## Welcome to Pediatrics!

*The Department of Pediatrics' unique contribution to your education will consist of a constellation of experiences that include an introduction to children, their uniqueness in life, their special medical problems, the techniques necessary to obtain data from them, and a beginning insight into growth and development as biologic and medical phenomena, both normal and abnormal.*

*Our faculty will provide you with an educational and stimulating environment in which you begin to learn the fundamentals of Pediatrics. We recognize that you cannot "learn" Pediatrics in your 6-week clerkship, but you will be exposed to children in whatever area of medicine you choose for your career. During the clerkship, you can learn certain basic principles, approaches and facts that will develop as a foundation for continued learning in this discipline. The third year will allow you to start putting into use the basic principles you have acquired over the last few years and begin the exploration of the practice of pediatric medicine.*

*We ask that you display an eagerness to learn and conduct yourself as a professional. For our part, we will put forth considerable effort to have you succeed.*

*We should be clear on what is expected of you:*

1. *We expect you to expend considerable effort towards your own learning by pursuing the responsibilities assigned to you. This includes patient care duties, attendance at all assigned conferences, seminars and ward rounds and a significant amount of reading related to the general principles of pediatrics as outlined in the Learning Objectives section of your clerkship manual.*

2. *We expect you to demonstrate an enthusiasm for the study of medicine and Pediatrics. The Department of Pediatrics will provide the opportunity, the supervision, and the guidance -- you must provide the enthusiasm.*

3. *We expect you to demonstrate professional integrity. This includes reporting accurately what you see, hear, feel, or obtain - not what the faculty expects to hear.*

4. *We expect you to acquire increased abilities in several areas:*

    - *Pediatric Data Collection: Obtaining a history and performing a physical examination in children from newborns to adolescents requires interaction with the child as well as the parent or caretaker. This will require a sensitive attitude and depending on the age of the child and their degree of illness, and very different techniques and skills. We expect you to reach a level of competence and comfort with these skills.*
    - *Facts: We expect that you will learn new information, improve, and modify old information, and integrate the two. We expect that you will behave as adult learners and will read independently. Rounds, conferences, conversations, and meetings can augment, amplify, and help to explain and develop concepts; however only personal effort in reading will provide you with a solid foundation. Reading and data acquisition are more meaningful when put in the context of a patient. See as much as you can! Be each other's teachers and share and demonstrate to each other interesting physical findings and patients.*
    - *Problem solving: We can model the process for you, we can critique your clinical reasoning and force you to examine your capabilities in this area, but you provide the "basic stuff" and by exercising your mind, undertake the clinical judgment process.*

- *<u>Professional attitudes</u>: As you pass through medical school, you combine your own personality traits with acquired behavior you learn from your patients, your peers, and your teachers. You should end up not only a professional but thinking of yourself as a professional.*

5. *We expect your performance to be at least at the passing level. Your evaluation will be based on several items:*

    - *At the end of the clerkship, you will take the NBME Pediatric Subject Examination (i.e., the Shelf Exam).*
    - *Evaluations: You will be evaluated by your faculty attendings, preceptors and house officers based on six core competencies: patient care, medical knowledge, professionalism, systems-based practice, practice-based learning and improvement, and interpersonal and communication skills. Your knowledge, motivation, problem-solving ability, attitude and relationship to patients, colleagues and health care personnel, an estimation of your motivation during the clerkship, your abilities to perform a history and physical examination, your sense of responsibility and your attendance all factor into these competencies.*
    - *An overall estimate of your professionalism made by your preceptors based on their daily observations of you and by the clerkship director in areas that include timely completion of all clerkship assignments.*
    - *Completion of required patient experiences and Aquifer cases (detailed below)*
    - *Completion of all clerkship-specific requirements (detailed below)*

*Learning is both fun and hard work. Children are fun and challenging, so enjoy yourself and work hard. We hope to share with you the excitement that is inherent to Pediatrics.*

**Kareem W. Shehab, MD**
Clerkship Director, Pediatrics
Associate Program Director, Pediatric Residency Program
Division Chief, Pediatric Infectious Diseases
Associate Professor of Pediatrics

**Aria Doyle, MPH**
Senior Program Coordinator
Pediatric Education Programs

**SYLLABUS**
**PED-813C**
**Pediatric Clerkship**

## Course Description

The six-week Pediatric clerkship is divided into an inpatient (3 weeks total) and outpatient rotation (3 weeks total) made up of varying weekly rotations. Students spend their inpatient rotations on the general pediatric ward at Banner University Medical Center-Tucson Diamond Children's [BUMC-T DCMC], and the Pediatric Hematology/Oncology Ward. Inpatient rotations on the general pediatric wards include AM and/or PM shifts.

Students will spend half of their pediatric clerkship rotating through a variety of weekly outpatient experiences which include general pediatric clinics, the newborn nursery, and may include the Banner University Medical Center-Tucson Pediatric Emergency Room. General pediatric clinic experiences are hosted at Banner University Medical Center - Tucson (BUMC -T) Children's Multispecialty Center, BUMC -T North Hills Clinic, and BUMC-T Cholla Pediatric Clinic. Pending availability, students may be placed at an approved local private practice clinic site or a rural clinic site.

Students will be assigned to a clinical site for one week at a time, where they will receive weekly formative feedback on Entrustable Professional Activities (EPAs) using Workplace Based Assessments (WBA), as well as weekly summative clinical evaluations. Additional details are outlined in the grading section of the syllabus.

Students will receive structured didactic sessions from department faculty and will receive mentorship and evaluation from wards and clinic attendings, as well as dedicated education efforts from the Student Attending physician. On the final day of the rotation, students will take the NBME Pediatric Shelf exam.

## Instructor and Contact Information


**Kareem W. Shehab, MD**
Clerkship Director, Pediatrics
Associate Director, Pediatrics Residency
Division Chief, Pediatric Infectious Diseases
Associate Professor of Pediatrics
520-626-4657
kshehab@peds.arizona.edu

**Aria Doyle, MPH**
Program Coordinator, Sr.
Pediatric Education Programs
agpongratz@arizona.edu
520-626-4657

## Sites/Site Directors

**Clerkship Clinical Training Sites and Site Directors**

| Name of Site | Inpatient or Outpatient | Location | Site Director |
|---|---|---|---|
| BUMC – Tucson General Pediatrics Wards | Inpatient Rotation (AM and PM Wards teams) | 1625 N. Campbell Avenue, Tucson AZ 85704 | Kareem Shehab, MD |
| BUMC – Tucson Heme/Onc Wards | Inpatient Heme/Onc Team | 1625 N. Campbell Avenue, Tucson AZ 85704 | Kareem Shehab, MD |
| BUMC -T Pediatric Emergency Room | Outpatient Peds Emergency | 1625 N. Campbell Avenue, Tucson AZ 85704 | Hans Bradshaw, MD |
| BUMC – Tucson Normal Newborn Nursery | Outpatient Nursery | 1625 N. Campbell Avenue, Tucson AZ 85704 | Rachael Charles, MD |
| BUMC – Tucson Wilmot Multispecialty Services Clinic | Outpatient Peds Clinic | 535 N. Wilmot Ave Ste 101, Tucson AZ 85711 | Helene Felman, MD |
| BUMC – Tucson North Hills Clinic | Outpatient Peds Clinic | 265 W. Ina Road Tucson, AZ 85704 | Helene Felman, MD |
| BUMC -Tucson Cholla Pediatrics | Outpatient Peds Clinic | 2167 W. Orange Grove Road, Tucson AZ 85741 | Helene Felman, MD |
| Mariposa Community Health Center | Outpatient Peds Clinic | 1852 N. Mastick Way Nogales AZ 85621 | Philip Williams, MD |
| Chiricahua Community Health Centers, Inc. | Outpatient Peds Clinic | 815 15th St, Douglas, AZ | Jeffrey Holzberg, MD |
| Yavapai Regional Medical Center - Dignity Health | Outpatient Peds Clinic | 2120 Centerpointe W Dr, Prescott, AZ 86305 | Matthew Hinton, MD |
| Tanque Verde Pediatrics | Outpatient Peds Clinic | 7507 E. Tanque Verde Rd Tucson, AZ 85715 | Amy Montgomery, MD |

## Course Objectives

During this clerkship, students will:

1. Obtain a history, family history, and social history in an age-appropriate and sensitive manner from a child and/or the accompanying adult.
2. Conduct an effective interview by adapting the interview to the visit (e.g., first visit, acute care, health supervision), or chief complaint.
3. Conduct a pediatric physical examination appropriate to the nature of the visit or complaint (complete vs.

focused) and the age of the patient.

4. Demonstrate effective and professional verbal and non-verbal communication skills with children and their parents or families and healthcare teams.
5. Present a complete, well-organized verbal summary of the patient's history and physical examination findings, including an assessment and plan modifying the presentation to fit the time constraints and educational goals of the situation.
6. Document the history, physical examination, and assessment and plan using a format appropriate to the clinical situation (e.g., inpatient admission, progress note, office or clinic visit, acute illness, health supervision visit, and interval care visits).

## Expected Learning Outcomes

Upon completion of this clerkship, students will be able to:

1. Describe and demonstrate behaviors that respect the patient's modesty, privacy, and confidentiality.
2. Describe the practical applications of the major ethical principles (i.e., justice, beneficence, non-malfeasance, and respect for autonomy).
3. Demonstrate communication skills with patients and families that convey respect, integrity, flexibility, sensitivity, cultural competence, and compassion.
4. Show respect for patients, parents, families, and cultural attitudes.
5. Demonstrate behaviors and attitudes that promote the best interest of patients and families, including showing flexibility to meet the needs of the patient and family.
6. Demonstrate collegiality and respect for all members of the health care team.
7. Exhibit a positive attitude and regard for education by demonstrating intellectual curiosity, initiative, honesty, responsibility, preparedness, flexibility, and maturity in soliciting, accepting, and acting on feedback.
8. Identify and explore personal strengths, weaknesses, and goals – in general and within specific patient encounters.
9. Describe the impact of stress, fatigue, and personality differences on learning and performance.
10. Apply such skills as the ability to conduct an interview, perform a physical examination, manage medical data, communicate written and oral information, integrate basic science knowledge, search, and read literature critically, and teach.
11. Demonstrate sensitivity to confidentiality, privacy, modesty, and patient/family beliefs during the medical interview and physical examination.
12. Perform an age-appropriate history and physical examination in children of all ages.
13. Obtain a history, family history, and social history in an age-appropriate and sensitive manner from a child and/or the accompanying adult.
14. Demonstrate the role of patient observation in determining the nature of a child's illness and developmental stage.
15. Conduct a pediatric physical examination appropriate to the nature of the visit or complaint (complete vs. focused) and the age of the patient.
16. Conduct an effective interview by adapting the interview to the visit (e.g., first visit, acute care, health supervision), or chief complaint.
17. Demonstrate effective verbal and non-verbal communication skills with children and their parents or families.
18. Correctly identify the need for an interpreter in specific patient-physician interactions.
19. Demonstrate effective oral and written communication with the health care team avoiding jargon and vague terms (e.g., clear, and normal).

20. Present a complete, well-organized verbal summary of the patient's history and physical examination findings, including an assessment and plan modifying the presentation to fit the time constraints and educational goals of the situation.
21. Document the history, physical examination, and assessment and plan using a format appropriate to the clinical situation (e.g., inpatient admission, progress note, office or clinic visit, acute illness, health supervision visit, and interval care visits).
22. Generate an age-appropriate differential diagnosis and problem list based on the interview and physical examination.
23. Search for relevant information using electronic (or other) databases and critically appraise the information obtained to make evidence-based decisions.
24. Show respect for behaviors and lifestyles, paying particular attention to cultural, ethnic, and socioeconomic influences.
25. Seek to elicit and incorporate the patient's, parent's, and family's attitudes into the health care plan.
26. Learn to demonstrate clear and professional communication with patients, families, and healthcare teams.

## Assignments and Examinations: Schedule/Due Dates

- Attend all clerkship didactic sessions.
- Observed History & Physical Examination
- Mid-Clerkship Review due at the end of the third clerkship week
- Shelf exam on the last day of the clerkship
- Complete one weekend daytime call shift
- Complete Aquifer cases 2, 3, 4, and 5
- Workplace-Based Assessments – 6 total
- Complete the required patient encounters and document duty hours.
- Students on their inpatient AM shifts, heme-onc, and well-baby nursery rotations are expected to attend and participate in morning report every Monday, Thursday, and Friday

## Didactic Sessions

| ***Topic*** | **Lecturer** |
|---|---|
| *Clerkship Orientation* | Kareem Shehab, MD |
| *Fluids and Electrolytes Lecture* | Pediatric Chief Residents |
| *Family-Centered Rounding* | MS4 Student Chiefs |
| *Nursery Orientation* | Rachael Charles, MD |
| *Pediatric Endocrinology* | Mark Wheeler, MD and Cindy Chin, MD |
| *Pediatric Poisonings* | Marie Olson, MD |
| *Genetics* | Kareem Shehab, MD |
| *Immunizations* | Ziad Shehab, MD |
| *Development and Behavior* | Catherine Riley, MD and Sydney Rice, MD |
| *Adolescent Medicine* | Richard Wahl, MD |
| *Pediatric Pulmonology* | Wayne Morgan, MD and Cori Daines, MD |

| | |
|---|---|
| *Pediatric Gastroenterology* | Keith Hazleton, MD |
| *Pediatric Cardiology* | Brent Barber, MD, Mike Seckeler, MD, Andrew Hoyer, MD, Omar Meziab, MD, and Scott Klewer, MD |
| *Child Abuse* | Rachel Cramton, MD and Chan Lowe, MD |
| *Infectious Exanthems and Enanthems* | Ziad Shehab, MD |
| *Growth and Nutrition* | Megan Matz, MD |
| *Pediatric Hematology/Oncology* | Holly Pariury, DO, Michelina De La Maza, MD, Laurel Truscott, MD, Juhi Jain, MD, and Monica Davini, MD |
| *Pediatric Grand Rounds* | TBD |

## Required Patient/Clinical Conditions

Each patient/clinical condition has an associated minimum level of student responsibility. Definitions for each level of responsibility are below:

**Perform:** Student applies knowledge and demonstrates skills necessary to provide patient care and/or perform an indicated procedure under appropriate supervision.

**Assist:** Student collaboratively assists with providing patient care and/or performing a procedure under the appropriate supervision.

| | If students are unable to see one of the required patients during their Clerkship they must complete the associated Aquifer Case. | | |
|---|---|---|---|
| **Patient Type/Clinical Condition** | **Clinical Setting** | **Level of Student Responsibility** | **Case Type and Number (Alternative Requirement)** |
| HCM (healthcare maintenance) in an infant | Outpatient | Perform | Aquifer case 2* |
| HCM in a toddler | Outpatient | Perform | Aquifer case 3* |
| HCM in a school aged child | Outpatient | Perform | Aquifer case 4* |
| HCM in an adolescent | Outpatient | Perform | Aquifer case 5* |
| Developmental delay / concerns | Outpatient or Inpatient | Assist | Aquifer case 28 |
| Growth delay / concerns | Outpatient or Inpatient | Assist | Aquifer case 26 |
| Abdominal pain | Outpatient | Assist | Aquifer case 27 & 16 |
| Fever and rash | Outpatient | Assist | Aquifer case 32 |
| Fever without a source | Outpatient or Inpatient | Assist | Aquifer case 10 & 11 |
| Lower respiratory tract infection | Outpatient or Inpatient | Assist | Aquifer case 13 |
| Upper respiratory tract infection | Outpatient or Inpatient | Perform | Aquifer case 12 |

| | | | |
|---|---|---|---|
| Vaccine Hesitancy | Outpatient or Inpatient | Assist | |
| Hyperbilirubinemia | Outpatient or inpatient | Perform | Aquifer case 8 |

## Alternative Experiences

If a student is unable to experience a required Patient Case/Clinical Condition, they must complete an alternative experience. All alternative experiences have been approved by the clerkship director and are listed in the Patient Type/Clinical Condition table.

Instructions for how to submit an alternative experience request:
https://meddocs.medicine.arizona.edu/MedLearn_Clerkship_AltExp/

Direct link to submit an alternative experience request:
https://medlearn.medicine.arizona.edu/clerkship/altexp

Note, after submitting an alternative experience request, students must log the case in their logbook with an explanation that the requirement was satisfied through an alternative experience.

## History & Physical Exam

Students must submit three full H&P write-ups to their Student Attending. The full H&Ps should not make use of a Cerner template and should include a detailed discussion referencing the primary literature. Students must submit one H&P per each week of their inpatient rotation. Students must upload one of these H&Ps to their MedLearn logbook and document that they have received feedback on it.

## Patient Encounter and Duty Hours Log

MedLearn is a fully integrated "portal" in which students enter one system that manages the entire educational ecosystem and reporting. Students are required to Login with your UA NetID and password at: medlearn.medicine.arizona.edu.

Duty Hours: Duty hours must be adhered to as per COM policies. If a student believes that they are at risk of violating duty hours, it is the student's responsibility to immediately report this to the Clerkship Coordinator and/or Clerkship Director. At the conclusion of the clerkship, all students must disclose whether duty hours were violated while on the Pediatrics Clerkship.

Students must see the required patients listed in the Required Patient/Clinical Conditions table, and if unable must complete corresponding Aquifer case listed. The student is to document completion of the required encounters in MedLearn at the conclusion of the clerkship.

## Required Readings

**Required Articles:**

Nelson, Pediatrics – Chapter 63 (Poisoning) – text available through MedLearn

Lemcke, D.; Pattison J.; Marshall LA.; Cowley, DS. Current Care of Women, 2nd Edition. 2004

Lange/McGraw-Hill – Required chapter: Adolescent Medicine - text available through MedLearn.

Ian M. Paul, Eric W. Schaefer, Jennifer R. Miller, Michael W. Kuzniewicz, Sherian X. Li, Eileen M. Walsh, Valerie J. Flaherman. Weight Change Nomograms for the First Month After Birth. Pediatrics. Volume 138, Number 6, December 2016. Text available through MedLearn.

Sass, Laura. Group B Streptococcal Infections. Peds in Review. AAP. Text available through MedLearn.

Lauer, Bryon; Spector, Nancy. Hyperbilirubinemia in the Newborn. Peds in Review. AAP. Text available through MedLearn.

**Recommended Texts** (available to check out from the Pediatric Education Office, Room 3335):

For content: Blueprints Pediatrics, Nelson's Essentials of Pediatrics
For practice questions: Pediatrics Pre-Test
For case-based content: Pediatrics Case Files

Others: BRS Pediatrics, Current Diagnosis and Treatment Pediatrics

## Required or Special Materials

Stethoscope, access to a computer and email software

## Mid-Clerkship Formative Feedback

The mid-clerkship feedback form will be completed by the clerkship director and discussed during the mid-point clerkship meeting – a one-on-one meeting with the clerkship director to discuss progress made and progress to be made. The student must add their goals in the appropriate bottom section and return the signed form to the clerkship director and coordinator.

## Grading Scale and Policies

**CRITERIA FOR GRADES IN PEDIATRICS**

**Class of 2026**

## OVERALL GRADE

| Pediatric Clerkship Grading Breakdown with WBA (Class of 2026) | | | | | | |
|---|---|---|---|---|---|---|
| | **Grade Points /100** | **Details** | | | **Clinical Area Evaluated** | **Evaluator** |
| **Clinical** | 50 | Inpatient | 8.33 | Week 1 | Inpatient (AM, PM or Heme/Onc Wards) | Resident or Attending |
| | | | 8.33 | Week 2 | Inpatient (AM, PM or Heme/Onc Wards) | Resident or Attending |
| | | | 8.33 | Week 3 | Inpatient (AM, PM or Heme/Onc Wards) | Resident or Attending |
| | | Outpatient | 8.33 | Week 4 | Clinic, Nursery, or Peds ED | Clinic Attending, Nursery Resident or Attending, ED Senior |
| | | | 8.33 | week 5 | Clinic, Nursery, or Peds ED | Clinic Attending, Nursery Resident or Attending, ED Senior |
| | | | 8.33 | week 6 | Clinic, Nursery, or Peds ED | Clinic Attending, Nursery Resident or Attending, ED Senior |
| **WBA** | 20 | | | | inpatient and outpatient | Resident or Attending |
| **NBME Shelf Exam** | 15 | | | | | |
| **Professionalism** | 5 | | | | | |
| **Student Attending** | 10 | | | | Inpatient or outpatient | Student Attending |

**Clinical Grade (50 points):**
This will be based on the student's average score on their clinical evaluations. Weekly Clinical Evaluations comprise the clinical portion of the student's overall grade (50% overall). Students must have at least one weekly clinical summative evaluation filled for each week on the clerkship (minimum 6 total). At least two of the evaluations must come from an attending. Students will select their weekly clinical evaluator, and the clerkship facilitates the ACGME competency-based evaluation process using the software Qualtrics to anchor the evaluation.

**Workplace Based Assessments (20 points):** Students are required to be assessed on a minimum of 4 different EPAs during each clerkship and receive a minimum average of one WBA per each week of patient interaction. A total of 6 WBA's is required in the Pediatrics clerkship. Students must independently solicit their weekly WBAs from their evaluators either by presenting them with their WBA QR code, or by emailing their individual Qualtrics link to the evaluator.

Entrustable Professional Activities (EPA) Pediatric Clerkship

- EPA 1: Gather a History and Perform a Physical Examination
- EPA 2: Prioritize a Differential Diagnosis Following a Clinical Encounter
- EPA 3: Recommend and Interpret Common Diagnostic and Screening Tests
- EPA 5: Document a Clinical Encounter in the Patient Record
- EPA 6: Provide an Oral Presentation of a Clinical Encounter
- EPA 9: Collaborate as a Member of an Interprofessional Team

**While the clerkship has identified EPA 1, 2, 3, 5, 6, and 9 as being core EPAs for the clerkship, students may**

**choose to be assessed on any of the 9 EPAs.**

A grade of "pass" is awarded for 20 points of the grade when a student has completed:

- Minimum WBA average of one per week for each week of patient interaction in the clerkship block.
- Minimum 4 different Entrustable Professional Activities (EPAs) seen by end of each clerkship block. Each clerkship director sets the specific EPAs, and this must be documented and communicated to faculty and students.
- Minimum of 2 faculty members and 2 residents must complete WBA assessments for the learner. If no resident is present in a clinical block or rotation (e.g., rural rotations, some community clinic rotations), then only the attending assesses the learner a minimum average of once per week.

What constitutes "fail" in WBA:

- Not meeting the minimum in one or more WBA requirement(s), as listed above.
- Being evaluated by an individual who is not an attending or resident (e.g., peer, friend, family member, etc.). This constitutes academic dishonesty and is subject to the consequences outlined in the Honor Code policy, including academic dismissal.

Note: Grading for WBA is "all or none". That is, students are awarded 20% for completing the minimum WBA requirements as outlined above and in the policy. If students do not meet the minimum by the end of the last day of the rotation, they are awarded 0 points for this portion of the final clerkship grade. There is no remediation period.

**NBME Shelf Exam (15 points):** The Equated Percent Correct Score (raw score) will be converted into a Percentile Rank using the NBME Academic Year Norms graph, and the quarter (1-4) in which the exam was taken. The NBME Percentile Rank changes over the course of the academic year in each quarter (e.g., a raw score that converts to a percentile of 15% in quarter 1 may fall in the 10$^{th}$ percentile in quarter 4 for the same raw score).

Exam rewrites will utilize the same method. Your Equated Percent Correct Score (raw score) will be converted to the Percentile Rank for the quarter (1-4) in which the retake exam was taken.

A student who retakes an examination because of failing on the first attempt is not eligible for a final clerkship grade of Honors or High Pass.

A student who scores **below the pass threshold (see chart)** on the exam will be allowed to take the test one additional time. Successful passing of the examination on the second attempt will change the grade from "Incomplete" to "Pass". The repeat exam can be taken only during non-academic periods per EPC policy.
*If the student fails the exam on the second attempt, the student will fail the clerkship in accordance with the COM EPC policy.*

See Appendix A for the 2022-2023 NBME Academic Year Norms graph.

**Student Attending (10 points):** the student attending will complete a summative assessment of the student's performance based on their direct observations of the student and on the quality of the student's required written History and Physicals. This assessment is based on the ACGME core competencies of Medical Knowledge, Patient Care, Interpersonal and Communication Skills, Professionalism, Practice-Based Learning and Improvement, and Systems-Based Practice.

**Professionalism Grade (5 points):** Professionalism accounts for 5% of your grade; it is an all or nothing component. A significant lapse and/or a pattern of lapses will result in a deduction of the full 5%. The Clerkship Director makes

the final decision. It is expected that most students will receive full credit.

The following list, while not exhaustive, should help to clarify what is included in the Professionalism grade throughout the clerkships.
Students will:

- *Complete credentialing paperwork and site-specific requirements such as, but not limited to, fingerprinting and drug screening, by the stated deadline.*
- *Complete assignments by due date. This includes but is not limited to the following:*
  - *MedLearn (Duty hours, H&P feedback, Patient Logs)*
  - *LCME-required Feedback Surveys (e.g., New Innovations)*
  - *Scholarly Case Report*
  - *Written History and Physicals*
  - *SOAP Notes*
  - *Mid-Clerkship form*
  - *Return of books and other borrowed items*
- *Respond to emails in a timely manner (within 1 business day)*
- *Refrain from using smartphones during meetings/sessions/didactics.*
- *Always inform your team/preceptor of your whereabouts*
- *Be considerate to staff, faculty, residents, patients, and other learners.*
- *Be on time for required meetings/sessions and do not leave without permission or until dismissed. This includes, but is not limited to the following:*
  - *Clerkship orientation*
  - *Seminars/Didactics/Core Lectures/Grand Rounds*
  - *Clinical Rounds*
  - *Community Preceptor meetings (if applicable)*
  - *OSCE orientation or interview (if applicable)*
  - *Student attending meetings.*
  - *Scholarly case report presentations (if applicable)*
- *Sign-in for didactics or other activities were requested ONLY for yourself.*
- *Be punctual and comply with NBME Shelf Exam rules.*
- *Obtain advance permission from the clerkship director/coordinator for absences from activities and/or wards; inform appropriate residents and/or attendings.*

*See Mistreatment definitions.*
***A clerkship reserves the right to assign a failing grade for the entire clerkship if a student performs in an unprofessional manner in terms of interactions with patients and other health professionals, completing assignments, attendance at scheduled activities, or other inappropriate actions or activities.***

**Pediatric Clerkship Grading Cut Off**

| GRADE | CRITERIA |
|---|---|
| **Honors** | Students earning Honors in pediatrics must earn an overall score within the first quartile (top 25%) for their clerkship block cohort |
| **High Pass** | Overall score in 2nd quartile of clerkship block **AND** Grade of Pass on exam |
| **Pass** | Overall score in 3rd or 4th quartile of clerkship block **AND** Grade of Pass on exam |
| **Incomplete** | Pass clinical rotations BUT failed exam |
| **Fail** | See criteria below |

**CRITERIA FOR "FAIL" GRADE IN PEDIATRICS**

A student will receive a grade of "Fail" for the pediatric clerkship for:

1. An evaluation that is "Far below expectations" in any category on the evaluation form on either the inpatient or outpatient segment of the rotation.
2. Failure after the second attempt at taking the clerkship examination.
3. Documented unethical or unprofessional behavior.
4. A score lower than 26 on the clerkship clinical grade.
5. Failure of the WBA category of the Clerkship

A "Fail" grade will require retaking the entire 6-week pediatric clerkship.

**Final Grade Distribution:**

The Department of Pediatrics, in keeping with the policy of the College of Medicine, will assign final grades using a cumulative, point-based system calculated with the above criteria. Final grades will be distributed using the following COM guidelines:

Honors: first quartile within a block cohort

High Pass: second quartile within a block cohort

Pass: third and fourth quartiles within a block cohort, provided that minimum passing requirements are met

**Appendix A:** Pediatrics Subject Exam 2022-2023 Academic Year Norms

## University Policies

### Classroom Behavior/Attendance Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lectures. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lectures or discussions and may be reported to the Dean of Students.

**Threatening Behavior Policy**

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

**Accessibility and Accommodations**

At The University of Arizona we strive to make learning experiences as accessible as possible. If you anticipate or experience barriers based on disability or pregnancy, please contact the Disability Resource Center (520-621-3268, https://drc.arizona.edu/) to establish reasonable accommodations.

**Absence and Class Participation Policy**

Absences for any sincerely held religious belief, observance, or practice will be accommodated where reasonable. Refer to the Religious Accommodation Policy.

Absences pre-approved by the University Dean of Students (or dean's designee) will be honored.
The clerkship follows the UA College of Medicine Attendance and Absence Policy:
https://medicine.arizona.edu/form/attendance- policies-medical-students-com

**Code of Academic Integrity**
Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: https://deanofstudents.arizona.edu/policies/code-academic-integrity.

The University Libraries have some excellent tips for avoiding plagiarism, available at http://new.library.arizona.edu/research/citing/plagiarism.

**UA Nondiscrimination and Anti-harassment Policy**
The University is committed to creating and maintaining an environment free of discrimination; see http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy

The Pediatric Clerkship is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination against others.

**Confidentiality of Student Records**

https://www.registrar.arizona.edu/privacy-ferpa/ferpa

**University and COM-T Policies**

See University of Arizona Policies

See COM-T Student Policies

**Subject to Change Statement**
Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

**Learning Objective Assessment Methods**

| Learning Objective | EPO | Assessment Methods | Instructional Methods |
|---|---|---|---|
| LO-01 Describe and demonstrate behaviors that respect the patient's modesty, privacy, and confidentiality. | PRO-03 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences, OSCE |
| LO-02 Describe the practical applications of the major ethical principles (i.e., justice, beneficence, non-malfeasance, and respect for autonomy). | PRO-03 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-03 Demonstrate communication skills with patients and families that convey respect, integrity, flexibility, sensitivity, cultural competence, and compassion. | PRO-01, ICS-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-04 Show respect for patients, parents, families, and cultural attitudes. | PRO-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-05 Demonstrate behaviors and attitudes that promote the best interest of patients and families, including showing flexibility to meet the needs of the patient and family. | PRO-04 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-06 Demonstrate collegiality and respect for all members of the health care team. | ICS-03 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-07 Exhibit a positive attitude and regard for education by demonstrating intellectual curiosity, initiative, honesty, responsibility, preparedness, flexibility, and maturity in soliciting, accepting, and acting on feedback. | PBLI-05 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-08 Identify and explore personal strengths, weaknesses, and goals – in general and within specific patient encounters. | PBLI-05 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |

| | | | |
|---|---|---|---|
| LO-09 Describe the impact of stress, fatigue, and personality differences on learning and performance. | PRO-08 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-10 Apply such skills as the ability to conduct an interview, perform a physical examination, manage medical data, communicate written and oral information, integrate basic science knowledge, search, and read literature critically, and teach. | PC-01, ICS-02, MK-02, PBLI-06 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, , Clinical Experiences OSCE |
| LO-11 Demonstrate sensitivity to confidentiality, privacy, modesty, and patient/family beliefs during the medical interview and physical examination. | PC-01, PRO-03 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-12 Perform an age-appropriate history and physical examination in children of all ages. | PC-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-13 Obtain a history, family history, and social history in an age-appropriate and sensitive manner from a child and/or the accompanying adult. | PC-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-14 Demonstrate the role of patient observation in determining the nature of a child's illness and developmental stage. | PC-02 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-15 Conduct a pediatric physical examination appropriate to the nature of the visit or complaint (complete vs. focused) and the age of the patient. | PC-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-16 Conduct an effective interview by adapting the interview to the visit (e.g., first visit, acute care, health supervision), or chief complaint. | PC-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-17 Demonstrate effective verbal and non-verbal communication skills with children and their parents or families. | ICS-01 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written | Case Conferences, Clinical Experiences OSCE |

| | | | |
|---|---|---|---|
| | | H&Ps, progress notes NBME Shelf Exam | |
| LO-18 Correctly identify the need for an interpreter in specific patient-physician interactions. | PC-03 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-19 Demonstrate effective oral and written communication with the health care team avoiding jargon and vague terms (e.g., clear, and normal). | ICS-02 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-20 Present a complete, well-organized verbal summary of the patient's history and physical examination findings, including an assessment and plan modifying the presentation to fit the time constraints and educational goals of the situation. | ICS-02 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, , Clinical Experiences OSCE |
| LO-21 Document the history, physical examination, and assessment and plan using a format appropriate to the clinical situation (e.g., inpatient admission, progress note, office or clinic visit, acute illness, health supervision visit, and interval care visits). | ICS-04 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-22 Generate an age-appropriate differential diagnosis and problem list based on the interview and physical examination. | PC-05 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-23 Search for relevant information using electronic (or other) databases and critically appraise the information obtained to make evidence-based decisions. | PBLI-06 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, , Clinical Experiences OSCE |
| LO-24 Show respect for behaviors and lifestyles, paying particular attention to cultural, ethnic, and socioeconomic influences. | SBP-07 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
| LO-25 Seek to elicit and incorporate the patient's, parent's, and family's attitudes into the health care plan. | PRO-04 | Daily Clinical Evaluations, WBAs, Aquifer Cases, Written H&Ps, progress notes NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |

| LO-26 Learn to demonstrate clear and professional communication with patients, families, and healthcare teams. | ICS-01, ICS-02 | Daily Clinical Evaluations, WBAs, Aquifer Cases, NBME Shelf Exam | Case Conferences, Clinical Experiences OSCE |
|---|---|---|---|

## Supplement: Learning Objectives linked to Core Topics and Associated Requirements

**Pediatrics – General Health Topics**

1. *Health Supervision*
2. *Growth*
3. *Development*
4. *Behavior*

5. *Nutrition*
6. *Prevention*
7. *Issues Specific to Newborns*
8. *Issues Specific to Adolescents*

*** Information on Accessing Required Materials such as Panopto and Zoom can be found in the Resources Section of the manual***

*1. Health Supervision*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:

- Describe the components of a health supervision visit, including age-appropriate screening, developmental assessment, history, physical exam, immunizations, and anticipatory guidance.
- Define anticipatory guidance, and give examples of anticipatory guidance about nutrition, development, behavior, immunizations, injury prevention, pubertal development, sexuality, and substance use/abuse.
- List the most common preventable morbidities in childhood by age (infant, toddler, school age, adolescent), and describe strategies for their prevention.
- Assess a child's immunization status and provide caregivers with information regarding vaccine schedules and the risks and benefits of immunizations and the shared decision making about immunizations.
- Explain the rationale and indications for vision, hearing, hemoglobin, lead, and tuberculosis screenings.

Requirements:

- Aquifer Pediatrics Case 2
- Aquifer Pediatrics Case 3
- Aquifer Pediatrics Case 4
- Immunizations Didactic Seminar (Available through Zoom and Panopto)

Helpful Resources:

- Bright Futures Guide to the childhood periodicity schedule for Well Child Checkups A good guide of the rationale, content and questions to ask during each visit: https://brightfutures.aap.org/Bright%20Futures%20Documents/BF4_POCKETGUIDE.pdf

- CDC's childhood vaccine schedule www.cdc.gov/vaccines/schedules. This resource also covers immunization delays, and immunization in the immunocompromised host.
- True stories of children and families affected by vaccine-preventable diseases: www.vaccineinformation.org/infants-children/testimonies
- HealthyChildren.org, a site with answers to common pediatric questions posed by parents.
- Shetty VU, Chaudhuri P, Sabella C. Rationale for immunization schedule: why is it the way it is? Pediatric Rev 2019, 40(1): 26-34.
- Online MedEd: Well Child, Vaccinations

*2. Growth*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Accurately plot and interpret a growth curve.
- Know the difference between the WHO and CDC growth charts, and when to use each.
- Clinically recognize familial short stature and constitutional growth delay
- Provide differential diagnoses for failure to thrive and obesity.

Requirements:
- Aquifer Pediatrics Case 2
- Aquifer Pediatrics Case 4 (including "Deep Dive")
- Aquifer Pediatrics Case 26
- Growth and Nutrition Seminar (available through Zoom and Panopto)

Additional Helpful Resources:
- Failure to thrive: Current clinical concepts. Jaffe AC. Pediatrics in Review 2011; 32: 100-108. Excellent review on failure to thrive – a common and important pediatric problem.
- Short stature in childhood – Challenges and choices. Allen DB et al. NEJM 2013; 368: 1220-1228. This article works through a case and highlights the distinguishing features of familial short stature and constitutional delay – the two most common causes of short stature in children.
- CDC/WHO growth charts: https://www.cdc.gov/growthcharts/index.htm

*3. Development:*

Learning Objectives:
- By the end of the pediatric clerkship, a medical student will be able to:
- List and recognize the major developmental milestones from birth to age 6 in each of the 4 domains of development: gross motor, fine motor, speech, and language, and cognitive and social-emotional.
- Recognize major deviations from the normal range of development.
- List a differential diagnosis for speech and language delay.

Requirements:
- Aquifer Case 3
- Aquifer Case 14

- Aquifer Case 28
- Aquifer Case 29
- Development and Behavior Didactic Seminar (available through Zoom and Panopto)

Additional Helpful Resources:

- Video showing real-life with cerebral palsy: https://positiveexposure.org/frame/cerebral-palsy/
- Videos demonstrating how to elicit each aspect of the developmental examination in different age groups:
- Aquifer's Developmental Milestones table (under Student Resources course)
- Speech and language development: Monitoring process and problems. McQuiston S et al. Pediatrics in Review 2011; 32: 230. Overview, links to foundational knowledge. General review on speech and language development and problems. Good table regarding normal language development.
- Developmental milestones: Motor development. Gerber et al. Pediatrics in Review 2010; 31: 267-277. Review of motor development with good pictures; includes red flags for motor delay. Good tables of milestones.
- Intellectual Disability (Mental retardation). Shea S. Pediatrics in Review 2012; 33: 110. General article on intellectual disability. Good tables.
- PedsCases podcasts: Speech and Language Delay, Gross Motor Delay

*4. Behavior:*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:

- Describe the typical presentation of common behavioral problems in different age groups, such as sleep problems and colic in the newborn, temper tantrums and toilet training issues in the toddler, attention deficit, autism, and elimination difficulties in the school age child, and risk-taking behavior in the adolescent.
- Distinguish between age-appropriate and abnormal behavior in children of different ages.
- Identify emotional disturbances and conditions that can manifest as school performance difficulty.
- Counsel parents on the management of common behavioral concerns such as those listed above.

Requirements:

- Aquifer Case 4
- Development and Behavior Didactic Seminar (available through zoom and Panopto)

Additional Helpful Resources:

- Karande S and Kulkarni M. Poor school performance. Indian Journal of Pediatrics 2005; 72:961-7.
- HealthyChildren.org sections on sleep (https://www.healthychildren.org/English/healthy-living/sleep/Pages/Bedtime-Trouble.aspx), tantrums (https://www.healthychildren.org/English/family-life/family-dynamics/communication-discipline/Pages/Temper-Tantrums.aspx), and bedwetting (https://www.healthychildren.org/English/ages-stages/toddler/toilet-training/Pages/Bedwetting.aspx)
- Video on Child Development and Behavior/ADHD:
- Video showing real-life with autism: https://positiveexposure.org/frame/autism/
- Bright Future Guides. Nice table with developmental milestones by age: https://brightfutures.aap.org/Bright%20Futures%20Documents/BF4_POCKETGUIDE.pdf

*5. Nutrition:*

Learning Objectives:

- By the end of the pediatric clerkship, a medical student will be able to:
- Describe the advantages of breastfeeding and describe common difficulties experienced by breastfeeding mothers.
- Describe the signs and symptoms of common nutritional deficiencies in infants and children (e.g., iron, vitamin D, fluoride, and inappropriate caloric volume) and how to prevent them.
- Identify children with specific or special nutritional needs (e.g., patients with chronic illness, prematurity, abnormal growth patterns, failure to thrive, obesity, or when family risk factors suggest the possibility that nutritional modification will be needed).
- Obtain a dietary history in children of different ages, determine the caloric adequacy of an infant's diet, and provide nutritional advice to families on breastfeeding vs formula feeding, addition of solids to infant diet, introduction of cow's milk to infant diet, healthy food choices, and effects of screen time & exercise on obesity.

Requirements:

- Aquifer Case 2
- Aquifer Case 3
- Growth and Nutrition Didactic Seminar (available via zoom and Panopto)

Additional Helpful Resources:

- Podcasts reviewing pediatric nutrition learning points: https://www.pedscases.com/infant-nutrition-birth-6-months and https://pedscases.com/infant-nutrition-6-24-months

*6. Prevention:*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:

- Describe how risk of illness and injury change during growth and development and give examples of these illnesses and injuries.
- Describe the developmental vulnerability for poisoning and accidental ingestions in infants, toddlers, children, and adolescents.
- List the passive and active interventions that decrease the incidence of childhood ingestions.
- Describe the environmental sources of lead, the clinical and social importance of lead poisoning, and screening tools to identify children at risk for lead poisoning.
- Describe the acute signs and symptoms, and emergency management of accidental or intentional ingestion of acetaminophen, iron, alcohol, and narcotics.
- Describe the role of the Poison Control Center (1-800-222-1222) and other information resources in the management of the patient with an accidental or intentional ingestion.

Requirements:

- Aquifer Case 12
- Aquifer Case 24

- Didactic Seminar on Child Abuse (available via zoom and panopto)
- Didactic Seminar on Adolescent Medicine (Available via zoom and panopto)

Additional Helpful Resources:
- Explore the Safe Kids Worldwide website: https://www.safekids.org/safetytips
- Explore the Poison Control website, especially Poison Info by Age: https://www.poison.org/poison-prevention-tips-by-age

*7. Issues Specific to Newborns:*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Interpret relevant maternal, prenatal, and natal history pertaining to the newborn's health.
- List the congenital infections that are routinely screened for during pregnancy.
- Name the components of a complete newborn physical examination.
- List the associated medical issues of a premature baby (e.g., respiratory distress), a large for gestational age baby (e.g., birth trauma, hypoglycemia), and a small for gestational age baby (e.g., hypoglycemia, hypothermia).
- Recognize common abnormal physical findings on a newborn exam and know the significance of each.
- Identify dysmorphic features in the newborn.
- Explain the rationale behind these routine newborn care components: "magic hour," umbilical cord clamping/drying, erythromycin eye ointment, Vitamin K injection, Hepatitis B vaccination, jaundice screening, hearing screening, congenital cardiac screening, and dried blood spot screening (commonly called "the newborn screen")
- Know where to find a list of the medical conditions included in the Virginia Newborn Dried Blood Spot Screen and describe the appropriate initial management of an abnormal screen.
- Propose an investigation and management plan for a baby with each of the following: respiratory distress, cyanosis, hypoglycemia, hypothermia, sepsis, and hypotonia.
- Provide anticipatory guidance to parents of a newborn baby (covering at least feeding/elimination, crying/calming, skin care, sleep, safety, and signs of illness)

Requirements:
- Aquifer Case 1
- Aquifer Case 7
- Aquifer Case 8
- Aquifer Case 9

Additional Helpful Resources:
- See Pediatric Blackboard site: Clinical Experiences/Newborn Nursery sections Newborn Nursery Required Readings, The New Parent ("Mommy") Talk, and Newborn Physical Exam Resources
- Online MedEd: Newborn Management, Neonatal ICU, Failure to Pass Meconium, Baby Emesis, Neonatal Jaundice, Congenital Defects
- Watch how to perform a newborn physical exam: https://learn.pediatrics.ubc.ca/videos/newborn-exam/ (in addition to Blackboard resources)

*8. Issues Specific to Adolescents*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Describe the unique features of the physician-patient relationship during adolescence including confidentiality and consent.
- Identify and describe the sequence of the physical changes of puberty (e.g., Tanner scale).
- List the components of health supervision for an adolescent, such as personal habits, pubertal development, immunizations, acne, scoliosis, sports participation, and indications for pelvic exam.
- Describe the common risk-taking behaviors of adolescents, such as alcohol and other drug use, sexual activity, and violence.
- Describe the contributions of unintentional injuries, homicide, suicide and HIV/AIDS to the morbidity and mortality of adolescents.
- Describe the features of common mental health problems in adolescence, including school failure, attention deficit, body image, eating disorders, depression, and suicide.

Requirements:
- Aquifer Case 5
- Aquifer Case 6
- Aquifer Case 22
- Didactic Seminar on Adolescent Medicine (available via zoom and Panopto)

Additional Helpful Resources:
- See Pediatric Blackboard site: SP Encounters/Adolescent Standardized Patient Experience, "Preparation prior to the session" with included article/video links.
- Miller SM, Peterson AR. The sports preparticipation evaluation. Pediatrics in Review 2019; 40(3): 108-128.

**Pediatrics – Common Complaints**

1. *Abdominal mass*
2. *Abdominal pain*
3. *Acutely ill child*
4. *Bleeding, bruising, purpura, and petechiae*
5. *Cough and/or wheeze*
6. *Dehydration*
7. *Diarrhea*
8. *Edema*
9. *Eye issues*
10. *Fever without a focus*
11. *Fever with rash*
12. *Genitourinary complaints (hematuria, dysuria, polyuria)*
13. *Headache*
14. *Heart Murmur/cyanosis*
15. *Hepatomegaly*
16. *Inadequately explained injury*
17. *Limp/extremity pain*
18. *Lymphadenopathy*
19. *Mental health complaints*
20. *Neonatal jaundice*
21. *Otalgia*
22. *Pallor/anemia*
23. *Rash*
24. *Rhinorrhea*
25. *Seizure/paroxysmal event*
26. *Sore throat/mouth*
27. *Splenomegaly*
28. *Vomiting*
29. *Positive lead screening test*
30. *Positive tuberculin skin test*

*1. Abdominal Mass*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Recognize the clinical features of hydronephrosis, Wilm's tumor, neuroblastoma, pregnancy, intussusception, and fecal impaction (age at presentation, presence/absence of pain, location, typical historical features)

Requirements:

- Aquifer Case 2

Additional Helpful Resources

- "Abdominal Exam" video, at https://learn.pediatrics.ubc.ca/videos/abdominal-exam/
- Potisek NM, Antoon JW. Abdominal masses. Pediatrics in Review Feb 2017; 38(2): 101-103.

*2. Abdominal Pain*

Learning Objectives:

- By the end of the pediatric clerkship, a medical student will be able to:
- Describe the epidemiologic, clinical, laboratory, and radiographic findings of each of these pediatric conditions presenting with abdominal pain: gastroenteritis, constipation/encopresis, and functional abdominal pain disorders (most common diagnoses); pyelonephritis, appendicitis, and pelvic inflammatory disease (relatively common diagnoses); and diabetic ketoacidosis, Henoch-Schonlein purpura, and intussusception ("don't miss" diagnoses).
- List an age-appropriate differential diagnosis, and generate an initial diagnostic and therapeutic plan, for pediatric patients presenting with abdominal pain.

Requirements:

- Aquifer Case 16
- Aquifer Case 22
- Aquifer Case 27

Additional Helpful Resources:

- "Abdominal Exam" video, at https://learn.pediatrics.ubc.ca/videos/abdominal-exam/
- Baker RD. Acute abdominal pain. Pediatrics in Review Mar 2018; 39(3): 130-139.
- "Acute abdominal pain" podcast, at https://www.pedscases.com/acute-abdominal-pain
- "Chronic abdominal pain" podcast, at https://www.pedscases.com/chronic-abdominal-pain

*3. Acutely Ill Child*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Recognize an acutely ill child.
- Describe how you would assess an acutely ill child (primary and secondary surveys, or 3-minute toolkit).
- Provide a differential diagnosis for altered level of consciousness in a child, both with and without evidence of pupillary dysfunction.

- Have a basic familiarity with the pediatric Glasgow Coma Scale and the Broselow Pediatric Emergency Tape.

Requirements:
- Aquifer Case 16
- Aquifer Case 23
- Aquifer Case 25
- “Additional Helpful Resources:
- Avner JR. Altered states of consciousness. Pediatrics in Review Sep 2006; 27(9): 331-338.

*4. Bleeding, bruising, purpura, and petechiae*
Learning Objectives:
- By the end of the pediatric clerkship, a medical student will be able to:
- Know how to obtain a pertinent history (HPI, ROS, PMH/PSH, FH) for a child presenting with bleeding.
- Identify red flags for inflicted or abusive injury in a child presenting with bleeding or bruising.
- Describe the epidemiologic, clinical, and laboratory findings of each of these pediatric conditions presenting with purpura or petechiae: idiopathic thrombocytopenic purpura (ITP), Henoch-Schonlein purpura (HSP), and meningococcemia.

Requirements:
- Aquifer Case 21
- Aquifer Case 23
- Aquifer Case 25

Additional Helpful Resources:
- An approach to thinking about easy bleeding: https://learn.pediatrics.ubc.ca/body-systems/hematology-oncology/easy-bleeding/
- Hernaez F, Hernaez AM, Blankas-Hernaez N. Idiopathic thrombocytopenic purpura [published online December 19, 2018]. Consultant360.

*5. Cough and/or wheeze*
Learning Objectives:
- By the end of the pediatric clerkship, a medical student will be able to:
- Recognize the following respiratory signs and identify the anatomic location within the pediatric respiratory tract from which these signs typically emanate: stertor, stridor, wheeze, crackles (or rales).
- Provide a pediatric-specific differential diagnosis for each of the respiratory signs named above.
- Describe the epidemiologic, clinical, and radiographic features the following common pediatric conditions: asthma, bronchiolitis, croup, and community-acquired pneumonia.
- Understand the keys to an asthma-focused history, including assessment of symptoms, daily impairment, level of risk, triggers, personal and family history of atopy, and medication adherence/technique.
- Create an initial diagnostic and treatment plan for the pediatric patient presenting with an asthma exacerbation, bronchiolitis, croup, and community-acquired pneumonia.

Requirements:
- Aquifer Case 12
- Aquifer Case 13

- "Spotting the Sick Child" video sections: Symptoms/Difficulty in breathing (All: Key Background Information, Key Points in History, Key Points in Examination, and Red Flags): https://spottingthesickchild.com/

Additional Helpful Resources:
- "Respiratory Exam" video at https://learn.pediatrics.ubc.ca/videos/respirology-exam/
- Patel SJ, Teach SJ. Asthma. Pediatrics in Review Nov 2019; 40(11): 549-566.
- Meissner HC. Viral bronchiolitis in children. NEJM 2016;374(1):62-72.
- Cherry JD. Croup. NEJM 2008;358:384-391.
- Margolis P, Gadomski A. Does this infant have pneumonia? JAMA 1998; 279(4):308-313.
- Online MedEd: Upper Airway, Lower Airway

*6. Dehydration*
Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Accurately assess the hydration status of a child.
- Recognize the clinical features of, and propose a management plan for, pediatric patients with mild, moderate, and severe dehydration.
- Identify situations that can lead to significant electrolyte disturbances, such as hyponatremia or hypernatremia.
- Understand the basis for maintenance fluid calculations in pediatrics, the content of such fluids, and the reasons why maintenance volumes might need to be increased or restricted.

Requirements:
- Aquifer Case 15
- Aquifer Case 16

Additional Helpful Resources:
- "Pediatric Fluids for MS3 2019" and "Pediatric Fluid Practice Cases" worksheets
- "Fluids and Nutrition for Hospitalized Children" Prezi by Dr. Shomaker, at https://prezi.com/xpuy1ryoxifl/fluids-nutrition/
- "Spotting the Sick Child" video sections: Symptoms/Dehydration: Key Background Information, Key Points in Examination (Signs of Dehydration), and Red Flags (Hypernatremic Dehydration), at https://spottingthesickchild.com/

*7. Diarrhea*
Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Name the common etiologic agents that cause acute gastroenteritis (AGE).
- Recognize the clinical features that distinguish AGE from other etiologies of diarrhea in children such as food protein induced enterocolitis syndrome (milk protein allergy), toddler's diarrhea, and celiac disease.
- Provide evidence-based dietary advice for children suffering from/recovering from AGE.

Requirements:
- Aquifer Case 15

Additional Helpful Resources:

- Centers for Disease Control and Prevention. Managing acute gastroenteritis among children: oral rehydration, maintenance, and nutritional therapy. MMWR 2003;52(No. RR-16): 1-16.
- Lecturio: Diarrhea

*8. Edema*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Perform an age-appropriate history and physical examination for a child with periorbital swelling.
- Use history and physical exam findings to formulate and refine a differential diagnosis for generalized edema.
- Understand the role of urinalysis in evaluating hypoalbuminemia.
- Summarize the epidemiology, clinical features, management, and prognosis of nephrotic syndrome in children.
- Explain the pathophysiology, underlying lab abnormalities, and common complications encountered in nephrotic syndrome.

Requirements:

- Aquifer Case 31

Additional Helpful Resources:

- PedsCases podcasts: Approach to Pediatric Periorbital Edema, Approach to Proteinuria

*9. Eye Issues*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Clinically recognize an absent or white-red reflex (leukocoria) and describe the significance of this finding.
- Assess visual acuity and for the presence of amblyopia.
- Understand the importance of early detection of amblyopia and describe its general management.
- List the differences between periorbital and orbital cellulitis and propose a management plan for each.
- Propose an investigation and management plan for a patient with conjunctivitis.

Requirements:

- Loh AR, Chiang MF. Pediatric vision screening. Pediatrics in Review 2018; 39(5):225-234.

Additional Helpful Resources:

- PedsCases podcasts: Acute Eye Inflammation in a 10-year-old Boy (case-based quiz) and Approach to Pediatric Periorbital Edema
- Online MedEd: Ophthalmology
- Lecturio: Red Eye and Orbital Trauma

*10. Fever without a localizing source*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Propose a differential diagnosis and an investigation and management plan for febrile infants <<1 month old, 1-3 months of age, and >3 months of age without a localizing source.
- Know the difference between “fever without a localizing source” (FWLS) and “fever of unknown origin”

(FUO).

Requirements:
- Aquifer Case 10

Additional Helpful Resources:
- Lecturio: The Febrile Baby, Managing Well-Appearing Infants with Fever

*11. Fever with rash*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Describe and recognize the clinical features of the following serious pediatric illnesses that present with simultaneous fever and rash: measles, scarlet fever, toxic shock syndrome, rocky mountain spotted fever, Kawasaki disease, and drug-mediated exanthem (such as DRESS).
- Distinguish the epidemiologic and clinical manifestations of Staphylococcal scalded skin syndrome from Stevens-Johnson syndrome.
- Identify the viral exanthems caused by measles, rubella, varicella (chickenpox), herpes simplex, parvovirus B19 (fifth disease), human herpes virus 6 (roseola), and coxsackievirus (hand, foot, and mouth disease).

Requirements:
- Aquifer Case 11
- Aquifer Case 23
- Didactic Seminar on Infectious Enanthems and Exanthems (available via zoom and panopto)

Additional Helpful Resources:
- "VisualDx" app available for download from the EVMS computer lab with librarian's assistance – allows you to look up pictures of a particular diagnosis or build a differential diagnosis by entering features of an observed dermatologic condition.
- "Spotting the Sick Child" video sections: Symptoms/Rash

*12. Genitourinary complaints*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Demonstrate the ability to perform and interpret blood pressure correctly in a child.
- Demonstrate techniques for examining the urogenital system in a child and describe circumstances in which the kidneys or bladder might be palpable.
- Identify structural and behavioral differences in infants and children that may predispose to frequent urinary tract infections (duplex collecting system, vesicoureteral reflux, posterior urethral valves, dysfunctional voiding, functional constipation)
- Provide parents/guardians with information regarding circumcision.
- Interpret the results of a urinalysis.
- Propose a differential diagnosis, diagnostic, and management plan for children presenting with hematuria or proteinuria.
- Describe the epidemiology, clinical, laboratory, and radiographic findings of glomerulonephritis, UTI, nephrotic syndrome, and orthostatic proteinuria in childhood.

Requirements:
- Aquifer Case 22
- Aquifer Case 31

Additional Helpful Resources:
- How to measure pediatric blood pressure: https://youtu.be/QtWcmtLx40E?si=pKouHKA4t_EtOfer, and Pediatric Blood Pressure app
- "Genitourinary Exam" at http://learn.pediatrics.ubc.ca/videos/genitourinary-exam-2/
- Viteri B and Reid-Adam J. Hematuria and proteinuria in children. Pediatrics in Review Dec 2018; 39(12): 573-587.
- Online MedEd: Urology
- Lecturio: Pediatric Hematuria
- PedsCases podcasts: Approach to Enuresis, Urologic Emergencies, Approach to Pediatric Hypertension

*13. Headache*

Additional Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Perform an age-appropriate history and exam for a school-aged child presenting with headaches.
- Generate an age-appropriate differential diagnosis and initial diagnostic and therapeutic plan for a child with headache.
- Describe the epidemiology, clinical, laboratory, and radiographic findings of important causes of headaches in children (e.g., migraine headache, brain tumor, concussion).
- List the elements of a thorough neurologic exam and interpret abnormalities.
- Identify signs and symptoms of increased intracranial pressure.
- Summarize features of common brain tumors in children.
- Propose an evaluation and management plan for an adolescent who has suffered a concussion.

Requirements:
- Aquifer Case 20

Additional Helpful Resources:
- Gelineau-Morel RN, Zinkus TP, Le Pichon JB. Pediatric head trauma: a review and update [section on mild TBI]. Pediatrics in Review Sep 2019; 40(9): 469-473.
- Spotting the Sick Child Symptom video: Head Injury

*14. Heart Murmur/ Cyanosis*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Understand the assessment of cardiac murmurs on physical exam in children, including signs that differentiate innocent and pathologic murmurs.
- Describe the typical presentation (age on onset, exam findings) for the most common congenital heart defects and draw a picture of each: ventricular septal defect, atrial septal defect, patent ductus arteriosus, tetralogy of Fallot, transposition of the great arteries, and coarctation of the aorta.
- Describe the rationale for, and importance of timing of, newborn screening for critical cyanotic congenital heart disease.

- Identify the clinical manifestations of congestive heart failure in an infant.
- Discuss the initial management plan (diagnostic and therapeutic) for an infant with congestive heart failure.

Requirements:
- Aquifer Case 18

Additional Helpful Resources:
- "Cardiology Exam" at https://learn.pediatrics.ubc.ca/videos/cardiology-exam/
- Lucile Packard Children's Hospital at Stanford: Overview of Congenital heart Disease https://www.stanfordchildrens.org/en/topic/default?id=congenital-heart-disease-90-P02346&sid=
- University of Washington: Demonstration of Heart Sounds & Murmurs http://depts.washington.edu/physdx/heart/demo.html
- Patients with 22q11.2 Deletion Syndrome: https://positiveexposure.org/frame/22q11-2-deletion-syndrome/
- Lecturio: Diagnosis if a baby is blue and hyperoxia test, Truncus arteriosus and transposition of the great vessels.

*15. Hepatomegaly*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Describe the differential diagnosis for hepatomegaly in infants.

Requirements:
- Aquifer Case 18

Additional Helpful Resources:
- "Abdominal Exam" video, at https://learn.pediatrics.ubc.ca/videos/abdominal-exam/

*16. Inadequately explained injury*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Define the different types of child maltreatment.
- List the risk factors for child maltreatment.
- List the "red flags" of a history and physical examination that raise the suspicion of child maltreatment.
- Recognize normal and abnormal patterns of injury in children.
- List the appropriate people to be contacted if child abuse is suspected.

Requirements:
- Aquifer Case 25
- Didactic Seminar, Child Abuse (Available via Zoom and Panopto)

Additional Helpful Resources:
- Maguire S. Which injuries may indicate child abuse? Arch Dis Child Educ Pract Ed 2010;95:170-177. https://ep.bmj.com/content/95/6/170
- Glick JC, Lorand MA, Bilka KR. Physical abuse of children. Pediatrics in Review Apr 2016; 37(4):146-158.
- Online MedEd: Child Abuse

*17. Limp/extremity pain*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Outline the elements of the musculoskeletal exam in a child, including observation and the Barlow and Ortolani maneuvers.
- Know the risk factors and screening recommendations for, and the potential complications of developmental dysplasia of the hip.
- Recognize the clinical features of growing pains, Osgood Schlatter disease, and nursemaid elbow.
- List an age-appropriate differential diagnosis, diagnostic, and therapeutic plan for pediatric patients presenting with acute refusal to bear weight.
- Describe the typical presentation (epidemiology, clinical, laboratory, and radiographic findings) of important causes of limp in children (such as osteomyelitis, septic arthritis, transient synovitis, Legg Calve Perthes disease, slipped capital femoral epiphysis, bone tumor, and fracture), and features that help distinguish one from another.

Requirements:

- Aquifer Case 17

Additional Helpful Resources:

- "MSK Exam" at https://learn.pediatrics.ubc.ca/videos/msk-exam/
- Herman MJ and Martinek M. The limping child. Pediatrics in Review. May 2015; 36(5):184-197.
- Online MedEd: Orthopedics
- Lecturio: Juvenile Idiopathic Arthritis
- PedsCases podcasts/quizzes: Evaluation of a Limp, Septic Arthritis 1 & 2, Knee Pain in a 6-year-old Male, Painful Arm in a 4-year-old Female

*18. Lymphadenopathy*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Distinguish between infectious and non-infectious causes of lymphadenopathy in the pediatric population.
- Recognize the clinical features and propose a management plan for patients with cervical adenitis, mononucleosis, and reactive lymphadenopathy.
- Recognize the clinical features of lymphoma.

Requirements:

- Aquifer Case 11

Additional Helpful Resources:

- Sahal S. Lymphadenopathy. Pediatrics in Review. 2013; 34:216-227.

*19. Mental health complaints*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- List the features on history and physical examination that are consistent with depression and anxiety in

children and youth.
- Conduct a history to assess a patient's risk of suicide.
- Conduct a history to explore the reasons for school failure.

Requirements:
- Aquifer Case 4
- Adolescent Medicine Didactic Seminar (available via zoom and Panopto)

Additional Helpful Resources:
- Maslow GR, Dunlap K, Chung RJ. Depression and suicide in children and adolescents. Pediatrics in Review. Jul 2015; 36(7): 299-310.
- Southammakosane C and Schmitz K. Pediatric psychopharmacology for treatment of ADHD, depression, and anxiety. Pediatrics. Aug 2015; 136(2): 351-359.
- Karande S and Kulkarni M. Poor school performance. Indian Journal of Pediatrics 2005; 72:961-7.
- PedsCases podcasts: Behavioural Problems in Children, Approach to Major Depressive Disorder, Pediatric Anxiety, Approach to Suicidal Ideation and Behaviour, An Approach to Dealing with Challenging Behavior and Mood Changes in Adolescents
- Lecturio: ADHD at https://www.lecturio.com/medical-courses/adhd.lecture#tab/videos

*20. Neonatal jaundice*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Describe newborn bilirubin physiology.
- Define unconjugated (or indirect) and conjugated (or direct) hyperbilirubinemia.
- Outline features of and risk factors for acute bilirubin encephalopathy and kernicterus.
- Identify features of the maternal and newborn history that are relevant to the evaluation of newborn jaundice.
- Generate an age-appropriate differential diagnosis and initial diagnostic and therapeutic plan for a newborn with jaundice.
- Describe the epidemiology, clinical, and laboratory findings of important causes of newborn jaundice, including hemolytic disease of the newborn, breast feeding jaundice, breast milk jaundice, G6PD deficiency, and biliary atresia.
- Summarize current guidelines for management of newborn hyperbilirubinemia.

Requirements:
- Aquifer Case 8

Additional Helpful Resources:
- Practical tool for evaluating bilirubin level in context of newborn age and risk factors: www.bilitool.com
- Maisels MJ, McDonagh AF. Phototherapy for neonatal jaundice. NEJM. Feb 28, 2008; 358(9): 920-928.
- Online MedEd: Neonatal Jaundice

*21. Otalgia*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Clinically recognize, and propose a management plan for, patients with acute otitis media and otitis externa.
- Demonstrate correct technique for performance of pediatric otoscopy.

Requirements:
- Aquifer Case 14

Additional Helpful Resources:
- Lieberthal AS et al. The diagnosis and management of acute otitis media. Pediatrics 2013; 131: e969-985.
- Online MedEd: Ear Nose Throat

*22. Pallor / anemia*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- Interpret a CBC with differential and iron studies.
- Interpret neonatal dried blood spot hemoglobinopathy screening.
- List an age-appropriate differential diagnosis for pediatric patients presenting with anemia.
- Recognize the clinical features and propose a management plan for patients with iron deficiency anemia.
- Recognize the clinical features of hemolysis and hemoglobinopathies.
- Describe health maintenance, expected course, and complications associated with morbidity and mortality for children with sickle cell disease.

Requirements:
- Aquifer Case 3
- Aquifer Case 5
- Aquifer Case 30

Additional Helpful Resources:
- PedsCases podcasts: Anemia Parts 1 & 2
- Online MedEd: Sickle Cell Disease
- Lecturio: Anemia in Children, Direct and Indirect Coombs Tests

*23. Rash*

Learning Objectives:
By the end of the pediatric clerkship, a medical student will be able to:
- List an age-appropriate differential diagnosis and therapeutic plan for pediatric patients presenting with pruritic rash.
- Recognize signs of common newborn dermatoses (erythema toxicum neonatorum, transient pustular melanosis, seborrheic dermatitis) and pediatric dermatoses (atopic dermatitis), infections (tinea, candida, molluscum), and infestations (scabies, lice).
- Distinguish common diaper dermatitis from less common causes requiring different treatment.
- Classify and propose an initial management plan for different severities of pediatric acne.

Requirements:
- Aquifer Case 32

- Infectious Exanthems and Enanthems Didactic Seminar (Available via Zoom and Panopto)

Additional Helpful Resources:
- Visual Dx (Clerkship is looking into accessibility of this resource) .
- “Spotting the Sick Child” video sections: Symptoms/Rash

*24. Rhinorrhea*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Describe the clinical features that distinguish a child presenting with rhinorrhea due to congenital syphilis, allergic rhinitis, sinusitis, viral upper respiratory infection, and nasal foreign body.

Requirements:
- Aquifer Case 14

Additional Helpful Resources:
- Online MedEd: Allergies; Ear Nose Throat

*25. Seizure / paroxysmal event*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Recognize the clinical features of, and distinguish between seizures and paroxysmal events such as syncope and brief resolved unexplained event (BRUE)
- Categorize seizures as partial, generalized, simple febrile, or complex febrile according to typical clinical features.
- List key features to include in the history and exam in determining the etiology of a new-onset seizure, including skin findings (café au lait macules, ash leaf spots, facial port wine stain) that may indicate phacomatoses.
- List an age-appropriate differential diagnosis, and an initial diagnostic plan for pediatric patients presenting with a first episode of seizure.
- Summarize national practice guidelines for the evaluation of simple febrile seizures.
- Describe the initial emergency management of status epilepticus in pediatric patients.
- Discuss options for anticipatory guidance to families in the aftermath of a febrile seizure.
- Describe the clinical features of epilepsy and its effects as a chronic disease on the patient and family.

Requirements:
- Aquifer Case 19

Additional Helpful Resources:
- Slideshow of phacomatoses: https://reference.medscape.com/features/slideshow/phakomatoses#page=1
- “Spotting the Sick Child” video sections: Symptoms/Fits
- Hirtz D et al. Practice parameter: evaluating a first nonfebrile seizure in children. Neurology 2000; 55:616.
- Tieder JS et al. Brief resolved unexplained events (formerly apparent life-threatening events) and evaluation of lower-risk infants. Pediatrics. 2016; 137(5): e3-e7.

*26. Sore throat / mouth*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Clinically recognize and propose an investigation and management plan for patients with oral thrush, gingivostomatitis, pharyngitis, and tonsillitis.
- List the factors associated with dental decay in pediatric patients, and counsel parents regarding the prevention of dental caries.
- Didactic seminar on Sore Throat (available via zoom)

Additional Helpful Resources:

- Krol DM, Keels MA. Oral conditions. Pediatrics in Review. Jan 2007; 28(1):15-22.
- "How to Prevent Tooth Decay in Your Baby" from HealthyChildren.org, at https://www.healthychildren.org/English/ages-stages/baby/teething-tooth-care/Pages/How-to-Prevent-Tooth-Decay-in-Your-Baby.aspx
- PedsCases podcast: "Approach to Sore Throat" at https://www.pedscases.com/approach-sore-throat

*27. Splenomegaly*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Describe the maneuvers used to examine the spleen.
- Describe clinical scenarios that would correspond to splenomegaly caused by Epstein-Barr virus infection, autoimmune hemolytic anemia, metabolic storage disease, and malignancy.
- Didactic Seminar covers Splenomegaly, available via zoom.

Additional Helpful Resources:

- "Abdominal Exam" video, at https://learn.pediatrics.ubc.ca/videos/abdominal-exam/
- Grover SA, Barkun AN, Sackett DL. Does this patient have splenomegaly? JAMA. Nov 1993; 270(18): 2218-2221.
- Muhammad NA. "Case 3: gradual abdominal distension in an 18-month-old boy." Pediatrics in Review. Nov 2013; 34(11): 531-536.

*28. Vomiting*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:

- Describe metabolic and electrolyte abnormalities that occur with vomiting.
- Recognize that vomiting without diarrhea has a broad differential diagnosis including obstructive (pyloric stenosis, volvulus, intussusception) and non-obstructive (pancreatitis, pyelonephritis, DKA, poisoning, elevated intracranial pressure) etiologies.

- Describe the typical presentation of pyloric stenosis, including symptoms, signs, laboratory, and radiographic findings.
- Propose a management plan for an infant with gastroesophageal reflux disease.

Requirements:
- Aquifer Case 15
- Aquifer Case 16

Additional Helpful Resources:
- Online MedEd: Baby Emesis
- Lecturio: Approach to Vomiting

29. Positive Lead Screening Test

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
1. Summarize the risk factors and screening recommendations for lead poisoning in children.
2. Understand that no level of lead is safe in a developing child and describe the risks of unabated lead poisoning.

Requirements:
- Aquifer Case 3
- Pediatric Poisonings Didactic Seminar (available via Zoom and Panopto)

Additional Helpful Resources:
- "Unusual sources of lead poisoning" from Poison Control website, at https://www.poison.org/articles/2011-dec/unusual-sources-of-lead-poisoning
- "Blood lead levels in children: what parents need to know." From HealthyChildren.org at https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Blood-Lead-Levels-in-Children-What-Parents-Need-to-Know.aspx

*30. Positive tuberculin skin test*

Learning Objectives:

By the end of the pediatric clerkship, a medical student will be able to:
- Summarize the risk factors and screening recommendations for tuberculosis in children.
- Distinguish between a positive and negative tuberculin screening test (both purified protein derivative and interferon gold types) and propose an initial evaluation and treatment plan for a child with a positive tuberculin screening test.

Requirements:
- Aquifer Case 3

Additional Helpful Resources:
- "TB in Children" from the CDC, at https://www.cdc.gov/tb/topic/populations/tbinchildren/default.htm

CO26 NBME SHELF EXAMINATION SCORE- POINT EQUIVALENTS

The examination grade is based on the student's performance on the NBME Pediatric Subject Examination as follows:

| Legend |
|---|
| >75th percentile |
| Between 51st & 74th percentile |
| Between 5th & 50th percentile |
| <5th percentile |

| | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| **NBME Pediatric Subject Score** | **Point Equivalent for Blocks 1 & 2** | **Point Equivalent for Blocks 3 & 4** | **Point Equivalent for Blocks 5 & 6** | **Point Equivalent for Blocks 7 & 8 and 4th yrs** |
| **>88** | 15.0 | 15.0 | 15.0 | 15.0 |
| **87** | 15.0 | 15.0 | 15.0 | 15.0 |
| **86** | 15.0 | 15.0 | 15.0 | 15.0 |
| **85** | 15.0 | 15.0 | 15.0 | 15.0 |
| **84** | 15.0 | 15.0 | 15.0 | 15.0 |
| **83** | 15.0 | 15.0 | 14.5 | 14.5 |
| **82** | 14.5 | 14.5 | 14.0 | 14.0 |
| **81** | 14.0 | 14.0 | 13.5 | 13.5 |
| **80** | 13.5 | 13.5 | 13.0 | 13.0 |
| **79** | 13.0 | 13.0 | 12.5 | 12.5 |
| **78** | 12.5 | 12.5 | 12.0 | 12.0 |
| **77** | 12.0 | 12.0 | 11.5 | 11.5 |
| **76** | 11.5 | 11.5 | 11.0 | 11.0 |
| **75** | 11.0 | 11.0 | 10.5 | 10.5 |
| **74** | 10.5 | 10.5 | 10.0 | 10.0 |
| **73** | 10.0 | 10.0 | 9.5 | 9.5 |
| **72** | 9.5 | 9.5 | 9.0 | 9.0 |
| **71** | 9.0 | 9.0 | 8.5 | 8.5 |
| **70** | 8.5 | 8.5 | 8.0 | 8.0 |
| **69** | 8.0 | 8.0 | 7.5 | 7.5 |
| **68** | 7.5 | 7.5 | 7.0 | 7.0 |
| **67** | 7.0 | 7.0 | 6.5 | 6.5 |
| **66** | 6.5 | 6.5 | 6.0 | 6.0 |
| **65** | 6.0 | 6.0 | 5.5 | 5.5 |
| **64** | 5.5 | 5.5 | 5.0 | 0.0 |
| **63** | 5.0 | 5.0 | 0.0 | 0.0 |
| **62** | 4.5 | 0.0 | 0.0 | 0.0 |
| **61** | 0.0 | 0.0 | 0.0 | 0.0 |
| **60** | 0.0 | 0.0 | 0.0 | 0.0 |
| **59** | 0.0 | 0.0 | 0.0 | 0.0 |
| **58** | 0.0 | 0.0 | 0.0 | 0.0 |
| **57** | 0.0 | 0.0 | 0.0 | 0.0 |
| **56** | 0.0 | 0.0 | 0.0 | 0.0 |
| **55** | 0.0 | 0.0 | 0.0 | 0.0 |
| **≤54** | 0.0 | 0.0 | 0.0 | 0.0 |

**Appendix A: Pediatrics Subject Exam 2022-2023 Academic Year Norms**

# SUBJECT EXAMINATION PROGRAM

PEDIATRICS EXAMINATION

2022-2023 ACADEMIC YEAR NORMS

**Equated Percent Correct (EPC) Summary Statistics**

| | Academic Year | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|---|---|
| Number of Examinees | 18,694 | 4,556 | 4,220 | 4,386 | 4,346 |
| Mean | 77.8 | 76.8 | 77.4 | 78.5 | 78.7 |
| SD | 8.2 | 8.4 | 8.2 | 8.0 | 7.8 |

**Interpreting Academic Norms**

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
  - Examinees from LCME-accredited medical schools who took a form of this examination as an end-of-course or end-of-clerkship examination for the first time during the academic year from 8/1/2022 through 7/31/2023.

**Quarterly Norms**

- The percentile ranks for each quarter are defined using the school reported start date of the first rotation for this subject.
- Using the start date of the first rotation, examinees are assigned to the appropriate quarter based on the assumption that their test date would be at least four weeks later.
- For example, if a school's start date for the first rotation is March, then the performance of examinees from that school that tested in April, May or June would be represented in the first quarter.
- Since quarterly norms are based only on schools that supplied the start date of the first rotation for this subject, the number of examinees reported across quarters may not add up to the total norm group for the academic year.

**Using the Table**

- Locate an examinee's score in the column labeled "EPC" and note the entry in the adjacent column for the academic year or quarterly testing period of interest. This number indicates the percentage of examinees that scored at or below the examinee's equated percent correct score.

| | Percentile Ranks | | | | |
|---|---|---|---|---|---|
| EPC | Acad. Year | Q1 | Q2 | Q3 | Q4 |
| 100 | 100 | 100 | 100 | 100 | 100 |
| 99 | 100 | 100 | 100 | 100 | 100 |
| 98 | 100 | 100 | 100 | 100 | 100 |
| 97 | 100 | 100 | 100 | 100 | 100 |
| 96 | 100 | 100 | 100 | 100 | 100 |
| 95 | 100 | 100 | 100 | 100 | 100 |
| 94 | 100 | 100 | 100 | 100 | 100 |
| 93 | 99 | 99 | 99 | 99 | 99 |
| 92 | 99 | 99 | 99 | 99 | 98 |
| 91 | 98 | 98 | 98 | 98 | 97 |
| 90 | 96 | 97 | 96 | 96 | 95 |
| 89 | 94 | 95 | 95 | 94 | 93 |
| 88 | 92 | 93 | 92 | 91 | 90 |
| 87 | 89 | 90 | 90 | 88 | 87 |
| 86 | 85 | 88 | 86 | 84 | 83 |
| 85 | 82 | 84 | 83 | 80 | 79 |
| 84 | 78 | 81 | 80 | 76 | 75 |
| 83 | 74 | 77 | 76 | 71 | 71 |
| 82 | 70 | 74 | 72 | 67 | 66 |
| 81 | 65 | 69 | 67 | 61 | 61 |
| 80 | 61 | 65 | 63 | 56 | 57 |
| 79 | 55 | 60 | 57 | 50 | 50 |
| 78 | 50 | 55 | 52 | 45 | 46 |
| 77 | 44 | 50 | 47 | 40 | 40 |
| 76 | 41 | 46 | 43 | 35 | 36 |
| 75 | 36 | 41 | 39 | 32 | 31 |
| 74 | 32 | 36 | 33 | 27 | 28 |
| 73 | 28 | 32 | 30 | 24 | 25 |
| 72 | 25 | 28 | 26 | 21 | 21 |
| 71 | 21 | 25 | 22 | 18 | 18 |
| 70 | 18 | 22 | 19 | 15 | 15 |
| 69 | 16 | 19 | 16 | 13 | 13 |
| 68 | 13 | 16 | 14 | 11 | 11 |
| 67 | 11 | 14 | 12 | 10 | 9 |
| 66 | 10 | 12 | 10 | 8 | 7 |
| 65 | 8 | 10 | 8 | 7 | 6 |
| 64 | 7 | 8 | 7 | 6 | 4 |
| 63 | 5 | 7 | 5 | 5 | 4 |
| 62 | 4 | 5 | 4 | 3 | 3 |
| 61 | 3 | 4 | 4 | 3 | 2 |
| 60 | 3 | 4 | 3 | 2 | 2 |
| 59 | 2 | 3 | 2 | 2 | 1 |
| 58 | 2 | 2 | 2 | 1 | 1 |
| 57 | 2 | 2 | 2 | 1 | 1 |
| 56 | 1 | 1 | 1 | 1 | 1 |
| 55 | 1 | 1 | 1 | 1 | 1 |
| ≤ 54 | 1 | 1 | 1 | 1 | 0 |