

## Medication Review – Best Practice Guidelines

This document applies to all GP practices/ all those working in primary care involved in medicines management.

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## Executive Summary

A medication review seeks to improve or optimise the impact of drug treatment by offering patients the opportunity to raise questions or highlight problems around their medicines with an informed healthcare professional. Effective medication review is essential to efficient medicines management and medicines optimisation.

These guidelines are applicable to all healthcare professionals involved with medicines, e.g. Practice Based Pharmacists (PBP), GPs, practice nurses, district nurses and health visitors. They are useful guidance for all clinicians during training.

The guidelines describe the standards to be met, the process and the records to be kept for the medication review process.

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## 1. Background

Drug therapy is highly effective in preventing or slowing down disease progression.<sup>1</sup> Four out of five people aged over 75 years take a prescription medicine and 36% are taking four or more. NICE Clinical Guideline 76, 'Medicines Adherence' states between a third and a half of medicines that are prescribed for long-term conditions are not used as recommended.<sup>2</sup> This represents a health decline for patients and an economic loss for society. Non-adherence should not be considered the patient's problem. Rather, it usually results from a failure to adopt a concordant approach to consultations and lack of support for patients once the medicine has been dispensed.

Many medicines can cause problems, and adverse reactions to medicines are implicated in 5-17% of hospital admissions. In particular, this is more likely to be related to co-morbidities and polypharmacy, rather than patients' age.

Medication review is the cornerstone of medicines management, by , reducing admissions to hospital and preventing unnecessary ill health whilst minimising waste. Involving patients in prescribing decisions and supporting them in taking their medicines is pivotal in improving patient safety, health outcomes and satisfaction with clinical care.

Medication review can have several interpretations and there are different types which vary in quality and effectiveness. This document aims to bring consistency to the standard of medication reviews.

## 2. What is Medication Review?

**“A structured, critical examination of a patient’s medicines with the objective of reaching an agreement with the patient about treatment, optimising the impact of medicines, minimising the number of medication related problems and reducing waste”.**

A medication review seeks to improve or optimise the impact of treatment. The review is undertaken in a systematic way by a competent healthcare professional e.g. GP, pharmacist or nurse. Any changes resulting from the review are agreed with the patient. The review is documented and appropriately READ-coded in the patient's notes and the impact of any change is monitored. A review should normally be conducted at least annually; the frequency may vary according to the individual patients' needs.

### **Medicines Use Review (MUR)**

A MUR by accredited community pharmacists is described as 'a structured concordance centred review with patients receiving medicines for long term conditions, to establish a picture of their use of the medicines- both prescribed and non- prescribed.'

The review helps patients understand their therapy and identifies any problems they are experiencing along with potential solutions.

MUR is conducted with the patient but without access to the patient's full notes. MUR is a significant development in medication review services and is an opportunity for patients to discuss their medicines, their beliefs about them, the patient's perception of their efficacy and any difficulties they may have with taking them. A copy of the review is provided to the patient and to their GP.

### 3. Types of medication review

Different types of medication review are required to meet the needs of patients. The classification described below focuses on the purpose of medication review and how medication review fits with other aspects of care. (See the characteristics of a medication review in appendix 1)

<b>Types of medication review</b>	<b>Purpose</b>
<b>Type 1</b>	Prescription Review - The primary purpose is to address practical medicines management issues that can improve the clinical and cost effectiveness of medicines and patient safety.
<b>Type 2</b>	Concordance and compliance review - This type of review takes place with the patient, and/or the patient's carer, it enables patients and practitioners to explore the patient's medicine taking, including the patient's actual pattern of medicine taking and the patient's beliefs about medicines. Patients are able to ask questions about medicines and any difficulties with medicine-taking they may have can be identified and addressed. A Type 2 concordance and compliance review addresses both practical barriers to medicine-taking and beliefs about medicines that influence medicine taking. Respect for the patient's beliefs about medicines is pivotal in a medication review conducted with a patient. An example of this type of review is an MUR.
<b>Type 3</b>	Clinical medication review – The majority of reviews carried out by the PBP are at this level.  This holistic review takes place with the patient and the elements of a Type 2 review include: - A periodic review of the patient's medical condition and treatments to ensure that medical conditions are managed optimally. -Obtain feedback from the patient and/or carer on response to treatment for symptomatic conditions. -Discuss adjustments to medicines in light of

	<p>clinical indicators and reported symptoms in partnership with the patient.</p> <ul style="list-style-type: none"> <li>-Review medical and self-management of long term conditions.</li> <li>-Provide full and accurate information about the pros and cons of treatment options including side effects.</li> <li>-Support the patient to self-manage.</li> <li>-Negotiate with the patient about treatment decisions.</li> <li>-Discuss prognosis and likely health outcomes and how these relate to medicines.</li> </ul>
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Reference: (1) A Guide to Medication Review 2008. NPC Plus, Medicines Partnership Programme.

#### 4. Medicines Adherence- Key principles

Healthcare professionals should adapt their consultation style to the needs of individual patients, to ensure all patients have the opportunity to be involved in decisions about their medicines at the level they wish.

- Establish the most effective way of communicating with each patient and, if necessary, consider ways of making information accessible and understandable (for example, using pictures, symbols, large print, patient leaflets, different languages, an interpreter or a patient advocate).
- Offer all patients the opportunity to be involved in making shared decisions about prescribed medicines. Establish what level of involvement in decision-making the patient would like.
- Ask the patient what they expect from their medication review. Be aware that increasing patient involvement may mean that the patient decides not to take or to stop taking a medicine. If in the healthcare professional's view this could introduce risk, then the information provided to the patient on risks and benefits and the patient's informed decision should be recorded.
- Accept that the patient has the right to decide not to take a prescribed medicine, even if you disagree with the decision, as long as the patient has the capacity to make an informed decision and has been provided with the appropriate information to make such a decision.
- Be aware of patients' concerns about medicines, and whether they believe they need them, affect how and whether they take their prescribed medicines.
- Offer patients information relevant to their condition, possible treatments and personal circumstances, which is easy to understand and use layman terms.
- Recognise that non-adherence is common and most patients are non-adherent at times. Routinely assess adherence in a non-judgemental way whenever you prescribe and review medicines.
- Be aware that although adherence can be improved, no specific intervention can be recommended for all patients. Tailor any intervention to increase adherence to the specific difficulties with adherence the patient is experiencing.

- Follow up patients after a medication review when appropriate, to ensure patients have understood information provided or changes made to medication following a medication review

## Supporting adherence

### Assessing adherence

Healthcare professionals are not always aware when patients don't use their medicines as prescribed. Assessing adherence is not about monitoring patients but rather finding out whether patients need more information and support. You should routinely assess adherence in a non judgemental way whenever you prescribe and review medicines. You should consider asking patients if they have missed any doses recently; make it easier for them by:

- Asking in a manner which does not apportion blame
- Explaining why you are asking
- Mentioning specific times (such as in the past week)
- Asking about medicine-taking habits
- Using records of prescription re-ordering, pharmacy patient medication records and return of unused medicines to identify non-adherence and need for support.

### Interventions to increase adherence

Patients may need support to help them use their medicines effectively. This may take the form of further information and discussion or changes to the type of medicine or regimen.

Any intervention to support adherence should be discussed with the patient, considered on a case-by-case basis and should address the concerns and needs of individual patients.

- If a patient is non-adherent discuss whether this is because of beliefs and concerns (intentional non-adherence) or practical problems (unintentional non-adherence).
- Address any pre-conception and concerns the patient has about their medicines.
- Because evidence is inconclusive, only use interventions to overcome practical problems if there is a specific need. Interventions might include:
  - suggesting patients record their medicine-taking
  - Empowering patients to monitor their condition e.g. Home BP monitoring or Blood Glucose diary.
  - simplifying the dosing regimen
  - using alternative packaging
  - using a multi-compartment medicines system (MDS).
- If side effects are a problem:
  - discuss benefits, side effects and long-term effects and how the patient would like to deal with side effects. Encourage reporting of yellow cards.
  - consider adjusting the dosage, switching to another medicine, and other strategies e.g. altering timing of medicines.

- Ask if prescriptions costs are a problem and consider options for reducing costs.
- Ensure adequate, dedicated time is set aside to undertake a medication review. This may vary from patient to patient depending on the number of medicines prescribed and comorbidities.
- Consider if several appointments are more appropriate to deal with multiple issues rather than trying to manage them all in one appointment.

## 5. Who requires a Medication Review?

All patients receiving medicines for long term conditions should receive an annual medication review, either at a level 2 or 3.

**The aspiration of Dudley CCG is that all Medication Reviews are carried out at Type 3.**

<b>Targeting medication reviews</b>	
<b>Target Group</b>	<b>Specific issues</b>
<b>Patients at risk of medicines-related problems</b>	<ul style="list-style-type: none"> <li>• Taking 4 or more medicines (especially for &gt;75 years)</li> <li>• Complex medication regimens or more than 12 doses in a day</li> <li>• Recently discharged from hospital</li> <li>• Recently transferred to care home/respice care</li> <li>• Frequent hospital admissions</li> <li>• Multiple Diseases (co-morbidity)</li> <li>• Receiving medicines from more than one source e.g. specialist and GP</li> <li>• Significant changes to the medication regime in the past 3 months or more than 4 changes in medication in the past 12 months</li> <li>• Taking higher risk medicines – those requiring special monitoring, those with a wide range of side effects or prescribed drugs not commonly used in primary care.</li> <li>• Symptoms suggestive of adverse drug reaction</li> <li>• Where non-compliance is suspected or known</li> <li>• High incidence of self-medication with non-prescription medicines or alternative remedies</li> <li>• Mental state (confusion, anxiety, depression, forgetfulness)</li> <li>• Living alone or poor carer support</li> <li>• Frequent hospital admissions</li> <li>• Housebound</li> </ul>

<b>Special needs</b>	<ul style="list-style-type: none"> <li>• Older people/Frailty</li> <li>• Residents in care homes</li> <li>• Patients with learning disabilities</li> <li>• Sensory impairment e.g. sight or hearing</li> <li>• Patients with learning disabilities</li> <li>• Cognitive impairment resulting from mental illness</li> <li>• Where there are barriers to effective communication e.g. literacy or language</li> <li>• Refugees or asylum seekers</li> <li>• Living alone with/without carer support</li> <li>• Frequent hospital admissions</li> <li>• Housebound</li> <li>• Recent falls</li> </ul>
<b>Opportunities to improve care</b>	<ul style="list-style-type: none"> <li>• New evidence or updated guidelines</li> <li>• Newly diagnosed long term condition</li> <li>• Out of date care plan</li> <li>• Newly registered patient</li> <li>• Adverse effects and/or drug interactions</li> <li>• Recent blood results</li> </ul>

A robust Prescribing Protocol (repeat and acute) helps to ensure safe systems for prescribing and aids identification and management of patients who require a medication review. All practice staff must be aware of how EMIS Web is set up to facilitate safe prescribing. Some features of a robust repeat prescribing system include:

- All staff being aware of the prescribing protocol and adequately trained in their roles
- Certain tasks (such as adding/deleting medicines, handling hospital discharge information) are only performed by a prescriber, or other trained and competent health care professionals
- A medication review date is recorded for all patients receiving repeat medicines
- All staff must be aware of the medication review date and action required if this is due/overdue
- Systems are in place to highlight medication over or under use.

An audit tool is available to review practice prescribing systems on the Dudley CCG intranet.

## 6. Points to consider when undertaking a medication review

- **Clinical Need and Regime Optimisation** – check that the medication is appropriate for the patient's needs and is effective. The choice of medication is cost-effective and evidence-based. Consider potential side effects, drug interactions, polypharmacy and co-morbidities as well as unmet need.
- **Patient factors, views and preferences** – consider adherence and concordance issues, co-morbidities, frailty, lifestyle and non-medical interventions. The patient may have practical issues such as swallowing difficulties or remembering to take medication in a complex regimen.



- **Monitoring** - Is any other monitoring required e.g. renal function & electrolytes? Does any medication need the dose reduced due to inadequate renal function? Is it appropriate to advise the patient on 'sick day rules'? i.e temporarily stopping ACE inhibitors/ARB's, diuretics, metformin and NSAIDs during dehydration to help minimise admissions for acute kidney injury.
- **Polypharmacy** - It is recognised that patients with multiple morbidities are prescribed multiple medications but these requirements may change over time as the risks and benefits alter and patients' desired outcomes change. What the priorities are for the patient in terms of their health and management of their condition may also change.
- In addition to this, many patients either do not take their medications as intended, or even at all. This may be intentional or unintentional i.e. a misunderstanding regarding the use of medication. Assessment of appropriate and inappropriate prescribing for the individual patient to achieve medicines optimisation is a fundamental purpose of the medication review. A number of tools to assess appropriate/inappropriate prescribing are discussed in appendix 5.

Refer to appendix 2 for further details and interventions

## 7. Recording Medication Reviews

All medication reviews, including MURs received at the practice from community pharmacists should be recorded on the GP practice computer system using the appropriate READ code. Record information pertinent to any decisions made or recommendations if the reviewer is not a prescriber and proposed follow up. This will enable:

- a. Consistent and easier data recording and retrieval.
- b. Capture of data for monitoring, analysis and audit.
- c. Feedback to healthcare professionals to improve clinical activity.
- d. Tracking of achievement of Long Term Framework targets and local priorities.
- e. A common clinical language minimising risk and reducing potential duplication.

See Appendix 3 for a detailed list of all medication review READ codes.

## 8. Communication of changes

The patient and/or carer must be informed of any changes to their medication and have the opportunity to discuss or be involved in the decision making.

If the patient is resident in a care home, uses a monitored dose system or uses the repeat dispensing service the community pharmacy should be informed of any medication changes.

## 9. Follow up

If the reviewer is not a prescriber then any urgent recommendation for change must be followed up in a reasonable timescale as per practice SOP. The impact of any change should be monitored.

Additional forms to facilitate recording of medication reviews are given in the Appendices to these guidelines:

<b>Appendix No.</b>	<b>Contents</b>
1	Characteristics of types of medication review
2	Checklist for medication review
3	Medication review template and READ codes
4	Medication Review Screening Tool
5	Sample Patient Information Leaflet
6	Authorisation form for pharmacists to amend dosage regimes during medication reviews
7	Medication Review Action Plan
8	Medication Review Clinic Questionnaire

## **10. Audit of the Medication Review Process**

It is important that the medication review process is evaluated regularly in order to maintain and improve the quality of the service. Audit may be carried out either by the individual healthcare professional or by the GP practice, depending upon the needs of the service.

Some or all of the following criteria may be suitable for inclusion in an audit of medication review: (including suggested standards)

- 100% of patients aged 75 years or over whose notes contain documented evidence of a medication review in the last 12 months
- 80% of patients aged 75 years or over taking 4 or more medicines whose notes contain documented evidence of a medication review in the last 6 months and a clinical medication review in the last year
- 80% of vulnerable patients discharged from hospital on repeat medication whose notes contain evidence of a clinical medication review within 8 weeks of discharge
- Number of annual and 6 monthly medication reviews done as part of Dudley Care Homes LIS.
- Number of reviews carried out at each level
- Number of medication reviews which led to a recommendation for a change in treatment
- Estimated cost savings/increases resulting from medication review
- Patient satisfaction with the medication review process and outcomes (see Appendix 6).

## References

1. A Guide to Medication Review 2008. NPC Plus, Medicines Partnership Programme.
2. NICE Clinical Guideline 76. Medicines adherence. January 2009. Available at [www.nice.org.uk](http://www.nice.org.uk) <Accessed 2.5.18>
3. National Service Framework for Older People. 2001. Department of Health, London.
4. Room for review – a guide to medication review: the agenda for patients, practitioners and managers, 2002. Medicines Partnership, London.
5. From Compliance to Concordance. 1997. Royal Pharmaceutical Society of Great Britain, London.
6. NHS Information Centre. Quality and Outcomes Framework for GP Practices. Available at [www.qof.ic.nhs.uk/](http://www.qof.ic.nhs.uk/). Accessed 21.11.08.
7. Evaluation of Room for review – a guide to Medication review. March 2005. Medicines Partnership. London.
8. Zermansky *et al.* Clinical Medication Review by a pharmacist of patients on repeat prescriptions in General Practice: a randomised controlled trial. Health Technology Assessment 2002; 6: 20.
9. Schnipper *et al.* Role of pharmacist counselling in preventing adverse drug events after hospitalization. Archives of Internal Medicine, 2006; 166 (5): 565-571.
10. Moving towards personalising medicines management: Improving outcomes for people through the safe and effective use of medicines. April 2008, National Prescribing Centre.
11. NICE guideline NG5. Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes. March 2015. Available at <https://www.nice.org.uk/guidance/ng5> <Accessed 2.5.18>

## Additional Resources:

1. Deprescribing Resource Pack access via:  
<http://www.dudleyformulary.nhs.uk/>

## Appendix 1 - Characteristics of types of medication review

	Purpose of the review	Requires patient to be present	Access to patient's notes	Includes all prescription medicines	Includes prescription, complementary and over-the-counter medicines	Review of medicines and/or condition	Mapping to professional activities
<b>Type 1 Prescription Review</b>	Address technical issues relating to the prescription e.g. anomalies, changed items, cost effectiveness	<b>NO</b> (any resulting changes to prescribed medicines must involve the patient/carer)	Possibly (medicines use review by community pharmacist may not include access to patient's clinical notes)	Possibly (a prescription review may relate to one therapeutic area only rather than all prescribed medicines)	<b>NO</b>	Medicines	<ul style="list-style-type: none"> <li>• DQOFH</li> <li>• MUR(prescription intervention)</li> <li>• Basic medicines reconciliation in hospitals</li> </ul>
<b>Type 2 Concordance and compliance review</b>	Address issues relating to the patient's medicine-taking behaviour	Usually (any resulting changes to prescribed medicines must involve the patient/carer)	Possibly (medicines use review by community pharmacist may not include access to patient's clinical notes)	<b>YES</b>	<b>YES</b>	Medicines use	<ul style="list-style-type: none"> <li>• DQOFH</li> <li>• MUR</li> <li>• Single assessment process</li> <li>• Basic medicines reconciliation in hospitals</li> </ul>
<b>Type 3 Clinical medication review</b>	Address issues relating to the patient's use of medicines in the context of their clinical condition	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	Medicines and condition including relevant tests and monitoring	<ul style="list-style-type: none"> <li>• Practice Based/ Primary Care Pharmacists</li> <li>• DQOFH</li> <li>• Local Enhanced service in community pharmacies (would need full access to PMR)</li> </ul>

## Appendix 2: Checklist for Medication Review

1. Drug Need/Regime optimisation	Potential interventions
<p><b>Is the medicine needed?</b></p> <ul style="list-style-type: none"> <li>• Check appropriate indication for each medicine with no unnecessary duplication.</li> <li>• Are additional drugs needed?</li> <li>• Is the dosage too low/high?</li> <li>• Is the drug working?</li> <li>• Ensure appropriate polypharmacy.</li> <li>• Identify any other drugs (including OTC, alcohol and illegal drugs) that the patient takes regularly.</li> <li>• Use the appropriate toolkits as listed in appendix 2 to support medication review.</li> </ul>	<ul style="list-style-type: none"> <li>• Check record for a valid indication and consider whether the original indication is still valid.</li> <li>• A rational first step for the medication review is to separate the list of drugs the patient is taking into those that are essential and should not usually be stopped from those that could potentially be stopped.</li> <li>• If indication is not (or no longer) valid, explore the possibility of deprescribing the medicine with the patient and the prescriber.</li> <li>• If acceptable to the prescriber discuss deprescribing the unnecessary medicine with the patient.</li> <li>• Before prescribing any new medication consider if the patient has: appropriate and inappropriate polypharmacy or has developed a negative prescribing cascade; their life expectancy; any change in their frailty (both increasing and decreasing); time to benefit, net benefit and magnitude of benefit; risk vs benefit; non-pharmacological options.</li> </ul>
<p><b>Is it working?</b></p> <ul style="list-style-type: none"> <li>• Identify evidence for efficacy.</li> </ul>	<ul style="list-style-type: none"> <li>• If evidence of efficacy is inadequate, discuss the need for appropriate tests/investigations with the patient and make arrangements for those that are agreed.</li> </ul> <p>Where possible this should be done by the reviewing healthcare professional, but if necessary, by referral to another appropriate member of the team e.g. nurse or phlebotomist for blood samples.</p> <ul style="list-style-type: none"> <li>• Follow up the results.</li> <li>• Once results are known suggest medicine change if necessary.</li> </ul>
<p><b>Is the dosage evidence based?</b></p> <ul style="list-style-type: none"> <li>• Check appropriateness of the drug, dose or dosing schedule based on current evidence.</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss need for alterations to therapy with patient.</li> <li>• Suggest any agreed evidence based amendments to the prescriber.</li> <li>• Arrange for follow up including a review of the patient's experience and any clinical tests required.</li> </ul>
<p><b>Does the patient have any under treated conditions?</b></p> <ul style="list-style-type: none"> <li>• Identify under treated conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• Determine if the patient has an identified indication that is not being treated optimally, e.g. ischaemic heart disease but not on a statin.</li> <li>• Agree medicine change with the prescriber.</li> <li>• Explain need for additional therapy to patient. Explain risks and benefits and come to a shared decision about whether to prescribe the medicine.</li> <li>• Arrange for any follow up e.g. blood tests, investigations and acceptability to patient (Side effects, efficacy and desire to carry on taking it).</li> </ul>
<p><b>Does the patient have any untreated</b></p>	<ul style="list-style-type: none"> <li>• If a diagnosis is listed but not being treated</li> </ul>

<p><b>problems?</b></p> <ul style="list-style-type: none"> <li>• Opportunistic identification of un-addressed health problems.</li> </ul>	<p>discuss options with the patient.</p>
<p><b>Is the medicine interacting with other medicines?</b></p> <ul style="list-style-type: none"> <li>• Ascertain clinically relevant drug interactions.</li> <li>• Identify any other drugs (including OTC, alcohol, herbal and illegal drugs) that the patient takes regularly.</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss if this is acceptable to the patient or whether their medicine needs to be changed changes with the patient.</li> <li>• Suggest agreed amendments to the therapy to the prescriber.</li> <li>• Arrange for any follow up e.g. Blood tests, investigations and acceptability to patient (side effects, efficacy and desire to carry on taking it).</li> <li>• Record relevant medicines in the notes.</li> </ul>
<p><b>2. Practical Considerations</b></p>	<p><b>Potential interventions</b></p>
<p><b>Is the patient able to take it?</b></p> <ul style="list-style-type: none"> <li>• Enquire if the patient is taking each drug regularly by the right route, in the correct dose and at the right times.</li> </ul>	
<p><b>Are the directions clear and practical?</b></p> <ul style="list-style-type: none"> <li>• Enquire if the patient is taking each medicine regularly by the right route, in the correct dose and at the right times.</li> </ul>	<ul style="list-style-type: none"> <li>• Add instructions that the patient understands.</li> <li>• For example if the patient is sight impaired then ask the pharmacist to use larger font labels.</li> </ul>
<p><b>Is the medicine being wasted?</b></p> <ul style="list-style-type: none"> <li>• Standardising quantities or repeat medicines to avoid waste.</li> <li>• Is the patient taking each medicine regularly by the right route, in the correct dose and at the right times.</li> <li>• Does the patient understand the purpose of each drug? Does he/she want to carry on taking it?</li> </ul>	<ul style="list-style-type: none"> <li>• The quantities should be standardised to 28 days or multiples of 28 days.</li> <li>• Remove any unordered (and no longer indicated) medicines from repeat list e.g. not ordered in the last 12 months.</li> </ul>
<p><b>Is the medicine the best value for money?</b></p> <ul style="list-style-type: none"> <li>• Is there a therapeutically equivalent but more cost effective choice of medicine for each indication?</li> </ul>	<ul style="list-style-type: none"> <li>• Is the alternative acceptable to the patient?</li> <li>• If monitoring of the new therapy is required ensure this is done and follow up the results to ensure equal, or improved, efficacy and tolerability and acceptability to the patient.</li> </ul>
<p><b>3. Patient views and preferences</b></p>	<p><b>Potential interventions</b></p>
<p><b>Does the patient understand the purpose of the medicine?</b></p> <ul style="list-style-type: none"> <li>• Ensure the patient understands the purpose of each medicine and check whether he/she wants to carry on taking it.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore the patient's' beliefs about the condition and its treatment.</li> <li>• Explain the purpose of each medicine.</li> <li>• Discuss risks and benefits of taking and not taking the medicine.</li> <li>• Provide information to correct any misinformed health beliefs.</li> <li>• If the patient has made an informed decision not to take the medicine inform the GP if appropriate to do so. Record in the notes and remove it from the repeat list.</li> </ul>
<p><b>Has the patient agreed to take it?</b></p> <ul style="list-style-type: none"> <li>• Establish whether the patient is taking each medicine regularly by the right route, in the correct dose and at the right times.</li> </ul>	<ul style="list-style-type: none"> <li>• Examine the issue dates for each drug to identify under or over use.</li> <li>• It is important to ask patients how they take their medicines and check whether they miss doses.</li> <li>• Consider relationships with meals (efficacy,</li> </ul>

	<p>convenience and memory-jogging aspects).</p> <ul style="list-style-type: none"> <li>• If the instructions are “as required” determine if the patient (or patient’s carer) knows how it should be taken.</li> <li>• Make sure clear instructions are added to the prescription.</li> <li>• If the patient is unable to take medicine because of a physical or cognitive problem discuss a solution e.g. consider changing to “plain tops” if unable to open childproof lids. If confused by polypharmacy see whether any medicines can be stopped. Only consider the use of a monitored dosage system if the patient agrees and has been properly assessed by a community pharmacist or other appropriate healthcare professional first to determine which system will be most suitable. It may be more appropriate to arrange help with medicine taking from relatives, friends, district nurses etc.</li> </ul>
<p><b>What experience has the patient had with their medicine? e.g.</b></p> <ul style="list-style-type: none"> <li>• Is the patient experiencing a side effect that is putting them off taking it?</li> <li>• Does the patient feel it once worked but no longer does? Did it ever work?</li> </ul>	<ul style="list-style-type: none"> <li>• If experiencing side effects see if medicine can be changed or dose lowered.</li> <li>• If the patient feels it no longer works find out why. Consider stopping the medicine or changing to an alternative.</li> </ul>
<p><b>Is the medicine contraindicated?</b></p> <ul style="list-style-type: none"> <li>• Ascertain clinically relevant contraindications.</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss changes with the patient.</li> <li>• Suggest agreed amendments to the therapy to the prescriber. <ul style="list-style-type: none"> <li>• Arrange for any follow up e.g. Blood tests, investigations and acceptability to patient (side effects, efficacy and desire to carry on taking it).</li> </ul> </li> </ul>
<p><b>Is the medicine causing adverse effects?</b></p> <ul style="list-style-type: none"> <li>• Discuss the patient’s experience of taking the medicines and identify actual and potential side effects from the clinical record and patient.</li> </ul>	<ul style="list-style-type: none"> <li>• If clinically relevant record in notes and fill in CSM yellow card if appropriate.</li> <li>• Discuss options with patient.</li> <li>• Suggest agreed changes to the prescriber e.g. change drug or try a lower dose and review.</li> </ul>

### Appendix 3 – Read Codes - Medication review LTC template

#### Medication review type

Review type	READ code
Medication review done by pharmacist	8BIC
Medication review	8B314
Medication review done	8B3V
Medication review with patient	8B3S
Medication review with nurse	8B3x
Medication review done by pharmacy technician	8Bly
Asthma medication review	8B3j
CHD medication review	8B3k
Diabetes medication review	8B3l
Epilepsy medication review	8BIF
Medicines Use Review done by Community Pharmacist	8BMF

#### Treatment check and optimisation

Review stage	READ	Rationale
Indication for each drug checked	8BIK	Check what the patient is actually taking and that it matches the prescribing record and problems.
Medication changed to generic	8B3o	Most items should be prescribed as generic; exceptions include modified release preparations and others specified in the BNF
Drug dose- time changed Medication changed to brand Medication changed Medication decreased Medication increased Inappropriate medication stopped Medication stopped- ineffective	8B3D 8BP4 8B316 8B3A2 8B3A1 8BIw	
Equivalent quantities of all medication checked	8BIQ	Equivalent quantities for all medicines checked and aligned to 28 day multiples.
Optimisation of drug dosage	8BID	May aid compliance and cost savings.
All over the counter medication checked	8BII	Does the patient take any other medicines

#### Compliance and concordance check

Review stage	READ	Rationale
<b>Understands why taking all medicines</b>	<b>8Big</b>	Check that the patient is concordant, understanding why and how to take each drug.
Does not understand why taking all medicines	8BIh	
Drug compliance good	8B3E	
Drug compliance poor	8B3i	
Drugs- partial non compliance	8B39-2	
Drugs- total non compliance	8B39-1	
Patient non compliant- general	8I5Z-2	
Compliance issues discussed with	8Biu	



patient		
Uses MDS	8BIA	
Drugs not taken or completed	8B39	
Patient medication advice	9c07	

Side effect and interaction check

Review stage	READ	Rationale
Has shown no side effects from medicines	8BIJ	Does the patient have any problems with side effects?
Has shown side effects from medicines	8BIE	
Drug side effects acceptable to patient	8Bia	
Medication stopped- side effect	8BI9	

Monitoring check

Review stage	READ	Rationale
Drug monitoring not required	8BI d	Is any monitoring required?
Drug monitoring done	8Bic	
Drug monitoring up to date	8Bif	
Regular monitoring discussed with patient	8Biv	
Falls caused by medication	8BIH	Are any of the drugs associated with an increased risk of falls?

## Appendix 4

### Medication Review Screening Tool

- This questionnaire will help us understand more about any difficulties that you may have with taking your medicines.
- There are no right or wrong answers to the questions asked, we are interested in your honest views.
- The questionnaire will only take 5 minutes to complete.

Do you understand what your medications are for?	Yes/No
Do you understand when to take your medicines?	Yes/No
Do you find it easy to take your medicines?	Yes/No
I worry about the potential side effects of the medicines I am taking?	Yes/No
Taking my medicines as prescribed is a burden to me	Yes/No
'I sometimes forget to take some of my medicines?	Yes/No
Do you have any problems ordering your medicines?	Yes/No
Are the medicines currently prescribed by your GP the only medication you take?	Yes/No
Do you return excess, unwanted or leftover medicines to the pharmacy?	Yes/No
Do you have any questions that you would like to ask about your medicines?	Yes/No

**Thank you for your time**

*(Acknowledgements to Morecambe Bay PCT – Medication Review for patients aged over 75 years and University of East Anglia)*

## Appendix 5

### Sample Patient Information Leaflet

Practice Name and address

#### **MEDICATION REVIEW – INFORMATION FOR PATIENTS**

##### WHAT IS A MEDICATION REVIEW?

A medication review is an opportunity for you to discuss your medication and ensure that you are getting the best from the medicines that are prescribed for you.

You can speak openly about any concerns you may have about your medicines and the person conducting the medication review will listen to you. A record of the meeting will be added to your medical notes. No medicines will be changed without your agreement and if you prefer you can ask that the approval of your GP is obtained first

##### BENEFITS OF ATTENDING A MEDICATION REVIEW

You will have the opportunity to:

- ✓ Find out more about your condition(s) and medicines(s)
- ✓ Tell a health professional how you feel about your treatment
- ✓ Ask if you are taking the most appropriate medicines for your illness and how best to take your medicines

##### HOW TO PREPARE FOR YOUR MEDICATION REVIEW:

When attending for your medication review please bring along:

- ✓ All medication that is prescribed for you
  
- ✓ Any medicines that you buy over the counter from the pharmacy or supermarket or other stores e.g. painkillers, herbal medicines, vitamins etc.
  
- ✓ Any medicines that you no longer take.

Make a list of questions that you may have about your medicines.

Some question that you may wish to consider:

- ✓ Why is it important for me to take this medicine(s)?
- ✓ When and how do I to take the medicine(s)?
- ✓ How long do I need to take this medicine for?
- ✓ What should I do if I have problems with the medicine?
- ✓ Are there any medicines or food that I should avoid taking whilst on these medicine(s)?
- ✓ What will happen if I miss a dose of the medicine or stop taking it?

Tests may be performed during or before the medication review to determine whether the medicine is working (e.g. blood pressure checks during the medication review or blood test prior to your medication review). Monitoring may be necessary for the type of medication that you are on.

Write your own questions and concerns here:

**AFTER YOUR MEDICATION REVIEW:**

- ✓ Your regular GP will be informed of any medication changes agreed by you at the meeting.
- ✓ A summary of the meeting will be documented in your medical record.
- ✓ Any tests or referrals to other health care professionals if required will be agreed and acted upon.

Contact details for surgery.

## Appendix 6

### Authorisation of PBP Amendments during Medication Review

On behalf of the practice, I hereby authorise the PBP named below to make the following amendments and interventions when completing medication reviews in this practice, without the need for individual authorisation from the patient's GP (please tick all that apply):

- Generic substitution
- Switch from generic to formulary brand
- Deletion of items on repeats not issued in last 12 months
- Deletion of items confirmed obsolete by patient
- Deletion of duplicated items
- Alteration of prescribed quantities to align medication repeats
- Alteration of dose timings as appropriate
- Dose optimisation
- Arrangement of blood tests
- Reauthorisation of repeat prescriptions

*Independent Prescriber Pharmacists during medication review may be starting, adjusting or stopping medication as clinically appropriate to manage a patient's condition or de-prescribing to keep a patient safe or to minimise harm*

Others (please list):

#### Agreed by:

GP signature:..... Date:.....

PBP signature:..... Date:.....

**Appendix 7  
Medication Review Action Plan**

Name: ..... DOB: .....  
 Doctor: ..... Pharmacist: .....  
 Date: .....

Medication problem identified	Action Proposed	Action By	Implementation authorised/refused - comments
1)			
2)			
3)			
4)			




Signed (GP) .....

Please return to .....

*(Acknowledgement to NHS Cumbria, Medicines Management Team)*

## Appendix 8 Medication Review Clinic Questionnaire

We are keen to find out what you think of the medicines review clinic. This is so that we can improve the service for the future. Please could you take a few minutes to complete this questionnaire? Your comments will be treated in the strictest confidence.

			
1. When invited for a medicine review did you feel it was necessary?			
2. Did you have long enough to discuss what you wanted to cover?			
3. How comfortable did you feel about the review being carried out by a pharmacist, if applicable?			
4. Did the person running the clinic answer your questions?			
5. Do you feel that as a result of attending the clinic you have a better understanding of your medicines?			
6. Did you feel your views and opinions were taken into account?			
7. Did you agree with any changes that were made?			
8. Did you have any disappointments about the outcome of the clinic?			
9. Would you recommend attending a medicines review clinic to a friend or relative?			
10. Would you attend again when your next review is due?			

Please write any additional comments in the space below: