Responding to the National Review of Asthma Deaths (NRAD)

The contribution that community pharmacies can make

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Pharmaceutical Services Negotiating Committee
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Responding to the National Review of Asthma Deaths

Part 1: Evidence for the contribution that community pharmacy can make

We are pleased to note that the recommendations matrix in the National Review of Asthma Deaths (NRAD) identifies a number of ways in which pharmacists could contribute to efforts to improve care for people with asthma. However, our evidence suggests that there are a number of additional areas in which community pharmacies could help. In this paper we summarise some key elements of that evidence.

The community pharmacy NHS Medicines Use Review (MUR) service can be offered by all pharmacies in England and enables pharmacists to have a semi-structured discussion with patients to optimise their use of medicines. Similarly the NHS New Medicine Service (NMS) enables pharmacists to discuss medicines with patients who have been newly prescribed a medicine for a long-term condition, and to then follow up with them to answer any questions they may have once they have started using the medicine.

The costs to the NHS of incorrectly used or 'wasted' medicines have been well documented in recent years, and the aims of these services are to both improve patient health outcomes, and to ensure the NHS gets best value from its spend on medicines. In some cases the improvement in patient outcomes can be significant and can lead to measurable cost savings for the NHS. Both services can be offered to patients with asthma and some of the benefits of this are discussed in the following sections of this paper.

Pharmacy teams are effective in improving inhaler technique

In a project run by the pilot Pharmacy Local Professional Network for NHS South Yorkshire and Bassetlaw between September 2012 and March 2013, 93 pharmacies provided advice to patients about their respiratory diseases (specifically asthma or COPD), their use of different medicines, inhaler technique and symptom control in MUR and NMS consultations.

1,616 consultations took place and in each consultation the patient's inspiration rate (IR) for each device used was tested at the start and again following the pharmacist's advice. The following table demonstrates that by the end of the consultations pharmacists had helped more than 1,000 patients to meet the target IR for their inhaler.

Type of Inhaler Used (Number)	**% achieving range before consultation**	**% achieving range after consultation**
MDI *(n=803)*	21.7	98.6
Turbohaler® *(n=223)*	51.6	100.0
Accuhaler® *(n=94)*	79.8	98.1
Clickhaler® *(n=8)*	75.0	100.0
Twisthaler® *(n=3)*	66.7	100.0

Pharmacy teams are effective in improving asthma control and symptoms

Between April 2011 and June 2012, 206 community pharmacies in the South Central Region carried out a range of MURs designed to help patients with asthma and COPD to improve their inhaler technique and to assess their asthma and their COPD symptoms (using the Asthma Control Test (ACT) and COPD Assessment Test (CAT) respectively). In some cases follow up MURs were carried out to measure improvement following the initial advice given.

As part of the MURs, pharmacists used either the ACT or CAT and recorded the results in an electronic system. An analysis by the Cambridge Consortium of the recorded data, covering 4,600 asthma control tests and 448 COPD assessment tests, found that:

- There was statistically significant evidence of improved asthma control between the first and follow up MURs, with a 40% increase in the number of people achieving a test score representing good asthma control at the follow up stage.
- There was statistically significant evidence of improved COPD management following the intervention – at the second MUR more people achieved CAT scores indicating a less severe impact on their lives from COPD.
- Analysis of data on emergency asthma and COPD admissions showed a positive association between the introduction of the project and changes in emergency hospital admissions.

Pharmacy teams are effective when carrying out asthma reviews

In Leicester City community pharmacy teams were integrated into the local primary care team and commissioned to deliver asthma reviews to patients, including signposting, medication reviews, inhaler technique assessment, peak flow measurement and advice, with the aim of improving patients' control of their asthma.

125 patients were seen in total, with 42% of those saying they had not received a review in their GP practice in the past year and just 15% having an asthma action plan. Outcomes included:

- Clinically important improvements in asthma control (as measured by the ACT) in 40% of patients
- Statistically significant improvements in patient quality of life and inhaler technique
- Statistically significant reductions in the collection of prescriptions for reliever inhalers and a highly significant increase in the collection of repeat prescriptions for preventer inhalers
- A 32% reduction in the number of visits to GPs for asthma-related issues over the study period
- A 40% reduction in hospital admission data (although sample sizes were small)

The authors conclude that community pharmacists with basic training in the management of people with asthma can provide an enhanced asthma review intervention and that these interventions can improve outcomes in the treatment of people with asthma.

Pharmacy teams are effective at reducing hospital admissions

In 2010, the Isle of Wight Primary Care Trust ran a project with community pharmacies to help people with asthma to use their inhalers correctly. The project was recognised by the Health Service Journal with an Award in 2011. Before the project, the island's annual spend on medication for the treatment of asthma and COPD was 11% above the national average, and emergency admissions due to asthma at the island's hospital were far higher than would be expected for the population served.

The nine-month pilot saw community pharmacies using MUR consultations to specifically measure the ability of patients to use their inhalers and to provide a free training aid to help retrain them to use them correctly.

Key results included:

- 50% reduction in hospital admissions due to asthma over a three-month period
- 75% reduction in deaths due to asthma over the same period
- 22.7% reduction in costs of prescribed selective beta-agonists (used as an indicator of disease control as poor inhaler technique leading to poor control would be expected to lead to an increase in selective short acting beta-agonist inhaled therapy)
- 25.2% reduction in prescription numbers for selective beta-agonists

Clearly such an improvement in disease control and admission rates had significant consequences for the local health service and for patients.

Part 2: Using community pharmacies to fill gaps in asthma care

Taking into account all of this evidence and the needs identified in the NRAD, we believe the contribution that community pharmacies can make to the care of people with asthma could be developed in a number of ways:

1: Enhancing the dispensing process

2: Medicines Use Reviews (MURs) and the New Medicine Service

3: Post-discharge support

4: Annual medication reviews and longitudinal care

5: Responsibility for care of people with asthma

We describe these in more detail below and then consider next steps and commissioning routes.

1. Enhancing the dispensing process

Community pharmacies in England safely and efficiently supply nearly one billion prescription items each year and all pharmacies provide the dispensing service. Building additional elements around this service to enable pharmacies to provide further support to help people with asthma to optimise their use of medicines and improve safety could be a way to rapidly increase the contribution that pharmacies can make to this agenda.

The application of STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment) indicators during the dispensing process to identify potentially inappropriate prescribing or circumstances where additional prescribing may be warranted, based on NICE and other guidelines, have been successfully tested in the Community Pharmacy Future Project. This project saw the team recently named by the British Medical Journal as the Respiratory Team of the Year for their work in successfully identifying and supporting patients with respiratory disease through community pharmacies.

Following these principles, indicators could be developed for application during the dispensing process to enable pharmacies to identify people who are, for example, over-using reliever inhalers or under-using preventer inhalers. These patients could then be offered help to improve their asthma control, for example in the form of a Medicines Use Review covering inhaler technique. In this way community pharmacies could help to address the sub-optimal use of asthma medications identified in the NRAD, and make a significant contribution to the recommended surveillance of prescribing in primary care and the delivery of urgent reviews of asthma control and assessments of inhaler technique.

2. Medicines Use Reviews (MURs) and the New Medicine Service (NMS)

The nationally commissioned NMS and MUR services both support patients to optimise the use of their medicines and to get the maximum benefit from them. But although changes in recent years have targeted

the MUR service towards priority groups of patients, including those with respiratory disease, pharmacies are still limited in how much they can help people with asthma. This is because the two services do not currently fit firmly within locally or nationally agreed care pathways for patients with specific long-term conditions (LTCs), and because pharmacies can only deliver one MUR per patient annually, and only up to a maximum of 400 MURs per year.

The development of these two services could therefore start by focussing the provision of a greater number of MUR and NMS on people with asthma who could *all* be offered annual support via an MUR, to include a check of inhaler technique, and additional support when a new medicine is introduced into their regimen. This approach may benefit from the registration of patients with an individual pharmacy to allow the management of the service by local commissioners, and from the identification of an asthma lead within community pharmacies, as per the recommendations in the NRAD.

This approach would see community pharmacies taking responsibility for provision of specific support to the entire cohort of people with asthma, which would allow, where appropriate, the community pharmacy support to be embedded within local or national disease management pathways and NICE quality standards. In this way, patients with asthma and other healthcare professionals involved in their care would have certainty about what support community pharmacies would provide, supporting team working across primary care to help people with asthma.

3. Post-discharge support

The NRAD very clearly highlights the need for improved follow-up of patients with asthma following discharge from hospital. Community pharmacies, as the healthcare professionals who will see many patients most regularly, are ideally placed to offer this support, for example through the provision of an MUR to discuss patients' adherence to medication and their use of inhalers.

Through the national community pharmacy contractual framework (CPCF) pharmacies can already provide MURs to patients who have had their medicines changed following discharge from hospital, and extension of this service to cover all people discharged following admission for asthma would enable pharmacies to cover this cohort of patients.

This would require the cooperation of local hospital colleagues and General Practice in order that this group of patients could be identified for the provision of an MUR and made aware of the need for it, and any relevant information shared back with doctors, but this could be led by local commissioners.

As part of their discussions with patients, pharmacists could also talk through asthma plans with them to ensure that they understand the ongoing care they can expect and how that could help them to manage their condition.

4. Annual medication reviews and longitudinal care

As mentioned above, one of the failings of the current MUR service is that it generally can be provided only once a year to each patient. This episodic approach prevents the provision of longitudinal care to the patient over the course of the year, which is needed if pharmacies are to have the maximum positive impact on optimising the patient's use of their medicines.

A second stage of development of community pharmacy medicines optimisation services may therefore be to encompass the support provided by MURs and the NMS within a new service focussed on people with asthma, to allow more frequent interventions with the patient. The use of patient registration and of innovative smartphone apps could be incorporated into this service offering.

A service like this would enable all people with asthma to have an annual review, as is recommended by the NICE quality standard for asthma, in their chosen pharmacy at a time convenient to them and very possibly without the need even for an appointment. Traditionally this type of review has been undertaken in general practices by practice nurses, but in the future these reviews could be undertaken by community pharmacy, in line with any standard template developed, and to include an assessment of inhaler technique as outlined in the recommendations of the NRAD. Repeating these assessments annually would ensure that patients' inhaler technique does not drop off, and including the Asthma Control Test and/or a review of the patient's recent peak flow readings as part of them would enable pharmacists to check how well the condition is being controlled so that any early deterioration could be detected and interventions made if they were needed.

As well as the annual review and specific support and follow up whenever any new medicines are prescribed, the service could include regular interventions when the patient has their repeat medicines dispensed, such as provision of reminders to take medicines and support messages about other aspects of the patient's condition.

5. Responsibility for care of people with asthma

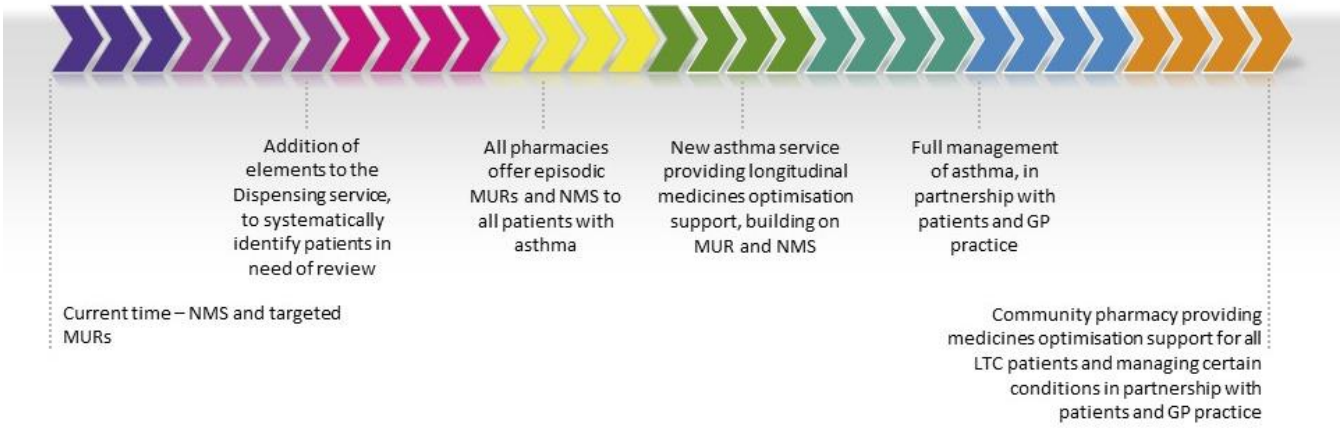
The development of the medicines optimisation services described above could take place alongside a move to support more active management of people with asthma by pharmacies.

Currently, many long-term conditions are managed in general practice by practice nurses in line with the structured guidelines provided by NICE and other institutions. But we note that there is a desire by many Clinical Commissioning Groups (CCGs) to release capacity in general practice to enable GPs and their teams to take on the management of more complex diseases, currently managed in secondary care, or to allow more active case management of high risk patients, such as the over 75 years age group. One way to create this capacity is for community pharmacies, in collaboration with GP practices, to manage specific patient cohorts, or at least to undertake specific elements of disease management detailed in care pathways and quality standards.

For example, as described above, community pharmacies could undertake the annual reviews as well other more regular care of patients with asthma. If pharmacies were given lead responsibility for that care within local care pathways along with read/write access to patients' records they could quickly take over responsibility for a significant cohort of patients from GP practices to release capacity, all the while keeping other health professionals updated about those patients. Applying this approach to patient care may also require a review of the suitability of the current routes by which pharmacists can amend the dose of prescribed medicines, or supply or prescribe an additional medicine to a patient.

Next Steps

The above options for iterative service development are summarised in the graphic below.



Of course we believe that implementing some of these services at a national level would enable the most rapid increase in the contribution of pharmacies to the care of people with asthma to meet the needs highlighted in the NRAD. But recognising the need to initially focus on local service commissioning, we believe CCGs are ideally positioned to implement some of these suggestions to help local patients.

To facilitate this, we would like to work with the authors of the NRAD and other relevant stakeholders to develop a commissioning framework that could be picked up by CCGs at a local level. Working with the needs identified in the review and the knowledge and evidence we have for the contribution that community pharmacies can make, we believe we can develop a framework that would enable CCGs to easily adopt a standardised system to ensure they are meeting the needs of people with asthma most effectively. This standardised approach would enable rapid uptake to meet many of the needs identified in the review, giving people with asthma more confidence in the services they can expect to receive.

Appendix: Community pharmacies and the asthma care recommendations

The National Review of Asthma Deaths (NRAD) made a number of recommendations to improve care and reduce the number of deaths from asthma. The recommendations matrix identified pharmacists as people who could help to deliver a number of these.

If our vision for the development of the role that community pharmacies can play in this area were to be realised, we believe that community pharmacies could make an even greater contribution to asthma care than that identified in the NRAD. Building on the NRAD recommendations matrix, we have shown below exactly what this contribution could be.

Recommendation	Potential role for community pharmacy
Every NHS hospital and general practice should have a designated, named clinical lead for asthma services, responsible for formal training in the management of acute asthma.	Community pharmacies, as the most easily and regularly accessed healthcare locations, particularly by patients with long-term conditions, would also benefit from having such asthma leads. These leads could ensure that this area of care remains a priority and that the regular contacts pharmacies will make with asthma patients are used to best help them.
Follow-up arrangements must be made after every attendance at an emergency department or out-of-hours service for an asthma attack. Secondary care follow-up should be arranged after every hospital admission for asthma, and for patients who have attended the emergency department two or more times with an asthma attack in the previous 12 months.	Following an emergency admission to hospital, all patients could receive a consultation to discuss their use of inhalers and ensure they understand the differences between their inhaler types, which should be used when and how they should be used correctly. This could help avoid additional admissions. Community pharmacies have been shown to be able to deliver these consultations effectively and are ideally placed to do so. The consultations have also been shown to improve asthma control and to reduce hospital admissions. If information were sent electronically to pharmacies following patient discharge, pharmacies could offer these consultations whenever the patient next had to pick up medicines or at any other time to suit the patient.
A standard national asthma template	As pilot work has shown, community pharmacies

should be developed to facilitate a structured, thorough asthma review. This should improve the documentation of reviews in medical records and form the basis of local audit of asthma care.	can deliver asthma reviews in accordance with standard templates and as part of agreed local asthma pathways. With read/write access to patients' records they could ensure that documentation is updated as needed. Pharmacists could also contribute to the development of a standard national template, in particular offering expertise on the medicines optimisation objectives and methods to be used.
Electronic surveillance of prescribing in primary care should be introduced as a matter of urgency to alert clinicians to patients being prescribed excessive quantities of short-acting reliever inhalers, or too few preventer inhalers.	As mentioned in our paper, the Community Pharmacy Future Project has showed how effectively community pharmacies can case-find during the dispensing process. The application of indicators during the dispensing process to identify potentially sub-optimal prescribing for people with asthma or sub-optimal use of medicines by patients could prove an extremely useful surveillance tool in primary care.
In all cases where asthma is considered to be the cause of death, there should be a structured local critical incident review in primary care (to include secondary care if appropriate) with help from a clinician with relevant expertise.	If community pharmacies were to take on the ongoing care of people with asthma they would be well-placed to contribute to such reviews and to learn from them to help prevent future similar incidents.
All people with asthma should be provided with written guidance in the form of a personal asthma action plan (PAAP) that details their own triggers and current treatment, and specifies how to prevent relapse and when and how to seek help in an emergency.	As outlined in our paper, given their knowledge base and the regular contact they have with patients with long-term conditions, community pharmacists are well-placed to become the lead clinicians helping people with asthma to manage their condition. If their role were developed in this way community pharmacists could use the regular contact with patients to develop, monitor and review such plans on an ongoing basis.
People with asthma should have a	As pilot work has shown, community pharmacists

structured review by a healthcare professional with specialist training in asthma, at least annually. People at high risk of severe asthma attacks should be monitored more closely, ensuring that their personal asthma action plans (PAAPs) are reviewed and updated at each review.	are well placed to deliver asthma reviews in accordance with a standard template and as part of agreed local asthma pathways. With read/write access to patients' records they could ensure that documentation is updated as needed. We believe that using pharmacies in this way would benefit patients as well are reducing burdens on other healthcare professionals.
Factors that trigger or exacerbate asthma must be elicited routinely and documented in the medical records and personal asthma action plans (PAAPs) of all people with asthma, so that measures can be taken to reduce their impact.	Community pharmacists often see patients with long-term conditions far more regularly than any other healthcare professionals involved in their care. They are therefore ideally placed to talk to people with asthma regularly about their condition to assess how well they are managing it and any evolving triggers. With appropriate access to care records pharmacies could act as an incredibly useful intelligence gatherer for this sort of information, as well as offering immediate advice for patients on how to manage triggers.
An assessment of recent asthma control should be undertaken at every asthma review. Where loss of control is identified, immediate action is required, including escalation of responsibility, treatment change and arrangements for follow-up.	As patients will need to visit their community pharmacy regularly to collect repeat prescriptions, pharmacists are perhaps better placed than any other healthcare professional to ask patients regularly about their condition and find out how well they are controlling it. Pilot projects have demonstrated that community pharmacies can assess asthma control in patients and offer advice that helps them to improve it. As part of an agreed local care pathway, pharmacists could carry out these checks, give advice as necessary and alert other professionals if needed.
Health professionals must be aware of the features that increase the risk of asthma attacks and death, including the significance of concurrent	This should apply to community pharmacists as well, particularly if they are to enhance their role in looking after people with asthma. Regular updates could form part of their required

psychological and mental health issues.	continuing professional development.
All asthma patients who have been prescribed more than 12 short-acting reliever inhalers in the previous 12 months should be invited for urgent review of their asthma control, with the aim of improving their asthma through education and change of treatment if required.	The Community Pharmacy Future Project mentioned previously showed how effectively community pharmacies can case-find and the application of indicators during the dispensing process to identify potentially sub-optimal asthma prescribing or use of medicines by patients could prove an extremely useful surveillance tool in primary care. Pharmacies could identify patients and refer them for review either with themselves, as also discussed in our paper, or another healthcare professional. Recruiting asthma patients to the repeat dispensing service would be particularly helpful here as it would enable community pharmacies to more easily monitor for frequent use of reliever inhalers.
An assessment of inhaler technique to ensure effectiveness should be routinely undertaken and formally documented at annual review, and also checked by the pharmacist when a new device is dispensed.	As outlined in our paper, community pharmacy reviews covering inhaler technique can make a significant difference to patients, improving asthma control and reducing hospital admissions. Extending NHS Medicines Use Reviews and the New Medicine Service to allow pharmacies to offer such support on a more regular basis could make a significant contribution to reducing asthma hospital admissions and deaths.
Non-adherence to preventer inhaled corticosteroids is associated with increased risk of poor asthma control and should be continually monitored.	As described in our paper, the development of NHS Medicines Use Reviews and the New Medicine Service would enable community pharmacies to offer people with asthma longitudinal care, meaning they could regularly review inhaler use with them to ensure adherence and prevent complications from developing. As they will come into contact with asthma patients regularly, pharmacies could also use the dispensing process to check for potential

	non-adherence and to review with patients if necessary. Pilot projects have demonstrated that community pharmacies can assess asthma control in patients and offer advice that helps them to improve it.
The use of patient-held 'rescue' medications including oral corticosteroids and self-administered adrenaline, as part of a written self-management plan, should be considered for all patients who have had a life-threatening asthma attack or a near-fatal episode.	If community pharmacists were to become more involved in care for people with asthma they could consider this as part of their regular reviews with patients, with recommendations made to GPs if these medications were thought necessary. Through the NHS New Medicine Service they could ensure patients understood the importance of their new medicines as well as how to use their inhalers and the importance of using their reliever inhalers as prescribed.
A history of smoking and/or exposure to second-hand smoke should be documented in the medical records of all people with asthma. Current smokers should be offered referral to a smoking-cessation service.	Many community pharmacists already offer smoking cessation advice and this could be included in reviews with patients with asthma if pharmacies were to take on more responsibility for their care and management as part of local care pathways. If pharmacies were to be given read/write access to medical records this could all be documented appropriately. Pharmacies could also be helpful in case-finding for smoking cessation services for example through the application of questions during the dispensing process for people with asthma.
Parents and children, and those who care for or teach them, should be educated about managing asthma. This should include emphasis on 'how', 'why' and 'when' they should use their asthma medications, recognising when asthma is not controlled and knowing when and how to seek emergency advice.	Signposting and offering general advice to patients forms a large part of community pharmacies' day-to-day work, and as the most easily and frequently accessed healthcare professionals community pharmacists are in an ideal position to help educate local communities about asthma. This could be through conversations as well as giving them information to take away, or by highlighting additional

	services or sources of information that may be of interest. In some areas community pharmacists have also delivered talks on health topics to schools and local community events and this could be another way to get information about asthma to as many people as possible. Community pharmacies can also provide MURs or the NMS to children (where they can give informed consent) and by making these services a regular part of the care given to children, and involving parents or carers in the process, pharmacies could ensure that both children and parents understand the condition and inhalers as well as how best to manage those on an ongoing basis.
Efforts to minimise exposure to allergens and second-hand smoke should be emphasised, especially in young people with asthma.	As above, as the healthcare professionals most regularly seen by patients with asthma and other conditions, community pharmacists are well placed to educate them and others about the need to avoid exposure to allergens and second-hand smoke.