

# Management of Acute Coronary Syndromes

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# Introduction

- Cardiovascular diseases are currently the leading cause of death in industrialized countries and are expected to become so in emerging countries by 2020.
- Among these, coronary artery disease (CAD) is the most prevalent manifestation and is associated with high mortality and morbidity.

- The clinical presentations of CAD include silent ischaemia, stable angina pectoris, unstable angina, myocardial infarction (MI), heart failure, and sudden death. Patients with chest pain represent a very substantial proportion of all acute medical hospitalizations in Europe.
- Distinguishing patients with acute coronary syndromes (ACS) within the very large proportion with suspected cardiac pain are a diagnostic challenge, especially in individuals without clear symptoms or electrocardiographic features.
- Despite modern treatment, the rates of death, MI, and readmission of patients with ACS remain high.

# Acute Coronary Syndrome

- \* Have you heard of acute coronary syndrome?
- \* What about heart attack, or unstable angina?
- \* Those well-known conditions are both acute coronary syndromes, an umbrella term for situations where the blood supplied to the heart muscle is suddenly blocked.
- \* Doctors use the broad term regularly, but usually only among themselves and in the medical literature.

# Acute Coronary Syndrome

- \* “This is an absolute medical emergency. Something dramatic, right this minute is going on in the arteries that is hurting the blood flow to the heart,” said Ann Bolger, M.D., a cardiologist at San Francisco General Hospital and a member of the American Heart Association’s Council on Clinical Cardiology.
- \* The blockage can be sudden and complete, or it can come and go - clot, break open, then clot again. “In either case, the heart tissue is dying, even if it’s just a few cells or a whole big section of the heart,” Bolger said.

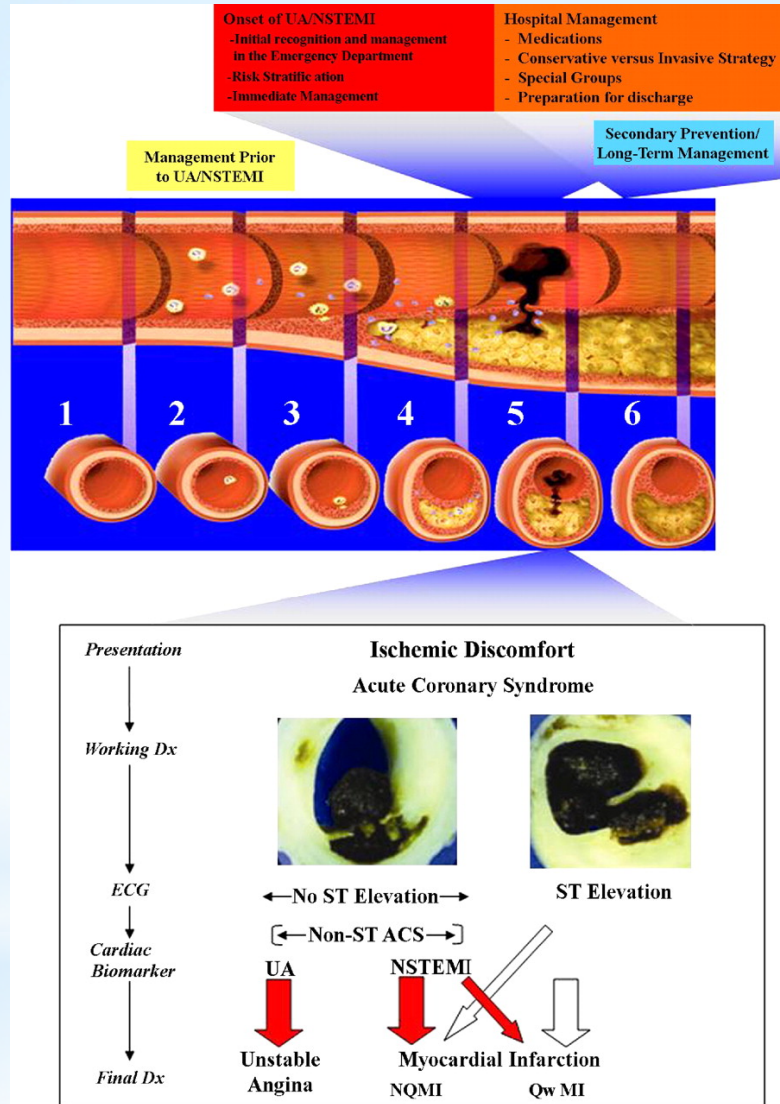


# Acute Coronary Syndrome

Acute coronary syndrome (ACS) refers to any group of symptoms attributed to obstruction of the coronary arteries.

Acute coronary syndrome is caused by narrowing of a coronary artery. The coronary arteries become narrowed by a process known as atherosclerosis, which is also called hardening of the arteries. Narrowed coronary arteries may not supply enough oxygen to meet the demands of the heart muscle.

# Acute Coronary Syndromes



Anderson, J. L. et al. J Am Coll Cardiol 2007;50:e1-e157

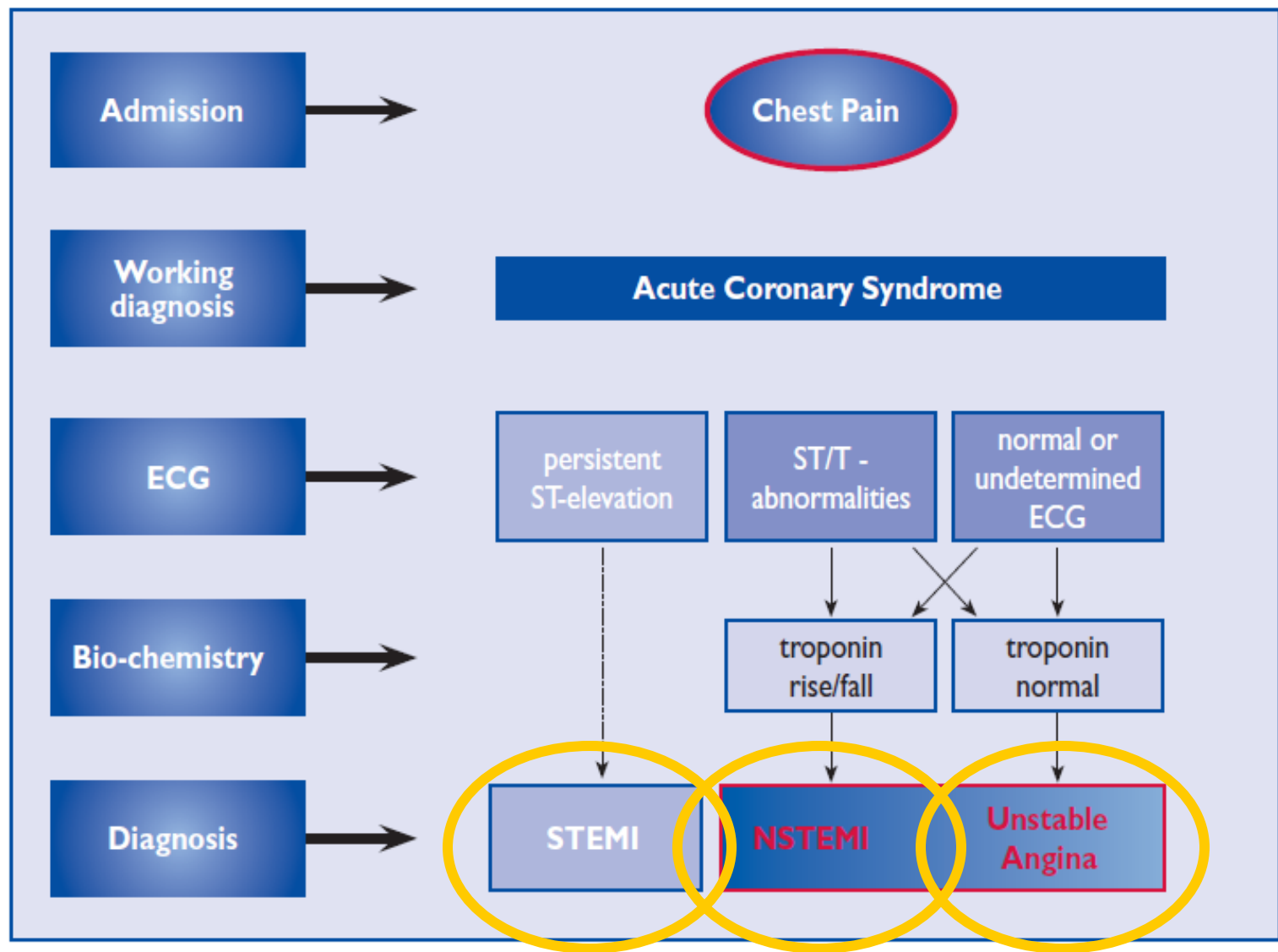
# Acute coronary syndrome



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**Figure 1** The spectrum of ACS. ECG = electrocardiogram; NSTEMI = non-ST-elevation myocardial infarction; STEMI = ST-elevation myocardial infarction.