Tap & Go on the AMU: Improving clinicians' experience of Electronic Patient Records

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Methods
- A prospective cohort study looked at Tap & Go implementation in the Emergency and Acute Medical departments of two hospitals.
- 40 physicians prior to Tap & Go and 33 after, were timed and surveyed regarding EPR satisfaction and interaction.
- 60 observational recordings looking at information governance practices to ensure this was not compromised.
- Statistical significance determined at 5% using the Mann Whitney U test.

Background
Calderdale and Huddersfield NHS Foundation Trust use a multi system EPR requiring multiple credentials to use.
A systematic review demonstrated user satisfaction being reduced by:
- Slow to use EPRs that interrupted workflow. (Park, Lee, & Chen, 2012)
- Complex user interfaces (Abramson, et al., 2012)
- A lack of integration between systems (Hollin, Griffin & Kachnowski, 2012)
- Security processes increasing navigation time. (Saleem, et al., 2015)

Intervention
“Tap & Go” is a single sign on (SSO) system in which users tap their badge against proximity card readers to gain access to the computer. Credentials are then entered automatically for any system used allowing the user to seamlessly navigate between programs.

Little evidence published about SSO usage within hospitals, making evidence based procurement difficult.

Results
The time spent logging in per patient encounter improved from 30.6 seconds (IQR 23.6 - 41.0) to 21.1 seconds (17.8 - 35.4), with statistical significance in all programs examined, p<0.01.
This included the extra time spent tapping in and the usage of three common systems.
A Trust seeing 123,000 patients annually would save 323 clinician hours per year.
97% of users were satisfied with the login process compared to 7.5% prior, p<0.00.
Subjective scores matched the objective findings of users finding TNG a quicker process.
Satisfaction with the EPR increased from 40% to 94% post implementation, p<0.00.
Achieved with no detriment regarding information governance. There was a reduction of confidential data left on display, p = 0.03.

Conclusion
- Tap & Go addresses and improves the factors that may decrease satisfaction with a multisystem EPR.
- Tap & Go reduces the time spent interacting with the EPR and better suits a clinician’s workflow.
- No complex user interface or learning curve to overcome
- User satisfaction with the EPR could be increased by implementing Tap & Go.
- Larger studies would be needed to investigate if different SSO methods produce similar benefits and appraise the costs involved.

References