

Pre-hospital Care in Ireland – Innovation Needed

G. Bury, T. Barry

UCD Centre for Emergency Medical Science, Ireland

The Irish health care system's ability to bring high quality clinical care to the patient's side has been revolutionised in the last two decades – changes include Advanced Life Support in cardiac arrest, the availability of sophisticated analgesia options, early control of hypoglycaemia and seizures and the identification of ST elevation myocardial infarction or stroke with targeted transport to a reperfusion centre. Such complex change generates challenge. The Pre-Hospital Emergency Care Council is the statutory body responsible for professional standards and education and for the development of clinical guidelines for practitioner use; its 2016 report highlights some of those challenges including increased service demand, rising public expectations, advancing technology/requirements for enhanced skills, increasing professionalism and integration of health servicesⁱ.

Against this background of rapid change and complex challenges, it is clear that further significant innovation is needed in education, paramedic specialist training and protocols and procedures for the care of certain ill or injured patients. PHECC's 2016 report stresses the need for enhanced third level education in developing these resources.

Pre-hospital emergency care in Ireland is delivered by statutory emergency services (HSE National Ambulance Service, Dublin Fire Brigade and the Defence Forces), GPs, lay volunteers and a small number of volunteer doctors tasked by the HSE National Emergency Operations Centre. In recent years HIQA, HSE and Department of Health commissioned reviews have commended the work of those providing this care but criticised the systems issues that prevent international benchmarks being met^{ii iii}. HIQA's 2014 report identified deficiencies in staffing, governance, patient safety, inter-agency co-operation and funding, with progress reported in 2017.

Each year Ireland's ambulance services respond to thousands of life-threatening emergencies. Sudden cardiac death (2,300 resuscitation attempts in 2017)^{iv} and injury and poisoning (1,300 deaths in 2016)^v together account for over 10% of all deaths in Ireland annually (30,000 in 2016)ⁱⁱ. In 2016, 68.5% of deaths among men aged 15-34 were due to injury or poisoning (opiates/polypharmacy)ⁱⁱ. High quality pre-hospital care which is well integrated into the health care system can make a significant impact – the Irish healthcare system is taking steps to address this challenge but much more remains to be done.

Sophisticated pre-hospital emergency care systems are required to support the major 'high-impact' initiatives now planned for the Irish health service, most of which focus on centralised provision of specialist medical care. These include the National Trauma System (Cork and Dublin Major Trauma Centres with associated Trauma Units), the National Children's Hospital (Dublin) and enhanced early care for heart attack and stroke. Together with the 'day-to-day' workload of acutely ill and injured patients, all require the early identification, stabilisation, transport and handover of very ill patients, usually within critical timeframes and often over considerable distances. Major national care centres can only benefit those patients who are brought there by a sophisticated, rapidly available pre-hospital care system with the staff, skills, equipment and vehicles needed for the job. How are these targets to be met?

The selection, training and maintenance of competence of Ireland's paramedic practitioners of the future must be strengthened to better support the complex demands of this phase of care; the potential rewards of such investment

in education are significant but are not yet available in Ireland. Much evidence now shows that some patients who call for an emergency ambulance may best be managed on scene and either referred to another service or discharged with suitable advice (so-called 'Treat and Refer' or 'Treat and Discharge' procedures). Similarly, community paramedics now integrate with primary care teams in other health care systems to contribute effectively to chronic disease management and better care of acute exacerbations. 'Treat & Refer' and community paramedic systems must be implemented safely and effectively in Ireland – our overburdened primary care and hospital systems simply cannot continue to ignore the potential impact of this resource.

When a severely injured adult or a child with a critical illness may benefit from care in one of the planned specialist national or regional centres, a seamless care and conveyancing system must be immediately available. The Defence Forces have, since 2012, provided a military helicopter based in Athlone for day-time aeromedical support and Ireland's first charitable air ambulance, operated by Irish Community Rapid Response is about to begin operations from Cork; both have an NAS Advanced Paramedic on board. However, most Irish hospitals do not have helipads – only Tallaght Hospital has such a resource in Dublin (with the Mater Hospital due to come on stream in 2019) and no hospital currently has a helipad in Cork. An urgent planning and investment exercise is needed to ensure that the new hospital services in construction are served by an integrated land and air transport system with sophisticated command and control, staffed by the full range of paramedic, critical care paramedic, nursing and medical practitioners needed by the patient. Such a system is complex, dynamic and has significant cost – but without it, lives will be lost.

Integrated care has become a familiar aspiration within Irish medicine – pre-hospital emergency care can provide major benefits to our care of patients and whole communities, if its education and service needs are properly integrated into the planning and delivery of the care system of the 2020s. Support from all parts of the system for that integration - and help in meeting the tough challenges ahead - will make a real difference.

Corresponding Author:

Prof. Gerard Bury, Director,
UCD Centre for Emergency Medical Science
Email: gerard.bury@ucd.ie

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