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, prevention and patient education

of the following diseases/disorders/symptoms:

**Pediatric Objectives**

**General**
- failure to thrive
- vomiting
- syncope
- dehydration
- crying

**Smiles for Life objectives:**
http://www.smilesforlifeoralhealth.org/buildcontent.aspx?tut=555&pagekey=62948&cbreceipt=0

**Ophthalmologic**
- Amblyopia
- Nasolacrimal duct obstruction
- Conjunctivitis: allergic, viral, bacterial, chemical, neonatal
- Ocular foreign body
- Strabismus

**Respiratory System**
- asthma
- bronchiolitis
- bronchitis
- Apnea/ALTE
- pertussis
- pneumonia (viral, bacterial and fungal)
- SIDS
- laryngotracheobronchitis (croup)

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

Cardiovascular System
- Innocent murmurs
- Hypertrophic cardiomyopathy
- Acute rheumatic fever

Gastrointestinal System
- gastroesophageal reflux
- Volvulus
- intestinal obstruction
- constipation
- functional constipation
- acute gastroenteritis
- vitamin deficiencies
- jaundice in the newborn
- Hirschsprung's disease
- appendicitis
- Abdominal pain – acute & chronic/recurrent
- hernias (femoral, umbilical, direct indirect)

Genitourinary/Renal
- Balanitis
- Cryptorchidism
- Enuresis
- Epididymitis
- Hematuria
- hydrocele
- hypospadias
- labial adhesions
- Orchitis
- Paraphimosis
- Phimosis
- Testicular torsion
- UTI and pyelonephritis
- Vaginal foreign body
- Varicocele
- Vesicourethral reflux

Male circumcision: risks, benefits, contraindications and familial & cultural common congenital anomalies of the genitourinary tract
Endocrine/Genetics
- short stature
- obesity
- diabetes mellitus (Type 1 and 2)
- amenorrhea –primary, secondary
- gynecomastia
- metabolic syndrome
- Down’s syndrome
- Turner’s syndrome

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

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)
- Slipped capital femoral epiphysis
- Legg-Calve-Perthes
- 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
- Acne (including neonatal)
- Bullous Impetigo
- Candidiasis
- Cellulitis
- Dermal melanosis
- Dermatitis (atopic, seborrheic, diaper, perennial, contact)
- 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
- Tinea:
  corporis/pedis/crus/cruris/capita
  s,
  Traction alopecia
- Transient macular stains (salmon patches)
- Transient Neonatal Pustular Melanosis

Infectious Disease
Approach to fever by age
Gonorrhea
Chlamydia
Trichomonas
Syphilis
Pertussis
Human papilloma virus (warts: genital and elsewhere)
Herpangina
Roseola
Measles
Rubella
Erythema infectiosum
Varicella
Hand, foot and mouth disease
Scarlet fever
Mumps
Cat scratch disease
Coxackie virus
Adeno virus
HSV
Mononucleosis
Viral Exanthems
Diphtheria

Psychiatry/Behavior
ADHD
autism spectrum disorders
substance abuse
colic
eating disorders
tantrums
anxiety
suicidal ideation
depression

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
• 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
• 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
  Retinoblastoma
  periorbital and orbital cellulitis

ENT and Sinuses
  peritonsillar abscess
  cauliflower ear
  retropharyngeal abscess
  bacterial tracheitis

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 Hypospadis
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
anemia (microcytic, macrocytic, normocytic, aplastic)

Neurology
spina bifida hydrocephalus
meningocele meningomyelocele
muscular dystrophy cerebral palsy

Musculoskeletal/Rheumatologic Systems
Slipped Capital Femoral Epiphysis (SCFC)
Osteomyelitis
Talipes equinovarus (clubfoot)
Juvenile rheumatoid arthritis
Torticollis
Pathologic genu varum
Craniocynostosis
Rickett’s
Avascular necrosis of the proximal femur (Legg-Calve-Perthes Disease)

Dermatology
Café au lait macules Congenital melanoctic nevi
Erythema multiforme Steven’s-Johnson syndrome
Toxic Epidermal Necrolysis

Infectious Disease
Sepsis Reye syndrome
Meningitis
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

Smiles for Life objectives:
http://www.smilesforlifeoralhealth.org/buildcontent.aspx?tut=555&pagekey=62948&cbreceipt=0

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
- Mammogram (diagnostic) - indications
- Breast Ultrasound – indications

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

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

Uterine/Cervix
- Nabothian cysts
- Mass
- leiomyoma
- Pelvic inflammatory disease

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Endometriosis
Cervicitis
Indications of: hysterectomy, endometrial biopsy

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

Menstruation
Dysmenorrhea
Dysfunctional uterine bleeding
Primary and secondary amenorrhea
Abnormal vaginal bleeding
Menorrhagia, menorrhagia, menometrorrhagia, 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 (levonorgestrel, ulipristal, copper IUD)
Progesterone only IUD and non-hormonal IUD (Mirena / Skyla & Paraguard)
Dermal implant (Nexplanon)
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**
Genetics
Nulliparous
Parous
Multiparous
Gravida

Pregnancy options counseling
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
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

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Obstetric Complications
- Hyperemesis gravidarum
- Urinary tract infection
- Pregnancy induced hypertension
- Preeclampsia/Eclampsia
- Placenta previa
- Placenta abruption
- Incompetent cervix
- Spontaneous abortion
- Ectopic pregnancy
- Molar pregnancy
- First and third trimester bleeding
- Threatened abortion
- Missed abortion (anembryonic pregnancy, fetal demise)
- Gestational diabetes
- Preterm labor

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
- Oxytocin
- Antibiotics

Delivery
- Vaginal delivery
- Caesarian section
- Episiotomy
- Breech presentation
- Dystocia
- Antepartum & Postpartum hemorrhage
- Prolapsed umbilical cord
- Meconium
- Retained placenta
- Post-partum fever

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

+++++++++++++++++++++++ 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

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, glucouria)
Thyroid profile
Syphilis (RPR, VDRL, FTA-ABS, TP-PA)
Gestational diabetes screening
FSH and LH
Wet Mount
Amine test
DHEA
HIV
Prenatal contraction stress & nonstress testing

Pap smear
Gonorrhea and chlamydia screening
Herpes culture and serum studies
Serum Hcg (qualitative and quantitative)
Iron status
Rubella titer
HPV typing
Group B beta strep screen
Maternal – Fetal Rh(D) incompatibility screening
Chorionic villi sampling (CVS)
Amniocentesis
Fetal Monitoring

END OF PRIMARY CARE IV LEARNING OBJECTIVES