

Stable Angina

Stable angina, or chest pain, is the clinical manifestation of myocardial ischemia, and occurs from obstruction or spasm of the coronary arteries. It is described as chest pain with exertion, which is episodic and relieved within 15 minutes. A 12 lead ECG may show ST segment depression and/or T wave inversion, which indicates cardiac ischemia. Appropriate interventions include rest and nitroglycerin administration. Stable angina notably is responsive to nitroglycerin. Patients may need antiplatelet medications and eventual angioplasty or CABG.



PLAY PICMONIC

Assessment

Chest Pain with Exertion

Chest Pain-bolt with Exertion

Patients develop a squeezing, heavy, choking chest pain substernally that occurs with exertion. Pain at rest is unusual for stable angina.

Relieved within 15 Minutes

Relieved by 15 Minutes Timer

This chest pain is episodic and lasts from 5-15 minutes. Stable angina is typically relieved within 15 minutes.

ST Depression

Depression St.

A 12-lead ECG shows ST segment depression and possibly T wave inversion. This is indicative of myocardial ischemia. It should be noted that the ECG returns to baseline when the pain is relieved.

Interventions

Nitroglycerin

Nitro-glacier

Nitroglycerin works to vasodilate blood vessels, improving the flow of oxygen and blood to the heart, and relieving the chest pain. It is administered as a fast acting sublingual pill.

Up to 3 Doses q 5 Minutes

3 Doses of Q-clock with (5) Hand

This drug can be readministered, and patients can take up to 3 doses, separated by 5 minutes to help relieve chest pain. They should not take more than 3 nitroglycerin tablets over 15 minutes, as this may lead to unsafe blood pressure changes. If chest pain is not relieved in 15 minutes after taking 3 nitroglycerin tablets, emergency medical services should be contacted.

Rest

Bed

Rest is a relieving factor for patients with stable angina and allows cardiac perfusion to increase.

Antiplatelet Medication

Ant-tie-plate with Med-bottle

Antiplatelet drugs, such as aspirin or clopidogrel, may be indicated in patients who have regular anginal episodes. These are used to prevent clot aggregation at sites with profound atherosclerosis, in order to avoid progression to myocardial infarction.

CABG

Cabbage

Coronary artery bypass graft (CABG) is a more invasive option in treating angina. It involves bypassing constricted arteries using venous grafts obtained during cardiac surgery in order to provide adequate blood flow to cardiac tissues. Because of long-term patency rates (90% after 10 years), the internal mammary artery (IMA) is the most common artery used for a CABG.

Angioplasty

Angel-pastry

Angioplasty, or mechanically widening the narrowed or obstructed coronary arteries, can be done to help prevent cardiac events. This is typically done using a balloon to widen the artery, and a stent may or may not be placed at the time of angioplasty. This is also called percutaneous coronary intervention (PCI).