

high-risk cardiopulmonary conditions (e.g., STEMI); (2) accurate identification of low-risk patients who can be safely observed in units with less intensive monitoring, undergo early noninvasive testing, or be discharged home; and (3) through more efficient and systematic accelerated diagnostic protocols, safe reduction in costs associated with overuse of testing and unnecessary hospitalizations. In some studies, provision of protocol-driven care in chest pain units has decreased costs and overall duration of hospital evaluation with no detectable excess of adverse clinical outcomes.

■ **OUTPATIENT EVALUATION OF CHEST DISCOMFORT**

Chest pain is common in outpatient practice, with a lifetime prevalence of 20–40% in the general population. More than 25% of patients with MI have had a related visit with a primary care physician in the previous month. The diagnostic principles are the same as in the ED. However, the pretest probability of an acute cardiopulmonary cause is significantly lower. Therefore, testing paradigms are less intense, with an emphasis on the history, physical examination, and ECG. Moreover, decision-aids developed for settings with a high prevalence of significant cardiopulmonary disease have lower positive predictive value when applied in the practitioner's office. However, in general, if the level of clinical suspicion of ACS is sufficiently high to consider troponin testing, the patient should be referred to the ED for evaluation.

■ **FURTHER READING**

AMSTERDAM EA et al: Testing of low-risk patients presenting to the emergency department with chest pain: A scientific statement from the American Heart Association. *Circulation* 122:1756, 2010.

CHAPMAN AR et al: Association of high-sensitivity cardiac troponin I concentration with cardiac outcomes in patients with suspected acute coronary syndrome. *JAMA* 318:1913, 2017.

FANAROFF AC et al: Does this patient with chest pain have acute coronary syndrome? *JAMA* 314:1955, 2015.