital melanocytic nevi
- Dermal melanosis
- Dermatitis- atopic, seborrheic, diaper, perioral, contact
- Erythema multiforme
- Erythema Toxicum Neonatorum
- Hemangiomas
- Impetigo
- Lice (including pubic)
- Milia
- Molluscum contagiosum
- Perianal dermatitis/perianal streptococcal disease
- Pinworm
- Pityriasis rosea
- Port-wine stain (nevus flammeus)
- Scabies
- Steven's-Johnson syndrome
- Tinea- corporis/pedis/cruris/versicolor/capitis
- Toxic Epidermal Necrolysis
- Traction alopecia
- Transient macular stains (salmon patches)
- Transient Neonatal Pustular Melanosis

Endocrine/Genetics

- | | |
|----------------------------------|-----------------------------------|
| • Amenorrhea -primary, secondary | • Gynecomastia |
| • Congenital adrenal hyperplasia | • Hypothyroidism |
| • Congenital hypothyroidism | • Klinefelter and Turner syndrome |
| • Delayed puberty | • Metabolic syndrome |
| • Diabetes mellitus- Type 1 & 2 | • Obesity |
| • DKA | • Precocious puberty |
| • Down's syndrome | • Short stature |
| • Growth hormone deficiency | • Turner's syndrome |

ENT and Sinuses

- Acute parotid swelling
- Allergic rhinitis
- Bacterial tracheitis
- Cauliflower ear
- Dental caries
- Epiglottitis
- Epistaxis
- Foreign body in the ear & nose
- Gingivostomatitis
- Oral thrush
- Otitis externa
- Otitis media- AOM, OME
- Peritonsillar abscess
- Pharyngitis- bacterial, viral
- Retropharyngeal abscess
- Sinusitis
- Thrush
- URI

Fluid, Electrolytes and Nutrition

- Dehydration in a child below 2 years of age
- Feeding – breast, formula, bottle

Gastrointestinal System

- Abdominal pain- acute & chronic
- Acute and chronic diarrhea
- Acute gastroenteritis
- Appendicitis
- Celiac disease
- Constipation
- Encoparesis
- Gastroesophageal reflux
- Hernias- femoral, umbilical, direct indirect
- Hirschsprungs disease
- Inflammatory bowel disease
- Intestinal obstruction
- Intussusception
- Jaundice in the newborn
- Malabsorption
- Meckel's diverticulum
- Pyloric stenosis
- Rectal itching
- Rectal bleeding
- Viral hepatitis
- Vitamin deficiencies
- Volvulus

Genitourinary

- Balanitis
- Cryptorchidism
- Enuresis
- Epididymitis
- Hematuria
- HSP
- Hydrocele
- Hypospadias
- Labial adhesions
- Orchitis
- Paraphimosis
- Phimosis
- Testicular cancer
- Testicular torsion
- UTI
- Vaginal foreign body
- Varicocele
- Vesicoureteral reflux

Hematology/Oncology

- Anemia - microcytic, macrocytic, normocytic, aplastic
- CNS tumors in children
- Hemophilia
- ITP
- Lead poisoning
- Leukemia
- Lymphoma
- Osteosarcoma
- Sickle cell anemia/ trait

- Thalassemia
- Vitamin K deficiency
- von Willebrand's disease

Infectious Disease

- Adenovirus
- Approach to fever by age
- Cat scratch disease
- Chlamydia
- Coxsackie virus
- Diphtheria
- Erythema infectiosum
- Gonorrhea
- Hand, foot, and mouth disease
- Herpangina
- Herpes simplex virus infections
- Human papilloma virus infections
- Influenza
- Measles
- Mononucleosis
- Mumps
- Reye syndrome
- Roseola
- Rubella
- Scarlet fever
- Sepsis
- Syphilis
- Trichomonas
- Varicella
- Viral exanthems

Musculoskeletal System

- Calcaneovalgus feet
- Congenital dysplasia of the hip
- Craniocynostosis
- Fractures- buckle, greenstick, epiphyseal
- Growing pains
- In-toeing
- Juvenile rheumatoid arthritis
- Legg-Calve-Perthes
- Limping child
- Metatarsus adductus (metatarsus varus)
- Osgood-Schlatter disease
- Osteochondritis dissecans
- Osteomyelitis
- Pathologic genu varum
- Pes planus
- Physiologic genu varum and valgum
- Popliteal cysts
- Rickett's
- Scoliosis
- Slipped capital femoral epiphysis (SCFE)
- Sprains/Strains
- Subluxation of the radial head (nursemaid's elbow)
- Talipes equinovarus (clubfoot)
- Torticollis
- Transient synovitis of the hip

Neurology

- Cerebral palsy
- Headaches
- Hydrocephalus
- Meningitis
- Muscular dystrophy
- Seizure disorders- febrile, partial, partial complex, absence, generalized tonic/clonic
- Spina bifida- meningocele, meningomyelocele

Ophthalmologic

- Amblyopia
- Cataracts

- Conjunctivitis- allergic, viral, bacterial, chemical, neonatal
- Nasolacrimal duct obstruction
- Ocular foreign body
- Periorbital & orbital cellulitis
- Retinoblastoma
- Strabismus

Psychiatry/Behavioral

- ADHD
- Anxiety
- Autism spectrum disorders
- Colic
- Depression
- Eating disorders
- Substance abuse
- Suicidal ideation
- Tantrums

Renal

- Glomerulonephritis
- Nephrotic syndrome
- Pyelonephritis
- Wilm's tumor

Respiratory System

- Apnea/ALTE
- Asthma
- Bronchiolitis
- Bronchitis
- Cystic fibrosis
- Foreign body aspiration
- Laryngotracheobronchitis (croup)
- Pertussis
- Pneumonia- viral, bacterial, fungal
- SIDS

PATIENT CARE

Apply knowledge of the following topics to the assessment of a child:

History

- Demonstrate ability to obtain information in an age-appropriate manner, including verbal and nonverbal skills.

Physical Exam

- Understand the general approach to the examination of a child and how it differs from adults.
- Demonstrate the ability to examine children, varying techniques to match the age of the patient.

Growth and Development

- Normal and abnormal physical exam findings from the newborn period to late adolescence. This includes accurate measurement of length, height, weight & head circumference, newborn reflexes and the determination of Tanner Staging.
- The normal progression of physical, motor (fine and gross), cognitive, language (receptive and expressive) and social/emotional growth and development of children from the newborn to late adolescence. This includes the timing and normal progression/sequence of puberty in boys and girls

- Knowledge of developmental milestones and red flags to distinguish normal from abnormal development.
- The potential implications of abnormal findings of development and when it is appropriate to refer or recommend further evaluation for a child who has not met or who has lost developmental milestones
- Accurately plot and interpret trends on pediatric growth charts

Well Child Care

Apply knowledge of recommended/standard well baby, child and adolescent care to the assessment of a child. Expected knowledge includes the following elements of well child care:

- Recommending age appropriate immunizations for healthy and high risk children and the absolute and relative contraindications to routine pediatric immunizations screenings
- Follow-up intervals for well care
- Prescriptions (including fluoride & contraception)
- Anticipatory guidance, education and counseling to foster optimal development (including puberty and sexuality)
- Guidance regarding safety plus accident, injury and violence prevention
- Car seat guidelines (State of California and American Academy of Pediatrics)
- Risk reduction of high risk behaviors
- Pediatric nutrition plus promotion of healthy diets and activities
- Guidance about common behavioral issues including colic and tantrums
- Guidance regarding normal sleep patterns and common sleep problems
- Patient education on indications for myringotomy/ tympanostomy
- Patient education on indications for tonsillectomy and adenoidectomy
- Male circumcision: risks, benefits, contraindications and familial & cultural common congenital anomalies of the genitourinary tract
- Guidance regarding common issues about school including school readiness and avoidance
- Objectives and components of the pre participation history and physical exam

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 are expected to **calculate** appropriate medication dosages based on an infant's or child's age and weight in a way that promotes compliance (for example: formulations, # doses/day). Students will also be expected to *discern* the appropriate **patient education and necessary follow up** required for the following drugs or drug classes.

- Acetaminophen
- Acne medications
- ADHD
- Antibiotics, Antiviral, Antifungal – all routes, formulations
- Anticonvulsants
- Antidiarrheals
- Antiemetics
- Asthma/ COPD medications

- Corticosteroids
- Laxatives and Bowel evacuants
- NSAIDs
- Ophthalmological anti-inflammatory/ allergy/ antibiotic/ steroid preparation
- Pain management - acute, chronic
- Scabicides & pediculocides

DIAGNOSTICS

Students will be expected to identify the **method of collection**, 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:

- Ferritin
- Hemoglobin and hematocrit
- Lead level
- Reticulocyte count
- Tympanometry
- UA and Urine Culture: collecting a sample from a pediatric patient

Women's Health Objectives

GYNECOLOGY MEDICAL KNOWLEDGE

General

- Dyspareunia
- Hirsutism
- Polycystic ovarian syndrome (PCOS)
- Premenstrual disorder (PMS)
- Premenstrual dysphoric disorder (PMDD)
- Sexual health
- Sexual assault

Breast

- Breast masses & associated skin findings
- Breast Ultrasound - indications
- Fibroadenomas
- Fibrocystic disease
- Mammogram (screening) - risks, benefits, indication
- Mammogram (diagnostic) - indications
- Mastalgia
- Mastitis
- Nipple discharge- physiologic, pathologic
- Paget's disease and inflammatory breast cancer
- Simple cysts

Adnexa

- Masses
- Ovarian cysts

- Ovarian torsion
- Tubo-ovarian abscess

Vagina/ External Genitalia

- Bacterial vaginosis
- Bartholin cysts
- Folliculitis
- Lichen sclerosus
- Prolapse
- Pubic lice
- Vaginitis- candida, trichomonas, atrophic, irritant
- Vestibulitis & vulvodynia
- Vaginitis- candida, trichomonas, atrophic, irritant
- Vulvar masses

Uterus/Cervix

- Cervicitis
- Endometriosis
- Indications for endometrial biopsy, hysterectomy
- Leiomyoma
- Nabothian cysts
- Pelvic inflammatory disease

Genitourinary

- Cystocele (including staging)
- Rectocele (including staging)
- Urinary incontinence- stress, urge, and overflow
- Uterine prolapse (including staging)

Menstruation

- Abnormal uterine bleeding- PALM-COEIN
- Dysmenorrhea
- Post-coital and intermenstrual bleeding
- Primary and secondary amenorrhea

Menopause

- Hormone replacement therapy- risks, benefits, E vs E+P
- Non-hormonal treatments for menopause
- Osteoporosis
- Perimenopause and menopausal syndromes
- Post menopausal bleeding

Infertility

- Male and female factors

Contraception

- Implant (Nexplanon)
- IUDs- progestin, copper
- Male & female surgical sterilization
- Male and Female condoms
- Natural family planning (Rhythm, withdrawal, calendar)
- Oral contraceptive pills- combined, progestin-only
- Patch (Ortho Evra)
- Vaginal ring (Nuva Ring)
- Emergency contraception (levonorgestrel, ulipristal, copper IUD)
- Diaphragm and cervical caps
- Spermicidal methods (Jell, foam, film, suppositories)

Sexually Transmitted Infections

- Chlamydia
- Gonorrhea
- Herpes simplex- primary, secondary
- HIV
- Human papilloma virus
- Molluscum contagiosum
- Syphilis
- Trichomonas

GYN Oncology

- Abnormal Pap smear results and management
 - ASC-US
 - LSIL, HSIL
 - ASC-H
 - Repeat cytology
- Cancer - breast, cervical, uterine and ovarian
- Indications for the following:
 - Diagnostic mammography
 - Breast ultrasound
 - Fine needle aspiration
 - HPV co-testing
 - Colposcopy
 - LEEP, cone biopsy, laser, cryo
 - Diethylstilbestrol (DES) exposure
 - Excisional breast biopsy
 - Mastectomy

OBSTETRICS MEDICAL KNOWLEDGE

General

- Anemia in pregnancy
- Estimated date of delivery (EDD)
- Gravida/Para terminology
- Pregnancy options counseling- parenthood, adoption, abortion
- Prenatal genetic screening

Pregnancy Dating

- LMP (last menstrual period)
- Ultrasound
- Serum qualitative/quantitative β Hcg
- Pelvic sizing
- Fetal heart tones
- Fetal movement

Induced Abortion

- Aspiration abortion

- Medication abortion

Prenatal Care

- Dietary requirements
- Weight change guidelines
- Physiology of pregnancy
- Multiple gestation
- Components of prenatal evaluations – initial, follow- up, frequency
- Timing of routinely recommended screening and diagnostic studies
- Management and counseling of low risk pregnancy

Obstetric Complications

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| <ul style="list-style-type: none"> • Hyperemesis gravidarum • Urinary tract infection • Pregnancy induced hypertension • Preeclampsia/Eclampsia • Placenta previa • Placenta abruption • Incompetent cervix • Early pregnancy loss | <ul style="list-style-type: none"> • Ectopic pregnancy • Molar pregnancy • First and third trimester bleeding • Threatened abortion • Gestational diabetes • Prenatal transmission of varicella, HSV, HPV, Zika • Preterm labor |
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Labor

- Stages of labor
- Rupture of membranes
- Fetal heart monitoring methods
- Decelerations – early, late, variable
- Intralabor Medications
 - non-pharmacological/pharmacological methods of pain management
 - Analgesia – epidural, local, I.V.
 - Pitocin
 - Antibiotics

Delivery

- | | |
|--|--|
| <ul style="list-style-type: none"> • Vaginal delivery • Caesarian section • Episiotomy • Breech presentation • Dystocia | <ul style="list-style-type: none"> • Antepartum & Postpartum hemorrhage • Prolapsed umbilical cord • Meconium • Retained placenta • Post-partum fever |
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Postnatal care

- Perineal laceration/episiotomy care
- Normal physiology changes of puerperium
- Contraception options

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.

- Contraception
 - Implant (Nexplanon)
 - IUDs- progestin, copper
 - Oral contraceptive pills- combined, progestin-only
 - Patch (Ortho Evra)
 - Vaginal ring (Nuva Ring)
 - Emergency contraception (levonorgestrel, ulipristal, copper IUD)
 - Spermicidal methods (gel, foam, film, suppositories)
- Antibiotic- oral, intravaginal, topical
- Antiviral- oral, intravaginal, topical
- Clomid
- Pain management- pregnancy, labor, postpartum

DIAGNOSTICS

Students will be expected to identify the **method of collection**, 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:

- Combined first trimester screening (PAPP-A, hCG, ultrasound)
- Alpha-fetoprotein screening
- Glucose tolerance test
- Hemoglobin and hematocrit
- Urine dip (proteinuria, glucosuria)
- Thyroid profile
- Syphilis
- Gestational diabetes screening
- FSH and LH
- Wet Mount
- Amine test
- DHEA
- Maternal – Fetal Rh(D) incompatibility screening
- Chorionic villi sampling (CVS)
- Pap smear
- Gonorrhea and chlamydia screening
- Herpes culture and serum studies
- Serum hCG
- Iron status
- HIV
- Prenatal contraction stress & nonstress testing
- Rubella titer
- HPV typing
- Group B beta strep screen
- Amniocentesis
- Fetal Monitoring

PC4 AQUIFER CASES

1. Family Med 17: 55 year old post-menopausal woman with vaginal bleeding

2. Family Med 21: 12 year old female with fever
3. Family Med 23: 5 year old female with sore throat
4. Family Med 24: 4 week old female with fussiness
5. Pediatrics 1: Newborn male infant evaluation and care
6. Pediatrics 2: Infant female well child visit
7. Pediatrics 6: 16 year old male preparticipation evaluation
8. High Value Care 8: 5 month old female and 4 year old male- the value of vaccines
9. High Value Care 11: 17 year old female reproductive health care

See Appendix E for suggestions of additional cases to complete.

END OF PRIMARY CARE IV LEARNING OBJECTIVES