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Conference Abstract

Mersey Micro - Antibiotic prescribing in a mobile world

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Abstract

Introduction: With the advance of agile technology almost 100% of clinicians carry a device either smartphone or tablet. These devices have capability and capacity superior to many of the systems in place in the NHS, yet we do not harness that potential to improve the working lives of staff, and support the care we offer patients.

One of the major threats we face in the NHS is our management of infection in the face of increasing antibiotic resistance (Health Protection Agency). It is essential that our clinicians have access to reliable, current information that is easily accessible. Printed antibiotic policies are often obsolete as soon as released. E-policies on a hospital intranet are frequently difficult and time consuming to access.

Aims and Objectives: Our solution was to develop an App version of our antibiotic policy that also incorporated antibiotic calculators to support timely prescribing and reduce drug errors. This has been deployed across the trust to all clinical staff.

Mersey Micro was developed by the Informatics Department at St Helens & Knowsley Teaching Hospitals NHS Trust with strong clinical leadership to shape a project with high quality functionality at its heart. The App is web hosted to ensure it functions on every device including desktop computers, with a cache function that still allows full performance when out of Wifi/3G range. Furthermore, this allows any update to policy to be instantly deployed to every device obviating the need for any 'update' function.

We have developed a parallel project to assess impact through audit of patient outcomes and prescribing errors, as well as partnering with the University of Manchester Business School, PhD student Athanasia Daskaloploulou is performing a Usability Study through Heuristic Evaluation and Usability Testing.

Results: The product was developed and launched in 9 months from concept to download, and is in use across 700 clinicians.

Discussion: There are a number of antibiotic prescribing policies in app format. None incorporate the calculators we developed (and regulated with MHRA to carry a CE Mark as a medical device).

We are driving a culture change in the organisation where agile technology becomes the norm for our clinicians, and importantly, our patients recognise doctors using this technology to support care. Surveys of staff reveal high satisfaction and have lead to a portfolio of apps, both clinician and patient facing to begin development as colleagues come forward with bright ideas. We are now collaborating with a number of Trusts to look at sharing the innovation and tailoring it to local policy.

The combination of a clinician lead project with detailed analysis of use and impact represents a gold standard in clinical support app development.

Keywords

microbiology; antibiotics; app; mobile

PowerPoint presentation:

https://www.conftool.pro/digital-health-care-2014/index.php?page=adminPapersDetails&path=adminPapers&form_id=57
