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An evaluation of an NHS-funded community pharmacy emergency repeat medication supply service (PERMSS)

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Title: An evaluation of an NHS-funded community pharmacy emergency repeat medication supply service (PERMSS)

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ABSTRACT

Objectives Evaluation of a NHS-funded service providing out of hour's emergency repeat medications to patients self-presenting at community pharmacies.

Setting Community pharmacies across the North East of England accredited to provide this service.

Participants Patients self-presenting to community pharmacies during out of hour's periods with emergency repeat medication supply requests.

Intervention Community pharmacists assessed each request for clinical appropriateness and when suitable provide an emergency repeat medication supply, with additional pharmaceutical advice and services if required.

Primary and secondary outcomes

Primary outcomes Number of emergency repeat medication supplies, time of request, reason for access, medication(s), pharmaceutical advice and services provided. Secondary outcomes were community pharmacist and patient satisfaction.

Results A total of 2485 patients were managed across 227 community pharmacies (15th December 2014-7th April 2015). Most patients presented on Saturdays, with increased activity over national holidays. Older age was associated with increased service use. Of the 3226 medications provided, 439 were classified as high risk. Patients found this service easy to access and were willing to access the community pharmacy in the future for medication related issues. In the absence of this service, 50% of patients would have missed their medication(s) until they saw their doctor and a further 46% would have accessed an alternative service. The cost of NHS service(s) for patients who would have accessed an alternative out of hour's service was estimated as 37 times that of the community pharmacy service provided. Community pharmacists were happy to provide this service despite increased consultation times and workload.

Conclusions Community pharmacists were able to manage patients' out of hours requests for emergency repeat medication and patients were happy with the service provided. As service cost was favourable, when compared to alternative out of hour's services, it would be a viable option to reduce workload on the wider NHS services.

ARTICLE SUMMARY

- This study suggests that a NHS-funded emergency repeat medication supply service from community pharmacies reduces workload on other NHS out of hour's emergency care providers.
- This service was well received by both self-presenting patients and participating community pharmacists.
- This study suggests that provision of this out of hour's service from community pharmacies was less costly when compared to the alternative emergency care providers patients may have accessed to obtain emergency supply their medication if this service had been unavailable.
- Patient feedback was not linked to their respective individual service information, so patient safety issues caused by non-adherence of high risk medications could not be determined.
- Patients were not informed of the full cost of their specific emergency repeat medication supply request when asked if they were willing to pay for emergency supply of repeat medication by a community pharmacist.
- Patients were asked what action they would have undertaken to obtain their medication if the NHS funded emergency repeat supply service had not been available. Information about

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3 the actions of patients who were not provided with medication was not captured in this
4 study.
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6 INTRODUCTION

7 NHS 111 is a free to call number available 24 hours a day, 7 days a week, 365 days a year to respond
8 to people's healthcare needs and enable access to non-urgent NHS care. [1, 2] Recent national press
9 coverage, particularly during winter 2014-15,[3] reported considerable demand for urgent care
10 services. This was as predicted by Turner et al.[4] in their study of NHS 111 pilot sites. In December
11 2014, NHS England reported the largest volume of calls (1,398,166) since the phone line was
12 established. [5]Up to 15% of calls relate to emergency repeat medication at busy times, e.g. bank
13 holidays, national holidays, or out of hours (OOH) and at the weekends. On bank holidays 3-4% of
14 appointments with GP OOH were prescriptions for repeat medicines. [6]
15

16 Under the Human Medicines Regulations community pharmacists, are legally permitted to provide
17 emergency supplies of prescription only medicines (POMs) at the request of the patient without a
18 prescription. [7] Pharmacists use their professional judgment to ensure such a supply is clinically
19 appropriate and all stipulated regulations have been met. The cost of an emergency supply of POMs
20 for patients exempt from prescription charges means they often choose to access an OOH service or
21 emergency department if they consider their medicine request is urgent. Visitors away from their
22 place of residence may also present with requests for forgotten or short supplies of medication. [8]
23

24 NHS England has supported local health commissioners to mobilise capacity within community
25 pharmacy to help relieve pressures on emergency and urgent care. They stated that community
26 pharmacies can be commissioned, where appropriate, to provide an emergency supply of medicines
27 as an NHS-funded service. NHS England stipulates that legal requirements should be met and that
28 the patient's general practitioner (GP) must be notified of such a supply within 48hours. [6, 9]
29

30 Research over the last 10 years about emergency supply of medicines has primarily focused on the
31 frequency and characteristics of emergency supplies or the ethical perspective of patients who
32 present with such requests. [8] A recent evaluation also stated that no national NHS service was in
33 place in England to manage requests for emergency supplies, although some localised services did
34 exist. The authors recommended the establishment of a national NHS-funded service to allow
35 community pharmacists to provide regularly prescribed medicines to NHS patients under the
36 existing provisions. The intended impact would be to reduce workload on the wider NHS. [8] Since
37 2011 NHS Cornwall and Isles of Scilly has provided a walk-in repeat medication service from
38 community pharmacies using a Patient Group Direction (PGD) to deliver a NHS service during
39 summer periods. Currently there is a locally commissioned service in Cornwall to provide emergency
40 supplies out of hours. [10]
41

42 In November 2014 NHS England North, working across Cumbria and the North East and supported
43 by local Clinical Commissioning Groups, commissioned a NHS Community Pharmacy Emergency
44 Repeat Medication Supply Service (PERMSS) as a pilot over 4 months. The purpose of this scheme
45 was to ensure patients had access to a supply of their regular prescription medicines when they
46 were unable to obtain a prescription before they needed to take their next dose. The service
47 proposal was finalised by a project team with members from the Local Pharmacy Network (LPN),
48 Commissioning Support Unit 111 Directory of Service and NHS England. A non-recurrent funding
49 source was established and presented to the Clinical Commissioning Group (CCG) forum for
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3 commissioning for the pilot period (15th December 2014 to 7th Apr 2015). The service specification
4 [11] was circulated to all community pharmacies (n=711) across the North East. An information
5 sheet of Frequently Asked Questions was disseminated to all confirmed, eligible community
6 pharmacy providers. A short period of testing preceded service launch.
7

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9 Patients could access this service at two entry points, either direct referral from NHS 111 using a
10 referral platform, PharmOutcomes, a web-based system collating information and facilitating
11 management of local service provision, [12] or by self-presentation out of normal GP opening times
12 at a community pharmacy. This study aimed to evaluate the Community Pharmacy Emergency
13 Repeat Medication Supply Service (PERMSS) for those patients who self-presented at community
14 pharmacies out of normal GP opening times.
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16 17 **Service intervention for self-presenting patients**

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19 The commissioned PERMSS allowed community pharmacists to provide up to a seven day supply of
20 the patient's POM, except where it was not possible to dispense such volumes e.g. inhalers, creams.
21 In such cases the smallest pack size was dispensed. However, the regulations prevent Schedule 1, 2
22 or 3 controlled drugs being supplied in an emergency with the exception of phenobarbitone or
23 phenobarbitone sodium prescribed for epilepsy. Patients who were exempt from prescription
24 charges received the medicine supply free of charge, while those patients who were not exempt
25 paid the standard prescription charge (£8.20). A professional fee linked to the number of items
26 supplied (£10+ £2 for each additional item) together with reimbursement of the cost of the medicine
27 (Drug Tariff prices plus VAT) was paid for each emergency supply consultation.
28

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30 The patient or their representative presented at a community pharmacy during the OOH period. This
31 was defined as Monday to Friday between 6.30pm to 8am, weekends (18.30 Friday – 08.00
32 Monday), Christmas Eve and New year's eve between 6pm and 8am and at any time on specified
33 days (Christmas day, Boxing day, New Year's day, Easter Friday and Easter Monday).
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36 The community pharmacist assessed whether there was an urgent need for the medicine checking
37 where it was impracticable for the patient to obtain a prescription before the next dose was due.
38 This was followed by one of three outcomes:
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41 • An emergency supply was made, in accordance with the Human Regulations 2012 [7] as
42 no further clinical advice was required and the POM was available in the community
43 pharmacy
- 44
45 • The patient was advised to try another pharmacy because although no further clinical
46 advice was required because the POM was unavailable at the community pharmacy
- 47
48 • The patient was advised to contact another appropriate healthcare service, e.g. NHS 111
49 or a walk-in centre because further clinical advice was needed.
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52 When an emergency supply was made, the supply was recorded in accordance with the usual
53 procedure. A record of this supply was also made in PharmOutcomes, detailing patient name,
54 address, verbal consent for supply, medication supplied, nature of emergency, evidence
55 provided and if further pharmaceutical advice was needed. A copy of the record was sent to the
56 patient's GP using the PharmOutcomes email notification facility. This including any relevant
57 concerns, advisory notes or issues identified. Further patient pharmaceutical advice could have
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3 consisted of effective medicines management, prescription request process and/or medicines
4 reconciliation. Additional services which could also have been provided were a Medicines Use
5 Review (MUR) or consent obtained for repeat dispensing
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7 8 **METHODS**

9 **Service activity**

10 Service activity, with patient identifiable information removed, was automatically sent to the
11 independent evaluator (HN) as an Excel spreadsheet via email from PharmOutcomes. However, the
12 patient age and postcode were included in this data set. The frequency in self-presentation activity
13 across each month and also across the days of the week was investigated to identify any increase in
14 demand at specific periods. Reasons for an emergency supply request and evidence to support this
15 was extracted. Drugs supplied under this service were categorised according to British National
16 Formulary (BNF 69).[13] Supply of high risk drugs as identified by the Patient Safety First Campaign
17 2008,[14] opiates, insulin, anticoagulants, antipsychotics, non-steroidal anti-inflammatories
18 (NSAIDs), and diuretics were also collated. The number and nature of additional pharmaceutical
19 advice or services were extracted.
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24 **Patient feedback**

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26 The patient survey was designed to obtain feedback on the service. Patients were asked what their
27 action might have been if this service had not been available, and also asked if this service was
28 associated with a cost would their action have changed and if so in what way. Patients were asked to
29 rate the PERMSS in comparison to other OOH services and also to rate their general satisfaction with
30 the service provided. This survey was designed by the project team and disseminated to the local
31 HealthWatch group and Local Pharmacy Network for feedback on format, comprehensiveness and
32 appropriateness of the questions before being used with patients.
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36 At the end of the study period the collected anonymised patient feedback was sent as an Excel
37 spreadsheet to the independent evaluator (HN) by email from PharmOutcomes.
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39 **Community pharmacist feedback**

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41 An electronic questionnaire was also designed by the project team and circulated within the local
42 HealthWatch group and the Local Pharmacy Network for comment and approval. This semi-
43 structured questionnaire was designed to evaluate the community pharmacists' understanding and
44 support of the service. In addition, pharmacists were asked if requests for emergency supply of
45 medicines should be managed by community pharmacists and how well this service aligned to their
46 current role and responsibilities. Pharmacists were also asked about how this service contributed to
47 workload, impact on consultation time, and their satisfaction with the reimbursement process.
48 Finally, pharmacists were asked how supportive they are to provide such a service and if service
49 improvements were required.
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53 This electronic survey was circulated via PharmOutcomes between 5th January and 7th April 2015. An
54 email message from the Local Pharmacy Committees to alert pharmacists to complete the survey
55 was sent on 5th January. At the end of the evaluation period the anonymised community pharmacist
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feedback was sent to the independent evaluator (HN) as an Excel spreadsheet to via email from PharmOutcomes.

Data analysis

Data relating to service activity and from the patient and pharmacist surveys analysed using descriptive statistics and converted to percentages where appropriate to represent proportions. Open comments were manually coded from both surveys.

Cost comparison of PERMSS to existing OOH services

A cost comparison was carried out, however as health benefits were not included a comparative evaluation of costs and benefits e.g. cost-effectiveness or cost-benefit analysis, was not performed. The costs of the community pharmacy provisions of emergency supplies was compared to the costs which could have been incurred should the patient have accessed other OOH services. The cost for an individual consultation at A&E, urgent centre and walk-in centres were provided by the North of England Commissioning Support Unit. The GP OOH service was a block contract with no individual cost per consultation. So an estimated cost per individual consultation was calculated by dividing the cost of the block contract by the activity within the region provided by the North of England Commissioning Support Unit.

The patients' responses regarding which service they would have accessed in the absence of PERMSS was used to calculate potential costs for the evaluation period and also projected annual cost. A number of patients indicated they would have called NHS 111, with a £8 a cost per call. [4] NHS 111 would then direct such patients to GP OOH service incurring an additional cost.

Discussion within the project team identified the study components to be either audit or service evaluation and therefore ethical approval was not required.

RESULTS

Service activity

The service was provided in 227 of the accredited 316 pharmacies across the 12 participating CCGs. In total, 2485 patients self-presented over the evaluation period. This equates to approximately three patients being managed per pharmacy per month. Table 1 shows the characteristics of the patients who presented and the nature of the emergency supply requested.

Table 1. The characteristics of the patient requiring an emergency supply, the nature of that emergency and evidence to prove previous medicine supply. (n=2485)

Characteristics of emergency supply request	Number (%)
Access by month	
Dec 2014 (15 th - 31 st)	344 (13.8)
Jan 2015 (1 st - 31 st)	651 (29.2)
Feb 2015 (1 st - 28 th)	550 (22.1)
Mar 2015 (1 st - 31 st)	534 (21.5)
Apr 2015 (1 st - 7 th)	406 (16.3)
Access by day	

Sunday	212 (8.5)
Monday	119 (4.8)
Tuesday	67 (2.7)
Wednesday	54 (2.2)
Thursday	78 (3.1)
Friday	140 (5.6)
Saturday	1815 (73.0)
Age of patient (yrs)	
<13	96 (3.9)
13-19	69 (1.8)
20-29	194 (7.8)
30-39	213 (8.6)
40-49	306 (12.3)
50-59	437 (17.6)
60-69	466 (18.8)
>70	704 (28.3)
Reason for emergency supply request	
Ran out of medicines	1308 (81.6)
Prescription not ready at the GP surgery	221 (13.8)
Away from home without medicine(s)	69 (4.3)
GP surgery closed	42 (2.6)
Other	155 (9.7)
Evidence of repeat medicines	
Prescription request form	393 (15.8)
Empty pack	455 (18.3)
Patient medication record	1464 (58.9)
GP letter	15 (0.6)
Other	158 (6.4)
Levy status	
Exempt	2249 (90.5)
Paid prescription charge	236 (9.5)
Additional pharmaceutical advice provided	
Effective medicines management	1216 (48.9)
Medicines reconciliation	1364 (54.9)
Prescription request process	249 (10.0)
Other	197 (7.9)
Additional pharmaceutical service provided	
Medicines Use Review	52 (2.1)
Repeat dispensing consent	48 (2.3)
None necessary	2322 (93.4)
Other	67 (2.7)

These 2485 patients were supplied with 3226 medicines, the classifications of which are described in table 2.

Table 2. The medicines supplied through PERMSS as per British National Formulary 69 classification and the distribution of key high risk drugs.

Classification of medicine	Number (%) (n= 3226)
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BNF classification	
Cardiovascular	1122 (34.8)
Central nervous system	646 (20.0)
Respiratory	467 (14.5)
Endocrine	429 (13.3)
Gastro-intestinal	223 (6.9)
Obstetrics, gynaecology & urinary	102 (3.2)
Musculoskeletal	70 (2.2)
Skin	22 (0.7)
Nutrition & blood	34 (1.1)
Infections	28 (0.9)
Malignancies	36 (1.1)
Eye	37 (1.1)
Ear, nose & oropharynx	10 (0.3)
High risk categories (n=439, 13.6%)	
Opiates	53 (1.6)
Insulin	61 (1.9)
Anticoagulants	149 (4.6)
Anti-psychotics	40 (1.2)
Non-steroidal anti-inflammatories	37 (1.1)
Diuretics	99 (3.1)

Patient feedback

A 60.8% response rate was obtained with 1511 of the 2485 self-presenting patients providing responses to the questionnaire. Compared to other NHS OOH services, 93 % (n=1405) of respondents found this service easier or much easier to access, and all (100%) respondents would use the community pharmacy in the future for medication issues. Patients were also questioned about what their action might have been in the absence of such a community pharmacy service, and also their action if this service had an associated cost (table 3).

Table 3. Patients' reported actions in the absence of PERMSS or if a service had been available but was associated with a cost. (n=1,511)

Criteria	Action	Number (%)
Action if unable to obtain medicine from the pharmacist	Missed dose(s) and presented at the GP surgery during surgery hours	756 (50.0)
	Presented at the walk-in centre or urgent care centre	499 (33.0)
	Presented at Accident and Emergency	166 (11.0)
	Called NHS 111	30 (2.0)
	Other	60 (4.0)
Action if required to pay for the medicine	Paid for emergency supply	921 (61.0)
	Missed dose(s) and presented at the GP surgery during surgery hours	287 (19.0)
	Presented at the walk-in centre or urgent care centre	212 (14.0)
	Presented at Accident and Emergency	60 (4.0)

Called NHS 111	30 (2.0)
Other	1 (0.0)

If the PERMSS had not existed half (50%, n=756) of the respondents suggested they would have missed their doses until their GP was available to obtain a prescription. A further 46% (n=695) would have accessed another OOH service. The 60 patients indicated they would have undertaken an alternative action which suggested they would have purchased an alternative 'over-the-counter' medication (n=6); gone to a different pharmacy (n=10); used a friend's or family member's medicine (n=11); returned home to retrieve the medicines (n=12); waited to see if they could manage without and then accessed another OOH service (n=5); or asked a neighbour to post medication (n=5). Eleven people did not answer this question. If an emergency supply service did exist but the patient had to pay for the prescription, the majority (61%, n=921) of patients indicated they would have paid for their medication while a smaller number suggested they would have missed the dose(s) (19%, n=287) or accessed another OOH service (18%, n= 272).

Community pharmacist feedback

Of the 316 community pharmacists who were accredited to undertake this service, 221 completed the questionnaire (70% response rate). The service had been provided to self-presenting patients out of hour by pharmacists at 153 (69%) community pharmacies.

Of the respondents 91% (n=201) agreed or strongly agreed that they were clear on the remit and terms of the service, and agreed or strongly agreed (91%, n=201) that the service was aligned to their current role. The management of requests for emergency supply of medicines out of hours by community pharmacists was considered appropriate with 94% (n=208) of pharmacists in agreement.

Pharmacists (84%, n=186) agreed or strongly agreed that they were clear on when to claim for the service provided and 70% (n=155) agreed or strongly agreed that the reimbursement process was simple.

Many of the community pharmacists (66%, n=146) reported an increase in consultation time and identified additional workload. However the community pharmacists were happy or very happy to provide this service to self-presenting patients (92%, n=203). However when asked how the service could be improved, while 25% (n=55) disagreed or strongly disagreed that changes were required, 40% (n=88) identified improvements. Of those who made suggestions for improvement (n=20) 17 pharmacists suggested training for pharmacists on the emergency supply regulations, and 3 pharmacists recommended an increase in pharmacy capacity to manage these patient requests.

Cost comparison

Of the 1511 self-presenting patients who provided feedback, 695 stated they would have accessed an alternative OOH service had the PERMSS not been available. Each patient received an average of 1.58 medications therefore the average PERMSS cost was £11.16. For the 695 patients the cost in reimbursement to the community pharmacist for the consultation was estimated to be £1,098.10. The projected annual cost of PERMSS would be £3,294.30. The estimated cost of the alternative service access is show in table 4.

Table 4. The estimated costs of OOH services if PERMSS had not been available as per patient feedback

Alternative service accessed	Consultation fee	No. of patients	Cost (Dec-Apr)	Cost pa.**
GP OOH via NHS 111	£96 (GP OOH) + £8 (NHS 111 call)	30	£3,120	£9,360
Walk-in/Urgent care centre	£57	499	£28,443	£85,329
A&E (Type 3)*	£57	166	£9,462	£28,386
Total			£41,025	£123,075

*Classified as a minor department attendance.

** per annum

During the evaluation period if alternative OOH services had been accessed in place of PERMSS this could have been associated with an estimated cost of £41,025, 37 times the cost for supplies made via PERMSS.

DISCUSSION

This service addresses one of the key recommendations for practice in the evaluation of the role of community pharmacists in managing requests for emergency supplies made by Morecroft et al.[8] This recommendation was also been recently reiterated in the national pharmaceutical press as a strategy to reduce pressure on the NHS.[15] PERMSS is an NHS-funded service allowing pharmacists to supply regularly prescribed medicines to NHS patients under the existing the Regulations. The service also includes additional features to support patients managing their medicines more effectively and giving the community pharmacist an opportunity to provide additional services, such as medicines reconciliation or a Medicines Use Review to optimise medicines use when required. This evaluation demonstrated that patients are now happy to have medications issues managed by a community pharmacist and found accessibility much easier than alternative OOH services. Tinelli et al also report high patient satisfaction with a pharmacy-led medications management service. This represented a shift from a previous preference for a doctor- led discussion prior to experiencing the service within the pharmacy.[16] This service evaluation also reiterates findings from Morecroft et al,[8] study indicating community pharmacists providing an important and under-recognised service for patients to ensure sustained treatment supporting medication adherence and decreasing the overall burden to the wider NHS.

Supplies were made during OOH periods and the volume of activity from 1st-7th April indicated that a holiday, including a bank holiday, increased the numbers in requests, as has been previously recorded. [6] However, this evaluation estimated that on average only three patients were managed per pharmacy per month, which does not demonstrate a high demand for this service. This maybe an underestimation because service although emergency supply of POM at the request of a patient is an activity that every pharmacist is familiar with they are not routinely required to complete a record on PharmOutcomes. As Emergency supply records are made most commonly within the patient medication record and/or in the private prescription record. Consequently, some supplies may have been made which were not captured as details of supply were not recorded in PharmOutcomes. Although there was a trend towards more requests from older patients (> 60years

old), there were significant numbers from the young (< 30 years old) and middle-aged (30-60 years old). A recent review of the role of community pharmacists in emergency supply requests, found similar results and suggested that older people may have more difficulties in ordering their repeat prescriptions on time, but also because this patient group have more medications.[8] The main reason for the emergency supply request was that patients had ran out, with the most common evidence of this medication having previously been prescribed was the patient's medication record. This would indicate that as these personal medication histories were present the patients were presenting at their regular community pharmacy. The most common medications supplied to self-presenting patients were gastro-intestinal; cardiovascular; respiratory; central nervous system and endocrine. These were similar to those reported in the recent study.[7] From the 3226 medications supplied under this service, 439 (13.6%) were classed as high risk medications. Many studies have reported medication-related reasons for hospital admissions, with non-adherence frequently featuring as a contributor.[17-20] A relatively recent systematic review of drugs causing preventable admissions to hospital reported that from the 17 included studies identified, diuretics, anti-diabetics and anti-epileptics were the drugs associated with patient adherence problems which lead to admissions.[21] Consequently, the identified high risk medications could be associated with increased patient safety issues especially if doses are missed or delayed. The responses to potential alternative actions taken by patients in the absence of PERMSS indicated that dose(s) would have been missed in a large proportion (50%) of patients. In many cases this might have been clinically safe, e.g. missing one dose of a statin, or aspirin being used for secondary preventative measures. However, for some medications, this could have posed a significant patient risk, e.g. anti-diabetics.

Unsurprisingly, the pharmacists expressed support for such a service to be provided within community pharmacies as it aligns directly with their current roles and responsibilities. They found the remit and reimbursement of the service simple and effective. They conceded that consultation time and workload might increase as a consequence due to the requirement of making a record within PharmOutcomes, but this did not appear to diminish their commitment to providing the service.

A number of the patients (46%) suggested they would have presented at an alternative OOH service and therefore contributed to demand at emergency and urgent care. Some most patients in this study indicated they would have paid for their medicines if they had been able to access this service but with an associated cost. The current emergency supply regulations do provide for such a supply with patients required to pay a fee the cost of which is at the discretion of the pharmacist. However this is contrary to previously been reported findings which indicated that a cost would deter patients from presenting at a pharmacy and instead present where a NHS funded supply might be guaranteed via the issue of a prescription from an OOH service clinician.[7] However, Blumenschein et al found that in asking a hypothetical dichotomous question on willingness to pay ('yes'/'no') of a group offered a pharmaceutical asthma service for a free, overestimated the real willingness to pay, when compared to a group who actually had to pay for the service.[22] Therefore further work needs to be undertaken to explore patients' willingness to pay for a community pharmacy emergency supply service.

The cost comparison based upon patients' responses, suggested that the PERMSS, when conservatively compared to the unit costs of alternative OOH services, offers a more economical option to the NHS for the management of these patients OOH, and outside emergency and urgent

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3 care service providers (A&E and GP OOH). These estimations were based on a hypothetical question
4 posed to patients in the event that PERMSS had been unavailable and therefore this should be
5 explored.
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8 Further work is required to comprehend the whether further demand for emergency supplies exists
9 and was managed via the normal emergency supply procedure and recorded as the standard
10 operating procedures of the respective pharmacies. Entries into PharmOutcomes only documented
11 the number of self-presenting patients who were considered clinically appropriate and received an
12 emergency supply by the community pharmacist. Those patients that were advised that a supply
13 could not be made but referred to another pharmacy for stock or referred to OOH for further clinical
14 assessment by another healthcare professional were not recorded. Therefore further work is
15 required to understand the entire need or nature of requests for emergency supply medication. No
16 patient feedback was recorded from those who did not receive a supply, therefore global
17 satisfaction with the service requires further evaluation. Linking the patient feedback to the patient
18 consultations would allow better understanding of patient behaviours in relation to non-adherence
19 and alternative services or actions that may have been taken in the event that no supply was made
20 at the pharmacy. This would allow patient risk related to non-adherence of high risk medications to
21 be explored more effectively. Morecroft et al described the ethical dilemmas often faced by
22 community pharmacists when requests for emergency supplies are made. Many concerns related to
23 abuse of the service as could patients use it instead of regularly attendance at their GP
24 surgery.[8] It would be interesting to investigate if such reservations still exist amongst the
25 profession it has recently been announced that as patient Summary Care Records, an electronic
26 patient record derived from patients' GP records, will be provided to community pharmacies from
27 autumn 2015.[23] This development will allow pharmacists access to previously unseen complete
28 medication histories allowing them to monitor for abuse of repeat requests for emergency supply
29 medications and provide more information for adherence monitoring. This additional safeguard
30 might provide the profession with the freedom and reassurance to raise public awareness of the
31 emergency supply service might may impact on patient care-seeking behaviour related to
32 medication issues.
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39 **CONCLUSIONS**

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41 Community pharmacists can manage patients out of hours for requests of supplies of their repeat
42 medications. This service was well received by patients who self-presented at these community
43 pharmacies and by the pharmacists who provide the service. The cost of this service to the NHS
44 would appear to be economically favourable when compared to alternative out of hours services
45 which might have been accessed. This service appears to be an appropriate response to the recent
46 calls for emergency supplies to be provided by community pharmacies in order to reduce the burden
47 on the wider NHS.
48
49

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51
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COMPETING INTERESTS

None.

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AY and JS designed and implemented the intervention. HN designed the service evaluation. HN and ZN analysed the data. HN, ZN, AY, JS and CW all discussed the results and interpretation. All authors were involved in the drafting the initial text for the report and revising drafts prior to publication, and all approved the submission.

DATA SHARING STATEMENT

Additional unpublished data relate to patient identifiable information that is kept by Ann Gunning, mentioned in the acknowledgements, as a member of the North of Tyne Local Pharmacy Committee who manages the electronic PharmOutcomes data.

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A summative service and stakeholder evaluation of an NHS-funded community pharmacy emergency repeat medication supply service (PERMSS)

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Title: A summative service and stakeholder evaluation of an NHS-funded community pharmacy emergency repeat medication supply service (PERMSS)

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ABSTRACT

Objectives Service and stakeholder evaluation of an NHS-funded service providing out of hour's (OOH) emergency repeat medications to patients self-presenting at community pharmacies.

Setting Community pharmacies across the North East of England accredited to provide this service.

Participants Patients self-presenting to community pharmacies during OOH periods with emergency repeat medication supply requests.

Intervention Community pharmacists assessed each request for clinical appropriateness and when suitable provide an emergency repeat medication supply, with additional pharmaceutical advice and services if required.

Primary and secondary outcomes

Primary outcomes Number of emergency repeat medication supplies, time of request, reason for access, medication(s), pharmaceutical advice and services provided. Secondary outcomes were community pharmacist and patient satisfaction.

Results A total of 2485 patients were managed across 227 community pharmacies (15th December 2014-7th April 2015). Most patients presented on Saturdays, with increased activity over national holidays. Older age was associated with increased service use. Of the 3226 medications provided, 439 were classified as high risk. Patients found this service easy to access and were willing to access the community pharmacy in the future for medication related issues. In the absence of this service, 50% of patients would have missed their medication(s) until they saw their doctor and a further 46% would have accessed an alternative service. The cost of NHS service(s) for patients who would have accessed an alternative OOH service was estimated as 37 times that of the community pharmacy service provided. Community pharmacists were happy to provide this service despite increased consultation times and workload.

Conclusions Community pharmacists were able to manage patients' OOH requests for emergency repeat medication and patients were happy with the service provided. As service cost was favourable, when compared to alternative OOH services, it would be a viable option to reduce workload on the wider NHS services.

ARTICLE SUMMARY

- This study suggests that an NHS-funded emergency repeat medication supply service from community pharmacies reduces workload on other NHS out of hour's emergency care providers.
- This service was well received by both self-presenting patients and participating community pharmacists.
- This study suggests that provision of this out of hour's service from community pharmacies was less costly when compared to the alternative emergency care providers patients may have accessed to obtain emergency supply their medication if this service had been unavailable.
- Patient feedback was not linked to their respective individual service information, so patient safety issues caused by non-adherence of high risk medications could not be determined.
- Patients were not informed of the full cost of their specific emergency repeat medication supply request when asked if they were willing to pay for emergency supply of repeat medication by a community pharmacist.
- Patients were asked what action they would have undertaken to obtain their medication if the NHS funded emergency repeat supply service had not been available. Information about

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2
3 the actions of patients who were not provided with medication was not captured in this
4 study.
5

6 INTRODUCTION

7 NHS 111 is a free to call number available 24 hours a day, 7 days a week, 365 days a year to respond
8 to people's healthcare needs and enable access to non-urgent NHS care. [1, 2] Recent national press
9 coverage, particularly during winter 2014-15,[3] reported considerable demand for urgent care
10 services. This was as predicted by Turner et al.[4] in their study of NHS 111 pilot sites. In December
11 2014, NHS England reported the largest volume of calls (1,398,166) since the phone line was
12 established. [5]Up to 15% of calls relate to emergency repeat medication at busy times, e.g. bank
13 holidays, national holidays, or out of hours (OOH) and at the weekends. On bank holidays 3-4% of
14 appointments with GP OOH were for prescriptions for repeat medicines. [6]
15

16 Under the Human Medicines Regulations community pharmacists, are legally permitted to provide
17 emergency supplies of prescription only medicines (POMs) at the request of the patient without a
18 prescription. [7] Pharmacists use their professional judgment on a case-by case basis to ensure such
19 a supply is clinically appropriate and all stipulated regulations have been met. The cost of an
20 emergency supply of POMs for patients exempt from prescription charges means they often choose
21 to access an OOH service or emergency department if they consider their medicine request is
22 urgent. Visitors away from their place of residence may also present with requests for forgotten or
23 short supplies of medication. [8]
24

25 NHS England has supported local health commissioners to mobilise capacity within community
26 pharmacy to help relieve pressures on emergency and urgent care. They stated that community
27 pharmacies can be commissioned, where appropriate, to provide an emergency supply of medicines
28 as an NHS-funded service. NHS England stipulates that legal requirements should be met and that
29 the patient's general practitioner (GP) must be notified of such a supply within 48hours. [6, 9]The
30 topic of the NHS England agreed audit for 2014-15 was that of emergency supply of medicines.
31 Community pharmacists were asked to audit their activity of this activity during specific periods in
32 2015. This audit was planned to provide data to inform the review of urgent and emergency care
33 and demonstrate how community pharmacy might best work with GP practices to improve services
34 to patients. [10] Findings from this audit are still to be reported.
35

36 Research over the last 10 years about emergency supply of medicines has primarily focused on the
37 frequency and characteristics of emergency supplies or the ethical perspective of patients who
38 present with such requests. [8] A recent evaluation also stated that no national NHS service was in
39 place in England to manage requests for emergency supplies, although some localised services did
40 exist. The authors recommended the establishment of a national NHS-funded service to allow
41 community pharmacists to provide regularly prescribed medicines to NHS patients under the
42 existing provisions. The intended impact would be to reduce workload on the wider NHS. [8] Since
43 2011 NHS Cornwall and Isles of Scilly has provided a walk-in repeat medication service from
44 community pharmacies using a Patient Group Direction (PGD) to deliver an NHS service during
45 summer periods. Currently there is a locally commissioned service in Cornwall to provide emergency
46 supplies out of hours. [11] In West Yorkshire, the NHS 111 provider, Yorkshire Ambulance Service,
47 can refer urgent repeat medication requests directly to local pharmacies using NHS Mail as the
48 referral platform. [12]
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3 In November 2014 NHS England North, working across Cumbria and the North East and supported
4 by local Clinical Commissioning Groups, commissioned an NHS Community Pharmacy Emergency
5 Repeat Medication Supply Service (PERMSS) as a pilot over 4 months. The purpose of this scheme
6 was to ensure patients had access to a supply of their regular prescription medicines when they
7 were unable to obtain a prescription before they needed to take their next dose. The service
8 proposal was finalised by a project team with members from the Local Pharmacy Network (LPN),
9 Commissioning Support Unit 111 Directory of Service and NHS England. A non-recurrent funding
10 source was established and presented to the Clinical Commissioning Group (CCG) forum for
11 commissioning for the pilot period (15th December 2014 to 7th Apr 2015). The service specification
12 [13] was circulated to all community pharmacies (n=711) across the North East. An information
13 sheet of Frequently Asked Questions was disseminated to all confirmed, eligible community
14 pharmacy providers. A short period of testing preceded service launch.

15
16 Patients could access this service at two entry points, either direct referral from NHS 111 using a
17 referral platform, PharmOutcomes, a web-based system collating information and facilitating
18 management of local service provision which is currently being used by all community pharmacies
19 across the North East, [14] or by self-presentation out of normal GP opening times at a community
20 pharmacy. This study aimed to evaluate the Community Pharmacy Emergency Repeat Medication
21 Supply Service (PERMSS) for those patients who self-presented at community pharmacies out of
22 normal GP opening times. Specifically, service activity will be evaluated and the feedback on the
23 service from the patients accessing and community pharmacists providing it.

24 **Service intervention for self-presenting patients**

25
26 The commissioned PERMSS allowed community pharmacists to provided up to a seven day supply of
27 the patient's POM, except where it was not possible to dispense such volumes e.g. inhalers, creams.
28 In such cases the smallest pack size was dispensed. However, the regulations prevent Schedule 1, 2
29 or 3 controlled drugs being supplied in an emergency with the exception of phenobarbitone or
30 phenobarbitone sodium prescribed for epilepsy. Patients who were exempt from prescription
31 charges received the medicine supply free of charge, while those patients who were not exempt
32 paid the standard prescription charge (£8.20). A professional fee linked to the number of items
33 supplied (£10+ £2 for each additional item) together with reimbursement of the cost of the medicine
34 (Drug Tariff prices plus VAT) was paid for each emergency supply consultation.

35
36 The patient or their representative presented at a community pharmacy during the OOH period. This
37 was defined as Monday to Friday between 6.30pm to 8am, weekends (18.30 Friday – 08.00
38 Monday), Christmas Eve and New year's eve between 6pm and 8am and at any time on specified
39 days (Christmas day, Boxing day, New Year's day, Easter Friday and Easter Monday).

40
41 The community pharmacist assessed whether there was an urgent need for the medicine checking
42 where it was impracticable for the patient to obtain a prescription before the next dose was due.
43 This was followed by one of three outcomes:

- 44 • An emergency supply was made, in accordance with the Human Regulations 2012 [7] as
45 no further clinical advice was required and the POM was available in the community
46 pharmacy;

- The patient was advised to try another pharmacy because, although no further clinical advice was required, the POM was unavailable at the community pharmacy;
- The patient was advised to contact another appropriate healthcare service, e.g. NHS 111 or a walk-in centre because further clinical advice was needed.

When an emergency supply was made, the supply was recorded in accordance with the usual procedure. A record of this supply was also made in PharmOutcomes, detailing patient name, address, verbal consent for supply, medication supplied, nature of emergency, evidence provided and if further pharmaceutical services and advice was needed. A copy of the record was sent to the patient's GP using the PharmOutcomes email notification facility. This included any relevant concerns, advisory notes or issues identified. Further patient pharmaceutical advice could have consisted of effective medicines management, prescription request process and/or medicines reconciliation. Additional services which could also have been provided were a Medicines Use Review (MUR) or consent obtained for repeat dispensing.

METHODS

Service activity

Service activity, with patient identifiable information removed, was automatically sent to the independent evaluator (HN) as an Excel spreadsheet via email from PharmOutcomes. However, the patient age and postcode were included in this data set. The frequency in self-presentation activity across each month and also across the days of the week was investigated to identify any increase in demand at specific periods. Reasons for an emergency supply request and evidence to support this was extracted. Drugs supplied under this service were categorised according to British National Formulary (BNF 68).[15] Supply of high risk drugs as identified by the Patient Safety First Campaign 2008,[16] opiates, insulin, anticoagulants, antipsychotics, non-steroidal anti-inflammatories (NSAIDs), and diuretics were also collated. The number and nature of additional pharmaceutical advice or services were extracted.

Patient feedback

The patient survey was designed to obtain feedback on the service. Patients were asked what their action might have been if this service had not been available, and also asked if this service was associated with a cost would their action have changed and if so in what way. Patients were asked to rate the PERMSS in comparison to other OOH services and also to rate their general satisfaction with the service provided. This survey was designed by the project team and disseminated to the local HealthWatch group and Local Pharmacy Network to test for face validity. We were provided with feedback on format, comprehensiveness and appropriateness of the questions before being used with patients.

At the end of the study period the collected anonymised patient feedback was sent as an Excel spreadsheet to the independent evaluator (HN) by email from PharmOutcomes.

Community pharmacist feedback

An electronic questionnaire was also designed by the project team and circulated within the local HealthWatch group and the Local Pharmacy Network to again test for face validity. Respondents

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3 were asked for comment and approval. This semi-structured questionnaire was designed to evaluate
4 the community pharmacists' understanding and support of the service. In addition, pharmacists
5 were asked if requests for emergency supply of medicines should be managed by community
6 pharmacists and how well this service aligned to their current role and responsibilities. Pharmacists
7 were also asked about how this service contributed to workload, impact on consultation time, and
8 their satisfaction with the reimbursement process. Finally, pharmacists were asked how supportive
9 they were to provide such a service and if service improvements were required.
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11
12 This electronic survey was circulated via PharmOutcomes between 5th January and 7th April 2015. An
13 email message from the Local Pharmacy Committees to alert pharmacists to complete the survey
14 was sent on 5th January. At the end of the evaluation period the anonymised community pharmacist
15 feedback was sent to the independent evaluator (HN) as an Excel spreadsheet to via email from
16 PharmOutcomes.
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19 **Data analysis**

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21 Data relating to service activity and from the patient and pharmacist surveys analysed using
22 descriptive statistics and converted to percentages where appropriate to represent proportions.
23 Open comments were manually coded from both surveys.
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26 **Cost comparison of PERMSS to existing OOH services**

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28 A cost comparison was carried out, however as health benefits were not included a comparative
29 evaluation of costs and benefits e.g. cost-effectiveness or cost-benefit analysis, was not performed.
30 The costs of the community pharmacy provisions of emergency supplies was compared to the costs
31 which could have been incurred should the patient have accessed other OOH services. The cost for
32 an individual consultation at A&E, urgent centre and walk-in centres were provided by the North of
33 England Commissioning Support Unit based on locally derived data. The GP OOH service was a block
34 contract with no individual cost per consultation. So an estimated cost per individual consultation
35 was calculated by dividing the cost of the block contract by the activity within the region provided by
36 the North of England Commissioning Support Unit.
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40 The patients' responses regarding which service they would have accessed in the absence of PERMSS
41 was used to calculate potential costs for the evaluation period and also projected annual cost. A
42 number of patients indicated they would have called NHS 111, with a £8 cost per call. [4] NHS 111
43 would then direct such patients to GP OOH service incurring an additional cost.
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46 Discussion within the project team and on consultation of the NHS Health Research Authority
47 guidance [17] identified the study components to be either audit or service evaluation and therefore
48 ethical approval was not required.
49

50 **RESULTS**

51 **Service activity**

52
53 The service was provided in 227 of the accredited 316 pharmacies across the 12 participating CCGs.
54 In total, 2485 patients self-presented over the evaluation period. This equates to approximately
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three patients being managed per pharmacy per month. Table 1 shows the characteristics of the patients who presented and the nature of the emergency supply requested.

Table 1. The characteristics of the patient requiring an emergency supply, the nature of that emergency and evidence to prove previous medicine supply. (n=2485)

Characteristics of emergency supply request	Number (%)
Access by month	
Dec 2014 (15 th - 31 st)	344 (13.8)
Jan 2015 (1 st - 31 st)	651 (29.2)
Feb 2015 (1 st - 28 th)	550 (22.1)
Mar 2015 (1 st - 31 st)	534 (21.5)
Apr 2015 (1 st - 7 th)	406 (16.3)
Access by day	
Sunday	212 (8.5)
Monday	119 (4.8)
Tuesday	67 (2.7)
Wednesday	54 (2.2)
Thursday	78 (3.1)
Friday	140 (5.6)
Saturday	1815 (73.0)
Age of patient (yrs)	
<13	96 (3.9)
13-19	69 (1.8)
20-29	194 (7.8)
30-39	213 (8.6)
40-49	306 (12.3)
50-59	437 (17.6)
60-69	466 (18.8)
≥70	704 (28.3)
Reason for emergency supply request	
Ran out of medicines	1308 (81.6)
Prescription not ready at the GP surgery	221 (13.8)
Away from home without medicine(s)	69 (4.3)
GP surgery closed	42 (2.6)
Other	155 (9.7)
Evidence of repeat medicines	
Prescription request form	393 (15.8)
Empty pack	455 (18.3)
Patient medication record	1464 (58.9)
GP letter	15 (0.6)
Other	158 (6.4)
Levy status	
Exempt	2249 (90.5)
Paid prescription charge	236 (9.5)
Additional pharmaceutical advice provided	
Effective medicines management	1216 (48.9)
Medicines reconciliation	1364 (54.9)
Prescription request process	249 (10.0)
Other	197 (7.9)

Additional pharmaceutical service provided	
Medicines Use Review	52 (2.1)
Repeat dispensing consent	48 (2.3)
None necessary	2322 (93.4)
Other	67 (2.7)

These 2485 patients were supplied with 3226 medicines, the classifications of which are described in table 2.

Table 2. The medicines supplied through PERMSS as per British National Formulary 68 classification and the distribution of key high risk drugs.

Classification of medicine	Number (%) (n= 3226)
BNF classification	
Cardiovascular	1122 (34.8)
Central nervous system	646 (20.0)
Respiratory	467 (14.5)
Endocrine	429 (13.3)
Gastro-intestinal	223 (6.9)
Obstetrics, gynaecology & urinary	102 (3.2)
Musculoskeletal	70 (2.2)
Skin	22 (0.7)
Nutrition & blood	34 (1.1)
Infections	28 (0.9)
Malignancies	36 (1.1)
Eye	37 (1.1)
Ear, nose & oropharynx	10 (0.3)
High risk categories (n=439, 13.6%)	
Opiates	53 (1.6)
Insulin	61 (1.9)
Anticoagulants	149 (4.6)
Anti-psychotics	40 (1.2)
Non-steroidal anti-inflammatories	37 (1.1)
Diuretics	99 (3.1)

Patient feedback

A 60.8% response rate was obtained with 1511 of the 2485 self-presenting patients providing responses to the questionnaire. Compared to other NHS OOH services, 93 % (n=1405) of respondents found this service easier or much easier to access, and all (100%) respondents would use the community pharmacy in the future for medication issues. Patients were also questioned about what their action might have been in the absence of such a community pharmacy service, and also their action if this service had an associated cost (table 3).

Table 3. Patients' reported actions in the absence of PERMSS or if a service had been available but was associated with a cost. (n=1,511)

Criteria	Action	Number (%)
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Action if unable to obtain medicine from the pharmacist	Missed dose(s) and presented at the GP surgery during surgery hours	756 (50.0)
	Presented at the walk-in centre or urgent care centre	499 (33.0)
	Presented at Accident and Emergency	166 (11.0)
	Called NHS 111	30 (2.0)
	Other	60 (4.0)
Action if required to pay for the medicine	Paid for emergency supply	921 (61.0)
	Missed dose(s) and presented at the GP surgery during surgery hours	287 (19.0)
	Presented at the walk-in centre or urgent care centre	212 (14.0)
	Presented at Accident and Emergency	60 (4.0)
	Called NHS 111	30 (2.0)
	Other	1 (0.0)

If the PERMSS had not existed half (50%, n=756) of the respondents suggested they would have missed their dose(s) until their GP was available to obtain a prescription. A further 46% (n=695) would have accessed another OOH service. The were 60 patients who indicated they would have undertaken an alternative action which included: have purchasing an alternative 'over-the-counter' medication (n=6); gone to a different pharmacy (n=10); used a friend's or family member's medicine (n=11); returned home to retrieve the medicines (n=12); waited to see if they could manage without and then accessed another OOH service (n=5); or asked a neighbour to post medication (n=5). Eleven people did not answer this question. If an emergency supply service did exist but the patient had to pay for the prescription, the majority (61%, n=921) of patients indicated they would have paid for their medication while a smaller number suggested they would have missed the dose(s) (19%, n=287) or accessed another OOH service (18%, n= 272).

Community pharmacist feedback

Of the 316 community pharmacists who were accredited to undertake this service, 221 completed the questionnaire (70% response rate). The service had been provided to self-presenting patients out of hours by pharmacists at 153 (69%) community pharmacies.

Of the respondents, 91% (n=201) agreed or strongly agreed that they were clear on the remit and terms of the service, and agreed or strongly agreed (91%, n=201) that the service was aligned to their current role. The management of requests for emergency supply of medicines OOH by community pharmacists was considered appropriate with 94% (n=208) of pharmacists in agreement.

Pharmacists (84%, n=186) agreed or strongly agreed that they were clear on when to claim for the service provided and 70% (n=155) agreed or strongly agreed that the reimbursement process was simple.

Many of the community pharmacists (66%, n=146) reported an increase in consultation time and identified additional workload. However the community pharmacists were happy or very happy to provide this service to self-presenting patients (92%, n=203). However when asked how the service

could be improved, while 25% (n=55) disagreed or strongly disagreed that changes were required, 40% (n=88) identified improvements. Of those who made suggestions for improvement (n=20) 17 pharmacists suggested refresher training for pharmacists on the emergency supply regulations, and 3 pharmacists recommended an increase in pharmacy capacity to manage these patient requests.

Cost comparison

Of the 1511 self-presenting patients who provided feedback, 695 stated they would have accessed an alternative OOH service had the PERMSS not been available. Each patient received an average of 1.58 medications therefore the average PERMSS cost was £11.16. For the 695 patients the cost in reimbursement to the community pharmacist for the consultation was estimated to be £1,098.10. The projected annual cost of PERMSS would be £3,294.30. The estimated cost of the alternative service access is show in table 4.

Table 4. The estimated costs of OOH services if PERMSS had not been available as per patient feedback

Alternative service accessed	Consultation fee	No. of patients	Cost (Dec-Apr)	Cost pa.**
GP OOH via NHS 111	£96 (GP OOH) + £8 (NHS 111 call)	30	£3,120	£9,360
Walk-in/Urgent care centre	£57	499	£28,443	£85,329
A&E (Type 3)*	£57	166	£9,462	£28,386
Total			£41,025	£123,075

*Classified as a minor department attendance.

** per annum

During the evaluation period if alternative OOH services had been accessed in place of PERMSS this could have been associated with an estimated cost of £41,025, 37 times the cost for supplies made via PERMSS.

DISCUSSION

This service addresses one of the key recommendations for practice in the evaluation of the role of community pharmacists in managing requests for emergency supplies made by Morecroft et al.[8] This recommendation has also been recently reiterated in the national pharmaceutical press as a strategy to reduce pressure on the NHS.[18] PERMSS is an NHS-funded service allowing pharmacists to supply regularly prescribed medicines to NHS patients under the existing the Regulations. The service also includes additional features to support patients managing their medicines more effectively and giving the community pharmacist an opportunity to provide additional services, such as medicines reconciliation or a Medicines Use Review to optimise medicines use when required. This evaluation demonstrated that patients are now happy to have medications issues managed by a community pharmacist and found accessibility much easier than alternative OOH services. Tinelli et al also report high patient satisfaction with a pharmacy-led medications management service. This represented a shift from a previous preference for a doctor- led discussion prior to experiencing the service within the pharmacy.[19] This service evaluation also reiterates findings from Morecroft et al,[8] that indicates community pharmacists provide an important and under-recognised service for

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3 patients to ensure sustained treatment supporting medication adherence and decrease the overall
4 burden to the wider NHS.
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6 Supplies were made during OOH periods and the volume of activity from 1st-7th April indicated that
7 a holiday, including a bank holiday, increased the numbers in requests, as has been previously
8 recorded. [6] However, this evaluation estimated that on average only three patients were managed
9 per pharmacy per month, which does not demonstrate a high demand for this service. This maybe
10 an underestimation because although emergency supplies of POMs at the request of a patient is an
11 activity that every pharmacist is familiar with, they are not routinely required to complete a record
12 on PharmOutcomes. Emergency supply records are made most commonly within the patient
13 medication record and/or in the private prescription record. Consequently, some supplies may have
14 been made which were not captured, as details of supply were not recorded in PharmOutcomes.
15 Although there was a trend towards more requests from older patients (> 60years old), there were
16 significant numbers from the young (< 30 years old) and middle-aged (30-60 years old). A recent
17 review of the role of community pharmacists in emergency supply requests, found similar results
18 and suggested that older people may have more difficulties in ordering their repeat prescriptions on
19 time, but also because this patient group have more medications.[8] The main reason for the
20 emergency supply request was that patients had ran out, with the most common evidence of this
21 medication having previously been prescribed was the patient's medication record. This would
22 indicate that as these personal medication histories were present the patients were presenting at
23 their regular community pharmacy. However we have no information about whether they were
24 registered on a repeat prescription service since this was not an aim of the study and is not
25 information routinely recorded in PharmOutcomes or necessarily on a patient's medication history..
26 The most common medications supplied to self-presenting patients were gastro-intestinal;
27 cardiovascular; respiratory; central nervous system and endocrine. These were similar to those
28 reported in the recent study.[7] From the 3226 medications supplied under this service, 439 (13.6%)
29 were classed as high risk medications. Many studies have reported medication-related reasons for
30 hospital admissions, with non-adherence frequently featuring as a contributor.[20-23] A relatively
31 recent systematic review of drugs causing preventable admissions to hospital reported that from the
32 17 included studies identified, diuretics, anti-diabetics and anti-epileptics were the drugs associated
33 with patient adherence problems which lead to admissions.24] Consequently, the identified high risk
34 medications could be associated with increased patient safety issues especially if doses are missed
35 or delayed. The responses to potential alternative actions taken by patients in the absence of
36 PERMSS indicated that dose(s) would have been missed in a large proportion (50%) of patients. In
37 many cases this might have been clinically safe, e.g. missing one dose of a statin, or aspirin being
38 used for secondary preventative measures. However, for some medications, this could have posed a
39 significant patient risk, e.g. anti-diabetics.
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49 Unsurprisingly, the pharmacists expressed support for such a service to be provided within
50 community pharmacies as it aligns directly with their current roles and responsibilities. They found
51 the remit and reimbursement of the service simple and effective. They conceded that consultation
52 time and workload might increase as a consequence due to the requirement of making a record
53 within PharmOutcomes, but this did not appear to diminish their commitment to providing the
54 service.
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3 A number of the patients (46%) suggested they would have presented at an alternative OOH service
4 and therefore contributed to demand at emergency and urgent care. Most patients in this study
5 indicated they would have paid for their medicines if they had been able to access this service but
6 with an associated cost. The current emergency supply regulations do provide for such a supply
7 where patients are required to pay a fee, the cost of which is at the discretion of the pharmacist.
8 However this is contrary to previously reported findings which indicated that a cost would deter
9 patients from presenting at a pharmacy and instead present where an NHS funded supply might be
10 guaranteed via the issue of a prescription from an OOH service clinician.[7] However, Blumenschein
11 et al found that in asking a hypothetical dichotomous question on willingness to pay ('yes'/'no') of a
12 group offered a pharmaceutical asthma service for free, overestimated the real willingness to pay,
13 when compared to a group who actually had to pay for the service.25] Therefore further work needs
14 to be undertaken to explore patients' willingness to pay for a community pharmacy emergency
15 supply service.
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20 The cost comparison based upon patients' responses, suggested that the PERMSS, when
21 conservatively compared to the unit costs of alternative OOH services, offers a more economical
22 option to the NHS for the management of these patients OOH, and outside emergency and urgent
23 care service providers (A&E and GP OOH). These estimations were based on a hypothetical question
24 posed to patients in the event that PERMSS had been unavailable and therefore this should be
25 explored.
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28 Further work is required to comprehend whether further demand for emergency supplies exists and
29 was managed via the normal emergency supply procedure and recorded as the standard operating
30 procedures of the respective pharmacies. Entries into PharmOutcomes only documented the
31 number of self-presenting patients who were considered clinically appropriate and received an
32 emergency supply by the community pharmacist. Those patients that were advised that a supply
33 could not be made but referred to another pharmacy for stock or referred to OOH for further clinical
34 assessment by another healthcare professional were not recorded. Therefore further work is
35 required to understand the entire need or nature of requests for emergency supply medication. No
36 patient feedback was recorded from those who did not receive a supply, therefore global
37 satisfaction with the service requires further evaluation. Linking the patient feedback to the patient
38 consultations would allow better understanding of patient behaviours in relation to non-adherence
39 and alternative services or actions that may have been taken in the event that no supply was made
40 at the pharmacy. This would allow patient risk related to non-adherence of high risk medications to
41 be explored more effectively. Morecroft et al described the ethical dilemmas often faced by
42 community pharmacists when requests for emergency supplies are made. Many concerns related to
43 abuse of the service as could patients use it instead of regularly attendence at their GP
44 surgery.[8] It would be interesting to investigate if such reservations still exist amongst the
45 profession since it has recently been announced that patient Summary Care Records, an electronic
46 patient record derived from patients' GP records, will be provided to community pharmacies from
47 autumn 2015.[26] This development will allow pharmacists access to previously unseen complete
48 medication histories allowing them to monitor for abuse of repeat requests for emergency supply
49 medications and provide more information for adherence monitoring. This additional safeguard
50 might provide the profession with the freedom and reassurance to raise public awareness of the
51 emergency supply service and may impact on patient care-seeking behaviour related to medication
52 issues.
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CONCLUSIONS

Community pharmacists can manage patients out of hours for requests of supplies of their repeat medications. This service was well received by patients who self-presented at these community pharmacies and by the pharmacists who provided the service. The cost of this service to the NHS would appear to be economically favourable when compared to alternative out of hours services which might have been accessed. This service appears to be an appropriate response to the recent calls for emergency supplies to be provided by community pharmacies in order to reduce the burden on the wider NHS.

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COMPETING INTERESTS

No, there are no competing interests.

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CONTRIBUTORSHIP STATEMENT

AY and JS designed and implemented the intervention. HN designed the service evaluation. HN and ZN analysed the data. HN, ZN, AY, JS and CW all discussed the results and interpretation. All authors were involved in the drafting the initial text for the report and revising drafts prior to publication, and all approved the submission.

DATA SHARING

No additional data available.

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Correction

Nazar H, Nazar Z, Simpson J, *et al.* Summative service and stakeholder evaluation of an NHS-funded community Pharmacy Emergency Repeat Medication Supply Service (PERMSS). *BMJ Open* 2016;6:e009736.

The calculation in the cost comparison paragraph on pages 5–6 is incorrect and should be:

Of the 1511 self-presenting patients who provided feedback, 695 stated that they would have accessed an alternative OOH service had the PERMSS not been available. Each patient received an average of 1.58 medications, and therefore the average PERMSS cost was £11.16. For the 695 patients, the cost in reimbursement to the community pharmacist for the consultation was estimated to be £7,756.20. The projected annual cost of PERMSS would be £23,268.60. The estimated cost of the alternative service access is shown in table 4.

During the evaluation period, if alternative OOH services had been accessed in place of PERMSS, this could have been associated with an estimated cost of £41 025, 5 times the cost for supplies made via PERMSS.

As a consequence of this error the results section of the abstract should also be changed to reflect this as follows:

The cost of National Health Service (NHS) service(s) for patients who would have accessed an alternative OOH service was estimated as 5 times that of the community pharmacy service provided.

BMJ Open 2016;6:009736corr1. doi:10.1136/bmjopen-2015-009736corr1



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