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Conference Abstract

Directing specialist care through alerting to mobile devices

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Abstract

Introduction: There have been significant advances in Information Technology (IT), with increasing power of computing devices, ease of access to the Internet and the proliferation of smartphone technology. In routine clinical practice we are becoming more dependent on IT to deliver patient care and access information in real-time. With improved access to IT via smartphone technology we have the ability to deliver the correct information to the right person instantly, to significantly improve clinical care and patient safety.

Here we report the collaborative development of specialist admission alerting via smartphones between clinicians at EKHUFT and the healthcare specialist IT company DocCom.

Aims and Objectives: This development followed a clinical incident in which a renal transplant patient was admitted to a general medical ward and prescribed incorrect doses of immunosuppressive medication, without the specialist renal team being aware of the admission.

The aim of this work was to develop and implement a system to alert specialist teams to the hospital admission of a patient under their care within minutes of admission.

Methods: Data from the Patient Administration System (PAS) at EKHUFT was used to detect admissions to the Trust. Software was written at EKHUFT to cross-reference these new admissions to a database of specialist patient group. If a patient was present in a specialist patient group when they were admitted, an alert was generated. This alert (containing patient identifiers, admission time and location, and data on re-admissions) was delivered automatically in real time to the DocCom Application Programming Interface (API) in the cloud. The risk of holding patient identifiable data (PID) in the cloud (allowing access both within and outside of N3) was mitigated by the appropriate use of encryption. DocCom is ISO 27001 certified and holds an NHS Information Governance Statement of Compliance (IGSoC).

All medical staff, along with specialist nurses, at EKHUFT are supplied with Apple devices. The DocCom 'Careflow' clinical social networking and alerting ('Notify') app was deployed to all members of the renal specialist multi-disciplinary team.

Results: This alerting technology was initially implemented in the renal team at EKHUFT, and has subsequently been delivered to other specialities including oncology (importantly including patients on chemotherapy), learning disability, dementia and microbiology (alerting to patients with previous CDiff or MRSA allowing effective preventative strategies to be implemented immediately on admission), and has revolutionised specialist intervention, changing the lead time for specialist intervention in a patients care from hours to a matter of minutes. The innovative clinical social networking and collaborative tools within the platform allow effective closure of the clinical alerting loop by allowing users to see who has seen each alert and when, and make comments on an alert that are viewable by all members of the team.

Conclusions: This work demonstrates the potential gains in both improving quality of care and patient safety by clinical innovation and the use of IT in healthcare achieved by an active collaboration between clinicians and IT specialists. We have successfully delivered clinical admission alerting to specialist patient admissions through an innovative clinical alerting and socialisation app via smartphone technology.

Keywords

alerting; mobile; patient; safety; real-time

PowerPoint presentation:

https://www.conftool.pro/digital-health-care-2014/index.php?page=adminPapersDetails&path=adminPapers&form_id=37
