

**Managing the  
Transition to  
Electronic Repeat  
Dispensing**

## Executive Summary

***“The volume of medicines issued as repeat medicines to patients managing long term conditions grows each year. 77% of the over 1 billion prescriptions dispensed in England are repeat prescriptions.” (1)***

This report uses data from observations in 2 practices in the Wessex area to highlight the benefits of making a transition from paper based repeats to electronic repeats, particularly focusing on the potential benefits that moving to electronic repeat dispensing can offer.

Most practices receive requests for between 150 and 200 items per day, placing a significant burden on both the administrative staff and GPs who authorise these. Our experience suggests that processes are variable and in many cases, inefficient.

The observations carried out in the two practices in Wessex Academic Health Science Network demonstrate the significant time spent on repeat medicines by GPs that could be reduced by full utilisation of electronic repeat dispensing (eRD). This data effectively demonstrates that moving to a majority electronic repeat dispensing arrangement could yield savings of **46 minutes of GP time per day**.

The report provides suggestions based on observations, as to how practices could transition from paper based repeat services to a more digital environment.

There are a number of sources of support for implementation of eRD which practices and pharmacies can utilise (see Appendix 1). These will be in demand as the GMS contract for 17/18 supports the aim of moving to 25% repeat dispensing levels.

## Introduction

Medicines represent the highest healthcare intervention in terms of spend within the NHS and second highest spend overall, second only to labour. Of the £16bn spent on medicines within the last year, around £9bn is as a result of primary care prescribing of over 1bn items. Observations show 77% of these items are for repeat medication. Effective management of repeat medication processes, considering the size of healthcare intervention and spend it represents would provide significant support to improving care and reducing costs within the NHS.

Furthermore, as general practice faces growing challenges to resource from increasing patient demand, with patients receiving an average of 19 medicines per year, and diminishing recruitment there is pressure to drive efficiency within the prescribing process to ensure patient care is not negatively impacted. The considerable volume of prescribing which is focused on repeat medication means that any efficiency gains in this area would help to reduce the strain general practice is currently facing.

Finally, these pressures and challenges are present in an NHS which is undergoing constant change and looking to embrace a digital future which delivers patient-focused care, informed and made more efficient by high quality healthcare data and transformative technologies.

This report represents efforts made within the Wessex area to draw on these key themes to understand how the use of electronic repeat dispensing (eRD) can support general practice, reduce administrative burdens, and deliver digital solutions which help improve care.

## Background

This report looks to provide information on how adopting the use of electronic repeat dispensing can impact general practice resource. It also looks to explore possible methods of introducing electronic prescribing to patients, a key first step in moving away from paper based prescribing of repeat medication and into eRD. Electronic prescribing within primary care is provided through the electronic prescription service (EPS). EPS uses systems within general practice to provide a platform for electronic prescribing and the transfer of this information through to community pharmacy for dispensing. This process is currently used for around 52% (February 2017) of all items dispensed within primary care in England and is growing at approximately 1% per month.

EPS supports the two methods used for repeat medication; repeat prescribing (RP) and repeat dispensing (RD). Overall, as EPS has grown it appears that the majority of patients who have selected to use the service are those on repeat medications. This is evident through analysis of the average number of items per prescription on EPS vs paper, and also from assessment of the medicines which are prescribed electronically as those medications generally prescribed on acute prescriptions have a lower overall volume. Currently, RP is utilised to a much higher degree (approx. 60% of all EPS items) via EPS than RD (approx. 12%). Clearly there is an opportunity to increase the use of eRD, where clinically safe and appropriate, and there have been efforts within some areas to utilise the service, but as shown below uptake has not been comprehensive across England:

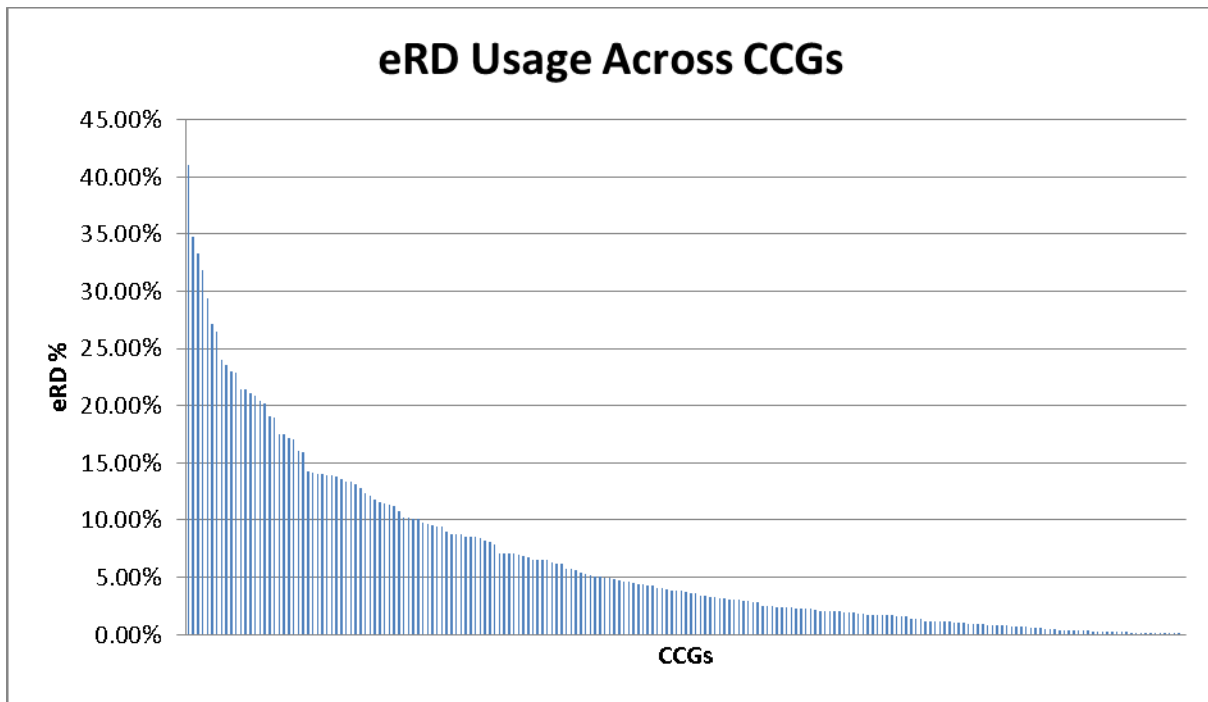


Fig 1 Spread of eRD usage across all CCGs – January 2017 prescribing

Electronic repeat dispensing has been available to practices for a number of years and yet uptake has been variable and in some areas, very low. Both the new GMS contract for 17/18 and the community pharmacy contractual framework support the increased use of eRD to drive efficiencies for both pharmacy's and practices and to improve the patient experience around repeat medicines.

Repeat dispensing specifications dictate that Pharmacy contractors are obliged to:

- dispense repeat dispensing prescriptions issued by a GP
- ensure that each repeat supply is required
- seek to ascertain that there is no reason why the patient should be referred back to their GP.

The number of medicines per head of the population has grown from 13.4 to 19.8 in the last decade. This, coupled with the fact that medicines wastage was estimated to be £300m with £150m of this considered recoverable, means there is a requirement to find a process which can ensure these volumes are needed and reduce overprescribing where appropriate. eRD supports this as the process requires pharmacists to ask the patient if all medication they are to be dispensed is required. Studies by Manchester University in Birmingham and Edinburgh have demonstrated that this process can reduce medicines spend by £550 per 1,000 prescription items dispensed. Furthermore, the Department of Health in 2002 reported that if 80% of all repeat medicines were issued using repeat dispensing, 2.7million GP hours could be saved per year.



These impressive potential savings and efficiencies are the reason Wessex AHSN is looking to increase eRD. Figures for January 2017, show that repeat dispensing in the Wessex area is at 6% which is below the national average of 9.52% for that month and well below the average achieved in some CCGs where figures are over 40%. Some individual practices have eRD as high as 62%.

The NHSBSA became involved in the project as it is a key stakeholder in EPS and the increased use of electronic prescribing in primary care can deliver significant operational savings to the Prescription Services section of the organisation. In addition, and of even greater interest are the improvements which EPS delivers to data quality. The NHSBSA is a key provider of information and insight on primary care prescribing and therefore improvements in the quality and accuracy of information will serve to enrich and streamline this procedure, particularly in relation to emerging patient level reporting. Other key stakeholders in eRD include NHS Digital who are responsible for the implementation and utilisation of EPS and have also recently developed an eRD strategy (see appendix 1).

## Approach

Wessex AHSN agreed an initial five practice project with GP sites in the area which would be carried out in late 2016 and into early 2017. The project would look to gather information on time and resource associated with the processing and issue of repeat prescriptions. This would then be followed by a period of training and implementation of eRD within the practice. Once the process was adopted and integrated the recording activities would take place again to measure the impact on time and resource of eRD. This would then form the basis for publication to promote the benefits of eRD within general practice.

The NHSBSA were approached by Wessex AHSN to carry out this recording process. NHS Digital would provide resource from their EPS implementation team to give an introduction to eRD if necessary.

In order to capture the data on pre-eRD time and resource associated with repeat processing, two colleagues from the NHSBSA were sent in to the practices. An overview of the approach is as follows:

1. Day 1 - observation only to understand details of repeat processing within practice and how best to capture information
2. Day 2 – record administrative processes associated with repeat prescriptions
3. Day 2 – arrange to observe GP signing of repeat prescription requests
4. Day 2 – detail any processes which do not support the use of EPS
5. Days 3 – 5 – repeat above

Alongside the above processes were a number of ad-hoc meetings and discussions with staff throughout the practice, including GPs and practice managers, to gain an

understanding of how repeat prescriptions and EPS impact the practice. Information on these conversations is detailed later in the report.

## Processing Repeats

Although the fundamental processes associated with repeat prescriptions will not vary significantly between practices there are details which differ between sites. Administrative tasks include:

- the inputting of repeat request information
- the collection of new repeat requests
- sorting repeat requests for pick up from the practice or pharmacy

These tasks were carried out by two members of staff in practice 1, the prescription clerk and the reception staff (sorting) and were absorbed into various roles conducted by numerous staff on rotas in practice 2.

Repeat requests can be made in a number of ways; via telephone, online ordering, using right hand side of prescription form, bespoke request slips from practice.

## Limitations

There are a number of caveats which should be highlighted here:

- The recording process was impacted by tasks underway within the practice, particularly consultations which prevented some GP observations
- The task was time limited and a longer period of observation may have delivered more robust results
- It was not possible to separate out the average time of processing paper and EPS repeats. The ability to do so would have provided more insight on the variation between the two.
- Other tasks were absorbed into the role of processing repeats in both practices and it was not possible to remove their impact from the recordings. However, this is likely to be the case throughout general practice and therefore may not impact the findings significantly.
- Practice 1 had 2 members of staff processing repeat prescriptions and carrying out other tasks. During the observation period one of these staff members was on annual leave which impacted on the role of the remaining member of staff.

## Findings

The following findings show figures captured for key metrics in repeat processing.

## Repeat Volumes

### Practice 1

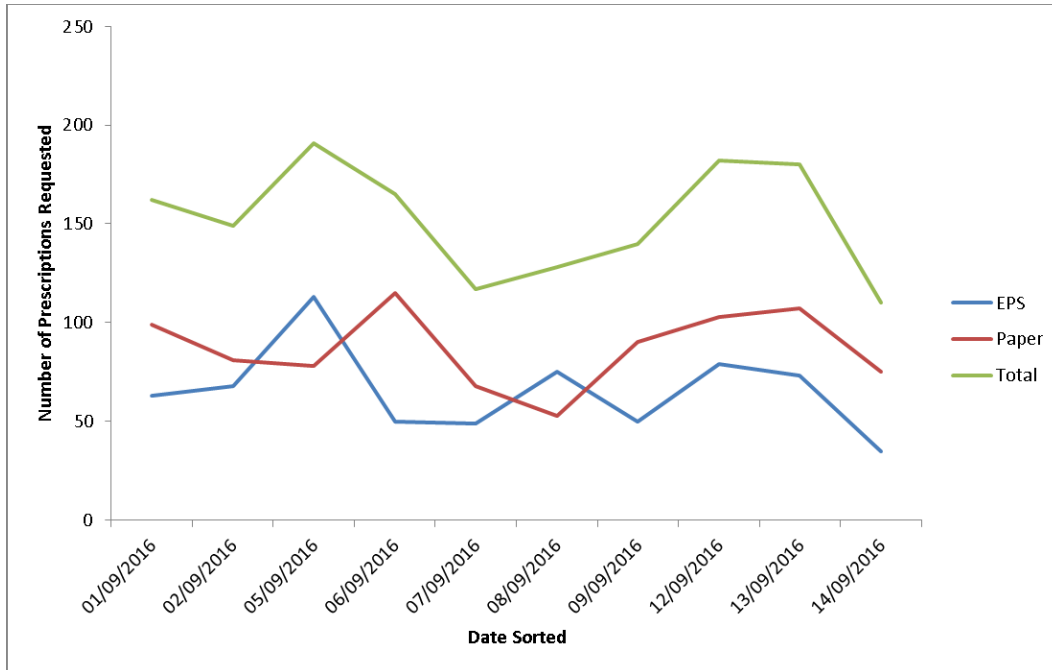


Fig 2 Repeat request volumes at Practice 1 (Paper, EPS & Total)

### Practice 2

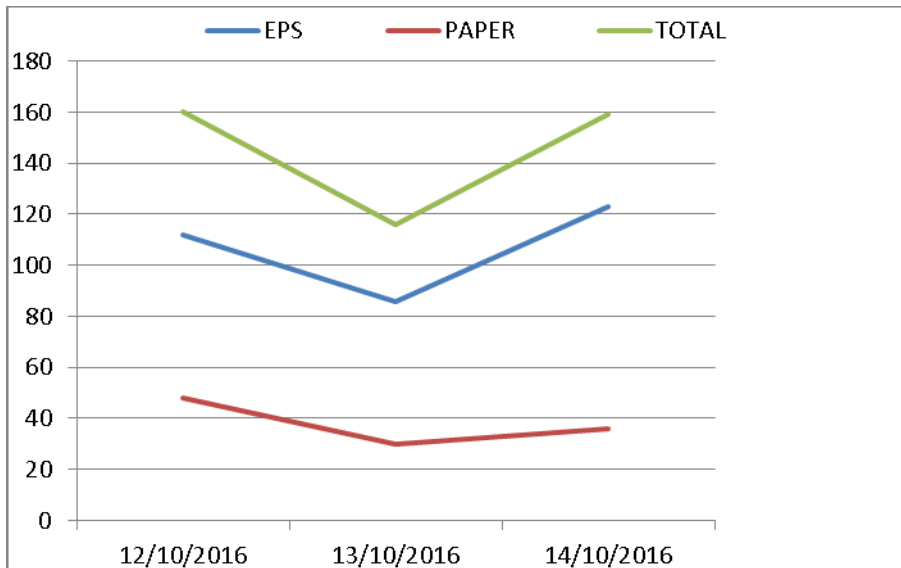


Fig 3 Repeat request volumes at Practice 2 (Paper, EPS & totals)

There is variation between the volumes of overall prescription requests and in particular the ratio of EPS to paper between practice 1 and 2. On average the number of repeat prescription requests per day was:

- Practice 1 – 152
- Practice 2 – 146

Prescription Clerk/Administrative Tasks

The overall administrative time to process a prescription (Px) is recorded below:

Practice 1

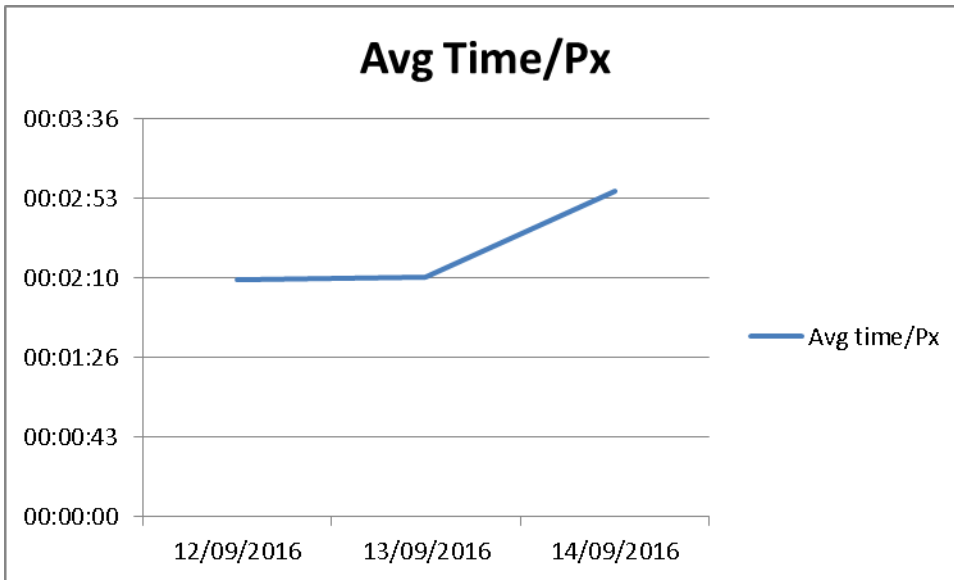


Fig 4 Average time for Staff to process a repeat request Practice 1

Practice 2

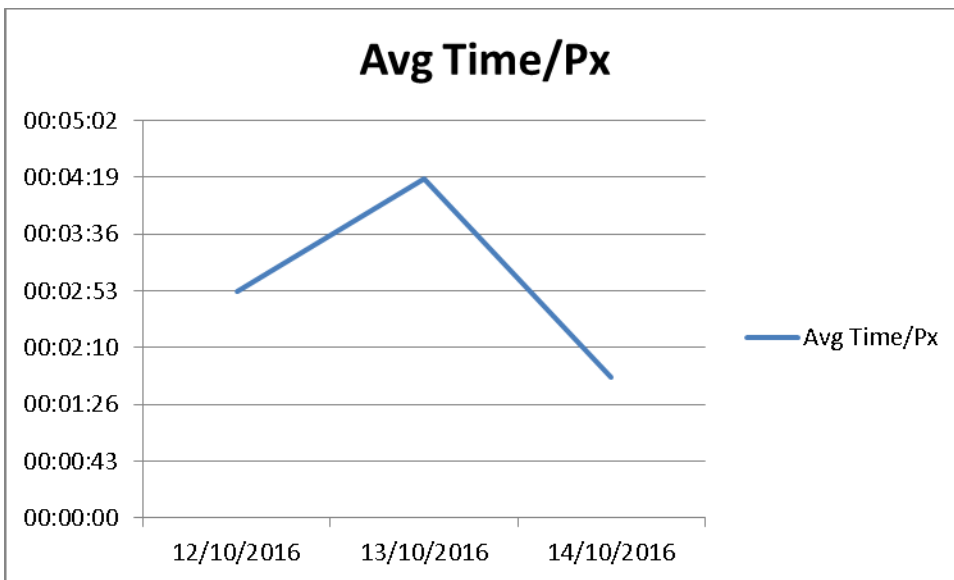


Fig 5 Average time for staff to process a repeat request at Practice 2



The average time to process a repeat prescription request appears to be similar across both practices. In practice 2 there is a higher result for day 2 but this is possibly due to the member of staff who carried out the task on this day being relatively less experienced.

## Processing Paper Repeats for Pick up

There are a number of ways patients can collect their repeat prescriptions once processed and authorised. Patients have the option of picking the prescription up from the practice or having it sent on to the pharmacy to be prepared for dispensing when the patient presents. Both these processes require sorting of signed prescriptions into alphabetical order (for practice pick up) and into individual pharmacy order (for pharmacy pick up). The patient has autonomy over which method is used in these cases.

### Practice 1

Dates	Pharmacy Pick up			GP Pick Up		
	No.	Total Time	Avg/Px	No.	Total Time	Avg/Px
12/09/2016	103	00:10:00	00:00:06	76	00:20:00	00:00:16
13/09/2016	22	00:02:00	00:00:05	62	00:07:30	00:00:07

Fig 6 Time to process repeat prescriptions at Practice 1

There is significant variation between the volumes of paper prescriptions which are requested for pharmacy and GP pick up and although each prescription on average only requires between 5 and 16 seconds to process the volumes of these prescriptions can mean administrative staff spend up to 30 minutes each day carrying out these duties.

### Practice 2

Dates	Pharmacy Pick Up			Practice Pick Up		
	No.	Total	Avg/Px	No.	Total	Avg/Px
12/10/2016	24	01:00:00	00:02:30	26	01:00:00	00:02:18
13/10/2016	2	00:01:00	00:00:30	25	00:29:00	00:01:10
14/10/2016	2	00:01:00	00:00:30	16	00:15:00	00:00:56

Fig 7 Time to process repeat prescriptions at Practice 2

The process in Practice 2 differed and was much more protracted, involving cataloguing details of pharmacy pick up prescriptions in a book which had to be signed off on collection by the pharmacy. Prescriptions which were collected from the practice by the patient were sorted into alphabetical order and stored behind the reception area. The nature of these tasks and the combination with other roles within the practice, may help explain the much higher average time per prescription.

## GP Signing

### Practice 1

	Total number of script		Total time taken		Average	
	Paper	EPS	Paper	EPS	Paper ave	EPS ave
<b>Total</b>	40	61	18:29	14:37	00:28	00:14

GP signing times at Practice 1

The figures above demonstrate the significant variation between times taken for GPs to authorise paper repeat requests compared to those made for electronic prescriptions. Throughout the visits to both practices a number of issues were highlighted which may have contributed to reduced levels of electronic prescribing and possibly a reluctance to engage with eRD. These included several local pharmacies which, according to staff within the practice, nominated patients for EPS without their consent when moving to the system. This practice is contrary to NHS England legislative provisions for EPS nominations and is not supported by NHS Digital. Additionally, following short system outages several local pharmacies return patients to the practice to be issued a paper prescription rather than explaining that there is an issue with the system and requesting the patient returns in a short while. This not only causes issues with the patients in question, but can lead the practice to submit further prescriptions via paper until notice is given that the problem has been resolved.

Whilst observing GPs in one of the practices, there were comments made that the EPS system does not support sending messages to pharmacy regarding the patient. This function is available within the system used at the particular practice. It may be that this perception is a result of a reluctance to engage with electronic prescribing on the GPs behalf. This can be an issue, particularly if the GP in question is influential within the practice and could limit the use of EPS and hence eRD.

## Analysis

The findings above provide some insight into the potential time saved for GPs if their paper based repeat patients were to move to EPS. Working on the assumption that EPS can reach no higher than 90%, which is based on analysis of all items within the current scope of EPS release 2, Practice 1 could save an average of 72 hours per practice per year (see appendix 2 for calculations). However, if 80% of patients were moved to eRD, the GP and the practice would not see these patients in the 6 or 12-month period between prescriptions, eliminating this time altogether, resulting in a saving of 46 minutes per day and approximately 169 hours per year assuming 1 month in the year is required to reauthorise (see appendix 3 for calculations).

Additionally, promoting EPS to those patients who currently have their paper prescriptions sent to a pharmacy or pick up at the practice could free up valuable administration staff

time. The observations indicate that these tasks take up approximately 30 minutes per day. Staff within the practice mentioned that having this time back would allow them to be more assured in other roles, releasing pressure on key clinical tasks. Furthermore, moving patients who already have paper prescriptions sent to the pharmacy over to EPS should be relatively simple as there is little difference to the patient experience. This approach could release resource to be used in engaging patients who currently pick up their prescription from the practice with EPS. Although this second group may prove more difficult to engage with on EPS, therefore having additional resource would support these conversations.

There are a number of benefits to the wider NHS, particularly around the improved data quality which EPS delivers. Capture of NHS number is much more accurate and robust within EPS than paper prescriptions and supports patient level analysis and reporting – a key component in moving the NHS towards its vision of patient focused care. Moreover, the NHSBSA has operational savings related to the increased use of EPS. The table below shows potential impacts of introducing a national strategy to engage pharmacy and practice pick up patients with EPS, based on findings in this study:

Paper to pharmacy		Surgery pick up		Combined
High (75%)	6.1%	High (75%)	7.6%	13.7%
Med (55%)	4.5%	Med (50%)	5.0%	9.5%
Low (35%)	2.9%	Low (25%)	2.5%	5.4%
Max	8.2%	Max	10.1%	18.2%

Fig 8 Potential impacts from uptake of EPS for Pharmacy & GP pick up patients

The rates of uptake are shown as high, medium, and low and indicate the potential impacts the related percentage of patients choosing EPS would have on national usage.

There are a number of caveats to these findings and projected impacts:

- the sample size is very small and should not be considered representative
- recording of GP time could only take place within 1 practice
- results may not be replicable because of differing approaches to administrative tasks

## Recommendations

The findings and analysis above have highlighted a number of opportunities to increase EPS usage and build a foundation for supporting the introduction of eRD into those sites with low or no usage. In order to build interest in eRD the benefits highlighted within this report should be communicated to general practice.

In addition, links should be built between general practice and the various support and learning tools available for prescribers looking to transition to eRD. NHS Digital provides a

range of information to practices <https://digital.nhs.uk/Electronic-Prescription-Service/Electronic-repeat-dispensing-for-prescribers>. Consideration should always be given to the clinical aspect of moving patients to a repeat dispensing regime and as such, clinicians should be involved in every stage of the process.

To support the move and help practices adapt to digital processes, it is recommended that the practices initially assess repeat patients on paper prescribing. Observations within the practices above indicate that there are opportunities to begin the transition to digital prescribing by engaging with certain patient cohorts. The process provides the advantage that it does not require clinical input to facilitate. This relatively simple step involves the practice attaching letters to the prescriptions for pharmacy pick up, requesting that the pharmacy approach the patients on presenting for medication to discuss nominating a pharmacy and using EPS. Once these patients have nominated a pharmacy, the practice will have released the resource attached to processing these repeat prescriptions. This resource could then be used to engage with patients who travel to the practice themselves to pick up their prescriptions. Signing these patients up to EPS may prove more difficult as it involves a change to the way they pick up their prescriptions and medication. However, there are benefits to this as the time released from processing “practice pick up repeats” is higher than that of “pharmacy pick up repeats”. It also removes the interaction between patient and administrative staff, which anecdotal evidence at the practices suggested provides an opportunity for prolonged conversation and delays to routine tasks.

## Next Steps

Potential next steps from this report include:

- repeating the observation exercise at other practices to provide a more robust dataset and add detail to the findings
- revisiting the practices above once eRD is an established process to assess the impact on resources used for processing repeats

## Conclusion

General Practice faces significant challenges and resource is under pressure to continue to deliver high standards of care. There are opportunities to release some of this pressure through adopting digital processes, but in order to do so, practices must carefully consider the steps required to achieve this and fully engage with the transition, ensuring patients are brought along with them on this journey. The move from paper-based repeats to electronic repeat dispensing is an example of such a digital transition. The process is currently used sub optimally in a number of regions within the UK and this report has highlighted that such areas stand to gain significant resource efficiencies through adopting the process. This report has also brought to light potential mechanisms for ensuring a smooth transition and that patients are fully engaged. The recommendations in this report and the support available throughout the wider NHS, provide an opportunity for general

practice to streamline processes which represent a significant portion of day to day prescribing.

## Appendices

### Appendix 1

If required information and training can be found from the following sources:

- (1) NHS England electronic repeat dispensing guidance:  
<https://www.england.nhs.uk/digitaltechnology/info-revolution/erd-guidance/>
- (2) Video for patients on electronic repeat dispensing available from:  
[http://system.s.h.scic.gov.uk/ep\\_s/patients/films/repeatdispensing](http://system.s.h.scic.gov.uk/ep_s/patients/films/repeatdispensing)
- (3) Information on electronic repeat dispensing for pharmacists:  
[http://psnc.org.uk/dispensing-supply/ep\\_s/electronic-repeatdispensing/](http://psnc.org.uk/dispensing-supply/ep_s/electronic-repeatdispensing/)
- (4) NHS Employers guidance for the implementation of repeat dispensing available from:  
<http://www.nhsemployers.org/case-studies-and-resources/2013/12/guidance-for-the-implementation-of-repeat-dispensing>
- (5) A standard operating procedure for repeat dispensing has been produced by the National Pharmacy Association (NPA) and is available from:  
<http://www.npa.co.uk/Knowledge-Centre/Resources/SOPs/Repeat-dispensing-services/>
- (6) The Centre for Postgraduate Pharmacy Education (CPPE) also produces an open learning pack on repeat dispensing available from:  
<http://www.cppe.ac.uk/learning/Details.asp?TemplateID=REP-EAT-P-01&Format=P&ID=115&EventID=40801>
- (7) Online eRD toolkits for dispensers (at bottom of web page)  
<https://digital.nhs.uk/article/914/Electronic-repeat-dispensing-for-dispensers>
- (8) Prescriber system specific prescriber eRD eLearning  
<https://learning.necsu.nhs.uk/nhs-digital-electronic-repeat-dispensing-elearning/>
- (9) Online eRD toolkits for prescribers (at bottom of web page)  
<https://www.digital.nhs.uk/article/913/Electronic-repeat-dispensing-for-prescribers>



## Appendix 2 – (90% EPS gains from signing repeats)

### Calculations

Time for GP to sign a paper prescription	28 seconds
Average repeat prescriptions per day	x 93
Total GP time per day to sign EPS prescriptions	<u>2604 seconds</u>

Time for GP to sign a EPS prescription	14 seconds
Average EPS per day based on EPS usage at practice	x 59
Total GP time per day to sign EPS prescriptions	<u>826 seconds</u>

Total time to process prescriptions at 61% paper and 39% EPS* (approx.)	2604 seconds
	+ 826 seconds
	<u>3403 seconds</u>

Total time to process paper prescriptions at 10% paper	15
	x 28 seconds
	<u>420 seconds</u>

Total time to process EPS prescriptions at 90% EPS	137
	x 14 Seconds
	<u>1918 seconds</u>

Difference from 39% EPS to 90% in minutes	3403 seconds
	- 2338 seconds
	/ 60
	<u>18 minutes</u>
	(approx.)

Above figs scaled up for a year per practice	18 minutes
	x 5 days
	x 4 weeks
	x 12 months
	<u>72 hours</u>

\* These values were the practices current level of EPS and paper prescriptions

## Appendix 3

### Calculations for 80% of eRD (90% EPS)

We say 80% of all repeats can be eRD	80%
10% of paper repeats:	28 seconds
	x 152*0.1
	<hr/>
	426s
10% of eRP repeats:	14 seconds
	x 152*0.1
	<hr/>
	213s
Total time for processing repeats when at 80% eRD	639s
Total time currently spent processing repeats	152 * 0.39 * 14
	+ 152 * 0.61 * 28
	<hr/>
	3426 seconds
Time saved	3426
	- 639
	<hr/>
	2787s / 46m
Time in hours per year per practice	46 minutes
	x 5 days
	x 4 weeks
	x 11 months*
	<hr/>
	169 hours
	(approx.)

\* Assumes 1 month is required to reauthorise all scripts

## References

- (1) The scale of repeat prescribing – time for an update. Petty et al BMC Health Services Research 2014;14:76 DOI: 10.1186/1472-6963-14-76  
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<http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-14-76>

- (2) National evaluation of repeat dispensing by community pharmacists - Final Report  
March 2006