“PAT? WHAT’S THAT”

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My Background

- 3 years ICU Nursing
- 1 year Med-Surg Nursing
- Medical School: Ohio University Heritage College of Osteopathic Medicine
- Residency: Adena Regional Medical Center Internal Medicine Program
- KPN Hospitalist for 2 years

My Family

Yes We Are Disney Fanatics

Objectives

- By the end of this presentation you should be able to…

1. Describe what PAT is
2. Basic understanding of what happens in PAT
3. Know when it is appropriate to use PAT
4. Understand the goal/purpose of PAT
5. Why a hospitalist is used rather than a PCP

What is PAT?

- Pre-admission Testing
  - Not clearance!!!
  - Risk stratify
  - Looking at the whole picture
- History
  - 1980's research showed no benefit and not cost effective
  - Over last 20 years, a push to be more selective

What happens in PAT

- Selective Testing
  - CBC
  - Renal Panel
  - A1c
  - UA
  - EKG
    - PCI?
  - Liver panel
  - CXR
  - PFT
- Risk Calculators

Pretends to be a doctor on TV and makes 10 times more money than we do, THIS IS NOT FAIR!

ACC/AHA guideline summary: Cardiac risk stratification for noncardiac surgical procedures

High risk (reported risk of cardiac death or nonfatal myocardial infarction [MI] often greater than 5%)
▪ Aortic and other major vascular surgery
▪ Peripheral artery surgery
Intermediate risk (reported risk of cardiac death or nonfatal MI generally 1 to 5%)
▪ Carotid endarterectomy
▪ Head and neck surgery
▪ Intraperitoneal and intrathoracic surgery
▪ Orthopedic surgery
▪ Prostate surgery
Low risk* (reported risk of cardiac death or nonfatal MI generally less than 1%)
▪ Ambulatory surgery¶
▪ Endoscopic procedures
▪ Superficial procedures
▪ Cataract surgery
▪ Breast surgery

* Do not generally require further preoperative cardiac testing.
¶ Ambulatory surgery refers to surgery in patients who are admitted on the day of an operation or procedure, and return home on the same day.

Data from: Fleisher LA, Beckman JA, Brown KA, et al. ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the 2002 Guidelines on Perioperative Cardiovascular Evaluation for Noncardiac Surgery) developed in collaboration with the American Society of Echocardiography, American Society of Nuclear Cardiology, Heart Rhythm Society, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, and Society for Vascular Surgery. J Am Coll Cardiol 2007; 50:e159.

American Society of Anesthesiologists (ASA) Physical Status Classification System

ASA PS classification	Definition	Examples, including, but not limited to:
ASA I	A normal healthy patient.	Healthy, non-smoking, no or minimal alcohol use.
ASA II	A patient with mild systemic disease.	Mild diseases only without substantive functional limitations. Current smoker, social alcohol drinker, pregnancy, obesity (30<BMI<40), well-controlled DM/HTN, mild lung disease.
ASA III	A patient with severe systemic disease.	Substantive functional limitations; one or more moderate to severe diseases. Poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA<60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life.	Recent (<3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARDS, or ESRD not undergoing regularly scheduled dialysis.
ASA V	A moribund patient who is not expected to survive without the operation.	Ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction.
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes.	

The addition of "E" to the numerical status (eg, IE, IIE, etc.) denotes Emergency surgery (an emergency is defined as existing when delay in treatment of the patient would lead to a significant increase in the threat to life or body part).

Revised cardiac risk index (RCRI)

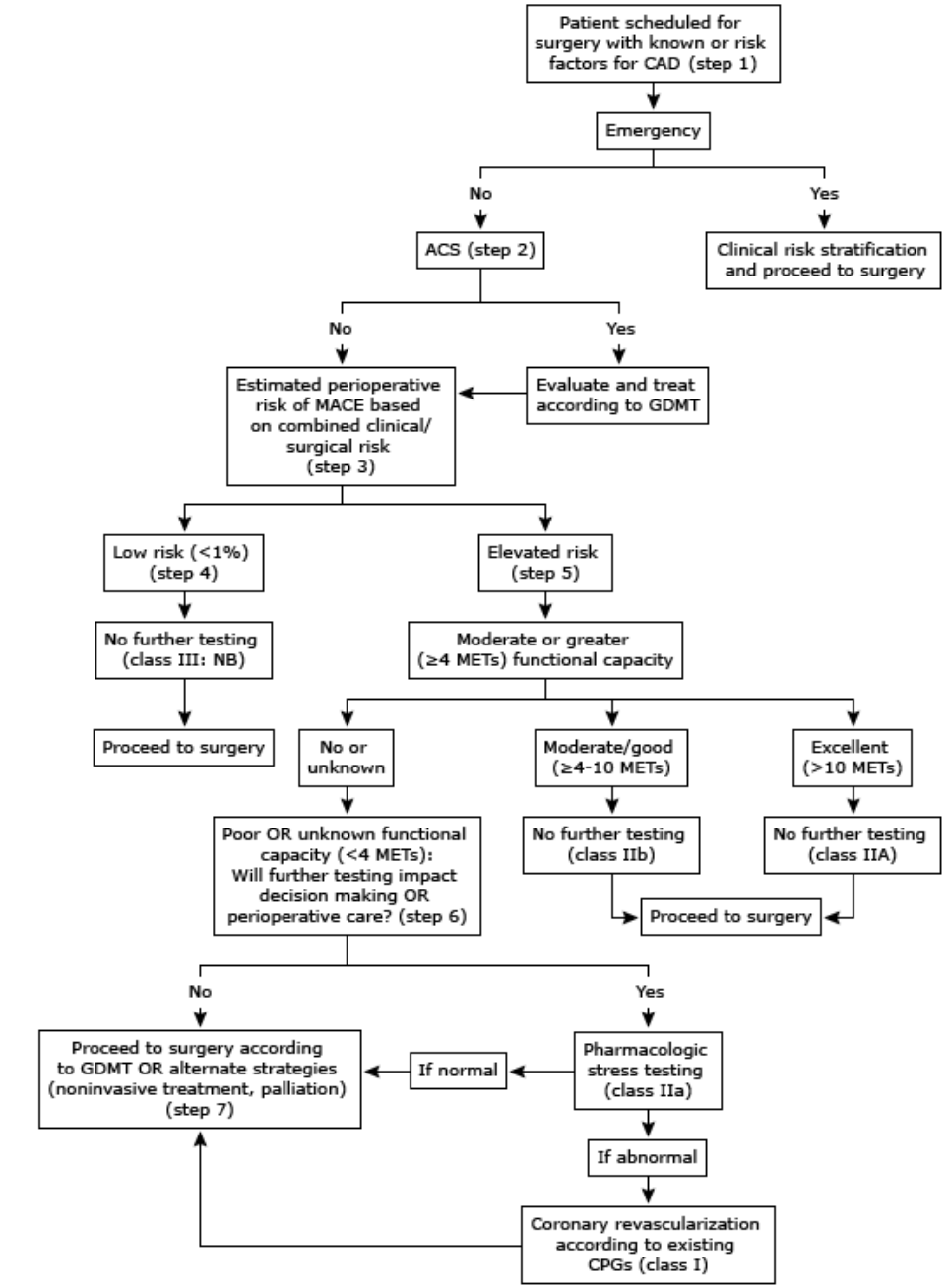
Six independent predictors of major cardiac complications[1]
High-risk type of surgery (examples include vascular surgery and any open intraperitoneal or intrathoracic procedures)
History of ischemic heart disease (history of myocardial infarction or a positive exercise test, current complaint of chest pain considered to be secondary to myocardial ischemia, use of nitrate therapy, or ECG with pathological Q waves; do not count prior coronary revascularization procedure unless one of the other criteria for ischemic heart disease is present)
History of heart failure
History of cerebrovascular disease
Diabetes mellitus requiring treatment with insulin
Preoperative serum creatinine >2.0 mg/dL (177 micromol/L)
Rate of cardiac death, nonfatal myocardial infarction, and nonfatal cardiac arrest according to the number of predictors[2]
No risk factors – 0.4% (95% CI: 0.1-0.8)
One risk factor – 1.0% (95% CI: 0.5-1.4)
Two risk factors – 2.4% (95% CI: 1.3-3.5)
Three or more risk factors – 5.4% (95% CI: 2.8-7.9)
Rate of myocardial infarction, pulmonary edema, ventricular fibrillation, primary cardiac arrest, and complete heart block[1]
No risk factors – 0.5% (95% CI: 0.2-1.1)
One risk factor – 1.3% (95% CI: 0.7-2.1)
Two risk factors – 3.6% (95% CI: 2.1-5.6)
Three or more risk factors – 9.1% (95% CI: 5.5-13.8)

ECG: electrocardiogram.

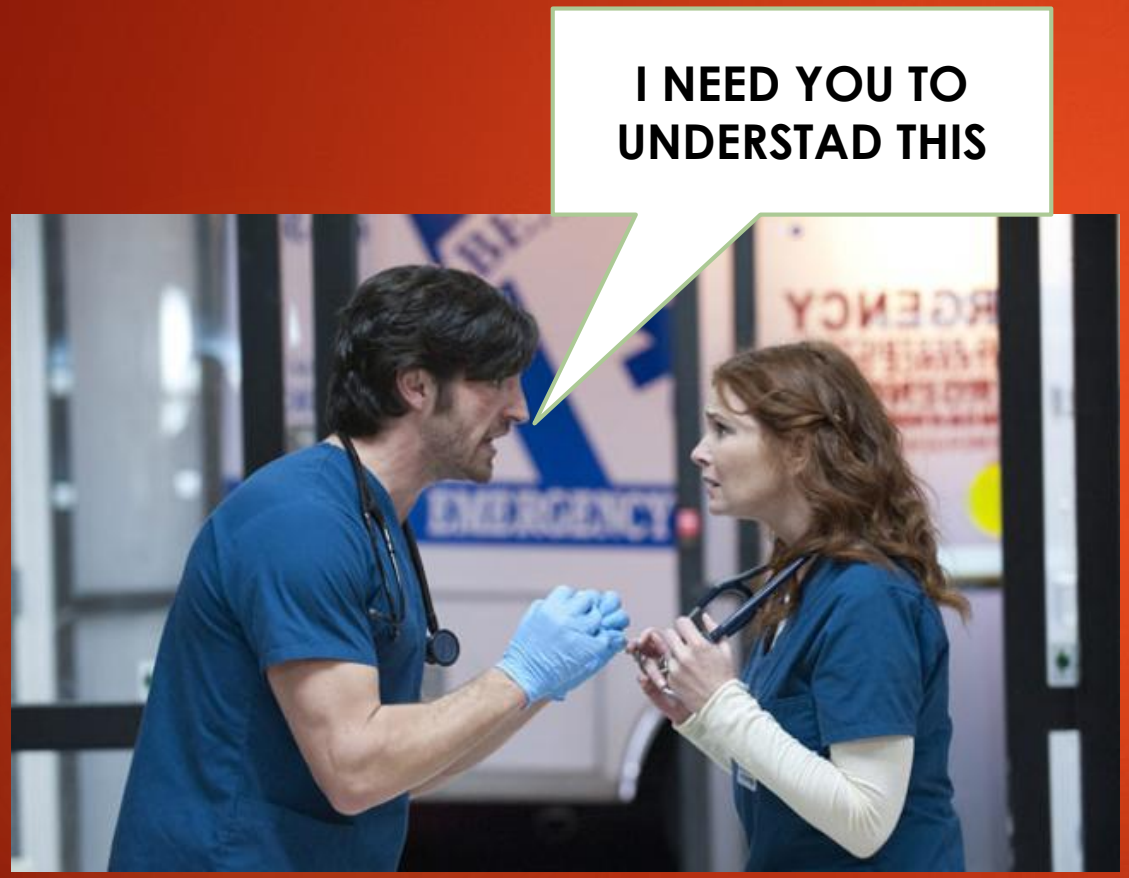
Risk factors for coronary disease:

1.) Hypertension ≥140/90
2.) Serum LDL >159
3.) Serum HDL <40
4.) DM with A1c >6.9
5.) Smoking

Stepwise approach to perioperative cardiac assessment for CAD



When To Use PAT
What Is The Goal/Purpose



- The long and short of it is use PAT when there is suspicion that the patient can be optimized prior to surgery
- For different surgeries optimization means different things
- NOT EVERY PERSON GOING FOR SURGERY NEEDS PAT

Why Hospitalists Rather Than PCP

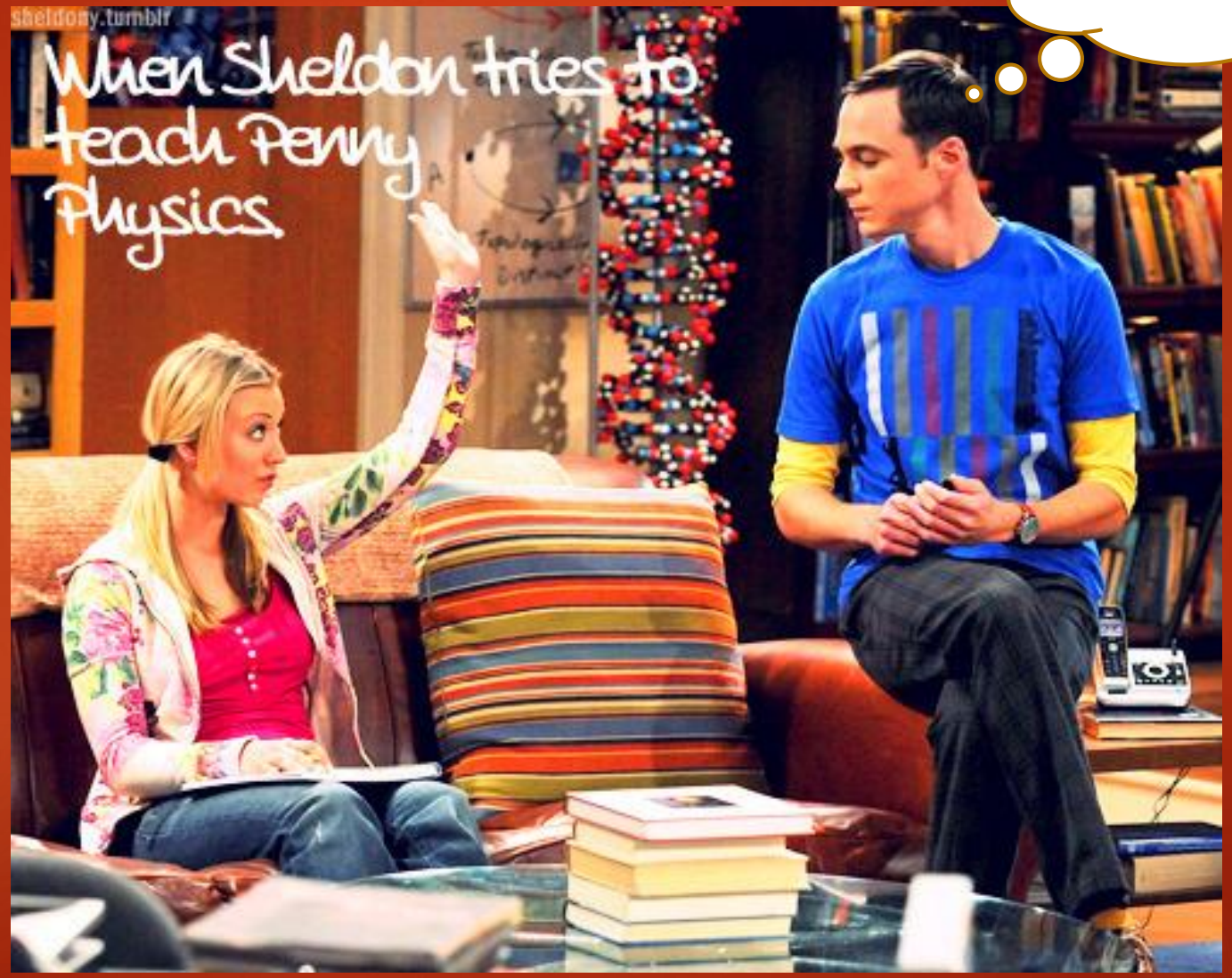
- Consistency of care
- Decreased workload
- Increase postoperative follow-up
- Improve communication between PAT and surgery

Joking

All else fails, put them in quarantine

QUESTIONS?

I am exhausted



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