Utilising community pharmacists to reduce prescribing waste

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Community pharmacy teams are in a unique position to identify opportunities for medicines optimisation. Richard Brown describes a joint project carried out between Avon Local Pharmaceutical Committee and Bath and North East Somerset CCG that utilised community pharmacists to identify and reduce prescribing waste.

To alleviate the increasing costs of prescribing, Bath and North East Somerset (BaNES) CCG, like most other CCGs, is actively seeking new and original ways to decrease inappropriate prescribing and reduce medication waste.

In 2010, a report by York Health Economics Consortium and the School of Pharmacy, University of London, estimated medication waste to cost approximately £300m per year in England. This figure included £90m of unused medication retained by patients, £110m of medication returned to community pharmacies and £50m of medication unused in care homes. This ratio is still deemed valid today, the only caveat being that prescription volumes have increased from 926.7m in 2010 to 1.10bn in 2016, which represents an 18% increase in items dispensed.

The same report concluded that most medication wastage could be broken down into the following categories:
- The patient recovered before all their medication had been taken.
- Therapies stopped or changed, e.g., they were ineffective or produced unwanted side-effects.
- The patient’s condition(s) progressed, which required new treatments.
- A patient’s death. This often reveals medication that had not been taken and/or changing medication used during end-of-life care.
- Factors in the prescribing and dispensing process that resulted in excessive quantities being supplied.
- Care system failures to adequately support vulnerable individuals who cannot independently adhere to their treatment regimens.

Currently, there is no published data for the annual cost of medication wastage in BaNES. However, proportionately it can be estimated at around £1,000,000 using the known BaNES population (187,700), which represents 0.34% of the 55.3m population of England (2016), against the total figure (£300m) of the annual estimated cost of medicines wastage in England.

Medicines optimisation project
Community pharmacy teams are in the unique position of interacting with the patient each time they dispense a prescription, so they frequently have the opportunity to discuss medication regimens with the patient and identify opportunities for medicines optimisation.

PharmOutcomes is a secure clinical service record platform, currently used by over 85% of pharmacies in England. It enables pharmacies to store all information relating to services delivered in their pharmacies. In 2014, the platform released the ability to securely transfer information on patient discharges from hospital to allow the community pharmacy team to follow up with the patient. This function has also enabled the secure transfer of information from the community pharmacy to the practice pharmacist.

Box 1. The PharmOutcomes record platform
recognition of this important role, BaNES CCG and Avon Local Pharmaceutical Committee (LPC) utilised community pharmacy teams to develop a medicines optimisation service.

Historically, a number of ‘not dispensed’ schemes have also reimbursed pharmacies for not supplying unwanted prescriptions\(^6,7\) but this has not addressed the surgery medication record, which is the main cause of the problem. The patient is therefore able to order the same unwanted medication in future months. In order to resolve this, BaNES CCG and Avon LPC worked collaboratively to create a service that enabled community pharmacies to identify medications no longer required, or cases where the treatment could be optimised to reduce cost, and to alert this to practice support pharmacists in GP surgeries electronically using the PharmOutcomes record platform (see Boxes 1 and 2). To support this process, the CCG invested an appropriate budget to reimburse pharmacies for the work carried out, with the proviso that reimbursement would only be made once the practice support pharmacist had accepted and made the prescription change on their system.

**Business case**

With regard to any medication that was stopped, the CCG benefited by not paying the Net Ingredient Cost. This is the Drug Tariff cost of the medication and is on average around £7.50–£8.00 per item. If a patient receives the item every 28 days then the cost to the CCG is between £97.50–£104.00 per annum (requiring 13 supplies per year on a 28-day script).

The professional fee paid to the community pharmacy was £30 to remunerate for the work carried out, along with the reduction in fees and the retained margin caused by not dispensing the item. The professional fee was only paid to the community pharmacist once the practice support pharmacist accepted the change. This way of working provided the CCG with a level of financial governance because, unlike most schemes of this nature,\(^6,7\) the CCG only reimbursed the community pharmacy once they had realised the saving.

Project implementation was also written into the business case with a grant awarded to ensure a successful launch and also to cover the licence costs of PharmOutcomes for each GP practice.

**Implementation**

Avon LPC was responsible for the project management and implementation. This involved engaging with the following stakeholders and setting up key reporting structures:
- Signing community pharmacies up to the project.
- CCG notifying the GP practices that the service would be going live.
- Recruiting practice support pharmacists in the GP surgeries.
- Establishing PharmOutcomes notification service.
- Training the practice support pharmacists on PharmOutcomes.
- Setting up CCG financial reporting suite to prove the savings.

Following a joint training meeting between the CCG, LPC, community pharmacies...

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**Box 2. PharmOutcomes service overview**

During a consultation with the patient, the community pharmacist carries out a review of a medication regimen and identifies any optimisation opportunities. Examples include, but are not limited to:

1. Removal of unwanted medication (with appropriate script endorsement)
2. Reduction in prescription quantity/ frequency to synchronise with other medication
3. Change of medication formulation, eg from liquid to tablets
4. Change of expensive specials to Drug Tariff lines
5. Merging medication, eg multiple strengths into one

This information is then entered in PharmOutcomes using a template to capture the following:

1. Patient details
2. Surgery details (to ensure the record is received by the correct practice support pharmacist)
3. Medication involved
4. Prescribing interval and quantity
5. Suggestions for new medication

Following the consultation and agreement with the patient, the community pharmacist makes a recommendation to the surgery-based practice support pharmacist detailing what medication changes would benefit the patient (as per the above categories).

Once completed, the electronic PharmOutcomes record is provided to the nominated GP surgery to allow the practice support pharmacist to examine the community pharmacist recommendation against the patient’s medical record as per the following guide:

1. No action:
   a. The recommendation was rejected by the practice support pharmacist with no change made to the patients record
   b. No professional fee is paid to the community pharmacy
2. Outstanding:
   a. A recommendation has been made but the practice support pharmacist is yet to accept or reject it
3. Accepted:
   a. The recommendation was accepted by the practice support pharmacist and the patient’s record has been changed
   b. A £30 professional fee is payable to the community pharmacist

The professional fee was only paid to the community pharmacist once the practice support pharmacist had accepted and made the prescription change on their system.
and practice support pharmacists, the eight-week pilot phase with five community pharmacies was launched. The pilot outcomes were assessed and the following enhancements to the training and implementation were introduced for the next phase, which included a further 11 pharmacies:

- Emphasis was placed on high-value changes.
- Care homes wastage was identified as a key area for focus.
- CCG switches of medication (such as inhalers) were identified. The community pharmacy would ensure the old medication did not reappear on prescription.
- A good relationship and communication between the community pharmacist and the practice support pharmacist was vital to ensure that the community pharmacist was identifying appropriate changes.

Results

During the pilot phase, a total of 120 suggestions were submitted by the community pharmacists, of which 69 were accepted with an annualised saving of £9396. Of the remaining 51, only 13 were rejected with 38 awaiting approval by the end of the pilot evaluation.

The project has now received 300 entries in four months from community pharmacies with 187 being accepted, representing a total annual saving of £23,994 (see Table 1). The professional fee paid to the community pharmacies has been £5610 (187 x £30), which means the CCG has saved £18,384 since the pilot started. It is also worth noting that in the second year of the project, the CCG will continue to benefit from the savings made. This represents a CCG return on investment of £4.28 for every £1 spent in fees.

Analysis of the savings per pharmacy is shown in Figure 1. All 16 pharmacies have been able to identify savings to the CCG, with some being more successful than others. Seven pharmacies have been able to identify accepted changes of over £1000, with the most successful identifying over £8000 of savings.

The same analysis was also considered by the CCG at a surgery level. As part of the project implementation, support was offered to the practice support pharmacists on how to focus on key changes and to build these reviews into their daily workload. At any given time, different practice support pharmacists working in their assigned GP surgery will have recommendations that they have accepted, not yet reviewed (outstanding) and rejected. Analysis of Figure 2 shows that the 16 pharmacies linked into 19 GP surgeries. Eight surgeries accepted over £1000 of savings during the first four months.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Number of suggested changes</th>
<th>Accepted</th>
<th>Annual Saving</th>
<th>Saving per accepted change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of medication</td>
<td>98</td>
<td>60</td>
<td>£7989</td>
<td>£113</td>
</tr>
<tr>
<td>Switch from one medication to another</td>
<td>116</td>
<td>74</td>
<td>£5545</td>
<td>£75</td>
</tr>
<tr>
<td>Reduce the quantity on the prescription</td>
<td>58</td>
<td>33</td>
<td>£6390</td>
<td>£194</td>
</tr>
<tr>
<td>Reduce the frequency of prescribing</td>
<td>28</td>
<td>20</td>
<td>£4070</td>
<td>£203</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>187</td>
<td>£23,994</td>
<td>£128</td>
</tr>
</tbody>
</table>

Table 1. Analysis of the types of changes identified by the community pharmacies signed up to the project and their associated financial benefit.

Evaluation

In the first four months, the project identified and actioned changes that produced an annual saving of nearly £24,000 with an investment of £5,610 from the CCG, representing a return on investment of £4.28 saving for every £1 spent. A success of the project has been the use of PharmOutcomes, which has resolved the issue encountered by previous similar projects of being hampered by inconsistent notification of changes to the surgery. Using PharmOutcomes ensures that each recommendation goes to the right practice support pharmacist, and
only when they approve the recommendation is the community pharmacist reimbursed.

The success with the initial 16 pharmacies has meant that the project has been opened up to all 40 pharmacies in BaNES CCG, and it is projected that in year one over £80,000 of annualised savings will be identified. Once all 40 pharmacies in the CCG are live, the annual potential savings are projected to be over £200,000.

The main outcome for the project was to reduce prescribing waste and hence reduce CCG prescribing costs. However, an unforeseen benefit of the project was the enhanced working relationship between the community pharmacist and the practice support pharmacist that it also achieved. There are now direct links between the two and as a result, this has stimulated communication about other ways to develop the project in the future.

The future of the project
What started off as a project to stop medication waste has already evolved into a medicines optimisation strategy in which community pharmacists are now actively looking for patients who are not on the most effective treatment regimen according to local treatment protocols or national guidance. As the project continues to develop, this service will focus on specific conditions that are aligned with the CCG plan. It is anticipated that the community pharmacists will then play a role in ensuring that treatments conform with the CCG strategy along with communicating with the patient when regimen changes are implemented across the CCG. To allow this to happen, the practice support pharmacist needs to pass treatment records to the pharmacy to enable them to contact the patient and follow up drug switches. It has already been proposed that with an upcoming inhaler switch, the community pharmacy will be sent details and asked to monitor the patient to ensure correct use of and adherence to the new device.

Summary
Ultimately, this project has shown the important role community pharmacists play in the identification of medication waste in the system. They are often the one healthcare professional who has regular contact with the patient or their carer, and they are sometimes the one person a patient is honest with about their treatment. By harnessing a community pharmacist’s extensive medication knowledge and patient contact time, this project puts them at the forefront of community-based medicines optimisation and presents a novel way for CCGs to work with their community pharmacy colleagues.

References

Declaration of interests
In his position as Chief Officer at Avon local pharmaceutical committee, Richard Brown has chaired training events sponsored by the pharmaceutical industry without receiving personal financial gain.

Richard Brown is Chief Officer at Avon local pharmaceutical committee