

FP Essentials

Call for Authors – February 2025

Cardiovascular Signs and Symptoms

We are seeking an author or author group to write an edition of *FP Essentials* on the topic of cardiovascular signs and symptoms. This edition will cover four topics:

1. Office Evaluation of Chest Pain
2. Palpitations and Monitoring via Smart Devices
3. Syncope and Presyncope
4. Volume Overload and Edema

The main text of the manuscript should be approximately 10,000 words in length, divided into four sections of approximately 2,500 words each, plus an abstract of approximately 200 words for each section. In addition, there should be key practice recommendations, a maximum of 15 tables/figures total, additional resources, and up to 200 references to provide support for all recommendations and factual statements in the manuscript. References must be numbered sequentially by section, with section headers dividing the list and each new section starting over at “1.”

This edition should focus on what is new in each topic and should answer the key questions listed for each section. Each section should begin with an illustrative case, similar to the examples provided, with modifications to emphasize key points; each case should have a conclusion that demonstrates resolution of the clinical situation. The references provided here include information that should be considered in preparation of this edition of *FP Essentials*. However, these should be used only as a starting point in identifying the most current guidelines and references to include in the edition.

Needs Assessment

Family physicians encounter many patients with cardiovascular complaints in the ambulatory care setting and need to deftly determine an appropriate workup based on presenting acuity; can they safely send the patient home or must the patient go to the emergency department for prompt workup and monitoring? Members of the American Academy of Family Physicians (AAFP) continue to rate cardiovascular disorders and complaints toward the top of their most sought-after topics to learn new advances in diagnostic and therapeutic strategies. With the advent of smart watches and other wearable devices, more and more patients are “self-monitoring” and present to family physicians inquiring about the potential significance of abnormal findings. This monograph will present diagnostic and treatment paradigms for several common and prevalent cardiac conditions to guide family physicians in the appropriate initial steps of evaluation, subspecialty referral, and follow-up.

Section 1: Office Evaluation of Chest Pain

Example Case

SB is a 54-year-old with a medical history of hypertension, hyperlipidemia, poorly controlled diabetes mellitus, class 3 obesity, tobacco and alcohol dependence, gastroesophageal reflux disease, moderate depression, and generalized anxiety disorder. She presents with a several-day history of intermittent left-sided chest pain that is increasing in intensity. She denies any presyncopal symptoms, heavy lifting, chest wall trauma, or recent travel.

Key Questions to Consider

Epidemiology

- What is the prevalence and economic burden of chest pain in the ambulatory care setting? How does this compare to urgent care and emergency department settings?
- How can physicians best assess pretest probability of coronary artery disease in patients using factors such as age, gender, and type of chest pain?
- What percentage of patients presenting with chest pain have unstable angina or acute myocardial infarction?

Clinical Presentation and Diagnosis

- What is the differential diagnosis of chest pain? How does this vary based on age, gender, and medical comorbidities?
- What are the current evidence-based and cost-effective diagnostic strategies for patients with chest pain? How does this vary between ambulatory, urgent care, and emergency department settings?
- What clinical decision tools have proven efficacy in guiding clinicians to make an accurate diagnosis of a cardiac etiology of chest pain (eg, Marburg Heart Score, INTERCHEST clinical decision rule.)?
- Can emergency department assessment of chest pain scores be utilized similarly in the ambulatory care setting?
- What office electrocardiogram findings should prompt further urgent cardiac evaluation? When is emergency department evaluation needed?
- When should cardiac stress testing be recommended for a patient who presents with chest pain? What factors determine the appropriate stress test for a patient? When is it contraindicated? When is referral to a cardiologist more appropriate?
- What are the roles of coronary computed tomography (CT) angiography and cardiac magnetic resonance imaging in evaluating patients with chest pain?
- What is the role of the Wells Criteria in determining the likelihood of a patient presenting with chest pain of having a pulmonary embolism? When can clinicians be confident that a pulmonary embolism protocol CT evaluation is not indicated?
- When should a clinician obtain a high sensitivity troponin or D-dimer test in the outpatient setting?

Initial References to Consider

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Section 2: Palpitations and Monitoring via Smart Devices

Example Case

PA is a 20-year-old college student who presents to discuss their concern regarding chest palpitations. They report moderate stress, have no significant medical history, take no medications, use alcohol and marijuana occasionally, drink caffeinated energy drinks when studying for exams, and walk around campus for exercise. On presentation, they appear normal and not anxious, vital signs are within normal limits, and their cardiac examination reveals an irregular heartbeat.

Key Questions to Consider

Epidemiology

- What is the prevalence of palpitations? What impact do age and gender have on prevalence and diagnosis rates?
- What factors predispose patients to the development or triggering of palpitations?
- What are the commonly associated medical comorbidities in patients with palpitations?

Clinical Presentation and Diagnosis

- What are the common clinical presentations of patients with palpitations?
- How accurate are wearable smart devices in detecting arrhythmias or cardiac abnormalities, especially those associated with palpitations?
- What is the differential diagnosis of a patient who presents with palpitations?
- What are the current evidence-based and cost-effective diagnostic strategies for patients with palpitations? How does this vary based on suspected etiology?
- What clinical findings mandate immediate evaluation of a patient with palpitations?
- When should a patient with palpitations be observed for continuous telemetry monitoring in the emergency department or hospital?
- When should a patient with palpitations undergo a cardiac stress test, and when would a stress test be contraindicated?
- What is the diagnostic efficiency of artificial intelligence in detecting the etiology of palpitations?

Treatment and Monitoring

- What are the current evidence-based treatment strategies for the main causes of palpitations?
- What is the role of wearable smart devices with electrocardiogram (ECG)-monitoring capabilities in patients with palpitations?
- What is the role of extended ECG-monitoring and in what patients with palpitations should this be considered? What options exist?

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Section 3: Syncope and Presyncope

Example Case

LH is an 18-year-old otherwise healthy college student and vocal performance major who presents after several episodes of passing out at school. She states that the episodes have occurred randomly. She will suddenly feel lightheaded and dizzy, even if she has eaten a meal or snack within a short period of time. Prior to episodes of passing out, or feeling like she will pass out, she admits some nausea and blurry vision but has not had headache, chest pain, or any neurological signs or symptoms.

Key Questions to Consider

Pathophysiology

- What are the definitions of syncope and presyncope? How are these conditions different from dizziness and vertigo?
- Briefly describe the pathophysiology of syncope and presyncope.
- What are the most common causes of syncope and presyncope?
- What is postural orthostatic tachycardia syndrome (POTS)?

Epidemiology

- How prevalent are the various causes of syncope and presyncope? What impact do age and gender have on prevalence and on diagnosis rates?
- What factors predispose patients to the development of these conditions?
- What are the commonly associated medical comorbidities?

Clinical Presentation and Diagnosis

- What is the differential diagnosis of a patient with presyncope and syncope? How does the differential diagnosis vary by age and gender?
- What are the current evidence-based diagnostic and cost-effective strategies for workup of these conditions?
- How does the workup vary based on time course of presentation (eg, immediate or within the last 24 hours vs several days or weeks ago)?
- What workup should be completed in the ambulatory care setting vs the urgent care or emergency department settings?
- When should a patient with presyncope or syncope be observed or admitted? What risk stratification and decision tools are helpful in decision making?

Treatment and Monitoring

- What are the current evidence-based treatment recommendations for these conditions based on etiology?
- When should a patient who suffers presyncope or syncope be observed vs safely sent home with follow-up?
- What driving or activity restrictions should a patient have while syncope is being evaluated?
- When should a patient with presyncope or syncope undergo tilt table testing or prolonged electrocardiogram monitoring?
- What are the short- and long-term adverse outcomes in patients with these conditions?

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Section 4: Volume Overload and Edema

Example Case

BC is a 59-year-old with a history of hypertension, hyperlipidemia, type 2 diabetes, moderate obesity, and remote tobacco use. He presents with a concern of worsening bilateral lower extremity swelling. He states that the nature of his work involves standing for the majority of the day, and by the end of the day his legs are more swollen. On most mornings, the swelling has usually completely subsided, but over the last few weeks it has been persistent. He denies any recent chest pain, shortness of breath, or palpitations, but believes that he has recently gained a few pounds.

Key Questions to Consider

Note: Do not cover volume overload relative to patients in renal failure on chronic dialysis.

Pathophysiology

- What are the common causes of edema and volume overload?
- What is the pathophysiology of the various causes?
- How are edema, lymphedema, lipedema, and volume overload defined? How do they overlap in the clinical setting, and how are they categorically different?

Epidemiology

- How prevalent are these conditions? What impact do age and gender have on prevalence and diagnosis rates?
- What factors predispose patients to the development of these conditions?
- What are the commonly associated medical comorbidities?

Clinical Presentation and Diagnosis

- What are the common presenting signs and symptoms of volume overload and edema?
- What are the current evidence-based diagnostic and cost-effective strategies for workup of these conditions?
- How does the workup vary based on time course of presentation (eg, immediate or within the last 24 hours vs several days or weeks ago)?
- What signs or symptoms warrant emergency department transfer? What workup should be completed in the ambulatory care setting vs the urgent care or emergency department settings?
- When should a patient with volume overload or edema be observed or admitted? What risk stratification and decision tools are helpful in decision making?
- What is the L-Dex score and how is it utilized? What are its advantages and disadvantages?
- Which patients are most at risk for developing venous stasis ulcers?

Treatment and Monitoring

- What are the current evidence-based treatment recommendations for these conditions based on causative factors?
- What is the role of diuretic therapy and compression stockings depending on etiology? What is a reasonable starting pressure for compression stockings, and what are some helpful strategies for patients who have difficulty putting them on or wearing them?
- How effective is manual lymphatic drainage treatment in preventing complications?

- Which patients can be managed without hospital admission? What are indications for admission?
- When should a patient with these conditions be referred to a lymphedema specialist?
- How effective are telemedicine monitoring programs for patients with congestive heart failure in preventing hospital readmission?

Prognosis

- What are the short- and long-term prognoses of a patient with these conditions based on comorbid diagnoses and causative factors?

Initial References to Consider

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