

A GUIDE TO

SUPPORTING INDEPENDENCE IN OLDER ADULTS | ISSUE 2



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**Hato Hone
St John**

New Zealand
Doctor
Rata Aotearoa

Helping to support independent living for older adults

Most healthcare professionals are aware of the benefits of older patients maintaining their independence by continuing to age at home. Living in their own home can give older adults a sense of control over their lives and enables them to stay connected with friends, family and the community. It can also help reinforce the feelings of freedom and purpose, and help them continue to feel positively about themselves.

However, as they age, older adults can become more at risk of future medical events, such as accidents, cardiovascular issues and respiratory concerns. These events, as well as ongoing chronic conditions, can threaten their independence, especially if they live alone and are unable to get the help they might need.

As a healthcare professional, you can support your patients' independence by ensuring appropriate safeguards are in place.

In this guide, we have assembled a number of articles about the issues facing older adults, drawn from information published by *New Zealand Doctor Rata Aotearoa*. This is the second guide we have compiled with the assistance of Hato Hone St John and Dr Ngaire Kerse. It is intended to serve as a useful resource as you consider how to support the independence that your older patients desire.

Many of these articles are also available online at: nzdoctor.co.nz

If you would also like a digital version of this publication, it is available here: nzdoctor.co.nz/educate/independence-2

The first guide can also be downloaded at: nzdoctor.co.nz/educate/independence

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Cover photo: Hato Hone St John



**Hato Hone
St John**

This publication has been produced with the support of Hato Hone St John.

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The "Older people" articles have been reprinted from *New Zealand Doctor Rata Aotearoa* (31 August 2022, 13 December 2023, 9 December 2020 and 13 April 2022, respectively). The content of these is entirely independent and based on published studies and the author's opinion.

The views expressed are not necessarily those of the publisher or sponsor.

Produced by The Health Media, publisher of *New Zealand Doctor Rata Aotearoa*, 24 Burwood Crescent, Remuera, Auckland 1050. Ph 09-488 4286.

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New Zealand
Doctor
Rata Aotearoa

Joys and challenges of fitting those aged 85+ into the schedule

OLDER PEOPLE

Specialist GP **Ngairé Kerse** looks at how you can help your older patients, including getting to know each individual and their whānau, carefully considering repeat prescriptions, providing continuity of care, asking questions about goals and preferences, and advocating for age-friendly care

On a recent holiday in the mountains skiing, I had access to two people with whom to discuss the issue of older people – what are the joys and the challenges?

We also stayed with my soon-to-be 91-year-old mother-in-law, who delighted at having a house full of wet jackets and large, clunky ski boots, and who was equally pleased when we left every day for the hills. She has complete autonomy in her own home, supported by a few services, and is sensibly getting a friend to declutter the garage and spare bedrooms. She is adapting to her gradual muscle strength reduction and shrinking world, struggles to get up from the floor, and is functioning independently in her place when everything goes well. We supplemented her nutrition with large meals and puddings, which she partook of gladly.

My daughter is a house surgeon in a southern hospital. She said she loves older people, but they are confusing, and renal impairment is the biggest challenge – lots of drug dosing changes and thinking about what they should or should not have as they go through their hospital stay. This seems to apply to all older people in hospital, so it would be worth her getting to know a lot more about it. She has been well schooled (yelled at a few times by her mother), so waits to listen to older people and tries to allow them to have normality and autonomy in the confusing hospital space.

An experienced GP colleague from a southern town also joined us. She said the stories told by her older patients are the joy, and getting to know them is essential. Of course, we all acknowledge that the gap between “them” and “us” is getting closer and closer (at least for me, not so much for my colleague), and we



Key points

- ◆ Working with older people in primary care brings joy, but the challenge is time.
- ◆ Multidisciplinary teams and continuity of care will be increasingly important for older people.
- ◆ Small changes to medical treatments and social situations can have a large impact on the independence and wellbeing for older people.

André Quillet on Unsplash

Very small improvements in function can help keep older people in their own homes for longer

want all doctors to treat older people with respect and excellent knowledge, as the years tick by for “us” to reach the “them” status.

What primary care needs

The challenge is *time*, which is why knowing your older patients well is essential. Time in primary care is changing. The easy, quick consults are often now done by others, leaving the GP or nurse practitioner to manage the complex cases in the same 15-minute schedule.

Time to watch them navigate the waiting room and hallway and understand their mobility, *time* to adjust to the increasing multi-morbidity, *time* to allow undressing and “hopping up” on the examination table, *time* to talk through the joys and challenges of living at age 85+.

The repeat prescriptions are often glossed over, when they should be digested, considered and adjusted almost constantly. For example:

- Is the omeprazole still needed?
- Can the interaction between metformin and the diuretic be avoided?
- Is there a new cardiovascular disease medication that would be better for the congestive heart failure (eg, sacubitril + valsartan [Entresto]; stop some of the other heart failure medications and monitor, monitor, monitor).
- Can we keep the kidneys as healthy as possible so the house surgeon’s job is easier should they end up in hospital?

And what about:

- Where can this person access exercises to help them get up off the floor?
- What can you do about the misery and loneliness they have been experiencing since their partner of 58 years passed?
- How can the distress of having a granddaughter struggling with drug addiction in a violent relationship be more easily borne?
- What are the goals for this person and their family and whānau – what do they think is important?

Knowing each individual in this population group, as well as their family and whānau, is essential, but how do we do this in the ever-changing environment of primary care? I would argue that prioritising *continuity* of nurse and doctor care for older people will be increasingly important, including having a practice nurse interested in the *social and support environment*, who is used to talking about goals and preferences with patients.

The geriatricians make small changes in medications and have a multidisciplinary team available – physiotherapist, occupational therapist, expert nurse



Jon Tyson on Unsplash

The challenge of caring for older people in primary care is time

and social worker. Primary care will need to get into that space as the proportion and number of those aged 85+ increases in the population. We will have to work closely with our other specialist teams.

How does that fit with the neighbourhood healthcare home, walk-in clinics and efficiencies required by corporate practices? I write this because those of you who have agency in your practices can sensibly change things and work as a team to be age friendly. And everyone needs to ask, require and advocate for the funding and structure to support age-friendly care.

Please, can primary care have a multidisciplinary team available for prevention, mobility promotion and maintenance. Small changes to medical treatments and social situations can have a large impact on independence and wellbeing. For example, small amounts of regular, focused lower-limb strengthening and balance retraining can facilitate staying away from clinicians such as my daughter in the acute hospital. Having time with people like my experienced GP colleague and their nursing team will save money elsewhere in the system – \$1 spent in primary care saves \$5 in the rest of the sector.

“ Having time with people like my experienced GP colleague and their nursing team will save money elsewhere in the system – \$1 spent in primary care saves \$5 in the rest of the sector ”

What can you do?

Be careful, be brave and don’t change too many things at once, but do change things that are important to the older person. Ask those goal-type questions:

- Do they want to live as long as possible, or are function and independence their priorities?
- Are they (and you) prepared to risk a fall or two, and can you use that as an incentive for them to do their sit-to-stand exercises?
- What are the risks and benefits of new treatments and of stopping medications?

Very small improvements in function can keep my mother-in-law in her own home, she just needs to do her exercises, stay positive, not get ripped off by the scammers, and have resources that enable her to cherish her family, navigate her world and flourish. This, of course, is when the older person is in a safe place (adequate housing), and has sufficient resources (financial, transport, health and social support) and cognition. ■

Ngairé Kerse is president of the New Zealand Association of Gerontology and the Joyce Cook Chair in Ageing Well, University of Auckland

Supporting older adults to live independently: minimising harm from falls

One of the priorities highlighted in New Zealand's Healthy Ageing Strategy has been to improve people's safety and independence,¹ including the funding of services that support older adults to live in their own homes,² also known as ageing in place. In addition to allowing older adults to maintain greater control over their lives and self-identity, living at home encourages interactions with family, friends, and the community, which are critical sources of practical support and social connection for seniors.³

The home, however, is the most common location to have a fall.⁴ According to ACC data, in 2018, nearly 390,000 New Zealanders sustained an injury falling over at home, with nearly 195,000 of those over the age of 65 years. Older people tend to sustain worse injuries from falls,⁴ potentially compromising their ability to live at home independently.

Fall-related harm represents a risk to seniors' independence

Falls in older adults accounted for 76% of trauma admissions (versus 40% in younger adults) in an analysis of Auckland City Hospital's trauma database.⁵ Head injuries and fractures are among the most serious forms of trauma resulting from falls.^{6,7} Outcomes following a hip fracture can impact independence. According to Australian and New Zealand Hip Fracture Registry data from 2021, only 80% of patients living at home who survived a hip fracture had returned to their homes four months after discharge, and only 43% had regained their pre-fracture level of mobility.⁸

Harm from a fall can be greater if the faller is unable to get up from the floor. Unless assistance arrives quickly, a 'long lie' on the floor after a fall contributes to poor outcomes in older adults, including severe injury, reduced mobility, and hospital admission as well as a need for long-term inpatient care.^{9,10} In a study of older people requiring ambulance attendance after falling, one in eight who fall reported lying for more than one hour.¹¹ Having a fall and a 'long lie' after a fall can contribute to older people's fear of falling again,^{10,12} which leads to a cycle of self-restriction of physical activity and loss of physical function that further increases the risk of subsequent falls (the 'fall cycle').^{10,13}



What you can do to help your older patients keep their independence

A personal medical alarm is an effective support tool for community-living older adults who are at risk of falling. Benefits reported by users include receiving faster assistance in an emergency, feeling less anxious about falling, peace of mind for families, and living at home for longer.^{14,15} Used appropriately, personal medical alarms are an effective strategy for preventing a 'long lie' after a fall in older adults,¹⁵ which could lower the likelihood of serious harm and loss of independence.

Older adults have reported that GPs are an influential voice in their adoption of a personal medical alarm.¹⁵ A St John Medical Alarm provides a direct link to Hato Hone St John and around-the-clock response in case

Used appropriately, personal medical alarms are an effective strategy for preventing a 'long lie' after a fall.¹⁵

of a fall or other acute health-related event, providing seniors with the confidence to live independently.

You can refer your at-risk patients for a St John Medical Alarm simply through your Practice Management System via Healthlink or ERMS. **All patients have access to a FREE trial without obligation.**

For more information go to stjohnalarms.org.nz/hcp

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Prescribing hobbies to promote independence and wellbeing

OLDER PEOPLE

Specialist GP **Ngair Kerse** looks at the contribution of hobbies to older people's wellbeing, with a reminder to make time for hobbies before work life ends

We all hope that older people can continue to flourish. Remember all the contributions they make to families, society, your surgeries and communities. The contribution you make to their wellbeing is clear; your communication, empathy, expertise in medical management and advocacy really make a difference.

Enquiring about the psychosocial fabric of existence

I want to mention one of the less obvious things that may make a difference to wellbeing and independence. Older people will come to you for their pills, their injuries and the driver licence renewals, but they are less likely to come for loneliness and misery.

The psychosocial fabric of existence is even more important for older people than the middle-aged because:

- they may rely on social connections for core practical and emotional support
- their capacity to go out and seek social connections may be diminished because of physical or economic issues of ageing
- they have more time to fill in (well, actually, my experience is that some are very busy in late life)
- they are more likely to move house and be bereaved.

Enquiring, "How do you fill in your day?" is a good entry to this area. An active discussion of activities and pastimes, with encouragement to access and engage in hobbies, could turn out to be very worthwhile.

Evidence for benefit of hobbies

Recently, wellbeing for older people made it into *Nature Medicine*! The meta-analysis of five longitudinal studies (more than 90,000 persons aged 65

and over) across England, Japan, the US, China and 12 European countries studied the association between participation in hobbies and mental wellbeing. Measures of hobby engagement and mental wellbeing were harmonised, and fixed-effect analyses and multi-national meta-analyses were used to examine the independence of associations between hobby participation and outcomes.¹

Those who engaged in hobbies had better self-rated health, life satisfaction and happiness, and fewer depressive symptoms over time. The longitudinal nature of the studies allowed the examination of hobby engagement followed by wellbeing. It is also possible that those with better wellbeing are more able to participate in hobbies. To some degree, this doesn't matter as the two go together. The association was present regardless of country, gender, retirement status and country-level retirement age, and was present even in those countries where hobbies are not so popular (eg, Spain) and in countries with lower life expectancy (eg, the US).¹

There are several interpretations and extrapolations possible. In early and midlife, are there hobbies? Is there time in life for hobbies? What are hobbies anyway?

The *Oxford English Dictionary* says a hobby is "an activity done regularly in one's leisure time for pleasure". I, myself, like to sew, and my mother-in-law has got me hooked on quilting, but how does that fit in with an overly ambitious research schedule and keeping up with the part-time clinical practice – is there leisure time? At least I know what I will be doing if I ever manage to retire.

Prescribing hobbies

Should we prescribe hobbies for patients? There are many community organisations, NGOs and volunteers available to facilitate hobbies, interests and activities for older people, but do you know about them? Should someone in your practice be the expert on social and community engagement for older people?

New Zealand research supports this.

Key points

- ◆ Engagement in hobbies in later life improves mental wellbeing.
- ◆ Someone in your practice should become the expert on social and community engagement for older people.
- ◆ Productive, meaningful activities must continue through disability and dementia.
- ◆ Hobbies in midlife are equally important and should be valued.

“Older people will come to you for their pills, their injuries and the driver licence renewals, but they are less likely to come for loneliness and misery”

The Kare model funded increased nurse time to facilitate an older persons' expert, and the process evaluation emphasised the additional knowledge about community, and the encouragement given to older people to engage.² So, yes is the answer.

In midlife, hobbies are equally important. We have to practise what we are going to do in older age before work life ends. I think we all know someone who is obsessed with a hobby – maybe that's not such a bad thing.

People in advanced age in care homes often lose access to their hobbies, and it is very important that productive, meaningful activities continue through disability and dementia. Wellbeing is important, no matter where you are or what stage of ability. Small encouragements from you to your patients, to the staff in care homes, and to anyone who will listen, may well be worth it.

Personally, I think we should permit time spent on hobbies to be valued in our own lives and the lives of our staff. Give yourself a hobby and go about engaging in it regularly, so you too can benefit from better mental health and wellbeing in the long run. ■

Ngair Kerse is president of the New Zealand Association of Gerontology and the Joyce Cook Chair in Ageing Well, University of Auckland

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Engage in a hobby regularly, so you too can benefit from better mental health and wellbeing in the long run

The impact of CVD on independence

While cardiovascular disease (CVD) is the leading cause of death globally, it is also a major threat to function, independence and quality of life,¹ which are all important health priorities for older adults.²

Potential for loss of independence

Older adults make up the majority of people who have a heart attack.³ In the year following a heart attack, more than 40% of patients experience health declines in physical function and/or ability to live independently.⁴

A common complication of a heart attack is heart failure,⁵ which poses a risk to independence. The inability of seniors with heart failure to perform daily tasks and participate in social activities has been linked to a higher risk of mortality and/or hospitalisation.^{6,7}

A specific risk to the independence of older adults with heart failure or following a heart attack is a greater propensity to fall, which is associated with increased mortality, morbidity, and re-hospitalisation rates.⁸



Need for assistance

An analysis of out-of-hospital cardiac arrest registry data found that 76% of heart attacks occur in the home and 63% are unwitnessed.⁹ The analysis also showed that the majority of out-of-hospital heart attacks occur in older adults and their survival rate after a heart attack is half that of younger adults (6.5% vs 13% in those aged ≥ 65 years vs 0–64 years).¹⁰ A longer time between the onset of symptoms and arrival at hospital (≥ 4 vs < 4 hrs) leading to a delay in receiving coronary reperfusion after a heart attack has been demonstrated to be associated with significantly ($p < 0.03$) higher mortality.¹¹

This highlights the importance of timely medical intervention after a heart attack or other acute CVD event in community-living seniors to minimise the risk of serious health outcomes and loss of independence.

Need for reassurance

Many older adults are aware of the unpredictable nature of their health and the risk to their continued independence.¹² Anxiety, fear, and uncertainty about their future are among the challenges of living with

CVD.¹³ Unpredictable health is a reality for individuals with coronary artery disease who are at risk of a potentially serious adverse CVD event at any moment.¹⁴ Furthermore, CVD in older adults typically occurs in a context of multimorbidity in which multiple medical conditions can interact with unpredictable consequences including increased risk of falling.^{8,15}

Having access to timely medical intervention may help to mitigate the anxiety associated with the unpredictable nature of CVD and the potential for loss of independence in your older patients.

Facilitating assistance and reassurance

Referring your community-living older patients with CVD for a St John Medical Alarm is one way to support their independence. This can provide reassurance by giving them a direct link to expert care in an emergency.

Users of a medical alarm report feeling safer, more secure, and less anxious than non-users (including reduced anxiety about falling), giving them the confidence to continue

CVD is a major threat to function, independence and quality of life,¹ which are all important health priorities for older adults.²

living in their own home.^{16,17} Users of a medical alarm also report being more active around the home than non-users, potentially helping them to avert functional decline and allowing them to continue to live independently.¹⁶

A St John Medical Alarm offers 24/7 response and is the only medical alarm that connects directly to Hato Hone St John. **Your patients can access a FREE trial**, and a referral is easily arranged using your Practice Management System via Healthlink or ERMS.

For more information visit:
stjohnalarms.org.nz/hcp

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Getting people up and moving is an important task in New Zealand

Exercise is beneficial for healthy ageing. Is high-intensity interval training better?

OLDER PEOPLE

Specialist GP [Ngairé Kerse](#) reviews a study carried out in Norway into the effect of high-intensity interval training on mortality in older adults. She also questions what these results mean for New Zealanders

I think we all know that exercise is good medicine for a lot of ailments and promotes healthy ageing. Many physical and mental health conditions benefit from regular exercise, not to mention specific musculoskeletal ailments and falls. Exercise is the main treatment for frailty and is beginning to be recognised as a major preventive activity against dementia.

Keeping people active through the stings and harrows of later life should be one of the main goals of primary care.

There is a lot of work being done on getting people going and less work on how that prevents mortality. The difficulty with randomised trials of exercise is that it probably takes a long time to accrue enough benefit to impact all-cause and disease-specific mortality. Other issues are getting people to change their behaviour consistently over time and stopping the control group from exercising.

There is a large disparity in activity behaviour related to socioeconomic status, and exercise seems to be for the comfortable – those who have their basic needs met and have the resources and thinking space to participate in something during leisure time.

“ Keeping people active through the stings and harrows of later life should be one of the main goals ”

Key points

- ◆ Counsel patients on the benefits of exercise, particularly those with sedentary lifestyles.
- ◆ Encourage regular physical activity in a social context.
- ◆ High-intensity interval training appears to have larger health benefits than moderate-intensity exercise.
- ◆ Encourage older people to gradually work towards performing some short bouts of physical activity at high intensity.

The public health approaches to exercise work. For example, making public spaces and roadways walkable, highlighting the stairs and hiding the lifts, giving financial incentives to park further from the factory and walk to the door, and ensuring exercise in curricula starts early and continues throughout educational years.

And then there are those who drop dead on their first marathon or training session, and those that ache and injure themselves if the weights are too heavy or the exercise is somehow incorrectly applied. So, starting slow and gradually progressing is the key, especially if physical activity hasn't been a lifetime habit. Further, having a balanced approach that is doable takes some organisation.

For older people, physical activity tends to decline in later years but is more likely undertaken if in a social context, and prescribing it works. New Zealand's Green Prescription initiative is still a world leader on the population activity stage, so please use it as often as feasible.¹

The question remains: how much exercise and what type is best? Aerobic exercise is good for cardiovascular disease, and progressive resistance training is better for psychological outcomes and cardiovascular disease. Regularity is important, with any activity being better than none. The jury is out on whether it has to be moderate or vigorous exercise, whether bouts or sustained sessions are best, or if just walking is okay.

The Norwegian study

The Generation 100 trial asked the question of whether moderate to vigorous exercise benefits all-cause mortality over time. This large group in Norway attempted the impossible and recruited 1567 of 6966 individuals born between 1936 and 1942 in Trondheim (average age 72.8 at entry). Participants were randomised 2:1:1 to:²

- the national guidelines for physical activity (control group; n=780; 30 minutes of moderate-intensity activity on most days)
- high-intensity interval training (HIIT; n=400; 10-minute warm-up followed by four intervals, each four minutes long at approximately 90 per cent of peak heart rate) to replace two of the 30-minute moderate-intensity activity sessions each week
- moderate-intensity continuous training (MICT; n=387; 50 minutes of continuous work at approximately 70



Aerobic exercise is good for cardiovascular disease

Wellness Gallery Catalyst Foundation on Paveis

20 per cent participating in HIIT-type activity and 40 per cent participating in MICT-type activity throughout the trial.

Survival curves showed that, when compared with the control group, HIIT provided a trend towards mortality benefit that did not quite reach a high level of significance (hazard ratio 0.63; 95% confidence interval 0.33–1.20), whereas MICT provided no benefit over general guidance (hazard ratio 1.24; 95% CI 0.73–2.10). When the HIIT and MICT groups were combined, there was no difference in all-cause mortality compared with the control group.

Secondary outcomes showed that physical and mental health-related quality of life and peak oxygen uptake were greater in the HIIT group compared with both the control and MICT groups.

In summary, it does appear that HIIT is better for older people than more moderate activity, with benefits for mortality, fitness and wellbeing.

There are several caveats of course. Norwegians are very active, so the benefit of HIIT was studied on top of high baseline levels of activity, and the potential benefit of doing any exercise was not studied. Further, the control group did HIIT – everyone knew the trial was about HIIT and could not be stopped from undertaking HIIT-type activity. The HIIT in this study was gym based. The extrapolation to less controlled HIIT models is probably next.

My take

Please don't stop encouraging general exercise. It seems reasonable to encourage older people to do short bouts (less than five minutes) of high-intensity exertion (to puff so hard they can't really talk), to build up to this gradually and to add this into 30 minutes per day of moderate activity.

I remain convinced that, in New Zealand, getting people off the couch is still the more important task (we are not Norwegian, and the results of this trial are not necessarily generalisable to New Zealand). Ensuring equity in participation is also really important so the benefits of physical activity can impact health outcomes for all in a fair way.

I still don't know how to do those two things. In the meantime, I might try some HIIT and see if I like it. ■

Ngairé Kerse is president of the New Zealand Association of Gerontology and the Joyce Cook Chair in Ageing Well, University of Auckland

per cent of peak heart rate) to replace two of the 30-minute moderate-intensity activity sessions each week.

All physical activity interventions were for five years. Adherence and exercise intensity were checked by heart rate monitors, rating of perceived exertion during periodic supervised sessions, and a validated questionnaire at one, three and five-years follow-up. The definition of non-adherence was when the participant did fewer than 50 per cent of the prescribed training sessions over the five years.

What happened?

Seventy per cent of the control group met the national guidelines for physical activity over the five years (Norwegians are very active). Adherence to HIIT and MICT sessions was close to 50 per cent all the way through, so the groups participated in their intended activity.

The Hawthorne effect was reasonably strong in the control group, with up to

“ Starting slow and gradually progressing is the key, especially if physical activity hasn't been a lifetime habit ”

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Breathing difficulty in seniors is a risk to their independence



breathing difficulty or chest pain, can lead to a fatal outcome and also risks the ability of survivors to continue to live independently.⁹

Supporting seniors' independence

As most seniors want to age in their home, there are assistive technologies, such as medical alarms, that can be used to support independent living. The adoption of technologies by those aged 65 years or older has grown markedly in the past decade.¹⁰

Medical alarms (personal emergency response systems) allow seniors to live independently and safely by providing assistance when needed, which also helps to provide their caregivers with peace of mind.^{11,12}

With a St John Medical Alarm, help is just the push of a button away, making it easy for your senior patients to summon help, especially if they are not able to phone someone because they are unable to breathe or are suffering with breathing problems.

Along with one of the most common reasons for ambulance call outs, breathing problems are also one of the most common reasons for the activation of a medical alarm.¹³

Independence is an important contributor to the emotional and physical wellbeing of older adults, and remaining in their own home allows seniors to preserve a sense of security and control over their lives.¹

Seniors' independence at risk

Breathing difficulty is a common occurrence in older adults and can be a critical health issue that can impact independence and quality of life, with prevalence increasing with age.² It can be a symptom of an underlying health condition, most often cardiorespiratory disease.^{3,4}

Patients presenting with acute breathing problems often experience the most distressing form of breathlessness known as "air hunger".⁵ This is the sensation of needing to take in more air. Air hunger is an especially

unpleasant symptom that can induce anxiety, panic, and fear.

In fact, breathing problems are one of the most common reasons for an ambulance call out.⁶ Older adults with breathing problems constitute a considerable proportion of emergency department case load and have a high admission rate and significant mortality.⁷ Exacerbations or worsening of pre-existing chronic disease account for a sizeable proportion of cases.

Many seniors presenting to emergency departments with breathing difficulties have time-sensitive diagnoses,⁸ emphasising the need for prompt medical attention and early diagnosis.

Delaying emergency intervention for older adults experiencing an incapacitating medical event while living at home, such as

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Staying upright and strong: Reducing the impact of falls in older people

OLDER PEOPLE

Specialist GP Ngaire Kerse discusses why older people fall, the consequences of those falls, and what GPs should do, not just after a fall occurs but also opportunistically to prevent future falls

Falls are my favourite subject, and I think I could write a book about them; however, here is a very brief summary and some further reading. Older people, of course, don't like to think about falls and disability, so reframing this as "staying upright and strong", "keeping positive" and "keeping going" will make your messages to them more palatable.

Falls are an unintentional change in position resulting in landing on a lower level. Being pushed over is not a fall – that is intentional.

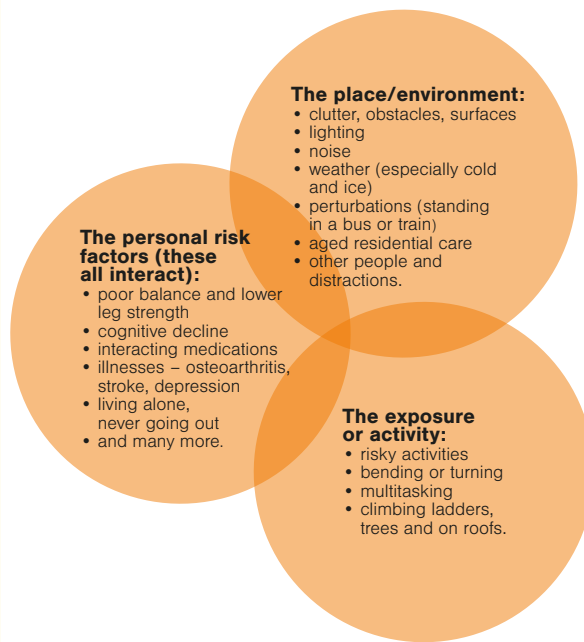
Approximately 30 per cent of those over age 65 living in the community and more than 50 per cent of those living in aged residential care will fall every year. Not so much is known about retirement villages, but I expect prevalence to be in the middle.

The consequences are significant. Of those who fall, about 70 per cent will have loss of confidence and fear of falling, 40 per cent will have a significant injury and reduced mobility, 5 per cent will have a fracture and 1–3 per cent will have a hip fracture. I don't have to remind you that hip fracture hastens death, placement in aged residential care and general all-round misery.

Older people can recover from injury related to falls, but they have to be encouraged and offered rehabilitation. Disparities in outcomes from injury are significant for Māori, with far less engagement with the health system and ACC, and less access to assistive devices. Māori are also less likely to receive appropriate financial support after injury. It is time to address these inequities.

The important thing about older people is that they are fragile and very likely to have negative consequences

Interacting risks that result in a person falling



from falls, compared with children who fall over all the time but seem to bounce. Older people don't bounce.

Osteoporosis is a significant issue for older women (and some men) and for people treated with anticonvulsants, long-term antipsychotics or lots of corticosteroids. Osteoporosis causes excess bony injury for minimal force trauma, and it can be treated.

Why do older people fall?

First and foremost, falls can result from any acute illness and, as such, can be thought of as *hot falls*. Falls are the great "mask" and can be the common presentation of several illnesses from several aetiologies. Urinary tract infection in older people in residential care is the most common example; myocardial infarction presenting with vague symptoms and a fall is another.

If a fall is not a direct result of acute illness, it is usually the result of multiple

overlapping risk factors. I like Venn diagrams (see figure – the sum of risk factors goes up exponentially with any two or more risks in any of the circles), and I think falls occur through the interaction of dynamic risk situations.¹ The event of a fall may only occur when everything aligns, and then only sometimes.

For example, the older person with personal risk factors of age >80, female gender and knee osteoarthritis may usually be fine outside (environment), bending over to do gardening (exposure activity), except when there is cold weather, a strong wind (dynamic environmental risk) and she climbs her ladder to trim the grape (dynamic exposure), or she has stayed inside for several months over winter and has now become deconditioned and lost her confidence (dynamic personal risk).

Similarly, an older man disabled with a stroke and residual hemiparesis may be quite mobile and safe with the appropriate mobility aid and environmental modifications, but variation in his capacity related to his heart failure may compromise his strength and a fall may occur.

The personal risk factors are well described and not rocket science. Risk factors differ between residential care and the community, with the most important realisation being that *reduced mobility* increases risk in the community dweller, whereas *any mobility* (capacity to stand) increases risk in the residential care dweller.^{2,3}

The environmental risks are also reasonably well known but perhaps could do with some more consideration as each person's environment is such an individual thing. Then there is the car park where the parking blocks get in the way and the individual's reactive responses are not ideal. Simple things such as loose mats and low lighting seem straightforward to fix. However, older people like their mats (they brighten up the room), even those with low vision,⁴ and who does one get to change the lightbulb?

The activity or exposure risks are not well studied. It is clear that habits and

“ Māori are also less likely to receive appropriate financial support after injury. It is time to address these inequities ”

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Strength and balance exercises help prevent falls in the community

lifestyles make a difference. Caution is common in some, but less so in others. Anxiety protects from falls, and there is some suggestion that our “she’ll be right, have a go” attitude predicts greater falls. Being careful is perhaps not as valued as it could be.

Balancing human rights and falls prevention is most salient in residential care where it is no longer desirable to tie people down to prevent falls, and falls-free activity is emerging as an important concept.⁵ It may be necessary to accept some trade-off between safety and mobility.

What should you do?

If the patient presents after a fall, it’s relatively easy. The usual things are necessary, so take a history: what happened (what were you doing)? Were/are you injured? Were there predisposing or associated features (fever, shortness of breath, dizziness)? What was the environment (hazards to trip over)? What medications are you taking, have you taken any new ones, or any from anyone else? What current conditions may have contributed? Is there anything in the past or any family history that is relevant?

Then, do an examination: vital signs, including lying and standing blood pressure; the area of injury; cardiovascular system (emphasis on rate and rhythm); neurological system, including balance; and musculoskeletal system, including gait and a weight-shifting activity such as turning.

Investigations may be needed, with an electrocardiogram, full blood count and urinalysis being the most common.

Then, of course, you need to try to work out if there is a reason for this fall that can be remediated. Remember, postural hypotension is common, often undetected and contributes to falls, so look for it and manage it. If the fall is because of acute illness, manage the illness. Some patients need to go to hospital now or later. I recall a patient who had a haemoglobin level of 75g/L upon evaluation after a fall, and gastric carcinoma was subsequently detected.

Next, the focus is on rehabilitating, increasing safe mobility and preventing future falls. Optimising management of existing medical conditions and reviewing all medications are effective in reducing falls. Psychotropic medications cause falls and may be needed, but may also be able to be reduced.

Summary of primary care approach to falls

If the patient presents after a fall:

- ◆ check any injury and manage appropriately
- ◆ rule out acute illness (hot fall) and manage appropriately
- ◆ optimise medical management of all conditions
- ◆ reduce medications
- ◆ prevent future falls.

Opportunistically for all older people:

- ◆ ask about falls
- ◆ assess balance and gait
- ◆ optimise medications and medical conditions
- ◆ prevent future falls.

Preventing future falls

Opportunistically, you can have the biggest impact in fall prevention. Ask all your older patients about falls, trips, slips and injuries all the time. What you don’t know can hurt them, and you will miss opportunities if you don’t ask: how many falls have you had in the last 12 months? Any injuries? How is your confidence about mobility?

Remember the dynamic risk Venn diagram and talk to your patients. This kind of framework can lead to very useful discussion (patient education, self-management), especially while discussing “what happened”. Medical condition optimisation and medication review are mandatory. Preventing future falls is the objective, so promote behaviour modification, assist with understanding that risk plays a role, and give a firm idea about what works.

There have been hundreds of trials on fall prevention in the community.^{6,7} There is overwhelming support for exercise in the form of lower-leg strengthening and balance retraining, using individual or group delivery and via several forms for those living in the community. Tai Chi is also effective.

ACC accredits community strength and balance programmes as part of the Live Stronger for Longer programme (livestronger.org.nz), and there are thousands available around New Zealand. Most regions have a way for GPs to refer patients directly. In-home, one-on-one

delivery for those who are home bound is also available in most areas.

The new aspect of activity programmes is perturbation training – actively tripping older people to reactivate reaction responses.⁸ Please don’t try this at home! It needs to be done with protection in place and will be available in some places via a special treadmill or a walking track, with sudden tripping devices randomly activated.

Home hazard modification through occupational therapist assessment is effective and accessible through older peoples’ health services.

Medical review and some specific medical interventions (eg, pacemaker insertion for those with carotid hypersensitivity), comprehensive geriatric assessment and intervention, combined with home occupational therapist referral for those with a falls injury resulting in emergency department attendance are effective. Medication review and modification by GPs reduces falls.

Attention to correction of visual impairment due to cataracts also reduces falls, and switching from multifocals to single-lens glasses helps; however, new glasses seem to increase the risk of falls. Footwear improvement can help, especially in icy places.

Multifactorial interventions (several of these strategies at once) are helpful, especially if there is an individualised risk assessment to direct the interventions.

For those in *aged residential care*, vitamin D supplementation and increasing protein and calories in the daily diet prevents falls and fractures.^{9,10}

Specially designed gym equipment used under direction of a physiotherapist, with additional balance exercises, reduced falls in one trial. This HUR (Helsinki University Research) computerised air pressure equipment is available in New Zealand in at least one site.

Overall, GPs and nurse practitioners in primary care can have a large impact on falls in older people. The long-term support from the primary care provider, along with referral, coordination of prevention and rehabilitation will make a difference to outcomes related to falls and injury. ■

Ngairé Kerse is president of the New Zealand Association of Gerontology and the Joyce Cook Chair in Ageing Well, University of Auckland

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Optimising management of existing medical conditions and reviewing all medications are effective in reducing falls
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Supporting the independence of your older patients

The independence of older adults is facilitated by living in their own homes as it enables greater autonomy and closer connections with their family, friends, and community. Living at home for as long as possible is highly valued by older adults,¹ and is consistent with social policy that older adults should 'age in place' including those who require care and support.²

Studies suggest that maintaining independence is the most important health outcome for older patients when faced with a treatment decision.^{3,4} Living independently requires people to undertake activities of daily living, which is associated with functional independence and improved quality of life.⁵

Enabling older adults to live at home

Older adults are at high risk of a complicated recovery post-hospital discharge, including functional losses, adverse medical events such as falls, and re-hospitalisation.^{6,7} Hence, seniors may require increased care needs at home, and this highlights the need for appropriate planning for care post-discharge.

Restorative and intermediate care plans to support ageing in place have been demonstrated to be effective in improving the health-related quality of life of older adults and in facilitating their transition from medical dependence to functional independence.^{8,9} These types of plans allow older adults to remain living at home as a viable alternative to age-related residential care,⁸ and is consistent with their desire to live for as long as possible in their own home.¹

Personal medical alarms as part of home care

Encouraging ageing in place is likely to increase demand for community care services.^{10,11} To ease some of this pressure, technological innovations, such as a personal medical alarm have been promoted as an approach to lessen pressure on home care services.

A medical alarm can complement planned care by facilitating rapid medical response when activated by a patient.¹² It can also give



Studies suggest that maintaining independence is the most important health outcome for older patients when faced with a treatment decision.^{3,4}

users the confidence to maintain an active life,¹⁰ which is consistent with the focus of healthcare in older adults being able to maintain their functional capabilities.¹³ Family members and healthcare workers also gain peace of mind in knowing that their older relatives and patients can access help by simply pressing an alarm button.¹⁰

Referring your senior patients for a medical alarm

Community-dwelling older adults who are the typical users of a personal medical alarm, are likely to consider a device if the suggestion comes from a healthcare professional.¹¹

Referring a St John Medical Alarm as part of the home care plan for your older patients provides them with 24/7 access to expert care and is the only direct link to Hato Hone St John, instilling the confidence to live a more independent life.

The referral process is straightforward using your Practice Management System via Healthlink or ERMS **and your patients have access to a FREE trial.**

For additional information visit: stjohnalarms.org.nz/hcp

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Offer your patients the freedom of living on their terms



**Hato Hone
St John**

Living at home for as long as possible is highly valued by older adults.¹ Maintaining a sense of control can promote feelings of purpose, achievement and self-worth. By referring your patients for a St John Medical Alarm, they will have the peace of mind knowing their medical alarm connects directly to the 24/7 care of Hato Hone St John.

Refer your patients for a FREE TRIAL through your Practice Management System via Healthlink or ERMS, and we'll take care of the rest.



For more information visit stjohnalarms.org.nz/hcp

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