KEEP TAKING THE MEDICINE

How well do elderly patients adhere to the medicine?

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INTRODUCTION

The Cumbria Primary Care Trust (PCT) alone spent £81m in 2006/7 on prescribed medication. Eighty percent of over-75 year olds are on at least one prescribed medication and greater than two thirds are on four or more medications. In the hospital trust, however, over 96% of the patients that are over 75 are taking at least one medication and 80% are taking four or more medications.⁽¹⁾ This suggests the hospital trust spends more on medication for the elderly, increasing their prescribing costs. This is further increased by indirect costs on the NHS made from adverse reactions resulting in a hospital admission. In the UK, 17% of hospital admissions in the elderly are from adverse drug reactions.⁽²⁾

Non-adherence to medication is common in all ages, but is particularly an issue in the elderly. There are many interventions to help improve this, which will be discussed in this article.

In practice, the terms compliance and adherence are often used interchangeably as synonyms but do actually have distinctly different definitions.

Compliance

The extent at which the patient's behaviour matches the prescribers' recommendations.⁽³⁾

Adherence

The extent at which the patient's behaviour matches the agreed recommendations from the prescriber.⁽³⁾

The definition of compliance suggests negative connotations towards the doctor/patient relationship. It suggests that patients' views and health beliefs are not taken into consideration when prescribing. In the past ten years, medical professionals have been using the term concordance over compliance more commonly. Concordance is the new approach in prescribing and taking medicines.

Concordance

An agreement reached after negotiation between the patient and the healthcare professional, which respects the beliefs and wishes of the patient in determining when and how medicines are taken. There is evidence that concordance does improve adherence to medication.⁽⁴⁾

Non-compliance

<i>Primary:</i>	prescription isn't dispensed
<i>Secondary:</i>	incorrect dose, wrong time, omitting dose
<i>Unintentional:</i>	reduced dexterity (cannot open bottle), forgetfulness
<i>Intentional:</i>	conscious decision not to take medication

REASONS WHY ELDERLY PATIENTS DO NOT ADHERE

Older people are more likely to have chronic illnesses that require them to take several medications. This can lead to non-compliance in the elderly for a variety of reasons, which may or may not be intentional:

- reduced cognitive function
- decreased dexterity
- 'drug holidays'
- preventative medication – not appreciating the benefit of drugs taken for illness prevention
- side effects
- lack of knowledge
- polypharmacy
- poor communication between the doctor and the patient

Reduced cognitive function in elderly patients could include memory loss, dementia and confusion. This can cause patients to miss doses or take excessive amounts of medication due to a patient's reduced competency in adhering to a complex medication regimen.

Figure1 Child-proof container

Problems with dexterity may comprise a patient's ability to utilise a variety of methods in administering medications. Medication can be taken in various ways, for example inhalers, eye drops, blister packets and child-resistant containers, all of which require a certain degree of dexterity. This maybe a specific problem, for example, in older patients who have arthritis.

'Drug holidays' are variable periods of time for which the patient abruptly stops medication and just as abruptly re-starts. People try to rationalise not taking their medication for this time in several ways. A common example of this is when a patient is actually going on holiday and will suspend their medication for that duration. Patients find it troublesome to take medication whilst on holiday, as they may feel less able to enjoy it. Others may stop taking their medication for a period to see if complying with medication is actually improving their quality of life. An example of this is when patients taking diuretics adjust dosing times according to their lifestyles. The intended outcome of diuretics inhibits many patients from normal daily living activities such as shopping. In such circumstances, patients may delay taking diuretics, but usually continue taking them when returning to an optimal environment.

Preventative medication is given to patients who may be asymptomatic and because of this may not be able to visualise the benefits to be gained in the near future. This is especially seen in cardiovascular medication; for example, two thirds of patients will stop taking their statin after two years.⁽⁵⁾

Figure 2 Blister pack medications

**'two thirds of patients
will stop taking their
statin after two years'**

Adverse reactions have a negative impact on compliance to medications.⁽⁶⁾ The physiological changes in the elderly may have profound effects on the pharmacokinetics and pharmacodynamics of drugs. Hepatic reserve and renal function decreases with age and this may alter the clearance of drugs. Increasing toxicity because of this could possibly increase adverse drug reactions. Interactions between drugs are more likely to occur within polypharmacy and lead to adverse drug reactions. Polypharmacy can create regimens that are more complex for people and this is seen in patients who take several differing medications at different times of the day.

Patients' lack of knowledge regarding their understanding of medications may fail to highlight the importance of medications, increasing non-compliance. One of the reasons why patients may have a lack of knowledge is due to poor communication between the doctor and the patient.

WAYS IN WHICH DOCTORS CAN IMPROVE COMPLIANCE

Concordance

Listen to patients' concerns and beliefs and make an agreed decision. A patient being more involved in the consultation has shown to improve patient satisfaction, making them more likely to comply.

Long-acting medication

This reduces the frequency of doses, as 73% adherence to once-a-day medication compared to three-times-a-day medication with only 52% compliance.⁽⁷⁾

Combined medication

This can lead to a reduction in polypharmacy when appropriate. Caution is needed when prescribing due to the misinterpretations between trade and generic names.

Multidisciplinary prescribing and administration

Good communication between health professionals will help to reduce human errors, which can occur from the lack of information concerning a patient's drug history.

Using the lowest effective dose

Starting elderly patients on lower doses may reduce toxicity and therefore adverse drug reactions.

Compliance aids

There are many available compliance aids, for example blister packs, medical record cards and pill dispensers. Compliance aids may not be beneficial to all patients and appropriate assessment is key to improving compliance.⁽⁸⁾

Information giving

Patients might have specific preferences to what information they are given. We conducted a survey at Westmorland General Hospital, mainly on outpatients over the age of 60 in the hospital trust, and found that 76.2% of patients wanted to know specifically what their medication was. Only 9.5% of patients did not want to know anything about their medication. NICE guidelines on medication adherence suggest the following information should be given to patients:⁽⁹⁾

- what the medication is used for
- how it is taken
- benefits
- side effects
- information on what to do when they have missed a dose

Reducing polypharmacy

Regular medication reviews are important to identify unnecessary medication. Wasteful prescribing costs the NHS approximately 10-20% of the prescribing budget.⁽¹⁰⁾

Consider the choice of product⁽¹⁾

- E** – how **E**ffective is the product?
- A** – is it **A**ppropriate for this patient?
- S** – how **S**afe is it?
- E** – is it cost **E**ffective?

CONCLUSION

Compliance to medication is a complex issue influenced by a variety of factors. Non-compliance is particularly prevalent in the elderly population and they are just as likely to intentionally stop taking medication as other age groups. Increasing use of concordance in consultations is expected to improve compliance, although there are no studies based on its longterm effects. There are various significant changes, which can be made by the doctor to enhance compliance. This can be done through a consultation and changes to the medication. By and large, prescribing in the elderly should not be taken lightly as it can have severe consequences on the NHS and patients.

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FURTHER READING

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