

GUIDANCE ON INTERVENTIONS TO IMPROVE MEDICATION ADHERENCE AND PATIENT OUTCOMES

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INTRODUCTION

There are many interventions that can be made to aid patients to take their medicines and maintain their independence. These range from simple solutions, such as tick sheets and easy open bottle tops, to more complex tablet organising devices. Examples of more complex interventions include multi compartment compliance aids (MCA, formerly known as monitored dose systems or MDS) which allow medicines to be packaged into individual compartments.

Although MCA may be of value to help some patients with problems managing their medicines and maintaining independent healthy living, the utilisation of these systems has become regarded as a panacea for all patients and is often integrated into practice and service policy without giving due consideration to either the limited evidence base associated with their use, or the many alternatives available. The Royal Pharmaceutical Society has specifically advised that the use of original packs of medicines, supported by appropriate pharmaceutical care, should be the preferred option for the supply of medicines in the absence of a specific need for an MCA as an adherence intervention in all settings, including care homes.¹

This resource document aims to clarify the roles and responsibilities of health and social care providers regarding interventions to help patients take their medicines safely; suggests standardised assessments that can be used, and aims to raise awareness of a much wider range of available patient support mechanisms.

THE EQUALITY ACT 2010

Pharmacists and dispensing practices in the community are required to make “reasonable adjustments” to enable persons to use their medicines in accordance with the 2010 Equality Act. In England, the current single activity fee for community pharmacies as specified in the Drug Tariff includes a contribution for provision of auxiliary aids for people eligible under the Equality Act 2010.

The “reasonable adjustments” that pharmacies or dispensing practices are required to make under the Equality Act can mean any of a range of support mechanisms. Any solution must be patient - centred and provided in a way that supports patient capability and independence and should not perpetuate dependence and incapacity. An MCA could be considered as one of these options but should not be regarded as a universal solution to resolve all medication administration/adherence issues for patients. Further information on the Equality Act and obligations for dispensing sites can be found [here](#).

REVIEWS AND ASSESSMENTS

An assessment on support required for medication only applies where the patient’s ability to carry out day to day functions is compromised and is not intended to support carers, or care home staff. Frequent requests are made from social care agencies for MCA devices to facilitate medication administration. It is not reasonable for carers to expect MCA to be provided by a pharmacy or dispensing practice outside of Equality Act guidelines unless they wish to pay for the service themselves. Pharmacies are not obliged to provide compliance aids free of charge to patients who are not eligible under the Equality Act.

Whilst a formal, written needs assessment is not required under the Equality Act, completion of one is desirable as it generates an audit trail to demonstrate process & decision making. Appropriate health care professionals involved in the care of the patient could complete the suggested [Assessment tool](#) (Appendix 1) and refer to the pharmacist or dispensing practice

for advice. Alternatively, patients could be referred to the pharmacy or dispensing practice for this initial assessment to take place.

The provision of any adjustments is at the sole discretion of the pharmacist who is professionally responsible for the decision and could be liable for any harm resulting from the adjustment. **Patients should NOT be referred directly to pharmacies or GP dispensaries with the expectation that an MCA system will be provided.**

If an assessment identifies that support is required, pharmacists or dispensing practices should then consider the range of options available with the patient as per the Review of options for supporting patients in the day to day management of their medicines document (Appendix 2; links and contact numbers for more specialised solutions can be found in Appendix 3)

Reviewing a patient's ability to cope with their medication regime in turn provides an ideal opportunity to review treatment, reduce the number of medicines and the frequency of doses prescribed.

Level 2 or 3 medication reviews should be performed by either the GP or practice pharmacist to optimise, clarify, or simplify the patient's medication regime. This may take place prior to, or in response to, the pharmacy/ dispensary assessments. Again, a close relationship between surgery and pharmacy will greatly benefit patient care.

Level 2 is a treatment review and is a review of medicines with patient's full notes.

Level 3 is a clinical medication review with patient contact and is a review of the patient's medicines and condition. This may be a face to face, virtual, or telephone consultation.

When other interventions have been considered and an MCA is thought to be necessary to support the patient in the management of their medicines (alone or in combination with alternatives), there are a number of issues that may need to be addressed before the supply of medication in these devices can be initiated. See Considerations when using MCA Systems (Appendix 4).

Patients receiving compliance aids should receive regular reviews to check that the level of support is appropriate. Simplification and de-prescribing of medicine regimes may result in patients only needing short term support through these systems, alternatively levels of support may have to be increased if the patient's health status declines.

APPENDIX 1: ASSESSMENT TOOL TO DETERMINE LEVEL OF PATIENT SUPPORT REQUIRED

Patient Details	GP Details	Pharmacy/Dispensing Practice details
Name:	GP:	Name:
Address:	Tel No.	Tel no.
DOB:		
Tel No		

CURRENT MEDICATION ARRANGEMENTS			
	What can the patient manage	Y	N
UNDERSTANDING	Understand each medicines dosage instruction		
	Understand the importance of each medicine		
	Understand how to take PRN medication		
	Understand how to take variable doses e.g. warfarin		
MEMORY	Remember to take their medication regularly and at the appropriate time		
	Remember to order their repeat medication		
SWALLOWING	Swallow all their tablets and capsules		
DEXTERITY	Open medicine boxes		
	Open blister strips		
	Open and close child resistant lids		
	Open and close winged lids		
	Grip medicine bottles		
	Halve tablets themselves (if needed)		
SENSORY - Visual	Read standard print labels		
	Read large print labels (16-18-point Arial)		
	Read braille labels (if patient blind)		
SENSORY - Hearing	Can the patient hear an alarm		
Outcome of assessment: (To be completed by pharmacy or dispensing practice only)			
It is my opinion that this patient does/does not have a medicines compliance problem			
It is my opinion that this patient would benefit from the following adjustments:			
Request for further medication review by GP/Practice Pharmacist		Y	N
Name:		Signature	
Profession:		Contact Details:	
Date:		Review date	
Consent for information to be shared: I agree to the information contained on this assessment being shared with other health professionals involved in my care. I understand that my pharmacist or dispensing doctor may need to make further amendments dependent on my medication regime.			
Signed:		Date:	

APPENDIX 2: REVIEW OF OPTIONS FOR SUPPORTING PATIENTS IN THE DAY TO DAY MANAGEMENT OF THEIR MEDICINES

(NB: This list is not exhaustive)

Problem	Possible Solutions/Adjustments
Understanding/ Memory	<ul style="list-style-type: none"> • Simplify medication regime • Provide a medicines reminder sheet/ MAR sheet • Symbol charts & stickers • Medication alarms • Medication reminder calls • Assistive technology/phone apps • MCA (self-fill or filled by pharmacy)
Swallowing	<ul style="list-style-type: none"> • Provide alternative formulations where appropriate • Simplify regime where possible • Follow speech & language therapist recommendations
Dexterity	<ul style="list-style-type: none"> • Provide screw/winged lids • Provide large bottles/boxes • Provide pill bottle opener • Provide pill popper • Dispense blister packed medicines into bottles • Provide halved tablets • Provide devices to facilitate administration/use e.g. Haleraid®, Opticare Arthro®, tube squeezers
Sensory - visual	<ul style="list-style-type: none"> • Large print labels • Provide symbols on each box • Provide talking labels • Provide written down instructions (Arial 16/18) • Provide magnification devices • Provide accessible patient information leaflets

APPENDIX 3: RESOURCE INFORMATION (NB: This list is not exhaustive)

Intervention	Description	Further information/supplier if known
Pill splitter	For halving tablets.	Valley Northern 01785 250123 Living Made Easy Pharmacy wholesalers
Symbol chart and stickers	Pictograms give health professionals a means of communicating medication instructions to people with mild cognitive impairment, visual impairment, or no common language.	Software download at: https://www.fipfoundation.org/pictograms-download/
Talking labels	Provide audible guidance in identifying and taking medicines. Talking labels can be attached to a medicines box and have a 60-second recording time.	Talking Products.
Magnification devices	A pocket magnifier can be used for spot reading labels, whereas a stand magnifier is suitable for longer periods of reading.	RNIB website below, other suppliers also available: RNIB Online Shop
Accessible patient information leaflets	The X – PIL project is now delivered via the emc website & ensures that patient information leaflets are accessible to all.	www.medicines.org.uk/emc/xpil Medicine leaflet line: 0800 198 5000.
Medication alarms	Devices can be purchased with multiple daily alarms.	RNIB Online Shop Living made easy
Eye drop dispensers	Help patients to administer eye drops with minimum pressure. Arthro® range also provides help for patients who cannot lift their arms.	Opticare Arthro® 5 for 2.5 & 5ml bottles, Opticare Arthro® 10 for 10, 15 & 20ml bottles Opticare® for all sizes. Available on NHS prescription
Inhaler Aids	Help patients grip and actuate the canister of metered dose inhalers (MDIs).	Haleraid® - Available in two sizes Haleraid® 120 for 120 dose MDIs and Haleraid® 200 for 200 dose MDIs. From pharmacy wholesalers Not available on NHS prescription
Pill bottle opener/ Pill popper	Devices to facilitate opening pill screw lids and removing pills from blister packs.	Living made easy Example pill bottle opener Example pill popper
Stocking aids	Make it easier to put on compression stockings.	Acti-Glide® (open and closed toe) Easyslide® (open toe only) Available on NHS prescription
Medication Apps	Medication reminders/organisers via mobile phone apps.	Many available, such as: http://www.pillmanager.co.uk/ . See Living made easy for a list of other apps and further information.

APPENDIX 4: CONSIDERATIONS WHEN USING MCA SYSTEMS

1. Drug Stability

Not all medication formulations can be dispensed into an MCA. These include hygroscopic or deliquescent products such as dispersible or soluble tablets, drugs which cause skin reactions such as chlorpromazine, drugs with cytotoxic potential, drugs which require refrigeration and many individual drugs which have found to be unstable such as sodium valproate, enteric coated tablets and certain formulations of omeprazole or clopidogrel. In some (but not all) instances it may be appropriate for an alternative drug to be prescribed. Many drug manufacturers will not advise on the stability or otherwise of their product in an MCA and point out that this is an **unlicensed use**. Responsibility for placing a medicine into an MCA therefore lies with the pharmacist. (Or GP for dispensing practices)

A comprehensive reference guide to drug stability in compliance aids can be found on the [SPS Website](#) by searching for individual drugs. Further information on use of the database can be found at: <https://www.sps.nhs.uk/articles/usage-of-medicines-in-compliance-aids/>

2. Medicines not suitable for MCA

MCAs do not provide a complete solution for a patient's medication problem. Many presentations such as oral liquids and topical products cannot be put into such devices. "PRN" medication is, by definition, not taken regularly and is therefore unsuitable for inclusion as this would lead to waste. Pharmacies are also often reluctant to fill trays with controlled drugs due to legal, safety and logistic concerns. Warfarin, by nature of variable dosing and narrow therapeutic range, is also unsuitable. This leads to confusion as to which medication is in the tray and which should be taken separately.

3. Dexterity issues.

MCAs can be physically difficult to manipulate. Puncturing the thin plastic seal over the medicine compartments can present a challenge. The MCA can often be rendered unusable by the efforts of the patient to gain access to their medication, or the contents are spilled. Problems identifying the individual medicines in the multi medication compartments or blisters can make it difficult to confirm which tablets been spilled or indeed for carers to confirm which medications have been taken.

4. Safety Issues

Provision of MCAs has far greater potential for error and is a much more time-consuming activity for any supplying pharmacy.

MCA systems are often unable to accommodate dosage instructions, for example when medicines must be taken with, after or before food, or if doses are likely to vary according to response, or the patient's condition is unstable. This raises the risk of medicines being administered incorrectly, increasing the likelihood of adverse effects or potentially being ineffective and impacting upon patient safety and health outcomes. There are also problems with including all the necessary information about the medicines, which should accompany the MCA to support safe use, for example descriptors of the medicine and patient information leaflets.

There have been some notable safety incidents in connection with use of MCA systems².

5. Urgent changes to medication

Once medicines have been supplied to a patient, whether in an MCA or in manufacturer's original packs, then no further changes to what has been supplied should be made. The NHS terms of service do not require pharmacies to modify previously supplied MDS trays if there is a change in medication mid-cycle. If modification is essential for patient safety reasons, then new prescriptions will be required from the prescriber for all items to prepare a new MCA. This creates further time pressures, increases prescribing costs and can be confusing for the patient. For this reason, MCAs are unsuitable for patients whose medication is not stable.

The communication of any changes to pharmacies must be made in a timely manner, however practices are often unaware as to which patients have medication in an MCA. Pharmacies are encouraged to communicate to the GP practice when they initiate a patient on an MCA. GP practices are encouraged to add an alert to the patient's clinical record when they are using an MCA to enable effective communication with the dispensing pharmacy when necessary.

6. Seven Day Prescriptions

Seven-day prescriptions should **not** be routinely issued for patients with an MCA. They should only be issued where there is a specific clinical reason, for example where there is a concern regarding the safety of a patient having more than 7 days of medications, or the patient's medication regime is likely to change. **The prescription duration remains at the discretion of the prescriber.**

References

1 Royal Pharmaceutical Society. Improving patient outcome: The better use of multi-compartment compliance aids. 2013. Available at:

<https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Support/toolkit/rps-mca-july-2013.pdf> accessed 01/05/20

2 Summary of Guidance and Evidence for use of Multi-Compartment Compliance Aids (MCCAs).

Available at: https://www.sps.nhs.uk/wp-content/uploads/2019/05/SPS_MCCA_briefing_May2019_final.pdf accessed 01/05/20

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