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Helping older people to take prescribed medication in their own home: what works?

Key messages

- Forty-five percent of the medications prescribed in the UK are for older people aged 65 and over, and 36% of people aged 75 and over take four or more prescribed drugs. It has also been found that as many as 50% of older people on prescribed medication may not be compliant with the prescribed regimens, that is, taking their medicines as instructed.
- Older people living at home fail to comply with prescribed regimens for their medication for both unintentional and intentional reasons.
- Unintentional reasons for non-compliance include a lack of easily understandable information about how and when to take their drugs, difficulties reading labels and opening containers, and the need to take many different drugs or many doses.
- Alarm clocks, positioning medication in visible places, and taking it at routine times, such as meals, have all been found by older people to be helpful in reminding them to take their medications.
- Intentional reasons for non-compliance include concerns about the value or effectiveness of medicines, their side-effects, and the inconvenience of taking the drugs at the prescribed times and frequency.
- Concordance is seen as a way of addressing intentional non-compliance. This approach allows patients to voice their concerns about medication and reach an agreed position with their doctor about the nature and quantity of their medication.
- Other effective means of improving compliance include simplifying drug regimens, educating older patients about the importance of their medication, providing personalised instruction and written information about their medication, and making medicines available in appropriate containers.
- Reminders, compliance aids and supervision are the most effective means of improving compliance among older patients with cognitive impairments.

Introduction

This section introduces and defines the scope of the briefing and the topic.

A SCARE briefing provides up-to-date information on a particular topic. It is a concise document summarising the knowledge base in a particular area and is intended as a 'launch pad' or signpost to more in-depth investigation or enquiry. It is not a definitive statement of all evidence on a particular issue. The briefing is divided into the different types of knowledge relevant to health and social care research and practice, as defined by the Social Care Institute for Excellence (SCIE) ⁽¹⁾. It is intended to help health and social care practitioners and policy-makers in their decision-making and practice.

The topic of this briefing is the taking of prescribed medication by older people aged 65 or over who live at home. The main responsibility for taking medication among this group belongs with the older person themselves, or an informal or formal carer, rather than a health professional. There is therefore very limited supervision of medication taking by this group. The taking of prescribed medication concerns compliance. Compliance involves "taking medicines in the right way", that is, "adhering to the prescribed drug regimen" or taking drugs in line with medical or health advice ⁽²⁻⁴⁾. This briefing covers all older people, including those who suffer from cognitive or other impairments. The aim of the briefing therefore is to examine the policy literature and the findings of the research into why older people living at home may intentionally or unintentionally fail to take all of their prescribed medication when they need to, and what measures may be effective in helping them to achieve compliance with the prescribed doses. The intended audience of this briefing is both the prescribers of medication and health and social care professionals who work with older people in their own homes.

Why this issue is important

This section summarises research findings relating to older patients' involvement in their care, as well as the key characteristics of this group.

Forty-five percent of the medications prescribed in the UK are for older people aged 65 and over, and 36% of people aged 75 and over take four or more prescribed drugs ⁽⁵⁾. As many as 50% of older people on prescribed medication may not be compliant with the prescribed regimens, that is, taking their medicines as instructed ⁽⁶⁾. Non-compliance can be very high in cases where the drug regimens are very complex ⁽⁷⁾, and elderly people are more prone to having several conditions which require multiple and complicated regimens. The failure

to comply with prescribed regimens can lead to drug wastage, mismanagement of medical conditions, readmission to hospital, and adverse effects or reactions for the patient ^(2,5,6,8-10).

Concordance is currently one of the most preferred methods of helping to achieve compliance ^(5,6). The involvement of older patients in decisions regarding their medication is important because guidance and standards defined by the Department of Health call for more patient-centred care for older people, including their involvement in decisions relating to their own care ⁽¹¹⁾. The aim is to “ensure that older people are treated as individuals and they receive appropriate and timely packages of care which meet their needs as individuals, regardless of health and social care boundaries” ⁽¹¹⁾. Department of Health documents also state that patient involvement promotes “more responsive services and better outcomes of care” ⁽¹²⁾. Research from the UK has also demonstrated that involving patients in the planning of their care or treatment can be an important means of improving services and outcomes, both in terms of readmissions and patient satisfaction ⁽¹³⁻¹⁶⁾. Compliance among older people with mental health problems is known to improve their and their family or carers’ health and safety, and reduce confusion and stress ⁽¹⁷⁾.

This briefing acknowledges that the management of a condition is often multidisciplinary, and that improving compliance alone may not be sufficient to improve outcomes for a patient. However, compliance is an important element of effective therapy.

What do the different sources of knowledge show?

Organisational Knowledge

This section lists and briefly summarises documents that describe the standards that govern the conduct of statutory services, organisations and individuals in relation to medication compliance and concordance among older people and other patient groups.

Department of Health (2004). Better information, better choices, better health
<http://www.dh.gov.uk/assetRoot/04/09/85/99/04098599.pdf>

This is a national strategy document of the Department of Health published in December 2004. It looks to put information at the centre of health. The strategy proposes a three year programme of action, at both national and local levels, to “improve access for all to quality, general, and personalised information which people need and want, to exercise choices about their personal health and healthcare”.

Department of Health (2001). Medicines and Older People. Implementing Medicines-related Aspects of the National Service Framework for Older People
http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4008020&chk=cC38JM

This document was published in 2001 as part of the National Service Framework (NSF) for Older People. It sets new national standards and service models for prescribing medication for older people, including concordance discussions, as part of the regular review of a patient's medications. This document advocates the development of home pharmacy services for older people, especially those with dementia or depression, in order to improve compliance with their medication ⁽¹⁷⁾. It also requires practitioners to carry out periodic medication reviews, including assessments of whether the patient can access and take the medication easily, and whether they can read and understand all the written and verbal instructions they have been given.

Department of Health (2001). Expert patient: a new approach to chronic disease management in the 21st century

<http://www.dh.gov.uk/assetRoot/04/01/85/78/04018578.pdf>

This Department of Health report, published in 2001, proposes that there should be a partnership between health professionals and patients to find the best solutions to each patient's problem. Patients should be empowered by information and contribute ideas to help in their own treatment and care.

Department of Health (2000). The NHS Plan: A Plan for Investment, A Plan for Reform

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4002960&chk=07GL5R

The NHS Plan describes a major programme of investment in services to improve care for older people. This document emphasises the importance of obtaining and acting on the views of service users.

Department of Health (2000). Pharmacy in the future: implementing the NHS Plan.

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4005917&chk=/4q1tW

This NHS Plan document outlines the Government's plans for giving patients better access to pharmacy services and for helping them to use medicines more effectively. According to this document "prescribing and medicine taking needs to be based on informed agreement between the patient, their doctor and other health professionals. In other words, partnership in medicines taking".

Policy Community Knowledge

This section summarises documents describing proposed structural models and guidance for the delivery of policy and improved practice. These documents are published by public policy research bodies, lobby groups, think tanks and related organisations.

Department of Health (1999). Patient and public involvement in health: the evidence for policy implementation

<http://www.dh.gov.uk/assetRoot/04/08/23/34/04082334.pdf>

This is a report from the Health in Partnership programme (commissioned by the Department of Health in 1999). It is a synthesis of the findings from 12 research projects into patient and public involvement. The report contains important new evidence about patient and public involvement. It illustrates that patient involvement “improves patient satisfaction and is rewarding for professionals”, while public involvement “influences planning and services, and increases confidence and understanding”.

Practitioner Knowledge

This section describes studies carried out by health and social care practitioners, documents relating their experiences regarding the topic, and resources produced by local practitioner bodies to support their work.

Department of Health (2001). National Service Framework for Older People. Good practice examples and case studies: standard two (person-centred care)

http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/OlderPeoplesServices/OlderPeoplePromotionProject/OlderPeoplePromotionProjectArticle/fs/en?CONTENT_ID=4002285&chk=f8JgQm

This is a list of practice examples from the Department of Health aimed at ensuring that older people are treated as individuals and that they receive appropriate and timely packages of care which meet their needs as individuals, regardless of health and social services boundaries. This may include concordance.

The creation of a patient-centred pharmacy service by Harrow and Hillingdon Healthcare Trust for older people being discharged to their own homes has been described ⁽¹⁸⁾. This service involved the sharing of medication information between all the secondary and primary health care professionals involved in delivering care to older patients; reviews of the patient’s medication to simplify the regimen and reduce possible adverse effects; discussion of the medication with the patient and their carer; and giving the patient and their carer a discharge letter containing all the information about that patient’s medication and regimen.

Research Knowledge

This section summarises the best available research literature. The focus is on studies undertaken in the United Kingdom, so that the findings are as relevant as possible to the intended audience of the briefing.

There is no evidence that one method of improving compliance is significantly better than any other ⁽¹⁹⁾. A systematic review has reported that a multi-faceted approach which applies all or many of the known successful interventions may be most effective, as well as interventions which focus on the individual needs of each patient ⁽²⁰⁾. For example, a study which involved the review of each individual's medication, to simplify the regimen; a discussion with the patient to explain the medication and why it was being taken; and personalised spoken instruction and written directions on the packaging, on how and when to take the medication, found that this improved older patients' knowledge of their medication and their willingness to comply ⁽⁷⁾. Improved compliance is not always guaranteed by the many measures described, however ⁽²¹⁾. Many factors affect the taking of medication, some of which can be very difficult to address.

Why do some older people living at home have problems complying with their prescribed medication?

It has been found that older people are no less compliant than younger people concerning their medication ^(22,23), and are not always non-compliant because they are more confused or have poor memory ⁽²³⁾. The factors behind an older person's decision to take or not to take medicines are many and can be quite complex. They can also change over time. Even if every measure has been taken to help an older person to take their medication, a range of other factors may still affect compliance.

Compliance may be intentional or unintentional. Older people may unintentionally fail to take medication for the following reasons: they may not remember exactly how or when the drug is to be taken ^(5,17,22,24,25); drug regimens can be complex and confusing, especially if they need to take more than one drug or their existing regimens are changed ^(5,8,23-27); if routines are interrupted ^(27,28); or if problems are created by incipient dementia, impaired memory, or confused states ^(24,29). Older people may also reluctantly fail to comply because they cannot read the instructions that accompany their medication because of language and vision difficulties, and may have problems in opening containers, especially those with "child-resistant" tops ^(17,24,30,31). Older people living by themselves also often experience greater problems complying than those with someone there to remind them, or to help them to take their medication ⁽³²⁾.

The reasons why an older person may intentionally choose not to take prescribed medication may include the following: inadequate information about why a drug is being given ^(17,22,24,25); because symptoms are only mild ^(22,26) or because the therapy is preventative, such as medication for epilepsy or hypertension ^(26,33); or because drugs or combinations of drugs have unpleasant side-effects ^(22,25,26,33,34). Compliance among patients' of all age groups is influenced by the factors of necessity and concerns about medication. Where the concerns outweigh the necessity, for example, if symptoms are mild or the medicine is preventative only, then non-compliance has been found to increase, and vice-versa also ⁽³⁵⁾. Older people's decisions not to take their medications may also be influenced by the reputation of certain drugs, such as antidepressants, and their concerns about long-term dependency ^(22,34,36), as well as their beliefs about medication-taking and medicines in general, for example, attitudes about the value or side-effects of medicines, and the inconvenience of taking the drugs at the prescribed times and frequency ^(6,23,37). Relationships with the health professionals involved in diagnosing and prescribing can also affect compliance. People who do not know their practitioner well, and feel unable to trust them completely or ask questions, and who are not encouraged to talk about their medication concerns, are less likely to comply with the regimen than those who do feel comfortable and do ask questions ⁽³⁸⁻⁴⁰⁾. Socio-demographic and personal factors may also be involved. A person's broader social and psychological environment, including domestic situation, such as whether they have someone there to help remind them to take their medication, and any personal difficulties, such as depression, can also affect compliance, even when that person is well educated about their medication and its importance and intend to comply with the regimen ^(28,32,37).

What home-based interventions have been found to be effective in helping older people take their medication?

Alarm clocks, positioning medication in visible places, and taking it at routine times, such as meals, have all been found by older people to be helpful in reminding them to take their medications ^(27,28). Partners or carers of older people are also important in helping each other or the patient to remember to take their medication ^(24,27,29). Daily telephone and videophone reminders have also been found by a US study to be effective in improving compliance in a group of elderly people with congestive heart failure living at home ⁽⁴¹⁾. It is also important to make sure that the medication is easy to access, for example, some older people can have difficulty opening "child-resistant" bottles or blister packs ^(17,28,33). Older people can request containers without such difficult-to-open tops or packaging ⁽³²⁾. Older people with visual impairments may also require special labelling or written instructions which they can read ⁽⁴²⁾. The Disability Discrimination Act 1995 (**Title link** <http://www.hmso.gov.uk/acts/acts1995/1995050.htm>) and Progress in Sight. National Standards of Social Care for Visually Impaired Adults (2002) (**Title link** http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public_progressinsight.hcsp#P10_777)

both emphasize that all types of information should be made accessible to people with visual impairments. This includes making it available in appropriate formats, such as large print, Braille, telephone services and spoken announcements. This can apply to information about older people's medication, especially if they have problems reading the labels. The form of the drug may also be important in helping compliance because some older people have more difficulty swallowing particular types of medicines. Medicines in liquid forms which are easier to swallow may therefore be an effective alternative in such circumstances ^(32,43).

Multi-compartment compliance aids have been found to be useful for older people with complex regimens or those who suffer from cognitive impairments ⁽⁴⁴⁾. In such cases they usually have to rely on another person to ensure that the containers are always filled correctly and promptly, however ^(27,31,44). It must also be checked that older patients can open the containers easily ⁽⁴⁴⁾. Such aids are not appropriate for all older people, however. For example, older people who do not suffer from any cognitive impairment, who wish to retain some control over and responsibility for their medication, or who use forms of medicine delivery which are not congruent with such aids, such as inhalers and liquids, are not suitable recipients of such aids ⁽⁴⁴⁾. There is currently no protocol for assessing whether an older person living at home should have a multi-compartment aid ⁽⁴⁴⁾.

A survey of practitioners and relevant interest groups has also found support for the idea of a home-based visiting service of pharmacists to help older people with mental health problems to comply with their medication regimens ⁽¹⁷⁾. Services which offer prescription collection and delivery and medication review by community pharmacists have been considered potentially very beneficial ^(17,45). One UK study of a community pharmacist programme for elderly patients found that assessment of adherence-related problems and the development of an action plan in conjunction with the patients' GP, led to improved compliance in this population ⁽⁴⁵⁾. The problems identified and addressed included more adequate information and advice, and the revision of current regimes, including the reduction of the number of drugs being taken ⁽⁴⁵⁾. However, a survey also found that there is currently a lack of such services, despite this being a Department of Health policy recommendation ^(5,17). Counselling or visits by nurse practitioners have also been found to improve compliance among all patient groups with hypertension ⁽²⁶⁾. However, there is a lack of pharmaceutical support for older people who have dementia or depression and who live at home ⁽¹⁷⁾. Professionals and organisations working with older people with mental health problems living at home have expressed concerns about prescription delivery and collection, patients' understanding of why the medication is being taken and how to take it, and patients' difficulties in removing tablets from their container ⁽¹⁷⁾.

What can health professionals who prescribe do to help their older patients comply with their prescribed drug regimens?

The research has found that a number of measures can be taken by prescribing doctors to improve medication compliance among older people living at home: regular review of the medication being given to reduce side-effects, including simplifying the regimens and limiting adverse effects produced by medication mismanagement^(2,7,18,22,24,33,42,45,46); the prescription of longer-acting medications to reduce the number of doses a person has to remember to take⁽²⁾; and assessment and review of the patient's ability to adhere to a prescribed regimen^(42,46). Older patients can have limited knowledge of their medication and its purpose^(8,24,30), but older people are known to be more compliant if they know more about their medication^(7,22,24,25,30,47-49). Many studies have therefore focused on improving patients' knowledge of their medication, its function, and why they need to take it and when, as a means of improving compliance. Patients prefer to have both oral and written instruction on how and when to take their medication: one form of instruction alone is insufficient, and personalised written information about the drug and dosage has been found to be better than generic patient leaflets^(7,18,30,50). This approach has proved effective in improving both knowledge of medication and compliance among older people^(7,17,30,33,48). It is questionable whether increased knowledge always improves compliance, however, because medication-taking can be affected by a whole range of factors beyond simple knowledge of the function of a drug or its importance, but the provision of information may also empower patients with regard to the management of their health and illness⁽⁴⁶⁾.

Prescribing doctors must also address patients' concerns about medication. Research has demonstrated that older people can often be intentionally non-compliant because of personal issues with the taking of medication^(22,23,37). Improved compliance may be achieved therefore if the doctor consults the patient about their preferences and concerns and takes these into account when prescribing medication^(4,6,22,51). This is concordance. The concept of concordance involves an "equal partnership . . . between professionals and patients", a "shared agreement" between doctor and patient about what is to be done, why and how^(3,6). Concordance is "based on the notion that the work of the prescriber and patient in the consultation is a negotiation between equals . . . Its strength lies in the . . . assumption of respect for the patient's agenda and the creation of openness in the relationship, so that both doctor and patient together can proceed on the basis of reality and not of misunderstanding, distrust and concealment", even if the patient's decisions may be considered unhealthy by the prescribing physician⁽⁶⁾. Policy and research literature now advocates concordance as part of patient-centred practice in the prescription of medication and drugs^(4,6,39,51).

There is evidence that many older people do wish to be involved in decisions about their medication⁽²³⁾, but may need to be prompted to ask questions: they may otherwise passively accept the decisions of health professionals^(23,39). The consultation of patients also improves the likelihood that the most appropriate information and advice is being given to them⁽⁵¹⁾. However, research into

“consultations” with older people in primary care has found that such communications are often characterised by instruction rather than discussion⁽³⁹⁾. The absence of an open and full discussion between patients and doctors, especially about issues such as side-effects, dependence and necessity, has been found to lead to adverse effects such as non-compliance in patients from all age groups⁽⁵²⁻⁵⁴⁾. Concordance may therefore be possible only if the health care professional or pharmacist actively seeks the views and preferences of the patient^(23,39). Effective communication is the only foundation on which agreement and shared decision-making can be based. Patients may still be happy to allow all decisions to be taken by the professionals involved in their care, but this can still be concordance if the patient has been consulted and this is their wish⁽⁴⁾. Consultation may also alert the physician to issues which could affect compliance, for example, a person’s domestic situation, depression, or any personal difficulties the patient may be experiencing⁽³⁷⁾. Such factors may affect compliance even if a patient has been consulted, has a good knowledge of their condition, the function of the medication, and the regimen has been simplified⁽³⁷⁾. The impact of concordance on health outcomes among older people taking medication in the home is currently unknown⁽⁴⁾, although communication about medication between doctors and their patients in general, rather than older people specifically, is known to improve patients’ knowledge of their condition and treatment, as well as health outcomes and patient satisfaction⁽⁴⁹⁾.

User & Carer Knowledge

This section summarises the issues raised by patients and carers in relation to this topic, both as described by the literature and as defined through local consultation.

Many older people have said that they do wish to be involved in decisions about their medication⁽²³⁾ and report positive feedback about instruction and information which is personalised and flexible to their needs^(30,48). However, there is very little research asking older people themselves why they do not take their medication as prescribed. The few qualitative studies that have done so found that they do have concerns about taking medication generally, especially concerning the value or side-effects of medicines, and the inconvenience of taking the drugs at the prescribed times and frequency^(6,23,36,37). They can also experience problems in opening containers⁽³⁰⁾ and communicating with primary health care professionals about their medication⁽³⁹⁾. They also say that keeping to routines, and having a spouse or partner to remind them, are useful measures to aiding compliance⁽²⁷⁾.

Useful Links

This section lists sources of information relevant to professionals who work within this field, and may also be of value to service users.

Age Concern

<http://www.ageconcern.org.uk/>

Age Concern is a registered charity which offers support to all people aged 50 and over in the UK. The organisation works to influence public opinion and government policy about older people. It also makes available fact sheets.

medicines partnership. from compliance to concordance

<http://www.concordance.org/>

Medicines Partnership is an initiative supported by the Department of Health and exists to enable people to get the most out of their medicines by involving them as partners in treatment decisions. Its task is to work with professionals to introduce this model throughout the healthcare sector.

Task Force on Medicines Partnership

<http://www.rpsgb.org/members/medicines/frameMedsPart.htm>

The Taskforce on Medicines Partnership is a two-year initiative funded by the Department of Health aimed at helping patients to achieve maximum benefit from their medicines. The Taskforce represents the next phase of work begun by the Concordance Co-ordinating Group and will explore the practicalities and benefits of putting principles of concordance into practice.

Related SCARE briefings

Aiding Communication with People with Dementia

Title link: <http://www.scie.org.uk/publications/briefings/briefing03/index.asp>

Involving individual older patients and their carers in the discharge process from acute to community care: implications for intermediate care

Title link: <http://www.scie.org.uk/publications/briefings/briefing12/index.asp>

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References

1 **Pawson R., Boaz A., Grayson L., Long A., Barnes C.** (2003). Types and Quality of Knowledge in Social Care. Knowledge Review 3. Social Care Institute for Excellence (SCIE). Title link:
<http://www.scie.org.uk/publications/knowledge.asp>

This document analyses and defines the different types of knowledge and information which may inform social care research and practice.

2 **Banning M.** (2004). Enhancing older people's concordance with taking their medication. British Journal of Nursing, 13 (11), 669-674.

This article reviews why older people may fail to take their medication and what can help them in doing so.

Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15218434

3 **Dodds F., Rebar-Brown A., Parsons S.** (2000). A systematic review of randomized controlled trials that attempt to identify interventions that improve patient compliance with prescribed antipsychotic medication. Clinical Effectiveness in Nursing, 2000 (2), 47-53.

This systematic review summarises the findings of randomised controlled trials that have investigated the efficacy of interventions to improve compliance with prescribed antipsychotic medication.

Abstract available [http://www.medicines-](http://www.medicines-partnership.org/sys_upl/templates/PT_Directory/PT_Directory_details.asp?esLtr=A&id=303&action=Display&pgid=795&tid=68&Keywords=&OrderDir=ASC&OrderFld=)

[partnership.org/sys_upl/templates/PT_Directory/PT_Directory_details.asp?esLtr=A&id=303&action=Display&pgid=795&tid=68&Keywords=&OrderDir=ASC&OrderFld=](http://www.medicines-partnership.org/sys_upl/templates/PT_Directory/PT_Directory_details.asp?esLtr=A&id=303&action=Display&pgid=795&tid=68&Keywords=&OrderDir=ASC&OrderFld=)

4 **Weiss M., Britten N.** (2003). What is concordance? The Pharmaceutical Journal, 271, 493.

This article describes and defines the concept of concordance.

5 **Department of Health** (2001). Medicines and Older People. Implementing medicines-related aspects of the NSF for Older People. Department of Health. Title link:

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4008020&chk=cC38JM.

This document sets new national standards and service models for prescribing medication for older people, including concordance discussions as part of the regular review of a patient's medications.

6 Royal Pharmaceutical Society of Great Britain, Merck S&D. (1997). From Compliance to Concordance: Achieving Shared Goals in Medicine Taking. London, RPSGB.

This is the key report on developing concordance in medication taking in the UK.

7 Lowe C.J., Raynor D.K., Purvis J., Farrin A., Hudson J. (2000). Effects of a medicine review and education programme for older people in general practice. *British Journal of Clinical Pharmacology*, 50 (2), 172-175.

This study aims to determine whether a medicine review and education programme influences the compliance and knowledge of older people in general practice.

Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10930970&dopt=Abstract

8 Cline C.M., Bjorck-Linne A.K., Israelsson B.Y., Willenheimer R.B., Erhardt L.R. (1999). Non-compliance and knowledge of prescribed medication in elderly patients with heart failure. *European Journal of Heart Failure*, 1 (2), 145-149.

This Swedish study aims to determine the extent of non-compliance to prescribed medication in elderly patients with heart failure and to determine to what extent patients recall information given regarding their medication.

Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10937924&dopt=Abstract

9 Pearson B., Skelly R., Wileman D., Masud T. (2002). Unplanned readmission to hospital: a comparison of the views of general practitioners and hospital staff. *Age and Ageing*, 31 (2), 141-143.

This article compares the views of general practitioners and hospital staff on the reasons for unplanned readmission of older people.

Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11937478&dopt=Abstract

10 Pirmohamed M., James S., Meakin S., Green C., Scott A.K., Walley T.J. et al. (2004). Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. *British Medical Journal*, 329 (7456), 15-19.

This study reports on the number of hospital admissions in the UK due to adverse drug reactions (ADRs).

Full text available <http://bmj.bmjournals.com/cgi/content/full/329/7456/15>

11 **Department of Health** (2001). National Service Framework for Older People. Department of Health. Title link: http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/OlderPeoplesServices/OlderPeopleArticle/fs/en?CONTENT_ID=4073597&chk=4wRxm%2B

The NSF for older people was published on 27 March 2001. It sets new national standards and service models of care across health and social services for all older people, whether they live at home, in residential care or are being looked after in hospital.

12 **NHS Executive** (1999). Patient and Public Involvement in the New NHS. The Methadone Alliance. Title link: <http://www.m-alliance.org.uk/Documents/PatientandPublicInvolvement.pdf>

This document sets out the action which the NHS Executive is taking to make patient partnership central to its work, and what the Government expects the NHS and other bodies to do to make this partnership a reality.

13 **Huby G., Stewart J., Tierney A., Rogers W.** (2004). Planning older people's discharge from acute hospital care: linking risk management and patient participation in decision-making. *Health Risk and Society*, 6 (2), 115-132.

This paper reports findings from a pilot qualitative study which aimed to develop a methodology to explore older patients' participation in discharge decision-making.

14 **Beresford P., Carter T.** (2000). Age and Change. Models of Involvement for Older People. Joseph Rowntree Foundation. Title link: <http://www.jrf.org.uk/bookshop/details.asp?pubID=278>.

This report offers practical guidance and ideas to increase the involvement of older people.

15 **Crawford M., Rutter D., Manley C., Weaver T., Bhui K., Fulop N. et al.** (2002). Systematic review of involving patients in the planning and development of health care. *British Medical Journal*, 325 (7375), 1263-1267.

This is a systematic review examining the effects of involving patients in the planning and development of health care.
Full text available <http://bmj.bmjournals.com/cgi/content/abridged/325/7375/1263>

16 **Shah P.N., Maly R.C., Frank J.C., Hirsch S.H., Reuben D.B.** (1997). Managing geriatric syndromes: what geriatric assessment teams recommend, what primary care physicians implement, what patients adhere to. *Journal of the American Geriatrics Society*, 45 (4), 413-419.

This US study evaluates the responses of primary care physicians and patients to recommendations from a community-based comprehensive geriatric assessment (CGA) program for the management of four target conditions: falls, depression, urinary incontinence, and functional impairment.

Abstract available

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9100708&dopt=Abstract

17 **Milnes A., Lingard J.** (2001). Medicines and good mental health in later life. Research and Policy Briefings from the Mental Health Foundation. Title link: <http://www.mentalhealth.org.uk/html/content/Updatev03i08.pdf>.

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