

P2100

Abstract (poster session)

**Imperial antimicrobial prescribing policy: harnessing smartphone technology to develop a clinical decision support application for the antimicrobial prescribing policy of a multicentre university teaching hospital**

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Objectives: Provision of local policy and guidelines has been shown to be an effective means of promoting prudent antimicrobial stewardship. At Imperial College Healthcare NHS Trust (ICHNT) the local antimicrobial prescribing policy is available to clinicians in many formats including a pocket guide, poster and on the intranet. We report here on the development, dissemination and evaluation of a smartphone application, the iAPP (Imperial Antimicrobial Prescribing Policy) of the local antimicrobial prescribing policy. The iAPP was evaluated i) on whether it is an effective means of diffusion of policy at the point of care; ii) the extent to which the target group (clinicians) accessed and engaged with it; iii) clinician attitudes on the convenience and appropriateness of its use in clinical settings. Methods: Pre- post intervention surveys were used as part of the evaluation. The subjects for the surveys were junior doctors via the post-graduate medical centres and pharmacists. Focus groups informed the different stages of development. As part of a multi-modal dissemination strategy the iAPP was promoted via 1) pharmacy teaching sessions for junior doctors; 2) emails sent to all new doctors; 3) the front page of the Trust intranet; 4) a news item in the weekly paper of the Trust. Results: 93 completed the pre-intervention questionnaire. Of these 76% used a smartphone at work. The iAPP was launched on the 1st of August 2011 to coincide with the new intake of doctors, 40% (376) of whom downloaded the iAPP within the first month of release, registering 3204 individual sessions. Post-intervention (n=48), 83% found the iAPP easy to use, 85% found that it added to their knowledge base regarding antimicrobial prescribing, 96% found that it influenced their antimicrobial prescribing practice, with 70% stating that the inbuilt calculators for creatinine clearance, ideal body and obese weight dosing influenced their antimicrobial prescribing practice at the point of care. Conclusion: This work provides insights into mobile technology adoption and implementation process within the context of an AHSC, with implications for wider healthcare settings. Mobile technology, in particular the smartphone platform, offers point of care access to clinical information, data and resources, and complements the more traditional platforms of antimicrobial policy dissemination. Further work on evaluation of mobile technology as a clinical decision support system is required.