Pediatric Chest Pain and Syncope:
Which Kids Should Worry You?

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Objectives

- At the conclusion of this program, participants will be able to:
  - appropriately evaluate pediatric chest pain or syncope patients presenting to the emergency department.
  - recognize and manage serious and dangerous causes of pediatric chest pain or syncope.
  - establish proper disposition of pediatric chest pain or syncope patients presenting to the emergency department.

How big is the concern?

- Not common CC
- Rarely serious pathology
  - But the serious causes are serious
- Good hx and physical are critical

Sebst et al 1988

- 407 ED presentations
- 60% had normal exam
- most common abnormality: chest wall TTP
- 4% had cardiac etiologies: arrhythmia, pericarditis, MVP, pericardial effusion, mitral regurgitation
- 1 pneumothorax with hx Marfans
- Final Dx: 21% idiopathic, 15% musculoskeletal

Sebst et al 1990

- followed 149 for 6 months, 51 for 2+ years
- 34% had dx changed: MC idiopathic
- only 1 new cardiac dx: MVP
- 43% still had chest pain

Rowe et al 1990

- 336 ED presentations
- nearly half had chest wall TTP
- 5 had cardiac dx: myocarditis, ASD, HCM, WPW, congenital heart block
- 28% dx with chest wall pain

Cohn et al 2012

- retrospective record review of 203 pts sent to pediatric cardiologist for chest pain
- exertional CP not assoc with higher risk of CV dx
- most helpful studies: EKG and echo
- 93% did not have a CV dx

Anderson et al 2012

- retrospective review 627,489 ED visits for pediatric syncope
- MCC neurocardiogenic syncope (vagal)
- serious causes: LQTS, Brugada, HCM, congenital structural heart disease
- Overall low yield on testing except EKG
- neuroimaging appropriate if head injury, HA, or associated seizure-like activity