

More harm than good

Why more isn't always better with
older people's medicines



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For more details:

<https://www.ageuk.org.uk/our-impact/policy-research/frailty-in-older-people/>

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Executive summary

In England, more than one in 10 people aged over 65 take at least eight different prescribed medications each week. This increases to nearly one in four people aged over 85. In 2017/18, the NHS spent more on prescription medicines than ever before - £18.2 billion, 40 per cent more than was spent in 2010/11. More than 60% of the prescriptions made in the community are for people aged over 60. It is estimated that up to 50 per cent of all medicines for long term conditions are not taken as intended and around one in five prescriptions for older people living at home may be inappropriate.

Without access to medications many older people would be living in poorer health. However, we risk undoing the many benefits of medicines and treatments if they are: prescribed in excessive numbers (where this is not clinically justified or safe); in unsafe combinations; without the consent and involvement of the older person themselves; and without support to use them properly. Sadly, this is the situation too many older people find themselves in and it is causing them avoidable harm.

Failing to properly manage older people's medicines is having a significant impact on their care and is making poor use of NHS resources. Older people are being admitted to hospital as an emergency from avoidable health problems including an increased risk of falls and confusion. These can follow adverse reactions to medications or be caused by unchecked prescribing of multiple medications that each cause dizziness, nausea or that affects cognition, having a serious cumulative effect. There was a 53% increase in the number of emergency admissions due to "adverse drug reactions" between 2008 and 2015.

Older people are missing out on treatment because the burden of taking multiple medications, or

polypharmacy, can lead to them taking none at all. Furthermore, prescribing is happening in a way that doesn't account for any practical barriers such as the ability to open medicine packs and juggle large volumes of different pills and tablets. This is leading to poorly managed health and significant waste for the NHS.

Clinicians are working in the best interests of patients but often lack the time, information and awareness of issues relating to multiple medicines. Information on existing medicines is not always complete or accessible and prescribers are not always sufficiently aware of the impact of using a particular medicine on top of another. Clinical guidance is also unclear on treating multiple conditions, failing to fully account for the multiple medications that may arise as a result.

Older people are at particular risk not only because they are more likely to live with multiple health conditions, but also because of the impact of ageing on how our bodies absorb and respond to medicines. They are also more likely to be living with frailty, dementia, to be at risk of malnutrition and to be living in a care home, all of which create significant additional challenges.

The NHS Long Term Plan recognises the challenge of poor medicines management and commits to expanding access to high quality medicines reviews and to making sure pharmacists are part of local community health teams. NHS England's comprehensive model for personalised care has also committed to expanding social prescribing, an approach to reducing the default to medicines and treatments.

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These represent important steps forward, but we need to go further and Age UK are making the following calls:

1. There should be zero tolerance to inappropriate polypharmacy.
2. Older people must be fully supported and involved in decisions about their medicines.
3. High quality medicines reviews should be routine for all older people taking long-term medicines.
4. Care planning and new prescribing decisions must take full account of existing medicines.
5. Care homes must maintain an appropriate clinical pharmacy lead and an accurate record of medicines.
6. Polypharmacy should be a core competency of clinicians working with older people.
7. Older people, especially those living with dementia, must have access to the support they need to manage their medicines.

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Introduction

i What is Polypharmacy?

When someone is taking multiple medications at any one time. This can be clinically justified in some cases but can also occur through poor medicines management, usually called “inappropriate polypharmacy”.

In England, **more than 1 in 10 people aged over 65 take at least eight different prescribed medications each week**. This increases to nearly 1 in 4 people aged over 85¹.

Many of these medicines will be **vital to helping older people manage their conditions and live well for longer**; and older people should not be concerned about taking large numbers of medicines if appropriately prescribed and correctly managed. However, **around 1 in 5 prescriptions for older people living at home may be inappropriate**², with older people who are already on multiple medications being most at risk³.

The evidence set out in this report, sadly, demonstrates too many **older people are being let down by a healthcare system** that is allowing medicines to do more harm than good. It reveals **the impact this has on the lives of older people**, particularly those who are most vulnerable; and how the problem is being allowed to persist because of **systemic failings in care coordination, communication and individual responsibility**.

It also suggests that, of the billions spent on medicines by **the NHS each year, not all is money well spent**. **In 2017/18, the NHS spent more on prescription medicines than ever before - £18.2 billion**, 40 per cent more than was spent in 2010/11⁴. **More than 60% of the prescriptions made in the community are for people aged over 60**⁵.

We consider the potential for waste with estimates that around **£300 million of NHS medicines are wasted every year**⁶, not including the medicines that are potentially prescribed inappropriately. It is further estimated that up to **50 per cent of all medicines for long term conditions are not taken as intended**⁷.

It is vital we tackle the very real problem of older people taking too many medicines. However, we must also guard against the risk of undertreating older people. For example, the evidence shows that older people do miss out on beneficial treatments because of assumptions about their age and health status, with one report finding a **26 fold difference in access to breast cancer surgery depending on where you lived**⁸. Poor access to treatments due to assumptions and misunderstanding of ageing can negatively impact older people's wellbeing and even shorten their lives.

Good clinical management is the key – ensuring that every older person is treated as an individual with their care optimised to best meet their needs⁹.

The human and financial cost of poor medicine management in older people is huge. This is a hidden crisis that must be urgently addressed.

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Pattie's story

Pattie has diabetes, osteoarthritis, pain in her hips, knee and neck and previously had a heart attack. She has also been diagnosed with depression. Pattie is also incontinent, gets frequent urinary infections and has blackouts. Despite all of her conditions, and having also been recently diagnosed with Alzheimer's, Pattie is fiercely independent.

Pattie has 14 medications on prescription and is supposed to take up to 29 tablets every day - some at breakfast, others at lunch, dinner or just before bed. "As soon as I finish taking one set it feels like it's time to take the next one", she says, "I feel full up and sick if I take them all" - so she doesn't take them.

Pattie ends up in hospital relatively frequently, either because of falls related to her blackouts or from tripping over due to poor balance and dizziness, or because of her urinary infections.

Closer inspection revealed that Pattie had low blood pressure, a common problem in older people with diabetes when it is not under control. It turns out many of the pills Pattie wasn't taking were the ones for managing her diabetes and that even though a district nurse was administering Pattie's insulin every day, she was still eating sugary foods and had high sugar levels in her urine. Pattie's poorly controlled diabetes and consequent low blood pressure was most likely the root cause of her dizziness and blackouts, as well as a factor in her urinary infections.

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What's the problem?

Life expectancy has increased significantly in recent decades and we are living longer than ever before¹⁰. However, many of us are also spending longer periods of time living with long term conditions and disability, many of which we will need to take medicines to manage or treat.

For many older people living with multiple health conditions or frailty, this could mean taking multiple medicines. Without these medicines many older people would be living in poorer health. However, we risk undoing the many benefits of medicines and treatments if they are prescribed:

- in excessive numbers (where this is not clinically justified or safe);
 - in unsafe combinations;
 - without the consent and involvement of the older person themselves; and
 - without support to use them properly.
- Sadly, this is the situation too many older people find themselves in and it is causing them avoidable harm¹¹.

In fact, this is a global issue with the World Health Organisation (WHO) launching their global patient safety challenge Medication Without Harm in 2017. The WHO estimate the global cost associated with medication errors at \$42 billion annually and are aiming to reduce the level of severe, avoidable harm related to medications by 50% over five years¹².

NHS England recognises the challenge of poor medicines management, not only with regards to polypharmacy but also the prescribing of poor value treatments and overuse of antibiotics. In the NHS Long Term Plan, launched in January 2019, NHS England made a number of important commitments:

- all providers will be expected to implement electronic prescribing systems to reduce errors by up to 30%;
- care home residents will get regular clinical pharmacist-led medicine reviews where needed (in May 2019, it was further announced that 200 new pharmacy staff had been recruited to support this work)¹³;

Terminology

Throughout this report, boxes will outline some of the common terminology used in medicines management and they will briefly explain what they mean. However, they are included with the strong caveat that they are not always the best words and phrases to use when working with older people.

For example, there are particular issues with terminology like “de-prescribing”, in simple terms the process of stopping medicines. Phrases like this can alienate people and can be interpreted as a

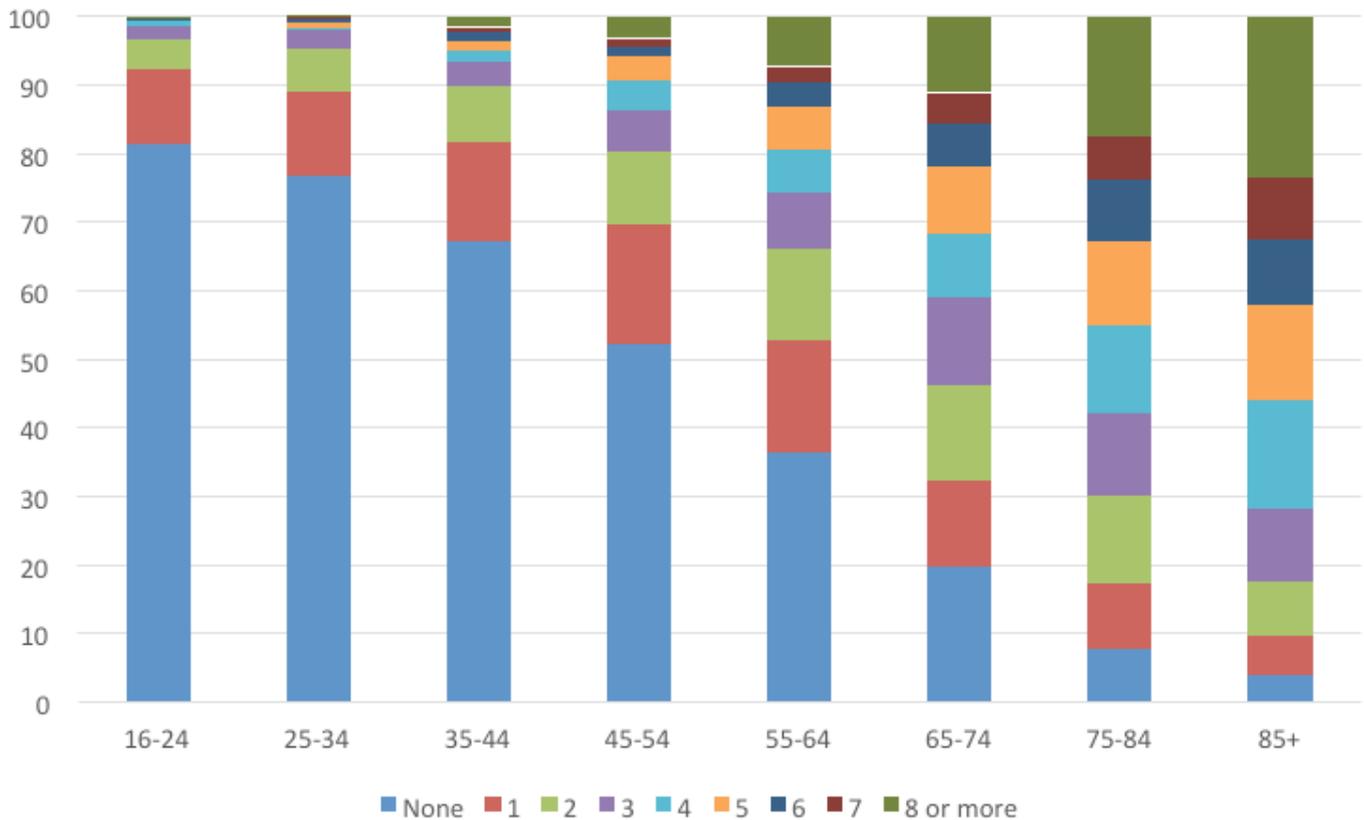
means to wind up useful treatments or perceived as being a cost-cutting exercise.

It is vital that all professionals use language and techniques that communicate important information to inform decisions about medicine or treatment. Conversations about medicines should not cause undue anxiety or confusion and must allow people to have an informed view on risk and benefit and indeed how to take their medicines properly.

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i Number of prescribed medicines taken in the last week



Source: Health Survey for England, 2016 (2017)

- funding for the new primary care networks will be used to substantially expand the number of clinical pharmacists.

term conditions. For example, activities to reduce social isolation or exercise classes.

The comprehensive model for Universal Personalised Care, launched to support the Long Term Plan, outlined a further commitment to create 1,000 social prescribing “link workers” within a broader framework to make care more centred on the needs of individuals. Social prescribing can be any number of interventions, many delivered through the local voluntary sector, to support people to maintain their health and manage their long-

i Medication-related harm

This is a broad term for harm that has resulted from the use, misuse, or failure to use a medication.

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Hospital admissions

Hospital admissions can be the trigger for a rapid downward spiral in older people's health and wellbeing, particularly when it is the result of an emergency or where it could have been avoided. They are also very costly for the NHS and can put additional strain on hospital capacity.

For example the more medicines older people take, the more at risk they are of falling¹⁴ which in turn is a major risk factor for a hospital admission. The cumulative side-effects of multiple medications, such as dizziness, muscle weakness and balance problems all make a major contribution to this risk. Nearly 1,000 older people a day are admitted to hospital because of falls¹⁵, and their chance of falling again if they are over 65 goes up by 14% for every extra medicine they take over the first four¹⁶. The National Institute for Health and Care Excellence (NICE) calculated that falls in older people costs the NHS £2.3 billion a year¹⁷.

A UK study also found that nearly 6% of unplanned hospital admissions are caused by adverse drug reactions; and this was fatal in more than 1 in 50 cases¹⁸. Up to 10% of all admissions in older people are medicines related¹⁹. Between 2008 and 2015, the number of emergency hospital admissions caused by adverse drug reactions increased by 53%²⁰. NICE calculated that avoidable admissions due to adverse drug reactions costs a further £530 million a year and an extra 2.2 million bed-days²¹. For older people themselves, this can reduce their ability to remain independent and well and puts an extra strain on informal carers²².

Older people have reported feeling particularly vulnerable when leaving hospital and returning home. Older people are already experiencing significant challenges from the fact they are recovering from illness or injury and from the experience of being in hospital

Adverse drug reactions

These are unwanted or harmful reactions that are caused by taking a medicine or medicines and is a type of medication-related harm.

itself. However, on top of this older people report poor communication at the point of discharge and a lack of follow-up in the community meaning they don't have the information or support they need to accommodate changes to their medicines²³. This contributes to confusion and poor adherence with their medicines once at home. An estimated 1 in 3 older people suffer a medication-related harm within 30 days of hospital discharge²⁴, and one conservative estimate of the cost of all post-discharge harm from medicines was put at £400 million annually.

Missing out on treatment

Just because an older person is prescribed a medicine it doesn't mean they will take it. In fact, the evidence suggests that the more medicines someone is supposed to take the harder they find it to manage. As a result people often end up taking fewer than if they had had a smaller and more manageable number to begin with²⁵. The mere fact of having to take large numbers of medicines can reduce quality of life and cause anxiety and confusion²⁶ - or mean they stop taking their medicines altogether^{27, 28}.

Older people may also face practical problems with their medications; like finding the containers hard to open, having difficulty swallowing or losing track of what they have taken. Whether an older person is unable or unwilling to take their medicines as intended, unless this lack of "adherence" is identified and addressed, they are likely to just be prescribed more medicines or even higher doses.

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In discussion about their medicines, older people describe their doctors not engaging in a meaningful way and in some cases ignoring harms that are being reported²⁹. This can mean some of the practical problems described above are not picked up either at the beginning of treatment or following reviews. It will also mean that older people themselves will feel less involved in their care and less able to manage their health needs at home, including the risk that they ignore signs that medicines are not helping because “they must help if the doctor gives them to you”³⁰.

Aside from the fact that these medicines are destined to go to waste, it also leaves older people with their conditions still unmanaged; exposing them to unnecessary pain and suffering or a more rapid decline in their wellbeing. Ultimately, what someone is taking on any given day may bear little relation to either their needs at that point in time – i.e. responding to changes in their symptoms – or the long-term management of their health conditions.

Back in 2010/11, the government estimated that around £300 million worth of medicines were wasted every year³¹, with £50 million of this wasted in care homes alone³². This will no doubt have increased alongside rising prescription levels (the overall medicines bill for the NHS went up 40 per cent between 2010/11 and 2017/18³³). The unnecessary cost of medicines that are prescribed and taken but could – and should – be safely and beneficially stopped is also significant. Estimates suggest that it may be in the order of tens of millions of pounds^{34, 35}.

Side-effects

Many medicines come with the risk of harmful side-effects, or adverse drug reactions (see page 9). In older people the most common include nausea, dizziness, loss of appetite, low mood, weight loss, muscle weakness and delirium. Over a six month period, over

Adherence

Describes how closely someone follows instructions on how their medicines are supposed to be taken i.e. whether they take the right amount of medicine at the right time and in the right way. A lack of adherence can mean people do not experience the expected benefits of the medicine. Non-adherence is a type of medication-related harm.

three quarters of people over the age of 70 will have an adverse drug reaction³⁶. This can seriously impact on older people's quality of life and ability to live well. The more medicines they take, the more likely they are to experience harmful side-effects in the first place, as well as being more likely to experience many of them at the same time.

Older people suffer more from the consequences of adverse effects compared to younger people, for example experiencing falls, confusion, constipation, all of which can lead to hospitalisation. Clearly if someone doesn't need or shouldn't be taking these medicines, then the impact of these side-effects on their lives is completely avoidable.

Anticholinergic burden

Anticholinergic medicines work by inhibiting nerve impulses that control involuntary muscle movements and by blocking chemicals in the brain that help with cognition. They are often used to treat urinary incontinence, COPD, challenging behavior in dementia and Parkinson's Disease. Anticholinergic burden is the cumulative effect of taking many medicines that have anticholinergic properties, all acting on the body at once.

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A particularly serious type of adverse drug reaction happens when medicines that shouldn't be taken together interact and cause harm. The risk of older people being prescribed dangerous combinations of medicines is particularly high because they are often already taking multiple medicines and the risk increases as the number of medicines a person takes goes up³⁷. In fact, once you are taking more than four medicines, the chance of experiencing an adverse drug reaction gets exponentially worse for every new medicine you take³⁸. A specific issue for older people is taking too many anticholinergic medicines – or “anticholinergic burden”. This type of medicine is used to manage a range of conditions, including urinary incontinence and COPD, but taking too many has been linked to impaired cognitive function, increased risk of falls, heart problems, hospitalisation and death³⁹. The number of anticholinergic medicines an older person is taking can quickly increase if their prescriptions stack up unchecked⁴⁰.

Martha's story

Every day, Martha is supposed to take up to 33 tablets as well as use an inhaler and apply a patch and gel for pain-relief. Six of Martha's prescribed medicines are to help her control pain. She doesn't think the gel works, so she doesn't use it. She feels that one of the tablets makes her very drowsy and the other doesn't work, so she doesn't take them.

The pain relief patch causes a very itchy rash that will last over a week after she has removed it, so she has stopped using them. She has never told her GP that she doesn't use these medicines as prescribed.

The only pain relief medicine that Martha does take is oxycodone, which is a controlled medicine. This was prescribed as a liquid that Martha should only take when she gets 'break-through' pain that is not being controlled by the patch, gel or other pills she has been given. But because she doesn't take any of the other pain killers she gets through much more oxycodone.

Not knowing that Martha was not using her other pain relief medications, the GP and pharmacy became suspicious that she might be misusing the oxycodone. Because of this the pharmacy wants her to come in personally and show her ID every time she collects her oxycodone prescription even though all her other medicines are delivered home and this is not required by law. Martha finds the suspicion of the pharmacy very upsetting.

Despite taking a higher dose of oxycodone than prescribed by the doctor, Martha's pain is still not controlled. Because of this, Martha finds it difficult to think about managing her diabetes or COPD properly.

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Why is this happening?

Poor prescribing practice and a lack of information sharing about medicines means that older people are being let down too often by both their clinicians and the healthcare system that is supposed to look after them.

Clinicians lack time, information and awareness

Clinicians sometimes fail to consider - or are unable to predict - the consequences that prescribing another medicine will have on top of everything else⁴¹. They may not have the time or information they need, or they may lack sufficient training in the harm that can be caused. Evidence also suggests that doctors prescribing for older people can overestimate the benefit of a treatment while at the same time underestimating the harms⁴².

This can result in older people being prescribed dangerous combinations of medicines that shouldn't be taken together; or "doubling up": where they end up taking two or more of the same or equivalent medicines because they are prescribed by different clinicians. This makes it much more likely that an older person will experience serious side-effects or even an overdose.

The risk of this happening is particularly high when an older person is admitted to, or discharged from hospital.

The lack of information flow between GP practices and hospitals can mean an older person is prescribed a whole raft of new medications that their GP has already prescribed them, or vice versa⁴³. As raised earlier, this contributes to 1 in 3 older people suffering medication-related harm within 30 days of discharge from hospital⁴⁴.

A lack of time, knowledge or attention can also mean clinicians fail to recognise new symptoms as something caused by an older person's medication, rather than a deterioration of their condition/s. Instead of making changes to the medicines they are already on, they prescribe even more - like antipsychotics to treat delirium. This can lead to dangerous "prescribing cascades", when an older person is suffering more side-effects from medicines they simply do not need, and being prescribed more medicines to treat those side-effects⁴⁵.

"Medication creep" occurs when clinicians fail to de-prescribe - or stop - medicines an older person no longer needs or that they are not benefitting from. This can be because a clinician is reluctant to question the decisions of their colleagues or because they don't know whose responsibility it would be to make that decision⁴⁶. Some GPs say they don't have enough time to check whether repeat prescriptions are still needed before they sign them off^{47, 48}.

Doubling-up

Where two or more of the same type of medication are prescribed. Meaning the older person takes twice as much or more of a medicine than they should.

Prescribing cascades

Where the side-effect of a medicine is mistaken for a new illness which is treated by another medicine. This can in turn cause side-effects that are treated by further medications.

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Clinicians also report that they sometimes worry how stopping a medicine would appear to their older patients: that it might look like they're 'giving up' on them⁴⁹. Limited research has been done to understand whether these concerns are justified and whether older people are likely to view it in this way. However, the evidence that does exist suggests that the vast majority of older people would be happy to stop taking one or more medicines if their doctor recommended it⁵⁰. Having an open and honest conversation with an older person including, for example, the pros and cons of taking certain medicines based on what is most important to them, should underpin this process. This can only happen if clinicians broach the issue with each of their patients and provide them with the information and tools to help make these decisions.

Beyond medicines

The factors that effect people's health and wellbeing are not limited to their health conditions: many non-medical factors, such as poor quality housing or loneliness, can contribute to, or cause, poor health. In some instances non-medical interventions are just as effective, if not more so, at managing or treating certain health conditions. For example, physical activity can help treat depression⁵¹, lower blood pressure⁵², reduce the amount of insulin someone with Type 1 diabetes needs to manage their condition⁵³, and even improve survival from breast and colon cancer⁵⁴. Also non-drug approaches like sensory therapy, massage, music, and exercise may be more effective and safer than medicines for managing challenging behaviour in people with dementia.

While some clinicians may lack information and awareness about how non-medical interventions may benefit their patients, most lack the time and practical support to help their patients improve their health through non-clinical means. Many local health systems also lack capacity in key allied health services such as

De-prescribing

When a clinician or health care team decides, with the patient, to stop a medicine someone is taking. This should only happen following careful consideration of the benefits and risks of stopping a medicine following a proper review. It can happen in response to changes in someone's needs; where someone is experiencing an adverse reaction; or because of a shared goal to reduce someone's overall medicines burden. The process should be solely about improving outcomes.

Though an important concept, the term itself is seen as problematic and there is a general consensus to avoid using it when working with people and their carers, not least as some people can interpret it as a means to wind up useful treatments or perceive it as being a cost-cutting exercise.

talking therapies, healthy lifestyle training courses, or physiotherapy. It can be beneficial to support people to engage with organisations or groups in their local community, helping to boost their health and wellbeing or help address underlying issues, such as unsuitable housing or financial worries. This is sometimes termed "social prescribing". Failing to consider non-medical interventions, including community-led support, means clinicians are missing opportunities to improve an older person's health and resorting instead to prescribing medications that they could well have done without.

Multiple medicines for multiple long-term conditions

40% of people aged over 65 are living with at least one long-term conditions, which typically means they are prescribed more medications. The proportion of older

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Anne's story

Anne is 84 years old and lives alone. She has to take 19 medicines every day to help manage her medical conditions, which include ulcerative colitis, hypertension, asthma, osteoarthritis. Anne was recently admitted to hospital, where several changes were made to her medications.

When she was discharged from hospital a package of care was arranged that included carers giving her medication. Although three bags of medication were sent home with her there was no Medicines Administration Record given and so the carers were unable to record what medicines they were giving to Anne and when. On top of that, no discharge letter was sent to the GP detailing Anne's new prescriptions. This meant that when Anne ran out of her medicines there was no record of what some of them were.

people with multiple conditions, and the number of different conditions they are living with, both go up with age⁵⁵. By age 85 around one in five people have at least two long-term conditions. About half of over 75s take five or more medicines and this increases with age⁵⁶.

If prescribing decisions are made carefully, it is possible to manage multiple long-term conditions without many

of the issues that can arise from taking lots of different medicines⁵⁷. However, current policy and practice make this difficult. The British Medical Association believe that 10 minute consultations give GPs insufficient time to support people living with multiple conditions and more complex needs⁵⁸. In addition, recent studies have shown that following NICE guidelines for each long-term condition will quickly lead to someone being prescribed large numbers of medications⁵⁹, and risk serious adverse drug reactions⁶⁰.

Social prescribing

When a referral is made to a local, non-clinical service. This may include volunteering, arts activities, group learning, gardening, befriending, financial advice or a range of sports.

Medication creep

When someone continues to take a medicine even if they are not benefitting from it or no longer need it.

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Older people are at greater risk

As well as being more likely to have multiple long-term conditions, there are other factors that make older people particularly vulnerable to problems that can arise from taking too many medicines. The first is that because people's physiology (how their body systems, organs and cells work) changes as they get older, they may react to or breakdown medicines differently to younger adults. They may become more susceptible to harmful side-effects and some medicines should be avoided altogether at older ages. Some strong opioid painkillers, for example, should be used at between a quarter and a half of their normal dose; others can cause seizures in older people and should not be used at all⁶¹. Opiates are the second most common cause of medication-related harm following discharge from hospital⁶².

Some other common factors for older people relate to the impact of frailty, dementia, malnutrition and being a care home resident:

- **Frailty:** 10% of people over 65 live with frailty, and up to half of those aged over 85⁶³ and are much more likely to be on multiple medicines. One study found that older men living with frailty were 6 times more likely to be on 10 drugs when compared with "fit" men in the same age group⁶⁴. Adverse drug reactions, or the consequences of these, such as falls, can impact more severely on people living with frailty - so much so that they may never recover the same levels of independence. Furthermore in the aftermath of an adverse health event, they may find they are prescribed even more medications to treat any new symptoms. Poor understanding of frailty can also mean clinicians do not investigate adverse drugs reactions, such as delirium, and wrongly assume it to be a normal part of their condition or even the ageing process itself⁶⁵. Conversely it may also mean they are prescribing medications for issues that are associated

National Institute for Health and Care Excellence (NICE)

NICE produces best practice guidelines for the management of health conditions and clinical procedures. Individual guidelines do not typically account for the impact on other conditions a person may be living with so clinicians and patients usually need to exercise individual judgement to put together the best overall package of care.

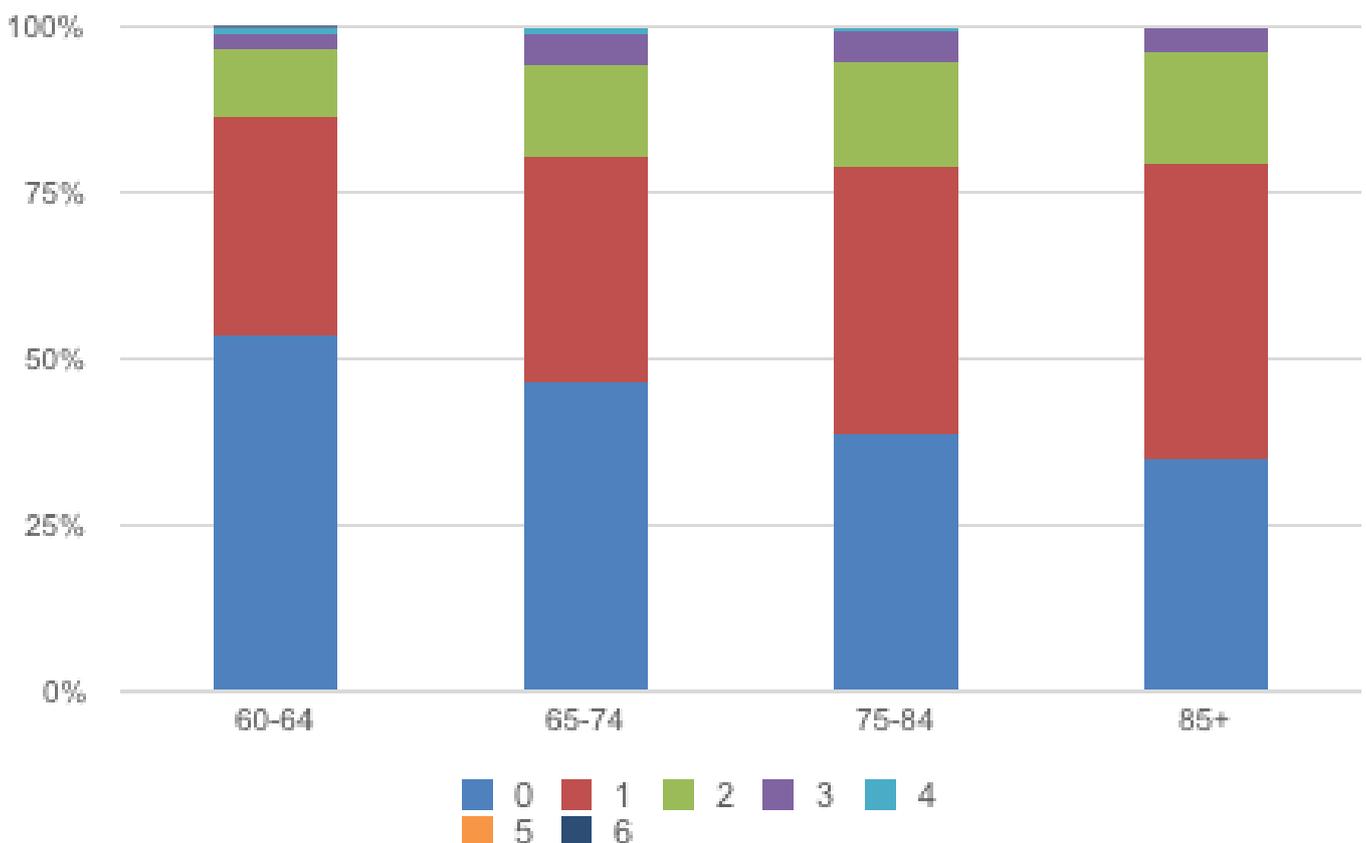
with ageing⁶⁶ such as age-related muscle weakness or difficulties maintaining balance. Furthermore, there is evidence that taking lots of medicines may contribute to the development of frailty⁶⁷ and polypharmacy is one of the factors that is considered when identifying frailty in primary care⁶⁸.

- **Dementia:** 1 in 6 people over 80 are living with dementia⁶⁹. Making sure you take the right medicines at the right time can be difficult for anyone on lots of medicines, but can be even harder for people managing dementia. On top of that, they are likely to have more prescriptions to manage than older people who don't have dementia⁷⁰. The symptoms of dementia, and the person's ability to communicate, mean that issues with their medicines are more likely to go unnoticed or be treated with more medicines. For example, a quarter of older people with dementia in nursing homes are prescribed antipsychotics⁷¹, even though the evidence suggests it has limited benefits and an increased risk of harm⁷².
- **Malnutrition:** 1.3 million older people aged over 65 in the UK are thought to be malnourished or at risk of malnutrition⁷³, and are more susceptible to long-term health problems as a result⁷⁴. Malnourished older people, or those who lose weight quickly, can also be more vulnerable to adverse drug reactions or

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i Percentage of people with chronic health conditions, by age group, 2016/17, England



an overdose. Being prescribed too many medicines can in itself also increase the risk of malnutrition in older people for two main reasons. First, because nausea and loss of appetite is a common side-effect of many medicines. Second, because unpleasant tasting medicines or those that are difficult to swallow can put older people off eating and drinking at all. Clinicians may not appreciate or fully consider the impact on appetite and nutrition when making their prescribing decisions.

- **Care homes:** Every time an older person in a care home has a medicine prescribed or given to them to

take, there is up to a 1 in 10 risk of a mistake being made⁷⁵. Since the average number of medications being taken by care home residents is estimated to be eight or more⁷⁶, the potential for errors can quickly stack up. Issues with the workforce and training make a major contribution to errors in care homes where responsibility for assuring the skills of staff is not always very clear⁷⁷. There is also significant waste and avoidable harm. It is estimated that £50 million of medicines are disposed by care homes unused⁷⁸ while pharmacist-led medicines reviews have been shown to reduce the number of falls experienced by older people living in care homes⁷⁹.

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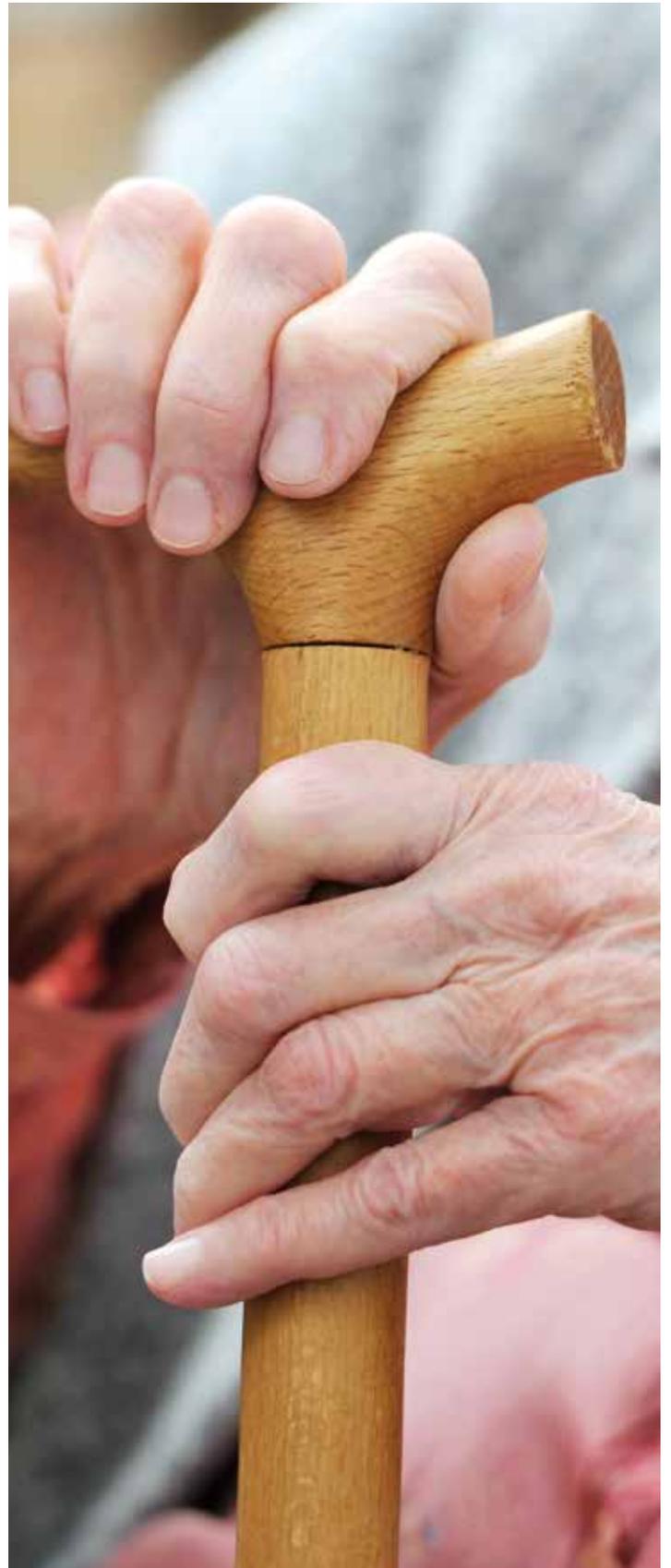
Polypharmacy and frailty

Some definitions of frailty attribute it to a combination of multiple health challenges, or “deficits”. This will often mean that someone living with frailty is taking multiple medications to help with these challenges. At the same time, because of the effects of inappropriate polypharmacy, this itself can further contribute to a person's frailty, making it particularly important that people are taking the right medications for them. As such, the NHS includes polypharmacy as one of the factors used in identifying frailty in the community.

Margaret's story

Margaret has Alzheimer's disease, and previously had a heart attack. Despite this she looks after herself and has no package of care. She has some relatives who visit most weeks. Margaret is supposed to take a total of six medicines a day at four different times. The pharmacy dispense them into a dosette box to help her know what medicines to take when, but Margaret regularly calls the pharmacy to say that she has run out earlier than she should have. Her GP was worried she was overdosing.

Margaret admitted she could not always remember if she had taken her medication and she would take it again to make sure. She circled the day of the week on the TV guide each morning but could not be sure it was correct so was never sure what day it was. She has a service that calls her four times a day to remind her to take her medication but this was not helping.



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What needs to change?

Right now older people are experiencing needless anxiety, poor health outcomes and, even, the risk of early death because their medicines are not being managed correctly. At the same time, the NHS is wasting money on medicines that aren't needed or simply thrown away, as well as bearing the cost of hospital admissions and GP appointments for adverse health events that could have been avoided altogether.

Medicines will always play a vital part in the health and care of older people. However, simply prescribing a new or existing treatment must not be seen as an outcome in its own right. Older people should be informed of the risks and benefits of any treatment, be supported to share decisions about their medicines and be clear on how their medicines will contribute to their goals for care. These goals will be informed by the potential impact on their daily lives – staying active; maintaining and enhancing independence; and continuing to do the things that are important to them. If they are managing multiple medicines, they should be clear on how to take their medicines and have regular reviews.

Health professionals must be clear about what a medicine is actually achieving, particularly in the context of anything else someone is taking. This will mean not simply relying on clinical markers and measures, but fully understanding both the positive and negative implications for a person's goals from care. This must also mean that any treatment plan is achievable and not putting undue burden on the older person.

Polypharmacy should be placed in the context of wider changes to the care and support of older people, not least those outlined in the NHS Long Term Plan (2019). Delivering joined-up, person-centred care, focused on helping people to stay well for longer should be a lynchpin for ending inappropriate polypharmacy and

poor medicines management. Achieving change will require a significant shift in how health professionals, and older people themselves, relate to medicines. We outline the following steps in helping to achieve this:

- 1. There should be zero tolerance to inappropriate polypharmacy.** Older people must be able to expect their healthcare team to understand the implications of inappropriate polypharmacy and make the right decisions about their medicines. This may involve wider routine use of tools and models such as STOPP/START and PINCER as part of the prescribing process.
- 2. Older people must be fully supported and involved in decisions about their medicines.** Whenever someone is prescribed a medicine or has a medicines review, they must be provided with clear information about how to take it, what it is for and be clear on its benefits. The health professional prescribing should be clear on that person's goals for care and understand how this medicine will help them to achieve these goals.
- 3. High quality medicines reviews should be routine for all older people taking long-term medicines.** Older people should be routinely invited to have their medicines reviewed by a qualified professional. This should be a shared decision-making process that not only addresses inappropriate prescribing but also makes sure that their medicines regime can be easily followed.
- 4. Care planning and new prescribing decisions must take full account of existing medicines.** All healthcare settings must be systematic in reconciling and recording all current prescriptions someone is taking, ensuring it is accurate and accessible to all professionals involved in someone's care. For example, any changes in secondary care (hospital) at discharge, must be routinely reported back to primary care (GP), and vice versa.

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- 5. Care homes must maintain an appropriate clinical pharmacy lead and an accurate record of medicines.** This lead should facilitate overall management of medicines including routine reviews and support for residents. This could be provided by a community or other appropriate pharmacist.
- 6. Polypharmacy should be a core competency of clinicians working with older people.** Health and care professionals in regular contact with older people should be fully aware of the potential adverse impact of polypharmacy. They should be able to carry out a medicines review or know where to refer someone to receive one and employers must provide the time, training and ongoing support to enable this to happen.
- 7. Older people, especially those living with dementia, must have access to the support they need to manage their medicines.** People with dementia should be equally involved in decisions about their medicines. Where this is not possible, for example where they may lack capacity, every effort should be made to establish and act on their wishes and preferences. Care planning must take full account of the complexity of taking medicines and provide any hands on support that may be required.

We welcome the steps that are already being taken to tackle these issues, including publication of NICE guidance on how best to reduce the number of medications people are asked to take, and NHS England's tools for supporting better prescribing decisions. The growing use of the Summary Care Record, sharing prescribing information between GPs and hospitals is also helping. We also fully support the WHO goal of reducing harm related to medications by 50% by 2022, and we would hope the UK could go further.

We welcome the proposals included in the NHS Long Term Plan, but change is not happening fast enough

Summary Care Record (SCR)

Part of your GP record outlining what medications you are currently using and some basic information such as allergies and previous bad reactions to medicines. The SCR can be accessed in specific circumstances to support the delivery of your care, for example during an emergency admission to hospital.

and in the meantime the human and financial cost continues to mount. More urgent and proactive action is needed.

Progress requires a commitment to change at all levels. At a system level, this means making sure that the information about what medicines someone is on can be shared and accessed easily by all relevant clinicians. Both older people and clinicians also need to feel confident to "de-prescribe" medication or chose not to prescribe in the first place, recognising that on balance it won't provide much benefit and/or because non-medical approaches would be more effective.

Preventing the needless harm that can result from older people taking too many medicines would be a win both for older people and the wider NHS. This report highlights the many ways that older people can end up taking medicines that do them no benefit and may put them at risk of harm.

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Jane's story

Jane is 77 and has been prescribed 17 different medicines, five of which have to be taken at least three times a day. Her medicines are designed to help her manage the 10 long-term conditions she is living with. These include epilepsy, high blood pressure, hypothyroidism, COPD, osteoarthritis, psoriasis and vertigo.

Until her blood pressure was under control, Jane would be unable to take very important medicines to treat her severe osteoporosis (brittle bone) and reduce her risk of bone fractures. Jane was therefore referred to a blood pressure specialist. Over a period of time the doses of the five different blood pressure medicines she was on had been increased to the maximum. This cocktail of medicines would have put Jane at increased risk of falling due to dizziness and other side-effects, as well as bad interactions with other medicines.

Jane's GP asked for her prescriptions to be dispensed into blister packs, with all the appropriate tablets for each day in one place. However, rather than helping Jane this made things worse. Jane decided to stop taking her medicines all together. After a pharmacist undertook a review of Jane's medicines, seven of her medicines could be discontinued –including a blood pressure medicine that can have bad effects when taken with the epilepsy medication Jane was also on. They also stopped dispensing her medicines in a blister pack and instead made sure Jane could see all she needed to know from the original packaging. Her blood pressure is now under control, she is receiving better treatment for her other conditions and feels happy and confident about what medicines she is taking.

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i **Guys & St Thomas NHS Foundation Trust Integrated Care Clinical Pharmacist (ICP) for Frail Older People: Case Management and Enhanced Rapid Response**

The ICP role has been developed to support older people living with frailty, recognising that therapeutic approaches focused on diseases in isolation are particularly ineffective for this group. Positive outcomes result from addressing the whole person rather than discrete aspects of medicines use. Care provided by the ICPs is organised around all of a person's needs, taking account of their health, living environment, social needs and is integrated within a person's wider pathway of care.

The scope of the ICP role is to:

- Reduce inappropriate polypharmacy and adverse effects
- Improve adherence and patients' understanding of medicines
- Reduce utilisation of emergency services through better therapeutic control of multiple health conditions (multimorbidity)

The ICPs receive referrals from GPs, nurses, therapists and geriatricians to undertake medication reviews in patients' homes. This will

happen in particular for patients with complex therapeutic needs during vulnerable periods (i.e. around discharge from hospital) or with patients already experiencing frequent hospital admissions.

The ICPs will attend and present complex cases at geriatrician-led community multidisciplinary team meetings and safeguarding meetings. They work to increase knowledge and skills among community health and social care providers to optimise medicines use while also facilitating partnership working across agencies to tackle barriers and improve medicines use during care transitions.

The programme works to actively support community pharmacists, community health and adult social care providers to deliver personalised interventions and care packages that support older people and their carer's with medicines taking. This also means facilitating collaborative working between local community pharmacists and GPs ensuring the care older people are experiencing is fully joined up and focused on their needs.

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