Stroke	AMI
Definition	
Rapidly developing clinical signs of focal (at times global) disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin.	MI is damage or death of part of the heart muscle that is caused by lack of blood flow through the coronary arteries.
Distinction between stroke and TIA	
A TIA is like a stroke, but it does not damage the brain: it happens when an artery in the brain gets clogged and then reopens on its own.	
In TIA, neurologic signs and symptoms last <24 h.	
Epidemiology	
Stroke is the leading cause of death in Portugal.	In Portugal and in other high income countries, the acute MI incidence is declining.
The majority of strokes are due to ischemic cerebral infarction.	CVDs are the leading cause of death worldwide.
Pathophysiology	
Fatty deposits will build-up gradually on the inner walls of the blood vessels that supply the brain.	Fatty deposits will build-up gradually on the inner walls of the blood vessels that supply the heart.
Sometimes these plaques can develop cracks on their surface, and a clot of platelets and other cells is formed, as a body response.	Sometimes these plaques can develop cracks on their surface, and a clot of platelets and other cells is formed.
These clots can get lodged there and partially or completely block the flow of blood.	These clots can partially or completely block the flow of blood.
A blood clot or other particle travels from another part of the body (often the heart) through the bloodstream to the brain where it lodges in a smaller blood vessel.	
Bleeding in or around the brain can lead to pressure within the head and blood irritates brain tissue, which can cause damage.	
Excluding head trauma, the most common cause of SAH is rupture of a saccular aneurysm.	
Symptoms (chest pain)	
	Type: pain or discomfort (pressure, tightness, or squeezing).
	Location: spreads through the chest and others areas of the body including the upper abdomen, shoulders, arms, neck and throat, clower jaw and teeth.
	Duration: comes on gradually and lasts more than a few seconds
Diagnosis	
The diagnosis of stroke is clinical, and laboratory studies including brain imaging are used to support the diagnosis.	
CT is typically the first diagnostic study in patients with suspected stroke.	
CT is highly sensitive for the diagnosis of hemorrhage in the acute setting.	
Treatment	
The use of aspirin, which is an antiplatelet agent, within 48 h of stroke onset reduced both stroke recurrence risk and mortality.	Aspirin is used to reduce the risk of recurrent cardiovascular events and is associated with a better prognosis.
Thrombolytic therapy works to dissolve clots that are blocking blood flow in arteries of the brain.	Nitrates may be useful in the relief of symptoms, mainly pain, however they do not change the course of disease.
Treatment should be done within 3 hours from symptom onset because its benefit decreases continuously over time, so it is very important to identify symptoms early.	Angioplasty is a procedure where a flexible plastic catheter with a balloon at the end is used to dilate narrowed arteries in the heart. The procedure often includes placement of a metal or a drugeluting stent to hold the artery open.
Carotid endarterectomy is performed through a neck incision and the carotid plaque is freed and removed.	Angioplasty helps to restore blood flow to the heart muscle.
	CABG is a procedure that uses your own veins (usually from the legs) or arteries to bypass narrowed areas.

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Treatment	
	CABG helps to restore blood flow to the heart muscle.
Prevention	
To prevent stroke we have to reduce or eliminate the factors that increase the risk of developing or speeding the progression of the disease.	To prevent MI we have to reduce or eliminate the factors that increase the risk of developing or speeding the progression of the disease
Hypertension is the single most important treatable risk factor for stroke.	
Prognosis	
The effects of a stroke depend on which part of the brain is injured and how severely it is affected.	

CABG - coronary artery bypass graft surgery; CT - computed tomography; CVDs - cardiovascular diseases; MI - myocardial infarction; SAH - subarachnoid hemorrhage; TIA – transient ischemic attack.