Managing quality, safety and promoting visibility in research using electronic health records

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Introduction
Solent NHS Trust is a community and mental health trust with services across Portsmouth, Southampton and parts of Hampshire. Qualitative responses in a trust wide staff survey carried out in 2015 identified that we needed to improve awareness of clinical research activity. The trust hosts research across all service lines, so this highlighted that there was a potential risk to the quality and safety of research conducted across geographically distinct clinical services. The primary aim of this project was to work collaboratively with clinicians to ensure that individual patients and service users who are participating in research were easily identified when attending their usual appointments with clinicians across the trust. We worked collaboratively with our Older Persons’ Mental Health (OPMH) Inpatient Unit and Musculoskeletal Physiotherapy staff (clinical areas that currently undertake interventional research), information governance and patient systems teams and a patient and public representative to identify how best to achieve the aim.

1. Factors involved in identifying patients participating in research
Discussion with clinicians revealed several drivers in knowing that their patient/service user is participating in research (Figure 1). However, it was identified that the focus of change for this project should be on the electronic health record (eHR). A single eHR (SystmOne™) has been adopted across the majority of clinical services in the trust. The research team developed and adopted a SystmOne™ unit in April 2016 in order to document research activity. This unit is used by both the core CRN-funded research team and clinicians undertaking research in their clinical areas. Discussion with clinicians identified that the consistency of documentation is key to communicating with clinicians in disparate services.

2. Using eHR to communicate with clinical teams
Three auditable standards of documentation were agreed:

- Flag on the patient record for interventional studies – free text high priority reminder (HPR) function which flashes red when activated. The reminder text is visible on the ‘front page’ of the record. Key information about the study is placed here and alerts clinicians about the need to report adverse events to the research team.
- The participant information sheet and consent form should be scanned into the record – compliance with GCP and to provide clinicians with information on the study.
- Documentation should be clear and standardised using the research template – allows clinicians to search/filter for research entries in the eHR.

In addition to standardisation, documentation, members of the core research team attended existing eHR user groups to raise awareness of research activity and demonstrate identifying whether patients attending their service are taking part in research.

3. Quality of documentation in research
Given the importance placed on the documentation of patient participation in research by the clinicians, an audit of the quality of documentation in the eHR by the research team was undertaken to identify current performance against the standards (Figure 2). It was identified that the team were not consistently working to these standards. Figure 3 shows the key reasons expressed by the research team for this. To address these concerns, a bespoke refresher training session incorporating the key standards for documentation was provided and all equipment issues discussed were resolved. A second audit 6 weeks after the training session showed that quality of documentation improved, but that ongoing support is likely to be needed.

4. Next steps
In order to examine whether the improved documentation practice of the research team enables clinicians to more readily identify patients taking part in research, a second trust wide staff survey will be undertaken. In addition, we would like to identify the effect this has in the reporting of adverse events. We will also review our practices regularly to ensure that the information shared about research participation across the trust is appropriate and meaningful to clinicians outside of the core delivery team. In time, we hope to continue to develop the research SystmOne™ unit to allow more integration with other local services and allow better communication between trusts and social care, and, most importantly, patients.

The collaborative approach adopted in this project has enabled us to create an eHR instance and standardised documentation practices to proactively communicate with clinicians about research participation across a disparate community trust.