THE UNIVERSITY of York
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Consolidating urgent care services

- South Tyneside CCG is considering implementing an "urgent care hub", locating out-of-hours provision on a single site adjacent to an accident and emergency department.
- We did not find any systematic reviews assessing the effectiveness of a single site "urgent care hub".
- Reviews assessing strategies for triage and treating non-emergency cases presenting to emergency departments may inform elements of a single site hub.
- We found evidence that suggests triage liaison physicians, working in a team or alone, and fast-tracking patients with less serious symptoms both reduce emergency department waiting times and length of stay.
- Evidence from a small number of poor quality studies suggests that rapid assessment zones and employing general practitioners and nurse practitioners in emergency departments may improve the flow of non-emergency cases through the department.
- The evidence about the safety and cost-effectiveness of any of these strategies is lacking.

This evidence briefing has been produced for South Tyneside CCG by the Centre for Reviews and Dissemination (CRD). Full details of methods are available on request (paul.wilson@york.ac.uk or duncan.chambers@york.ac.uk). The content of this briefing was judged to be up to date as of November 2013.

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Background

South Tyneside CCG is considering implementing an “urgent care hub”, consolidating out-of-hours provision on a single site adjacent to an accident and emergency department, with front door triage assessing patients for both facilities. Back door ambulance deliveries would also be assessed with patients redirected to the out-of-hours service as appropriate. The scope of the review is defined as follows:

Population: General population in the UK or other developed countries

Intervention: Single urgent care setting with triage to appropriate services, for example walk-in centre, general practitioner, casualty

Comparator: Urgent care delivered across more than one setting, including walk-in centres, minor injuries units, GP out-of-hours provision, accident and emergency departments.

Outcomes: Including but not limited to: A&E attendances; unplanned hospital admissions; any measures of patient safety; patient satisfaction; any measures of costs or cost-effectiveness.

Methods

This briefing is a rapid appraisal and summary based mainly on existing sources of synthesised and quality-assessed evidence, primarily systematic reviews and economic evaluations. It is not a systematic review and we have not carried out exhaustive literature searches.

Systematic reviews and economic evaluations have been identified by searching the following sources:

- DARE (quality-assessed systematic reviews of interventions)
- Cochrane Database of Systematic Reviews
- NHS EED
- CRD HTA database.
- Health Systems Evidence (Canadian database which includes reports and policy documents as well as systematic reviews)

The scope of the above search was relatively broad and included any synthesised evidence that addresses models of provision of urgent/ care and its interface with emergency care that could be relevant to the UK NHS.

We also searched the following selected websites to locate any reports of relevant evaluations in UK settings:

- Kings Fund
- Nuffield Trust
- RCGP
- BMA

Evidence base for effectiveness

We found no systematic reviews that assessed the effectiveness of a single site urgent care "hub".

However, efficient triage and managing the flow of patients through appropriate urgent care services will be important in developing an urgent care hub. We found 18 potentially relevant systematic reviews on these topics, and one narrative, non-systematic review about integrated out-of-hours provision in The Netherlands.[1-19] The topics of these reviews are inter-related and we have focused on the eight most relevant and up-to-date reviews.[1-8]

Triage

We found two reviews that assessed the effectiveness of strategies to improve the accuracy and efficiency of triage.

One systematic review of 28 studies that specifically looked at triage liaison physicians in emergency departments, either working as part of a triage team or on their own, found reductions in waiting times and length of stay compared to usual nurse-led triage, despite there being variation in the experience and responsibilities of the triage physicians across the included studies.[1] In a review that looked at various emergency department "throughput" interventions, one intervention considered was "team triage", where the team included a physician with the aim of improving the accuracy of the initial patient evaluation. Evidence from three studies suggests that team triage reduced waiting times and emergency department length of stay.[2]

Strategies for treating non-emergency cases presenting to emergency departments

Five systematic reviews found mixed effects for the effectiveness of the following strategies: embedding GPs or nurse practitioners in emergency departments to treat non-urgent cases, fast-tracking patients with less serious symptoms, and treating more complex ambulatory emergency cases in rapid assessment zones.

One systematic review with three included studies found evidence that GPs working in emergency departments ordered fewer tests and X-rays, admitted fewer patients and made fewer referrals than emergency professionals.[3] However these positive effects highlight the need for accuracy in the initial triage process; the two studies that showed beneficial effects triage was done by trained nurses and in the one study that showed no difference it was done by receptionists. A rapid review exploring the interface between primary and emergency care similarly found that GPs working in emergency departments undertook fewer tests and made fewer referrals.[4] This review also found that redirecting patients away from the emergency department to primary care had variable results in terms of future emergency department attendances and safety. The majority of studies seemed to redirect patients to primary care services off-site. However in the two studies where location of the primary care service was clear, redirection reduced emergency department utilisation and increase primary utilisation whether the primary care service was co-located or off-site.

A 2009 systematic review examined the effectiveness of nurse practitioners compared with junior doctors in treating patients with minor injuries in emergency department settings.[5] Based on evidence from poor quality studies, the review found no significant differences in rates of follow-up or significant errors. There was evidence that nurse practitioners reduced patient waiting time for assessment and treatment and overall length of stay in

the emergency department, although this was derived from lower quality studies. Patient surveys indicated high levels of acceptance of treatment by a nurse practitioner and satisfaction with the treatment received.

One recent systematic review evaluated various interventions to improve patient flow through the emergency department.[2] The authors found that "fast-tracking" patients, a separate process for handling patients with less serious symptoms, reduced waiting times and emergency department length of stay. In the majority of the studies a triage nurse usually decided which patients to fast-track.

The effectiveness of rapid assessment zones or pods to decrease overcrowding in emergency departments was evaluated in one systematic review.[6] Rapid assessment zones are emergency department spaces adapted for treating patients with more complex acute ambulatory emergency patients than the typical fast-track patient, where assessment and procedures can be performed in a chair or stretcher. Evidence from the four included studies suggests that rapid assessment zones reduce waiting times and length of stay.

Evidence about the safety of physician or team triage and strategies for treating non-emergency cases presenting to the emergency department, in terms of mortality and adverse events, is particularly lacking. It should be noted that none of the reviews were specifically about out-of-hours provision although some of the patients included in some of the studies included in the reviews were treated out-of-hours.

Integrated out-of-hours provision

A non-systematic (but likely to be thorough) review evaluating the Dutch integrated out-of-hours system[7] is included here because, although insurance-based, the Dutch system in many ways resembles the UK NHS.

The Dutch out-of-hours system is organised around large GP co-operatives based in or near a hospital, with distances to a co-operative being no more than 30 km. Patients can attend either the co-operative or the emergency department or access the co-operative service by telephone with consultation/triage by nurses supervised by GPs.

Research summarised by Giesen et al. suggests that this model of care is popular with GPs and patients. A prospective study of 1145 patient records found a patient safety incident rate of 2.4%, most of which did not result in harm to the patient. Telephone consultation/triage was considered to be the most complex and vulnerable part of out-of-hours care. The use of a 'telephone physician' to support nurse triage was associated with an increase in consultations handled by telephone alone and a decrease in home visits.

Giesen et al. state that increasingly co-operatives and emergency departments are integrating, with one front office for patients. Following triage patients are sent to a primary care physician in the co-operative or to a specialist in the emergency department. There was no information about the outcomes of integration, however the review authors suggest it could decrease the number of self-referring patients making unnecessary use of the emergency department. The authors also highlight the importance of the development of a national triage system for acute care (the Dutch Triage Standard), to improve the efficiency and accuracy of triage for integrated out-of-hours care.

Cost-effectiveness

We found no evidence about the cost-effectiveness of a single site urgent care “hub”. There is very limited evidence to suggest that there is a cost-saving for GPs working in emergency departments.

One economic evaluation found that adding a GP to an emergency department is cost-effective[8] reporting a per-patient saving of €71 (95% confidence interval €23 to €121). However the study, conducted in The Netherlands, only considered the cost of GP staffing between 10am and 5pm and so the reported cost savings may not be applicable to a UK out-of-hours service.

Additionally, one systematic review reported a cost-saving for GPs working in emergency departments.[3] However this is based on 1991 costs from one study with GPs in emergency departments between 10am and 9pm. The rapid review that reported on GPs working in emergency departments did not undertake formal cost-effectiveness analysis but suggest that cost benefits may exist although the evidence is weak.[4]

Implementation

We identified one report of a survey of different models of primary care operating within or alongside emergency departments.[20] The authors noted that initial reception process is critical to ensuring that patients are directed to the correct service. They also noted that services need to work together at busy times, which requires significant communication and planning.

Health equity

No relevant evidence relating to impact on patient experience or equity of access was identified found. Concentrating services on a single site may impact upon patient experience; access, parking and travel time are all factors that could be adversely affected. There may also be a transfer of social and economic costs to some vulnerable groups caused by the withdrawal of a service from people in a particular area. Consideration of these issues will be necessary if OOH is delivered in one location.

Implications

We found no evidence that assessed the effectiveness of a single site urgent care “hub”. We found some evidence about strategies to improve triage and the flow of patients through emergency departments that may help inform the development of a single site urgent care “hub”.

There is some evidence to suggest that triage liaison physicians, working in a team or alone, and “fast-tracking” patients with less serious symptoms, reduces emergency department waiting times and length of stay.

There is no up-to-date cost-effectiveness evidence relevant to the UK NHS about strategies to improve triage and the treatment of non-emergency cases presenting to emergency departments.

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