

A benefits study of Summary Care Records use in hospital medicines reconciliation and their impact

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Abstract

Title

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Introduction

The Summary Care Record (SCR) is an electronic record developed and delivered by the Health & Social Care Information Centre (HSCIC), the national provider of information, data and IT systems for health and social care. The SCR contains key clinical information from a patient's GP record. SCRs are available to be viewed by healthcare professionals with appropriate secure access in support of unscheduled care. The SCR is being used by pharmacy teams as a source of information to help establish the patient's drug history as part of the medicines reconciliation process. HSCIC has coordinated a benefits study designed to understand the impact of SCR use on the medicines reconciliation process. This was not intended to be a formal evaluation, but rather to gather feedback from pharmacy teams who were using SCRs within their working practices to provide real-world data on the potential benefits.

Methods

A quality improvement measurement tool was developed with users to capture real-world data from hospitals. Participants were requested to collect anonymised data relating to the medicines reconciliation process for a selection of patients through non-statistical sampling.

Results

An overall sample size of 1,432 demonstrated that an average of 29 minutes was saved per patient when establishing a drugs history for medicines reconciliation. There was also a reduction in faxes and phone calls to GP practices. In addition, SCRs helped to identify more discrepancies compared to other sources of information.

Conclusion

Sharing key clinical information electronically in a timely manner and making the information more accessible through the use of SCR can help improve the efficiency of the medicines reconciliation process. There are indications that the accuracy of the process can also be improved through an increase in the identification of discrepancies.

Keywords: Information sharing, medicines reconciliation, benefits, EPR, SCR

Introduction

SCRs have been created for more than 55 million people in England i.e. over 96% of the population who are registered with a GP. Core clinical information from a patient's GP electronic record is uploaded to the SCR with the patient's implied consent. This information includes details of prescribed medication, any known allergies and any known adverse reactions to medication. Other information such as significant medical history, care plans, patient wishes or preferences can be added with the explicit consent of the patient. SCRs are available for viewing at any time, anywhere in England by authorised healthcare professionals, where viewing capability is enabled.¹

The information can only be accessed through a secure, encrypted private network by authorised, regulated professionals who have been granted an NHS smartcard (a PIN-protected access card) with appropriate permissions. There are specific processes in place to monitor accesses to SCR to ensure they are appropriate and are only made for patients where there is a clinical need. There are now over 883 healthcare locations in England with the ability to view SCRs, with weekly usage levels exceeding 58,000 views by a range of healthcare professionals, including nurses, doctors and pharmacy professionals. The Care Quality Commission (CQC) now sees evidence of use of SCRs as an indicator of an organisation's efforts to improve patient safety and quality of care² and use of SCR is referenced in NHS England's Medicines Optimisation dashboard.³

Feedback from clinical users of SCR indicates a number of benefits relating to efficiency, effectiveness, safety and patient experience. However, there is limited research on the impact of shared records within healthcare⁴ and particularly the quantification of potential benefits.⁵ A previous evaluation of SCR focussing on the social and technical barriers to the widespread adoption and use of such records indicated some early but limited benefits.⁶ Now that the programme is further on in terms of availability of records and the solution is more widely used, it presents an ideal opportunity to revisit the anticipated benefits.

SCR supporting medicines reconciliation

The SCR has been found to be useful in hospital admissions to help establish the patient's drug history as part of the medicines reconciliation process. In line with guidance from the National Institute for Health and Care Excellence (NICE)⁷ the aim is to undertake medicines reconciliation within 24 hours from admission.

The aim of medicines reconciliation on hospital admission is to ensure that medicines prescribed on admission correspond to those that the patient was taking before admission. Details to be recorded include the name of the medicine(s), dosage, frequency, and route of administration. Pharmacy teams use a range of sources to obtain accurate histories including primary sources such as the patient, their families or carers, repeat prescriptions and the patient's own drugs as well as secondary sources, commonly from the primary care record.

Traditionally, there has been a reliance on contacting the patient's GP practice to establish details of current medications and known allergies. This often involves telephoning and faxing the practice, which inevitably adds time to the process and negatively impacts on the ability to complete the reconciliation within the target timeframe. There are also clear challenges with obtaining information outside the opening hours of GP practices. By using the SCR as a source of information it is anticipated that the process of obtaining a patient's drug history will be quicker, thereby reducing the risk of incorrect medicines administration or omitted medicines.

To measure these benefits HSCIC developed and coordinated a benefits study designed to demonstrate and quantify the impact of SCR use on the process of medicines reconciliation. This study was not intended to be a formal evaluation, but rather to gather feedback from pharmacy teams who were using SCR within their working practices in order to provide real-world data on the potential benefits.

Method

A quality improvement measurement tool was developed to support this initiative. The tool was based on a data-capture form created by the pharmacy team at Leeds Teaching Hospitals NHS Trust and developed with input from pharmacy professionals from two other hospital trusts to make it more generic. The tool was designed to capture real-world data from hospital's medicines reconciliation processes. The tool was piloted by one trust and refinements made before being rolled out more widely.

13 hospital teams provided information to support the study.

Participants (including pharmacists and pharmacy technicians) were requested to collect anonymised data for a sample of patients. The approach adopted was non-statistical sampling at the discretion of the trust.

Data collected related to the following areas:

- time taken to complete drug history
- sources used to acquire drug history
- number of times GP practice contacted by telephone
- call length
- number of times GP practice contacted by fax
- number and type of discrepancies identified.

In the context of the initiative, a discrepancy was defined as an intentional or unintentional difference between the original medication information obtained (usually on a drug chart/care notes or similar) and the more detailed reconciliation.

To provide a baseline for comparison, information was captured during the medicines reconciliation process before access to the SCR was provided and then again following implementation of SCR viewing. Where pre-SCR data capture was not possible, baseline data was gathered for those patients who did not have an SCR available to view.

The data was analysed and then validated with the participating trusts.

Strengths and limitations

The study was designed to validate and measure the perceived benefits of SCR use within hospital pharmacy using real-world data from trusts who had implemented the solution. Therefore it only addresses the benefits and no other variables. The study was not intended to be a robust formal evaluation and needs to be understood within this context. It was coordinated centrally and guidance was provided, but trusts were able to interpret the guidance locally. Trusts were self-selected based on the timings of implementation activities and included trusts of various sizes from a spread of geographical locations across the country.

Results

The overall sample size of the study was 1,432. Four hospital pharmacy teams provided local data on the length of time taken to complete a drug history (n = 573) and seven hospital pharmacy teams completed the benefits study using the quality improvement measurement tool (n = 859). The benefits identified are shown in Table 1.

Efficiency

There was a clear reduction in the time taken to complete the drug history for medicines reconciliation, with an average reduction of 29 minutes per patient. The associated reduction in phone calls (31%) and faxes (19%) is likely to have contributed to the reduction in time taken. During the confirmation of the findings with individual trusts, participants described how often they are required to supplement a request

to a GP practice for a patient's medication information with a fax. This inevitably adds time to the overall process.

Accuracy

An indicator of the accuracy of medicines reconciliation is the number of discrepancies that are picked up. When sources other than SCR were used (such as the patient, their families or carers, repeat prescriptions, the patient's own drugs or contacting the GP practice) an average of 1.7 discrepancies were identified per patient. With SCR, the average was 2.2; on average 0.5 more discrepancies per patient. Whilst there are other variables to consider these initial results indicate that more medication discrepancies are identified during the reconciliation process when SCRs are used.

Discussion

The strengths and limitations of the study have been stated and the findings should be understood within this context. This study addresses only the benefits of SCR use and no other variables are considered. The initial results signpost additional themes to explore and possible subjects for further studies in this area. Of particular interest is whether use of SCR can contribute to improvements in the quality and, therefore, safety of the medicines reconciliation process. Other quality indicators could include the number of unknown allergies identified, interventions made, medication errors avoided and of, particular current relevance, whether use out-of-hours and at weekends (when GP practices are traditionally closed) could have a positive impact on the safety of prescribing.

The outputs of the initiative do indicate, however, that there are real and quantifiable benefits to be realised through use of SCR as an information sharing solution within pharmacy teams.

The results demonstrate a reduction in the time, effort and resources required to communicate key information across healthcare settings as well as potential improvements in accuracy. Reducing the time in which drug histories are established has clear benefits in reducing the likelihood of a patient receiving incorrect medication or not receiving the

medicine they should receive. Time savings also enable pharmacy professionals to spend less time on administrative activities, freeing up capacity to devote to direct patient care and improving productivity, thereby supporting initiatives designed to improve operational productivity.⁸ Some hospitals have reported that, through use of SCR, they have been able to redesign their processes so that pharmacists play a more prominent role in case management (see the case study on elderly care at

<http://systems.hscic.gov.uk/scr/library/elderlycare.pdf>).

Furthermore, some pharmacy teams are experiencing an increase in the number of patients for which they are able to undertake medicines reconciliation (see the hospital pharmacy case study at

<http://systems.hscic.gov.uk/scr/library/hosppharmacy.pdf>).

There are also wider benefits to the multi-disciplinary teams involved in caring for the patient. Being able to reduce the amount of time spent undertaking a drugs history means the clinicians accessing patient's records are more able to decide or intervene in a timely manner, be more informed of which drugs to prescribe and avoid due to potential interactions or allergic reactions; this may also allow not just pharmacy professionals but other clinicians to improve productivity by seeing more patients.

Conclusion

Information sharing to support more integrated care continues to be a challenge for the NHS and a number of IT solutions have been developed to address this. SCR is one such solution which enables the secure sharing of key clinical information from a GP practice.

This is one of the first studies to attempt to assess and quantify the impact of sharing primary care records within secondary care. The results demonstrate that sharing records electronically in a timely manner, and improving the accessibility of the information, can help realise improvements in the efficiency and productivity of medicines reconciliations processes for hospital pharmacy teams. There is also the

Area of measurement	Without SCR (i.e. using other sources of information)	With SCR
Average (mean) time taken to complete drug history	48 minutes (range 10 - 70)	19 minutes (range 7 - 33)
Average (mean) number of times GP practice contacted by phone (per 100 patients)	52 (range* 3 - 138)	21 (range* 0 - 83)
Average (mean) number of times GP practice contacted by fax (per 100 patients)	26 (range* 1 - 47)	7 (range* 0 - 19)
Average (mean) number of discrepancies identified per patient	1.7 (range 0.9 - 2.2)	2.2 (range 1.6 - 2.4)

*The variation in ranges is indicative of different business processes in place at different trusts e.g. some pharmacy teams do not routinely contact the GP by fax/phone.

Table 1: Benefits

potential to improve the accuracy, and therefore quality, of the process but further research is required in this area.

As the NHS tries to tackle the challenges of modern healthcare delivery and the emerging health and wellbeing gap; the care and quality gap; and the funding and efficiency gap as described in the NHS Five Year Forward View,⁹ further research should be undertaken to understand how information sharing solutions such as SCR can be utilised to meet these challenges – not only within pharmacy teams but across a number of care settings and a range of care professionals.

Declaration of interests

Louise Cotton has nothing to disclose.

Anna Lay has nothing to disclose.

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