



Review

Hospitals with and without percutaneous coronary intervention capability: considerations for treating acute coronary syndromes

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Abstract The crucial aim in the emergency management of patients presenting with chest pain is the identification of acute coronary syndromes (ACS) and the initiation of appropriate treatment. Institution-specific triage to initial medical or interventional therapies is influenced by the availability of percutaneous coronary intervention (PCI) facilities. Although the use of invasive strategies has increased, most US hospitals do not have PCI facilities. Pharmacological management is an integral part of all treatment strategies, regardless of the availability of interventional capability. Given the growing importance of invasive management strategies, a therapy that is compatible with both medical and invasive therapy options is becoming increasingly important. Aspirin and clopidogrel are recommended for patients with ACS regardless of the conservative or invasive management strategy. With enoxaparin, patients with ACS can seamlessly transition from the medical management phase to the interventional management phase without the need for introducing a second anticoagulant in the cardiac catheterization laboratory. Fondaparinux can be used for patients with ACS treated medically, but should not be used alone during PCI because of the risk of catheter thrombosis. Bivalirudin can be used in non-ST-segment elevation myocardial infarction patients who are managed invasively.

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1. Introduction

The crucial goal for the emergency physician in patients presenting with chest pain is the prompt identification of acute coronary syndromes (ACS) and the initiation of appropriate, risk-directed treatment. Some of the challenges in the management of patients with ACS are the rapid and accurate risk stratification, and the institution-specific triage

to initial medical or interventional therapies. The choice of reperfusion strategy depends, among other factors, on the patient's eligibility criteria, time since symptom onset, emergency department (ED) capabilities, patient preferences, physician preferences, and availability and experience of cardiac catheterization facilities. Although the use of invasive strategies has increased, most hospitals in the United States do not have the facilities to perform percutaneous coronary intervention (PCI) [1]; so the choice is often between managing the patient with pharmacological means alone or transferring the patient to a PCI-capable hospital. Both strategies require appropriate pharmacological treatment as a foundation for successful treatment.

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