Over-the-counter medicines and the elderly

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ABSTRACT — Sales of over-the-counter (OTC) medicines are rising, and will continue to rise as more products are reclassified from prescription-only status to OTC medicines (either pharmacy-only or general sales list). Patients and doctors often omit discussion of OTC medicines when giving or taking a medication history. This has serious potential for identifying adverse drug reactions and drug-drug interactions, which are more common in older people. Therefore, medication histories should include documentation of any OTC medicines taken.

In 1994, sales of over-the-counter (OTC) medicines amounted to £1,268.5 million, equivalent to approximately one-third of the total NHS drug bill for the same year (£3,600 million)1. By 1998, the sales of OTC medicines had increased to £1,425 million2, and are expected to grow by 26% between 1996 and 20023. The number of OTC medicines available has increased in parallel with rising sales: only 16 drugs were reclassified from prescription-only medicine to pharmacy between 1983 and 1992, while a further 120 have been reclassified between 1993 and the present day4. Currently, more than 900 products are available as OTC medicines5.

Elderly people are the largest group of consumers of prescription and non-prescription medicines6. In 1998, 50.1% of all medicines prescribed (234 million) were dispensed for elderly people7. It is widely accepted that the risks both of adverse drug reactions (ADRs) and of drug interactions increase with the number of medicines taken and with age8. A multicentre study in the UK found that ADRs were implicated in 10% of admissions to acute geriatric units9, and subsequent single-centre studies have reported similar findings10,11. However, despite the increasing availability of OTC medicines, few studies have focused on their contribution to hospital admissions for elderly patients.

Purchase and consumption of over-the-counter medicines by elderly people

In the UK, prescription medicines are exempt from charges for those aged 60 years or above. However, elderly people still purchase OTC medicines12,13 for several reasons, including:

- not wishing to trouble their general practitioner (GP)
- ease of access to the community pharmacy
- recommendations by the pharmacist
- deciding that their condition was not severe enough to seek GP advice
- inability to obtain an appointment with their GP13.

Potential hazards of over-the-counter medicines

Although the regulatory authorities take great steps to ensure that OTC medicines are safe and effective, they are not without risks, particularly in elderly persons with limited knowledge of all the medicines they are taking14,15. These risks include the following:

1 Excessive doses of drugs: for example, where patients take full doses of prescribed analgesia while taking a full dose of the same drug bought OTC — a situation compounded by different names for the same drug.

2 Drug interactions between prescribed and OTC medicines: for example, warfarin and cimetidine16.

3 Adverse reactions to OTC medicines: for example, elderly patients have an increased risk of non-steroidal anti-inflammatory drug-induced gastropathy, while H2-antagonists, now widely available OTC, may cause confusion in the elderly16,17.

4 Masking or delaying the diagnosis of serious conditions: for example, patients who self-medicate gastrointestinal symptoms with non-prescribed H2-antagonists may delay the diagnosis of potentially serious conditions18.

5 Self-medication using analgesics and other OTC medicines to promote sleep: this has been associated with excess mortality in the elderly19.

6 OTC herbal medicines: a recent review of the hazards of OTC herbal medicines listed 80 remedies with potential toxic ingredients, some of which are carcinogenic20.

Medication histories

Research has shown that doctors do not yet routinely ask about OTC medicines when taking a drug history, and patients can be reticent about initiating a discussion with their doctor concerning their use of such medicines.

A study of 100 elderly patients admitted to a UK hospital reported that 78% were self-medicating with 194 OTC preparations21. Less than 1% of OTC medicines were recorded in the GP's letter or records, the admitting hospital doctor's notes or the nursing care plans, and 20 errors and
omissions were found to be of clinical significance. Another study of 138 elderly hospital inpatients in the UK found that 44 (32%) took at least one OTC medicine, but there was no documentation of OTC medicines used in the clinical notes\textsuperscript{15}. Patients were using six OTC medicines while in hospital, without documentation of awareness by medical staff.

In a community pharmacy-based study, 63% of the 515 elderly respondents reported that they did not discuss their use of OTC medicines with their doctor\textsuperscript{15}. Even if they were to experience a serious ADR from either a conventional or a herbal OTC medicine, a recent survey found that 43% of consumers (n=515) would not consult their GP for advice\textsuperscript{22}. Another study found that when elderly patients were being admitted to hospital, prompting was often required before they would discuss their use of OTC medicines\textsuperscript{23}.

The reasons for poor OTC medication histories probably involve several factors:

1. Doctors may lack knowledge of non-prescribed medicines and recent developments in this area. Therefore, they may perceive few potential problems in clinical practice associated with OTC medicine use, and such medicines may be considered harmless products.

2. Some doctors may assume that elderly people are unlikely to use OTC medicines.

3. Elderly people are unlikely to report their use of OTC medicines unless prompted.

Summary

The elderly are the largest single group of consumers of prescribed and OTC medicines. The market for the latter is vast and increasing rapidly, particularly as the number and range of these products are extended. Increased availability of OTC medicines may heighten the risk of ADRs in the elderly. Doctors frequently do not appreciate the range or scale of use of OTC medicines by the elderly. When taking medication histories, doctors should think of medication not only as prescription-only medicines but also as over-the-counter (OTC) and any other medicines.

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Key Points

The number and range of over-the-counter (OTC) medicines available for purchase have increased greatly over the last eight years

OTC medicines can cause serious adverse effects in the elderly

Many doctors do not ask elderly patients about OTC medicine use when taking medication histories, and patients do not routinely volunteer this information

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