Conclusion A high DOW increased the odds for hospitalisation five-fold. DOW could be beneficial in supporting assessment and clinical decision-making in telephone-triage as well as directly involving the caller in the decision-making process.

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Conflict of interest None

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68

RISKS AND BENEFITS USING A MOBILE-PHONE POSITIONING SYSTEM TO ACTIVATE LAY VOLUNTEERS TO OUT-OF-HOSPITAL CARDIAC ARRESTS

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Aim The 'HeartRunner'-system is a mobile-phone positioning system that activates lay volunteers (heart-runners) to retrieve a publicly accessible automated external defibrillator (AED) and start resuscitation in out-of-hospital cardiac arrests (OHCAs). We investigated the risks and benefits of the HeartRunner-system.

Method In cases of suspected OHCA, the Emergency Medical Dispatch Centre activates the HeartRunner-system which automatically alerts heart-runners <1,100 m from the OHCA. After the alarm, all activated heart-runners receive an electronic survey regarding system functionality and physical and psychological impact of the experience. Data was collected from September 1 st to December 31th 2017.

Results In 273 cases, 1215 heart-runners were activated and received the survey. The response rate was 94.5%. Of 672 accepting the alarm, 69.6% (n=468) arrived at the OHCA. Of those, 32.3% (n=151) arrived prior to the ambulance, which was in 36.3% (99/273) of all cases. In 14.3% (n=39/273) of the cases, a heart-runner applied an AED, and in 28.2% (n=11/39) defibrillated the patient. Only 0.4% (n=3) reported minor physical injuries, and 0.7% (n=5) reported severe psychological distress. They were subsequently debriefed by health care professionals and screened for post-traumatic stress symptoms; one person showed signs of moderate distress.

Conclusion Using a mobile-phone positioning system, heart-runners were able to arrive prior to the ambulance in one third of all cases. Of those, every fourth applied an AED of which 28.2% defibrillated the patient. It seems physically and psychologically safe for heart-runners to attend in OHCA resuscitation.

Conflict of interest None

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69

PRE-HOSPITAL PAEDIATRIC PAIN MANAGEMENT IN THE LONDON AMBULANCE SERVICE

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Aim In 2006 the London Ambulance Service (LAS) developed a laminated card to allow for better pain assessment for children. The card contained a faces-based scoring system used in hospitals.¹ LAS paediatric pain assessment and management was reviewed in 2012 demonstrating improvement in assessment of pain as a result of the card. Administration of pain relief also improved, however further progress was needed in analgesia provision and immobilisation. Following the review, paediatric pain management and immobilisation was included in LAS clinical training sessions, and a paediatric immobilisation equipment review was conducted. This project aimed to determine whether these additional initiatives further improved paediatric pain management.

Method A retrospective review was undertaken of 229 clinical records from October 2014 to January 2015 for patients aged 12 years and under whose primary complaint was a possible fracture or dislocation. Clinical records were compared with national clinical practice guidelines for paediatric pain management.

Results Findings showed nearly all patients had a pain assessment recorded (n=223, 97%), an improvement sustained from 2012 (+34% since 2006). We found an increase in the percentage of children having their injury immobilised (+22% since 2012; sustained from 2006; n=90/216, 42%) and being given analgesia when required (+18% since 2012; +61% since 2006; n=170/209, 84%).

Conclusion The systematic cyclical process of reviewing care, implementing change and re-measuring, whilst resource intensive, has demonstrated huge improvements in paediatric pain management over time.

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70

THE DIGITAL AMBULANCE: ELECTRONIC PATIENT CLINICAL RECORDS IN PREHOSPITAL EMERGENCY CARE

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Aim Electronic Records in Ambulances (ERA) is a two-year study examining the opportunities and challenges of prehospital implementation of electronic patient clinical records (ePCR) in the UK. National policy encourages digitisation of health services,¹ but this transition may not be straightforward.²

Method A telephone survey of progress implementing ePCR in all 13 UK ambulance services explored systems, implementation processes, perceived value and future plans. Interviews with information managers were thematically analysed. Case