Preparation for Internal Medicine Internship

TOP INTERN CALLS
The Biggest Question

- Who do I need to go see?
- Rules of thumb...
  - For your first month.....everyone!
  - Anyone with SOB, CP, new abdominal pain, AMS you HAVE to go see!
  - If chronic problems or taken care of by medications already prescribed then you may not...
For each call, ask yourself a few questions

- Who?
- What?
- When?
- Where?
- Why/How?
- Do I know what to do?
6 N: “Mrs. Hyperina Tension in 3331-1 has a BP is 230/100, can I give her something?”
#1 BP

- Baseline?
- Recheck? - dynamap vs manual
- Cause?
  - Pain
  - Withdrawal
  - Volume overload
  - Increased ICP
  - Autonomic dysfunction
  - Essential
  - Anxiety
  - Meds
  - ESRD
  - Wrong cuff size
  - MI, PE, dissection
  - Others…

- When to treat?
  - PO vs IV
- What to use?
#1 BP

- Elevated SBP > 180-210 mmHg
- Elevated DBP > 110-120 mmHg
- No evidence of end organ damage or symptoms

**Tx:**
- Decrease BP in days to weeks
- Use PO medications
  - Clonidine 0.1mg
  - Captopril 25mg

Emergency

- Elevated BP
- End organ damage
  - AMS
  - CP
  - Ischemia (heart / brain)
  - HA
  - Visual Sx
  - Decreased UOP
  - Hematuria

**Tx:**
- Decrease by 25% in first 24 hours
#1 BP

MICU: “Mr. Presslow’s MAP just dropped to 50mmHg, I think you need to see him.”
#1 BP

- **GO SEE THE PT!!!**
- **Cause?**
  - Meds
  - Volume depletion
  - Cirrhosis
  - Dissection
  - Sleeping
  - Wrong cuff size
  - Shock
  - Adrenal insufficiency
  - Others…

- **Priority is access**
  - “Short and Fat is where it’s at”
  - Two large bore 18G antecubital IVs
  - Fluid bolus
    - How much?
    - How fast?
  - Pressors
#2 breathing

5 Tower: “Mr. Kussmaul is breathing fast and looks sweaty.”
#2 Breathing

- GO SEE THE PT!!!
- What to do?
  - Vitals, Pulse ox, exam
  - CXR? ABG?
- Speech Pattern
  - Full sentences

- Breathing pattern
  - Accessory muscles
  - Retractions
  - Air movement
- Cyanosis
- Pt’s assessment
#2 Breathing

**Cause?**

- Pain
- Withdrawal
- Hypoxemia
- PE
- Chronic lung disease
- Effusion
- Transfusion reaction
- Anxiety
- Volume overload
- Hypercarbia
- Aspiration
- Pneumonia
- Pneumothorax
- ARDS
- Others…
#2 Breathing

- Consider treatments:
  - Albuterol nebs
  - Supplemental oxygen
  - Diuresis
  - Code status/senior resident before intubation
#3 Pain

3 NEWS: “You know Mrs. Fentanyl Morphina on Gen Med 1. She is in a lot of pain and requested 8mg of IV Dilaudid, can you order it please?”
#3 Pain

1. Non-opioid
   +/- Adjuvant

2. Opioid for mild to moderate pain
   +/- Non-Opioid
   +/- Adjuvant

3. Opioid for moderate to severe pain,
   +/- Non-opioid
   +/- Adjuvant

Freedom from cancer pain
#3 Pain

<table>
<thead>
<tr>
<th>Medication</th>
<th>IV</th>
<th>PO</th>
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<tr>
<td>Morphine</td>
<td>10mg</td>
<td>30mg</td>
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<tr>
<td>Codeine</td>
<td></td>
<td>200mg</td>
</tr>
<tr>
<td>Hydrocodone (Norco/Vicodin)</td>
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<td>30mg</td>
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<tr>
<td>Oxycodone</td>
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<td>10mg</td>
</tr>
<tr>
<td>Hydroxymorphone (Dilaudid)</td>
<td>1.5mg</td>
<td>7.5mg</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.1mg</td>
<td></td>
</tr>
</tbody>
</table>
#4 Chest Pain

- 3 NEWS: “Mr. C. Atheter just started having chest pain, what should I do?”

Call Senior / Cards Fellow / Interventional Fellow

Code STEMI

Call a code brown – for yourself.
#4 Chest Pain

- Go see the patient
- Life threatening causes of chest pain:
  - ACS
  - PE
  - Pneumothorax
  - Aortic dissection
  - Esophageal rupture
  - Tamponade
  - HTN (Malignant)
#4 Chest Pain

- **What to do?**
  - New Cardiac -> MONAB, statin, heparin, think TIMI risk
  - On CICU awaiting cath -> Nitro gtt, gpIIb/IIIa inh
  - Cancer patient -> CT PE protocol
  - Post-MI or post ablation -> think pericardial effusion/rupture
  - EtOH/emesis -> esophageal rupture, check CXR
  - Trauma/after CVC placement -> r/o pneumothorax
#5 Arrhythmias

- CICU: “Telemetry just called to say that Mr. Lima in 5901 just had 5 beats of Vtach.”
#5 Arrhythmias

- Very broad
  - Atrial fibrillation, VT, AVB, AVNRT/AVRT, etc…
- In our situation…
  - Check lytes, EKG, telemetry, consider other w/u as necessary → troponin, echocardiogram
#5 Arrhythmias

- Other common arrhythmias in the
#6 Abdominal Pain

6 S: “Ms. Vomitas has pain in her stomach, can you give her something?”
#6 Abdominal Pain

- Many possible causes...
  - ...overnight rule out the bad ones
    - Surgical abdomen
    - Intestinal ischemia
    - Spontaneous Bacterial Peritonitis
    - Ileus/Obstruction
  - Go see patient!
    - Exam: peritoneal signs, rectal exam, tympanic abd
  - Consider work up:
    - Acute Abd Series
    - Pericentesis if pt with ascites
#7 Nausea/Vomiting

6 N: “The patient you just admitted has vomited four times in the last fifteen minutes.”
#7 Nausea/Vomiting

- Consider cause…
  - Opioid withdrawal, primary GI issue, poorly controlled DM, obstruction/ileus
  - Treat
    - Prochlorperazine (Compazine)
    - Ondansetron (Zofran)
    - Metoclopramide (Reglan)
    - Ativan
    - NG tube
PART 2...
8. Diarrhea and Constipation
9. Altered Mental status
10. Patient fall
11. Sleeping difficulty
12. You want me to do *what*?
13. Fever
14. Low urine output/urological issues
15. Hyper/hypo-glycemia
5 Tower: “Mr. Constipation was admitted 3 days ago and hasn’t had a bowel movement yet.”
#8 Diarrhea/Constipation

- **Cause?**
  - Obstruction/ileus, medications
  - Treat:
    - Docusate (Colace) → stool softener
    - Bisacodyl (Dulcolax)
    - Polyethylene glycol (Miralax)
    - Milk of Magnesia
    - Lactulose
    - Magnesium Citrate
    - Enemas
    - Manual disimpaction
#8 Diarrhea/Constipation

2 E: “Mr. Hershey has been having loose stools all day, can you do something about it?”
#8 Diarrhea/Constipation

- **Cause?**
  - Medications from previous slides, recent antibiotics, infectious, bleeding

- **Usually w/u before treating**
  - If infectious (i.e. C. diff) would not prescribe medications

- **Treat:**
  - The cause
  - Loperamide (Imodium)
#9 Altered Mental Status

Questions:
- Acute vs chronic
- Agitated vs somnolent
- Waxing/waning vs progressive
- What are some objective baseline features?
- What has changed?
  - Which features of their mental status?
  - Treatment (meds, status of illness, events of the day, etc)
  - Time of day- hx or high risk to sundown?
- Vitals (including pulse ox)

RN call: “Doctor, Mr. Johnson is peeing on the window.”

RN call: “Mr. Jones is not waking up!”
#9 Altered Mental Status

Inpatient DDx of common causes of AMS:

- Head trauma/falls
- Seizure
- Stroke
- Hypotension
- Bradycardia
- Bleeding
- *Infection
- Toxic/illicit
- Hypoglycemia

- Hepatic encephalopathy
- Uremia
- Other metabolic (electrolytes)
- Meds (anticholinergic, sedatives, etc)
- Hypoxia
- *Hypercapnea
- Sun-downing
- ICU psychosis
Altered Mental Status

Work-up

- Gather complete hx (family, RN, notes)
- See the patient
  - Thorough exam esp CV, pulm, and neuro/psych, consider infectious sources
- Further directed by history and exam
- Labs/Imaging
  - Accucheck
  - ABG
  - CBC, CMP
  - U/A, Ucx, Bld cx, CXR
  - Trop, EKG
  - UDS
  - CT head
  - EEG
#9 Altered Mental Status

**Treatment**
- Varies by etiology
- If suspected med overdose
  - Narcan or Flumazenil*
- If etiology not clear, more thorough work up needed
- Stop potential offending meds if possible (narcotics, benzos, ambien, etc)
- If sundowning/hospital psychosis
  - Haldol 2mg IV/PO/IM if agitated (check QTc first)

**Optimize the environment in EVERY situation- Create a “normal” setting**
- The more familiar faces the better
- Sleep at night, awake during day
- Turn off TV/radio/lights at night
- Activity, out of bed, lights on during day
- Keep bedrails up, fall precautions, secured IVs, tubes, etc
- Room near nursing station?
- Consider 1:1 sitter before restraints, esp if confused and non-combative
#10 Patient fall

Questions:

- What happened?
  - Go see the patient
    - Talk with patient and staff to recreate the scene
    - Any s/s post-injury?
    - Examine patient
      - Neuro-psych
      - MSK
      - Bruising/contusions

RN call:
“Doctor, I found Ms. Price on the floor, she fell!”
#10 Patient fall

Who gets a CT scan?

- Multiple scoring systems available with varying sensitivities and specificities

Consider ordering NON-contrast CT head if any of these:

- HA
- Vomiting
- Age > 60
- Drug/etoh intoxication
- Physical evidence of trauma above the clavicles
- On anticoagulation (coumadin or equivalent)
- ANY Neuro changes (seizure, neuro deficits, memory loss, etc)

Order other imaging if suspicion for any other fractures (hip, etc)
Patient fall

Prevention of future falls
- Fall precaution orders in place?
  - Guard rails
  - Bed alarm
  - Patient education
- Assess medications
- Are restraints or a 1:1 sitter needed?

Document incident appropriately
- At VA - Progress note using “Fall Template”
- At Loyola - regular Progress note
- Include full SOAP format of information including what you did for the fall and your rationale
#11 Sleeping difficulty

Questions:

- **What time is it?**
  - Night is for sleep, day is for wakefulness
  - Is this a new or old problem?

- **Why is it needed?**
  - Sleeping in the hospital is HARD
  - What has worked in the past?
  - Is something already ordered?

- **First do no harm**
  - Risk for over-sedation? Why wasn’t one already ordered?
  - Any contraindications to particular sleepers?

- **Is the environment optimized?**
  - TV/radio/lights off
  - Roommate issues?
  - Healthcare staff disruptions
  - Pain and other s/s controlled?

RN call: “Ms. Morton wants something to help her sleep.”
#11 Sleeping difficulty

**Treatment**
- **Ambien** (zolpidem) 5 - 10mg PO
  - *1st line*
- **Benadryl** (diphenhydramine) 25 - 50 mg PO/IV
  - Avoid if elderly - anticholinergic
  - IV can initially be stimulating
- **Restoril** (temazepam) 7.5 - 30 mg PO
  - Caution in elderly
- **Haldol** 1 - 2 mg PO/IV
  - Useful in delirium, dementia/sundowning

If appropriate, tell team in AM to place standing PRN order for a sleeper

- Optimize the environment as much as possible
#12 You want me to do what?

**Is this my patient?**
- It’s a PATIENT, and they need a doctor
- Identify the team to be contacted

Questions:
- Emergent vs non-emergent
- Who is the primary team, MRN, team members
  - You need to be the one to look up patient and help them find the primary service

RN call: “Doctor, Mr. Smith needs… and his family wants to talk about…..!!!
#12 You want me to do what?

Am I supposed to do that?

Questions:
- Who is the primary service?
- What do you want me to do?
- Why does it need to be done?
- When does it need to be done by?

Should you do what they are asking?
- Probably yes - work together, RNs know more than you think
- Can always say - “let me check, hang on”, or “I’ll call you right back.”
- Ask your senior
- But… in the end, you don’t have to do anything you aren’t comfortable with

Bottom line:
- Understand the situation before putting any orders in
- Avoid placing orders blindly

RN call:
“Doctor, you need to put in an order for a diet, the patient is hungry and is still NPO from the EGD they had earlier today.”
#12 You want me to do what?

Can it wait for the primary team?

- Restraints
- Expiring meds
- Diet orders

RN call (at 12:01am):
“Doctor, you have to renew the restraints now. The nursing manager says you have to.”

TALK to them
Be on the SAME team
Always relate everything back to patient care
#13 Fever

Questions:
- How high?
  cut off is 38.0/100.4
- When?
  • Recurrent vs new
  • During medication or transfusion administration?
- What?
  • Other sx or recent events
  • Current meds, Abx?
  • Any pending cultures

"Thanks, I’m going to review some things and throw some orders in, look for them in a few minutes."

DDx:
- Infection
  • PNA
  • UTI
  • Skin/soft tissue
  • (bone, meninges, sinusitis, intra-abd, endocarditis, abscesses elsewhere, etc)
- Inflammation
  • Gout
  • Autoimmune
  • Atelectasis
  • Malignancy
- Drug related

RN call:
“Ms. Washington has a temperature of 101.8°F.”
#13 Fever

Standard work-up:

- Thorough chart review- history, meds, cxs, etc
- See the patient- are they feeling any different?
  - Vitals and thorough exam for infectious source
    - Lungs (atelectasis, PNA)
    - UTI
    - Other abd process
    - Skin and soft tissue/ ulceration, perirectal abscess
    - Iatrogenic (lines, foley)
- What to order for work-up: (order each one q24hrs if recurrent fevers)
  - U/A, Ucx, Bld cx x 2 (2 bottles from 2 different sites, one must be a peripheral stick), CXR
  - +/-sputum culture vs BAL
  - +/- stool cx, C diff toxin assay
  - +/- LP, paracentesis, thoracentesis, etc
  - +/- CT abd or other
# 13 Fever

**Exceptions**
- Never rectalize a neutropenic patient
- Error on more abx coverage than less if neutropenic (fill in coverage holes)

**Antibiotics or no antibiotics?**
- **Yes** if source identified -> treat with appropriate empiric abx
- **Yes** if getting septic and you suspect there is a source
- **No** if isolated fever without other s/s- okay to draw labs and wait it out
- **Maybe yes, maybe no** if somewhere in between- ask someone!

**Other**
- **Antipyretics (Tylenol over NSAIDs)**
  - Used to treat fevers that are getting a proper w/u
  - Don’t mask fevers
#14 Low urine output/urological issues

Questions:

- When did it start?
  - Acute vs chronic, any baseline LUTS?
- Is there a foley in use?
- Did you check a bladder scan or post-void residual?
- Etiology (meds, trauma, hematuria, foley recently removed, etc)?

RN call: “Mr. Cole is having trouble urinating.”
#14 Low urine output/urological issues

Can’t urinate/Anuria

- Bladder scan then place Foley if PVR >200-400cc
- Make sure it is a **POST**-void residual
- If not post-obstructive-> do further renal w/u
- Consider starting terazosin or flomax
#15 Hyper/hypo-glycemia

Questions:
- What is the measurement, does it correlate with patient s/s?
- When was it measured?
- Why is there poor control?
  - Recent changes in insulin dosing or dietary intake?
  - Ongoing issue?
  - Has insulin been dosed appropriately?
  - Secondary (infection, steroids, etc)
- What has been done so far?
  - Insulin dosing in last 24hrs (look at long and short acting)
  - Did they give anything yet (CF insulin, OJ, D50?)

Rules of thumb for overnight
- No one dies from glucose of 250 overnight!
- 70 – 200 is FINE!
- < 70 is NOT okay
- DKA is NOT okay

RN call: “Ms. Kennedy’s accucheck is 56.”

RN call: “Ms. Kennedy’s accucheck is 350.”
#15 Hyper/hypo-glycemia

**Too Low**
- Juice if they can drink or 1 amp D50
- Repeat accucheck in 15 minutes
- If still low/recurs, start D5 or D10 drip
- HOLD oral agents and insulin!
- Recheck at least hourly and consider ICU transfer

**Too High**
- Initially use CF insulin
- Consider:
  - Changing algorithm
  - Adding glargine or prandial
  - Extra CF doses to get in range
  - Insulin gtt if in ICU
- If >400, make sure patient is not in DKA

RN call: “Ms. Kennedy’s accucheck is 56.”

RN call: “Ms. Kennedy’s accucheck is 350.”
What if I just don’t know what to do?

- CALL SOMEONE!
- There are seniors everywhere
- They expect you to call them with EVERYTHING
- Do not panic, do not blow things off either
- Be Professional
GOOD LUCK!!