

# Syncope

EMERGENCY MEDICINE COURSES

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# Syncope

- ▶ A Sudden, Temporary Loss of Consciousness
- ▶ Assessment
  - Cardiovascular.
    - Dysrhythmias, HTN, or mechanical problems.
  - Neurological.
    - Stroke, trauma, tumor.
  - Idiopathic.
    - The cause remains unknown even after careful assessment.
  - Vasovagal.
    - Post bathroom syndrome, heat illness.
  - Others.
    - Metabolic, psychiatric condition.
  - Extended unconsciousness is NOT syncope.

# Syncope

## ▶ Cardiovascular

- Arrhythmia
  - AFib
  - SVT
  - Bradycardia
  - PVC
  - HCM
  - Brugada
- AMI
- HTN
- AS
- Diagnosis
  - EKG; holter; echo-2D

# Syncope

- ▶ Neurological
  - Stroke, trauma, tumor
  - Diagnosis
    - CT, carotid Doppler

# Syncope

- ▶ Metabolic, endocrine
  - Hyponatremia
  - Hypocalcemia, hypercalcemia
  - Hyperglycemia, hypoglycemia
  - Thyroid storm, myxedema
  - Overdose

# Syncope

- ▶ Management
  - Maintain the airway.
  - Support breathing.
  - Check circulatory status.
  - Monitor mental status.
  - Establish IV access.
  - Determine blood glucose Level.
  - Monitor the cardiac rhythm.
  - Reassure the patient and transport.

# San Francisco Syncope Rule

- ▶ CHF
- ▶ Hct < 30%
- ▶ EKG changes
  - Non sinus rhythm, LBBB, LAFB, LPFB, AV block, QTc prolonged, non-Q wave MI
- ▶ SOB
- ▶ SBP < 90

- Post-tussive/micturition
- Hemorrhage
- Hypovolemia
- PE
- Aortic Emergencies
- Arrhythmias
- Brugada's
- Syncope
- HOCM
- Vertebrobasilar insufficiency
- SAH
- Vasovagal
- Carotid sinus sensitivity
- Aortic stenosis



# San Francisco Syncope Rule

- ▶ **CHESS**: Hx/o CHF, Hemocrit low, EKG abnormalities, SOB, Systolic BP < 90
- ▶ 98% sensitive at 30d mortality
- ▶ Poor external validation



# Syncope

- ▶ Rule of 15's (15% of cases will have)
  - ACS
  - PE
  - TAD
  - AAA
  - SAH
  - Ectopic pregnancy

# Syncope

- ▶ EKG's
  - ACS
  - Dysrhythmia
  - HOCM
  - Brugada
  - Prolonged QTc
  - WPW
  - ARVD (Arrhythmogenic right ventricular dysplasia)

# Syncope

- ▶ Vasovagal syncope
  - Bradycardia
  - N/V
  - Diaphoretic
  - + prodrome

# Syncope

- ▶ When to do head CT
  - Trauma
  - SAH (sudden, HA)
  - Anti-coagulants or anti-platelets
  - Abnormal neuro exam

# “Weak and Dizzy”

- ▶ Assessment
  - Symptomatic of Many Illnesses
  - Focused Assessment
    - Include a detailed neurological exam.
    - Specific signs and symptoms:
      - Nystagmus
      - Nausea and vomiting
      - Dizziness

# “Weak and Dizzy”

## ▶ Management

- Maintain airway & administer high-flow oxygen.
- Position of comfort.
- Establish IV access & monitor cardiac rhythm.
- Determine blood glucose level.
- Consider medication.
  - Antiemetic
- Transport and reassure patient.