Course Number: PHA 625
Course Title: Pediatrics Supervised Clinical Practice
Number of Credits: 4 Credit Hours
Day/Time: FT – 4 weeks
Prerequisites: Successful Completion of Year 1 PA Curriculum and All Prior Clinical Rotations
Faculty: Course Coordinator:
Nicole Papermaster, PA-C
Office: Charles House 205
Office Hours: by appt.
Telephone: 262-524-7401
Email: npaperma@carrollu.edu

Course Description:
The student will provide care to the neonate through adolescent in outpatient and inpatient settings. The student will perform evaluation of the healthy pediatric patient and recognize, evaluate and treat the common illnesses and problems experienced by the neonate, infant, small child and adolescent to age 18 years. The student will identify and manage problems in growth and development of these age groups and recognize and manage pediatric emergencies.

Course Content:
This rotation is designed to provide in-depth exposure to the diseases, illnesses and injuries common to pediatric practice from the neonate through adolescence. The student will work under the supervision of a Program determined physician or other qualified health care provider and will be exposed to the principles and practices of Pediatrics. The student will actively engage in applying the medical knowledge and clinical skills gained during the didactic year, along with continuing to develop clinical reasoning through evidence based approaches to the evaluation and management of acute, chronic and emergent problems encountered in the outpatient or inpatient setting. Students will also address growth and development, health promotion, disease prevention, patient education and counseling in their patient encounters.

The student should prioritize gaining knowledge and experience in the efficient and effective evaluation, treatment and management including referral of common diseases and conditions encountered in an outpatient and inpatient pediatric setting.

The knowledge (cognitive) objectives for this course along with the topic lists are to be used as a guide for readings, studying and preparing for the End of Rotation examination. Students must keep in mind that not all diseases or conditions will be seen during the rotation however they should initiate and engage in reading and studying these entities as they may be included on the End of Rotation examination. The clinical skills (psychomotor) and professionalism (affective) objectives are to guide the student regarding the expected level and nature of participation (what students should be doing) and the required professional conduct while at the rotation site.
**Pediatrics Course Goals:**

1. Provide the student with the opportunity and access to a diverse population of patients and a variety of diseases and injuries involving all body systems across the pediatric life span and commonly encountered in pediatric practice.

2. Support ongoing development and mastery of the student's ability and skill in obtaining a patient centered medical history, conducting a physical examination, recommending diagnostic studies and discussing and recommending treatment plans with the guidance of a preceptor.

3. Provide supervised patient care based opportunities which foster the development of the student's ability to recommend, select and interpret (where applicable) appropriate diagnostic methods in the evaluation of a patient as well as for disease prevention.

4. Provide clinical based opportunities to continue to develop the student's ability to generate differential diagnoses and determine a primary diagnosis.

5. Provide supervised patient care based opportunities which foster the development of the student's ability to recommend and/or implement appropriate treatment plans for each patient encounter, including pharmacologic and non-pharmacologic therapies, patient education and counseling as well as recognize situations where referral to other healthcare providers is necessary and to identify the appropriate referral resource.

6. Provide patient care based opportunities which foster the development of the student's ability to generate documentation of patient encounters including written, oral and computer-based medical records for the documentation and transmission of patient-centered information to other members of the healthcare team.

7. Provide opportunities for continued development of the student’s ability to effectively and efficiently communicate with diverse patient populations as well as with others professionals in the health care environment.

8. Provide opportunities for continued development of the skills needed to search, interpret and evaluate medical literature in relationship to medical decision making and patient care.

9. Expose and provide opportunities to foster inter-professional understanding and collaboration.

10. Expose students to the specific needs and challenges of the medically underserved.

**Pediatrics Learning Outcomes:**

At the end of this four week experience students will be able to:

1. Demonstrate, recognize and accurately assess common medical and behavioral diseases, illness and injuries through the application and integration of core medical knowledge (etiology, risk factors, pathophysiology, prevalence, clinical presentation, diagnostic evaluation and interpretation) and the use of evidence based decision making toward the diagnosis, management and treatment of patients encountered in the inpatient or outpatient pediatric setting (see topic list).

2. Demonstrate, recognize and/or provide health promotion and disease prevention guidance as well as patient education and counseling.

3. Employ and demonstrate competent and ethical medical record documentation (including coding).

4. Perform concise, articulate and effective oral case presentations.

5. Demonstrate, recognize and engage in effective on-going (continuity) patient care in an empathetic fashion that demonstrates awareness and sensitivity to patient diversity and to the medically underserved.

6. Recognize, apply and demonstrate effective communication skills and on-going self- reflection.

7. Perform common office based procedures.

8. Demonstrate and recognize inter-professional understanding and collaboration.

9. Effectively and professionally navigate the role and responsibilities as a physician assistant (within the confines of the student role) practicing in a pediatric care setting.

10. Work efficiently within the time constraints of a pediatric setting.
Assessment:

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>% of Final Grade</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Clinical Rotation – Student Evaluation from preceptor</td>
<td>40%</td>
<td>1 wk after end of rotation</td>
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<tr>
<td>End of Rotation Exam</td>
<td>40%</td>
<td>EOR day</td>
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<tr>
<td>Case Write-up</td>
<td>10%</td>
<td>EOR day</td>
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<tr>
<td>Typhon logging</td>
<td>5%</td>
<td>EOR day</td>
</tr>
<tr>
<td>Cultural reflection paper</td>
<td>5%</td>
<td>EOR day</td>
</tr>
</tbody>
</table>

Letter Conversion Scale
A  100-93
AB  92.99-90
B   89.99-83
BC  82.99-80
C   79.99-70
D   69.99-60
F   59.99 and below

Readings & Resources:
1. *A Comprehensive Review for the Certification and Recertification Examinations for Physician Assistants*
2. *CURRENT Diagnosis and Treatment Pediatrics, 23rd Edition*
3. Didactic lectures and textbooks

Preceptors may require and assign additional readings during the course of the rotation.

University Policy Statements

Statement on Academic Integrity – The Carroll University Academic Integrity Policy is located in your student handbook. Students are encouraged to familiarize themselves with it. If a student violates this policy in any way, the instructor(s) reserve the right to impose a sanction of failure on the assignment/assessment or failure in the course. If you have questions about appropriate citations, please ask your instructor.

Accommodation for Disabilities – Any requests for accommodation must be made through the Walter Young Disability Services Coordinator at Carroll University. Appropriate accommodations will be made once notification has been received from the Walter Young coordinator.

Modifications to the syllabus: The instructor and the University reserves the rights to modify, amend, or change the syllabus (schedule, course requirements, grading policy, etc.) as the curriculum and/or program require(s).

Student Responsibilities (*Refer to Clinical Education Manual*)
**Attendance**

Consistent attendance and punctuality are expected of all students during enrollment in the program. Part of the socialization in the PA program is learning the values necessary to be a competent Physician Assistant. One of these is a sense of responsibility and obligation to commitments. Students make a commitment to patient care for clinical assignments, both to the patients and to the other members of the health care team. Students should not be late to a clinical site or rounds. Please see the Clinical Manual for details of the program’s attendance policy.

**Preceptor Evaluations**

Each student will be given Preceptor Evaluation of Student Performance forms. The End of Rotation Preceptor Evaluation form is to be given to each preceptor at the beginning of the last week of the clinical rotation. It is the student’s responsibility to collect the completed forms and deliver them to the Clinical Coordinator within one week of completion of the rotation. For rotations longer than 4 weeks, a two week evaluation is required. A grade for that rotation will not be assigned until all required forms are submitted and may result in an “Incomplete” for the rotation.

**Site Evaluation Forms**

Each student is required to complete evaluations of each of their rotation sites at week two and at the end of each rotation. Students will provide their opinion on both positive areas and on areas needing improvement of the clinical site and experience. Preceptor and clinical site evaluations are reviewed by the Clinical Coordinator. Any issues or problems are identified, documented and discussed with the preceptor and the student for resolution or improvement. Site evaluations are due on the EOR days for each rotation.

**Patient Profile/Clinical Procedure Logs**

Students will be required to maintain a patient log in Typhon which gives the program an opportunity to further evaluate the clinical experience. The patient log will show the numbers and types of patients being seen, diagnosis, and level of participation. Students must log at least three patient entries per day. This information assists in providing information to remain in compliance with the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA). It will also help document graduate competencies as well as assist students in building a personal portfolio if desired. Students are also required to document all required procedures and skills.

**End of Rotation Exams**

Students will complete an exam related to clinical skill and knowledge associated with every required clinical rotation completed in the 8-weeks preceding the Return to Campus Day with the exception of the elective rotation. Due to scheduling, some students will have to complete more than one exam. Exam content will be based on the learning objectives and topic list outlined in each rotation’s syllabus and provided to both the student and preceptor. Clinical experiences may vary depending on patient population and site strengths/weaknesses. **It is the student's responsibility to review the objectives and topics and augment their clinical experiences with independent research and discussion with the preceptor as necessary.** See Rotation Progression Standards in the Clinical Manual.

**Case Write Up**

The clinical write-up is a complete H&P (SOAP format) which includes an assessment and plan from a case study for each rotation. A case discussion should also be completed along with documentation of references. If a student fails to achieve a passing grade of 70% on the case write up, they will be required to re-write the assignment and be given a grade of 70% on the assignment. The clinical write ups must be submitted to the Clinical Coordinator on the EOR day or one letter grade will be deducted.. See Appendix in the Clinical Manual for grading details.
Cultural Reflection Paper
The student will write a personal reflection paper on one culturally diverse patient issue they have observed or encountered during the clinical rotation including, but not limited to, the cultural skills learned in year one of the practicum. One paper is due at each EOR time. Over the course of the clinical year, the student will have completed 6 cultural reflection papers. See Appendix in the Clinical Manual for grading details.

Rotation Specific Objectives
These objectives are to guide the student in preparing for the End of Rotation examination by defining areas of content to be emphasized and studied as well as the clinical skills and professional behavior required and expected during this rotation.

I. Medical Knowledge (Cognitive)
Acquisition of these objectives represents the foundation of core knowledge and cognitive ability needed to fulfill the clinical role of a physician assistant in a family medicine setting. These objectives are to be used with the topic list included.
1. Recognize and/or differentiate the anatomy, epidemiology, physiology, pathophysiology, and prognosis associated with medical diseases and conditions commonly encountered in the pediatric population (see topic list).
2. Identify, recognize, assess and/or evaluate the genetic considerations (inheritance patterns, mutations, disorders, anomalies) in the etiology, treatment and prevention of common disease entities encountered in pediatrics.
3. Identify and differentiate normal from abnormal human anatomy and physiology as it relates illness and disease (see topic list).
4. Identify, evaluate and/or select the prevalence, risk factors and clinical presentation (to include pertinent historical, physical examination) for the diagnosis of those diseases and conditions commonly encountered in the pediatric population (see topic list).
5. Identify, select and/or interpret diagnostic evaluation methods and/or their findings needed to confirm or rule out a diagnosis including consideration to the indications, contraindications, complications and cost-effectiveness of the diagnostic method.
6. Identify the indications, required preparation (where applicable), normative and abnormal findings, limitations and risks of commonly used diagnostics in the practice of pediatrics to include but not limited to the following:
   a. ECG
   b. Ultrasound
   c. CXR
   d. Plain x-ray films
   e. Pulmonary function testing
   f. CT
   g. MRI/MRA
7. Identify the basic indications, procedures, normative and abnormal values, limitations for the following common diagnostic labs used in the practice of pediatrics to include but not limited to the following: CBC with differential
   a. Urinalysis with microscopic
   b. Bilirubin
   c. Chemistry panel
   d. Urine culture and sensitivity
   e. Reticulocyte Count
   f. Coagulation panel
   g. Sputum culture and sensitivity
   h. Liver function tests
   i. Lipid/cholesterol screening
   j. Thyroid function panel
k. Stool, blood culture and sensitivity
l. Electrolytes
m. Ova and parasites testing
n. Rapid Strep Screen/Culture
o. Glucose testing and monitoring

8. Identify and/or devise a differential diagnoses based on history and physical examination findings for medical diseases and conditions encountered in pediatric.
9. Identify, generate and/or select a primary diagnosis based on history, physical examination findings, and laboratory and imaging study findings for medical diseases and conditions encountered in pediatric patients.
10. Identify and/or select treatment and management approaches (pharmacological and non-pharmacological) and/or potential complications of such treatments taking into consideration the indications, contraindications, complications and cost-effectiveness.
11. Identify and/or choose medications indicated for the treatment of diseases and conditions seen commonly encountered in the pediatric population through patient assessment, evidence based decision making and with consideration to age and disease related physiologic changes that alter drug metabolism, indications, contraindications, side effects, complications, adherence issues and cost.
12. Identify, recognize and/or select the potential complications or sequela of diseases, and/or conditions commonly encountered in pediatrics.
13. Recognize and/or select the appropriate health promotion and disease prevention care practices and educational information for pediatric patients according to age, including but not limited to immunizations, developmental screening, disease screening, and accident prevention.
14. Identify, recommend and utilize community resources for disease management, education and support.
15. Identify and discern the psychosocial factors which can increase the risk and/or affect illness and disease development, presentation and outcomes in the pediatric population.
16. Identify, devise and/or select follow-up care (including diagnostic testing) needed for short-and long term management of medical diseases and conditions encountered in the pediatric population.
17. Recognize and/or choose educational information and/or counseling content and techniques in the communication of diagnosis, treatment plan and prognosis to patients which facilitates and enhances understanding and compassion, including between patients and their families.
18. Identify and/or select the special needs and considerations warranted in effective, efficient and compassionate patient care for underserved populations.
19. Identify, differentiate and/or select effective and professional communication approaches and techniques which foster a respectful position for patients from diverse cultures, religions and lifestyles, for patients and between patients and their families.
20. Identify and/or recognize the impact that health, illness and disease have on patients and their families.
21. Recognize and/or select the indications for hospitalization for medical diseases and conditions encountered in pediatrics.
22. Identify and/or recognize age-related physiologic changes that alter the pharmacologic process and the guidelines for safer prescribing in infants, children, and adolescents.
23. Identify, recognize and/or apply the legal and ethical issues to the assessment of pediatric patients.
24. Identify, differentiate, interpret and/or select effective ways to assess growth and development including interpretation of growth charts for height, weight and head circumference.
25. Describe normal development patterns for gross motor, fine motor, speech, and cognitive development from birth to adolescence.
26. Define classifications of sexual development maturation.
27. Describe the common abnormalities and referral management of premature infants from 32-36 weeks gestation.
28. Perform and identify normal findings and normal variants of the newborn physical examination.
29. Describe care of the normal newborn infant from birth through nursery discharge including gestational age examination, APGAR scoring, vitamin K prophylaxis, eye prophylaxis, immunizations, feeding, elimination, and cord care.
II. Clinical Skills (Psychomotor)

These objectives provide guidance for what skills and procedures students should be doing while on site. The program acknowledges that not all sites perform the laboratory and medical procedures listed, however students should volunteer and/or request to participate in those tasks which are available with preceptor permission and/or supervision. Upon completion of this rotation students should be able to:

1. Obtain a complete and/or focused accurate history emphasizing those areas specific to the patient encounter and incorporating effective, professional and caring, culturally appropriate communication techniques for adult and geriatric patients.
2. Perform complete and/or focused integrated and systematic physical examination with specific emphasis on pertinent system(s) as related to the patient encounter in family medicine and demonstrating correct examination technique to include draping, patient positioning and patient privacy for adult and geriatric patients.
3. Perform concise, articulate and effective oral case presentations.
4. Determine and/or recommend laboratory and radiographic diagnostic studies needed to confirm and/or rule out diagnoses for the problem(s) encountered in a family medicine including consideration to the indications, contraindications, complications and cost-effectiveness of the diagnostic method.
5. Determine and/or recommend appropriate health maintenance screening.
6. Conduct periodic well person examinations.
7. Perform/assist laboratory and medical procedures as appropriate to include but not limited to:
   a. Injections
   b. Throat, urine, skin cultures
   c. Rapid Strep Screen
   d. Urine dipstick
   e. Cerumen Removal
   f. PFT’s
8. Review and/or interpret normal and abnormal results of laboratory and radiographic diagnostic studies as related to the problem(s) encountered in pediatrics.
9. Formulate, present and/or discuss a problem list from the patient encounter.
10. Formulate, present and/or discuss differential diagnoses based on history, physical examination findings, and laboratory and imaging studies.
11. Formulate, present and/or discuss a primary diagnosis based on clinical presentations & diagnostic findings.
12. Formulate, discuss and/or recommend a treatment plan (including pharmacological and non-pharmacological approaches, and evidence based principles) including referral (where warranted) and with an emphasis on patient centered care for pediatric patients.
13. Develop, discuss and/or recommend a therapeutic plan for risk factor reduction and disease management in accordance with existing standards of practice and evidence based medicine for diseases and conditions encountered in pediatrics to include but not limited to:
   a. Contraception
   b. Growth/developmental delay
   c. Immunizations
   d. Nutrition
   e. Stress/stress reaction
   f. Exercise
   g. Diabetes
   h. STI’s/HIV/AIDS
14. Provide patient education and counseling to patient and family regarding the health problem(s), the need for diagnostic studies, recommended treatment plans, prognosis and community resources as appropriate, in a context that is appropriate to the patient’s culture.
15. Monitor a patient's progress through continuous physical examination, data collection and analysis.
17. Demonstrate an ability to communicate and relate to patients and their families in an empathetic, culturally sensitive manner.
III. Professional Behaviors and Skills (Affective)

These objectives define the behavioral and attitudinal conduct, responsibilities and expectations of the physician assistant student. At all times throughout the rotation, the student must adhere to the following:

1. Demonstrate professional responsibility by arriving on time, being prepared, completing all assigned tasks and remaining until the end of the scheduled time or until released by preceptor.
2. Always perform duties under the supervision and direction of the Program determined licensed healthcare professional or his or her designee(s).
3. Treat all patients, faculty, university and site staff, preceptors, faculty, health care workers and fellow students with dignity and respect.
4. Conduct themselves in a professional courteous manner and with the highest ethical standards expected of a health care professional and consistent with the role and responsibilities of a physician assistant.
5. Use effective, open and genuine communication in all encounters.
6. Comply with all PA program, Carroll University and clinical site policies and procedures, HIPAA regulations regarding patient confidentiality and OSHA regulations regarding safety.
7. Use accurate and honest reporting, documentation and transmittal of information in professional interactions with all members of the healthcare team.
8. Be supportive and show sensitivity regarding the emotional, cultural and socioeconomic aspects of the patient, his/her illness and their families.
9. Recognize personal and professional limitations and seek help from others when appropriate.
10. Comply with the ethical and legal principles and concepts as they relate to the AAPA Guidelines for Ethical Conduct for the Physician Assistant Profession.
11. Be open to receiving, considering, and appropriately acting upon constructive criticism.
13. Display motivation and engagement in lifelong learning through ongoing self-reflection, active engagement and participation in learning, both directed and self-initiated as well as on and off site during each rotation.

Pediatric Topics:
Clinical experiences may vary depending on patient population and site strengths/weaknesses. *It is the student's responsibility to review the objectives and topics and augment their clinical experiences with independent research and discussion with the preceptor as necessary.*

Please refer to both the EOR exam content topic list as outlined on the PAEA website and the topic list below.

<table>
<thead>
<tr>
<th>Cardiovascular</th>
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<tbody>
<tr>
<td>Innocent Murmurs</td>
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<tr>
<td>Pathologic murmurs</td>
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<tr>
<td>Congenital Heart Disease</td>
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<tr>
<td>Pulmonary Stenosis</td>
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<td>Aortic Stenosis</td>
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<tr>
<td>Coarctation of the Aorta</td>
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<tr>
<td>Ventricular Septal Defect</td>
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<td>Atrial Septal Defect</td>
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<td>Patent Ductus Arteriosus</td>
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<tr>
<td>Transposition of the Great Vessels</td>
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<td>Hypoplastic left heart syndrome</td>
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<tr>
<td>Tetralogy of Fallot</td>
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<tr>
<td>Hypertrophic Cardiomyopathy</td>
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<tr>
<td>Kawasaki Disease</td>
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<tr>
<td>Syncope</td>
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<tr>
<td>Recurrent chest pain</td>
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### Pulmonary/Respiratory
- Asthma
  - Acute exacerbation
  - Mild to Moderate
- Bronchiolitis
- Pneumonia
- Recurrent respiratory infections
- Chronic cough
- Croup
- Allergic rhinitis
- Cystic Fibrosis

### Gastrointestinal System/Nutrition
- Nutrition
  - Failure to Thrive
  - Obesity
  - Breastfeeding
  - Appropriate/inappropriate infant feeding
- Food Allergies
- Viral gastroenteritis
  - Acute vomiting
  - Infectious diarrhea
  - Oral rehydration therapy
- Acute abdomen
  - Pyloric stenosis
  - Appendicitis
  - Intesusception
- Recurrent abdominal pain/functional abdominal pain
- Constipation
- Hirschsprung disease
- Encopresis
- GER/GERD
- Neonatal jaundice

### Musculoskeletal System/Rheumatologic
- Nursemaid’s elbow
- Sprain/strains
- Fracture
  - Salter-Harris classification
- Growing Pains
- Overuse Syndrome
  - Osgood Schlatter
- Leg alignment variation (in-toeing, out-toeing)
- Flat feet
- Developmental Hip Dysplasia
- Limp
  - Avascular necrosis
  - Toxic synovitis
  - Slipped Capitl Femoral Epiphysis
- Juvenile Idiopathic Arthritis
- Scoliosis

### EENT (Eyes, Ears, Nose and Throat)
- Blocked tear duct
- Strabismus/Amblyopia
- Hordeolum/chalazion
- Corneal abrasion
- Conjunctivitis/red eye
  - Neonatal conjuunctivitis
- Pre/Periorbital cellulitis
- Retinoblastoma
- Otitis Media
  - Acute
### Chronic Recurrent Acute and indications for PE tubes
- Snoring/Obstructive Sleep Apnea
- Stridor
- Hearing Loss
- Foreign body

### Oral Health
- Hygiene
- Teething syndrome
- Caries
- Dental trauma
- Dental variants

### Upper respiratory infection
- Pharyngitis
  - Viral
  - Strep
  - Mononucleosis
- Peritonsillar abscess
- Sinusitis/recurrent sinusitis

### Genitourinary/Renal
- Enuresis
- UTI/recurrent UTI
- Vesicoureteral reflux
- Undescended testes
- Hydrocele
- Varicocele
- Hypertension
- Glomerulonephritis
- Renal tubular acidosis
- Nephrotic syndrome
- Hydronephrosis
- Hernias
- Circumcision

### Endocrine System
- Hyperlipidemia/Metabolic Syndrome
- Short stature
- Diabetes Mellitus
- Normal/abnormal timing of puberty
- Hypothyroidism

### Neurologic System
- Minor head injury
- Concussion/Post-concussion syndrome
- Headaches
- Febrile seizures
- First-time nonfebrile seizure
- Microcephaly
- Macrocephaly
- Breathholding spells
- ALTE
- Cerebral palsy
- Muscular dystrophy

### Behavioral/Mental Health
- ADHD
- Depression
- Anxiety
- Adjustment disorder
- School problems
- Eating disorders
### Dermatologic System
- Urticaria
- Atopic Dermatitis
- Acne
- Warts
- Molluscum contagiosum
- Viral exanthems
- Fungal infections
- Birthmarks
- MRSA

### Hematologic and Oncologic
- Sickle Cell Trait
- Anemia
  - Iron deficiency
  - G6PD
- Epistaxis/excessive bleeding/bruising
- Retinoblastoma
- Leukemia
- Lymphoma
- Neuroblastoma
- Wilms' Tumor

### Infectious Diseases
- Immunizations
  - Schedule, risks, benefits
- Fever
  - Febrile neonates <3 mo
  - Fever without sources 3-36 mo

### Other
- Developmental Pediatrics
  - Common sleep problems
  - Sleep hygiene
  - Developmental screening
  - Mild to moderate developmental delay
  - Isolated speech delay
  - Screening for and diagnosis of autism
  - Toilet training
  - Temper tantrums
  - Discipline/behavior problems
  - Crying infant/colic
- Genetics
  - Basic approach to dysmorphology
  - Trisomy 21
  - Trisomy 13
  - Trisomy 18
  - Turner syndrome
  - Klinefelter syndrome
  - Marfan syndrome
  - Newborn screening
  - Sports Physical