and important part of the spectrum of continuing care. Bowman et al. point out that care-home commissioning, provision and regulation currently reflect a social (rather than medical) model of care. They question the distinction between residential and nursing categories, as others have done [8]. They suggest that greater attention to clinical needs may enhance 'social' functioning, as well as limiting avoidable acute events and hospitalisations. They also lament the absence of healthcare expertise in UK regulatory bodies, and suggest that systematic ongoing monitoring of health status is required to track care needs and monitor outcomes. All are sensible points.

Rather than considering care homes a backwater for unwanted and uninteresting citizens, a more compassionate approach would recognise their necessity, and develop positive policies for meeting the health and social care needs of residents, including adequate provision for medical care, rehabilitation and occupation. High quality nursing home care is possible [9, 10], although there is pitifully little research evidence to guide us. A renewed drive to develop more positive philosophies of care is overdue.

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References

Inappropriate prescribing in older people

Inappropriate prescribing, medication errors and drug-related morbidity have become the focus of international interest in recent years. Publication of Organisation with a Memory [1] in the UK, and To Err is Human [2] in the USA has highlighted the incidence of injury caused by medication, and the cost to healthcare systems. In response to this interest, groups such as the National Patient Safety Agency, Agency for Healthcare Research and Quality and the Australian Council for Safety and Quality in Healthcare have focused on tackling errors in healthcare, including medication errors.

In the UK, the government has made a commitment to reduce serious errors in prescribed drugs by 40% by 2005 [3]. One element of this is the publication of a report by the Chief Pharmaceutical Officer [4], which highlights some of the most serious types of medication errors, and proposes systems of working that can be implemented by individual organisations to help prevent future occurrences.

International work on medication-related admissions has shown that a median of 7% of hospital admissions are medication-related, and that around two-thirds of these admissions are potentially preventable [5]. Older people are known to be at higher risk of drug-related morbidity, with as much as a four-fold increase in the likelihood of older people being hospitalised with an adverse drug event [6]. Older people in care homes, known to take more medications than older people in the wider community [7], are particularly at risk.

The National Service Framework (NSF) for older people recognises the special medication needs of older people and the need for regular review of medications (6-monthly in patients taking four or more medications) to help avoid inappropriate prescribing and drug-related morbidity [8, 9]. However, only 30% of nursing home residents in a study in Leeds had had a medication review in the previous 12 months [7].
There are known to be problems with medication management in UK nursing homes, and the House of Commons select committee report on elder abuse indicated that only 44% of care homes in the UK currently meet national standards for the handling and administration of medication [10]. Older people in nursing homes are almost twice as likely to receive inappropriate prescriptions as older people in the community (40% versus 21.3%) [11]. A study by Gurwitz et al. highlights the potential impact of this, revealing a rate of 1.89 adverse drug events per 100 nursing home resident months, with almost half of these events being classified as fatal, life-threatening or serious. More than half of these events were considered preventable [12].

Despite a growing body of evidence that medication errors are relatively common, and an important cause of morbidity and mortality, evidence for effective interventions to reduce the risk of injury from medications is still limited. The paper by Crotty et al. describing an intervention to reduce inappropriate prescribing is an important addition to this body of evidence [13]. This paper describes the use of multidisciplinary case conference meetings to review medication in nursing home patients. Medication reviews were targeted to patients at high risk of medication problems, identified by the nursing home staff, and conducted by a multidisciplinary team including the patient’s general practitioner (GP), a pharmacist, a geriatrician and nursing home staff. This study differs from previous work because the patient’s GP was present at the point of decision-making. In previous studies, medication review teams consisting of pharmacists, nurses and geriatricians have suggested changes to the GP after the review, with varied levels of uptake. Direct participation of the GP in the medication review process may be one of the reasons for its success. Medication appropriateness improved significantly in the intervention group compared with the control groups following the medication reviews. It is unknown whether this will have impacted on rates of drug-related morbidity in this population, but it seems likely that improving the appropriateness of the medication will reduce these risks.

Most importantly, it is possible to see how this intervention could be implemented in countries that have GP-based primary care. For example, in the UK, GPs are already encouraged to carry out medication reviews for care home patients, and primary care pharmacists are already available in some GP surgeries to assist in this task. In addition, community pharmacists already participate in non-clinical reviews in nursing homes. It is more difficult to see how the help of a geriatrician could be enrolled. Nevertheless, the report into elder abuse advised that consultants with a special interest in medicine and psychiatry of older people should be encouraged to develop services for older people in residential care, and it is possible that political pressures may lead to an increase in consultants taking on these roles [10]. One barrier to be overcome in the implementation of such a scheme may be the ability to find time for all team members to be present at the same time. The implication from the study is that the presence of the GP, as the person with ultimate responsibility for the prescribing, will be key to the uptake of recommendations from the medication review, and that they should lead on the organisation of the meetings.

A second outcome from the study was the lack of evidence that the medication reviews had an impact on prescribing for other patients in the nursing homes. The reason for this is not obvious, but suggests that alternative methods will be needed to have a wider, long-term effect on GP prescribing for older patients. Educational outreach (a process of targeted, evidence-based education) has been shown to be effective in reducing inappropriate prescribing in a number of studies [14], and is likely to be a useful tool in reducing drug-related morbidity.

The study by Crotty et al. [13] supports the findings of previous studies that medication review by multidisciplinary teams involving a pharmacist can reduce inappropriate prescribing and medication errors [7, 15], and this is an area that deserves greater attention from policy makers. Such a change to practice may help governments meet their targets for reducing serious prescribing errors [3], and improving care of older people [8].

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References
Preventing falls and injuries in care homes

Falls in care homes are common with an annual incidence from 600 to 3,600 per 1,000 beds [1]. In a recent UK study of 56 homes [2], with mean occupancy of 1,862 residents, there were 2,690 falls in 1 year, with mean falls rates as high as 3 per resident per annum in specialist residential homes for clients with dementia. Some 30% of falls result in documented injury [3] but there is also considerable attendant physical and psychological morbidity, as well as concern, complaint and litigation from clients’ relatives and guilt or worry for staff. The inevitable desire from homes for falls policies and protocols is further fuelled by the recent emphasis on falls prevention from the National Service Framework for Older People [4], good practice guidelines [5], the regulatory framework provided by the Care Standards Act [6] and guidance from the Health and Safety Executive for Care Homes [7] on providing a safe environment both for staff and clients. But evidence-based practice in risk management requires evidence.

In this issue, Dyer et al. [8] describe with great clarity a well-conducted falls intervention trial on 196 clients in 20 residential care homes, with randomisation at the level of the cluster (care home) to receive intervention or control. There was a low rate of consent by care homes to be randomised – suggesting possible inclusion bias (either towards or against care homes with a proactive interest in falls prevention – possibly influencing effect size). The intervention provided was multifactorial, with gait/balance training, medication review, podiatry, optometry, environmental modification, medical risk factor assessment and staff education. Adherence to assessments and intervention was high – including the exercise component. Although the intervention was associated with a 27% reduction in falls rate, this failed to achieve statistical significance following adjustment for cluster correlation and the study was underpowered to detect differences in injury rate. Interestingly, there was a trend towards greater effect size in clients with cognitive impairment. Also, there were clear benefits in good practice resulting from introducing the intervention, e.g. an increase in optometry and podiatry input and in medication review. Whilst this paper has not provided a definitive model for fall prevention in care home settings, it adds to the field and neatly illustrates some of the complexities of such studies.

There are certainly a number of generic risk factors for falls and injuries in all settings [1, 3, 5]. It follows that there are core elements to fall and injury prevention, involving assessment for common reversible risk factors and specific plans to address each one [9]. However, it is likely that a falls risk profile and the emphasis of interventions are specific to populations or settings. For instance, a residential care home for often highly ambulant clients with dementia will need different emphasis than, for instance, a conventional nursing home with low general levels of mobility and high levels of medical co-morbidity.

Secondly, when interventions such as this one are multifactorial, it is hard to determine the degree of attributable benefit from each component, especially when some components (such as staff education) are at the level of the whole care home.

Thirdly, trial design, randomisation and data analysis are problematic. Individual (client) randomisation leads to the possibility of consent bias and therefore low external validity – especially in view of the high prevalence of cognitive impairment in care homes of all types (though there is an established ethical framework for obtaining consent) [10].

References: