

## Book Reviews

### THE EVOLUTION OF PRE-HOSPITAL EMERGENCY CARE: BELFAST AND BEYOND

JS Geddes, RD Stewart and TF Baskett. Clinical Press 2017, ISBN 978-1-85457-093-2. RRP £20.

The first thing to appreciate about this 191 page volume is that it is not a textbook. It was written to celebrate 2 events – the 50<sup>th</sup> anniversary of the publication in the Lancet of the famous Pantridge and Geddes paper entitled; “*A mobile intensive-care unit in the management of acute myocardial infarction*” and also the 20<sup>th</sup> anniversary of the development of a coherent system of emergency medical services in the rugged, rural Canadian province of Nova Scotia.

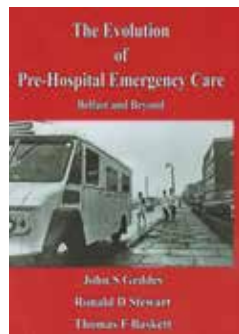
The 3 authors spent their formative years working in these 2 locations and the book is part history, part recollection of the people, times and places involved.

The story begins in 1950s North America, where the specialty of emergency medicine has not been invented yet and no self-respecting hospital doctor would willingly venture into the bear pit that was the “emergency room”. The situation outside hospital was even worse, with no organised ambulance service – just volunteers – often the local undertaker whose long hearse could at least fit a stretcher inside (conflict of interest perhaps?).

Developments in cardiopulmonary resuscitation and large cabinet-sized defibrillators led to the introduction of coronary care units by the early 1960s but the technology contained within was not available to the “man on the street” suffering a heart attack.

The Vietnam War led to better trauma/surgical resuscitation training for doctors and the US Army began training ordinary GIs to act as medical “corpsmen” who could give intravenous fluids, relieve pain and stop bleeding right on the front line – no one is sure exactly how and when, but the corpsmen started to be known as paramedics.

The returning doctors and paramedics could see that the American pre-hospital and emergency department system was deeply flawed but administrators and legislators wouldn’t change things without a proven intervention that could save lives.



The story then moves to Belfast and the recollections of Dr John Geddes, at that time SHO and then registrar working with Professor Frank Pantridge. The development of the portable defibrillator and cardiac ambulance are detailed – some facts were new to me – for example, Pantridge wrote to NASA asking for release of advanced miniaturised capacitors necessary for the electrical circuits in the portable defibrillator. NASA agreed and thus, Belfast stole a march on several American universities working on the same project!

Papers on the introduction of the cardiac ambulance system, successful pre-hospital defibrillation and autonomic disturbance early in myocardial infarction were produced but received a lukewarm reception in the UK.

In the USA however, this potentially life-saving innovation was exactly what was needed to persuade the authorities to upgrade and enhance the ambulance system and introduce trained paramedics to intervene on the scene rather than just drive the patient to the hospital.

The book then goes on to chart the pioneers who developed both prehospital coronary/trauma care in North America and modernised emergency departments in certain major cities before finally focusing in on rural Nova Scotia which covers a vast swathe of territory.

The final chapter is a short biography of Frank Pantridge.

I enjoyed the story of the early pioneers of CPR – I was familiar with some of the names but not their important work. The Belfast chapters were before my time in RVH Cardiology but I found myself laughing at medical and nursing staff being timed as they sprinted down from the ward to the ambulance pickup point – anyone too slow was expected to get fitter! It was also interesting to note that the original service was limited to GP phone calls only and the idea of the public phoning for this premium service was initially dismissed.

I was very much aware that the Belfast model did not really catch on in the UK but I truly didn’t understand why it was embraced so much in North America until I read this book – the American system just needed one worthwhile intervention to modernise the entire system and make use of the returning veterans both medical and paramedical.

A worthwhile read for those with an interest in the history of Belfast Cardiology, CPR and pre-hospital care in the widest sense.

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