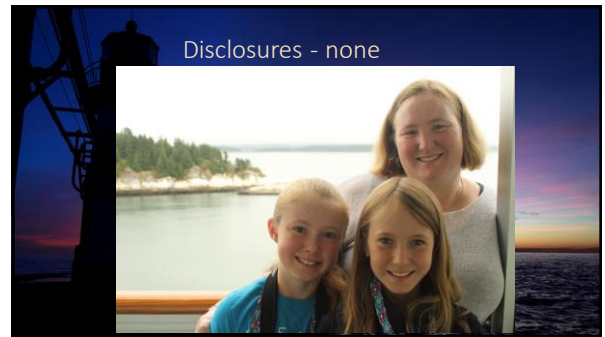




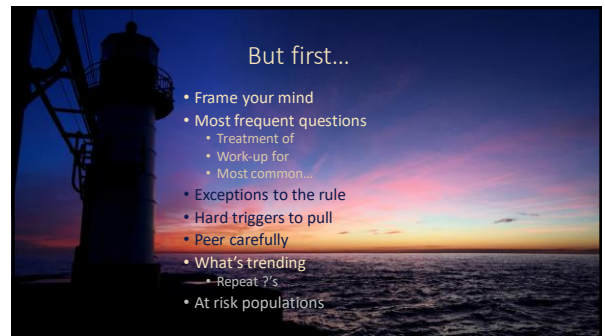
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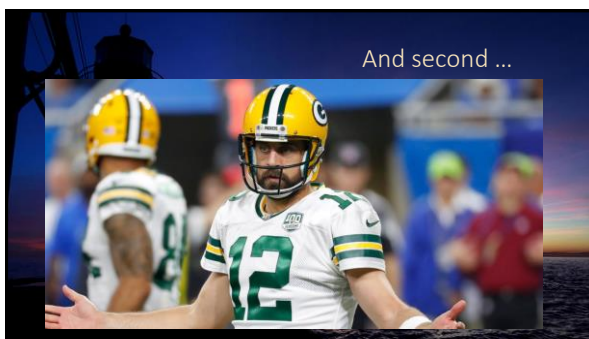
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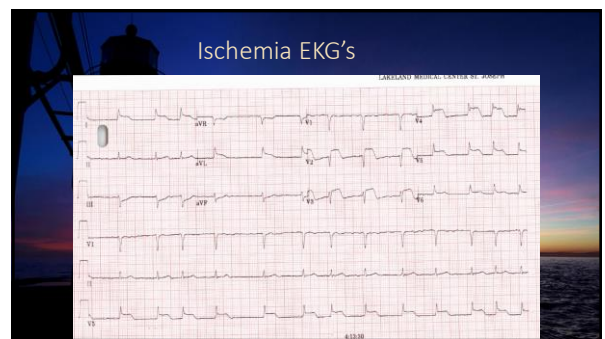
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4

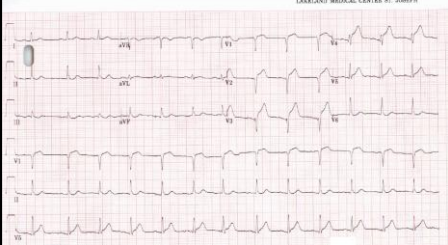


5



6

Diaphoretic ~60 y.o. with classic angina



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

7

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### Question 1

HEART score risk stratification

Heparinize and admit

Perform bedside echo

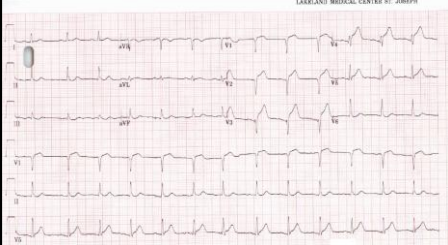
Thrombolysis

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8

100% LAD

Diaphoretic ~60 y.o. with classic angina

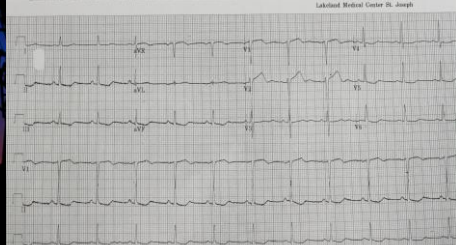


- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

V3STE > 25% depth of S

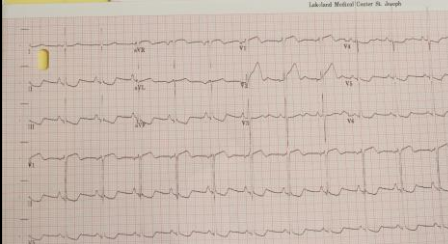
9

Original EKG from pt in CP obs



10

4 hour EKG from same pt



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

11

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### MCEP 1b

A HEART score risk strat

B heparinize and admit

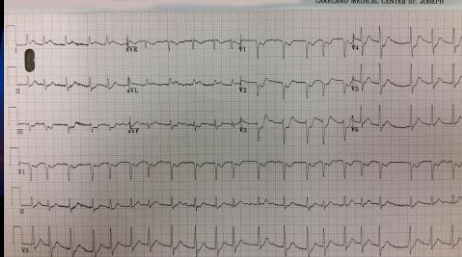
C echo

D thrombolys

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12

70 y.o. woman with typical MI story



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

13

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**MCEP 1c**

A HEART score risk strat

B heparinize

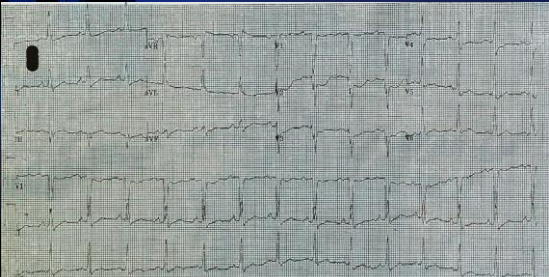
C echo

D thrombolys

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polllev.com/app](https://polllev.com/app)

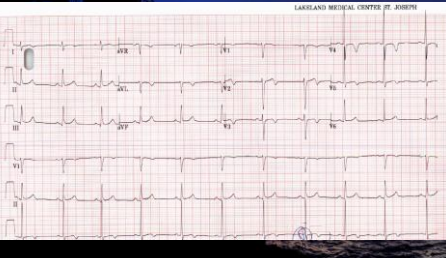
14

Another posterior STEMI



15

50 y.o. man with MI story



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Plan for PE protocol CT
- D. Thrombolysis

16

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**MCEP 2**

A HEART score risk stratification

B Heparinize and admit

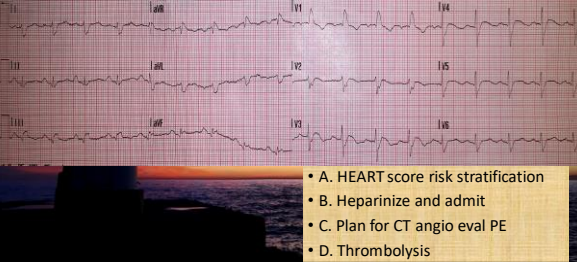
C Plan for PE protocol CT

D Thrombolysis

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17

90 y.o. man with MI story



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Plan for CT angio eval PE
- D. Thrombolysis

18

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### MCEP 2b

- A HEART score risk stratification
- B Heparinize and admit
- C PE protocol CT
- D Thrombolize

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19

77 y.o. with MI story

Age: 77 Sex: F

- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

20

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### MCEP 1d

- A HEART score risk stratification
- B Heparinize and admit
- C Echo
- D Thrombolize

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polls.com/help](https://polls.com/help)

21

Another Sgarbossa STEMI

22

75 yo. Man had MI 3 weeks ago, now with cold

- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

23

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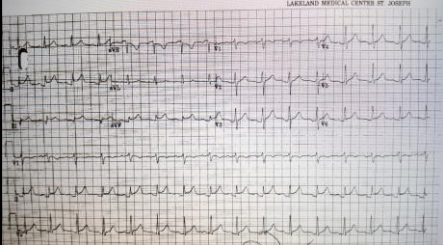
### MCEP 1e

- A HEART score risk strat
- B Heparinize and admit
- C Echo
- D Thrombolise

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polls.com/help](https://polls.com/help)

24

40s y.o. man had MI and intervention 1 week ago, now with CP



LAKELAND MEDICAL CENTER ST. JOSEPH

A. HEART score risk stratification  
B. Heparinize and admit  
C. Perform bedside echo  
D. Thrombolysis

25

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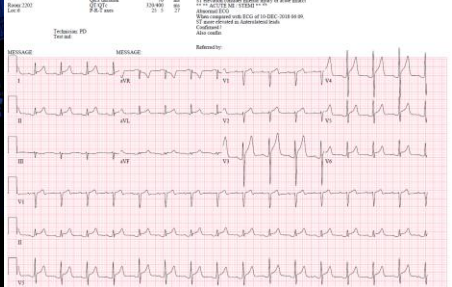
**MCEP 1f**

A HEART score risk strat  
B Heparinize and admit  
C Echo  
D Thrombolysis

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polllev.com/app](https://polllev.com/app)

26

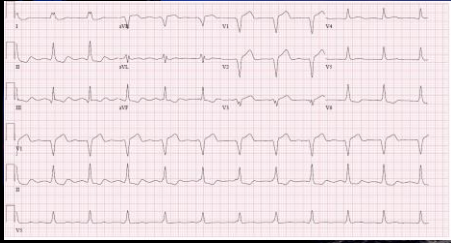
Another pericarditis EKG



Pericarditis  
STE > 25% of  
Total T height

27

60's y.o. man, s/p TNKase for STEMI, feeling much better



- A. Atropine
- B. Amiodarone
- C. Prepare for rescue cath
- D. admit to CCU

28

When poll is active, respond at [polllev.com/matthewhySELL282](https://polllev.com/matthewhySELL282)  
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**MCEP 3**

A Atropine  
B Amiodarone  
C Prepare for rescue cath  
D admit to CCU

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polllev.com/app](https://polllev.com/app)

29

60 y.o. woman with BrCA and pleurisy



- A. HEART score risk stratification
- B. Heparinize and admit
- C. Perform bedside echo
- D. Thrombolysis

30

When poll is active, respond at [poll.com/matthewhyzell282](https://poll.com/matthewhyzell282)  
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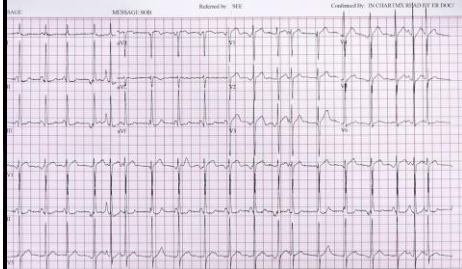
### MCEP 1g

- A HEART score risk strat
- B Heparinize and admit
- C Echo
- D Thrombolyse

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [poll.com/help](https://poll.com/help)

31

70 y.o. man, short of breath



- A. Assess Chads-vasc
- B. Work up for PE
- C. Fluids, antibiotics
- D. Solumedrol, NMT's

32

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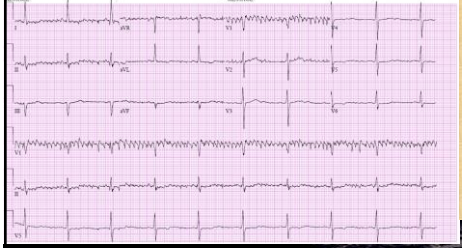
### MCEP 4

- A assess CHADS-VASC score
- B PE protocol CT
- C fluids and antibiotics
- D solumedrol, NMT's

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [poll.com/help](https://poll.com/help)

33

50 y.o. man, cough, fever



- A. Assess Chads-vasc
- B. Work up for PE
- C. Fluids, antibiotics
- D. Solumedrol, NMT's

34

When poll is active, respond at [poll.com/matthewhyzell282](https://poll.com/matthewhyzell282)  
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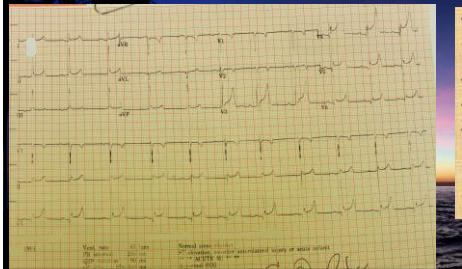
### MCEP 4b

- A apply CHADS-VASC
- B PE protocol CT
- C IVF and Abx
- D steroids, NMT's

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [poll.com/help](https://poll.com/help)

35

20's y.o. with nausea after playing beach soccer all day



- A. Aspirin, assess HEART score
- B. Calcium
- C. NSAID's
- D. IV hydration

36

When poll is active, respond at [polls.com/matthewhyell282](https://polls.com/matthewhyell282)  
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**MCEP 5**

A aspirin, HEART score

B Calcium

C NSAID's

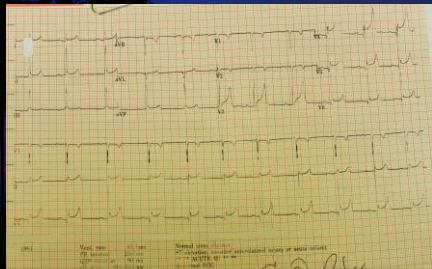
D IV hydration

Start the presentation to see live content. For screen share software, share the entire screen. Call help at [polls.com/app](https://polls.com/app)

37

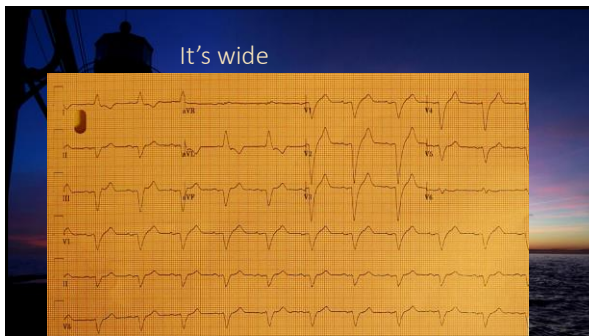
Cr = 3  
K = 6

20's y.o. with nausea after playing beach soccer all day

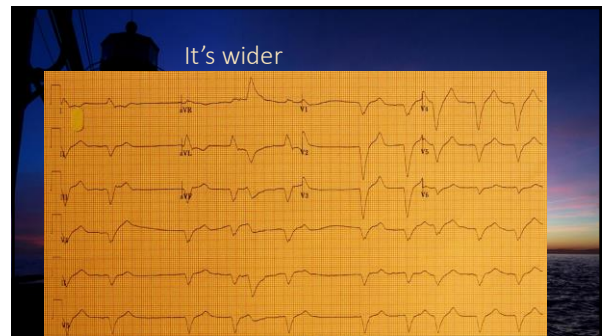


- A. Aspirin, assess HEART score
- B. Calcium
- C. NSAID's
- D. IV hydration

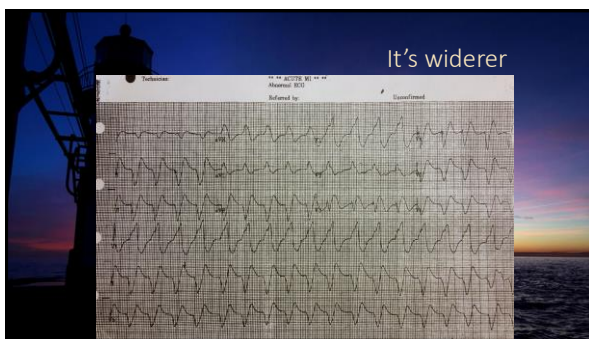
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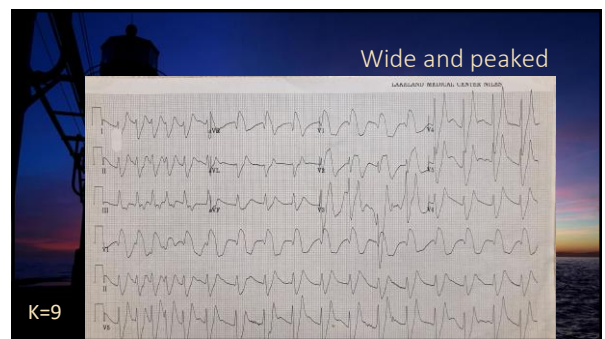
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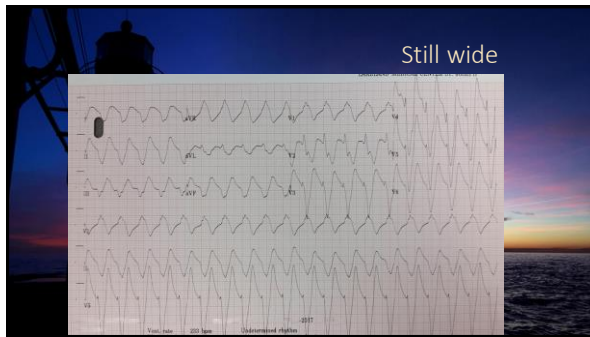
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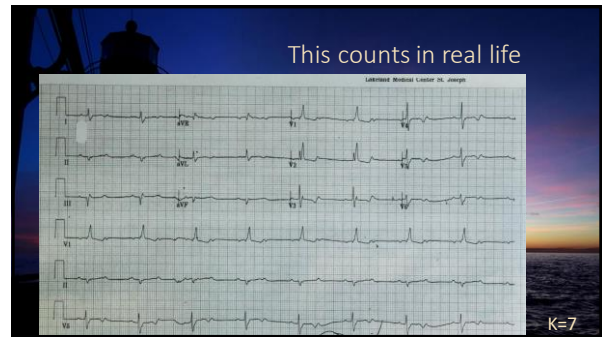
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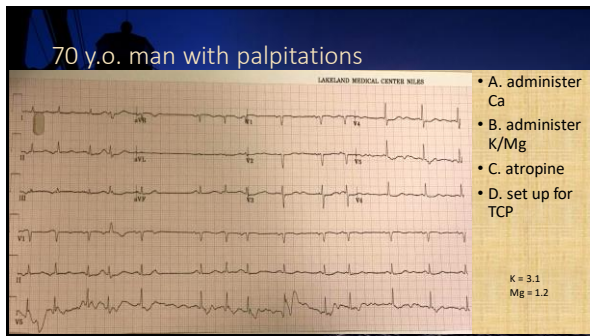
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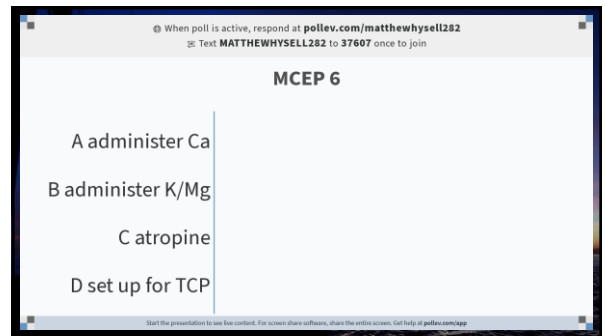
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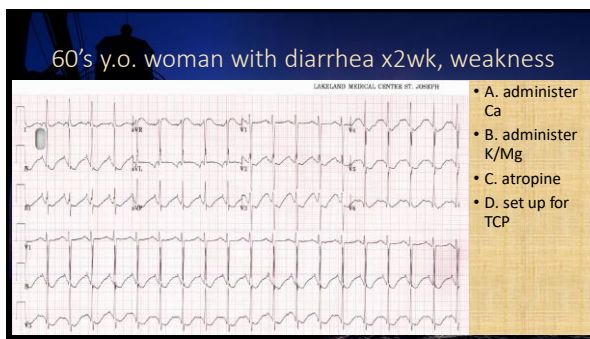
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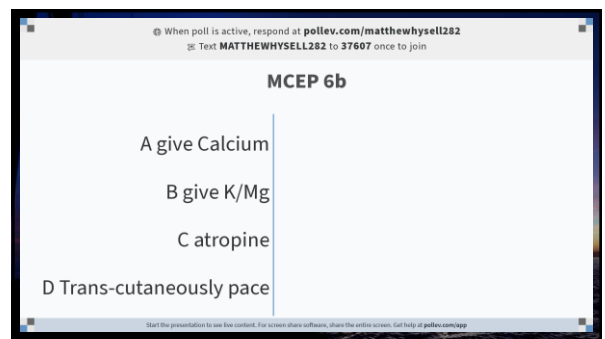
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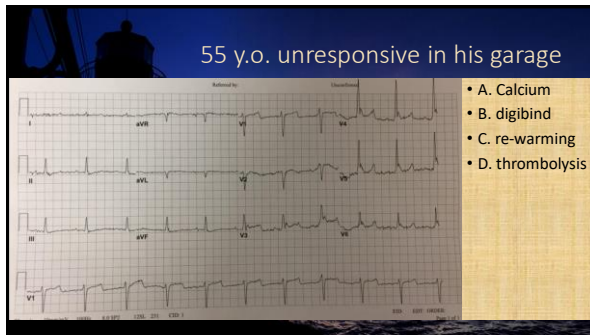
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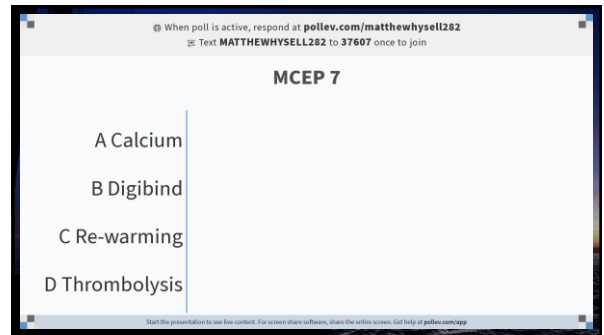
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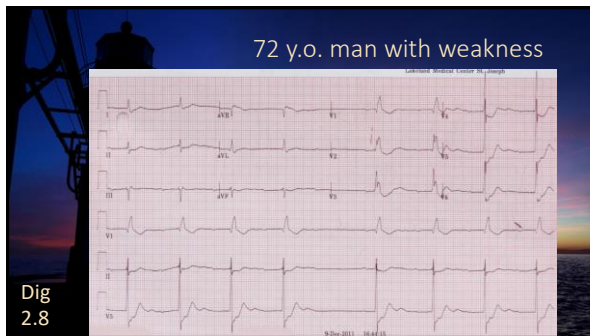
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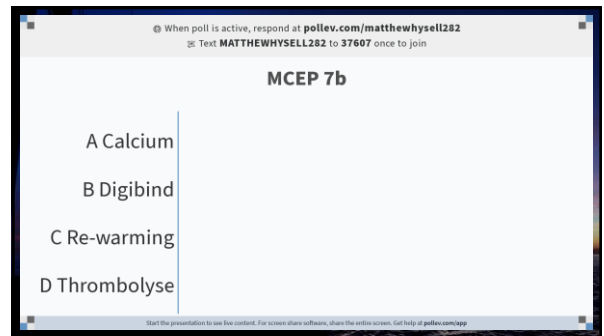
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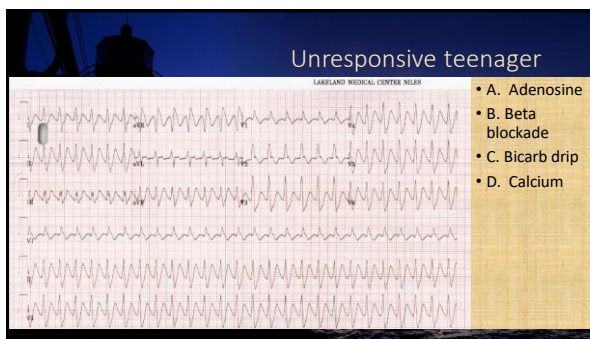
50



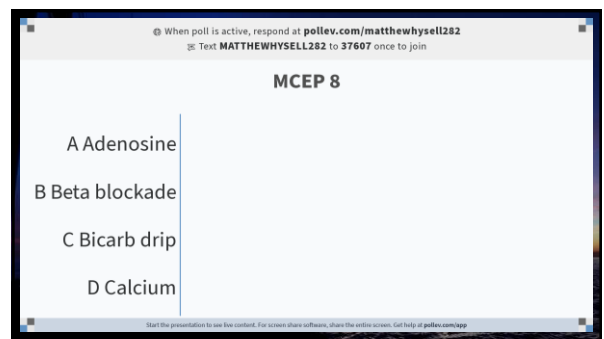
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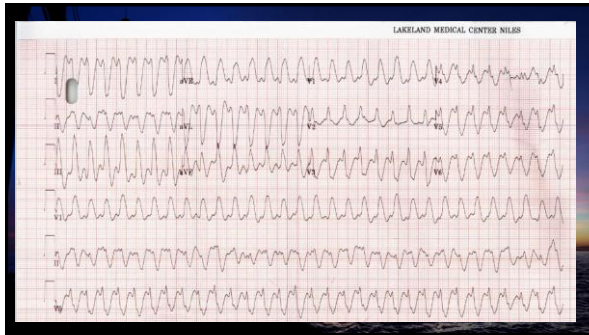
52



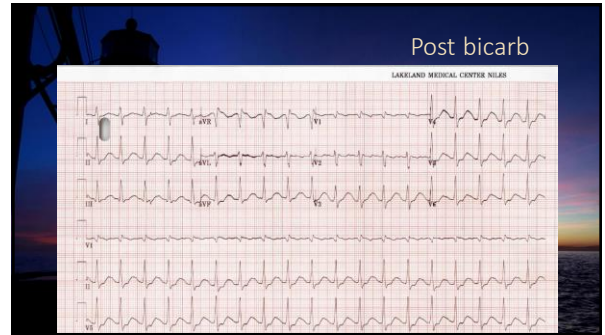
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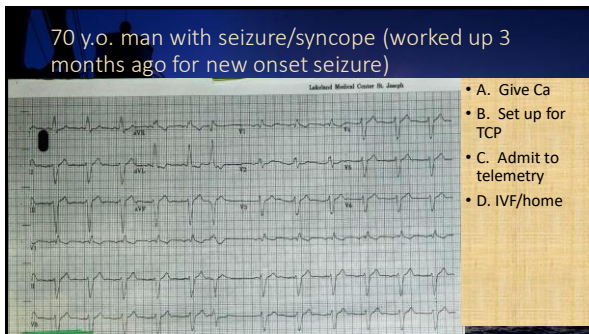
54



55



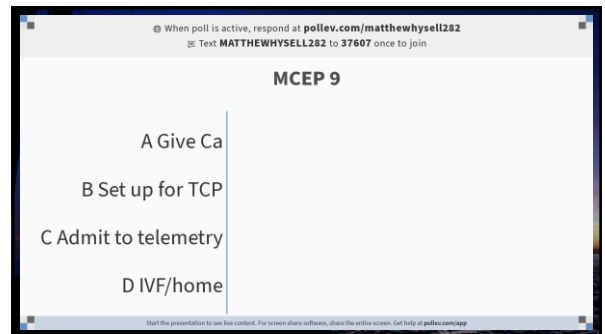
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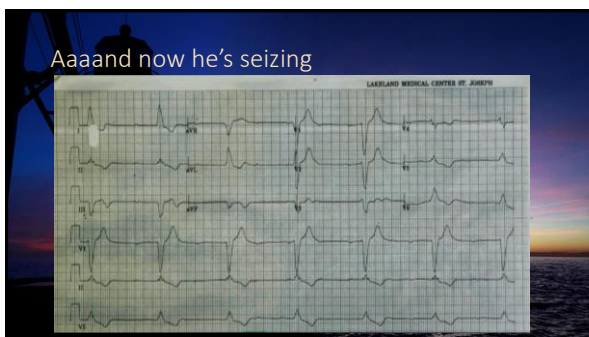
57

70 y.o. man with seizure/syncope (worked up 3 months ago for new onset seizure)

- A. Give Ca
- B. Set up for TCP
- C. Admit to telemetry
- D. IVF/home

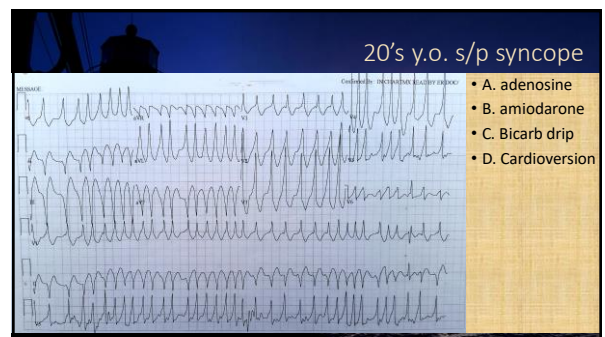


58



59

Aaaand now he's seizing



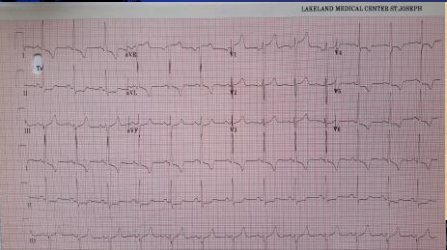
60

20's y.o. s/p syncope

- A. adenosine
- B. amiodarone
- C. Bicarb drip
- D. Cardioversion



50s y.o. woman, syncope after beta blocker stopped by recent inpt admit



- A. PE
- B. HOCM
- C. Unstable angina
- D. IVF, reassurance

67

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**MCEP 12**

A PE  
B HOCM  
C Unstable angina  
D IVF, re-assurance

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68

**Hypertrophic Cardiomyopathy**

- ▶ LVH without dilation (septum greater)
- ▶ 50% inherited
- ▶ DOE, syncope or pre-syncope with exertion
- ▶ Sudden death with exercise induced dysrhythmias
- ▶ Tx
  - ▶ Propranolol
  - ▶ Avoid increasing myocardial contractility
  - ▶ Septal myectomy for severe cases
  - ▶ Abx prophylaxis for dental procedures

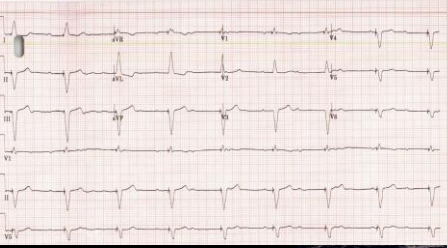
69

**Restrictive Cardiomyopathies**

- ▶ Diastolic restrictive of ventricular filling
- ▶ Mimics constrictive pericarditis
- ▶ Right sided symptoms predominate
- ▶ Exercise intolerance
- ▶ Tx – diuretics, AVOID vasodilators

70

80's palpitations



- A. Pacer sensing problem
- B. Pacer pacing problem
- C. Reassurance
- D. TNKase

71

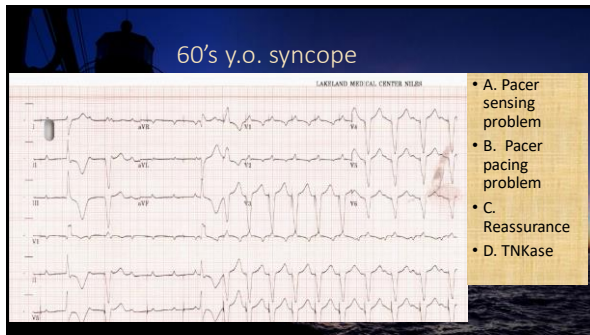
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**MCEP 13**

A Pacer sensing problem  
B Pacer pacing problem  
C Reassurance  
D TNKase

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72



73

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**MCEP 13b**

A Sensing problem  
 B Pacing problem  
 C Reassurance  
 D Thrombolysis

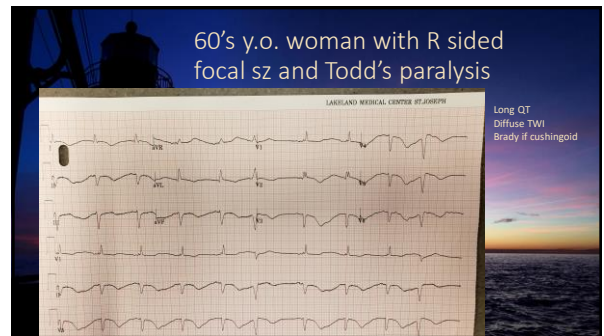
Start the presentation to see live content. For screen share software, share the entire screen. Get help at [polllev.com/app](https://polllev.com/app)

74

**Pacemakers**

- ▶ KNOW WHEN TO PACE
  - ▶ Unstable bradycardias
  - ▶ Unstable blocks
  - ▶ Overdrive pacing for torsades
- ▶ Temporary Options
  - ▶ Magnet doesn't deactivate
  - ▶ Just turns off sensing and converts to demand mode

75



76

**Cardiac Meds**

- Epi
  - 1:1,000
  - 1:10,000
- Adenosine
- Atropine
- Beta Blocker – dissection, thyroid storm
- Aminophylline

77

**Thrombolytics for PE**

- Massive
  - Sustained hypotension
  - Pulselessness
  - Persistent profound brady
- Submassive
  - RV dysfunction by BNP or echo
  - Myocardial necrosis

78

## Aortic stenosis

- Fixed outflow obstruction reliant on preload
  - Vasodilation during exercise leads to syncope
- LV hypertrophy
  - Can lead to angina

79

## Mitral valve

- Acute regurg
  - Usually 1-2 days post MI
  - Overt cardiogenic shock and pulmonary edema
  - Afterload reduction
    - Nitrates/nitride/cardene
- Prolapse
  - Palpitations, chest pain, orthopnea, fatigue
  - Beta blockers, diuretics

80

## Endocarditis

- Aortic valve most common
  - Was previously mitral
- *S. aureus* most common cause
- Risk factors – 50% occur with previously normal valves
  - Congen/rheumatic heart disease
  - IVDA
  - Hemodialysis
  - HIV/immunosuppression

81

## Endocarditis physical exam

Splinter Hemorrhage



Conjunctival hemorrhage



82

## Endocarditis physical exam

Cutaneous lesions



Osler's nodes  
Painful raised



Janeway lesion  
Painless flat

Roth spots



83

## Endocarditis diagnosis

- TTE 60% sensitive, TEE 95% sensitive
- Duke Criteria
  - One major + 3 minor
  - 5 minor
- Major Criteria
  - Positive blood cultures
  - Positive echo
  - New valvular regurg
- Minor criteria
  - Predisposing heart condition or IVDA
  - Fever over 100.4
  - Vascular phenomena
  - Immunologic phenomena
  - Microbiologic evidence
  - Echo findings short of major

84

## Endocarditis treatment

- Community acquired *and* native valves
  - PCN + Gent
- Hospital acquired *or* non-native valve *or* PCN allergy *or* **suspect community acquired MRSA**
  - Vanco + Gent + rifampin
- Surgery
  - Failing antibiotics
    - Abscess enlargement or development
    - Recurrent emboli
  - Hemodynamic instability
  - *Staph*, Q fever, fungal cause

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## Cardiac tumors



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## Hypertensive emergency

- SYMPTOMATIC blood pressure > 180/120
  - Generally lower 10-20% over first hour
- Know stroke numbers
  - 220/120 if not TPA
  - 185/110 if TPA
- Aggressive management of dissection
  - And fairly aggressive of SAH

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## CHF/Cardiogenic Pulm Edema

- ▶ Left sided
  - ▶ Ischemic heart disease, HTN
  - ▶ Aortic/mitral valvular disease
- ▶ Right sided
  - ▶ Left sided failure, pulm HTN, tricuspid/pulmonic disease
- ▶ Signs and symptoms
  - ▶ SOB, "cardiac asthma"
  - ▶ Pleural effusions
  - ▶ S3, JVD, dependent edema

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## Endocarditis Prophylaxis

- ▶ Needed for procedures with significant manipulation of infected tissue
  - ▶ Not needed for Foley, intubation, routine dental cleaning
- ▶ Prosthetic valve
- ▶ Hx of endocarditis
- ▶ Cyanotic congenital heart lesions
- ▶ Acquired valvular disease (ie rheumatic fever)
- ▶ Hypertrophic cardiomyopathy

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## Aortic Dissection

- ▶ Males age 50-70
- ▶ HTN most common risk factor
- ▶ Presentation
  - ▶ pain
- ▶ Classification - type A vs B
- ▶ Definitive testing -
  - ▶ TEE - unstable patients
  - ▶ CTA - may miss rapid moving flap
- ▶ Treatment -
  - ▶ 10-15 units of blood on standby with surgical consultation
  - ▶ Control HR and BP, esmolol first then nitro
  - ▶ Treat pain with IV narcotics

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### Take-homes

- STEMI mimics are commonly tested on boards
  - As are Afib mimics
- Consider the K on any weird bradycardia
- Classic appearances of uncommon entities frequently tested
  - Brugada, TCA's, etc
- R-E-L-A-X