

**General Information for Medical Students Rotating on the
Pediatric Acute Care Center (PACC)**

(Last Revised 6/26/09)

Welcome to Doernbecher! We want your time with us to be as enjoyable and productive as possible. This guide is designed to give you the basics of survival (and success!) on the inpatient wards, known as the Pediatric Acute Care Center (PACC).

Who Can Help Me?

- Senior Resident on your team. Name and pager is listed on the pt list on the computer in the workrooms.
- Katie Banker, MD and Christina Derstine, MD, Chief Residents. Office 8-5176.
- Tracy Bumsted, Clerkship Director. Office 4-5982, CDRC 3227, pager 14793. 503-202-4841
- Trevor Monteith, Education Coordinator. Office 4-3195 CDRC 2114D, pager 16363, pedstud@ohsu.edu

Team Structure

The Pediatric Acute Care Center consists of pediatric pts admitted to the hospital who do not need an ICU or Heme/Onc bed. The majority of the medical patients are on 9N, and the majority of the surgical patients are on 9S. The medical pts are divided up into three teams, Hood, Coast, and subspecialty team.

- **Hood** (9N workroom) OHSU Hospitalists, Pulm, Adolescent
Senior Peds Resident (PL3)
Peds Intern
OHSU FP intern
MS4 Sub-intern (when scheduled)
MS3 (2 or 3)
- **Coast** (9S workroom) Kaiser Peds, GI
Senior Peds Res (PL2)
Peds Intern
Prov or KFalls FP Intern
MS4 Sub-intern (when scheduled)
MS3 (2 or 3)
- **Subspecialty** (9N and 9S workrooms) Renal, Cards, Endo, Neuro
Senior Peds Res (PL3)
Peds Intern
No students

Helpful Items to Have (Or Have Access To)

A calculator

Stethoscope

The Harriet Lane handbook – do not need to purchase.

A reflex hammer

Sanford Guide to Antimicrobial Therapy (keep in mind it is written for adults)

Dress Code

Nametag

Professional dress (white coat optional, ties not required)

No scrubs unless you are on-call or post-call. When wearing scrubs, must also wear white coat.

Food!

Eating is really important! Try to eat breakfast before you arrive. Food can be obtained on the 3rd or 9th floors of the main hospital, or on the 2nd floor of the CDRC building (Buffalo Café) during the hours of 11:30am - 1pm. Eat whenever you can. No food or drink is allowed in pt care areas, but you are allowed to eat or drink in the 9N and 9S workrooms, as well as the morning report conference room and the Doernbecher auditorium on the 11th floor.

Call Room:

There is a student call room on the 9th floor at the south end of the hallway (near the family laundry). The code for the door key pad is **16484**. There is a bunk bed, and a separate restroom with a shower that you share with the intern on-call.

Expectations of Team Members on the DCH Pediatric Ward

ALL TEAM MEMBERS:

- Work together as a team.
- Ask questions.
- **Think and learn** everyday.
- **Read** everyday (articles, books, anything related to your patients.)
- Attend morning report, grand rounds and the noon conference (residents) or Core Lecture Series (students).
- Have **fun!**

General Pediatric Ward Attending

- Ultimately responsible for all patients on the *general* pediatric service for Hood team and Kaiser patients for Coast team. (Each general and specialty service has its own responsible attending.)
- Should be aware of all admissions and all clinical changes in patients.
- Teach (residents, students and nurses) during rounds and while doing daily work.
- Communicate daily with the pt's PCP.
- Be available to all members of the team.

Senior Resident

- This is **your** team. Take charge!
- Maintain and distribute to Health Unit Coordinators (HUC) the daily list of each intern's pt list and who to call when interns have clinic or are post-call.
- Meet with discharge planner at 0730 to discuss discharge planning and case management/SW issues for all pts.
- See sicker patients daily.
- See new admits and remaining patients on team as time allows.

- Supervise interns and help with daily work when interns have clinic, are home post-call, or extremely busy.
- Supervise sub-interns and MS3s on the team, helping to cosign their notes when intern is unavailable.
- Keep bedside rounds focused and timely.
- Teach interns and medical students.
- Communicate with attending throughout the day updating pt information.
- Maintain “the list” of patients and issues on the computer in 9N or 9S workroom.
- Maintain lab follow-up information for pts discharged with pending labs/studies.
- Check out with on-call senior resident prior to leaving.

Interns

- See and examine every patient on your list every day, seeing sicker pts first, followed by potential discharges. Coordinate and perform pt examinations with the MS3 following the pt.
- Admit pts when on-call, and during the day when not post-call. Perform admit history and physical and document in EPIC.
- **Read** and cosign medical student admit and progress notes on EPIC, documenting your own physical exam and assessment and plan. You may addend to correct factual errors on the student note as needed.
- Involve the medical student following your patient as much as humanly possible on labs/studies/order writing.
- Perform general pediatric consults for pts on other services when requested and staff with the ward attending.
- Communicate with senior resident throughout the day updating pt information.
- Learn the art of prioritizing work and maximizing efficiency while also taking excellent care of pts.
- Present your pts during rounds who are not followed by medical students. Clarify or add information on your pts followed by a medical student.
- Maintain “the list” of patients and issues on the computer in 9N or 9S workroom.
- Check out with on-call intern prior to leaving.
- Anticipate discharges by filling out “Discharge Summary” in EPIC as well as discharge prescriptions.

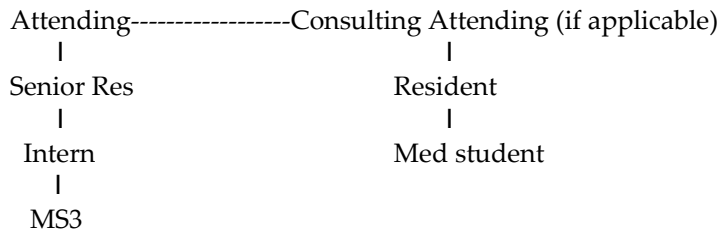
Sub-interns

- Follow 4-6 patients at one time. Discuss with the senior resident which pts you should follow.
- Function as much as possible like an intern (see above intern expectations) but without MS3 involvement on your pts.
- Senior resident sees and examines your pts daily and cosigns your notes.
- Present your pts during rounds.
- Anticipate discharges by filling out “Discharge Summary” in EPIC.

Third year Medical Students

- Follow 2-4 patients at one time. Discuss with the senior resident which pts you should follow. Ideally, MS3’s should follow 1 chronic pt (or someone who may stay in the hospital for >5 days) and 1-3 acute pts.
- You will be the expert about your patients. Your patients should regard you as the primary caretaker.

- When admitting a pt, document a history and physical in EPIC asap, but always within 24 hours. Assessment should include a differential diagnosis with the most likely diagnosis first. Plan should be by problems or systems.
- When picking up a pt who you have not admitted, **read** the history and physical and any progress notes done prior to the day you are seeing them. You should know their history, but you may not be expected to present the pt in rounds the day you pick them up. Ask your senior resident for guidance. You **will** be expected to write a progress note the first day you pick them up, however. For all subsequent days, you will be presenting them during rounds as well as writing progress notes.
- Look at all orders written in the last 24 hours on your pts as this may help you in your daily assessment and management.
- See and examine the pts you are following everyday, gathering pertinent pt information on EPIC when you are pre-rounding such as vitals, ins and outs, medications (including 24 hour summary of number and types of respiratory treatments), and laboratory and imaging results if known.
- If imaging results are needed urgently after the study, coordinate with your team when requesting the results to avoid multiple phone calls to the same radiologist.
- Present your pts in rounds according to the presentation guidelines in this manual.
- Go with your pts to their procedures (imaging, operating room, etc) after approval of senior resident **and** radiology or surgery attending.
- Provide the parents with the team structure :



- Anticipate discharges by starting "Discharge Summary" in EPIC.

Nighttime Coverage

From the hours of 1730 to 0700, all the medical pts in the Pediatric Acute Care Center are covered by the on-call pediatric ward team. Monday through Thursday, the team leader is a PL-3 night float. Friday through Sunday, the team leader is the PL-3 from the Hood or Coast teams, or other cross-covering senior residents. There are one or two interns on-call every night rotating q4 and consist of the PL-1s from the Hood and Coast teams, the FP-1 from the Hood and Coast teams, and a PL-1 from the ID rotation. One MS3 also takes call with the team, rotating q4-5.

Schedule and Expectations for Medical Students on the Pediatric Ward

0700-0830 Prerounds:

On arrival to ward (0700), print out pt list on the computer and look at the board to see if there is a pt to pick up. The senior resident may have you pick up zero, one or two new pts. Once you have your list of pts to see, check in with the intern and start prerounding on these pts:

- **Go to the EPIC chart** and look at all orders and progress/consult notes written within the last 24 hours.
- **Check in with the pt's nurse** between 0700 to 0730 to see if there were any problems or changes with the child overnight. After 0730, the RN taking care of the pt during the night will have left so it is important to do this before he/she leaves.
- **Look at all vitals and I's and O's.** Note total number and timing of respiratory treatments in last 24 hours, if applicable.
- **Examine the pt** with the intern and gather information about how the child did during the night from either the pt or parents. It is helpful to try and coordinate your exam with the intern's to minimize the number of exams each pt receives in the morning.
- **Look at the Medication Administration Record (MAR)** in EPIC to understand all medications given in the last 24 hours, including prns.
- **Look up all labs and any reports of radiological studies** for your pt.
- **Look at all films yourself** to get practice and learn from them. Ask a resident or attending to help you.

0830-0900 AM Report: M,T, W, F in 11th floor conference room (Grand Rounds in 11th floor auditorium Thursdays 0800-0900.)

Rounds: ~0915 Hood & Coast Teams (check with your team for exact time):

Hood and Coast rounds usually are at the bedside of each patient for the pts on the general pediatric services. Rounds for the subspecialty pts vary. Ask your senior resident for exact details about the morning rounding schedule for the team.

Presenting your pts during rounds: Because of time constraints, we all strive for concise and effective communication during rounds. This is especially important when presenting at the bedside in front of pts and family members. Your job is to present each pt in an organized fashion, focusing on their **problem list**, expanding on abnormalities yet avoiding tangents. **This takes practice.** The purpose of rounds is to assess the issues and plan the best treatment course for each pt. You should discuss the pt presentation and problem list with your intern and/or senior resident prior to bedside rounds. You should offer an assessment of what the diagnosis is (giving a differential diagnosis if it is unclear) and a plan by problems or systems. One caveat to presenting at the bedside: If cancer, Ebola virus or Mad Cow Disease aren't at the top of your differential diagnosis, it's OK to leave it off the problem list. Every pt should also have a disposition plan. Please see the presentation guidelines at the end of this handbook.

1100-1145: After rounds, discharge pts, call consultants, write orders, do admissions with interns and resident. Update pt list on computer. Depending on the day, there may be a short didactic or bedside teaching session with the senior resident or attending in the morning after rounds or afternoon.

1145: Get lunch

1200-1300: MS3 Core Lectures (or Resident Noon Conference if no Core Lectures scheduled)

1300-1700: Admissions, complete work, go to procedures with your pts.

1700: Update intern and senior resident about your pts and update the pt list on the computer if needed.

1730: Sign out with team. Go home if you are not on-call

Weekends:

If you are not on-call or post-call, you are not working. If you are on-call, **arrive at 0700** and locate the list of pts to pre-round on, usually hanging in the workrooms on the xray view box. The post-call and on-call residents and students see and write notes for all the kids on both the Hood and Coast services. **Resident check-out rounds start at 0900** and are in 9301 which is the conference room off the main DCH hallway in between 9N and 9S. The purpose of check-out rounds is to communicate to the on-call team as concisely as possible pertinent information about all the kids on both teams. Ideally, after rounds, the post-call people finish their notes in EPIC, tie up loose ends and go home. If there are discharges that morning, all the computer charting and prescriptions should be filled out ahead of time allowing the on-call team to admit new pts and get other work done. When you are on-call on a weekend day, you will be doing work (discharges, orders, admits) for pts on any one of the three medical teams.

Call:

You will be on-call every 4th-5th night and the clerkship director determines the schedule before the rotation begins. You may wear scrubs when on-call (the scrub machine is in the back hallway of the 8th floor.) A call team consists of one senior resident, one intern and one student. Most of the time, you will admit pts who will be on your ward team. However, this is not a hard and fast rule, especially when one team is getting several admits and the other team isn't. Remember, **you can learn something from every pt** so it is universally frowned upon to say that because you've already admitted three pts with bronchiolitis during your rotation you do not need to be involved with another one. It is not advisable to hibernate in the call room since you will learn the most from being with the on-call team, helping with cross-cover issues and being present.

For all pts you are actively involved with admitting, you should write a history and physical and put it in the chart after a resident or intern co-signs it. Your write-up should include an assessment with differential diagnosis and a plan by systems. There is no need to rush. Take your time to write a clear, organized, concise and thoughtful note. You may use abbreviations rather than full sentences. You are the historian – take your reader from the start of when the illness/condition occurred, up to the point at which you are seeing the pt in the hospital room. Included in your HPI should be a summary of any visits to a pt's PCP or ED (including the day of admit) and reason for admission. Often this requires going through old chart notes or papers that come with the pt from the referring facility. Your admit note should reflect critical thinking. Print your note and give it to the attending and/or senior resident for feedback and critique.

Post-Call Afternoons:

During the clerkship, there may be a few afternoons with scheduled student lectures. If you are post-call, you are expected to stay for these teaching conferences but may leave once the

conferences are done. If there are no scheduled conferences the afternoon you are post-call, you may leave after the MS3 Core Lecture.

Learning:

You are here to learn as much pediatrics as you can during your five weeks. Take charge of that concept. Ask residents to “teach on the fly.” Teach each other. Keep lists of learning issues. Create differentials at morning report and for each pt you admit. Do the CLIPP cases early since they are a great way to learn.

Oral Presentation Guidelines for Medical Students

Three types of presentations:

- New/Full admits (<5 minutes)
- PICU transfers (<5 minutes)
- Daily/Interim presentation (<3 minutes)

New/Full Presentation - <5 minutes

Chief Complaint: one-line statement in the patient's (or parent's) own words

History of Present Illness:

Identify pt age, sex, and if applicable any chronic disease/conditions already diagnosed that are important for listener to know with respect to present illness. If there is no previous medical history, can state "previously healthy."

- "3 yr old male with h/o asthma who presents with 1 d h/o SOB and wheezing" leads your reader to a different conclusion than
- "3 yr old male with h/o asthma who presents with 1 d h/o vomiting and diarrhea." In this scenario, the asthma is irrelevant and should simply be included in the PMH section. You, as the historian, know whether the chronic diseases/conditions are important to your presentation since you have heard the entire history, done the physical exam, and reviewed any previous labs/studies **prior to writing your note.**

Duration of symptoms and qualifiers:

- "3 d h/o NBNB vomiting initially 1-2 x per day, increasing to q feed today and 2 d h/o watery diarrhea q 3-4 hours"
- "Pain" should have qualifiers: quality, quantity, location, alleviating/aggravating factors, timing, setting, and associated symptoms.

Any medications that were tried in the home and what effect they had.

The chronology of visits to PCP or ED and reason for admission and **summarize** the diagnosis given and any medications/labs/studies done for the pt while at these visits, up until the time at which they are sitting in front of you in the hospital room.

Example of an HPI:

"1 yr old male previously healthy with 2 d h/o NBNB vomiting q 2-3 hrs and 1 d h/o watery diarrhea q 15 minutes, decreased activity and only 1 wet diaper in last 24 hrs. Initially taking sips of PO apple juice and pedialyte, now refusing all PO. Whole family sick with V/D x 2 days. ROS negative for fever, rash, RN, cough or abd pain. Pt taken to PCP (Dr. Smith) yesterday, given phenergan PR and tolerated PO w/o emesis and sent home. To OHSU ED tonight with lethargy, continuing V/D and refusal to take PO. In ED, given 20 ml/kg NS bolus x 2, lytes significant for CO₂ of 15, CBC and UA unremarkable, rota pend, **admitted to DCH ward for** rehydration and presumed viral gastroenteritis."

ROS: Be sure to include pertinent positives and negatives. If applicable, you can state "ROS negative except as described in HPI."

Past Medical History (conditions should be in chronological order):

Birth History if pt is young, or if relevant to HPI.

Any chronic diseases, when diagnosed, ongoing treatments for these, names of specialists following pt.

List number and reasons for acute clinic/ED visits over recent past.

Past Surgical History

Name of PCP/Clinic

Immunization Status

Developmental History

Diet

Medications: Include names, dosages, timing

Allergies: Include drug name and what reaction occurred.

Social History: Include who lives in the home, what city they live in, daycare exposure, what grade the child is in if school-age, tobacco exposure (ask, “does anybody smoke?” rather than “does anybody smoke **in the home?**” since most parents think that if they smoke **outside**, their child isn’t getting exposed to smoke), pets, recent travel, social stressors.

Family History: Start by asking if there are any **children** in the family with diseases or conditions they see a doctor for regularly. Ask about childhood deaths in the family. Less important here is Grandmother’s heart disease and Grandfather’s diabetes, unless of course they developed these conditions when they were children.

Physical Exam:

Vital signs: Temp, HR, RR, BP, O2 sat. Weight, Height, OFC (if <2 yr) and %
General, HEENT, Neck, CV, Resp, Abd, GU, Ext, Neuro, Skin

Labs/Studies: List any labs/studies done prior to admission, even if result is pending (and where they were done.)

Assessment: One line summary statement of HPI, PE, labs and most likely diagnosis.

- “3 mon old male with tachypnea, poor feeding, murmur and cardiomegaly on CXR, most likely congenital heart disease.”

If diagnosis is in question, list differential diagnosis in order of most likely to least likely. The assessment allows you to demonstrate your ability to think critically about your patients.

Plan: By problems (pneumonia, pyelonephritis, dehydration) or systems, for example:

FEN/GI (fluids, electrolytes, nutrition, gastrointestinal)

Pulmonary

Cardiovascular

Infectious Disease

Neuro

Heme

Renal

Disposition

Your plan should address abnormalities in PE, labs and studies, and should be based on your assessment above. Every pt should also have a disposition plan, which simply means what needs to happen in order to discharge the pt. **As many people have specific expectations, ask your senior resident if your plan should be by problems or systems.**

New Pt Admitted Overnight or After Rounds the Previous Day (<5 minutes)

This presentation is exactly like the new/full admit presentation above, except that after **labs** and **studies** you incorporate overnight events and any new developments (including changes in PE) since admit before going on to your assessment and plan. You do not need to state two assessments and plans. Most patients will be admitted in the afternoon or evening prior to your presentation in rounds. The idea is to capture how the patient appeared on admit, and then state any changes on your second exam and assessment the morning of your presentation.

New Pts from PICU (a.k.a. PICU Transfers) (<5 minutes)

This presentation can be initially confusing, especially if the patient has had a prolonged PICU course with multiple medical issues. Your job as the historian, is to review the initial History and Physical in the chart, as well as the PICU transfer note (unless the pt has stayed 24-48 hours in the PICU, in which case you can review the daily progress notes.) The key to this presentation is brevity. In essence, PICU transfer presentations should be thought of as an expanded daily presentation such that the **subjective** information is a summary of the PICU course. You can do this by systems if the patient is complicated with multiple systems involved, or simply state a few summary sentences about how and when the pt initially presented, why the pt was transferred to the PICU, and the PICU course. Then, progress to your **objective** data for the last 24 hours and proceed with a daily presentation format.

Daily/Interim Presentation (<3 minutes)

Use this format for patients admitted >24 hours ago. Brevity is important. You may omit the portions of subjective and objective data that do not directly relate to pt's reason for admission or working diagnosis.

Identification: One line statement of name, age, working diagnosis and date of admit.

Subjective:

Yesterday: "Had ____ study or lab which showed ____ result"

Overnight: "Did well" or "Had difficulty due to _____"

Objective:

PE – Vitals (24 hr range and trend of T, HR, RR, BP, O2 sat)

I/O's with UOP calculated as ml/kg/hour

PE pertinent positives and negatives.

Labs – can state which lab obtained and any abnormal values. State which labs are still pending. It is also helpful to report trends (e.g., "the hct today is 24, improved from yesterday when it was 22")

Studies – radiological studies, echocardiograms, EEG, etc.

Medications – list names of medications (and dosages/timing if applicable e.g., albuterol MDI q 4 hr, last given at 0800)

Assessment: One line summary of name, age, working diagnosis, and response to treatment(s). If diagnosis is still in question, continue to state **your** differential from most to least likely. The assessment allows you to demonstrate your ability to think critically about your patients.

Plan: By problems or systems. Should address abnormalities in PE, labs and studies, and should be based on your assessment above. Every pt should have a disposition plan.

General

Early in the rotation, **practice** giving your presentations to fellow students, interns, and the senior resident. This will help your confidence as well as improve your ability to communicate effectively during rounds and on the wards. Later on in the rotation after gaining experience, you may not need full presentation practice. Please speak up if you feel you need more formal presentation practice, or have any questions about the presentation expectations in this handbook.

Grading System: The (O)RIME Method

The RIME method of grading emphasizes a developmental approach and distinguishes between basic and advanced levels of performance for clinical rotations. Such a system is “synthetic” rather than “analytic” and each step represents a synthesis of skills, knowledge, and attitudes that have been practiced from the preclinical years of medical school through residency.

Observer: A student in pre-reporter status, not meaningfully contributing to patient care activities. First- and second-year medical students largely are observers.

Reporter: Student can accurately gather and clearly communicate the clinical facts about a patient. Mastery of this step requires the basic skills to obtain a history and do a physical examination and the basic knowledge of what to look for. The student “reports” the facts, such as, **“the pt has had 3 days of increasing shortness of breath and fatigue”, “the heart rate is 100”, “the liver is 3 cm below the costal margin”, “the sodium is 140.”** This descriptor emphasizes day-to-day reliability – for instance, being on time, or following up on a patient’s progress. The student at this stage has a sense of responsibility and is achieving consistency in bedside skills in interpersonal relationships with patients. Reporter is minimum passing criterion in the third-year medical student clerkship. An OHSU student consistently at the level of “reporter” would receive a clinical grade of “Satisfactory.” A student not consistently performing at the level of “reporter” by the end of the clerkship would receive a grade of “Marginal” or “Failure” and will be required to remediate the clerkship during their MS4 year.

Interpreter: Making a transition from “reporter” to “interpreter” is an essential and often difficult step in the professional growth of a student. An interpreter can report the facts accurately, and also can “interpret” these facts by thinking critically about the clinical data and formulating a differential diagnosis without prodding. Students at this stage can also advocate or refute diagnostic hypotheses. An interpreter might say, “2 month old male with unrepaired VSD now with a 2 day history of shortness of breath and poor feeding, and an exam significant for respiratory rate of 60, diffuse pulmonary crackles and liver down 3 cm below the costal margin, CXR remarkable for cardiomegaly and diffuse bilateral pulmonary opacification; **therefore the pt most likely has congestive heart failure with fluid overload.**” An OHSU student who is consistently at the level of “interpreter” would receive a clinical grade of “Near Honors.”

Manager: A student at the “manager” level can not only report and interpret the clinical data, he/she has the knowledge, confidence and judgment to decide on a course of treatment. This level requires higher-level interpersonal skills and involvement in patient care. A manager might say, “2 month old male with unrepaired VSD now with a 2 day history of shortness of breath and poor feeding, and an exam significant for respiratory rate of 60, diffuse pulmonary crackles and liver down 3 cm below the costal margin, CXR remarkable for cardiomegaly and diffuse bilateral pulmonary opacification; therefore the pt most likely has congestive heart failure with fluid overload. **I propose we give lasix 1 mg/kg IV x 1 now.**” An OHSU student who is consistently functioning at the level of “manager” would receive the clinical grade of “Honors.”

Educator: To be an educator, the trainee must be able to go beyond the basics of reporting, interpreting and managing the patient’s clinical care. An “educator” is a self-directed learner, someone who defines questions to research and searches the literature for evidence on which clinical practice can be based. An “educator” then shares this information with others. This is a senior resident- or attending-level skill. However, students and residents at all levels should strive to be educators.