**Surviving Residency**
(or at least your first night on call)

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- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.
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**Objectives**
- To provide guidelines for common problems encountered while on call and present management and coping strategies
- To provide the pediatric intern/resident general principles for safe patient care

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**First night on call...**
- “It’s a trap!”

**A typical call night entails...**
- Continuing care of patients already admitted
- Admitting new patients and initiating appropriate care
- Providing consultation services to the ER
- Following-up on labs or other pending studies for established and new patients
- Communicating with the health care team to provide the best care for the patient possible
**Top Ten List**

- 10 helpful hints that will hopefully help you not only survive but excel both on call and in general through residency

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**#10 Learn Resources Available**

- “Use the force, Luke.”

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**Electronic Resources**

- Cincinnati Guidelines
- UTHSCSA Blackboard
  - [https://bblearn.uthscsa.edu/](https://bblearn.uthscsa.edu/)
- StacPad
  - [https://stacpad.uthscsa.edu](https://stacpad.uthscsa.edu)
- Coming soon... UTHSCSA Inpatient Pediatrics Evidence Based Guidelines

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**Live Resources**

- Upper-Level Residents
  - Should always discuss your management plan and review orders
  - Should always examine patients and discuss pertinent findings
  - Should always review labs/images
  - Should always be available for questions
  - Should teach whenever possible!

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**Live Resources**

- Attending Physician
  - Always at least 1 faculty member in-house
    - Nighttime hospitalist, NICU, PICU
  - Always available by phone,
    - Don't hesitate to call with questions!
    - Must call if emergent surgical consult needed
    - Many other great reasons to call...
      - Rarely is this the wrong thing to do!
Live Resources

- The PICU
  - At CHofSA, an upper-level resident, a fellow or PA/NP and an attending always on call
  - At UH, a fellow or NP/PA on call
    - Intensivist always available by phone
  - Available for any questions, reviewing studies, change of level of care, transport issues...

- Pharmacy
  - Ask for a pediatric pharmacist!
    - Can help with dosing, med shortages, TPN
  - At CHofSA, please be sure to write mg/kg with all med orders
    - Ex. Acetaminophen 150mg PO q4h pm fever (15mg/kg/dose)

- Nurses
  - Vital to the health care team
  - Harbor a wealth of experience!
  - Trust them!

Additional Resources

- Harriet Lane Handbook
- Radiologist
- Respiratory Therapist
- Charge Nurse/House Supervisor
- Rapid Response Team
- Code Button
- Primary Care Physician
- Social Worker/Case Manager

# 9 Get Organized

- “The target area is only two meters wide. It's a small thermal exhaust port, right below the main port. The shaft leads directly to the reactor system.”

Organization

- Use whatever system works for you, but you must have a system!
- “To do” lists, checkboxes, handover sheets
- Multi-color pens, Highlighters
- iPad/StacPad, iPhone
- Write brief cross-cover notes for important overnight events!
- Write legibly! (if on paper charts)
- Be on time!
  - Call in advance if you will be late!

# 8 Don’t Lie

- “I find you lack of faith disturbing.”
It’s all about trust!

- Never lie or make up an answer to a question about a patient.
- If you forgot to ask something simply say “I don’t know.”
  - And then go find out!
- Respect and trust are hard qualities to regain so make an effort not to lose them outright!

# 7 Communication is Key

- “Gold leader standing by.”

Communication

- Be polite, be polite, be polite!
  - Always say please and thank you
- Listen to the patients, parents, & family
- Listen to the nurses
- Listen to the pharmacists
- Listen to your fellow interns/residents

Communicating with Families

- Introduce yourself!
  - Describe your role in the health care team
- Don’t use medical jargon
  - Use clear, concise language
- Listen to parent concerns and try to address these as best as possible
- Be aware of language barriers and address them appropriately

Communicating with the Team

- For the attending/upper-level resident:
  - State your expectations early in the rotation
- For the intern:
  - Try to follow these and ask questions if you don’t understand
  - Keep everybody informed!
  - New developments, new plans, new results

Communicating with Nurses, Pharmacists, etc.

- Promptly respond to all pages!
  - Within 5 minutes (or else…)
- Listen to concerns expressed by ancillary staff
- Answer questions in a polite manner
- When a nurse calls about a patient, it is always a good idea to ask if they would like you to come look at the patient.
  - If in doubt, go look at the patient!
# 6 There’s no I in TEAM

- “3PO, we’re all right! We’re all right! Ha ha!”

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# 5 Details and Following Up

- “The tractor beam is coupled to the main reactor in seven locations. A power loss at one of the terminals will allow the ship to leave.”

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# 4 Prevent Patient Decompensation

- “Yub, yub!”

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**Teamwork**

- Support your fellow interns/residents
- Help out with post-call work
- Volunteer to take a different day off or help cover a call
- Don’t take advantage of your co-workers by repeatedly calling in sick for minor things
- Residency is already a high stress situation, don’t add to it by creating poor relationships with co-workers

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**Follow-Up**

- Taking care of established patients overnight is an important part of call.
  - Be sure to watch for pending labs, X-rays, studies
  - At sign-out, be sure to ask what the team expects you to do with the pending test
    - Do you need to change a med, start/stop IVF’s, let someone else know about it, call a consult?
  - Serial exams, I/O’s, following up consultant’s recommendations, additional questions
  - Don’t leave daily work to the on-call team.

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**Patient Care**

- Hopefully by good communication and frequent follow-up, you’ll be able to prevent patient decompensation.
- However, can be the nature of some illnesses
- Stay calm, start with the ABC’s and call your upper-level resident immediately!
**Patient Care**
- Start using resources - nurses, house supervisor, RT's
- Start thinking if transport to a higher level of care is needed vs. intensifying therapies at current level of care
- May be helpful to get nurse's opinion
  - If a nurse isn't comfortable taking care of a patient then that probably means they need a higher level of care

**Patient Care**
- Complex Patients
  - Can be challenging to admit overnight
    - Home health orders, numerous medications
  - Commonly have previous admissions so can look at old discharge summaries or med lists
  - Contacting those specialists who regularly care for the patient can save time
  - Have extra supplies at bedside (e.g. appropriate sized tracheostomy tube)

**Learn to Recognize Sick vs. Not Sick**

**Sick vs. Not Sick**
- Stop for a second and think. Focus on the patient, stay calm and start with the ABC’s.
- Is the patient stable?
- Are they getting worse?
- Do I need to intensify/change my treatment?
- Do I need labs/studies?
- Do I need help?

**Case 1**
- Intern: you are on the PTU admitting a patient with an acute asthma exacerbation
- 12 yo male with known asthma recently exposed to smoke at grandmother’s house
- VS T 98 HR 115 RR 22 OxSat 95% RA
- Last treatment was Albuterol 5mg neb 3hrs ago in the ED
- PE – alert, conversant, no retractions, good air exchange, diffuse expiratory wheezes

**Sick vs. Not Sick**
- ABC’s
- Airway and Breathing likely to be the source of decompensation in pediatrics
- Signs of Respiratory Distress:
  - Retractions
  - Head bobbing
  - Grunting
  - Nasal Flaring
  - Apnea
  - Tachypnea
**Case 1**

- What to do? Sick, not sick?
  - Not too sick
  - Likely ok to give Albuterol 5mg q3h plus home meds (e.g. inhaled Fluticasone, Montelukast), oral steroids
  - Keep an eye on him!

**Case 2**

- Intern: you are sent to the IMC to admit a patient with an acute asthma exacerbation
  - 12 yo female with known asthma and frequent hospitalizations, prior PICU stay x1 week
  - VS T99 HR 140 RR 44 OxSat 90%
  - Currently receiving Albuterol 5mg neb
  - PE – appears tired, sitting up, leaning forward, retractions (IC, SC, suprasternal), unable to speak more than one word at a time, no wheezes heard

**Case 2 Cont**

- What to do? Sick, not sick?
  - SICK!!!
  - Get help quickly – rely on your team!
  - Don’t leave the patient
  - In the meantime, escalate care...
    - Increase Albuterol (start continuous neb)
    - Make NPO
    - Steroids (may consider IV)
    - Consider IV Magnesium
    - Start the process to transfer to PICU

**Case 2 Cont.**

- CBG: 7.28/52/48/21/-1
- CXR: flattened diaphragms, expanded to 11 ribs, no infiltrates seen
- PE: appears worn out, labored respirations, difficult to hear breath sounds

**Case 2 Cont.**

- What to do? Sick, not sick?
  - Get HELP!!
  - Call the rapid response team, fellow/attending
  - RRT can help with IV’s, respiratory treatments, facilitate rapid movement to the ICU
  - Care escalation to be considered:
Case 3

- Intern: you are called by a 3rd floor nurse regarding a Heme/Onc patient
- 6 yo female with ALL admitted earlier that day with fever and neutropenia
  - Current BP is 69/48 (right arm, automated cuff)

Case 3

- PE: sleepy, but arousable, mottled with cool extremities, delayed cap refill (~3-4 secs)
- Per nurses she received her 1st dose of Cefepime approx. 45min ago,
- They are worried that he needs to go to the PICU
- What to do? Sick, not sick?

Case 3

- Tell the nurse that you are on your way to see the patient and get there quickly.
- If you are in the same room as your upper level resident, quickly brief them on the issue as you will likely need their help soon.
- Upon arrival to the floor, the nurses say that they woke the patient up and took the BP again (in both extremities) and it was still 60s/40s
- VS T 102.2 HR 130 RR 24 OxSat 95% RA

Case 3

- Again, get help. Have a nurse or secretary call your senior resident.
- ABC’s
  - Place on Oxygen
  - Give a 20ml/kg NS bolus (rapidly)
  - Repeat BP’s every few minutes
  - If BP not improving, give a 2nd bolus.
    - Probably a good idea to discuss with PICU at this point.
  - Discuss with Hem/Onc attending
  - Consider adding Vancomycin

Case 3 Cont

- For the upper-level resident in the PICU: you are called by the floor intern concerning a Heme/Onc patient with hypotension not responding to fluid resuscitation that is being transferred to the ICU

Case 3 Cont

- The intern has already called the transport team and they are at bedside when you arrive.
- After 40ml/kg of NS boluses, VS are improved.
  - HR 115, BP 85/59, RR 18
  - Everyone accompanies the patient to the ICU and the intern finishes giving you report on the way.
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at San Antonio, Texas

Case 3 Cont

- Upon arrival to PICU:
  VS T 101.6 HR 130 RR 24 BP 70/49 OxSat 94%
  2L NC
- PE: lethargic, mottled with cool extremities, intermittent grunting
- What to do? Sick, not sick?

Case 3 Cont

- Sick!
- Start with ABC’s and get help!
  - Respiratory distress likely 2/2 fever, hypotension rather than a primary respiratory source
  - Increase respiratory support, continue to monitor closely
  - Circulation compromised, continue fluid resuscitation, likely needs vasopressors

Case 4

- Intern: you are called by a PTU nurse about a 4 yo female currently having a seizure – has been going on for at least 3 minutes
  - She has a known history of epilepsy but seizures controlled on Levetiracetam
  - Admitted currently with acute gastroenteritis
  - You give the nurse a verbal order for a STAT 0.1 mg/kg dose of Lorazepam and tell her you are coming to see the patient

Case 4

- Upon arrival to the floor, the nurse says she gave the Ativan just before you arrived. 2 min have passed and the patient is still seizing.
  - As a bright intern, you have already had another nurse page your senior resident.

Case 4

- About 2 min later, the upper level resident arrives and the patient is still seizing:
  - VS T99 HR 120 Ox Sat 74% RA
  - You activate the rapid response team and start with the ABC’s.
    - You place the patient on 1L non-rebreather and sats improve to 89%, with PPV sats to mid 90’s
    - Suctioning of oral secretions
    - You call pharmacy to order stat doses of Fosphenytoin.

Case 4

- The PICU fellow arrives and asks for the patient’s previous lab values. You report that the AM chemistry was normal.
  - She asks for current electrolytes and an accucheck immediately.
Case 4

- The nurse reports that the accucheck is 23
  - You give a 2ml/kg bolus of D25 and the seizure stops in 2 minutes
  - Accucheck 10 min later is 58 so you repeat the D25 bolus
  - The nurse then informs you that the patient had no IVF’s ordered and had been refusing to drink since admission earlier that morning

Lessons for the Intern

- Recognize sick from not sick
- Know when to get help
- Try to manage patient to the best of your ability in the meantime
- Do not leave a sick patient!

Lessons for the Upper-Level

- Recognize sick from not sick
- Know when to get help and what kind of help you need
  - PICU, Pharmacy, RT, Nurse
- Escalate care and manage the patient in the meantime always starting with ABC’s

# 2 Ask for Help

- “Help me Obi Wan Kenobi. You’re my only hope.”

Asking for Help

- Don’t be afraid to ask for help!
- Asking for help is not failure
- Do what is best for the patient
- Use your resources available
- Remember you are never alone!
Who do I ask for help?

- Upper-Level Resident
- Attending
- PICU (resident, fellow, attending)

When do I ask for help?

- Decompensating Patient
  - Start with the ABC’s
  - Call your upper-level
  - Rapid Response Team/Code Blue
  - Hospitalist Attending
  - PICU resident/fellow/attending

When do I ask for help?

- Complex Patient
  - Often with multiple meds, diagnoses,
  - May need help sorting out what is going on
  - Review previous admissions
  - Discuss with specialists, PCP

When do I ask for help?

- Challenging Parent
  - Start with your supervising resident
  - Nurses, House Supervisor
  - Security
  - Reassure parent that you want what is best for the child just like they do to reduce confrontation
  - Speak calmly, don’t yell
  - Keep yourself safe

When do I ask for help?

- “I don’t know what to do”
- Doubting the diagnosis
- Question regarding appropriate management
- Something just doesn’t seem right
- Strange labs/studies
- Problems with nursing, pharmacy, or other hospital staff
- Problems with policies/protocols

Asking for Help

- Your attendings WANT to know about a concerning patient or if you have questions EARLIER rather than walking into a bad situation in the morning.
- You need to call your attending if you are unsure or concerned about a patient. Trust your instincts.
- You will not be in trouble or looked down upon for calling your attending.
- Make sure another team member hasn’t already called with the same question.
"Do or do not. There is no try."

- Always review your work for positive/negative feedback
- Ask supervising residents, attending physicians for feedback
- Look for ways to improve
- Hindsight is 20/20, don't beat yourself up
- Accept feedback graciously, it is not a personal attack
- Don't become defensive if an upper-level resident or attending disagrees with your diagnosis or management

- Review literature, talk about it
- Share what you've learned
- Listen to what others have learned and use it

- Questions?
- Comments?