Introduction to Call

John Baniewicz

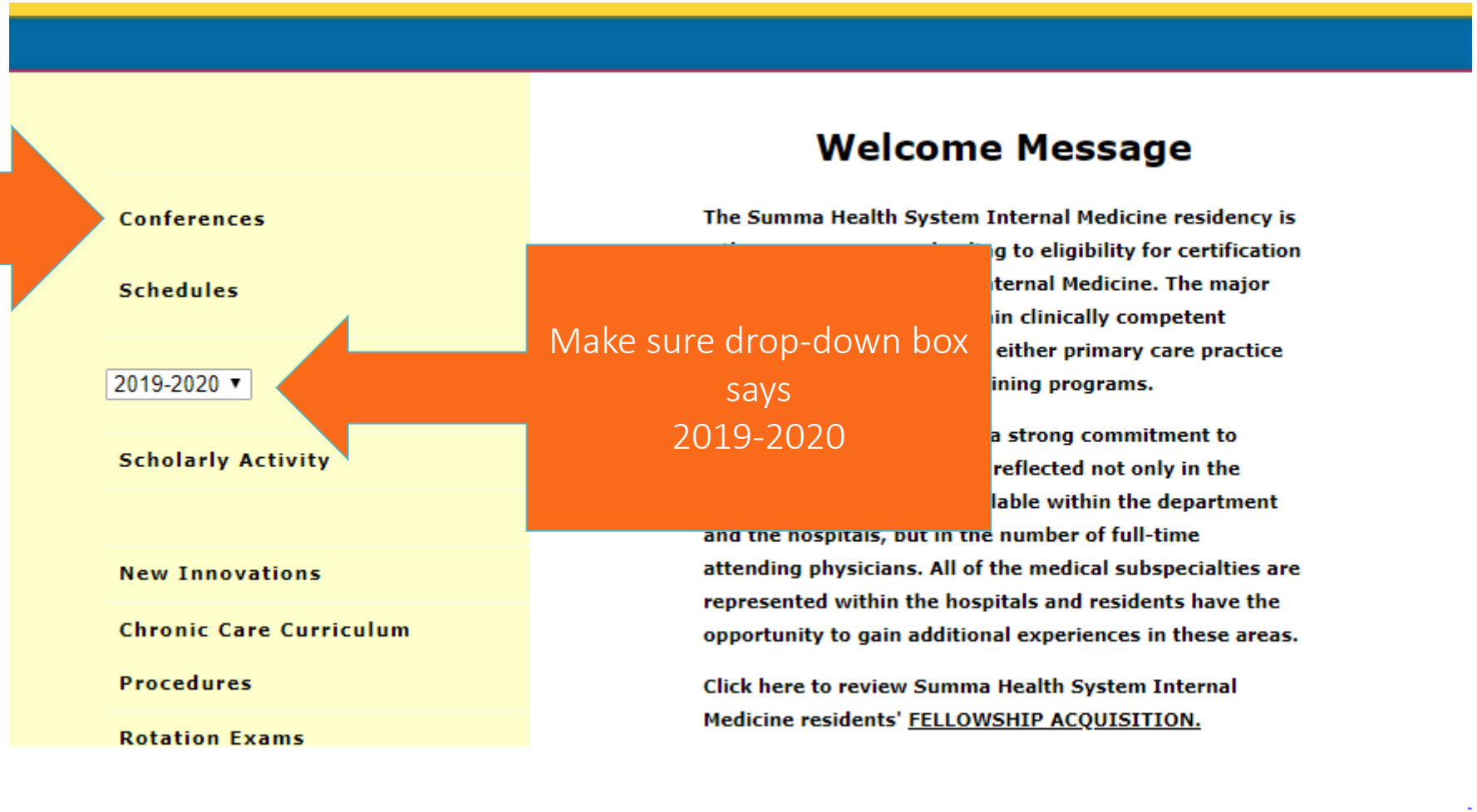
July 1, 2019

Introduction to call

These slides will be uploaded to our website
CCU / HLU are one and the same
AI: Admitting Intern
AR: Admitting Resident
GMF: General Medical Floor

Summa Health

Where to find these slides



Make sure drop-down box says 2019-2020

Find your schedule @ imsumma.org

2019-2020 Schedules by Month:

July 2019

2019-2020 Master Rotation Schedule (v 5/9/19)

Master Call Schedule

ICU Schedule

CCU Schedule

Med Team Schedule

July Sim Lab Schedule

January 2020

ICU Schedule

CCU Schedule

Med Team Schedule

5/9/2019													
IM-PGY 1	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	
F. Ali	MT	ID	MT	Card	GI €	CCU	ER(v)	(v)Renal	MT	Endo	IMC/NF	ICU	
Audu	ID	ICU	Hem/Onc(v)	MT	ER	Endo	MT	Neuro	Card	NF/IMC	CCU	MT	
Baum	ICU	Geriatrics	Card	MT	ID	MT	GI	CCU	HPM	MT	ER	IMC/NF	
Byerly	MT	Renal	Neuro	MT	Hem/Onc	ICU	IMC/NF	ER	Geriatrics	MT	Card(v)	CCU	
Chism	MT	ER	CCU	ID(E)	MT	Hem/Onc	ICU	NF/IMC	GI	Card	MT	Renal	
Coe	MT(D)	Pulm	Rheum(E)	CCU	ER(v)	MT	IMC/NF	GI(v)	ICU	Geriatrics	Endo(w)	MT	
Elwanni	CCU	Card(v)	MT	Pulm	Hem/onc	MT	ER(v)	MT	ID(v)	IMC/NF	ICU	Endo	
Gopez	MT	Pulm	Renal(v)	MT	Endo	ICU	MT	ER (v)	(v) MT	IMC/NF	ID	CCU	
Jose	Card	MT	Rheum	ER	MT	GI(E)	CCU	IMC/NF	Renal	ICU	MT	ID	
I Kim	Renal	ID	ICU	MT	ER	MT	Pulm	CCU	GI	Rheum	MT	NF/IMC	
Kusar	MT	Endo(E)	GI(E)	ICU	MT	ID	CCU	ER	Card	Renal	IMC/NF	MT	
Mannan	Hem/Onc	MT	GI(v)	ICU	MT(v)	Card	MT	ER(v)	Endo(w)	Renal	NF/IMC	CCU	
Ragunantha	CCU	Endo	MT	ER	Pulm	MT	Card	ICU	MT	GI	Geriatrics	IMC/NF	
Rapier	Endo(D)	CCU	ID(v)	MT	ER	MT	ICU	Renal	IMC/NF	MT	Hem/Onc	Pulm	
Reddy	MT	GI	ICU	Endo	Renal(v)	ER	CCU	MT(v)	NF/IMC	Pulm (v)	MT	Card	
Sausner	ICU	Neuro	MT	Renal	GI	ID	NF/IMC	Card	CCU	MT	ER	MT	
Simeone	GI	MT	Card	Hem/Onc	CCU	Neuro	NF/IMC	MT	ID	ICU	ER	MT	
DJ Singh	GI	MT	Pulm	ER	ICU	MT	ID	MT	Hem/Onc	CCU	IMC/NF	Geriatrics	
Velez	Pulm	MT	Endo	CCU	Card(E)	Renal	MT	ER	MT	IMC/NF	ICU	GI	
Wright(1)	MT	ER	CCU	Geriatrics	MT	Card	Endo	GI	MT	ID	NF/IMC	ICU	
Prelim Med													
Graham(1)	ID	MT	ER	MT	ICU	(E)	CCU	MT	IMC	MT		NF	
Guirguis	MT(D)	ER	ICU	MT(v)	(E)	CCU	(Hol)	NF	MT	(E)	MT (w)	IMC(E)	
Jasty	CCU	MT	ER		MT	(E)	ICU	NF	MT(D)	IMC	MT	Ophtho	
McDaniel	Hem/Onc	CCU	MT	Derm	MT	ER	IMC	MT	NF	ICU		MT	
McGee	MT	Neuro	CCU	PM&R	MT(v)	NF	MT	IMC	MT	ER(v)	ICU	Rheum	
Spitz	MT	ER	CCU		NF	ICU	MT		MT		IMC	MT	
Transitional													
Brandeberry	Neuro	MT	Hem/Onc(v)	MT	ICU	NF	MT	(v)	ER(v)	CCU	MT	IMC	
Dasgupta(1)	Pulm	MT	ICU	MT	ER		MT		NF	CCU	MT	IMC	
Greco	Neuro	MT	ER	GI	CCU	NF	MT	ICU	IMC	MT	Hem/Onc	MT	
Islam	MT	Pulm	MT	NF	CCU	Hem/Onc	IMC	MT	ER(v)	MT	ICU		
Kalash	ICU	ER	MT		MT	CCU		IMC(E)	MT	NF	MT		
Rashwan	MT(v)	(E)	ICU	ER		MT	NF	MT	IMC	MT(v)	CCU	Hem/Onc(v)	
Shekhtman	Rheum(E)	CCU	MT(D)	NF	PM&R)	MT	ICU	Hem/Onc	IMC	MT	ER	MT	
Shwaiki	ICU	Hem/Onc	MT		NF	MT	(E)	MT	CCU	ER	MT	IMC	
Woodyard	Geriatrics	MT	Hem/Onc	ICU	NF	ER	MT		MT	CCU	IMC	MT	
N Yu	ICU	Hem/Onc	MT	NF	MT	ER	IMC(S3)	MT		MT	CCU	Card(E)	

master schedule: your monthly rotation

2019-2020 Schedules by Month:

July 2019

2019-2020 Master Rotation Schedule (v 5/9/19)

Master Call Schedule

ICU Schedule

CCU Schedule

Med Team Schedule

July Sim Lab Schedule

January 2020

Master Call Schedule

edule

hedule

Med Team Schedule

SCHED PAGE 1:

Daily schedule

easiest way to find who is on-call

Master Call Schedule

Master_July 2019 (R6.17.19)

July 2019	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5	6
		D	A	B	C	D	A
Day AR1		Zuhdi	Burgei	Hoffman,A Patel	Assaad	Zuhdi, McCorcle	Agustin
Night AR1		McCorcle	Agustin	Deotare-1	Singh(2)	Gupta-1	Kamal-1
Day AR2		A Patel	Assaad	Zuhdi	Burgei	Lockhart-1	Assaad
Night AR2		AdeliSardo-1	AdeliSardo-2	AdeliSardo-3	AdeliSardo-4	AdeliSardo-5	Phangureh-1
Day ICU XCVR							
Night ICUR		Koleszar	Koleszar	Koleszar	Koleszar	Koleszar	AdeliSardo-6
Night CCUR		San	San	San	San	San	San
Day AI2/3		Chism	Guirguis	Islam	Audu	Velez	F Ali
Night AI1		Coe	Wright(1)	Spitz	Guirguis	Kusar	Islam
Night AI2		D Mann-1	D Mann-2	D Mann-3	D Mann-4	D Mann-5	Woodyard-1
Night AI3		Groubert-1	Groubert-2	Mannan-1	McDaniel-1	Groubert-3	Groubert-4
Night ICU-I		Baum	Baum	Baum	Z Jones	Z Jones	Z Jones
Night CCU-I		**No Night CCUI**	Ragunanthan	Ragunanthan	**No Night CCUI**	Doughman	Doughman

Summa Health

MASTER CALL Schedule PAGE 2:

summary of individual call / off days

Electives - Interns			Night Call	Day Pager	Vacation/Off Call	30Q MKSAP Quiz
Audu	ID		AI3: 30	4		29 (1pm-2pm)
Jose	Card		AI2: 20	24		30 (1pm-2pm)
I Kim	Renal		AI3: 16	8		29 (1pm-2pm)
Mannan	Hem/Onc		AI3: 3	29		30 (1pm-2pm)
Rapier	Endo(D)		AI2: 7	26	20	29 (1pm-2pm)
Simeone	GI		AI2: 19, 31	12		29 (1pm-2pm)
DJ Singh	GI		AI2:26	9		30 (1pm-2pm)
Velez	Pulm		AI2: 27	5		30 (1pm-2pm)
Graham(1)	ID		AI3: 8	23		
McDaniel	Hem/Onc		AI3:4	16		
Brandeberry	Neuro					
Dasgupta(1)	Pulm		AI2:21	18		
Greco	Neuro					
Shekhtman	Rheum(E)		AI2:14		27	
Woodyard	Geriatrics		AI2: 6	30		
Units - Interns			Nights	Days Off		
Baum	ICU		1-3; 29-31	5,9,16,22,28		
Sausner	ICU		9-13	4,8,15,21,28		
Kalash	ICU		14-18	5,13,20,24,25		
Z Jones(FP)	ICU		4-8	11,17,19,26,27		
Shwaiki	ICU		19-23	6,12,18,25,26		
N Yu	ICU		24-28	7,11,16,23,30		
Elwanni	CCU		18-23	6,11,17,25,26		
Ragunanthan	CCU		2,3; 14-17	5,12,13,19,22		
Jasty	CCU		8-13; 29-31	7,15,21,27,28		
Doughman (FP)	CCU		5-7; 24-28	4,9,16,20,29,30		

Med Team Interns		
A	Nights	Days Off
Wright(1)	2, 22	4,7,20,21
	AI 2/3: 28	
Gopez	18; (29: N AI3)	6,13,27,28
	AI 2/3:20	
Islam	6, 30	14,26,27,28
	AI 2/3:3	
Cafarelli (FP)	14, 26	4,13,20,21
Rashwan	10; (24: N AI3)	5,7,13,14,27-31
	AI 2/3:19	
B	Nights	Days Off
Chism	(15: N AI3), 23, 27	5,13,14,20
	AI2/3: 1, 25	
Reddy	15, 31, (23: N AI3)	6,7,20,21
	AI2/3: 13	
Spitz	3, 19	13,14,27,28
	AI2/3: 17, 21	
Coffman (FP)	7, 11	4,6,21,29
C	Nights	Days Off
Guirguis	4, 16	6,7,20*,21*
	AI2/3: 2, 14	
F Ali	12, 28	14,21,27,(28)
	AI2/3: 6, 10	
Byerly	(9: N AI3) ; 24	6,13,26,27
	AI2/3: 22	
Crawford (FP)	8, 20	4,7,14,28
D	Nights	Days Off
Coe	1, 21	4,13,14,20
	AI2/3: 15, 27	
Kusar	5, 29	7,8, 14,27,28
	AI2/3: 31	
McGee	9, 17	4,15,27,28
	AI2/3: 7, 11	
Volovetz (FP)	13, 25	6,7,20,21

Summa Health™

	START	Where?	END	Where?
AI1	7AM	Cafeteria	630PM	Res lounge/ED
AI2	630PM	Res lounge	7AM	Cafeteria
AI3				

*Night float morning report 7-730AM (weekdays)

START TIMES:

Day pagers, night float

DAY AI1	• Admit patients from ER • Do consults from other primary services (OB, ortho, surgery, etc)
NIGHT AI1	• Admit patients from ER • Do consults from other primary services (OB, ortho, surgery, etc)

Responsibilities

Summa Health

DAY
AI 2/3
	• All-day: Stroke teams, Code Blues (with senior AR2)
	• 5PM-630PM:
	  • Rapid responses, transfers to ICU/CCU
	  • Calls about Med Team patients
	• Common calls: BP, pain, glucose, nausea, fever (lectures)

NIGHT AI2	• 3W, 4, 7, H6 • Calls (MT pts), stroke teams, rapid responses, code blues
NIGHT AI3	• 3E, 5, 6, H5 • Calls (MT pts), stroke teams, rapid responses, code blues

Responsibilities

Summa Health™

ICU-I	• Calls regarding Teaching patients • Code Blues (intern with pager during the day) • Signed-out tasks, replace lytes, renew restraints, etc • May help with evals, emergent calls re non-teaching pts (page ICU attending 24/7 & senior)
CCU-I	• Calls regarding Teaching patients • Code Blues (intern with pager during the day) • Signed-out tasks, replace lytes, renew restraints, etc • May help with evals (STEMIs from cath lab), emergent calls re non-teaching pts (page Cardiology Fellow & senior)

Responsibilities

Summa Health

DAY	• UNITS: ICU/CCU Interns with pager + Seniors without pager • GMF: ICU/CCU Interns with pager + Seniors without pager + AR2 + AI2/3 • OUTSIDE HOSPITAL(Team 4s, 55/75/95 Arch, Parking lots): ICU/CCU Interns with pager + Seniors without pager
NIGHT	• EVERYONE goes except for admitting team (there may be multiple emergencies happening– STEMI/stroke/etc) • If you are there first: Is there a pulse? No? CODE STATUS? Full code: start chest compressions, ask someone to put pads on. Still no other MDs? Proceed with ACLS protocols.

CODE BLUES – when do I go?

Summa Health

When the pager goes off

What is the call about? Clarify. Is the patient stable? What are their vitals?

Med team or private patient?

If newly admitted from ER, may redirect to admitting team if issue is not urgent.

GO SEE THE PATIENT. Document your decision-making.

If in doubt, call your senior.

When the pager goes off

Seeing the patient

- Briefly review the chart, most recent labs, and vitals
- See the patient
- Talk to the nurses
- Call private attending if private patient
- Always write a brief SOAP progress note
- Enter orders → Follow them up!

When in doubt – call your senior.

Death notes

You will be asked to pronounce people dead in the units and occasionally on the floor

If a nurse calls you from any floor other than hospice floor (3E), ALWAYS ask if passing was expected

Check code status!

If patient is FULL CODE, call a CODE BLUE!

If patient is DNR, pronounce death.

Will need to call and notify family(if not already present) as well as the coroner. Do a thorough chart review FIRST

Summa Health™

Death Notes

Pronouncing death

- Enter room quietly and introduce yourself to any family present
  - *Extend your condolences/express empathy*
  - *THEN tell them that you have to perform an exam for an official time of death*
  - *Tell them that some people like to watch and some people prefer to leave them room; whichever they prefer is fine. If they want to step out, you will go get them when you are finished*
- Listen for heart tones, listen for breath sounds, check for pupillary response
- For noxious stimuli, press on nail bed of a finger
  - *If family is in the room, do this last. Try to conceal your hand while applying nail bed pressure.*

Summa Health™

Death Notes

- Use dot phrase template: .imdeathnote
- *Patient name* was pronounced dead at *time* on *date* at Akron City Hospital by *your name*. There were no heart tones. There was no spontaneous respiration. The pupils were fixed and dilated. There was no response to noxious stimuli. Next of kin was *notified/present at bedside*.
- *Name* of the Summit County Coroner's Office *released/kept* the body.

Summa Health™

Phone calls

- Call next of kin if not present
- Call attending physician (if no one in-house is covering)
  - If patient's death was expected, okay to inform med team attending in morning
- Summit County Coroner's Office (330) 643-2101
  - Need SSN, address, home phone, next of kin, next of kin's home phone, date of birth, admitting diagnosis, comorbid illnesses, list and dates of invasive procedures (not P-IV), recent fall history, code status at time of death, floor of death, name of person signing death certificate, name of person who pronounced, funeral home (if known)
  - It sounds scary, but it's not – let them lead the conversation
  - They will tell you if they release the body to the funeral home

Summa Health™

Tips and tricks

- Don’t put your pagers on the same hip; the signals can interfere
- Show up 5 minutes early
- RUN to codes
- If in doubt GO SEE THE PATIENT, CALL YOUR SENIOR
- Listen to and be kind to the nurses, they can make or break your shift

  This does NOT mean you do everything they say
- At codes- get in line to do chest compressions
- At stroke teams- find family to get as much history as possible

QUESTIONS?

Welcome to summa!

Intro to Call : Chest Pain

Dan Redle, PGY2

Adapted from Sideris Facaros

and Jessica Kline, Cardiology Fellows

What to do when called

Spectrum : nothing (mostly) - life threatening (ACS)

When Called:

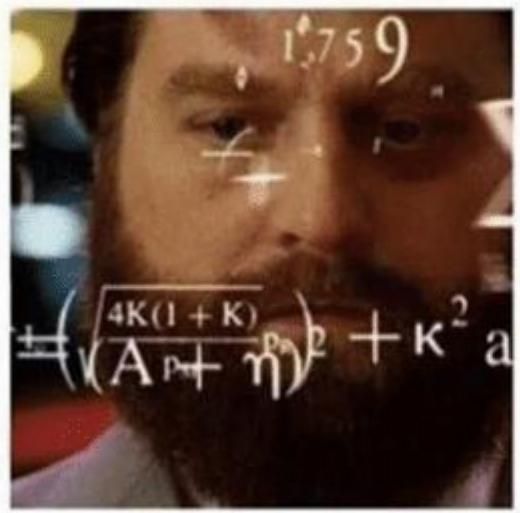
Information gathering from nurse : symptoms, vitals-vitals-vitals, stable vs crashing

Orders to give over the phone : STAT EKG, CXR, ABG (hypoxic). Troponin-> Based on timing, may not see a rise if new onset chest pain, EKG is best bet.

Chart Review: reason for admission, PMH (cardiac), **Past ECG**, Labs, vitals

See the patient. And tell senior

what it looks like when i read an ECG vs. what's actually happening



😂

See the patient

History, history, history

Location, quality, duration, radiation, associated symptoms, etc.

Typical / atypical? Substernal, exertion, relieved with rest/nitro?

Drug use?

Examine

GEN : appearance? Diaphoretic?

HEENT: JVD?

CV: murmur?, rates? Positional?

Pulm : crackles? Pleuritic CP?

Chest: tender to palpation? Reproducible?

EXT: edema?

Always compare to previous day note exam

Differentials

Emergent : (calling senior, cardiology fellow)

ACS: STEMI, NSTEMI, unstable angina

Dissection

PE

Pneumothorax

Cardiac tamponade

Esophageal rupture

Hypertensive Emergency

Lesser-acute

Stable Angina, Pneumonia, pericarditis, **Cocaine/meth,** esophageal spasm, GERD, costochondritis, herpes zoster, panic attack/anxiety

Emergent

ACS
- EKG : ST deviations, brady (inferior MI) or tachycardia
- Accurate history : i.e. improved with nitroglycerin, worsened with exertion
- Troponin elevation
- Elderly/DM population may have more atypical history

Aortic Dissection
- Unequal blood pressures in both arms
- “tearing” sensation radiation to shoulder blades

PE
- EKG: S1Q3T3, tachycardia, Right heart (V1-V3) deviations
- Wells Score
- Hypoxic / tachycardic / tachypneic

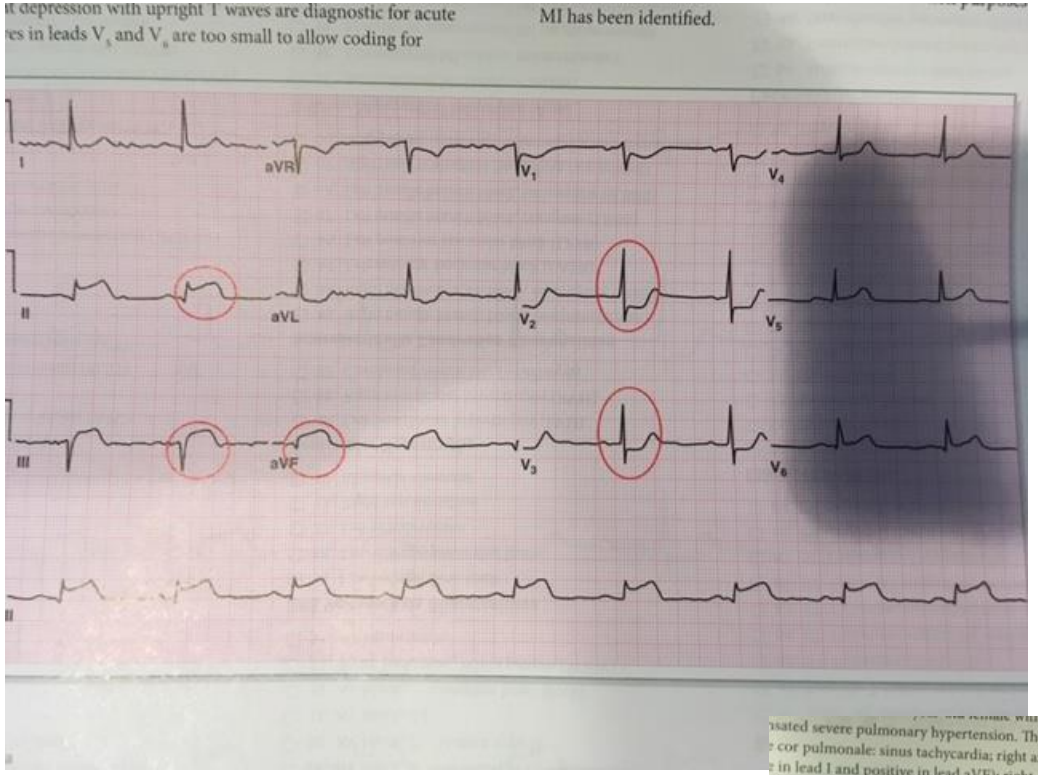


Fig 1. Inferior STEMI

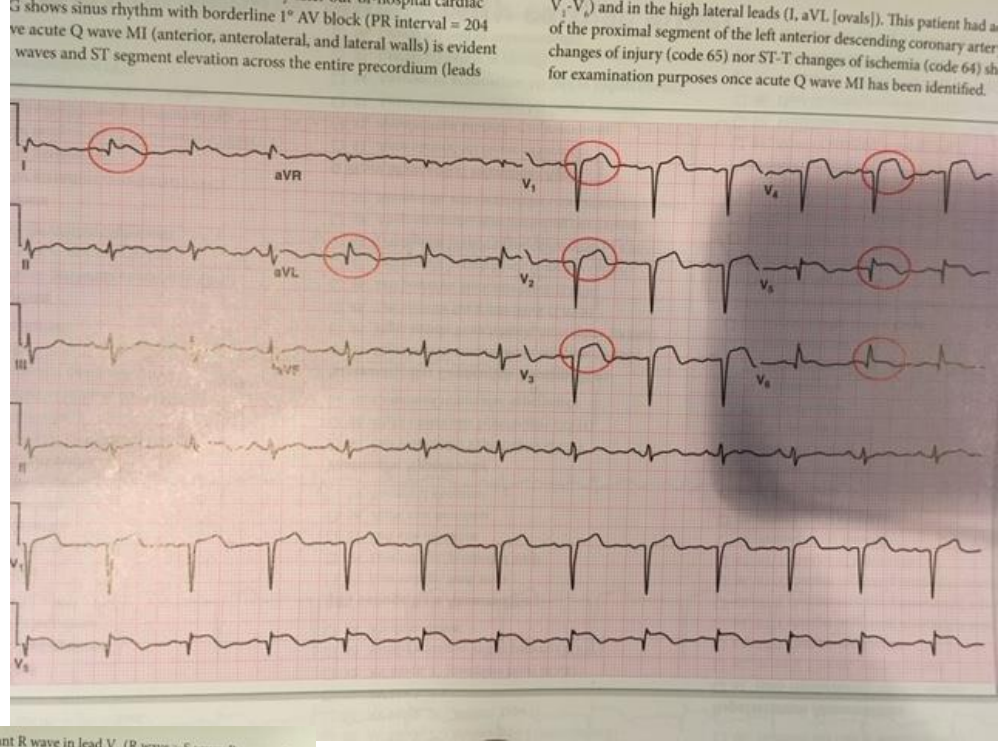


Fig 2. Antero-lateral STEMI

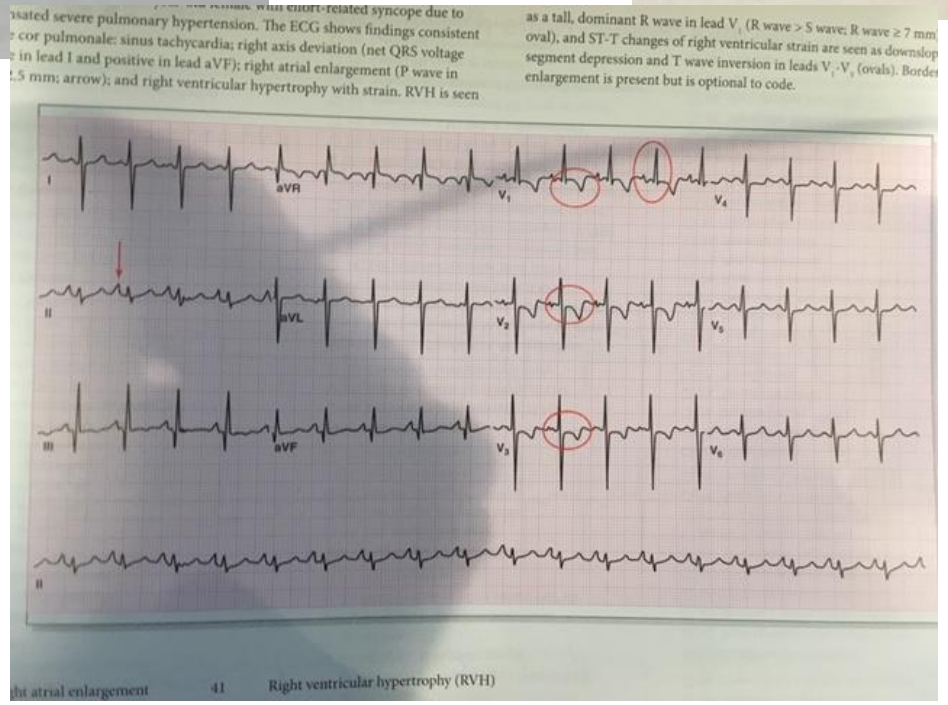


Fig 3. RV Stain (V1-V3 STD/TWI, S1T3Q3)

Emergent

Pneumothorax
- Tracheal deviation, absent breath sounds
- CXR : lung marks

Cardiac Tamponade
- Hypotension, JVD, muffled heart sounds
- Pulsus paradoxus

Esophageal Rupture
- Retching history, crepitus
- CXR: free air

Hypertensive Emergency
- BP >180/110 with signs of end organ damage (elevated Tn, AKI), HA, and/or AMS
- h/o Hypertension

Non-Emergent

Angina : typical CP, similar to chest pain in past

Pericarditis : friction rub, positional, EKG : PR depression, diffuse concave ST elevations

Pneumonia: abnormal breath sounds, CXR : infiltrate, pleuritic CP

GERD / PUD: “burning”, history of PPI / antacids, recent EGD

Costochondritis: tenderness to palpation of chest wall

Aortic Stenosis : systolic murmur, prior echo

Esophageal spasm: check for recent EGD or a GI note

Anxiety/Panic Attack: known h/o anxiety, multiple ED visits and work up all negative

Cocaine/Meth Induced: UDS +, avoid BB, can give CCB, can cause MI so monitor

Emergent : Call senior.

MI/ACS

- EKG / Troponin
- Oxygen, dual antiplatelet load (give ASA 324 mg, leave P2Y12 to fellow) , heparin load, calling cardiology fellow / STEMI attending, NG for pain (unless inferior MI or hypotensive or on PDE-I)

Aortic Dissection

- CXR : widened mediastinum, CT chest IV contrast (if no contraindications)
- BP lowering : nitroprusside, esmolol, labetalol
- STAT cardiothoracic consult, transfer to the unit

PE

- CTA of chest or VQ (renal insufficiency)
- Low molecular weight heparin
- If unstable, bedside echo, cardiology fellow, ICU attending

Pneumothorax

- Non-tension : stable? Serial CXR, surgery consult for chest tube
- Tension: ICU attending, needle decompression, surgery consult stat for chest tube

Hypertensive Emergency

- BP Meds: Labetalol, hydralazine, nicardipine gtt, don’t lowe too fast
- ICU consult

Issues

non-med team patients, i.e. private attending's, IMS, SPI.

If you get called on non-med team patient, if it’s IMS/SPI patient, they have in-house attending's who should be seeing their patients (ask your senior). They should page the Cardiology Fellow.

If you are still asked to go eval or ‘read’ EKG. You will eval the patient and then staff with the private attending and document plan. (let your senior know) -> their doc needs to page the Cardiology Fellow.

Questions?

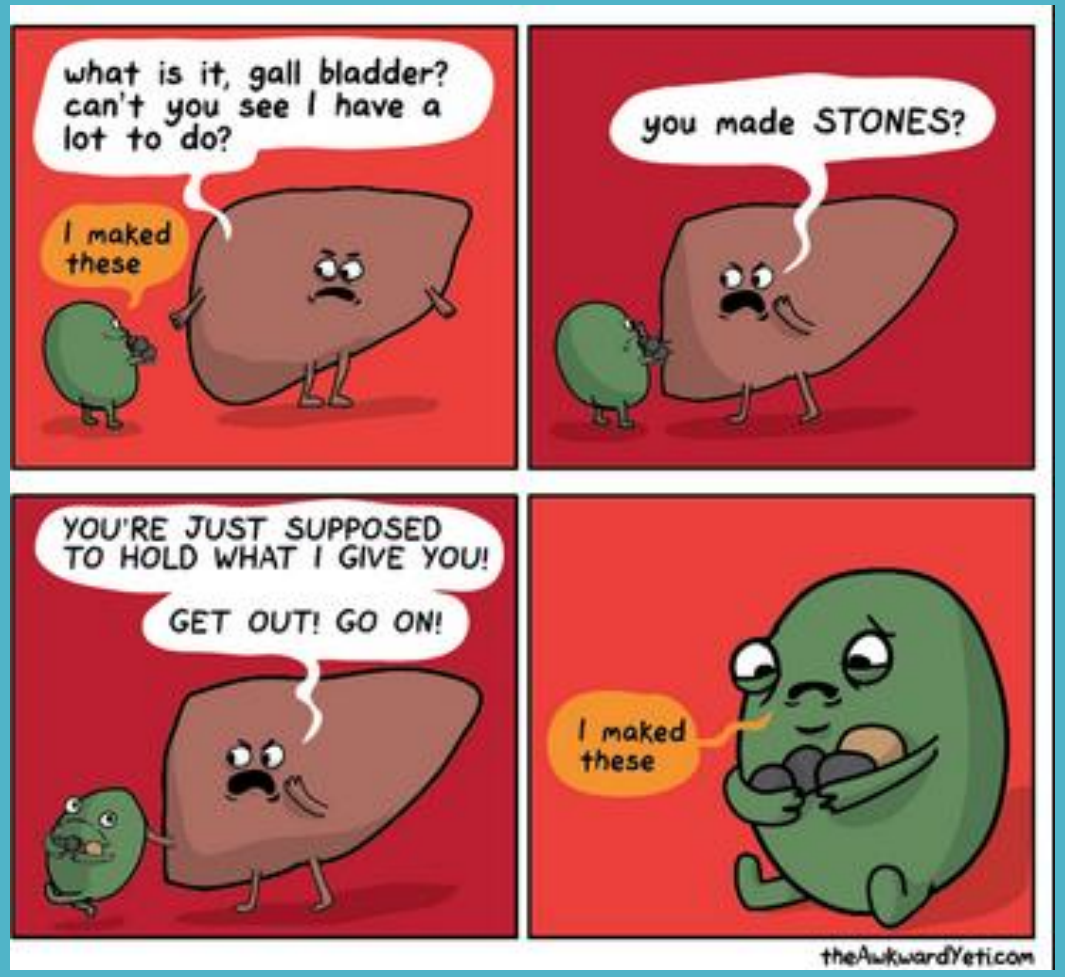
ALWAYS talk to/call your senior

Resources Used

Cardiology fellow's slides (Sid/ Jess)

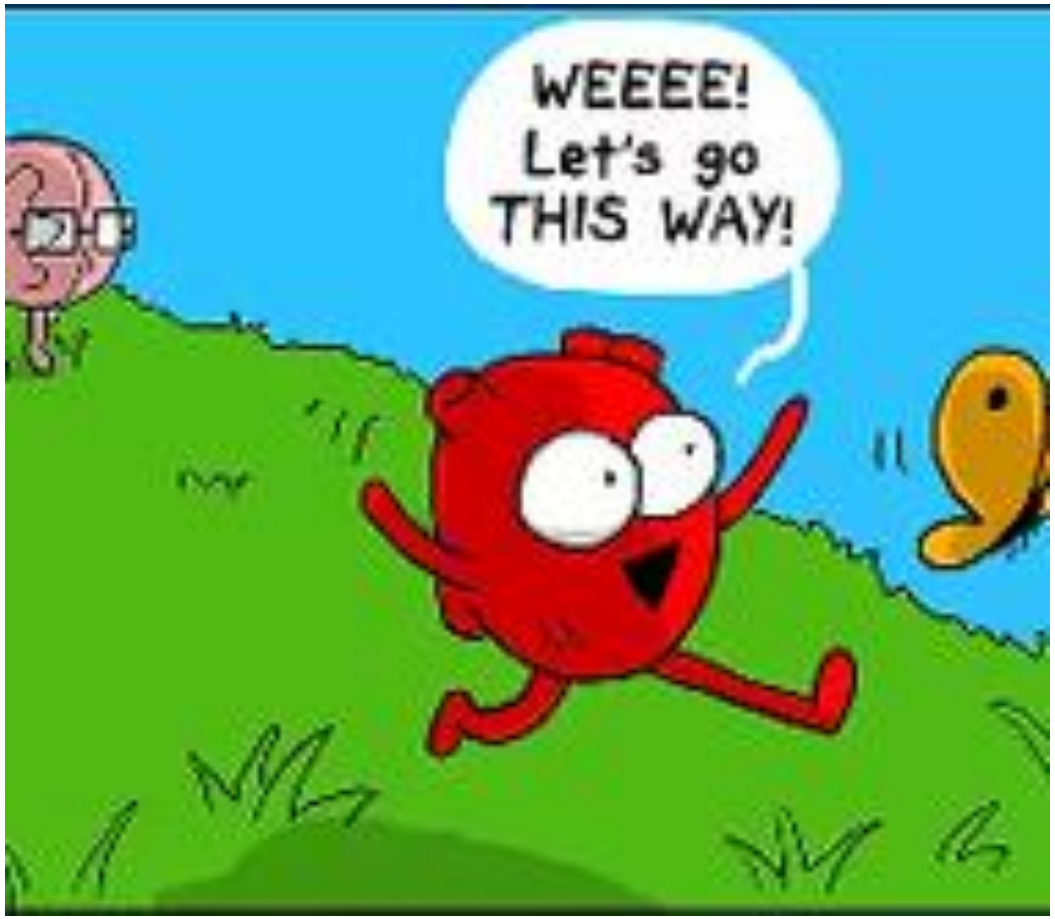
Uptodate: Outpatient Chest Pain, Hypertensive Emergency

The Complete Guide To ECGs



Abdominal Pain

Jonathan Burgei, PGY 2



Welcome New Interns!

CASE

48 y/o female

CC: Abdominal pain, N/V x 4 days

PMHx: Lymphocytic colitis, DM 1, depression, TIA, seizures, opioid dependence, migraine headache

HPI: not tolerating PO. Severe abdominal pain. Tried calling GI Dr., told her to come into the ER. In the ED given 2L IVF, 4 mg morphine, Phenergan.

C-scope: 10/18: 2 small polyps, hemorrhoids, lymphocytic colitis.

Pain management notes: intermittently coming, denies any addiction.

Page → Abdominal Pain

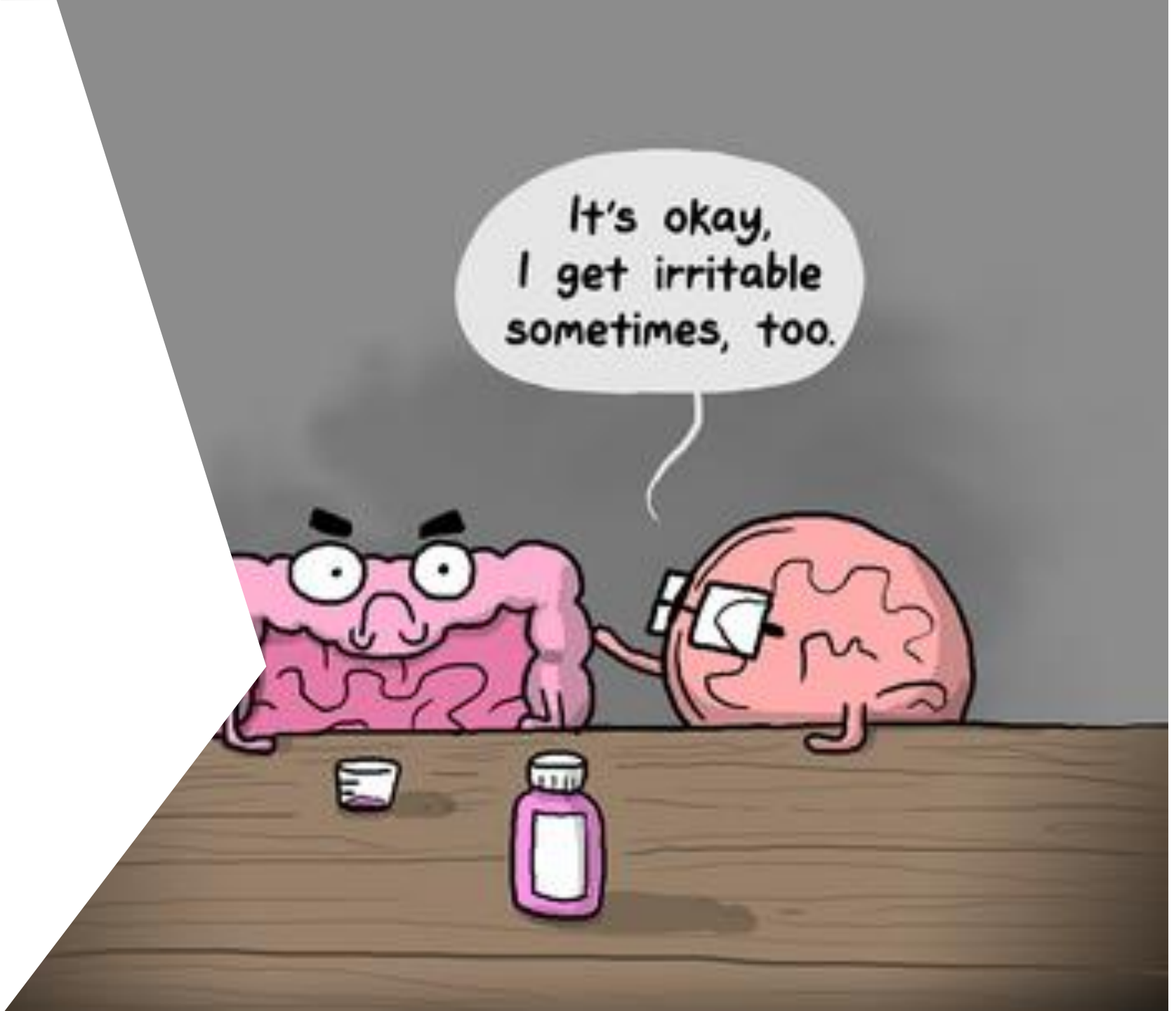
The Call

Open EPIC with your lists

Ask for vitals / information

Sign-out note

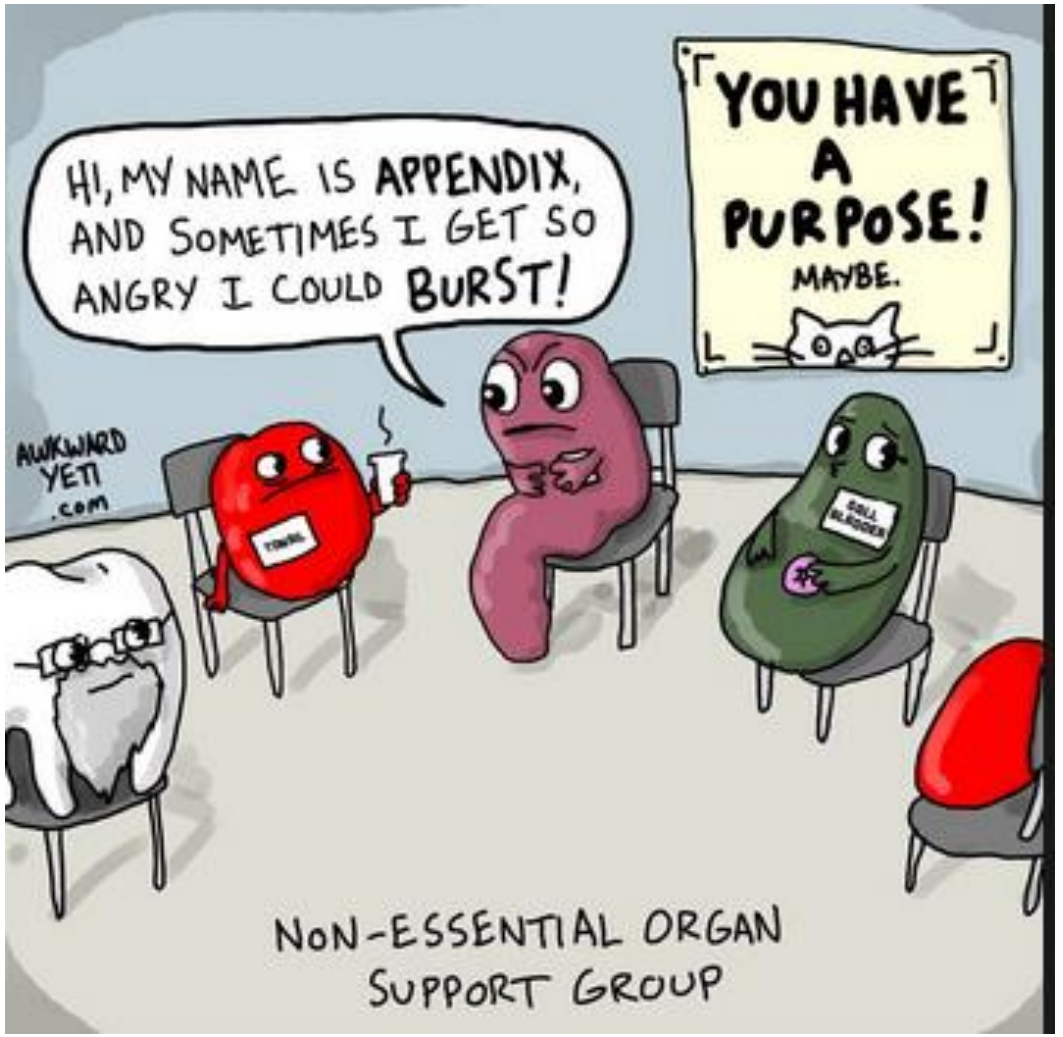
Review EPIC



Vital Signs

Stable Vitals
- Review EPIC
- See the Patient!
- Staff with senior

Unstable Vitals
- Initiate verbal treatment
- Call senior
- See the patient
- Surgical evaluation?


HI, MY NAME IS APPENDIX, AND SOMETIMES I GET SO ANGRY I COULD BURST!
YOU HAVE A PURPOSE!
MAYBE.
AWKWARD YETI .com
NON-ESSENTIAL ORGAN SUPPORT GROUP

EPIC

History History History

Admitting Diagnosis

Medical / Surgical / Family History

Medications

Social History

Consultants?

Current work up?

History

Location and radiation of pain

- Groin (renal colic) vs back (pancreatitits)

Onset, frequency, duration

- Steady (pancreatitis) vs sudden (peritonitis)

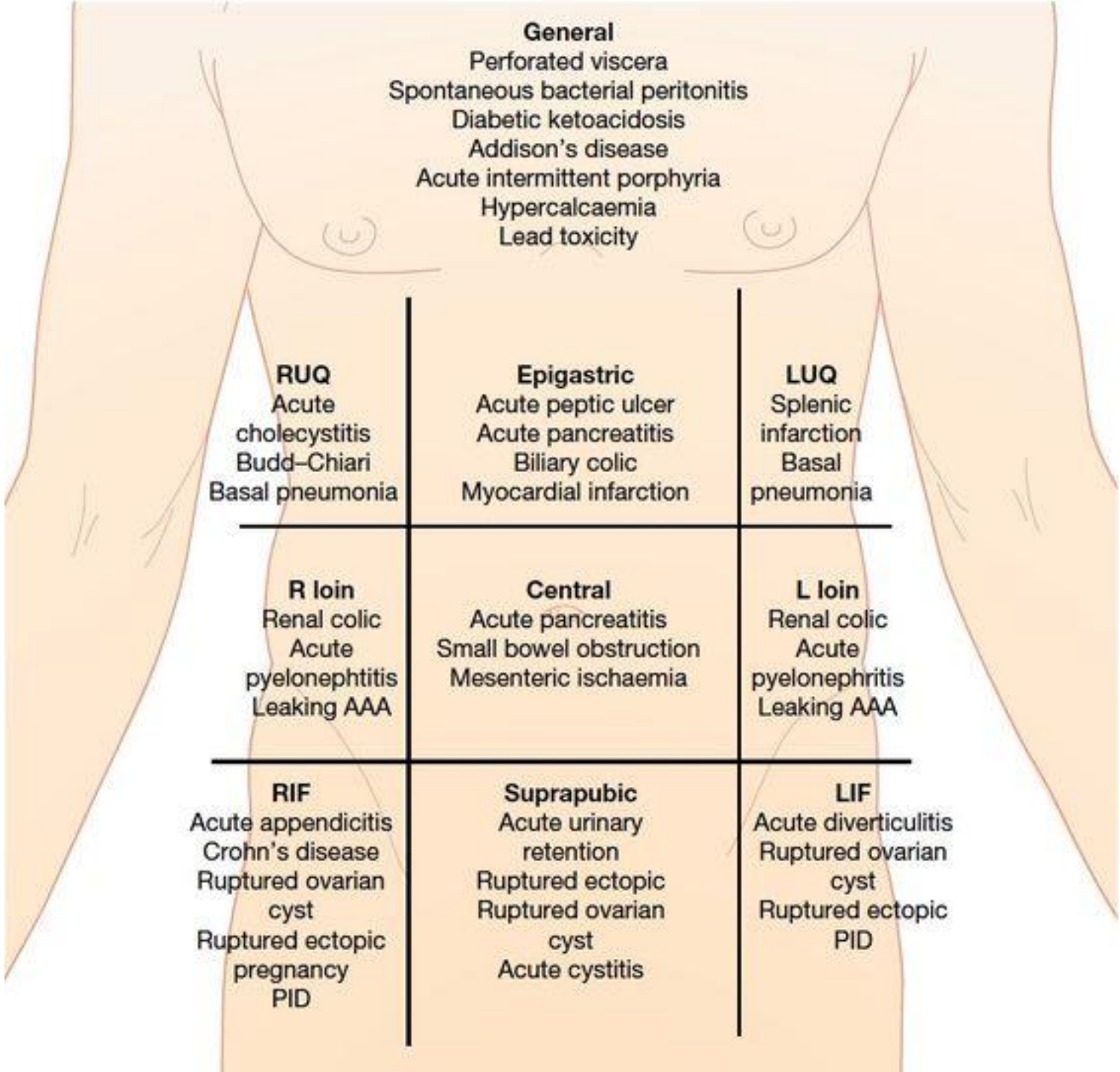
Quality

- Burning (PUD/GERD) vs colicky (obstruction / GI)

Aggravating / Alleviating factors

- After meals (chronic mesenteric ischemia), certain foods (gluten, lactose), alcohol/drugs, lying motionless (peritonitis)

Differentials



Special populations

- Sickle Cell
  - LUQ pain
- Older adults
  - Cardiac
- Younger females
  - GYN
- A fib
  - Acute mesenteric ischemic

Labs

CBC

CMP

Glucose (DKA)

Lipase / TG / EtOH / Calcium

Lactate

Beta- HCG

UA

Cultures (if febrile)

Troponin / EKG (if ruling out cardiac causes)

Imaging

Abdominal X-ray

Ultrasound

CT scan

Bladder scan

Narcotic Bowel Syndrome

Paradoxical increase in abdominal pain with increasing doses of narcotics

Opioids: increased segmental motility and decreased peristalsis → C/N, bloating, early satiety, pain

Patient's fear tapering off narcotics

"Only thing that helps"

Treatment: Complete detoxification and cessation of narcotic use

Last minute tips

Treating N/V/D/C is not always equivalent to treating etiology. Need to find the underlying cause as well

Symptoms Control: Antiemetics, GI cocktails, stool softener, NG tube, motility agents

References

MKSAP

Up-To-Date

Pain Meds Overnight

Eric W. Leland DO, PGY III

Acute Pain

Most often a symptom or result of:

- Tissue injury
- Surgical procedure
- Inflammation
- Childbirth
- Brief disease process

Acute Pain

Diagnosing the reason for acute pain is essential for selecting the appropriate management

Approach to pain:

- Review H&P and progress notes (quickly)
- Review the handoff!!!→pain seeking patients will almost always have a note about not escalating their pain regimen in the handoff
- Evaluate the patient
  - *Vital signs*
  - *Physical examination (try auscultating the abdomen with your stethoscope before palpating and asking if it is painful)*
  - *Lab abnormalities*
  - *Always acknowledge their pain: just because you may not be giving them what they want doesn't mean that their pain isn't real*

Acute Pain

Make your diagnosis

Tailor further diagnostic workup according to history and physical:

- Chest pain that is typical for an MI?→troponin, EKG, nitro tabs
- Abdominal pain?→make sure it isn't an acute abdomen, DON'T order narcotics, try to address other issues like nausea or constipation

Document your findings and decision making, especially in patients who are difficult or abrasive

Treatment Options

Nonpharmacologic options

- Ice pack
- Heating pad
- TLC

Treatment Options

Step up treatment

- Scheduled or PRN acetaminophen (max 2 g/24 hr for hepatic impairment, max 4 g/24 hr otherwise)

- NSAIDs→younger patients, MSK/arthritis, low comorbidity, with meals or PPI

- Lidocaine patch→localized, MSK

- Neurontin→neuropathic pain, DM2, post-herpetic neuralgia

- Topical capsaicin→neuropathic pain

- Toradol→MSK, nephrolithiasis/renal colic, migraines, not to be used for >5 days (risk of AKI)

- Tramadol (ultram)→OA, low GI toxicity (elderly), needs to be tapered to avoid withdrawal, be cognizant for serotonin syndrome for patients on SSRI's

Treatment Options

Step up treatment

Narcotics

Equianalgesic Opioid Dosing

Drug	Equianalgesic Doses (mg)	
	Parenteral	Oral
Morphine	10	30
Buprenorphine	0.3	0.4 (sl)
Codeine	100	200
Fentanyl	0.1	NA
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	10*	20
Oxymorphone	1	10
Tramadol	100*	120

*Not available in the US

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide For Effective Dosing*. Amer Soc of Health-Systems Pharm, Bethesda, MD, 2010. Copyright ASHP, 2010. Used with permission. NOTE: Learner is STRONGLY encouraged to access original work to review all caveats and explanations pertaining to this chart.

Take home points

Acknowledge/empathize with patient→even if they're pain seeking, they believe they are in pain

Be strong! You will be yelled at a few times, learn to love it

When in doubt, ask your senior

Falls and Altered Mental Status

Jordan Lockhart, PGY 2

lockhartj@summahealth.org

Falls

Immediate Questions

Patient status
- Level of consciousness, neurological status
- Age, latest vitals, blood sugar

Circumstances
- Admission diagnosis, transferring, trauma

Symptoms
- SOB, CP, palpitations, presyncopal symptoms, syncope

PMH (Dementia, DM2, CAD, Stroke)

Meds – narcotics, sedatives, anticholinergics

Physical Assessment

- LOC, head trauma
- Full physical/neuro exam
  - Swelling, bruising, bony deformity, hip rotation
  - If indicated, call Rapid Response to place C-collar
  - Orthostatics
- Previous Labs
  - BMP, CBC, UA, BGT

Cause Evaluation

Extrinsic causes

- Poor lighting, transferring, wet floors, tethered to lines

Intrinsic causes

- Visual impairment, deconditioning, FTT
- Neuro- seizure, stroke, delirium
- Cardio- arrhythmia, MI, vasovagal, orthostasis
- Metabolic- hypoglycemia, electrolyte, uremic
- Infection- delirium/disorientation
- Toxin- Etoh withdrawal, benzo

Labs and Imaging

Labs- BMP, CBC, UA, BGT, coags, Tox screen

EKG

Imaging- skeletal xrays, CXR, CT Head

Plan

Treat underlying cause

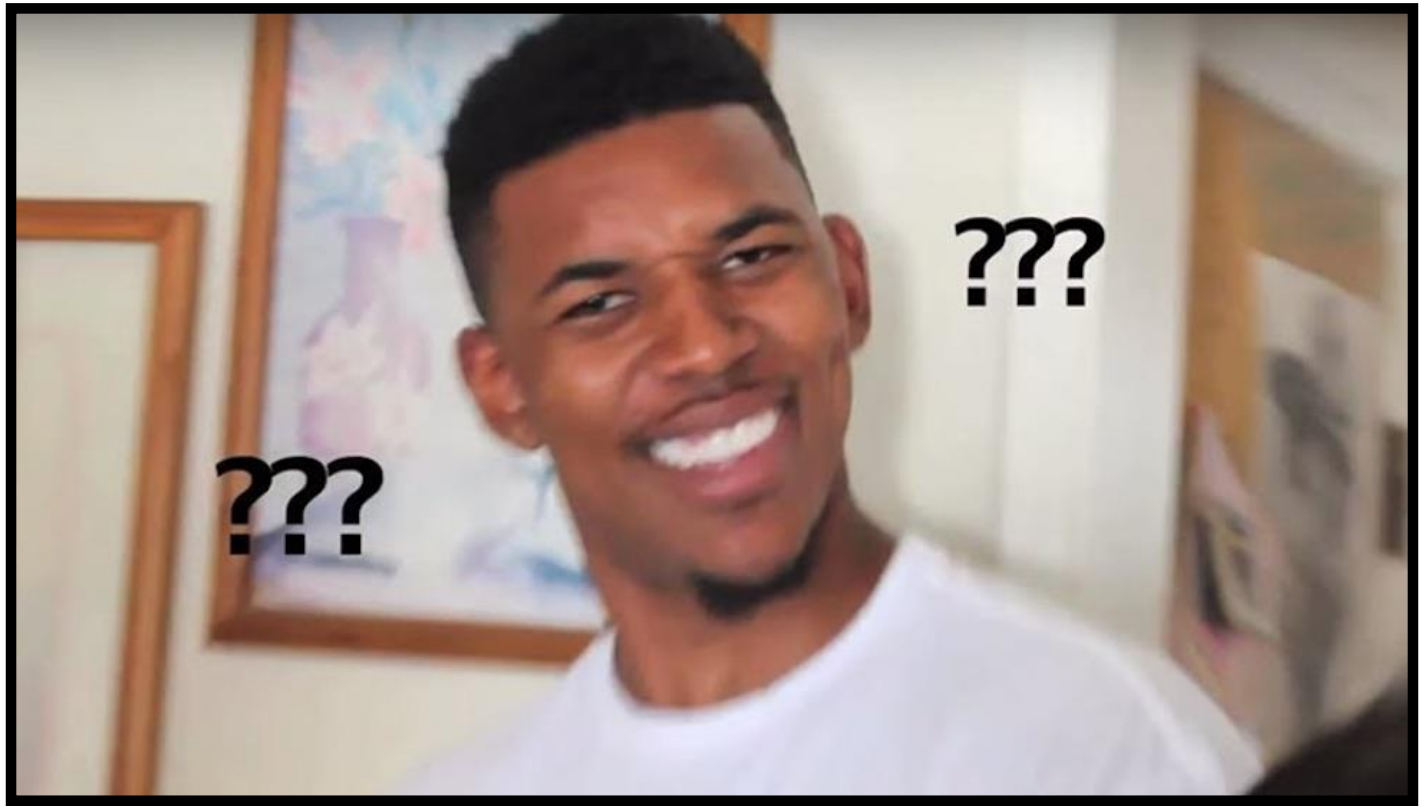
- Remove offending agent (meds, lines, tethers)
- Infection, stroke, electrolytes, seizure, ischemia

Prevention

- Tele, neuro checks, sitter, delirium protocol
- Call light, bed height, room lighting, bed alarm
- Fall precautions, may need to change activity order

Call senior; patient's attending; on call Cards/Neuro

Altered Mental Status



Immediate Questions

Patient status
- Level of consciousness, neurological status, redirectable?
- Age, latest vitals, blood sugar

Circumstances
- Admission diagnosis, time of day, recent procedures/interventions

Symptoms
- Confusion, agitation, aggression, internally stimulated

PMH (Dementia, DM2, stroke, past hx delirium, psychiatric)

Meds – narcotics, sedatives, anticholinergics

Physical Assessment

- Full physical/neuro exam
  - AAO x? Compared to baseline
  - Other physical findings (signs of trauma, neurological deficits)
- Previous Labs
  - BMP, CBC, UA, BGT

Cause Evaluation

Extrinsic causes

- Change of room, additional monitoring (ICU setting)

Intrinsic causes

- Neuro- seizure, stroke, delirium
- Metabolic- hypoglycemia, electrolyte, uremic, urinary retention or constipation
- Infection- delirium/disorientation
- Toxin- Etoh withdrawal, benzo, other drugs/meds (check MAR, any recent visitors?)
- Uncontrolled pain

Labs and Imaging

Labs- BMP, CBC, UA, BGT, Tox screen, sometimes ABG

Imaging- CT Head

Plan

Treat underlying cause
- Remove offending agent if possible (meds, lines, tethers)
- Infection, stroke, electrolytes, seizure, ischemia

Prevention
- Sitter, delirium protocol
- Do NOT put them in restraints unless continually non directable and at risk of harming themselves (AKA pulling out IJ or ET tube)
- Usually only in ICU setting

Call senior; patient's attending

Plan: Agitation

Delirium protocol, redirection, sitter, avoid camera monitoring, avoid restraints

Haloperidol (low dose first, call senior/attending, check QTc)

Quetiapine, Olanzapine

Risperidone (Disintegrating tabs)

Benzodiazepines (Avoid)

Pain Control

Questions?