Edward Via College of Osteopathic Medicine

MED 8070/MED 8075
Clinical Pediatrics and Pediatric Modules
Academic Year 2024-2025

ROTATION SYLLABUS

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I. Rotation Description

Pediatrics is the medical specialty focused on the health and care of children from infancy to adolescenc Pediatrics embraces preventive health including careful observation of the growth and development o child, anticipatory guidance about safety specific to each age, acute and chronic care for neonates, infants, children and adolescents in all areas of medical specialties. Pediatricians are passionate adv for their patients and are intimately involved in the care of the entire family by facilitating and coordinating services for patients.

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- Seffinger, Michael. , 4th ed. Philadelphia, PA: Wolters Kluwer Health, 2019. ISBN: 978-1496368324 (retail price $142.99) – Available in VCOM's eLibrary in LWW Osteopathic Medicine Collection

B. Recommended Textbooks

- Zitelli, B.J., McIntire, S.C., Garrison, J., & Nowalk, A.J. th ed. Philadelphia, PA: Elsevier, 2021 ISBN: 9780323393034 (retail price $179.99) – Available in VCOM's eLibrary in Clinical Key

VI. Course Grading and Requirements for Successful Completion

A. Requirements

- Attendance according to VCOM and preceptor requirements as defined in the College Catalog and Student Handbook.

- Review of the syllabus topics, learning objectives, and reading assignments
  - In addition to the learning experience in the cMCID 372(l)4 (n a)-4 (d(e)nC g 12 -0Tc

should inform the Clinical Affairs Office of any difficulty in obtaining an evaluation by the preceptor at the end of that rotation. See the VCOM website at: https://www.vcom.edu/academics/clinical-education/third-year/forms to access the evaluation form.

- Mid-Rotation Evaluation: The mid-rotation evaluation form is not required but highly recommended. See the VCOM website at: https://www.vcom.edu/academics/clinical-education/third-year/forms to access the mid-rotation evaluation form. Successful completion of the end-of-rotation written exam. The end-of-rotation exam questions will be derived directly from the specific objectives presented in each of the below modules.

- Successful completion of the end-of-rotation written exam
  The content of the end-of-rotation exams will be based upon the learning objectives and reading assignments, including OMM, in this syllabus, the clinical case modules, and the Aq Radiology cases and their associated references.

B. Grading
Students must pass both the "module" and "rotation" portions of the course. All rotations have a clinical rotation grade and clinical modules/exam grade. Failure to submit all of the case module file using the Canvas link provided above and the Aquifer Radiology cases by no later than 5 PM on the day of your end of rotation exam will result in a deduction of 5 points from your end-of-rotation exam score. VLMS logs are due no later than 5 PM on the day of your end of rotation exam.

Clinical Grading Scale and GPAs						
OMS 3 End-of-Rotation Exam Grades			OMS 3 AND OMS 4 Clinical Rotation Grades		Other Grades	
A	90-100	4.0	H	Honors	IP	In Progress
B+	85-89	3.5	HP	High Pass	INC	Incomplete
B	80-84	3.0	P	Pass	CP	Conditional Pass
C+	75-79	2.5	F	Fail	R	Repeat
C	70-74	2.0			Au	Audit
F	<70	0.0				

C. Remediation
Students who fail a clinical rotation, fail an end-of-rotation exam twice, or who have more than one first attempt failure on end-of-rotation exams within an academic year (even if the student has successfully remediated the prior end-of-rotation exam on the second attempt) will be referred to the Promotion Board. If a student fails, the professionalism and ethics portion of the evaluation he or s may be removed from the rotation and referred to the Professional and Ethical Standards Board. N grade will be changed unless the Office of Clinical Affairs certifies to the Registrar, in writing, that an error occurred or that the remediation results in a grade change.

- Failure of an End-of-Rotation Exam
  Students must pass each end of rotation exam with a C (70%) or better to receive a passing grade for the clinical medical knowledge module. Students who fail an end of rotation exam but pass the clinical rotation evaluation component have a second opportunity to pass the exam within 28 days of notification. If the student passes the remediation exam, the remediated exam grade will be the grade recorded on the transcript and be GPA accountabl

  If the student fails the end of rotation exam a second time, the student will receive an “F” gra for the rotation and will be brought before the Promotion Board. The student is allowed to

repeat the rotation, all components of the rotation must be repeated. The repeated rotation must be with a different preceptor than the one from the original rotation that the student failed. Once repeated, the transcript will show both the initial clinical medical knowledge module course and the initial clinical rotation competency evalutE Modules

VII. Academic Expectations

Grading policies, academic progress, and graduation requirements may be found in the College Catalog and Student Handbook.

A. Attendance

Attendance for all clinical rotation days is mandatory. The clinical site will determine the assigned days and hours to be worked within the rotation period. Students are required to attend any orientation the clinical site sets as mandatory prior to rotation or the clinical year. The orientation sessions vary by site and are required to maintain assignment to the site. Although the clinical site determines the assigned days and hours to be worked, VCOM has established the following guidelines:

- 4-week rotations may not be less than 20, 8-hour days for a total of a minimum of 160 hours and often average 180 hours or greater.
    - Students may be required to work up to 24 days within a 4-week period or 25 days in a 1-

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b. Normal sleep patterns
c. Appropriate car seat use
d. Prevention of SIDS and SUID
e. The role of circumcision

2. Prevention, Health Promotion, Nutrition, and Health Maintenance Visits
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapters 21, 23-24, 27-31, 41, 67-70
Optional Resources:
- www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html#printable
- https://agesandstages.com/
- https://www.healthychildren.org/English/safety-prevention/on-the-go/Pages/Car-Safety-Seats-Information-for-Families.aspx

Online Case: Aquifer Radiology Case 1 week-old male Pediatrics A
Module: Prevention, Health Promotion, Nutrition, and Health Maintenance
Learning Objectives:

b. Ability to perform activities of daily living and need for specialized equipment or services:
    i. Educational services
    ii. Feeding supplies
    iii. Mobility aids
    iv. Toileting needs
    v. Therapy services
    vi. Multidisciplinary approach

3. Developmental, Dysmorphology & Genetics
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapters 7, 30, & 47-50
Optional Resources: Zitelli and Davis' Atlas of Pediatric Physical Diagnosis, Pages 1-7, 301-369
Module: Developmental, Dysmorphology & Genetics
Learning Objectives:
    A. Recall and define the five developmental domains of childhood as per the Ages and Stages Questionnaire:
        I. Gross motor
        II. Fine motor
        III. Language
        IV. Personal social development
        V. Problem solving
    B. Recall the critical developmental milestones in infants, toddlers and school age children.
    C. Explain normal patterns of behavior in the developing child
        I. Birth -

i. Treacher Collins Syndrome
j. Turner Syndrome
k. Williams Syndrome
l. Beckwith-Wiedemann Syndrome

4. Neurological Disorders, Seizures, and Epilepsy
Reading Assignment: Nelson Essentials of Pediatrics, 9th Editions, Chapter 18: 179-187
Online Case: Aquifer Radiology Case 12 2 month-old female Pediatrics B
Module: Neurological Disorders, Seizures, and Epilepsy
Learning Objectives:
A. Recall the differential diagnosis and clinical approach for the following symptoms and exam findings in children/neonates:
I. Headache
II. Lethargy/irritability
III. First onset seizure
B. Explain the evaluation, workup and treatment of a febrile seizure.
C. Recall the classification of seizures as per the ILEA guidelines, clinical presentations, and classic EEG findings of each:
I. Level 1: Seizures based on Seizure Type
a. Generalized
i. Motor (tonic, clonic, myoclonic, atonic, or epileptic spasms)
ii. Non-Motor (absence)
b. Focal
i. Impaired Awareness
ii. Retained Awareness
iii. Motor onset:
a) Automatisms
b) Atonic
c) Clonic
d) Epileptic spasms
e) Hypel 1: Seizuc -4.03 nj EMC /LBoC /LBody <<5D 117 >>BI

g. Acquired epileptic aphasia (Landau-Kleffner syndrome)
h. Benign neonatal convulsions

D. Identify the clinical presentation and recall the treatment of status epilepticus.
E. Identify the clinical features of cerebral palsy.
F. Hydrocephalus
    I. Recall the classification of the types of hydrocephalus.
    II. Identify the clinical presentation.
    III. Select the appropriate imaging modality to evaluate suspected hydrocephalus in infants and young children.
G. Recall the differential diagnosis, clinical presentation and management of the follow882 [(c)(d

ii. Demonstrate proficiency in the evaluation and appropriate direct and/or indirect osteopathic treatment for somatic dysfunctions found commonly in the pediatric patient.
iii. Osteopathic techniques reviewed in lab may include any of the following techniques.
    a) Direct techniques
        1) Direct myofascial release to horizontal diaphragms
        2) Soft tissue cervical lymphatic drainage
        3) Sinus effleurage
        4) Vomer rocking
        5) Sphenopalantine ganglion release
        6) Rib Raising
        7) Thoracic Pump
        8) Galbreath maneuver
        9) Auricular drainage
        10) Temporal Ear Pull
    b) Indirect techniques
        1) Myofascial unwinding of chest wall
        2) Indirect myofascial release to horizontal diaphragms
        3) Seated Balanced Ligamentous Tension abdominal diaphragm

III. Pharyngitis
    a. Recall the clinical presentation, evaluation, management and the complications of Strep pharyngitis.
    b. Understand the clinical presentation, systematic diagnostic work up, treatment plan for pharyngitis.
    c. Understand the complications and potential sequelae of tonsillar hypertrophy.
IV. Recall the clinical presentation and management of viral versus bacterial conjunctivitis.
V. Identify the clinical presentation and management of nasal and otic foreign body.

B. Respiratory infections
    I. Understand the clinical presentation, systematic diagnostic work up, radiological findings, treatment plan, complications and potential sequelae of the following disorders:
        a. Bronchiolitis
        b. Pneumonia (viral versus bacterial)
        c. Pertussis

C. Define what is a fever and the differential diagnosis, management and work up for fever of unknown origin based on the age of the child.
    I. Understand the clinical presentation, systematic diagnostic work up, treatment plan, complications and potential sequelae of the following disorders:
        a. Kawasaki's Disease

II. Tracheomalacia
III. Bronchopulmonary Dysplasia (Chronic lung disease)
IV. Tracheoesophageal fistula
V. Primary Ciliary Dyskinesia
VI. Pectus excavatum
VII. Pectus carinatum

7. Congenital Heart Disease
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapter 14: 137-139
Optional Resource: Heart Sounds
Module: Congenital Heart Disease
Learning Objectives:
A. Recall the differential diagnosis and evaluation for the following symptoms and exam findings:
I. Syncope
II. Chest pain
III. Palpitations
IV. Heart murmur
B. Identify the symptoms of congestive heart failure in an infant and explain the management.
C. Recall the clinical presentation, management, and classic EKG findings of common pediatric dysrhythmias:
I. Premature atrial beats
II. Atrial flutter
III. Heart block
IV. Long QT Syndrome
V. Sinus arrhythmia
VI. Supraventricular tachycardia
VII. Ventricular premature beats
VIII. Ventricular tachycardia
IX. Ventricular fibrilla (r)4 fibrillaID 92 >>BDC C <</MCID 8no ( )Tj /TT0 1 Tf a Tw 0.1

V. Recall the pharmacology of maintaining an open ductus versus closing the ductus.
VI. Compare the physiology, clinical presentation, and management of dilated, hypertrophic, and restrictive cardiomyopathies.
VII. Recall the etiology, clinical presentation, investigation, and management of pericarditis.

8. Gastrointestinal Disorders
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapter 13: 126-130
Online Cases:
- Aquifer Radiology Case 11 – 1 week-old male Pediatrics A
- Aquifer Radiology Case 12 – 2 month-old female Pediatrics B

Module: Gastrointestinal Disorders

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III. Duodenal atresia
IV. Food Protein-Induced Enterocolitis Syndrome
V. Gastroschisis
VI. Hirschsprung's Disease
VII. Inflammatory Bowel Disease
VIII. Intussusception
IX. Malrotation
    a. Describe the anatomic basis for malrotation and volvulus.
    b. Discuss imaging findings differentiating midgut malrotation from volvulus.
X. Meconium ileus
XI. Omphalocele
XII. Umbilical hernia

9. Fluid and Electrolyte Management
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapters 32-37
Module: Fluid and Electrolyte Management
Learning Objectives:
A. Dehydration
    I. Identify clinical manifestations of dehydration and classify it as mild, moderate, or severe based on history and physical exam findings.
    II. List the types of dehydration.
    III. Explain the appropriate rehydration method for each type of dehydration.
B. Derive the following based on the child's weight:
    I. Fluid bolus
    II. Volume deficit
    III. Daily maintenance needs
    IV. Impact of ongoing losses
C. Evaluate the causes, signs, and symptoms of the following electrolyte derangements:
    I. Hypernatremia
    II. Hyponatremia
    III. Hyperkalemia
        a. Identify classic EKG findings with hyperkalemia.
    IV. Hypokalemia
D. List the causes of metabolic acidosis.

10. Nephrology and Urology
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapters 16-19
Online Cases: Aquifer Radiology Case 1-2-2 Pediatric Lesion ym0 Td [(mo)m41 (og)8 (y)-3 ((-)Tj 0.3 9t)3 (

12. Hematology and Oncology
Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapter 16 pp 601-649
Module: Hematology and Oncology
Learning Objectives:
A. Hematology
I. Recall the differential diagnosis for the following symptoms, exam findings, and laboratory results:
a. Petechiae and/or Purpura
b. Anemia
i. Microcytic
ii. Normocytic
iii. Macrocytic
c. Leukopenia
d.

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J. Understand the clinical approach to evaluating a child with hypotonia.

14. Pediatric Dermatology

Reading Assignment: Nelson Essentials of Pediatrics, 9th Edition, Chapters 35, 37, 41-43, 196

Module: Pediatric Dermatology

Learning Objectives:

A. Recall the clinical presentation, differential diagnosis, and management of diaper rash.

B. Organize a systematic approach for these clinical signs: café au lait spots, melanocytic nevu hemangiomas, port wine stains.

C. Recall the key history and physical findings, and organize a systematic approach to treatment of the following common pediatric dermatologic conditions:

I. Atopic dermatitis/eczema
II. Contact dermatitis
III. Seborrheic dermatitis
IV. Pityriasis rosea
V. Scabies
VI. Superficial fungal infections (Skin and scalp)
VII. Viral exanthems
VIII. Impetigo
IX. Staph Scalded Skin Syndrome
X. Steven Johnson Syndrome
XI. Erythema marginatum
XII. Erythema migrans
XIII. Erythema Nodosum
XIV. Erythema mulitforme
XV. Molluscum contagiosum
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b. Rhinitis
c. Cough

B. Immunology

I. Understand the clinical presentation, systematic diagnostic work up, and management of each of the following vascular, autoimmune, and rheumatological disorders:

a. Kawasaki's Disease
b. Juvenile Dermatomyositis
c. Juvenile Idiopathic Arthritis
d. Scleroderma
e. I

B. List the appropriate BLS and PALS intervention for a child in cardiopulmonary distress and failure.
C. Recall the presentation and explain the appropriate steps in management for each of the following emergencies:
    I. Respiratory Distress and Respiratory