Prescribing...

Multi-compartment Compliance Aids Oct / Nov 2015

- Multi-compartment compliance aids or MCAs are widely used to help vulnerable people and their carers manage medication.
- However the Royal Pharmaceutical Society states that there is "little evidence that they improve compliance or patient outcomes".
- Stability cannot be guaranteed, carers and patients may become deskilled in medicine administration, flexibility is lost and there is huge waste potential if one medicine is changed or stopped or added.

The Royal Pharmaceutical Society has produced a comprehensive guide to improving the use of MCAs http://www.rpharms.com/unsecure-support-resources/improving-patient-outcomes-through-the-better-use-of-mcas.asp , which is being circulated with this bulletin.

It states that MCAs may be of value in certain circumstances. This may be for a limited period of time when a clinically stable patient is trying to maintain independent living and has no other support systems to assist them to take medicines. However it advises that the use of original packs with appropriate support is the preferred option.

MCAs are not a panacea for all medical and social issues. Colleagues will be aware that to obtain funding for the service locally , the patient must have a a medical reason for their non-concordance. This bulletin is intended to provide a brief overview of the evidence to support their use, the stability concerns and effects on patients and carers. Guidelines on the opic will be produced in due course.

1. What is the evidence to support their use ?

The RPS advises that there is "insufficient evidence to support the benefits of MCAs in improving adherence in patients or in improving patient oriented outcomes".Therefore it is vital that treatment regimens are reviewed and simplified if appropriate, before any decision is made to use a MCA.

2. Are there stability issues?

Pharmaceutical companies submit stability data which is based on the single product being stored in its original pack. Some pharmaceutical products are particularly sensitive to the effects of water vapour, atmospheric gases and/or light and exposure to these conditions may result in the chemical or physical stability of the medicine being compromised. At the present time there are insufficient data in the published literature and no up-to-date authoritative resources that provide reassurance on the stability of individual medicines when stored outside of the manufacturer's original packaging.

It is also possible that different products may interact with each other. Both soft and hard gelatin capsule shells have high water content. Mixing capsules with tablets can result in the movement of water from capsule shells to tablets with the potential to increase the risk of hydrolysis of susceptible drugs, although the clinical impact of such hydrolysis in patients is not known. In particular, mixing capsules with modified release tablets should be avoided where possible due to the risk of changing the release characteristics of the tablets.

The UKMI has an open access database on http://www.ukmi.nhs.uk/applications/mca/, which makes general recommendations on the suitability of solid dose forms for transfer to MCAs.

3. Are there any patient and/or carer issues?

There are risks where an MCA system cannot accommodate dosing instructions or cannot include all necessary information, such as with Alendronate administration. The use of MCAs may be associated with disadvantages in the supply of relevant patient information.

If other systems of medicines administration are required in addition to an MCA, for example where the formulation or dose is not suitable for inclusion, this introduces complexity and potential confusion. Care providers and individual patients will have to deal with using several different medicines administration systems which may raise questions around the necessity of the MCA and increase the risks of the patient not receiving their medication correctly.

The RPS states that the use of MCAs can result in a gradual reduction in knowledge and understanding of a patient's medicines and how, why and when they should be administered . A Scottish Care Inspectorate reported that some staff members were losing the skills to give liquids or tablets/capsules which are not supplied in MCAs. It noted that using MCAs is based around the concept of an institutionalised drug round, whereas the current approach is to personalise care and to consider storing the medicines in a person's room.

4. Flexibility and Cost

Using an MCA results in lack of flexibility, preventing for example titration of doses in heart failure patients. If any change is made to a treatment regimen it may be necessary to discard the contents of one tray and waste up to a full month's treatment. We had a disturbing report that an elderly patient was not given prescribed antibiotics over a weekend because the tablets were not in an MCA.

Summary

- Doctors are advised to do a review of the treatment regimen before any decision is made to use an MCA, particularly in new patients.
- Despite widespread use there is no evidence that they improve patient-oriented outcomes.
- The Royal Pharmaceutical Society guidance is essential reading for all HCPs caring for people using MCA.
- The UKMI database provides the best guide to stability of multiple medicines and should be checked before prescribing and/or dispensing.
- Medicines plus the need for MCAs should be reviewed at least annually.
- More specific guidance will be provided by PBAC in due course.

Prepared by: Geraldine O'Riordan, Prescribing Advisor, Edward T Wheadon House , Le Truchot, St Peter Port GY1 3WH Tel : 01481-732460

References : Royal Pharmaceutical Society , UKMI