PICU Rotational Expectations

We'd like to begin by saying welcome to the PICU. We are excited to have you here and hope that you will find this rotation both enjoyable and incredibly educational. We hope that by actively participating in the care of critically ill children, you will broaden your knowledge base and be able to apply what you learn here to patients in other areas of the hospital and community. We also hope that you will find critical care pediatrics to be a stimulating and rewarding subspecialty and one that you might consider as a career as you begin to make decisions about your professional future.

As you journey through this rotation, please know that we are here to mentor you through the process. We value your feedback and welcome any questions or concerns you may have regarding the rotation itself, the educational goals and opportunities available to you, your interactions with staff and physicians, etc. You may approach any of the faculty members with these issues or come directly to Dr. Leslie Garner (our PICU resident education representative) or Dr. Jessica Moreland (Critical Care division director) with your concerns. We want to ensure that our rotation meets your educational needs as physician learners, gives you ample opportunity to explore critical care medicine as a career opportunity, and fosters open communication between all members of the critical care team.

I. Operational Expectations

A. Orientation

- One week prior to each PICU rotation, this document will be sent electronically to each resident who will be rotating through the PICU. We would like the residents to review the goals and expectations outlined herein prior to the start of the rotation.
- A more formal orientation to the rotation will be provided on the first day of each rotation from 1:00-2:00pm in the C11 conference room by an ICU faculty member.
- A PICU manual is available online to the pediatric residents on the QuickR residency site and in CD format for the outside rotators and medical students who do not have access to QuickR. It contains a compilation of articles and handouts on common PICU topics. There are additional articles available for more in depth reading that are available in PDF format by request; those interested may contact Dr. Leslie Garner at leslie.garner@childrens.com.
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B. Daily Resident Schedule in the PICU

- Arrival time will vary but typically between 6:00am-7:00am: you will need time to obtain sign out from the night call provider, examine each of your patients, review their data and synthesize it into a cohesive problem list/assessment, and develop a management plan

- 7:30am: Attending rounds with post call fellow/attending, day attending, and day fellows to go over management issues from the night and give brief overview of patients' conditions.
- 8:30am-12:00pm: Formal rounds with the day teams including attending, fellow, nurse practitioners, residents, and medical students
- Educational Opportunities:
  - **Tuesdays 1:15-2:00pm and Wednesdays 12:00-2:00pm**: PICU rotating conference which includes case conferences, morbidity/mortality reviews, research conference, quality meetings, neurocritical care fonferences, etc.
  - **Mondays, Thursdays, Fridays 1:00-2:00pm:** PICU Resident lectures given by faculty and fellows on core PICU topics including an orientation session on the first day of the rotation
- 2:00-4:00pm: Reassess patients, review labs, follow-up on consults/ordered tests, update families, etc.
- 4:00pm: Sign out rounds between the day residents and the short call provider for each team who will stay until 7:00pm
- 7:00pm: Sign out rounds between the short call providers and the night call providers
- 10:00pm: Walk rounds with night call residents, on call fellow, on call attending, and PNPs to review each patient's condition, labs, fluid balance, and to discuss any ongoing management issues. This should be viewed as a teaching opportunity for the fellows/attendings and a learning opportunity for the residents.

C. Night Float Physician Schedule

- Arrival time: 7:00pm
- 7:00pm: Sign out with short call day residents
- 10:00pm: Nighttime walk rounds with on call attending, fellow, and the night call residents; purpose is to review the progress of each patients briefly, go over I/Os and new labs, and discuss any changes in status or issues that have arisen since sign out; this activity should be viewed as an opportunity for teaching by the attending/fellow and learning by the residents
- 6:30am-7:15am: Sign out to day time residents

D. Progress Notes

- We use standardized note templates in the PICU to facilitate organized and appropriately detailed communication of pertinent patient information. The general ordering of the note is described below with an example to follow…
  - **HPI/Interval History** (organized summary of the presenting symptoms or summary of pertinent events in last 24 hours)>>>**Objective Data** (vital signs, physical exam, pertinent radiographic study results, no need to type in or import all lab data as this is readily available in the electronic chart)>>>**Assessment/Plan**

organized in the context of a problem list (each problem should include a narrative discussion of the pertinent labs, medications, study results, and therapies with rationale for ongoing/planned therapies; this is where we can really see how you are thinking through the patient's issues)

- A useful metaphor for informative and successful note writing: your notes should appear as triangles with very concise information provided in the interval history section, a bit more detail in the objective data section, and the most detailed information provided toward the end of the note in the assessment and plan. If your note looks more like an inverted triangle, you are spending too much energy recording data that can be found elsewhere and not enough energy on the processing and assimilation of that information.
- **Sample Note:**

Daily Progress Note:
Overnight, pt had 2 episodes of desaturations to the 80s which responded to sxn of thick secretions. Otherwise stable.

PE: Tm 37.8 HR 120s-130s RR 30s BP 60s-70s/40s-50s Sats 85-100%
GEN: intubated, sedated, overbreathing vent, no distress
HEENT: AF flat, PERRL, ETT/NGT in place
CHEST: coarse with scattered crackles throughout, fairly good air flow, no wheezes
CV:RRR, 1/6 short systolic murmur at LSB
ABD: +BSs, soft, nontender, nondistended, no HSM
EXT: warm with 2+ pulses, CR brisk, mild peripheral edema of hands/feet
NEURO: sedated but arouses easily with movement of all extremities and eye opening

LABS: per flow sheet
CXR: ETT at T3, NGT in stomach, heart size stable, perihilar bronchial wall thickening, RUL atelectasis

A/P: 5 week old LAM with respiratory failure due to RSV bronchiolitis with Moraxella pneumonia (suprainfection) and mild fluid overload—slowly improving

1. Respiratory Failure: Currently vent settings: Tv 24 PEEP 6 PS 10 Rate 24 FiO2 0.35 PIPs 26-30. Moderate well compensated respiratory acidosis by blood gas with CO2 in the low 60s. Oxygenation has been good overall with exception of desats related to secretions. Secretions remain thick, yellow, and large in amount. Continue aggressive pulmonary toilet to include CPT and lung conditioning every 3 hours with concentration to RUL to improve atelectasis. Continue Dornase to improve secretion removal. Will hold on further vent weaning until lung compliance has improved.
2. RSV Bronchiolitis/Moraxella pneumonia: No response to bronchodilators and no wheezing on exam to warrant scheduled bronchodilator therapy. WBC count is normal, bandemia has resolved, and temperature curve has improved suggesting that pt's infection is responding to current therapy. Blood Cx remains negative; repeat ETT aspirate with mod poly, no organisms on gram stain, and negative Cx thus far. Continue Cefotaxime Day 3/7 for Moraxella.
3. Fluid overload: Peripheral edema is improving on exam, and lung compliance is slowing improving. Fluid balance is -75cc today on scheduled Lasix. Electrolytes are all normal and Bun/creat stable at 15/0.4. Continue Lasix IV BID and fluid restriction to maintenance to achieve continued slow diuresis.

4. Nutrition: Weight is stable since admission. Pt continues to tolerate enteral feeds of Similac Advance 24cal/oz formula at 16cc/hr which provides ~100cc/kg and ~80cal/kg/d. Will advance to 27cal/oz formula today to improve caloric delivery. Pt is stooling regularly.
5. Sedation: Pt appears comfortably sedated on Fentanyl infusion of 1mcg/kg/hour with Versed prn. Has received only 2 Versed boluses in last 24 hours.
6. Social: Parents have been present continuously and have been updated in detail on the plan of care today.

E. Consults

- All physician consults require a consult order be entered into the medical record including questions to be answered by the consultant and how we would like the consultant to communicate their thoughts and recommendations to the team.
- Residents will be asked to contact the consulting service and communicate the specific questions identified by our team on a given patient.
- Residents should then follow up on the recommendations of the consulting service to make certain that the consult is completed and that appropriate recommendations are acted upon in a timely manner. **All recommendations given by the consultant should be discussed with the PICU fellow and/or attending prior to implementation.**

F. Transfers/Discharges

- Residents, in consultation with the fellows, are expected to identify potential discharges/transfers during their assessments each morning and begin getting the "paperwork" in order for transfer so that this may happen as early in the day as possible. The "paperwork" includes completing the work flow in the transfer navigator including placement of a transfer order and completions of transfer orders (once the transfer is approved by the attending) and a detailed transfer summary.
- Remember that he resident is responsible for communicating with the receiving resident on the floor all the pertinent information needed to continue the current plan of care for the patient. The resident must then document that the communication occurred in the appropriate place in the transfer navigator.

II. Expectation of Patient Ownership and Guidelines for Escalation

- It is our desire that the residents learn to critically evaluate patients and their data and learn to synthesize this information into a cohesive, problem-based assessment and management plan. In order to practice and receive evaluation and feedback on these skills, the resident must take ownership of each of his/her patients and be viewed by all members of the care team as the patient's primary physician.
- It is our expectation that the residents will be involved in all management decisions. The resident should be contacted first with issues regarding their patients and be given the opportunity to make an assessment of the problem and come up with a solution. In cases of emergency or when the resident is

unavailable, it is our expectation that the actions taken by another team member will be discussed directly with the resident as soon as possible. In cases in which the resident makes an erroneous decision, the decision will be corrected and there will be an educational discussion which takes place to assess and redirect the resident's critical thinking on the issue at hand.

- At the beginning of each shift (7:00am for day residents, 4:00pm for short call residents, and 7:00pm for the night call residents), residents should print their name and pager number on the dry erase boards in the rooms of the patients they will be caring for that day so that the bedside staff will know who to call with questions. This should be done every day.
- Residents will be given the opportunity to participate in the procedures involving their patients either as the technician performing the procedure, an assistant, or an educational observer in which there is active discussion on the risks/benefits of the procedure, the appropriate technique for performance of the procedure, and the potential complications of the procedure. **Because we have an active critical care fellowship program, the procedures will preferentially belong to the critical care fellows; once they become proficient in any given procedure, they may then choose to allow the residents to function as technicians for the procedure under their guidance.**
- Residents are expected to update the families of their patients everyday, to update them in a timely manner when the condition of a patient or the plan of care of a patient changes, and to participate in any additional discussions that take place with the family including care conferences, end of life discussions, etc.
- As the primary caregiver of the patients, the residents also have a responsibility to escalate to a higher level of care when there is uncertainty in a given situation or when a member of the bedside staff questions the resident's plan of care (first to the fellow and then on to the attending). The attending and fellow are there to act as resources to educate and guide the residents through the management of these often complex patients not to entirely usurp the resident's authority.
- As the primary caretaker of the patients, the resident also has an obligation to keep other team members updated on the clinical condition of the patients, results of labs/tests that are completed, and recommendations of consulting physicians.

III. Educational Expectations

A. What we want you to accomplish

- In addition to the stated learning goals and objectives modeled after the ACGME core competencies, we want the residents to improve their critical thinking skills and to learn to critically appraise and integrate components from physical exam, laboratory data, radiographic studies, and physiologic monitoring devices into a comprehensive problem-based assessment and management plan for their patients.

- We want the residents to be able to recognize early signs of physiologic deterioration which, when acted upon appropriately, may prevent worsening in a patient's condition. These skills are vital to every pediatrician whether in general or subspecialty practice, and the PICU presents the ideal environment in which to observe these important physiologic processes as they evolve over time and in response to specific therapies.
- We want the residents to gain experience making independent management decisions in an environment in which they are supported and have a "safety net".
- We also expect that you will use your downtime wisely by reading about the disease processes of the patients on your team. You may use the provided PICU manual as a starting point for more common topics, but we'd also like to see you reviewing pertinent scientific literature. We will encourage you to share the knowledge you've acquired with the team verbally on rounds, by dissemination of interesting articles you've identified to team members, or by giving an informal talk on a topic of particular interest to you. Not only will this provide an opportunity to hone your teaching skills, but it will imprint the information more firmly in your memory.

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B. What you can expect from the critical care faculty and fellows

- You can expect to be treated as an important member of the critical care team. The information you transmit to the team is very important, but the way in which you synthesize the information even more so. We will encourage you to critically evaluate your patients and develop management plans that are appropriate and will allow you some autonomy in this process.
- We will educate you both formally and informally through the conferences listed above, through the interactive topic specific discussions with the fellows, and through bedside teaching.
- You can expect to given verbal feedback mid-way through your rotation and then more formally at the end of your rotation using the online evaluation tool based on the achievement of core competencies as outlined in detail in the learning goals and objectives for the rotation. If your attending does not initiate a feedback discussion mid way through your rotation and at the completion of your rotation, we would ask that you approach the attending to ask directly for this feedback. If there is none given despite your prompting, please contact Dr. Leslie Garner by email (Leslie.Garner@childrens.com).