PEARLS FOR INTERNAL MEDICINE WARDS

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“Oh No! My pager just went off.”

- Check that it is indeed one of our patients
  - If not, help nurse find correct physician
- First step is always vital signs and nurse assessment
- Check out sheet
- It is never wrong to go and see the patient
- When prescribing meds – look them up

Shortness of Breath

- Oxygen saturation and trends
  - If sats low – check ABG, CXR and go to assess the patient
  - Think beyond the lungs (EKG, Hgb, strength, etc.)
  - If you order a test – follow up on it

Shortness of Breath

- First step for Rx O₂ by nasal canula (caution with COPD)
- Next-treat cause of dyspnea
  - Alb +/− Atrovent nebs
    - Can do continuous albuterol nebs
  - Use the Respiratory Therapists!!!

Hypertension

- First step is look at trends
- Next look for s/sx of end-organ compromise (CNS, renal, ophtho etc.)
- Urgency vs. Emergency
- Evaluate for causes (pain, W/D, meds)
- Goal to decrease MAP 20%
- Post stroke
  - Ischemic-Treat SBP > 200 DBP>110
  - Hemorrhagic-Goal SBP 140-160
Hypertension
- PO meds – SL Nitro, Clonidine, B-Blocker, Diuretic
- IV – Nitroglycerin, Labetalol, Metoprolol, Hydralazine (pregnant), Nitroprusside (ICU), Enalapril, Nicardipine
- Watch UOP, chest pain, mental status

Tachycardia
- First check telemetry and 12 lead ECG (a-fib/flutter, re-entrant, MAT, SVT)
- Is there a reason: volume depletion, pain, anxiety, EtOH W/D, thyroid, fever, tamponade etc.
- Treatment revolves around correcting the underlying cause
- B-Blockers and Diltiazem are first line for rate control with stable a-fib/flutter, vagal maneuvers, cardioversion if h-d compromise

Pain Control
- First determine the cause and how the pain has changed
- Determine patient’s need (drug seeking, anxiety, W/D etc.)
  - Nurses can be very helpful in assessment
- Treatment: start with acetaminophen, ibuprofen, tramadol depending on cause

Pain Control
- If not responding, PO Rx starts with Oxycodone (immediate release) and OxyContin
- Morphine is the 1st choice IV
  - Start low especially with elderly
  - Can get to PCA if pain dictates need.
- Short term Demerol OK with GI pain (S of O dysfxn)
- Adjunctive measures include Ativan, mm relaxants, Benadryl, dextromethorphan, Fiorinal (HA), TCAs
- Careful with acetaminophen doses with combo drugs

Pain Control
- Never forget about Narcan +/- flumazenil for OD

Constipation
- Normal is 3-7 times per week but every person has their own perception of normal
- First step is to r/o impaction
- If pain/nausea/tympanny check abd series, CT, US etc.
- Next evaluate for systemic cause – electrolytes (Ca, K), thyroid, DM, etc.
- Initial therapy should include fluids, stool softeners, fiber
### Constipation
- Next try pro-motility agents – Dulcolax (PO or PR), Senna, enemas
- Finally if continued difficulty can move to Lactulose/sorbitol and Mag Citrate
- Maintenance plan and therapy are the keys to avoiding continued problems
- Limit constipating meds – NARCOTICS

### Pronouncing a Patient
- Go see the patient
- Listen, evaluate, and talk with the nurse
- Talk with family members if present
- Request autopsy
- Write a note describing events
  - Time of death
  - Document cardiopulmonary or brain death criteria
- Call attending cardiopulmonary or consult service if needed
- Acute Bereavement Team

### Chest Pain
**History**
- Onset
- Duration
- Quality
- Associated symptoms
- Radiation
- History of CAD or risk factors for CAD
- Reason for admission

**Vital signs**
- If indicated, ask the nurse to administer SL NTG (may repeat times three)
- Order a STAT EKG +/– CXR then go see the patient
- Perform appropriate exam
- Order enzymes

**Start intravenous NTG if no relief with SL**
- Give ASA, O₂, MSO₄ if indicated
- Beta-blocker
  - Metoprolol 5mg iv, repeat times three for total of 15 mg
- Unfractionated or LMW heparin
  - Dose per protocol
  - Rule out contraindications

**Glycoprotein Inhibitors**
- Positive enzymes not meeting criteria for thrombolysis (NSTEMI)
- Unstable angina in a high risk patient (h/o CAD or stent placement)

**Thrombolytics**
- STEMI
- New BBB
- Call Cardiology!
Chest Pain

- Must get second set of enzymes and repeat EKG in 6-8 hours
  - May want to repeat in 4 hours if high index of suspicion
- If refractory pain, call cardiology for possible PTCA

Differential Diagnosis

- GERD
  - Consider GI cocktail, H₂ blocker, PPI
- Musculoskeletal
  - Reproducible pain
- PE
  - Immobility, DVT prophylaxis, oxygenation status
- Pneumonia/PTX
- PUD/pancreatitis/cholecystitis
- Zoster
  - Careful examination

Hypotension

- Check BP manually and in both arms
- Always ask what the patient's normal BP is and whether or not they are symptomatic
- Review vitals
  - Tachycardia
    - Arrhythmias vs. dehydration vs. fever
  - Bradycardia
  - Arrhythmias
- Urine output
- Review medication list
  - Antihypertensives, psychotropic drugs

Associated signs/symptoms

- CP (AMI)
- SOB (PE)
- Bleeding
- Fever (Geepeptis)
- N/V/diarrhea (Dehydration)
- History of kidney/liver disease

Appropriate work-up

- CBC, BMP, LFTs, enzymes, EKG, CXR, UA, blood cultures, pulse oximetry
- Remember adrenal insufficiency

If persistent MAP < 70 consider pressors and ICU transfer

Bradycardia

- Review the vitals carefully
  - What is the patient's usual HR?
- Ask if the patient is symptomatic
- Evidence of hypoperfusion
  - Low BP, low urine output
- Review medication list
  - Consider holding calcium-channel blockers, beta blockers, clonidine, digoxin, and anti-arrhythmics
Bradycardia
- ALWAYS review telemetry strips and obtain a 12-lead EKG
- Consider acute MI, especially inferior
- Check electrolytes
  - Calcium, potassium, and magnesium
- Treat only if symptomatic
  - Atropine
  - Isoproterenol
  - Dobutamine
  - External or transvenous pacing
  - Mobitz II, complete heart block
  - Reverse β blockers (glucagon), CCB (Ca²⁺), Dig (Dig Fab)

Alcohol Withdrawal
- Abrupt decrease or cessation of intake
- Tremor, agitation if mild
- DTs if severe-5% mortality
  - Hallucinations, confusion, agitation
  - Autonomic hyperactivity
  - Usually within 48 to 96 hours
- Seizures
  - Usually within 12-48 hours

Alcohol Withdrawal
- History
  - How much
  - History of withdrawal, DTs, or seizures
  - Concurrent substance abuse
  - Interest in quitting
- Appropriate physical examination
- Laboratory evaluation
  - CBC, BMP, LFTs, Mag/Phos, BAL, DOA

Alcohol Withdrawal
- Telemetry
- Aspiration precautions
- IVF or nutrition if decreased po intake
- Lorazepam (Ativan)—liberal doses
- Avoid antipsychotics
- Thiamine 100 mg po/iv, folic acid 1 mg po/iv, MV
- Nicotine patch
- GI prophylaxis
- SW consult

Low Urine Output
- Onset and duration
  - Hourly output, output per shift
- History of renal disease
- Reason for admission
  - Low-flow states such as CHF, ESLD, ESRD
- Dehydration
- Review vital signs
  - Hypotension
- Review medications
  - Nephrotoxic agents, radiocontrast

Low Urine Output
- Foley catheter should be checked
- If no Foley, straight cath and check PVR
- Give fluid challenge (NS)-unless vol. overload
- Check FENA, UA, BMP if indicated
- DO NOT give furosemide unless there is evidence of volume overload
- Consider renal ultrasound
Fever

- Onset, duration, pattern
- Localizing signs/symptoms
  - Source of infection
  - Rash
  - Murmur or h/o valvular disease
  - Lines and catheters
  - Unusual fluid collections
- Check oral or rectal temp if in doubt
- Review vitals
  - Hypotension, tachycardia, tachypnea

Differential diagnosis

- Infection
- Drug reaction
- Transfusion reaction
- Malignancy
- Connective Tissue Disease
- Tissue infarction

Order appropriate work-up

- CBC with differential
- UA with micro, C&S
- CXR
- Blood culture
- If indicated, sputum, CSF, stool, etc.

Consider acetaminophen or ibuprofen if symptomatic

Cooling blankets

Antibiotics for identified source, sepsis, endocarditis, meningitis, or if neutropenic

Insomnia

- Benadryl
- Tylenol
- Ambien
- Benzodiazepines

N/V

- Compazine
- Phenergan
- Ativan (SL)
- Zofran

Diarrhea

- Loperamide

Miscellaneous Pearls

- ALWAYS use the CP protocol
  - ETT if able to walk
  - Exercise echo is better if female
  - Hold beta-blockers

- Other protocols
  - Heparin
  - Insulin infusion

- Remember DVT and GI prophylaxis

Ancillary support

- Nutrition
- PT/OT
- Respiratory therapy
- Speech therapy
- Pharmacy
- Social work
- Utilization review
- Diabetes education
- Pain service
- Psychiatry

Think before ordering tests/treating complaints

When in doubt, ask for help!

QUESTIONS?