

Health and Social Care Committee

HSC(4)-09-11 paper 14

Inquiry into the contribution of community pharmacy to health services in Wales – Additional information from Public Health Wales

It was good to be able to attend the HSCC and take questions from the Committee. There were a few areas where we agreed to send additional information. Please find attached:

1. A paper I've written reporting research evidence on those *Factors which influence a person's decision when managing a minor ailment v1.0*. Within that paper I refer to some research undertaken on behalf of the PAGB and members may be interested to read the whole paper- I would certainly recommend that. There is a hyperlink in my paper
2. A PowerPoint presentation *Uptake of MURs* comprising of two slides, one ranking the 22 local authority areas by proportion of the maximum number permitted MURs undertaken, the other, the deprivation ranking of the 22 areas.
3. A literature review I undertook earlier in the year which I thought members might be interested in following their questions on the uptake of MURs and reasons why MURs were not taken up *Medicines use review by community pharmacists v1.0*
4. A link to the MPharm indicative syllabus <http://www.pharmacyregulation.org/education/approval-courses/accreditation-guidance>
To qualify as a pharmacist the person must hold a MPharm degree (4 years) + pass the pre-registration year and pre-registration exam. They can then apply for membership of the General Pharmaceutical Council (GPhC), which entitles the person to work as a pharmacist. Every year pharmacists must undertake continuing professional development activities sufficient to satisfy the requirements of the GPhC. Hopefully this information will help to address questions around those activities pharmacists are competent and qualified to do by virtue of being qualified as pharmacists.
5. Regarding competence to deliver enhanced services the WCPPE website describes the role of WCPPE in delivering training and assessing pharmacists competence www.wcppe.org.uk/assessment/enhanced-services-assessments and members can view some of the training provided by WCPPE in the latest programme *WCPPE Autumn 2011 (2).pdf* <http://www.wcppe.org.uk/learning> See page 3 for enhanced service accreditation and page 19-23 for some of the pharmacy contract specific courses available.

If there is anything else I agreed to supply and I've forgotten please let me know.

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Factors which influence a person's decision to consult with their GP for a minor ailment or visit a community pharmacy

Author: Anne Hinchliffe, Consultant in Pharmaceutical Public Health

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- To members of the Health and Social Care Committee, National Assembly for Wales

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Purpose and Summary of Document:

This document has been prepared in response to a request from the above Committee for research evidence about those factors which influence a person's decision to consult with their GP for a minor ailment or to visit a community pharmacy.

Evidence is provided from six UK studies, published during the past decade. A comprehensive literature review has not been undertaken.

1. Proprietary Association of Great Britain (2009) *Making the case for the self care of minor ailments* Available at <http://www.pagb.co.uk/information/PDFs/Minorailmentsresearch09.pdf> [Accessed 13th October 2011]

- People in Wales are more likely to consult their GP with a minor ailment than people in England (p29)
- People in Wales are significantly less likely to have tried over-the-counter (OTC) medicine before visiting GP/nurse (29% v 48%)(p29)
- People are more likely to visit their GP with a minor ailment because they want reassurance than because they want free medication (p41)
- People in Wales are more likely to lack the confidence to self care than people in England (p43)

Members may be interested to read the full report as it describes many more points on the management of minor ailments from the perspective of doctors, nurses and the public.

2. Hammond T, Clatworth J and Horne R. 2004. Patients' use of GPs and community pharmacists in minor illness: a cross-sectional questionnaire-based study. *Family Practice* 21 (2), pp.146-49

- Study to explore the prevalence of visits to the GP that GPs felt could be managed by a pharmacist, and to explore patients' reasons for such visits
- 13 GP practices in West Sussex, consultations over a one week period
- GPs considered 7% (260/3984) consultations could have been managed by a community pharmacist
- Skin and musculoskeletal problems were the most common causes of 'unnecessary' visits to the GP
- The majority of patients making 'unnecessary' visits (59%) disagreed with their GP and felt that the pharmacist was 'not appropriate for this problem'

- Other reasons for not attending the pharmacist were:
 - Didn't think of it (15%)
 - Entitled to free prescriptions (6%)
 - Too embarrassed/ lack of privacy (6%)

3. Hassell K. et al. 2001. Managing demand: transfer of management of self limiting conditions from general practice to community pharmacies. British Medical Journal 323 (7305), pp.146-47

- During the six months of the trial, all patients seeking general practice appointments or telephone prescriptions for 12 conditions at one general medical practice were offered a consultation at a local community pharmacy instead
- The pharmacist prescribed treatments from a limited formulary and patients exempt from the prescription charge received medicines free of charge, thus removing any financial disincentive
- Overall 38% consultations for the 12 conditions were transferred from the GP to the pharmacy
- Transfer rates were higher for head lice, indigestion, thrush and constipation. Patients with earache, cough or sore throat were more likely to want to consult a GP

4. McIntyre J. et al. 2003. Use of over-the-counter medicines in children. International Journal of Pharmacy Practice 11, pp. 209-15

- A postal questionnaire was used to explore reasons for over-the-counter use in children and the sociodemographic factors influencing self-care rather than GP consultation
- The results were based on 424 returned questionnaires (61%)
- Reasons for seeing GP rather than pharmacist:
 - Want advice from GP (50%)
 - Medicine only available on prescription (24%)
 - Can get medicine free on prescription (22%)

- Unable to get to a pharmacy (18%)
- Cost of OTC medicine is not affordable (12%)
- Cost was more likely to be a barrier in areas of greater deprivation

5. Boardman H. et al. 2005. Use of community pharmacies: a population-based survey. Journal of Public Health 27 (3), pp. 254-62

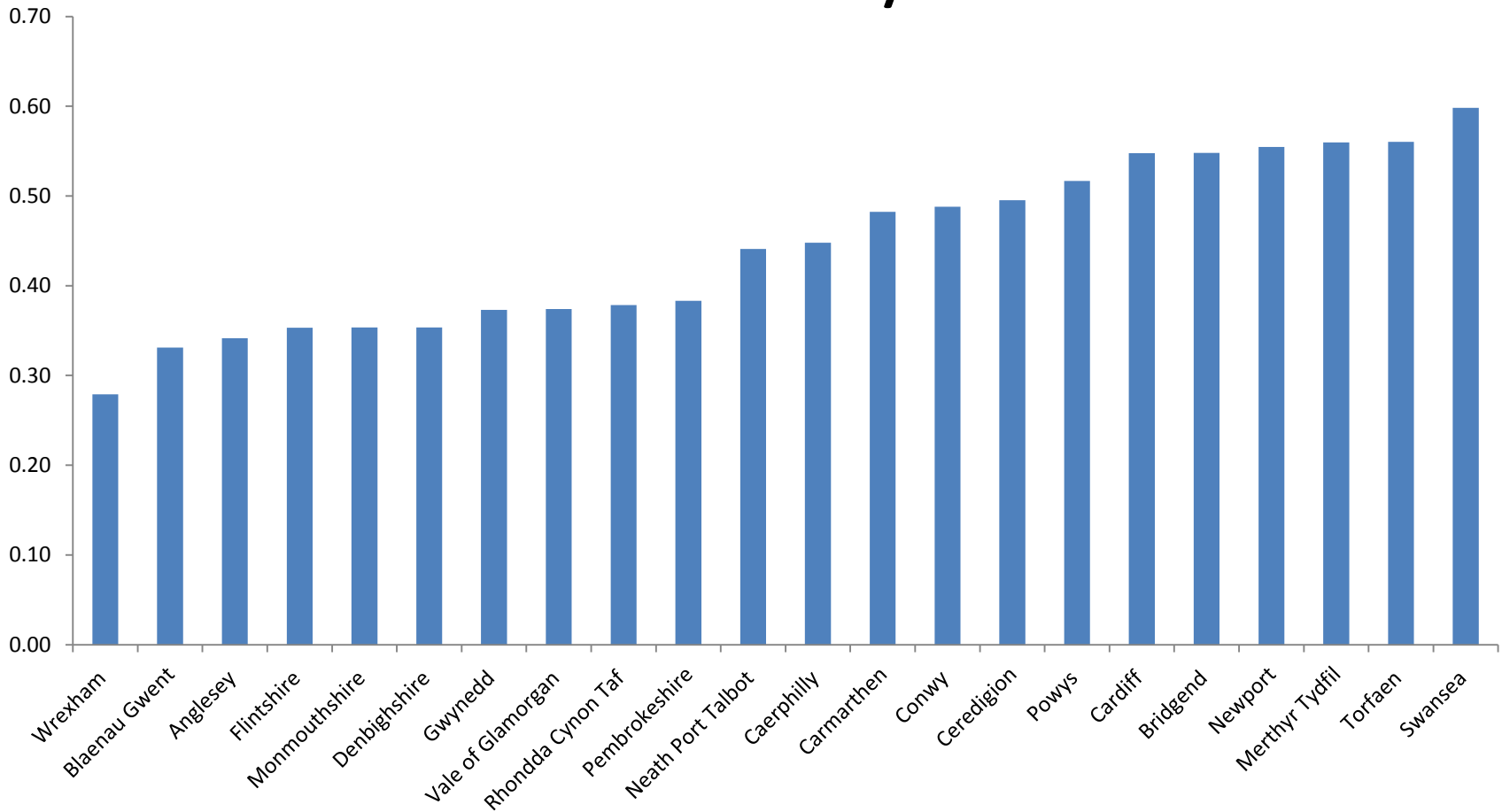
- A cross-sectional survey of 10,000 adults aged 35 years or over. Response rate 67%
- 40% had purchased an OTC medicine and 12% had asked for advice from a pharmacy in the previous month
- Purchasers of OTC medicine were more likely to be younger and from higher socio-economic classes

6. Hughes D. et al. (2008) Investigating factors influencing user choices to visit either general practitioners or community pharmacists in the management of minor ailments – piloting a discrete choice experiment Available at www.pprrt.org.uk/Documents/Publications/Investigating_factors_influencing_user_choices.pdf [Accessed 13 October 2011]

- A literature review identified a number of factors that potentially impact decisions regarding if and when to use general practice or community pharmacy services including:
 - convenience factors
 - information, reassurance and anxiety
 - altruistic concerns to alleviate pressure on stretched services
 - previous experience and the ability to self-care
 - specific features of professionals e.g. lay beliefs concerning professional boundaries
 - organisational features of services e.g. privacy concerns, availability of to provide advice

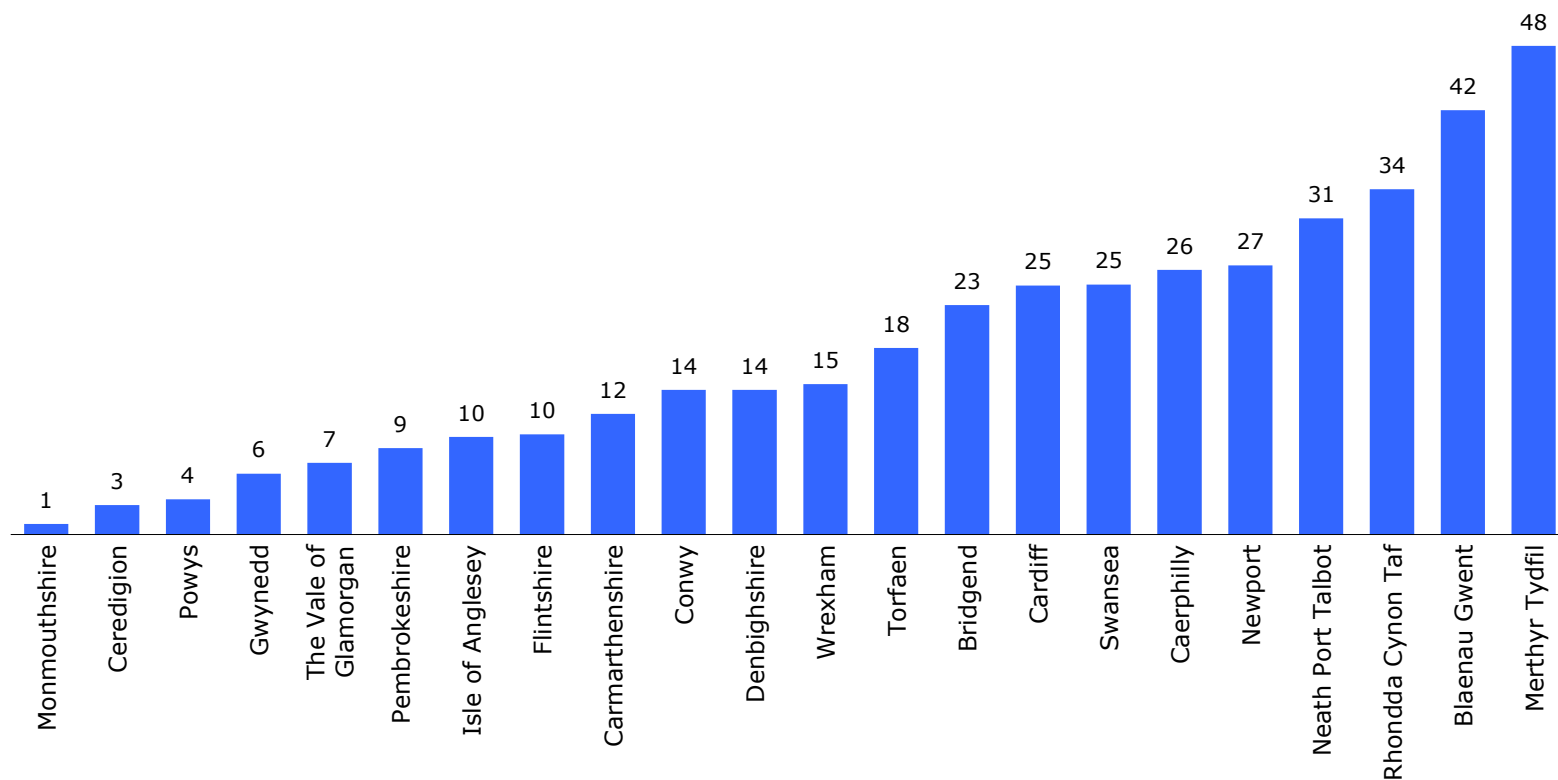
- material concerns e.g. the affordability of medicines
- medicine related concerns e.g. relative efficacy of prescription and non-prescription medicines, concerns over inappropriate and/or over-utilisation of medicines
- Discrete choice experiment (DCE) methodology was then used to determine which factors were most influential
- The DCEs found respondents preferred consultations that were:
 - Lengthier
 - More accessible
 - Lower cost
 - With the GP rather than the pharmacist

Proportion of maximum permitted MURs undertaken by local authority area 2010/11



Data source: NWIS 2011

Proportion of population living in most deprived fifth of Wales





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Medicines use review by community pharmacists

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Purpose and Summary of Document:

To review the published literature on medicines use review (MUR) by community pharmacists, following the introduction of the MUR advanced service into the community pharmacy contractual framework.

A number of research projects and evaluations have quantified MUR activity and sought to understand those factors which influence uptake, both patient and pharmacist/pharmacy factors.

Little evidence was found on clinical outcomes post MUR. Studies evaluating directed MUR services, focusing on a particular disease, were most likely to report clinical outcomes.

In developing MUR services there are opportunities to learn from experiences of MUR to date. These include:

- Developing strategies to encourage uptake/ delivery of MURs to patients who need them the most
- The need for quality assurance of MURs
- The need to evaluate clinical outcomes from MUR services
- Improving communication between pharmacists and GPs
- Improving GP enthusiasm for community pharmacy MUR services

The review has been presented as evidence tables for easy reference.

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Acknowledgement to Public Health Wales NHS Trust to be stated.

Table 1: Generic MUR services

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
Factors influencing MUR delivery						
1.	Bradley F et al. Determinants of the uptake of medicines use reviews (MURs) by community pharmacies in England: A multi-method study. <i>Health Policy</i> 2008; 88: 258-68	England, 2006 Survey of all Primary Care Organisations (PCOs), (n=303) Case study investigations of 10 PCOs, involving interviews with 43 key stakeholders	To explore and identify the key determinants influencing the uptake of MURs	Survey response rate =74% <ul style="list-style-type: none"> Ownership category of the pharmacy was the most significant determinant of MUR uptake ($p<0.001$). Rates of provision by multiple pharmacies were almost twice that of independent pharmacies (108 vs. 56 MURs per pharmacy during 2006) Pharmacies with higher levels of prescription items dispensed were more likely to undertake MURs ($p<0.001$) Higher levels of deprivation and proportion of patients with limiting long-term illness within the PCO were associated with significantly lower levels of MURs (both $p<0.001$) MUR training opportunities and the motivation of pharmacists were the main drivers to implementation 	Quantitative analysis of national MUR activity data	2+

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<ul style="list-style-type: none"> Lack of support from GPs was cited by 62% respondents as a barrier. Other barriers included accreditation of premises and pharmacist lack of confidence to perform MURs Communication between community pharmacists and GPs was identified as an issue with MURs having the potential to adversely affect GP/ pharmacist relationships Concerns regarding the quality of MURs were expressed by PCO staff 		
2.	Mc Donald R et al. <i>The impact of incentives on the behaviour and performance of primary care professionals. Report of the National Institute for Health Research Delivery and Organisation programme 2010. SDO project</i>	<ul style="list-style-type: none"> General medical practice Community pharmacy General dental practice in England <p>Of relevance to this report, 70 community</p>	To explore and explain the impact of incentives in primary care on professional behaviours and performance	<p>MURs- qualitative analysis (see p124-7, 146-52, 207-8, 220 for quotations and discussion)</p> <ul style="list-style-type: none"> Pharmacist locums reported little desire or pressure to conduct MURs Owners struggled to conduct MURs whilst maintaining dispensing volumes Salaried pharmacists experienced varying degrees of pressure and motivation to conduct MURs 	Multi-method approach, including qualitative and quantitative components	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
	(08/1618/158) www.sdo.nihr.ac.uk/files/project/158-final-report.pdf	pharmacists		<ul style="list-style-type: none"> Some pharmacists felt unease about financial incentives and asking patients to sign MUR forms as they thought this may alter patient perception from a service which had patients' best interests at heart to something financially driven Most pharmacists said they undertook MURs in accordance with the spirit (as opposed to the letter) of the MUR guidance. Only a small number admitted undertaking 'tick box' MURs GPs generally had negative views of pharmacist MURs 		

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
General evaluation of MUR services						
3.	<p>Royal Pharmaceutical Society QI4PD medicines use review audit reports</p> <p>http://www.qi4pd.org.uk/index.php/Reports-update.html</p> <p>Annual report 2009/10</p>	<p>Ongoing UK national multidisciplinary audit, developed by the RPS, RCGP and the Clinical Audit Support Centre Ltd.</p> <p>The audit involved four groups:</p> <ul style="list-style-type: none"> • Community pharmacy • General practice, Primary • PCOs • Patients who had recently had a MUR. 	<p>To review the effectiveness of MURs from the different perspectives of:</p> <ul style="list-style-type: none"> • Community pharmacy • General practice • Patients • PCOs <p>and, where appropriate, to improve the quality of MURs</p>	<p><i>Pharmacy report</i></p> <ul style="list-style-type: none"> - 54 pharmacies - 551 MURs <ul style="list-style-type: none"> • 75% MURs were undertaken in large multiple pharmacies • 84% MURs were initiated by pharmacists • <1% MURs were initiated by GPs • In 80% MURs, recommendations were made to the patient. Adherence, lifestyle changes and 'other' were the most popular categories • The pharmacist contacted the GP post MUR in 19% MURs <p><i>Patient report</i></p> <p>3016 submissions from 316 pharmacies across 14 PCOs</p> <ul style="list-style-type: none"> • 49% patients reported receiving recommendations to change how they take their medicines, and of these 90% were likely to make the change(s) • 77% had their medicines knowledge improved by the MUR • 97% patients thought the place where the MUR was conducted was sufficiently confidential • 85% patients scored the MUR 4 or 5 on a usefulness scale where 1 was not useful 	Multi-disciplinary audit	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<p>and 5 very useful</p> <p><i>GP report</i></p> <p>240 GP practices participating in MUR service across 13 PCOs</p> <ul style="list-style-type: none"> • 52% considered the MUR service beneficial • 48% thought it increased patients' understanding of their medicines • 40% considered it improved patient compliance with their medicine regime • 18% thought it supported the management of long-term conditions 		
4.	<p>MUR statistics (England) reported at</p> <p>www.psn.org.uk/pages/mur_statistics.html</p>					

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
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Pharmacist views						
5.	Blenkinsopp A et al. Community pharmacists' experience of providing medicines use reviews: findings from the national evaluation of the community pharmacy contractual framework <i>Int J Pharm Pract</i> 2007; Suppl 2: B45-6	All community pharmacists in 31 PCOs in England and Wales, (n=1080), 2006 Focus groups with 25 community pharmacists	To explore community pharmacists' experience of providing MURs and future plans of those not currently providing them	Community pharmacist survey response rate 71% <ul style="list-style-type: none"> 70% had a counselling area that met the requirements for MUR accreditation 59% were providing MURs and only 16% were not planning to do so in the future 'Company policy' (40%) and 'own decision' (40%) were the main drivers for providing the service 23% had employed pharmacy locums to conduct MURs or to provide cover Large multiples (>30 stores) were more likely to provide MURs than other types of pharmacy <ul style="list-style-type: none"> Mean number of MURs per pharmacist =63 Mean time to provide a MUR = 51 minutes (22 min face-to-face with patient) 77% pharmacists identified patients for MUR Only two pharmacists said GPs were the 	Postal survey and focus groups	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<p>main source of selecting patients for MUR</p> <ul style="list-style-type: none"> • Only 26% reported having received feedback from GPs on MURs • Only 12% thought that providing MURs had improved their relationship with GPs • Lack of a consultation area and pressures of other work were the main reason for not providing MUR • Pressure from employers, and the desire to use the MUR funding to pay for second pharmacist cover to release time to both provide MUR and allow time to catch up on paperwork, were the main reasons for providing the service • Challenges included the time taken to prepare and provide the MUR and patients not attending for appointments 		
6.	Bradley F et al. Commissioning and delivery of services from community pharmacy: a national study. Manchester; The University of Manchester, 2007.	PCTs in England, 2006,	<p>National survey of PCTs</p> <p>Interviews with commissioners and providers of NHS services from community pharmacies at 10 PCT</p>	<p>The results cover a range of community pharmacy services following the introduction of the new community pharmacy contractual framework.</p> <p>The following pages provide some comments specifically on MUR.</p> <ul style="list-style-type: none"> • MURs have not contributed positively to integration of pharmacists into the 	<p>Postal questionnaire</p> <p>Semi-structured interview either face-to-face or by telephone</p>	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
	www.pharmacy.manchester.ac.uk/cip/CIPPublications/commissionedreports/commissioning_and_delivery_final_report.pdf		case study sites	<p>primary healthcare team (p32-3)</p> <ul style="list-style-type: none"> Training for MURs was generally considered useful although some thought it was too clinically orientated and had raised an expectation that the MUR should be more clinically focused than is the case (p42-3) Attitudes towards delivery of MURs varied and were influenced by employers (p45-6, 53-5) 		
7.	Latif A, Boardman H. Community pharmacists' attitudes towards medicines use reviews and factors affecting the numbers performed <i>Pharm World Sci</i> 2008, 30: 536-43	280 pharmacists employed by one UK community pharmacy chain April/ May 2006	To investigate: <ul style="list-style-type: none"> Factors that influence the number of MURs performed by community pharmacists Community pharmacists' attitudes towards the service 	<p>60% (167/280) pharmacists completed the questionnaire</p> <p>27% (44/167) had not performed any MURS</p> <p>43% (71/167) had conducted one to 14</p> <p>31% (51/167) had conducted ≥ 15</p> <p>The following affected the number of MURs undertaken:</p> <ul style="list-style-type: none"> Job title (store based pharmacists did more than locums) Weekly working hours (those working ≥ 21 hours per week did more MURs than those with shorter working hours) Availability of a consultation area <p>The following had no significant affect on the number of MURs undertaken:</p> <ul style="list-style-type: none"> Pharmacist gender 	Postal questionnaire Convenience sample	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<ul style="list-style-type: none"> • Years qualified • Clinical diploma held by pharmacist • Pharmacy size <p>There were high levels of agreement with the following statements:</p> <ul style="list-style-type: none"> • MURs are an opportunity for an extended role (93%) • MURs make better use of pharmacists' professional skills (86%) • MURs will enhance pharmacists understanding of their patients' views about medicines (96%) • MURs will improve patients' use of medicines (93%) <p>There were high levels of disagreement with the following statements:</p> <ul style="list-style-type: none"> • MURs are a waste of pharmacists' time (90%) • I would not like to see more advanced services introduced in the future (69%) • MURs will not improve patient compliance (86%) • MURs will not improve the cost-effectiveness of prescribed medication (66%) <ul style="list-style-type: none"> • 43% respondents expressed doubts as to whether GPs thought the service was valuable to patients with a further 35% giving a neutral response • 74% felt they had insufficient supporting staff to conduct MURs satisfactorily 		

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<ul style="list-style-type: none"> 74% did not have enough time to carry out MURs Opinion was split over whether pharmacists needed access to the patient's medical notes for a fully beneficial review 		
8.	<p>Latif A, Mahmood K, Boardman H. Medicines Use Reviews- how have pharmacists' views changed <i>Royal Pharmaceutical Society conference 2010</i> abstract 69</p> <p>www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf</p>	<p>300 pharmacists employed by one UK community pharmacy chain</p> <p>September 2009</p>	To determine pharmacists' views of MURs and compare them with a similar study (ref 7)	<p>63% (189/300) questionnaires were returned</p> <p>Compared with the 2006 survey results the following were noted:</p> <ul style="list-style-type: none"> A reduction in those that viewed the service as 'a great opportunity for an extended role' (82% vs. 93%) An increase in those that considered MURs a waste of pharmacists' time (7% vs. 2%). <p>Pharmacists expressed similar views about the perceived benefits of MURs to patients and their positive impact on cost-effectiveness and the use of medicines.</p> <p>The following barriers were still identified by many pharmacists:</p> <ul style="list-style-type: none"> Lack of time (58% vs. 74%) Adequate support staff (56% disagreed they had sufficient support vs. 74%) Negative GP views of the service <p>By 2009 most pharmacies had a consultation area so this was no longer an issue.</p>	Postal questionnaire	Abstract only available

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
9.	<p>Cowley J et al. Exploring community pharmacists' experience and opinions of Medication Review services in England, Wales and Scotland <i>Royal Pharmaceutical Society conference 2010</i> abstract 91</p> <p>www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf</p>	<p>Thirty community pharmacists,</p> <ul style="list-style-type: none"> - Scotland (15) - England (10) - Wales (5) <p>November 2009</p>	To explore barriers and facilitators to MUR provision	<p>Interviewees perceived that MUR services:</p> <ul style="list-style-type: none"> • Enhanced the relationship between the pharmacist and patient • Improved the image of the profession • Allowed pharmacists to meet patients' pharmaceutical needs • Increased pharmacists' job satisfaction • Were unnecessarily bureaucratic • Were difficult to deliver due to workload and the need for privacy • Were inappropriately linked to remuneration rather than patient needs 	Qualitative-recorded interview	Abstract only available
10.	<p>National Pharmacy Association and Primary care Pharmacists Association. <i>Medicines use review support and</i></p>	4 PCOs in England	Evaluation of an educational intervention and structured support programme to improve the quality of MURs	<p>Pharmacists reported improved time management and an increase in confidence, both of which had been barriers to implementing MURs</p> <p>Written recommendations to GPs were of variable quality indicating a need to improve</p>	<p>Qualitative</p> <p>Community pharmacy evaluation forms, feedback</p>	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
	<p><i>evaluation programme report 2010</i></p> <p>www.npa.co.uk/Documents/Docstore/PCIO_LPCs/MUR_support_evaluation.pdf</p>			pharmacists' written communication skills	sessions with facilitator, patient satisfaction survey, sample of completed MUR forms	
GP views						
11.	<p>Celino G et al. General practitioners' experiences of medicines use review: qualitative findings from the national evaluation of the community pharmacy contractual framework in England and Wales <i>Int J Pharm Pract</i> 2007; Suppl 2: B20-1</p>	<p>All GPs in one LHB (Wales) and three PCTs (England)</p> <p>n=397</p>	To explore GP experiences of the community pharmacy MUR service	<p>20 GPs were interviewed, all from different practices and representing the four areas</p> <ul style="list-style-type: none"> • GPs were happy with the focus of MUR as described to them by PCIOs and community pharmacists before the service began, i.e. helping patients to understand their medicines • Many GPs had experienced MURs with inappropriate or ill-informed clinical recommendations and were less happy with this • GPs had some concerns over the types of patients reviewed by pharmacists and lack of integrations with the work of the practice 	Semi-structured telephone interview	Abstract only available
12.	<p>Wilcock M, Harding G. General</p>	GPs attending one of three	To explore GPs' perceptions of	90% (52/58) GPs completed the questionnaire. 60% described their working	Self-administered	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
	<p>practitioners' perceptions of medicines use reviews by pharmacists. <i>Pharm J</i> 2007; 279:501-3</p> <p>www.pjonline.com/files/rps-pjonline/pdf/pj_20071103_perceptions.pdf</p>	<p>locality-based prescribing meetings held in March and April 2007.</p> <p>Cornwall and Isles of Scilly PCT</p>	community pharmacist MURs	<p>relationship with their local community pharmacist as good. Although 60% thought the pharmacists' recommendations were generally useful, in the free text response to a question about how the GP thought their practice partners perceive the usefulness of MURs, the majority of comments were negative.</p> <p>The paper gives examples of GPs' views of useful and less useful MURs. These are:</p> <p><i>Really useful MUR</i></p> <ul style="list-style-type: none"> • Single sheet of paper with brief relevant action points • Close working relationship with practice • Information on patients with compliance problems or adverse drug reaction (ADR) issues or drug interactions • Ensuring patients understand more about their medicines • Targeting MURs to particular groups of patients <p><i>Waste of time MUR</i></p> <ul style="list-style-type: none"> • Pages of information and having to hunt for (unhelpful) advice • Asking GP to check BPs etc when these reviews have already been done • MURs on patients whose medicines are stable and known to be compliant • When the practice has recently conducted a medication review 	questionnaire	

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
				<ul style="list-style-type: none"> One that highlights known problems that the GP is working on or has solved to their best ability Discussing adverse effects that are inevitable and which the GP will have balanced against the clinical need for the drug 		
Patient views						
13.	Iqbal S, Wood K. Exploring patient opinions of MURs <i>Royal Pharmaceutical Society conference 2010 abstract 19</i> Available at www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf	<p>23 patients who had a MUR in the previous four weeks.</p> <p>Patients selected from four branches of a large multiple community pharmacy chain, East Midlands, England</p> <p>February 2010</p>	<p>To explore patient opinions of MURs</p> <p>Comparison of pharmacist interventions as recorded on the MUR form and patient recall of recommendations made to them during the MUR</p>	<ul style="list-style-type: none"> 13 patients said they found the MUR beneficial and they were more informed about their medication as a result of the MUR A further five said the MUR was reassuring as it confirmed existing knowledge of their medicines Seven patients stated they had a poor or minimal relationship with their GP, of which four thought the MUR was useful Only three could recall all the recommendations made by the pharmacist 21 would have another MUR the following year 8 thought the consultation room was too small No one expressed concern that they were being overheard 	<p>Semi-structured telephone interviews</p> <p>Service evaluation</p>	Abstract only available

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
14.	<p>Latif A, Pollock K, Boardman H. Why do patients accept or decline the invitation for a Medicines Use Review? <i>Royal Pharmaceutical Society conference 2010 abstract 20</i></p> <p>www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf</p>	Patients accepting or declining an offer for a MUR in one of two pharmacies, England.	To investigate reasons why patients accept or decline the offer of a MUR	<p>54 MURs were observed and 34 patients interviewed either face-to-face or by telephone about their experience</p> <p>Most patients were approached 'ad-hoc' and were asked if they had time to spare to 'go through their medicines'. Patients generally accepted the invitation because they were asked by the pharmacist or staff with whom they had good relations. Some felt they were helping the pharmacist in some way by agreeing to a MUR. Most patients thought the 'ad-hoc' approach was acceptable as long as they did not have other commitments. A few accepted because they were curious or acknowledged that it was a 'good thing to keep up their knowledge'</p> <p>Eight patients declined the invitation for a MUR, three of which were subsequently interviewed by telephone. Observation found that two declined due to a lack of time and three refused without giving a reason. Of the three patients who declined and were interviewed, one declined because he thought the MUR would result in more medication and two because they had previously had a review with the doctor.</p>	Observation and patient interviews	Abstract only available

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
15.	<p>Youssef S, Hussain S, Upton D. Do patients perceive any benefit from medicines use reviews offered to them in community pharmacies? <i>Pharm J</i> 2010; 284:165-6</p> <p>www.pjonline.com/content/papers_patients_perceive_benefit_murs_community</p>	<p>All patients who had a MUR at one community pharmacy in Derby, England between August and October 2008</p> <p>n=152</p>	<p>To determine whether patients benefit following MURs and whether certain groups of patients derived more benefit than others. Three outcome measures were used:</p> <ul style="list-style-type: none"> • Patients' perceived benefit • Pharmacists' interventions • Public health initiatives arising as a result of MURs 	<p>Response rate to the questionnaire was 53% (81/152)</p> <p>55 (68%) respondents reported the MUR had increased their knowledge of their medicines and 47 (58%) were more aware of the side-effects from them</p> <p>15 pharmacist interventions were made of which five were found to have been implemented on examining the PMR</p> <p>83 (55%) patients were asked about their smoking status and 11 were found to be smokers. These 11 patients were offered support to stop smoking. Four enrolled onto the 'Fresh start' programme and successfully quit smoking</p>	<p>Postal questionnaire</p> <p>Service evaluation</p>	2-

Table 2: Directed MUR services

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
Asthma						
16.	Portlock J, Holden M, Patel S. A community pharmacy asthma MUR project in Hampshire and the Isle of Wight. <i>Pharm J</i> 2009; 282: 109-112 www.pjonline.com/files/rps-pjonline/pdf/pj_20090131_hampshire.pdf	47/315 community pharmacies in the Hampshire and Isle of Wight Local Pharmaceutical Committee area July- December 2007	Targeted MUR with the aim of improving inhaler technique and increasing adherence, leading to improved outcomes Pharmacists recruited suitable patients with asthma for a MUR. Pharmacy staff received training on how to deliver a successful asthma MUR which included: <ul style="list-style-type: none"> • Checking inhaler technique • Assessing inspiratory flow • Calculating adherence based on number of prescriptions collected in past 12 months 	965 asthma MURs undertaken <ul style="list-style-type: none"> • 37% (358/965) patients demonstrated primary non adherence i.e. collected <75% intended asthma prescriptions in previous 12 months • A further 31% (300/965) had secondary adherence issues, i.e. were not taking their medicines in the way they had been intended Pharmacists made 1,787 interventions (mean 1.8 per MUR consultation) of which: <ul style="list-style-type: none"> • 41% device checks • 10% GP or nurse referral • 49% educational Patient feedback response rate 24% (230/965). Of these, 65% (147/226) patients thought a follow-up visit to the pharmacy would benefit them. Respondents thought the advice given by the pharmacist was useful (98%) and they understood more about using their medication since using the service (91%). <ul style="list-style-type: none"> • Pharmacist feedback response rate 61% 	Analysis of community pharmacies' asthma MUR interventions (evaluation by GSK) Service evaluation via patient questionnaire and healthcare professional feedback form (evaluation by LPC) Pharmacist feedback form	2+

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
			The project was supported by GSK Plus	<p>(28/47).</p> <ul style="list-style-type: none"> Almost two-thirds (64%, 18/28) agreed that participation in the MUR service had developed their professional working relationship with other healthcare professionals All respondents thought they had an important role to play in the management of patients with asthma and all but one said they would like to participate in similar services in the future <p>Healthcare professional feedback response 33% (15/46)- all GPs</p> <p>86% (12/14) agreed community pharmacists have an important role to play in managing patients with asthma and 79% (11/14) thought that asthma MURs were of benefit to patients</p>	(evaluation by LPC)	
17.	Price A, PCA 2009: Effectiveness of medicines use reviews in asthma <i>Pharm J</i> 2009; 283:11	Customers of 100 branches of the Co-operative Pharmacy in South Wales and the south-	Targeted MUR for patients with asthma Patients presenting with prescription for inhalers to complete asthma control test to	<ul style="list-style-type: none"> 69% (2,331/3,371) of patients having an asthma control test (ACT) went on to receive a MUR 219/2331 (9%) were followed up and of these 74% showed an increase in ACT score 14% had a decrease in score and 12% 	Service evaluation	News report Runner-up, RPS pharmaceutical care awards 2009

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
	www.pjonline.com/meeting/2009pca_asthma	west of England June-November 2008	<p>assess how well the patient's asthma had been controlled over the previous four weeks</p> <p>Patients with low control were invited to undergo MUR with pharmacist</p> <p>Reassessment with asthma control test at patient's next visit to pharmacy following approval of recommendations by GP</p>	<p>stayed the same</p> <ul style="list-style-type: none"> • Patient's reported having a better understanding of how to use their inhalers after the MUR 		
18.	Bagole LE, Beaumont A, Morgan I. Outcomes of medicines use reviews for people with asthma. <i>Int J Pharm Pract</i> 2007; Suppl 2: B66	<p>154 patients with asthma who had a MUR, May to December 2006</p> <p>(Location not stated, lead author from Lloyds Pharmacy, Coventry)</p>	<p>To assess the impact of MUR on asthma control</p> <p>Patients were asked to answer asthma control test questions in relation to their asthma before and after the MUR</p>	<ul style="list-style-type: none"> • Patients whose asthma was not controlled decreased from 59% to 45% ($p < 0.01$) • 30% patients were referred to their GP or asthma nurse as a result of their MUR • Of those referred, 71% had a treatment or dosage change • The service was rated 'very good' by 73% patients and 'good' by 21% 	Telephone interview to assess asthma control as measured using the ACT	2-

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
Depression						
19.	Cree N. Depressed patients can gain from directed MURs <i>Pharm J.</i> 2010; 285:581 www.pjonline.com/featureproxy/14737	Bristol, England	Directed MUR for people taking antidepressants Aim- to improve concordance and adherence The project was supported by Lundbeck	Pharmacists were provided with additional training to undertake the MUR In the first 10 weeks of offering the service, pharmacists in nine pharmacies conducted 145 MURs. Of these, 54 were for patients who were starting their first course of an antidepressant, and 91 were for those already taking antidepressant medicines Pharmacists identified 11 patients (8%) who needed referral to their GP and a further 26 (18%) were recorded as suffering from side-effects Three (2%) patients were identified as not taking their antidepressant properly Only 37% patients newly started on an antidepressant had received printed information about their medicines from their GP	New service monitoring	News report

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
Parkinson's disease						
20.	Colquhoun A. Asking the right questions in Parkinson's. <i>Pharm J</i> 2010; 285:626 www.pjonline.com/meeting/2010pca_parkinsons	Salford, England Patients from 8 pharmacies (14 pharmacists) within the local PCT	The project was a collaboration between community pharmacists, GPs and a specialist Parkinson's disease service Pharmacists identified patients using the PMR and offered a MUR. The MUR was conducted in the usual way but an additional five questions relating to Parkinson's disease were asked. These questions were devised by a Parkinson's disease advanced nurse specialist and were designed to assess the level of control of the disease. Depending on the patient's responses, a score was assigned.	74 patients were identified from the PMR, of which 53 received a MUR (16 domiciliary). Eighteen patients (34%) (7 of the domiciliary) were referred to the specialist hospital unit. The report states, ' the project found that patient care was improved due to early referral and consequent resolution of problems leading to better management of the condition. The effect of the service was measured by clinical outcomes, as documented by the advanced nurse specialist, and by an independent patient survey by Parkinson's UK'	Service evaluation	News report Finalist in the Pharmaceutical Care Awards 2009

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
			<p>Patients above a threshold were referred to a specialist hospital unit.</p> <p>Domiciliary MURs were available for patients unable to attend the pharmacy</p> <p>The project was supported by Parkinson's UK and GlaxoSmithKline</p>			
Hospital discharge						
21.	<p>Colquhoun A. Home MURs help free hospital beds <i>Pharm J</i> 2010; 285:615</p> <p>www.pjonline.com/meeting/2010pca_homemurs</p>	<p>South Staffordshire PCT, England</p> <p>Elderly patients recently discharged from community beds in secondary care</p>	<p>To reduce re-admissions within 28 days and improve measures of functional independence</p> <p>During discharge planning the patient's regular community pharmacy was identified. A copy of</p>	<p>In the first year of the project April 2009-March 2010, 69 MURs were conducted on patients discharged from a 27-bed ward.</p> <p>The report states, 'the clinical service to the unit as a whole has resulted in fewer admissions to A&E and fewer re-admissions of patients within 28 days as well as an 81% improvement in measures of functional independence following discharge. Further work is required to investigate the impact of the domiciliary MURs specifically, for example</p>	Service evaluation	<p>News report</p> <p>Winning project of the Pharmaceutical Care Awards 2009</p>

Ref	Study	Population/ setting	Intervention/ aim	Outcomes/results	Design	Evidence level
			the discharge form was faxed to the pharmacy, and the community pharmacist did a home MUR within seven days of discharge. Any medicines issues identified were referred to the appropriate professional (e.g. GP, formal care manager)	the community pharmacist's perspective and patient satisfaction.'		
Care homes						
22.	Booth J, White F, Howells H. NHS Dorset medicines use review evaluation report January 2009. www.lpc-online.org.uk/bkpage/files/167/MUR%20audit%20Jan%2009.pdf	51 care homes within NHS Dorset who received MURs on residents	MUR provided to residents at the care home	53% (27/51) homes responded <ul style="list-style-type: none"> 93% thought the service benefitted staff and patients 74% had greater knowledge of residents' medicines and what they had been prescribed for 82% had greater knowledge of medicines issues and where to seek advice if necessary 	Service evaluation Postal questionnaire	

References

1. Bradley F et al. Determinants of the uptake of medicines use reviews (MURs) by community pharmacies in England: A multi-method study. *Health Policy* 2008; 88: 258-68
2. Mc Donald R et al. *The impact of incentives on the behaviour and performance of primary care professionals. Report of the National Institute for Health Research Delivery and Organisation programme 2010.* SDO project (08/1618/158) Available at: www.sdo.nihr.ac.uk/files/project/158-final-report.pdf [Accessed 4th May 2011]
3. Royal Pharmaceutical Society. Qi4pd website. [Online]. *Medicines use review audit.* Available to RPS members only at: www.qi4pd.org.uk/index.php/Medicines-Use-Review-Audit.html [Accessed 4th May 2011]
4. MUR statistics England. [Online]. Available at www.psn.org.uk/pages/mur_statistics.html [Accessed 10th May 2011]
5. Blenkinsopp A et al. Community pharmacists' experience of providing medicines use reviews: findings from the national evaluation of the community pharmacy contractual framework. *Int J Pharm Prac* 2007; 15(Suppl 2): B45-6
6. Bradley F et al. *Commissioning and delivery of services from community pharmacy: a national study.* Manchester: The University of Manchester; 2007. Available at: www.pharmacy.manchester.ac.uk/cip/CIPPublications/commissionedreports/commissioning_and_delivery_final_report.pdf [Accessed 5th May 2011]
7. Latif A, Boardman H. Community pharmacists' attitudes towards medicines use reviews and factors affecting the numbers performed. *Pharm World Sci* 2008; 30: 536-43
8. Latif A, Mahmood K, Boardman H. *Medicines use reviews- how have pharmacists' views changed.* Abstract 69. Royal Pharmaceutical Society conference 2010. London Sep 5-6.. Available at www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf [Accessed 5th May 2011]
9. Cowley J et al. *Exploring community pharmacists' experience and opinions of Medication review services in England, Wales and Scotland.* Abstract 91. Royal Pharmaceutical Society conference 2010. London Sep 5-6. Available at www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf [Accessed 5th May 2011]
10. National Pharmacy Association, Primary Care Pharmacists Association. *Medicines use review support and evaluation programme report 2010.* St Albans: NPA; 2010. Available at: [www.npa.co.uk/Documents/Docstore/PCO LPCs/MUR_support_evaluation.pdf](http://www.npa.co.uk/Documents/Docstore/PCO_LPCs/MUR_support_evaluation.pdf) [Accessed 21st Apr 2011]

11. Celino G et al. General practitioners' experiences of medicines use review: qualitative findings from the national evaluation of the community pharmacy contractual framework in England and Wales. *Int J Pharm Prac* 2007; 15(Suppl 2): B20-1
12. Wilcock M, Harding G. General practitioners' perceptions of medicines use reviews by pharmacists. *Pharm J* 2007; 279: 501-3 Available to RPS members only at www.pjonline.com/files/rps-pjonline/pdf/pj_20071103_perceptions.pdf [Accessed 4th May 2011]
13. Iqbal S, Wood K. *Exploring patient opinions of MURs*. Abstract 19. Royal Pharmaceutical Society conference 2010. Supporting patients and professional decision making. London Sept 5-6. Available at www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf [Accessed 5th May 2011]
14. Latif A, Pollock K, Boardman H. *Why do patients accept or decline the invitation for a medicines use review?* Abstract 20. Royal Pharmaceutical Society conference 2010. Supporting patients and professional decision making. London Sep 5-6. Available at www.rpharms.com/rps-conference-pdfs/rpsconf2010abstractbook.pdf [Accessed 5th May 2011]
15. Youssef S, Hussain S, Upton D. Do patients perceive any benefit from medicines use reviews offered to them in community pharmacies? *Pharm J* 2010; 284:165-6. Available to RPS members only at : www.pjonline.com/content/papers_patients_perceive_benefit_murs_community [Accessed 4th May 2011]
16. Portlock J, Holden M, Patel S. A community pharmacy asthma MUR project in Hampshire and the Isle of Wight. *Pharm J* 2009; 282: 109-112. Available to RPS members only at: www.pjonline.com/files/rps-pjonline/pdf/pj_20090131_hampshire.pdf [Accessed 4th May 2011]
17. Price A, PCA 2009: Effectiveness of medicines use reviews in asthma. *Pharm J* 2009; 283:11 Available to RPS members only at : www.pjonline.com/meeting/2009pca_asthma [Accessed 5th May 2011]
18. Bagole LE, Beaumont A, Morgan I. Outcomes of medicines use reviews for people with asthma. *Int J Pharm Prac* 2007; 15(Suppl 2): B66
19. Cree N. Depressed patients can gain from directed MURs. *Pharm J* 2010; 285:581 Available to RPS members only at www.pjonline.com/fileproxy/14737 [Accessed 4th May 2011]
20. Colquhoun A. Asking the right questions in Parkinson's. *Pharm J* 2010; 285:626. Available to RPS members only at www.pjonline.com/meeting/2010pca_parkinsons [Accessed 4th May 2011]
21. Colquhoun A. Home MURs help free hospital beds *Pharm J* 2010; 285:615 Available to RPS members only at www.pjonline.com/meeting/2010pca_homemurs [Accessed 4th May 2011]

22. Booth J, White F, Howells H. *NHS Dorset medicines use review evaluation report. January 2009*. Available at www.lpc-online.org.uk/bkpage/files/167/MUR%20audit%20Jan%2009.pdf [Accessed 5th May 2011]