PRIMARY CARE IV ROTATION LEARNING OBJECTIVES

Primary Care IV - Students will be placed in an outpatient and/or inpatient setting, with a family practitioner, internist, pediatrician and/or OB/GYN, to obtain exposure to primary care medicine, with an emphasis on pediatrics and women’s health. This rotation’s examination will focus on Pediatrics and Women’s Health. 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 IV 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 and prevention of the following diseases/disorders/symptoms:

Pediatric Objectives

General
- failure to thrive
- vomiting
- syncope
- dehydration
- crying
  - cough
  - fever, FUO
  - cyanosis
  - chest pain
  - abuse and neglect (to include sexual abuse)

Ophthalmologic
- Strabismus
- superficial ocular foreign body
- Conjunctivitis: allergic, viral, bacterial, chemical, neonatal
  - amblyopia
  - Nasolacrimal duct obstruction

Respiratory System
- asthma
- bronchiolitis
- bronchitis
- Apnea/ALTE
  - pertussis
  - pneumonia
  - SIDS
  - laryngotracheobronchitis (croup)

ENT and Sinuses

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otitis media (acute, serous, +/- effusion)
otitis externa
foreign body in the ear & nose
sinusitis
pharyngitis (bacterial, viral)
acute parotid or cervical swelling
indications for myringotomy/ tympanostomy
indications for tonsillectomy and adenoidectomy
oral thrush
epiglottitis
epistaxis
URI
allergic rhinitis
dental caries
thrush
Gingivostomatitis

Cardiovascular System
Innocent murmurs

Gastrointestinal System
gastroesophageal reflux Meckel's diverticulum
Volvulus intussusception
intestinal obstruction acute and chronic diarrhea
constipation encoparesis
functional constipation rectal itching
acute gastroenteritis malabsorption
vitamin deficiencies rectal bleeding
jaundice in the newborn pyloric stenosis
Hirschprungs disease Viral hepatitis
appendicitis
Abdominal pain – acute & chronic/recurrent
hernias (femoral, umbilical, direct indirect)

Genitourinary/Renal
UTI and pyelonephritis hematuria
testicular torsion epididymitis
orchitis. hydrocele
varicocele balanitis
phimosis paraphimosis
cryptorchidism enuresis
perspectives vaginal foreign body
labial adhesions
male circumcision: risks, benefits, contraindications and familial & cultural
common congenital anomalies of the genitourinary tract
Endocrine/Genetics
short stature               metabolic syndrome
obesity                     Down’s Syndrome
diabetes mellitus (Type 1 and 2)
amenorrhea -primary, secondary gynecomastia

Hematology/Oncology
Anemia - Fe deficiency    lead poisoning
megaloblastic anemias      sickle cell anemia/ trait
vitamin K deficiency       von Willebrand’s disease
ITP

Neurology
seizure disorders (febrile, partial, partial complex, absence, generalized tonic/clonic)
headaches
meningitis

Musculoskeletal System
Congenital dysplasia of the hip
Sprains/Strains
Subluxation of the radial head (nursemaid’s elbow)
Osteochondritis dissecans
growing pains
Osgood-Schlatter Disease
Physiologic genu varum and valgum
Popliteal cysts
In-toeing
Calcaneovalgus feet
Metatarsus adductus (metatarsus varus)
Pes planus
Fractures (Buckle, greenstick, epiphyseal)
transient synovitis of the hip
the limping child
scoliosis

Dermatology
Molluscum contagiosum
Viral exanthems
Scabies
Lice (including pubic)
Impetigo
Bullous Impetigo
Traction alopecia
Dermal melanosis
Hemangiomas
Port-wine stain (nevus flammeus)
Transient macular stains (salmon patches)
Erythema Toxicum Neonatorum
Transient Neonatal Pustular Melanosis
Milia
pinworm
cellulitis
pityriasis rosea
superficial fungal Infections: tinea corporis/pedis/crus/versicolor/capitis, candidiasis
perianal dermatitis/perianal streptococcal disease
dermatitis (atopic, seborrheic, diaper, perioral, contact)
acne (including neonatal)

**Infectious Disease**

<table>
<thead>
<tr>
<th>Approach to fever by age</th>
<th>Gonorrhea</th>
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<tbody>
<tr>
<td>Chlamydia</td>
<td>Trichomonas</td>
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<tr>
<td>Syphilis</td>
<td></td>
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<tr>
<td>Human papilloma virus (warts: genital and elsewhere)</td>
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<tr>
<td>Herpangina</td>
<td>Roseola</td>
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<tr>
<td>Measles</td>
<td>Rubella</td>
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<tr>
<td>Erythema infectiosum</td>
<td>Varicella</td>
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<tr>
<td>Hand, foot and mouth disease</td>
<td>Scarlet fever</td>
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<tr>
<td>Mumps</td>
<td>Cat scratch disease</td>
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<tr>
<td>Coxsackie virus</td>
<td>Adeno virus</td>
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<tr>
<td>HSV</td>
<td>Mononucleosis</td>
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**Psychiatry/Behavior**

<table>
<thead>
<tr>
<th>ADHD</th>
<th>suicidal ideation</th>
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<tbody>
<tr>
<td>autism spectrum disorders</td>
<td>substance abuse</td>
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<tr>
<td>colic</td>
<td>eating disorders</td>
</tr>
<tr>
<td>tantrums</td>
<td>anxiety</td>
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</tbody>
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**Adolescent Gynecology**

| primary dysmenorrhea      | |
|---------------------------| |
| breast asymmetry & masses | |
| physiologic leukorrhea    | |
| abnormal vaginal bleeding & irregular menses | |

**Fluid, Electrolytes and Nutrition**

| feeding – breast, formula, bottle | |
|-----------------------------------| |
| dehydration in a child below 2 years of age | |
Students will be expected to apply knowledge of the following pediatric topics to the assessment of a child.

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
• 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
• guidance regarding common issues about school including school readiness and avoidance
• the objectives and components of the pre participation history and physical exam

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.
General/Multisystem
   *Fetal alcohol syndrome*  *Kawasaki’s*

Ophthalmologic
   Cataracts
   peri orbital and orbital cellulitis
   Retinoblastoma

ENT and Sinuses
   peritonsillar abscess
   retropharyngeal abscess
   epiglottitis
   bacterial tracheitis
   cauliflower ear

Respiratory System
   cystic fibrosis
   foreign body aspiration

Cardiovascular System
   congenital heart disease (Tetralogy of Fallot, VSD, PDA, ASD, Coarctation of the Aorta)
   congestive heart failure from the neonate to late adolescent
   HTN

Gastrointestinal System
   Inflammatory bowel disease: Crohn's disease, Ulcerative colitis
   Celiac disease

Genitourinary/Renal
   Glomerulonephritis  *HSP*
   Wilm’s Tumor  *Hypospasid*
   Testicular cancer  *Vesicoureteral reflux*

Endocrine/Genetics
   growth hormone deficiency  *hypothyroidism*
   precocious puberty  *Klinefelter and Turner syndrome*
   congenital hypothyroidism  *DKA*
   congenital adrenal hyperplasia  *delayed puberty*

Hematology/Oncology
   Leukemia  *Lymphoma*
   CNS tumors in children  *thalassemia*
   hemophilia  *osteosarcoma*
   Aplastic anemia

Neurology
   spina bifida  *hydrocephalus*
   meningocele  *meningomyelocele*
   muscular dystrophy  *cerebral palsy*
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 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.

1. Pain management – acute, chronic
2. Tylenol
3. NSAIDs
4. Asthma/ COPD medications
5. Anticonvulsants
6. ADHD
7. Antibiotics, Antiviral, Antifungal – all routes, formulations
8. Acne medications
9. Corticosteroids
10. Scabicides & pediculocides
11. Antidiarrheals
12. Antiemetics
13. Laxatives and Bowel evacuants

LEARNING OBJECTIVES FOR 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:

1. **Lead level**
2. **Hemoglobin and hematocrit**
3. **Reticulocyte count**
4. **Ferritin**
5. **Tympanometry**
6. **UA and Urine Culture: how to get urine in the pediatric population**

Women’s Health Objectives

GYNECOLOGY

**General**
- Premenstrual dysphoric disorder (PMDD)
- Premenstrual disorder (PMS)
- Dyspareunia
- Polycystic ovarian syndrome (PCOS)
- Hirsutism

**Breast**
- Paget’s disease and inflammatory breast cancer
- Mastitis
- Mastalgia
- Simple cysts
- Fibroadenomas
- Fibrocystic disease
- Nipple discharge based on the following characteristics:
  - bloody
  - Green or yellow
  - Clear or white
  - Brown or black
  - Spontaneous or expressed
- Associated skin findings or breast masses
- Mammogram (screening) – risks, benefits, indication

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Mammogram (diagnostic) - indications
Breast Ultrasound - indications

**Uterine/Cervix**
- Nabothian cysts
- mass
- leiomyomas
- Pelvic inflammatory disease
- Endometriosis
- Cervicitis
- Indications of: hysterectomy, endometrial biopsy

**Adnexa**
- Mass
- Tubo-ovarian abscess
- Ovarian cysts

**Vagina/ External Genitalia**
- Bartholin cysts
- Vaginitis –candida, trichomonas, atrophic, irritant
- Vestibulitis & vulvodynia
- Bacterial vaginosis
- Vulvar masses
- Lichen sclerosis
- Pubic lice
- Folliculitis

**Genitourinary**
- Uterine prolapse
- Rectocele
- Cystocele
- Urinary incontinence (stress, urge, and overflow)

**Menstruation**
- Dysmenorrhea
- dysfunctional uterine bleeding
- Primary and secondary amenorrhea
- Abnormal vaginal bleeding
  - Menorrithia, metorraghia, oligomenorrhea, post coital and intramenstral

**Menopause**
- perimenopause and menopausal syndromes
- hormone replacement therapy – with/without hysterectomy
- non-hormonal treatment for menopause
- post menopausal bleeding
- osteoporosis
Infertility
  Male and female factors

Contraception
  Male & female surgical sterilization
  Male and Female condoms
  Natural family planning (Rhythm, withdrawal, calendar)
  Diaphragm and cervical caps
  Oral contraceptives (Pills)
  Vaginal ring (Nuva Ring)
  Patch (Ortho Evra)
  Emergency contraception (Plan B, IUD)
  Progesterone only IUD and non-hormonal IUD (Mirena & Paraguard)
  Dermal implants (Implanon)
  Spermicidal methods (Jell, foam, film, suppositories)

Sexually Transmitted Infections
  Gonorrhea
  Chlamydia
  Trichomonas
  Syphilis
  Primary and secondary herpes simplex
  Warts (HPV)
  Molluscum contagiosum
  HIV

GYN Oncology
  Cancer - breast, cervical, uterine and ovarian
  Abnormal Pap smear results and management
    ASCUS
    LSIL
    HSIL
    ASC-H
    Repeat cytology
    High risk HPV testing
    Colposcopy
  Cervical, LEEP and cone biopsy
  Laser and cryosurgery
  Diethylstilbestrol (DES) exposure.
  Indications for the following:
    Diagnostic mammography
    Breast ultrasound
    Fine needle aspiration
    Excisional breast biopsy
    Mastectomy
OBSTETRICS

General
Nulliparous
Parous
Multiparous
Gravida
Anemia in pregnancy
Estimated date of confinement (EDC)
Estimated date of delivery (EDD)

Techniques utilized to determine estimated date of confinement or estimated date of delivery.
LMP (last menstrual period)
Ultrasound
Serum qualitative/quantitative β Hcg
Pelvic sizing
Fetal movement
Fetal heart tones

Induced Abortion
medication abortion
aspiration (surgical) abortion

Prenatal Care
Dietary requirements
Weight change guidelines
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
Hyperemesis gravidum
Urinary tract infection
Preeclampsia
Eclampsia
Placenta previa
Placenta abruption
Incompetent cervix
Spontaneous abortion
Ectopic pregnancy
Molar pregnancy
First and third trimester bleeding
Threatened and missed abortion
Gestational diabetes
Preterm labor
Labor
Stages of labor
Rupture of membranes
Fetal heart monitoring Methods
Early decelerations
Late decelerations
Variable decelerations
Intralabor Medications
non-pharmacological/pharmacological methods of pain management
Analgesia – epidural, local, I.V.
Pitocin
Oxytocin
Antibiotics

Delivery
Vaginal delivery
Caesarian section
Episiotomy
Breech presentation
Breech presentation
Dystocia
Meconium
Retained placenta
Post-partum fever
Antepartum and postpartum hemorrhage

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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.

Contraception
Oral contraceptives (Pills)
Vaginal ring (Nuva Ring)
Patch (Ortho Evra)
Emergency contraception (Plan B, IUD)
Progesterone only IUD and non-hormonal IUD (Mirena & Paraguard)
Dermal implants (Implanon)
Spermicidal methods (Jell, foam, film, suppositories)
Antibiotic–oral, intravaginal, topical
Antiviral–oral, intravaginal, topical
Antifungal–oral, intravaginal, topical
Clomid
Pain Management –during pregnancy, intralabor, postpartum

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LEARNING OBJECTIVES FOR DIAGNOSTICS

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- Alphafetoprotein screening
- Glucose tolerance test
- Hemoglobin and hematocrit
- Urine dip (proteinuria, glucouria)
- Thyroid profile
- Pap smear
- Gonorrhea and chlamydia screening
- Herpes culture and serum studies
- Serum hcg (qualitative and quantitative)
- Iron status
- Syphilis (RPR, VDRL, FTA-ABS, TP-PA)
- Gestational diabetes screening
- FSH and LH
- Wet Mount
- Amine test
- DHEA
- HIV
- Fetal Monitoring
- Rubella titer
- HPV typing
- Group B beta strep screen
- Maternal – Fetal Rh(D) screening Chorionic villi sampling (CVS)
- Amniocentesis
- Prenatal contraction stress and non-stress testing

**END OF PRIMARY CARE IV LEARNING OBJECTIVES**