

Changing Cardiovascular Health

National Cardiovascular Health Policy 2010 – 2019

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Emergency response services

The importance of transfer to specialist services and rapid onset of treatment in acute cardiac and stroke settings (in particular concerning thrombolysis and primary PCI) cannot be overstated. Much progress has been made on reconfiguration of services and training in emergency medical response since the 2006 report by the Task Force on Sudden Cardiac Death (Department of Health and Children, 2006). Although strategic deployment of advanced paramedics, pre-hospital thrombolysis and information systems to capture pre-hospital demands has been developed regionally, such resources are not yet deployed nationally (see *Recommendation 5.26*).

RECOMMENDATION 5.26

This policy endorses the recommendations of the Task Force on Sudden Cardiac Death (2006) for the development of emergency medical service capacity to respond and deliver timely acute cardiovascular care.

The following initiatives are seen as having the highest priority within the new network structures:

- Strategic deployment of advanced paramedics and implementation of pre-hospital triage and cardiac thrombolysis nationally.
- Prioritised national roll-out of the electronic patient-care record in order to guide emergency medical services in the collection, collation and analysis of pre-hospital data.
- National roll-out of information systems, including the out-of-hospital cardiac arrest register, the register of sudden cardiac deaths in young people, and the general patient electronic patient-care record.
- Integration of emergency medical service activities through coordinated approach to the participation of auxiliary and voluntary services, Gardaí and retained fire services.
- Improved first response and therefore survival from cardiac arrest through development, coordination and integration of the emergency medical service with co-responder networks (auxiliary and voluntary services, Gardaí and retained fire services) and community first responder programmes across the country.

Lead organisation: HSE, in association with Irish Heart Foundation

Public awareness and response

The public are an unrealised asset in acute cardiovascular care. Greater public awareness is needed about the warning signs of cardiovascular emergencies. In tandem, current training activities need to be extended in the skills of basic life support, first-responder programmes and use of automated external defibrillators (see *Recommendation 5.27*).

RECOMMENDATION 5.27

Increase the proportion of the public who are aware of the major signs and symptoms of acute cardiovascular events (e.g. ACS, TIA and stroke), who know the importance of immediately contacting ambulance services and who are skilled in basic life support.

A public education campaign should be undertaken to raise awareness of the symptoms of acute cardiovascular events and of the need to take urgent and appropriate action. In parallel, basic life support training in schools could help develop an upcoming generation with greater awareness and skills in this area.

Lead organisation: HSE, in association with Irish Heart Foundation

Acute stroke

Acute stroke patients should be pre-triaged by ambulance paramedical staff, using recognised assessment tools, and transported as quickly as possible to an acute hospital providing emergency stroke treatment delivered by a consultant stroke physician and immediate brain imaging by CT or

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MRI. Clinical practice guidelines have been developed by the Pre-Hospital Emergency Care Council for responders (cardiac first responders, occupational first aiders, emergency first responders) and practitioners (emergency medical technicians, paramedics and advanced paramedics) to recognise and appropriately respond to stroke patients.

RECOMMENDATION 5.19

Emergency stroke treatment by a consultant stroke physician should be available on a 24-hour, 7-day basis to all acute stroke patients within each stroke network.

When it is not feasible to transport the patient within the timeframe for emergency evaluation and treatment with thrombolysis, tele-medicine supported by an on-call consultant stroke physician should be available. This emergency treatment will be developed on an incremental basis.

Lead organisation: HSE

Public awareness and response

One of the most important impediments to good outcomes in AMI is the time taken to initiate help seeking by the patient or member of the public. This is still unacceptably long in Ireland (Doyle *et al*, 2005). Reducing delay is equally important for improving outcomes in people who develop ventricular fibrillation or stroke. At community level, first-responder programmes, basic life support training and training in the use of automated external defibrillators have been rolled out in certain community, voluntary and school settings. However, implementing national roll-out of training in the community is required, involving strategic and national involvement of the Gardaí, the retained fire services and auxiliary and voluntary services, and providing comprehensive basic life support training in all schools.

More generally, the lack of public awareness about the warning signs of cardiovascular conditions must be addressed as an important contribution to reducing mortality and morbidity. For example, recent Irish research suggests poor recognition of symptoms of stroke (Hickey *et al*, 2009). Public education is challenging and lessons from international experience are needed to inform any effective education campaign.

Sudden cardiac death

An estimated 5,000 people die every year in Ireland as a result of sudden cardiac death (SCD) (Department of Health and Children, 2006). Survival rates following cardiac arrest are directly related to time to resuscitation and, in particular, defibrillation. The ESC Task Force on SCD recommended a target time of 5 minutes for out-of-hospital cardiac arrest, i.e. from call to defibrillation (Priori *et al*, 2001). It is therefore important that procedures are in place to enable rapid response and intervention in the community setting.

Regional evaluation of an out-of-hospital cardiac arrest register (OHCAR) has been implemented in the HSE North West Region and national roll-out is being planned. A national electronic patient-care record (ePCR) has also been implemented in the HSE North East Region, with plans ultimately for national roll-out; the ePCR includes live data links between ambulance control stations, vehicles and hospital emergency departments. Spatial analysis research has been undertaken to inform ambulance service and community response developments. However, national collection, collation and analysis of pre-hospital data needs to be implemented as a matter of urgency. This should include analysis of regional variation and of equitable access to emergency services.

Since the publication of the report by the ESC Task Force on SCD (Priori *et al*, 2001), evidence-based educational standards have been developed by the Pre-Hospital Emergency Care Council. These include the Cardiac First Response standard, the first statutory standard for Basic Life Support and Automated Advisory Defibrillator Use in Ireland. In addition, clinical practice guidelines have been developed to support delivery of cardiac interventions by emergency medical technicians, paramedics and advanced paramedics.

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