Do I or Don’t I ???

Wade Woelfle, MD, FAAEM
Assistant Professor Dept. of EM
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65 yo female
* CP for 45 minutes radiating to left arm
* Dyspneic, diaphoretic
* HR: 95, RR 20, BP 126/82
* EKG shows inferior STEMI
* PMH: Peptic ulcer disease w/GI bleed 2 yrs ago

* Give ASA or not?
* Allergy: ASA
* What do you want to know?
ASA

* Allergy: ASA
* What do you want to know?
* True allergy – hives, angioedema, anaphylaxis
* Patients may say they are allergic
  * Stomach upset
  * History of ulcers/GI bleed
  * On Coumadin
    * None of these are true contraindications for a single dose in a cardiac situation
* Benefit to a STEMI is HUGE!!!
Nitroglycerin

- Same case
- Patient states allergy to Nitroglycerin
- What do you want to know?
- Do I or Don’t I give it?
Nitroglycerin

- **Contraindications**
  - True allergy is rare
  - More often, it given them a headache
    - That’s good... It means it is working
  - Hypotension (SBP < 90, some would say 100)
  - Right sided MI
    - Consider right sided EKG, if inferior MI
    - Discuss with Med Director/Med Control
Nitroglycerin and Sexual Dysfunction Meds

- Viagra, Levitra, Cialis
  - Each one lasts a different time period
  - Waiting 72 hours should be safe
  - May also be used for pulmonary hypertension
    - Note that females use these sometimes also for either reason
- Benefit is probable, if given to appropriate patient
Yesterday’s Pneumothorax

- 28 yo male
- MVA head on into tree
- No seat belt or airbag
- Chest pain (especially with breathing), SOB
- HR 110, RR 26, O2 sat 90%, BP 125/80
- Decreased breath sounds on right, no JVD
- Do I or don’t I decompress?
Pneumothorax vs. Tension

* This patient has a simple pneumothorax
  * Does not need decompression (at least at this point)
  * Monitor closely
  * If becoming more tachycardic, hypotensive, hypoxic, or air hungry
    * Pneumothorax is progressing
    * Decompress it then
* Simple pneumothorax may not need even need a chest tube
  * If you decompress it, you just made sure the patient will get one
20 yo male
Recent URI – runny nose, sore throat etc.
Wheezing
Has had this before
Afeb, HR 110, RR 24, O2 sat 96%, BP 135/85
Worsens
HR 120, RR 32, O2 sat 89%, BP 160/100
Do I or don’t I put him on CPAP?
Any Volunteers Out There with Asthma

* Asthma produces difficulty exhaling
* CPAP gives constant pressure to keep airways open
  * And so makes it harder to exhale...
* Asthmatics having an attack are going to HATE CPAP
  * Expect the mask to be pulled off and thrown at you...
Why is CPAP in Everyone’s Asthma Protocol?

* Years ago the state’s protocol to pilot CPAP by EMT-Bs
  * Designed to see if it could be done safely
    * It won’t cause harm to an asthmatic
    * Study needed plenty of case entries
    * No diagnosis needed, just respiratory distress
  * Not designed to measure effectiveness by EMTs
* Medical Directors kept this protocol (hey, it was safe right (???) vs. just laziness... )
CPAP for Respiratory Distress

- CHF/pulmonary edema – YES!!!!!!!!
- Pneumonia – yes… (probably helpful)
- COPD – maybe…
- Asthma – NOOOOOO!!!!!
CHF patient???

- History of CHF, legs are swollen, bilateral crackles, exertional dyspnea
- Temp 102
- Is this CHF?
* History of CHF, legs are swollen, bilateral crackles, exertional dyspnea
* Temp 102
* Is this CHF?
  * Maybe
  * Does CHF cause a fever???
    * Uh Oh...
* Paramedics, do I give this patient Lasix or not?
Yes, patient has CHF
- Is the patient’s current problem due to CHF
- Patient’s fever indicates something else going on
- Maybe pneumonia???

- Pneumonia causes dehydration and hyponatremia (low Sodium)
- Lasix causes dehydration and low Sodium
Lasix and Pneumonia

- If you give Lasix to a pneumonia patient
  - You probably just gave them an extra day or 2 (or 3) in the hospital

- Don’t give Lasix to a febrile patient...

- Lasix is probably ok for CHF exacerbation without a fever
  - But Nitroglycerin is BETTER!!
  - Definite benefit from CPAP
55 yo female with altered mental status
Diabetic who skipped breakfast (and lunch)
Meds: Glipizide. Does not take Insulin.
Glucometer: 35
You give IV D-50 (or glucagon, or D5...)
  Patient wakes up
Patient now refuses transport to hospital
  A &O X 4
Do I or don’t I sign her off?
If she demands it, legally you have to
  - That doesn’t mean you shouldn’t try to talk her out of it
Diabetics on Insulin
  - Fixed with D-50, etc. are probably ok if feeling well
Diabetics on oral meds
  - Ending in “-ide”, work by releasing extra insulin from the pancreas
  - Long half-life
Hypoglycemia and Sign Offs

* You will probably be back at her house in a few hours
  * Assuming some one finds her...
  * If she lives alone, coroner might be involved when she is found
* Patient’s with hypoglycemia who sign off should have someone staying with them
  * Feed them and check their blood sugar
* Patient’s on “-ide” medications should be strongly encouraged not to sign off at all
Recurrent seizure activity
  * Lasts 20 seconds
  * Patient immediately wakes up and talks

No history of seizures, no trauma, no suspicion for OD or drugs

PMH: Multiple medical problems, multiple meds

T 98, HR 60, RR 14, BP 145/85
  * Taken while patient awake

Glucometer 110

Benzo?
  * Has another similar episode enroute

Patient has 2 more episodes in ED
Asystolic episodes (brief)
  * This is not a seizure – no post-ictal phase
* 12 lead EKG
  * Slow atrial fib (HR 50) with peaked T waves and ST depression in multiple leads
* Hyperkalemia
  * Paramedics, what else do you want to know?
* PMH: Atrial fib, CHF
  * Meds:???
Hyperkalemia Treatment

- HCO₃, Albuterol, Lasix (prehospital)
- Insulin/Dextrose (in ED)
- Kayexalate, dialysis, etc. while in hospital
- What’s missing?
  - Calcium
  - Do I or don’t I give Calcium to this patient?
What medication are you looking for on the patient’s list?

- Digoxin
- Probably on it based on the situation
  - CHF, atrial fib, hyperkalemia and not on dialysis
  - EKG changes (ST depression – Hockey stick look)

If you give a dig toxic patient with hyperkalemia

- Calcium
  - You just probably killed him or her (immediately)
Heroin Epidemic

* Multiple victims snorting narcotics
  * 3 unresponsive, hypoventilating, pinpoint pupils
  * 1 Has vomitus on his shirt (victim #3)
  * Victim #1 – HR 50, RR 3, BP 80/50, O2 sat 77% RA
  * Victim #2 – HR 55, RR 4, BP 85/53, O2 sat 80% RA
  * Victim #3 – HR 60, RR 3, BP 70/45, O2 sat 63% RA
How much Narcan do you carry?
- How much should you give each victim
- What else can you do?
- How many on your crew?
- ? Mutual aid/additional resources
Victims #1 and #2 awaken with 1.2 mg each
- They now want to refuse transport
  - Feeling anxious, nauseated, sweaty
  - Legally they can refuse
    - A &O X 4, adults who can make their own decisions
    - Unless law enforcement want to place them under PC
      - Unlikely
  - What do you think they’re going to do?
    - Go take some more?
    - You might be back to take care of them again shortly
- With 3 victims, you probably don’t have much option but to give at least 1 of them Narcan
3rd Victim

* 2 Options
  * Give Narcan
  * Ventilate/airway management
* Hint: Remember the vomitus on clothing
3rd Victim

- Major problem
  - Narcotics make him forget to breathe
- Major problem #2?
  - Did he aspirate at some point?
- If he did and you give enough Narcan, you’re going to have an agitated, withdrawing, combative patient who remains hypoxic and still requires ventilatory assistance
  - HR 120, RR 36, BP 110/70, O2 sat 84% on Oxygen
What’s Your 2\textsuperscript{nd} option for Victim #3

* You have airway skills
  * Use them!!!
  * EMT-B – consider Combitube/King Airway etc. and manually ventilate him
  * EMT-P Intubate him
* You may skip the Narcan then
  * He won’t get agitated
  * You’ve fixed both of his major problems
    * HR 90, BP 110/70, O2 sat 95% with your assistance
**Narcan Issues**

* Drawbacks
  * Narcotic withdrawal
    * Agitation, vomiting
  * Getting violent
    * Injuring you or themselves
  * If aspiration already occurred, they still need an airway
    * EMT-P might now be calling for Medication Assisted Airway orders
  * May be oriented enough to want to sign off despite bad lungs
Everybody Loves Narcan

* Huge push recently to make it available for police, family, friends, EMRs, EMT-Bs, etc.
  * Great for police, family, friends, etc.
    * They don’t have airway skills
    * Narcan can save someone’s life
  * EMS providers have airway skills
    * Use them...
    * Do your protocols allow Combitube/King LT placement for a comatose person who is not in cardiac arrest?
      * The main problem for heroin OD is they forgot to breathe
      * Definitive airway/ventilation will solve that problem
      * No withdrawal, violence, less aspiration risk, or sign offs so they can go do it again.