

# Intern Survival Guide 2011-2012

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**ERIC:** [www.eric.vcu.edu](http://www.eric.vcu.edu)

Electronic Residency Information Center. Our residency's webpage. It has all official policies, curricula, conferences, etc. It is updated regularly and is the first place to look when you have questions.

**New Innovations:** [www.new-innov.com](http://www.new-innov.com)

Sign in to log duty hours and procedures, complete evaluations, and view schedules. (Includes your personal ward schedules, clinic schedules and conference schedules).

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### **Team Structure**

1. Team Members: 1 attending, 1 resident, 2 Interns, +/- pharmacist and med/pharm Students

### **Escalation**

1. As a brand new intern, you may feel overwhelmed. This is **normal**, and you have TONS of resources for help! When in doubt, you should escalate to a higher level for support.
2. Start by going to your resident. If your resident isn't around, call another resident, STR, your attending, a chief or Dr. Call. You can also call a hospitalist attending, intensivist on-call, or rapid response team.
3. Notify your attending whenever there's a change in patient status. Includes transfer to higher level of care (ICU or stepdown), deaths, procedures, and discharge against medical advice/elopement.

### **Virtual Pagers**

- Every ward intern is assigned a virtual pager, which nurses, radiologists, and other hospital staff will use to contact the covering MD for each patient.
- Be sure your virtual pager is switched over when you arrive and leave work. Give out your personal pager sparingly to ensure that the covering MD will be paged when you're not in the hospital.
- To switch your virtual pager you can either call the operator (80951) or go to the Paging site on the computer. Once you are on the web messaging site, you should:
  1. Click on the "Personal Profile" tab and login using your virtual pager as the username and password.
  2. Delete the current covering MD
  3. Click on the "Exception" tab, then click on "coverage" and finally "new" and enter your personal pager.

### **MCV Telephone System and Paging**

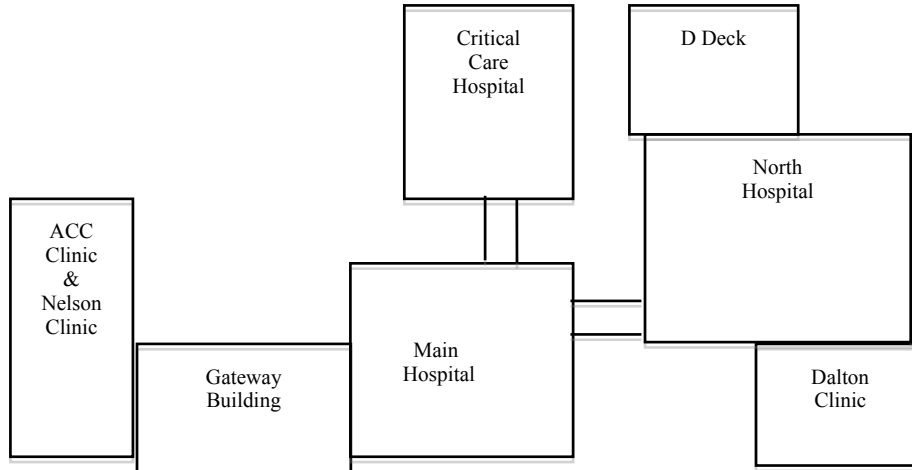
- Hospital exchanges at MCV include 828, 628, 827 and 325.
- Within the hospital
  - All numbers are 5 digits (i.e. 6+1234)
  - 6 is short for 628; 8 for 828; 7 for 827; 5 for 325
  - So if outside MCV, you'd dial 628-1234. In hospital, you'd dial 6-1234
- Dial "9" for an outside line. Call 8-0951 for operator assistance
- To page, you can use the Text Messaging website or call 8-0951 and ask the operator to page someone for you. In hospital, you can also dial \*60, enter the 4 digit pager, and then follow the instructions.

### **McGuire VA Hospital Telephone System and Paging**

- Inside the hospital all numbers are 4-digit extensions. If calling from outside the hospital, dial the main number (675-5000, and enter the 4-digit extension)
- To page MCV pager numbers from inside the VA, dial \*601 and follow the recorded instructions.
- VA attendings are not on the MCVH paging website and do not get text pages

### Getting Around MCV

- CCH 1 ← Main 1 → North 5
- ACC ← Main 2 → North 6
- CCH4 ← Main 4 → North 9



### Admissions (how does it work and what is my role?)

1. Resident is called by the Medicine Admitting Attending (MAA) with admission
2. Resident gives you a brief story
3. Quickly review the patient's old records in Cerner
4. Go see the patient (should be within 30 minutes of call from MAA) and get full H&P, including: home meds/doses (when was their last dose?), meds/IVF received in ED, family contacts and code status
5. If the patient looks unstable or you're worried, stop and call your resident to assess the patient right away.
6. Before presenting to your resident, you can (in this order):
  - Put in basic admission orders. Use the Internal Medicine Careset.
  - Add the patient to signout
  - Start your note
7. Present to your resident and discuss your plan
8. Finish putting in orders/calling consults
9. Finish signout and note

#### *General Points for Admissions:*

1. Your workflow should be: (1) orders, (2) signout, & (3) note. This allows you to sign out to night float, so you don't get paged while you're working.
2. You'll get multiple admissions, so place orders as soon as you've seen the pt—this prevents nurses from paging you for orders. Work on signout and notes between admissions.
3. After your patient arrives on the floor, check in at some point to be sure they're stable, especially if they've been in the ER for several hours.
4. Remember to keep your resident in the loop, especially about major orders: it's

- always safer for all team members to have an updated plan.
5. Speak up if you think something is wrong.—i.e. if the patient is being admitted to a general bed but is hypotensive/tachycardic and needs a step-down or ICU bed. You can **ALWAYS** page your resident or attending for backup/support.
  6. Notify the patient's PCP of admission via page, phone, or message in Cerner.

*Orders Not to Miss* (if appropriate)

- NPO p MN (if pt is getting a study the next day that requires NPO)
- serial cardiac enzymes (if ruling out MI)
- AM labs
- PT/OT (err on the side of ordering it if you're unsure they'll need it)
- If there's a chance your pt may need a transfusion or procedure, be sure to order coags, type & screen, and get consent before you leave.

**Daily Responsibilities**

1. Get to the hospital by 6-6:30 AM to get signout in person.
  - Check AM labs and replete if necessary
  - Go see pts. Note overnight events, VS, Ins/Outs, Phys Exam, IV access/tubes/catheters. Review meds daily (if appropriate note PCA usage, telemetry events, and weight)
2. Work Round with your resident from 7:30-8:00.
3. Between 7:30 and 9:00, start workflow in this order
  - A. Place urgent orders (boluses, antibiotic changes, urgent imaging)
  - B. Call as many consults as possible, schedule urgent procedures
  - C. Place non-urgent orders (AM labs, non-urgent imaging)
  - D. Discharge planning
  - E. Start your daily notes
  - F. Update your signout
2. Morning Report @ 8:00. Mandatory for residents, NOT mandatory for interns.
3. Rounds at 9:00 except on Tuesdays; Rounds at 8:00 on Tuesdays.
4. After Rounds: continue workflow in same order as above. Do procedures.
5. Sign out to NF. One team member stays until 7PM. Others leave early.

*General Points for Daily Responsibilities:*

1. Before you leave, be sure to:
  - have T&S/coags ordered, consent signed for transfusions/procedures
  - have AM labs ordered
  - check if any of your pts need to be NPO p MN
  - \*switch over your virtual pager\*
2. Cerner's patient summary page doesn't have everything. Example: the summary page just gives total Ins/ Outs; but you need to know how much of the output was urine vs hemodialysis, etc.
3. Develop a system to maximize efficiency.
  - Don't know where to start? Use the ward sheets on ERIC or the scut sheets from medfools.com.
  - Remember to use short periods of downtime (10-15 min) to get things done (orders, signout, phone calls, etc.)

## Electrolyte Repletions

**Potassium** (goal 4-4.5)-do not replete if pt is on HD

- 10mEq of K raises serum K by 0.1mmol. For mild renal failure, cut the dose in half. For severe renal failure (CrCl<30) ask resident for help.
  - PO: tabs (huge) vs. liquid (tastes gross, fast-acting). Equivalent to IV except PO KPhos which does NOT replete K
  - IV: Can be painful through peripheral IVs. Slow! (takes an hour to get in 10mEq). 30 mmol IV KPhos = 45 mEq IV KCl.
- Profoundly low (<3): can cause arrhythmias (less common than high K). Order 40mEq PO STAT and 40mEq IV over 4 hours. Will likely need >100 mEq ultimately (depleted K stores) so recheck every 6-8 hours until nml.
- High (>5.5): can cause arrhythmias. CHECK EKG STAT and notify your resident!
  - If EKG changes: give 2g Ca-gluconate (stabilizes myocardium), 1 amp Na-HCO<sub>3</sub>, 10 units insulin + 1 amp D50, and albuterol neb (intracellular shifts), and 30 g kayexalate. May need to call renal for emergent HD.
  - If no EKG changes and <6: can hold off on Ca-gluconate. Ask your resident about insulin, albuterol, bicarb. Still give kayexalate.

**Magnesium** (goal>2)-do not replete in HD

- 1 g of Mg will raise Mg level by 0.1.
  - PO: Mag Oxide. Causes diarrhea.
  - IV: 1-2g Mag Sulfate IV runs (slow but not painful like potassium)

**Phosphate** (goal 3-4.5, usually replete if <2.5)-do not replete in HD

- For chronically low Phos, check for Vit D Deficiency. Acute drop in a pt that was NPO for days-weeks may indicate refeeding syndrome.
- PO: typically “2 packets of neutra-phos”, can also give extra milk with meals
- IV: NaPO<sub>4</sub> (4mEq Na, 3mmol PO<sub>4</sub> per mL), KPO<sub>4</sub> (4.4mEq K, 3mmol PO<sub>4</sub> per mL)
- High: typically seen in CKD patients. Will require phosphate binders.

**Calcium** (goal 8.5-10) –don’t replete in HD unless dangerously low and renal fellow aware. Remember to correct for albumin. Be very cautious when the Calcium\*Phos product is >55 (can precipitate Ca-Phos and cause MI, etc).

- PO: Tums, Calcium Carbonate
- IV: Calcium Gluconate 1-2g IV runs (1<sup>st</sup> choice for peripheral IV) or Calcium Chloride 1-2g IV runs (through central IV’s only—about 4-5x as potent!)

**IV Fluids:** Surgeons use Lactated Ringers—isotonic solution with “premix” of electrolytes. Good for young people without chronic diseases. Bad for medicine patients. Use normal saline for boluses—500mL to 1L. Use NS, 1/2NS or D5-1/2NS for maintenance.

### Discharge Planning

1. For home health and placement: call Social Workers and Care Coordinators, order PT/OT. **Do this as early as possible.**
2. If pt needs procedure prior to DC (i.e. PICC), order early.
3. Get DC Meds and DIF done early, or you'll be scrambling at the last minute.
4. A DC Summary can be done instead of daily note on day of DC. It **MUST** include overnight events and physical exam (incl. vitals) from admission and date of DC.

### Communication and Handoffs

One of the most important parts of patient care!

1. Nurses: they can be a huge resource. Keep them in the loop, ask their opinions, and value their instincts.
  - If you place a STAT order, tell the nurse (by phone or in person)
  - If a nurse is being rude or unreasonable, walk away and ask for help from your resident, attending, or chief
2. Sign-out: Should convey all the **important** information about your patient as concisely as possible. Major issues and events only—if it's too long, it's not useful. Your resident should review signout with you on a daily basis, but there are some things that should **always** be on it:
  - code status (Do I call a code?!)
  - Allergies
  - Bed Location (The pt is coding but I don't know where!)
  - **Important** aspects of HPI, Exam, PMH: **don't copy/paste from your note**
    - Key meds (antibiotics, steroids, pressors)
    - Changes in plan (ie-increased dose of lasix, NPO p MN.
    - Key baseline exams: abd exam for pt with GI issues. Mental status/ neuro exam for pt with AMS.
  - Anticipate problems / reasons for pages (HTN, pain meds, recurrent issues) and leave instructions for NF team.
  - Handoffs should **always** be face-to-face—no signout over the phone

### Code Blue

Codes can be overwhelming and confusing for everyone. Don't panic—you are not expected to run a code on day one. Your role is to support the resident running the code. Everything you need is in the code cart, including ambubag, code meds, central line kits, intubation tools, etc.

- *What do I do when I first walk in the room?*  
Put on gloves and be ready to help. If it's your pt, be able to provide a quick summary of why they were admitted and any notable issues.
- *What if I'm the first person there?*  
Remember-CAB's. If there is no pulse or no breathing/abnormal breathing, start chest compressions (or get someone else to start them) . Then get to the airway and start bagging if someone hasn't already started. If the code cart isn't there, ask someone to get it so that the defibrillator can be used.

- *What you may be asked to do:*  
Bag, Chest Compressions, Ordering labs/chest x-ray, page stat consults/attending/fellows, perform ABGs and central lines (with help)

### **Death Pronouncement Procedure**

- Ask nurse if family is present and prepare yourself before entering the room.
- Introduce yourself and explain what you're going to do.
- Feel for carotid pulse, listen for heart/lung sounds, look for respirations, check pupils for reactivity. Be brief.
- Express your condolences to the family. Ask if they would like to see the Chaplain. Ask if they would like an autopsy.

Afterwards, you'll fill out the death certificate (provided by the nurse), put in a "DC as Expired" order. and write a brief death note ("Called to bedside at \_\_. Found pt to be without pulse or spontaneous respirations. Pupils dilated and nonreactive. Time of Death \_\_"). Send the attending and resident an FYI page with pts name, time of death, your name, and a contact number.

### **Calling Consults**

Before calling, be sure you **understand why** you're calling a consult and can convey that to the consultant. Never say "we just wanted to get you on board." If a pt has pertinent outside records, have them in the chart before calling the consult. Here are some specifics for each service:

1. Cardiology: Have current and old EKGs ready and know the cardiac meds.
  - @MCV: 1. Gen Cardiology-for most non-urgent consults
  - 2. EP: only if you're sure it's an EP question
  - 3. CCU: for acute consults page CCU Resident
  - 4. CCU Fellow: for nighttime STAT procedures only
  - @VA: 1. Gen Cardiology (ACE team fellow)
  - 2. EP
  - 3. CCU consult: ACE team resident
2. GI: for GI bleeds, know current CBC, coags, pertinent history, stool appearance (black/BRBPR/trace heme +). Unstable GI bleeds are acutely scoped only in the MRICU.
  - @MCV: 1. General GI (luminal)
  - 2. Biliary
  - 3. Hepatology
  - 4. Nutrition Fellow (PEG Tubes, etc)
  - @VA 1. General GI covers luminal, biliary, hepatology
3. Renal: Always order UA, urine lytes, and consider US + eos before calling.
  - @MCV 1. General Renal
  - 2. HD Fellow (chronic ESRD pts)
  - 3. Renal ICU fellow
  - @VA 1. One renal fellow for all of above
4. ID: know culture results, bacterial susceptibilities, current and prior antibiotics. Know if (and why) the patient is immunocompromised. Try to know which, if

- any, prior MDR infections a patient has had.
- General ID
  - AMT: restricted antibiotic approval. Covered by ID fellow nights and weekends.
  - If a pt has fungemia, you'll need to call an ophtho consult as well
5. Heme-Onc: One consult service, separate from inpatient service.
  6. Pulmonary: 2 services at MCV, 1 at VAMC
    - Gen Pulm: non-acute consults, incl. pulm infections, need for bronch
    - Interventional Pulmonary – biopsies, US guided thoracentesis. They should teach *you* how to do a US guided thoracentesis.
  7. MICU (non-cardiac): MCV has MRICU and intensivist attending. VA has MICU.
    - MRICU: For acute consults only. The assumed question when you call the MRICU Resident is “does this pt need to be in the MRICU.”
    - Intensivist Attending (p9000) – 24 hour intensivist coverage in case badness is going down and you need help or procedure supervision.
    - VA MICU: same as MRICU but also covers “stepdown” level of care at the VAMC. (The VA acute care floor has no stepdown capabilities.)
  8. Surgery: Be sure you know and have done the relevant exam/looked at pertinent imaging prior to calling.
  9. Other Services:
    - Substance Abuse
    - PICC Team: place most PICCs but sometimes unable due to anatomy, high INR. If they are unable, IR can often help!
    - Virginia Smith: NP for Sickle Cell patients. Has individual care plans in Cerner. GREAT resource.

\*Refer to the Consult Guide given to you at Intern Orientation for a full summary of consult recommendations for other services.

#### **What to Do If You're Called For...**

- Whenever called for concerning symptoms, ask for recent vitals over the phone. (If not done recently, ask for them to be done while you're en route).
  - Remember escalation of care: **If a pt looks unstable or you don't know what to do, call your resident and ask for help!**
1. Insomnia: Very common call. Can use Ambien or Benadryl; both can cause AMS in the elderly. Trazodone is an alternative, causes less AMS. Seroquel is good in the elderly but can prolong QT. Always use lowest starting dose.
  2. Fever: If not done in the last 24 hrs, get a chest xray, UA/urine cx, and peripheral blood cultures. Can give Tylenol PRN. If the patient is neutropenic, start cefepime 2g q8h (adjust for renal failure) empirically after drawing cultures
  3. Nausea/Vomiting: Another common call, and can be due to meds, chemo, underlying illness, reflux. Evaluate at bedside for new-onset vomiting or abd pain, persistent vomiting, or hematemesis. For symptomatic control, you can give Compazine or Zofran first line.

4. AMS: Always evaluate promptly and do a quick exam to determine if the situation is acute (unresponsive, blown pupil, acute change in orientation). Check the airway—if pt can't maintain their airway, then call the MRICU. If they can maintain their airway, **call your resident** and check an ABG (for inc CO<sub>2</sub>) and fingerstick blood glucose. Talk to resident about stat labs: BMP, cultures, CBC, LFTs (ammonia). Decide quickly whether or not the patient needs a noncontrast head CT.
5. Confused Old People (Elderly delirium) – 20% of elderly become delirious in hospital, ~80% if preexisting dementia or ICU stay.
  - Delirium: acute, fluctuating AMS, inattention, difficulty concentration, and disorganized thought.(rambling/incoherent language).
  - Causes: MEDS (opioids, sedatives, ANTICHOLINERGICS, ETOH/ drug withdrawal, polypharmacy), Brain (CVA, bleed, meningitis), Illness (Infxn ie: UTI, hypoxia, shock, dehydration, fever, HYPOGLYCEMIA). Post-Op.
  - Work-up: VS including pulse-ox, CHECK GLUCOSE, review meds, neuro/eye exam for focal findings (if present get Head CT).
  - Management: Redirection, then meds, then physical restraints (use last, try to avoid). Haldol 0.5-1.0mg IV, atypical antipsychotics—all prolong QT except aripiprazole.
6. Chest Pain: Always evaluate promptly. **If the pt looks unstable, call your resident.** ALWAYS get an EKG. If you are even slightly concerned for an MI, send cardiac enzymes. If the EKG or history is suggestive of ischemia, give the pt aspirin 325mg, SL nitroglycerin (up to 3 doses in 15 minutes—can lower BP so call your resident before giving if BP is low), and oxygen. Your goal is to get the pt chest pain free. If the pt is not pain free after 3 doses of SLNG, or has suspicious ECG findings, then the CCU resident should be notified. Your resident should be involved ASAP—definitely before calling CCU, and before giving heparin/lovenox. Remember: time is muscle for cardiac ischemia/infarct.
7. SOB/Hypoxia: Again, evaluate promptly, especially if vitals (which nurse should have given you on the phone) sound unstable (tachypnea>25/minute, tachycardia>100, hypotensive, sats <90). Assess pt's breathing (can they speak in complete sentences? Are they maintaining their airway? Do they look like they're tiring—using accessory muscles, diaphoretic?) **If the pt looks unstable, call your resident.** Listen to the lungs and heart; check for edema and JVD. Get an EKG and check an ABG for hypoxia/hypercarbia. If they're hypoxic, be sure they're on enough O<sub>2</sub> to keep their sats above 90% (if on a non-rebreather and still hypoxic, is in impending respiratory failure, then call the MRICU immediately. Your resident should be involved by now.) If you're concerned, get the nurse to make sure the code cart is nearby.
5. Tachycardia/Arrhythmia: Start by asking the nurse for the pt's BP and symptoms — **if BP is low or pt is symptomatic, call your resident.** Ask the nurse

- to get an ECG while you're on the way. When you arrive, check for pulse—if they don't have one, call a code blue. **If pt looks unstable, call your resident.** Management of tachycardia depends on whether the pt is hypotensive and/or symptomatic—if they are, you should **call your resident to bedside, get the code cart ready** and follow your ACLS algorithm for unstable tachycardia. For a stable tachycardia (no symptoms, BP normal), you have some options.
- For known A fib with RVR, you can use diltiazem or metoprolol IV, but be aware that these can lower BP. If you're pushing meds IV, your resident should be involved.
  - For a regular wide complex tachycardia with a pulse, call your resident for assistance immediately. (If no pulse, call a code.)
  - For a regular narrow complex tachycardia that you can't identify, call your resident to bedside to see if adenosine is warranted.
  - Sinus tachycardia IS NEVER treated with AVN blockade, figure out what's causing it and fix problem.
8. Hypotension: Causes are numerous and include hemorrhage, CHF, sepsis, arrhythmia/tachycardia, PE, MI, tamponade, cirrhosis, and meds. If pt is symptomatic or has had a significant drop in their BP, evaluate at bedside immediately. **If the pt appears unstable, call your resident to come evaluate the pt.** Starting a fluid bolus is usually safe, as long as pt isn't volume overloaded and is not anuric. Remember—only IVF *boluses* help blood pressure; a rate of 125cc/hr won't help acutely. If the pt appears stable, take the time to go through the chart—look at recent meds, trends in vitals, and build a differential dx to discuss with your resident. If pt looks septic, consider adding/broadening antibiotics. If a pt is still hypotensive after 6 L IVF boluses, then they need pressors, and the MRICU resident should be notified.
9. Hypertension: Efforts should be made to acutely correct a pt's BP if they are symptomatic or their BP is >170/100. If they are symptomatic (CP, SOB, AMS, no UOP), they have hypertensive emergency (end organ damage) and you should call your resident. If not, pt has hypertensive urgency and you can take your time (up to 12-24 hours) to lower BP. You can even check to see when pt's next antihypertensive medicine is due to be given. If it's within the next few hours, just ask the nurse to give it early. Rapid onset meds that can be used acutely include nitropaste (venous dilator, not great), IV labetalol, PO/IV hydralazine, PO clonidine, PO captopril.
10. Low Urine Output – normal > 0.5ml/kg/hr (usually > 30mls). Oliguria < 400mls/day, anuria < 100mls/day. First question: are the numbers accurate? (Sometimes not recorded—ask nurse.) Is the Foley clogged? (Flush it!). Did pt discard urine without telling nurse? (ask them) or is the pt CKD Stage IV-V and only makes 100-200mls a day normally? Can consider bladder scan (>50mL post-void residual abnl, >200mL post-void = need for Foley). Also consider hypovolemia, decreased cardiac output (MI, CHF), sepsis, contrast induced nephropathy. If not volume overloaded, usually safe to try a 500mL saline bolus. LASIX DOES NOT “TREAT” LOW URINE OUTPUT!