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Abstract

Background The introduction of information technology (IT) in emergency ambulance services to electronically capture, interpret and store patient data can support out of hospital care. Although electronic health records (EHR) in ambulances and other digital technology are encouraged by national policy across the UK, there is considerable variation across services in terms of implementation. We aimed to understand how electronic records can be most effectively implemented in a pre-hospital context, in order to support a safe and effective shift from acute to community-based care.

Methods We conducted a mixed-methods study with four work packages (WPs): a rapid literature review, a telephone survey of all 13 freestanding UK ambulance services, detailed case studies in four selected sites, and a knowledge sharing workshop.

Results We found considerable variation in hardware and software. Services were in a state of constant change, with services transitioning from one system to another, reverting to paper, or upgrading. Ambulance clinicians were dealing with partial or unclear information, which may not fit comfortably with the EHR. Clinicians continued to use indirect data input approaches such as first writing on a glove. The primary function of EHR in all services seemed to be as a store for patient data. There was, as yet, limited evidence of their full potential being realised to transfer information, support decision making or change patient care.

Conclusions Realising the full benefits of EHR requires engagement with other parts of the local health economy, dealing with the challenges of interoperability. Clinicians and data managers are likely to want very different things from a data set, and need to be presented with only the information that they need.

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