

Cost-effectiveness of paramedic practitioners attending older people

This cluster randomised-controlled trial is the latest in a series of papers examining the outcome of the introduction of a paramedic practitioner service aimed specifically at the care of older people with minor injuries and illnesses. As such it forms part of one of the most thorough and scientific evaluations of a health service development and serves as an excellent example to health service managers, commissioners and policy-makers alike. All too often it is said that good prehospital research is impossible to do—this demonstrates that with the appropriate skill mix and motivation this is not the case, and of course users of emergency and unscheduled prehospital services deserve to be provided with evidence-based care to the same extent as other NHS clients.

This trial compares the costs of providing a paramedic practitioner (PP) service with usual ambulance care. The authors report that while PPs had a greater contact time they reduced the proportion of emergency department (ED) admissions from 84% to 53% of cases attended, and significantly reduced the amount of time spent in the ED by patients that they did refer (potentially aiding the 4-hour target to be met?). The authors also include the cost per QALY is lower with PPs compared to normal systems.

It's worth noting that in 2005 the DH document *Taking Healthcare to the Patient* focused on ambulance services implementing the type of strategies described in this paper for minimising unnecessary ED admissions. Although some progress has been made this has been fragmented and, despite the adoption of widely varying approaches, no other system has been subjected to an equally rigorous evaluation. Even more disconcertingly, anecdotal reports suggest that in several ambulance services the development of PPs has all but stalled due to the need to meet the extremely challenging and resource-hungry response time targets

imposed by the DH "Call Connect" policy. If there is any patient group that will benefit from this policy (and there is no evidence to support the supposition that any will) it will not be the 50% of 99 users taken to EDs and discharged with no significant treatment or referral ... (see page 446).

Paramedic-led thrombolysis is safe and effective

This observational study reviewed the effectiveness and safety of paramedic-led prehospital thrombolysis over a 39-month period, placing it into the context of the implementation and governance of this initiative. Prior to the commencement of this service, only 25% of STEMI patients in the region received thrombolysis within 60 minutes. When prehospital thrombolysis was first being considered as a strategy, local CCUs declined to provide advice to ambulance crews on whether individual patients were appropriate for prehospital thrombolysis. Instead paramedics were required to fax an ECG and history to one of five clinicians within the ambulance Trust who approved administration of the relevant drugs. Although this perhaps stretches the definition of paramedic-led thrombolysis, it is evident that the ambulance trust established a system in which the responsibility for decision-making did not need to be shared with outside organisations.

The authors report that 53% of the patients transported to hospital who had an admission diagnosis of acute myocardial infarction received thrombolysis in the prehospital setting, although this required a local adjustment to the national Joint Royal Colleges Ambulance Liaison Committee guidelines for prehospital thrombolysis, as these appeared to result in an over-exclusion of patients. Of those receiving prehospital thrombolysis and where the information was available, 81% had a call-to-needle time of less than 60 minutes. Administration of a lytic was felt to be inappropriate in approximately 1% of patients, although no patient died in this group. Overall mortality was 10% and this was strongly related to increasing

age and the occurrence of cardiac arrest, and the incidence of side effects such as bleeds and cerebrovascular events was less than 2% for each condition.

Although this study identifies that the introduction of a new treatment into ambulance services can be effective it emphasises the need for ongoing evaluation as part of a strong governance system, with adjustments being made to clinical policies in response as findings are made (see page 452).

An ED intervention to protect children at risk of significant harm

This paper describes an intervention made in response to a potential deficit in the number of children attending an ED referred to social services as being at risk of harm. The authors identified that, although it was known that children of parents with mental health problems were at risk of abuse, there was a gap in ED policies relating to reporting of this risk when parents had been admitted following an episode of deliberate self-harm. A one-month audit found that a high proportion of adult self-harmers were not asked by ED staff if they had children, and that even when these data were gathered the rate of referral to social services was low. The team subsequently introduced an intervention which included sending a "cause for concern" notification to the Child Protection Team for all such cases. The effect of this implementation was then re-audited—an important step often overlooked—and concerns were identified about possible over-referral. These were considered and ultimately no change made to the blanket referral. A further re-audit was then undertaken which showed a high level of compliance with the referral policy. This paper provides an excellent "best-practice" example of the audit cycle—identification of a problem, implementation of a solution, assessment of the efficacy of the solution through re-audit, and ongoing audit. Importantly, this audit did not focus simply on compliance with the new policy, but also on its efficacy (see page 415).