

The changing interface between specialist cardiac nurses and their emergency department colleagues in managing patients with suspected cardiac pain.

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## Background

The impact of specialist nurses on skill retention, expertise and job satisfaction of 'generalist' nurses – and of course on patient experience and outcome- continues to be the subject of comment (Castledine XXX Wright XXX Newell 2003). We explore here the specific issue of the expansion of specialist cardiac care (CCU) nurses being placed within accident and emergency (A&E) departments in England in response to professional and Governmental drivers to reduce delay to treatment of acute myocardial infarction (MI).

The lifesaving potential of thrombolytic therapy in the setting of (MI) is well established (Fibrinolytic Therapy Trialists' Collaborative Group 1994, National Institute for Clinical Excellence 2002). Time from onset of symptoms to commencing administration of thrombolytic treatment, where indicated, is an important determinant of outcome. Increasingly, 'thrombolysis' is being administered in the Accident and Emergency (A&E) department although this was relatively uncommon only a few years ago (Hood et al 1995, Quinn 1998).

In England, the Department of Health (2000 a, 2000b) have mandated provision of thrombolytic treatment in the majority of A&E departments since this is where most patients with MI are first seen in hospital, and delays associated with arranging admission to a cardiac care unit (CCU) can be significant (Birkhead 1997??). So-called 'fast track' systems purporting to solve this problem by identifying patients for early transfer have reported delay far in excess of recommended 'door to needle' times (Pell et al). The National Service Framework (NSF) (Department of Health (2000 a) set out national standards for emergency cardiac care (box) with particular emphasis on the delivery of standards derived from guidance published by the Royal College of Physicians (1994), European Society of Cardiology (1996, 1998, 2002), and other professional bodies.

Part of the response to requirements for faster heart attack care has been the development of a range of nurse-led models, ranging from the placing of cardiac care (CCU) nurses in A&E to support development of A&E nurses in improving knowledge and skills in this area of practice (Kendall and McCabe 1996?) through to recruitment of teams of 'thrombolysis nurses' solely responsible for assessing chest pain patients and initiating thrombolytic therapy under Patient Group Directions (PGDs) where appropriate. Many of these initiatives predate publication of the NSF with some 16% of hospitals reporting some form of 'nurse-led' thrombolysis in operation by mid 2000 (Royal College of Physicians 2001). Other initiatives to reduce delay include empowerment of A&E doctors to prescribe thrombolysis without the need for prior assessment by 'on take' medical firms (xxxx) but these are outside the scope of this paper and are not considered further.

While published reports attest to the effectiveness of cardiac nurses in expediting thrombolytic administration in A&E, this needs to be balanced against the potential for A&E nurses to become deskilled in this vital area of practice (although of course the first priority must be to improve the patient experience and outcome). Deskilling of A&E nurses may give rise to problems when patients with chest pain 'out of hours' when the specialist cardiac nurses are not on duty (all published reports show significantly faster thrombolysis times when the cardiac nurses are available); patients may be therefore be disadvantaged by not receiving the same level of skill facilitating their treatment.

The evolution of A&E nurses from a focus on trauma management to wider emergency care seen in recent years has in part been a response to the changing nature of patient casemix seen within A&E, with the majority of patients presenting with 'medical' as opposed to 'trauma' complaints. Moreover, chest pain is one of the commonest reasons for attendance [data from Manchester/Sheffield paper perhaps] although clearly not all such patients with have sustained MI.

Is research on cardiac nurses decision-making generalisable to A&E nurses?

Cardiac nurses' ability to discriminate between thrombolysis eligible and ineligible patients has been tested using clinical vignettes (Quinn, MacDermott and Caunt 1998). This study, however, was performed prior to the wider use of thrombolysis in A&E consequent upon the NSF, and Loveridge (2002) has argued that useful information on A&E nurses' assessment skills could readily be assessed were Quinn et al's work be replicated with a focus on A&E nurses. This emerging theme of refocusing research from the narrow confines of the CCU to the A&E setting is supported by Goodacre et al (2003) who undertook a national survey of A&E management of patients with chest pain in the UK.

There is a growing evidence base for the effectiveness of 'thrombolysis nurses' in reducing treatment delays. The impact of such strategies on knowledge, skill retention and job satisfaction of A&E nurse has yet to be explored. With Emergency nursing now considered a speciality in its own right, Heartfield (2000) argues that A&E nurses need to develop and maintain expertise in many fields, including triage, 'nurse practitioner' skills alongside skill in trauma and cardiac care.

Some commentators (Castledine 2000, Newell 2003) argue that the development of specialist nurses may be counterproductive and diminish the effectiveness of the generalist. However little empirical evidence is provided to support these statements. Certainly the expanding range of 'specialist' nurses appearing in the emergency department has been questioned (Wright REF).

The other factor influencing the swift assessment of cardiac patients is that A&E nurses also have to be responsible for all the other patients within the department, where the number of patients with chest pain can remain minimal. The role of the "thrombolysis nurse" can be perceived, as being more effective than that of the A&E nurse, as the A&E nurse has to prioritise the other patients presenting. This was also the view of Geggie (2002) who also questions as to what happens to the other critically ill patients in the department when there is a greater emphasis on assessing the "cardiac" patient. To meet the proposed targets for April 2003 a concern could be that the times may be met but to what cost to the other patients within the department?

Further research is needed to determine the skills of the A&E nurse in selecting eligible patients for thrombolysis with a view to meeting the April 2003 targets, but not only considering their skills, but the effects upon them as individuals acquiring further expertise within a growing specialty of emergency care.

And of course the assessment of patients with chest pain is not confined solely to the identification of those eligible for immediate thrombolysis (although this is acknowledged as the main driver in many settings). With chest pain such a common reason for attendance [data from

ESC TF on chest pain and also Manchester/Sheffield stuff] then ruling out first MI then cardiac pain is an important part of emergency care. The potential to identify patients who could safely be cross-referred to a Rapid Access Chest Pain Clinic [Edinburgh and Belfast refs somewhere!]

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