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### Medication Compliance Aids - Towards Smarter & Safer Use



**[Dr. Joanna Bayley](#)**

\*\*\*\*\*@\*\*\*nbt.nhs.uk

Programme Director - Chief  
Executive's Office, North Bristol  
NHS Trust

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Medication compliance aids (MCAs) are used extensively in Bristol. In July 2014, 20% of all the drugs for patients being discharged (To Take Away [TTAs]) prepared by the North Bristol Trust (NBT) pharmacy were dispensed in MCAs. 94% of these were for patients already using MCAs at the time of their hospital admission, rather than being initiated during their admission. Other local hospital providers report high level of demand for MCAs, so NBT does not appear to be an outlier in the locality. However, there are large variations in MCA use across the NHS, with some hospitals dispensing very few.

Discussions with local health and social care providers suggest that the main drivers for MCA use in the community are convenience, a belief that MCAs improve compliance and a belief that they are safer than using original packaging. In some cases, residential homes refuse to accept patients unless medication is dispensed in a compliance aid, regardless of the patients' ability or wish to manage their own medicines. The belief that MCAs generally enhance compliance and safety is misplaced. MCAs do not help most patients comply and increase the risks of medication errors for some groups. They can help a small minority of patients but, unless carefully targeted, can increase risk to others. They can increase cost, waste and medico-legal risk. They also present an obstacle to discharging patients from hospital, as dispensing is much more time-consuming than conventional TTAs.

MCAs can support autonomy and independence when targeted at the right patients, following a robust assessment by a pharmacist. However, wholesale use of compliance aids in particular care settings does not allow patients to exercise autonomy, and can deprive them of control and of the opportunity to participate in the management of their healthcare. The draft National Institute for Health and Clinical Excellence guidance on medicines management in care homes recommends that, "People who live in care homes are supported to self-administer their medicines unless a risk assessment has indicated that they are unable to do so" (National Institute for Health and Clinical Excellence 2014).

#### Who Benefits?

Evidence suggests that the two groups of patients who can benefit from MCAs are:

- Patients with physical impairment (affecting the ability to use conventional packaging) but no formal/informal carers; and
- Patients with cognitive impairment and formal/informal carers. (Patients with cognitive impairment but no carers were not helped by MCAs) (Athwal et al. 2011).

Not all patients in these two groups will benefit from an MCA: individual assessment is key to good practice. The Royal Pharmaceutical Society's recommendations are that:

- The use of original packs of medicines with appropriate support is the preferred option of supplying medicines to patients in the absence of a specific need requiring an MCA as an adherence intervention.
- In support of independence and re-ablement, patients who can safely self-administer their medicines should be encouraged to do so, and where they are unable to do so, there must be appropriate training for carers so that they are able to administer medicines from original packaging.
- Every patient identified as having medicines adherence issues should have a robust individual assessment to identify the best intervention based on their needs and the evidence currently available (Royal Pharmaceutical Society 2013).

#### Risks

MCAs are not the safest option for many patients. The evidence is that they actually increase the rate of drug errors in nursing homes and their use generates other problems (Alldred et al. 2009), including:

- Greater medico-legal risk for prescribers and dispensers, as the transfer of medication out of its original packaging is outside the

- manufacturers' guidance on approved use;
- Instability of many drugs when exposed to light and moisture or through contact with other drugs in MCAs;
- Reduced engagement by patients and carers in self-management of medication;
- Difficulty conveying safety information: though information leaflets are supplied with the MCAs, it is difficult for patients to know which leaflet applies to which tablet;
- Increased costs and waste as outlined above;
- Increased risks from controlled drugs and anticoagulants;
- Incompatibility of MCAs with many drugs eg some anticonvulsants;
- Incompatibility of MCAs with many drug regimes eg PRN drugs, suspensions, effervescent;
- Use of concomitant drug regimes for drugs that are not compatible with MCAs (eg.; PRN opiates) increases the risk of unintentional under- and over-dosing;
- Increased risk to children and vulnerable adults in households as MCAs are not child-proof.

Most non-compliance with medication is intentional and MCAs have no impact upon it.

### **Adopting Best Practice**

Although many providers in Bristol already followed best practice, some providers were using MCAs for everyone in a particular care setting (residential homes or domiciliary care), without an individual assessment of that patient's needs. The providers were often acting from the best of intentions, in the mistaken belief that they were making patients safer and supporting compliance. There was also widespread ad-hoc use of MCAs in the community, often apparently without an assessment by a community pharmacist as to the individual's suitability for an MCA. As well as the potentially detrimental effects on patients outlined above, the over-use of MCAs was creating excessive workload for pharmacists in hospital and the community and creating delays in discharge from hospital. The health and social care community in South Gloucestershire (from where the majority of patients at NBT are drawn), supported by the Local Pharmaceutical Committee (LPC), worked together to improve use of compliance aids. A protocol for use across the locality has been agreed.

The principles of the new protocol are:

- People should be supported to understand their medication and use it safely.
- Wherever possible, people should be supported to manage their own medication. This includes people living in care homes.
- Each patient's needs must be assessed on an individual basis, and any intervention must be tailored to the patient's specific requirements.
- Medication compliance aids should only be used when likely to make the user safer.

The intention is that the protocol will be supported by a common assessment tool so that, whether a compliance aid is started in the community or in hospital, the same criteria will be used to assess whether an individual will benefit from using an MCA.

The process of agreeing to work towards this goal has been a positive example of cross-organisational working across an entire locality to improve patient safety and autonomy and to use resources more efficiently. The support of the LPC and of care homes' representatives has been particularly valuable in building a foundation for integrated work on medicines management in the future.

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