

Improving medication safety in UK care homes: challenges and current perspective

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Summary

In the UK, there are policy and regulatory concerns regarding the governance of care homes and healthcare provision within these homes. From a public health perspective, these issues can pose significant challenges to the provision of safe and quality medication use services to care home residents. The objective of this paper is to highlight an important and neglected issue for the growing population of institutionalized older adults. We reviewed relevant literature for the years 2000 to present and identified recent efforts undertaken to improve medication safety standards in UK care homes. We consider the limitations and reasons for the National Health Service's restricted role and lack of leadership in providing medical services for this institutionalized population. The efforts taken by the Department of Health and other healthcare authorities targeting medication safety in care homes are also highlighted. In order to improve the quality of healthcare, specifically in areas related to medication safety and quality use of medicines, interventions need to be taken by the national government and similarly by local authorities and NHS commissioners.

Keywords

geriatric medicine, medication safety, evidence-based practice

Introduction

The provision of high quality medication-related services to UK care homes has been subject to increased scrutiny over the past decade.^{1,2} In the UK, the National Health Service (NHS) is the primary national body responsible for the provision of healthcare, including medication-related services for care homes. There were several changes to the administration of care homes in 2011 due to the widely reported reallocation of resources and the requirement to deliver to the UK government's vision and mission.³ From a public health perspective, a compromise in the safety and quality of medication use practices for such a vulnerable population poses considerable

risks. Apart from causing harm to patients, the NHS is faced with additional costs from increased healthcare utilization. Adverse drug events in the elderly that stem from medication errors and result in hospitalization and emergency visits have a significant impact on healthcare resources, public health and costs. For example, in 2000, the Medical Protection Society and Medical Defence Union reported that medication errors accounted for around 25% of all litigation claims in UK general practice.⁴ In particular, incorrect or inappropriate dosage heads the list of errors.⁵

Older people, particularly those living in care homes, often have multiple co-morbidities that require them to have more prescriptions than their younger counterparts. They are hence at a greater risk of medication errors. Translating the evidence base to practice in older people is a huge challenge. One challenge relates to the complexities of governance pertaining to healthcare and medical services provision in care homes.

Here, in this paper, we aim to provide an overview of UK care home legislation and governance for the benefit of our international readers. We critically review the governance structures of these homes. We also analyse the reasons for the NHS's limited role and lack of leadership in providing medical services for the care home population. We discuss recent efforts undertaken to address some of the challenges and make recommendations to improve prescribing practices and overall medication safety. Areas where further work is needed are highlighted.

Methods

Relevant literature was identified through a search of the online databases (MEDLINE, EMBASE and Google Scholar) for the years 2000 to present using keywords including the following: 'care homes',

'medication safety', 'safe prescribing' and 'governance'. A restriction was made for English language articles only. Reference lists of all eligible articles were checked for other relevant studies. Conference proceedings were not searched. The sources were cross-checked and this paper was produced from those sources.

Complexity of governance

Care homes in England and Wales are governed by the Care Standards Act 2000,⁶ in Scotland by the Regulation of Care Act (Scotland) 2001⁷ and in Northern Ireland by the Health and Personal Social Services Act (Northern Ireland) 2002.⁸ This legislation led to the introduction of the 'national minimum standards' by the Department of Health, the Scottish Executive and the Welsh Assembly. Regulations specific to each of the four constituent nations (England, Scotland, Wales and Northern Ireland) of the UK were also introduced to determine the responsibilities of care home providers in maintaining and promoting the health of their residents. Apart from setting out requirements for activities such as record keeping, and planning and monitoring health by care home staff, these regulations also set out healthcare requirements. Although care home managers are ultimately responsible for compliance with the healthcare requirements, in practice, the provision of healthcare is largely dependent on NHS healthcare professionals. Others parties whose cooperation are required include local authorities and private or voluntary organizations. While there is mention of the NHS in the policies of the four constituent nations of the UK, these policies are largely focused on funding and regulatory issues and do not outline specific requirements on the clinical aspects of the NHS responsibilities for healthcare. Because of this omission, the health departments have been criticized for failing to clarify NHS obligations or government expectations of its local NHS services for care home residents.⁹

In addition, independent health and social care regulatory bodies with the responsibility to monitor the stipulated standards and regulations have been set up in each nation. In England, the independent regulator of health and adult social care, the Care Quality Commission (CQC),¹⁰ was established by the Health and Social Care Act 2008¹¹ and began operating in April 2009. It replaced three earlier commissions: the healthcare commission, the commission for social care inspection and the mental health act commission. The equivalent health and social care regulator in Scotland is the Care Inspectorate (previously Social Care and Social Work Improvement Scotland),¹² in Wales, the Care and Social Services Inspectorate

Wales¹³ and in Northern Ireland, the Regulation and Quality Improvement Authority.¹⁴ These regulators have a responsibility to regulate not only organizations who provide care homes such as the British United Provident Association¹⁵ but also providers and commissioners of NHS health services. Apart from the health and social care regulations, care homes and those working within them are subject to standards set by the relevant agencies and professional bodies, such as: (1) the requirements on healthcare professionals to meet professional standards by the General Medical Council, the Nursing and Midwifery Council and the General Pharmaceutical Council; and (2) accreditation of quality standards by the International Organization for Standardisation, Health and Safety Acts and safeguarding confidentiality of residents' personal information as stipulated in the Regulation and Data Protection Act 1998.¹⁵

Hence, there are many institutions and sectors that are directly involved in the provisions and regulation of healthcare for care home residents. In England, the relevant establishments that are responsible for provision of medication-related services are: (1) the CQC, which regulates services provided by the NHS, local authorities, private companies or voluntary organizations; (2) NHS primary, community and secondary care organizations that provide clinical and medical services; (3) clinical commissioning groups (formerly primary care trusts) that commission care; and (4) local authorities who manage, monitor and improve local social services. Each local authority has a social service department that is responsible for care needs assessment primarily carried out to establish what help and support is needed by each resident.

Challenges in NHS healthcare provision

There are three key challenges. First, the framework of a social care model within which healthcare for care home residents is operating is now viewed as outdated.⁹ This is because care home residents' priorities are set primarily by social care and not healthcare. In the past, residents often entered care homes as a result of social factors, for example as a result of decisions made by their relatives. However, nowadays the trend has changed and residents are admitted, overwhelmingly, as a consequence of illness-driven disability.¹⁶ The social care model is as such vital but insufficient to meet residents' health needs. Furthermore, fragmentation in organization and service delivery between health and social care (and also within the NHS) has been identified as another impediment and has hampered the development of a collaborative model of care in which the NHS could deliver sustained support.⁹

Second, there are clearly increasing health demands for the ageing population. By 2035, 23% of the population of UK is projected to be aged 65 years and over.¹⁷ In contrast, only 18% of the population is expected to be below 16 years of age.¹⁷ Currently, in the UK, there are almost three times as many beds in care homes as in NHS hospitals.¹⁸ Moreover, the needs of this vulnerable population are specific and demanding as many residents suffer from dementia and most are living with at least one disability (reportedly 40% and 75%, respectively¹⁸).

Third, with such an overwhelming increase in needs, this could mean that the estimated half a million older people¹⁹ residing in UK care homes could have variable access to NHS services (such as problems obtaining local GP services, particularly in areas where large or numerous care homes have increased the number of residents). There is considerable variation in the quality of NHS provision, especially around medication management, dementia and end-of-life care.⁹ These variations have prompted the CQC in England to conduct a special review for finding solutions to meet the healthcare needs and demands of people living in care homes. The review was conducted to determine whether or not people living in care homes had equal access to NHS services, had choice and control over their healthcare and whether the delivered healthcare was safe and respected their dignity.²⁰ Aspects of locally enhanced services reviewed included: (1) medication reviews; (2) health assessments on admission; (3) specialist assessments; (4) regular visits to home; (5) support with end-of-life care plans; and (6) advising care home staff. Liaison with other healthcare professionals was identified in the review's preliminary findings as one way to improve NHS healthcare services for people living in care homes.

Medication safety concerns in care homes

Medication safety within the care homes is of concern to the Department of Health. This concern was reflected in the issuance of an alert in 2010 requesting Primary Care Trusts to coordinate actions with their primary medical care contractors, providers of pharmaceutical services and social care to pursue how medication errors in care homes can be reduced.²¹ This directive was issued following the completion of research commissioned by the Department of Health's Patient Safety Research Programme entitled 'The care homes use of medicines study: prevalence, causes and potential harm of medication errors in care homes for older people'. The authors found that 70% of residents had errors relating to medication prescribing, dispensing,

administration and/or monitoring. They further identified that unclear local leadership and lack of inter-professional communication were key causes.²

Medication errors were defined as prescribing, monitoring, dispensing or administration errors.² It is of paramount importance that efforts on improving medication safety be targeted at reducing these preventable errors.

Improving prescribing and monitoring practices

Much evidence of published guidance on medication use is pointing towards managing risk in medicines management systems and processes, medicines management for long-term conditions and medicines reconciliation.²² While safe dispensing and safe administration are commonly focused on, aspects of safe prescribing are, however, lacking considerably as there is no evidence on which to base such guidance. This is mainly because randomized controlled trials involving older patients have often focused on managing a single disease state. When involving complicated disease states, outcomes for older people have been based on consensus and have often involved extrapolating data derived from healthier patients.²³ In reality, however, older people have numerous comorbidities for which they are prescribed multiple medications and this must ideally be reflected in the guidance on their treatment.²³

One resource document was released in 1998 by the National Prescribing Centre. The document 'GP prescribing support'²⁴ was aimed at guiding PCTs and health authorities to develop effective prescribing support. In reference to care homes, the document suggested adopting the following measures: (1) setting up manageable and efficient systems for reordering of repeat prescriptions; (2) agreeing a list of 'domestic remedies' that the home keeps for the use of its residents, avoiding repeat prescribing of, for example, 'as required' simple analgesics; and (3) appointing a GP as a specific point of contact within the practice to deal with queries from nursing and residential home staff and who should also make regular care home visits to maintain systems and implement changes once they are agreed. In addition, when reviewing care home prescribing, the guidance advocated that particular attention be paid to over-use of antipsychotics, sedatives and hypnotics, and directions that indicated inappropriate timing of drug administration, e.g. to consider timing to suit the home's schedule.²⁴ Nevertheless, the guidance did not propose any alternative for conducting a more comprehensive medication review for care home residents. Another government document that

recognized the specific needs of the elderly with regards to regular medication review was the National Service Framework for Older People.²⁵ Although it did not address the more complex prescribing needs of care home residents, it did highlight inherent issues that underpin the principles of care for this group of older people.

Many have also agreed and supported the notion that additional precautions are necessary when prescribing to care home residents. These include taking measures to optimize the repeat prescribing system, for instance by having only one senior nurse in each care home responsible for ordering medication and notifying GPs of any amendments to a prescription so that a new prescription could be generated if necessary.^{2,24} Other precautions include the regular monitoring of residents and ensuring that essential laboratory tests are undertaken periodically, side-effects are detected and that therapy is optimized. Effective management of laboratory test results is equally pivotal as some reports attributed poor management for causing delays in receiving laboratory test results. It was also of a concern to GPs that the evidence base for medication monitoring was not fully established for many drugs, particularly in terms of the frequency of monitoring; even so, it has been deemed important to have agreed policies for laboratory test monitoring of drugs.²⁶ Additionally, prescribing notes or 'cautions' in the drug monograph of the British National Formulary are potentially useful, specifically with regards to advice on special monitoring requirements.²⁶

Minimizing dispensing errors

In recent developments, concerted efforts have been initiated and will be led by the Royal Pharmaceutical Society to minimize dispensing errors. This was triggered by the debate in the House of Lords in December 2011 of a tabled amendment to the Health and Social Care Bill to address the issue of healthcare professionals currently being at a risk of prosecution when an inadvertent dispensing error is made. This risk of prosecution, to which there is currently no defence, is said to discourage reporting of dispensing errors. The amendment was withdrawn pending further consideration of the issues. The Royal Pharmaceutical Society consequently announced on its website on 12 January 2012 that it will work closely with the Department of Health and the Medicines and Healthcare products Regulatory Agency (MHRA) to take more stringent measures to induce improvement and address the current situation with regards to dispensing errors.²⁷

Improving overall medication safety in care homes

In terms of what has been done to address issues pertaining to medication safety, the Department of Health has reiterated the use of the Royal Pharmaceutical Society's guidance 'The handling of medicines in social care' and the CQC standards when making relevant commissioning decisions. This provides best practice guidance based on current legislation governing the handling of medicines in the social care environment. It addresses handling of controlled drug storage in care homes and ethical issues to consider when residents refuse their medicines.²⁸

Another arm's length executive body of the Department of Health, the National Patient Safety Agency (that ceased to exist from June 2012 and had its key functions transferred to the NHS Commissioning Board Special Health Authority²⁹), was involved in promoting good practice guidance by, for example, outlining guidance in care home procedures for dealing with medication errors in an attempt to reduce risks and improve safety in care homes. Likewise, the MHRA, an executive agency of the Department of Health responsible for the investigation of harmful incidents as well as regulation of medicines, medical devices and equipment used in healthcare, has contributed to this facet of safety. The MHRA has a section on its website designed specifically for care home staff; the website includes guidance, safety alerts and links to educational material to assist staff in the safe use and management of a wide range of medicines and medical devices.³⁰

In terms of who should take the lead on initiating collaboration on medication safety, many agencies and organizations have been proposed. The white paper, 'Pharmacy in England: building on strengths – delivering the future', in 2008 clearly identified chief pharmacists as the most appropriate professionals to take the lead on medication safety matters.¹⁹

Conclusions

As the population ages, an increasing proportion of older people are living in care homes. This shift in demography has important implications for the healthcare system as resources are pooled and directed towards meeting the needs of this vulnerable older population. With an increasing demand for care homes, there is a greater need to ensure that the population living in these institutions is provided with the best quality of care. The importance of addressing the social issues and problems

surrounding their prescriptions need to be acknowledged. Necessary interventions need to be made by the NHS and local authorities to improve the quality of healthcare specifically in areas related to prescribing. While there are lessons that can be learned from research findings and implementation of policy and practice in other countries where there probably are greater regulations of care home medication use (countries such as the United States of America and Australia), these cannot be easily compared or transferred to the UK as the baseline information such as regulations, systems of care, databases and medicines vary significantly.

Declarations

Competing interests: Azeem Majeed is a GP Principal in a general practice that provides NHS services to care home residents.

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