WEEK 2 ARE YOU AT RISK OF FALLS?
LIVE EVENT

[0:00:05]
JAMES: Welcome to our live question-and-answer session as part of our Ageing Well: Falls course I'm James Frith one of the lead educators and I'm a geriatrician who works in a falls clinic and also does some falls research. Julia who we've already met in the "meet the experts video" is a professor of ageing and medicine and on my left is Lisa Robinson who is an advanced physiotherapist who works in our falls clinic here and has also done falls research and many of you will have come across Lisa before because she's been mentoring the discussions through the week. Unfortunately Chris our occupational therapist couldn't be with us today.

We've been looking through all of your questions and unfortunately we can't answer everyone's because there were loads of them. Many of them were along similar themes so will focus on the ones which are most common and were related but before we get down to answering people's questions there **are two things that came up that were quite contentious one of them was varifocal lenses** - do you want to say anything about using varifocal lenses Julia?

[0:01:30]
JULIA: Well, just that it's quite complicated, nowadays there's lots of people who wear glasses but varifocals are glasses that are increasingly frequent and very often people describe issues related to wearing varifocals so it is very complicated and if you have varifocals and manage with them very well then don't necessarily feel that you need to change them - but there is a suggestion that varifocals can make it more likely that you fall, just because of the fact that people are looking up and down with varifocals so if you are a faller and you wear varifocals then it might be worth reviewing whether or not these are appropriate for you.

So we're not telling people to suddenly put their varifocals in the bin. But it is good for people just to be aware of all the different risks that can contribute to falls and people can always go and speak to their optician and ask for the pros and cons of

using different things and make their own minds up about what's useful for them. I think it's just like you say being aware of potential risks so that you can review the way you do things and the way you live your life to see whether or not there are things that you can modify or at least by being aware of potential risks it means that you'll perhaps take a bit more care when for example you are going downstairs wearing your varifocals and hold onto the handrail under circumstances like that so it means that you perhaps avoid situations that you know that hold increased risk.

[0:03:11]
JAMES: **The other thing which has caught a lot of attention this week is the magic number four to do with medications**. There was a trial a few years ago they followed over a thousand people over the course of a year and they went back and looked at the differences between the people who had fallen and the people who hadn't fallen and one of the differences that the researchers found was that the people that had fallen were on four or more medications and the ones that hadn't fallen were on less - any it just so happens that on that one trial at the number four came out and I would ask people not to fixate on the number four but just to be aware that if you are taking four or more medications you are at an increased risk of falling but don't panic about that it's being aware of the risk and if you are a faller on medication your doctor needs to review your medications.

JULIA: I think that's the really important point - is that sometimes you get put on tablets for things like high blood pressure or angina when you're say 50 and then you are kept on those tablets for perhaps years and years and years until for example you are 80 and nobody reviews whether or not you still need those tablets and what I think is really important as a take-home message is that ask your GP to review your tablets on a regular basis to see whether you really still need the tablets because physiologically as a human being we're very different at the age of 80 than we were at the age of 50 and it may be that you don't need the tablets when you're 80 that you needed when you were 50 but it is very important that your doctor reviews whether or not you do or do not need them before you go ahead and stop anything.

We don't always know why some tablets cause people to fall some people think that if you're on more tablets it might reflect an underlying frailty, or reflect the underlying conditions that might also contribute to falls perhaps it might be an accumulation of side effects. We don't actually know the answer to that.

[0:05:37]
JAMES: So now that we've addressed those two contentious issues we can move on to some of the learners questions. One of the biggest questions that was coming out

of it, Lisa, was about exercise and people wanted to know **what are the best types of exercises to prevent falls**.

[0:05:58]
LISA: Well there are obviously lots of different types of exercise and certain exercises are better than others and what I would say is that if you are somebody who's very unsteady or as has had falls or if you have a particular medical condition which makes you more likely to fall such as MS or Parkinson's then it is worth asking to see a physiotherapist who will do an individual assessment of your balance and your walking and give you advice on an individual level but obviously that's not practical for everybody there's very good evidence now for Tai Chi as a preventive form of exercise and I think that's quite readily available.

Generally what we're looking for in terms of falls prevention is weight-bearing exercise - so exercise that you do upon your feet so that rather than perhaps swimming or cycling or something like that it sometimes worth investigating with the local leisure centre sometimes they'll be able to signpost you a lot of places now are doing classes which have very much of a focus towards balance. Also if you're in the UK perhaps checking with Age UK or PD UK or something like that and they'll be able to signpost you towards appropriate classes.

JAMES: And we'll be learning more about exercises in week 4 of course where Julia shows us an example of an exercise class that is typically used for people who fall and we discuss some of the other things which you have mentioned now as well.

[0:07:25]
LISA: The only other thing I would say is if you have conditions like osteoporosis which is sometimes commonly associated with falls there are certain types of exercise that perhaps you should avoid anything with very high impact anything where there's lots of bending like touching your toes repeatedly or sit-ups or something like that because obviously they put more pressure through your spine.

[0:07:45]
JAMES: There was, you've probably partly answered this question already, a few people asking about **whether it makes a difference where the exercises are - a class, in someone's home, in hospital**?

[0:07:58]
LISA: Well I think again it very much depends. Sometimes people have a particular preference so some people prefer exercising at home because it's more flexible - they

can fit into their day more - if they're looking after relatives or grandchildren or something like that. Sometimes if people are quite low in confidence and perhaps they haven't exercised before then starting off doing something at home under the supervision of a physio is quite useful. But then again that's difficult to sustain long-term so if people can link in with classes, particularly classes that have been recommended by a health care professional then that sort of makes it a little bit more enjoyable and a little bit more sustainable long-term.

[0:08:42]
JAMES: And tying in with your comment about asking a health professional for directions to a class ties in with something that someone else said they were asking if there was anything available on YouTube or online and I was a bit cautious about that because I'd rather people got advice from a professional because there are certain types of exercises that have been proven to prevent falls and we don't know what outrageous things might be on YouTube and what they might do to you.

[0:09:10]
LISA: And I think if you feel it's something that you don't particularly need to see a doctor or other healthcare professional for go to somebody like Age UK because obviously they have good classes and should be able to sign-post you towards qualified instructors.

[0:09:31]
JAMES: Another question which we had which came from Margaret was about **frailty** she was worried that **as she's getting older she's slowing down and she didn't want to turn into a slow granny**. I'm presuming that she has got grandchildren that she needs to run around after and she was wondering what she can do to prevent becoming frail or slow. And I could start off with just mentioning just to be healthy don't smoke don't drink excess alcohol eat a healthy diet and keep active.

[0:10:03]
JULIA: Yes, I think that that's absolutely the recommendation I would also make it's just really important to what I call investing your legs so that when you're active, that the more you remain active, the longer you will keep active for. So making sure that you walk, when you have the opportunity to, walk rather than catching the bus perhaps, use the stairs when you can use the stairs rather than get the lift. So lots of people as they get older will downsize from the nice house into perhaps a bungalow or a flat as my parents have done and as a result they rarely go up and down the stairs and rapidly realise that they are losing muscle strength in their legs as a consequence and I think it's just really important to be aware of remaining as

active as you can and keeping your legs strong so that a consequence of anything else that might upset your equilibrium as you walk along the actual your legs are strong enough to keep you upright and hopefully avoid you actually falling over.

[0:11:14]
JAMES: The four things I mentioned are also quite good for preventing brain frailty or memory difficulties so stop smoking don't drink to excess eat healthily and exercise.

[0:11:26]
LISA: Yes, that sounds like a good formula.

[0:11:30]
JAMES: We had a question from Veronica who wanted to ask whether bunions make it more difficult to balance. That's quite a specific question - I think we could probably open it up to **"do foot problems make it more difficult to balance?"**

[0:11:45]
LISA: Often they do and I think as we've already highlighted very rarely when people are unsteady on their feet is it not for one big reason on its own. I think more often than not it's lots of reasons added together. For your balance to work you need to get good information from your vision, your vestibular system - so your inner ear - which I know we've covered in some of the previous materials.

JAMES: The semi-circular canals that we've mentioned.

LISA: Yes, and also proprioception which is information from muscles and joints and we get a lot of proprioceptive information through our feet and ankles so feeling the floor underneath our feet and the difference between for example standing on a nice flat surface and uneven ground. So any footwear or foot problems which affect the feet can affect the balance so yes that's not unusual.

[0:12:36]
JAMES: And we learned over the last week just some really simple tips that people can do to look after their feet such as just keeping them clean and moisturised, keeping the nails cut short or getting assistance to cut the nails if needed, If there is any problems then visiting the podiatrists.

[0:12:56]
LISA: Yes, particularly if you have medical conditions such as diabetes and things like that where sometimes people don't feel that feet so well so that if they do have a foot injury or if when they are cutting their nails for example they do nip their skin then that can sometimes cause problems so if you do you have something like diabetes and you haven't been referred to a podiatrist or a chiropodist that's probably something to flag up with the GP.

[0:13:21]
JAMES: You mentioned the three aspects of balance there - there was the proprioception - understanding where the body is and what it's doing, the vision and the inner ear. So if someone has a problem with their foot or their proprioception is important that they really look after the other aspects I like their vision?

[0:13:39]
LISA: Yes, I think I say it's often a cumulative thing so if you have problems with one aspect that it's really important to look after the other aspects as well.

[0:13:49] JAMES: Julia, we had a question from Barbara who is asking **why does she get dizzy when either she has a bad cold or is dehydrated**?

JULIA: That's a really good question from Barbara. What dehydration and having a bad cold and feeling unwell for other reasons can lead to his problems with your blood pressure. And blood pressure is the head of steam that gets the blood around your body and is particularly important to get the blood to brain i.e. those bits of your brain that keep your body awake. When we stand up a large amount of blood pools in our legs, about 700 ml, and so as a consequence there's not enough blood going to your head if you are dehydrated or have a reduced volume for other reasons, like being unwell, and as a result that can mean that those bits of your brain that keep you awake aren't getting enough blood so you can feel very dizzy and lightheaded or at the extreme you might actually black-out and fall to the ground as a consequence.

[0:14:53]
So if you stand up and feel very dizzy or lightheaded then that suggests your blood pressure might be a bit low or that it's dropping when you stand up and that's sometimes made worse by tablets that work on your blood pressure but things like dehydration or being unwell for other reasons is also a contributing factor. So it's

certainly something, a symptom, to look out for because it might be an indication that you're at risk of falls or blackouts.

[0:15:24]
JAMES: **So should people drink lots of water**?

JULIA: People should drink lots of water and what we generally recommend in the clinic is 2, 2.5 litres of water a day to sort of volume expand you to make sure that that head of steam, your blood pressure, is as it needs to be to keep your vascular system fully filled Often we find that people either get out of the habit of drinking that amount of water or actually choose not to drink water because they're worried about things like needed to get to the loo and things like that.

[0:16:02]
There are quite a long list of tablets that can make that worse so again that's another reason why in the clinic we will review people's medication to see whether there's things that might be dropping their blood pressure or making them actually lose volume as a result of tablets.

JAMES: And drinking water is good for lots of other reasons as well as just dizziness and falls.

JULIA: Absolutely

[0:16:27]
JAMES: Lisa, we had a comment from Denise Nelson and Eulinda mentioning the Epley manoeuver, we will be visiting this later on in the course, **maybe you could describe to us what an Epley manoeuvre is and what is used for?**

[0:16:50]
LISA: Yes so an Epley manoeuvre is a treatment for a particular type of dizziness caused by an inner ear problem called BPPV which stands for benign paroxysmal positional vertigo. What happens in BPPV are some crystals in the inner ear become dislodged and they move into those semi-circular canals (that you mentioned earlier). People who have BPPV typically get very intense spinning dizziness when they put their head in certain positions and commonly that's looking up bending down to the floor, sometimes lying down in bed and turning onto the affected ear. And it can be quite unpleasant. It can be quite disorientating and it can contribute to falls.

The Epley manoeuvre is a physical manoeuvre which can be done by a doctor or a physiotherapist and what it involves is moving the head through a series of positions to move the crystals out the semi-circular canal back into the other part of the ear where they don't cause dizziness.

It's a very common condition and we find commonly in our clinic that a lot of patients have BPPV and they've had it for a number of years but it hasn't been picked up but it is a very easy thing to pick up and it's a very easy thing to treat – it's very treatable.

[0:18:10]
JAMES: One of the comments was that **someone found it difficult to do the Epley manoeuvre, I think because it because it brought their symptoms on. Can that happen**?

LISA: Yes, unfortunately because it involves putting the head in the position that brings on the dizzy symptoms it can be quite unpleasant for people it's a relatively quick manoeuvre to do it takes less than five minutes and we know that it's effective in about 80% of cases from one treatment so sometimes it's worth balancing the sort of unpleasantness for the longer-term benefits.

Some of our patients in clinic who have a particularly strong response - sometimes what we'll do is bring them in a little bit earlier and will give them some medication for their dizziness that that just dampens down the response and sometimes that can help as well but I think it's very difficult because I think what happens is people know the movement that brings the dizziness on and particularly if they've had that dizziness for a lot of years they're not used to lying very flat and rolling onto the affected side so it can be quite sort of anxiety provoking for people as well.

[09:19:22]
JAMES: And if people want to see what this manoeuvre looks like we've got some animations and some videos later on in the course. We'll revisit this topic next week.

[09:19:31]
JULIA: I was just going to ask Lisa - one of the things that the question wanted to address was **whether or not there's an alternative to the Epley**? If somebody's got a bad neck and you can't put their head through those manoeuvres are there alternative things that you could do to treat?

[0:09:50]
LISA: There are exercises which people can do at home called Brandt-Daroff exercises but they still involve putting the head in certain positions and to be honest people who are quite wary about putting the head in certain positions often don't tend to tolerate those as well.

Usually, if you do this manoeuvre and you have a physiotherapist or a doctor who is quite experienced in doing it. They can often modify the angle of the bed and things like that so that if you've got some limitation in your movement we can compensate for that. But Epleys are mainly the treatment that we use.

What we tend to advise against is medication - because what we sometimes find is that people go on medication to help with their dizzy symptoms and often what that does is dampen down their balance responses and actually makes them more prone to falling in the long term.

[0:20:43]
JAMES: Our next question was for Chris who isn't here but I spoke to Chris to see if we could get any tips from her. Someone was asking **whether occupational therapists have access or refer people to exercise resources in England**? I know GPs can refer people to gyms and that kind of thing and so the question is a similar thing - do occupational therapists have access? Chris she said it would be a case of getting in touch with your local health services or your occupational therapist, if you have one, and finding out what's available locally because it's different everywhere.

[0:21:20]
JULIA: I think there is huge variety across the UK and the rest of the world as to what facilities there are available and huge variability some areas are very good some are less good so I think it's very much case of finding out what's available to you locally and nationally. In some countries it may be important to lobby for new services as a result of information that you perhaps learn on this course and certainly we're aware of some countries that don't have full services that are quite as well established as they are in the UK but even in the UK the services that are delivered are not consistent across the UK so it's about empowering yourself by finding out what's available to local area.

[0:22:20]
JAMES: We had **a question about yoga (and Lisa you mentioned Tai Chi earlier) and it's whether people can use these to help with their falls and their balance**?

[0:22:28]
LISA: Yes, I mean, as I say, there's a lot of evidence around Tai Chi I think yoga is a very similar type of exercise. What's quite helpful about things like yoga and Tai Chi is that they particularly target the postural muscles so the muscles that are important for balance and when we're moving around day-to-day we tend to do things very quickly so we tend to use momentum a lot as we're moving around. When you're doing activities such as yoga and Tai Chi you'll appreciate that it's much slower and often quite challenging because our muscles aren't used to working slowly and holding certain positions. It is always worth finding a good instructor because if you do have problems with your balance or if you do have certain musculoskeletal problems - problems with your joints and things like that - then a good instructor should be able to adapt the programme so that you're able to participate and benefit from that.

[0:23:26]
JAMES: I'm not aware of any clinical trials which have shown that yoga can prevent falls and when people have looked at Tai Chi at preventing falls it only really works for the people who are probably at the - they have better balance anyway - it's much more of a preventive type of exercise but I think if you're having problems with unsteadiness or you've got particular medical conditions which make you more prone to falling then I do think it's worth seeing a physiotherapist and having something prescribed specifically for you. But I think as activities to do, to keep active and to keep well, then they are definitely good.

[0:24:02]
JAMES: And will have other benefits as you say. We have sort of addressed this already Julia, but it is a common question - **how can someone access a falls service**?

JULIA: It depends where you are in the world and certainly in the UK most NHS organisations will have a falls service. Usually they are run as part of geriatric medicine services and sometimes they're based as stand-alone clinics or sometimes they are within day hospitals for example, or outpatient departments. So if you've had a fall it's very important to bring yourself to the attention of your GP. Sometimes there's a reluctance for people to do that because there's this perception that there's nothing that can be done. I hope the course is emphasising to people that there are lots of things that can be done and that's why it's important to seek help.

And Nicky and Anne say in their question "**what do you do if your GP won't refer you on?"**

In actual fact, there's, a number of years ago, something called the National Service Framework for Older People. They developed an algorithm in the UK where it was recommended that all those over the age of 75 should have an annual health check by their GP. And that included in that should be the question 'have you had a fall?' and that if that is triggered then referral to a falls service locally should happen. It would be interesting to know from people doing the programme who are over the age of 75 whether they have actually ever been asked that by their GP. But that is the recommendation within the National Health Service in the UK.

What a falls service comprises i.e. what professional groups are within a falls service varies enormously around the UK and there is very little evidence to support one particular configuration of a service as being better than another so sometimes they're run by phsios, OTs, sometimes run by doctors sometimes by nurses and that's areas where we need more research to help us understand what gives better outcomes for patients.

But certainly if your GP won't refer you then doing a course like this is a good thing because it empowers you and gives you more information and going out and seeking advice, information from sports centres health centres etc will give you again more information.

[0.26:52]
JAMES: If there isn't a falls service locally I would say as a bare minimum you could get a medication review from a doctor, see if you can get some physiotherapy and see if you can access occupational therapy. If there isn't one falls service you could still access those three things which are likely to help.

[0:27:13]
JAMES: Walking aids: this is something that maybe Chris could have helped us with but maybe we can try between us. **Walking aids can sometimes be a risk factor for falls, but sometimes people need them to stop falling so where is the boundary?**

LISA: Well people use different walking aids for lots and lots of different reasons and sometimes they can be a real help. Sometimes they can be a hindrance - sometimes they can actually be an extra thing to think about when you're out and about. If you're already concentrating quite a lot on your walking and your balance sometimes it can be an extra thing to trip over - so it can actually lead to falls.

It's worth getting advice from a health care professional and if you are going to use a walking stick it's worth having it measured for you specifically. A lot of the time

what we'll see is that people have inherited walking sticks from another family member so it might be that they are a lot too high for them or a lot too low for them and whilst that can be a little bit dangerous it's also not terribly helpful so it's worth having them looked at and assessed and also keeping them in good state of repair because a lot of the time what you see is the rubber on the bottom, the ferrule, can sometimes become very worn and sometimes that can make people more likely to slip and fall.

[0:28:41
JAMES: And if someone has had the same stick for decades their height might have changed as well. And sometimes we see people coming into clinic saying that they have a sore shoulder and you see it's where they are using a stick that is not the right size.

[0:28:54]
LISA: And sometimes if people have become more unsteady on their feet and perhaps they're taking more support through the stick they can actually be weight-bearing quite heavily through that and it might be that what we need to do is review that walking aid and it might be that something else is more appropriate.

[0:29:11]
JAMES: We've mentioned proprioception earlier on that's where we send signals from my skin and joints to our brain so that our brain knows what doing what and where. Some things can interfere with proprioception like joint replacements. **Can proprioception be relearned or regained?**

[0:29:32]
LISA: Yes definitely I mean balance is an amazing thing really it can improve. If somebody has a joint replacement it can often change the way that their balance reacts, but specific exercises and advice can improve proprioception.

We have mentioned diabetes before and I think sometimes if people have perhaps damage to the nerves that affect the feeling in their feet that will also affect proprioception. And sometimes that's not as easy to do something about - but it's still worth getting some advice because, as you said before, if it's not possible to improve proprioception - then using vision and information from your inner ear can also help to improve your balance, or keeping your muscles strong can also help to improve your balance. But yes there are exercises that people can do to improve their proprioception. And often when people have a joint replacement they've had a very arthritic joint for some time and it does alter the way that they move around.

[0:30:39]
JAMES: Some people say that they prefer to walk around bare feet because they feel the surface that's underneath their feet to help them with their proprioception **it's really important that they look after their feet walking around**.

[0:30:52]
JULIA: Yes you have to be very careful you don't end up standing on the cat or a bit of broken glass on the floor because actually that can be very counterproductive sometimes it is much nicer to feel the texture beneath your feet to do just be careful that you are not going to do your feet any damage.

[0:31:11]
LISA: If you do like to walk around in bare feet but that's not a good idea – then do think about your footwear because if you're somebody who likes to feel the floor underneath your feet then trainers or something like that have a very thick sole sometimes aren't helpful at all. And then thinking about slippers and things at home - what you really need is well fitting slippers. A lot of people tend to wear those slippers which are like a mule where you just put your feet and they don't have any support around the heel and they can really alter the way that people walk and actually lead to falls as well.

JULIA: We call those sloppy slippers - you need to avoid sloppy slippers.

LISA: At all costs!

[0:31:53]
JAMES: This was a very funny question from Rose, I'll be interested to hear what you say it sounds like **she likes to keep the walkways clear of clutter and of shoes and someone in her house keeps leaving their shoes on the floor in the way as a trip hazard. What should she do?**

JULIA: Get rid of them.

LISA: Get rid of the shoes or the person?

JULIA: A bit of both! I think that's quite interesting and would want to inquire why somebody was doing that - was it to make Rose more aware of what was going on - so it was a very positive action to make Rose more aware of her surroundings and to step over the shoes. Or whether in fact whoever was putting the shoes in the way

was actually hoping that Rose would fall and was wanting to see what the consequences of that were. Let's hope it was the first!

[0:32:53]
JAMES: I think it's just someone that can't be bothered to put them away!

[0:32:55]
JULIA: That's like my house! it's really important that if you are at risk of falls or if you are perhaps anxious about how you get around - i.e. you haven't fallen at this point in time - that you take what I call your wide-angled lens around your house and look for those tripping hazards. You know I often, to medical students, will use the stories that we hear in clinic from patients and one of the most common things that people will trip over is their cat or a small dog. And you know it's really important to just be aware of things around you that put you at risk.

[0:33:38]
LISA: I know Chris isn't here but as an honorary occupational therapist I think sometimes the difficulty is when it's your home you don't see things in quite the same way. So often it is worth having an occupational therapist come out and do an environmental risk assessment. Often they will point things out to you which actually with hindsight is common sense but because you're used to your house being a particular way sometimes you don't perceive hazards in the same way.

[0:34:07]
JULIA: And often relatives will do that and it is not always received very well by people. So if your family come round perhaps it's an opportunity to actively ask them to get their wide angle lens and look around your house with a new pair of eyes and to then take that in the spirit in which it is intended and not be affronted or upset by it.

[0:34:36]
JAMES: And some people don't like having an occupational therapist come to their house. I'm not sure if that's because of stigma or they think they're going to take things away. And I think what you said about just having a fresh pair of eyes can be useful.

[0:34.55]
JULIA: Often as we get older, as I said before, we move from a big house down to a flat or a bungalow. People downsize but they tend to try and move all that furniture that they love very much into a smaller space and I've seen it lots of times when I

visited patients at home that there is just so much furniture in a much smaller space and sometimes that's not always the safest environment.

LISA: And what I would say as well is that a lot of time when the Occupational Therapist comes out they'll make recommendations but I think at the end of the day they recognise that it's your house and so it's very appropriate to say 'yes' to certain things but perhaps to say 'no' to other things as well.

[0:35:38]
JAMES: And they have often got tricks up their sleeves as well so there might be a rug they might recommend getting rid of but they can find double sided sticky tape just to firm it down as a compromise.

[0:35.52]
LISA: And a lot of things that people want to try like perhaps having equipment in their bath for example - I know we're getting off the topic but - a lot of that stuff is stuff that you can try and if you don't like it, it can be taken away quite easily as well and it doesn't involve making any permanent changes to the house.

[0:36:11]
JAMES. So I think this is one of those big question, where there isn't a right answer, and involves a lot of discussion and that is how can we change society's view of falls because in general people associate falls with being old and frail and people are reluctant to do anything about those because they don't want people to see them as frail so how can we change things.

[0:36:38]
JULIA: I think perhaps some of what this programme is aiming to do by giving you examples of people who've fallen, of all ages. Falls are more common as we get older but they're not unique to older people. We know lots of people who are in their twenties thirties forties will experience a fall.

So making people aware that it's very common, that it can affect all age groups is really important and just removing some of the stigma, letting people realise that there are things that we can do to prevent falls and that as a result of having a fall people aren't going to be institutionalized or hospitalised. That the aim of falls services is to keep people independent and reduce their risk of subsequent falls.

I mean I would say that hopefully what we're getting better at now is keeping people fit and well rather than waiting until people have, for example, a really serious fall which might result in them breaking their hip or something like that.

One of the things that I've noticed particularly from this course is that there's a lot of different people whose circumstances are very different participating in the course which is really great to see and I think there are a lot of people who primarily have joined the course because perhaps they have parents who they perceive are at risk of falling, or have had falls, but they recognise that they're perhaps starting to become less steady on their feet. And I think it's that generation of people that if we can get people involved in falls prevention and exercising and keeping well then hopefully this will change over time.

[0:38:25]
JAMES: And I think from my experience that things are already changing. When I first graduated the geriatrics wards maybe had people in their sixties and seventies on them, now if you go onto a ward in the hospitals it's people in the eighties, nineties and in their hundreds. So how old someone is going up all the time and society is getting older, there are more people now over the age of 60 than there ever has been and that's a lot of people and therefore a lot of power - especially voting power - if everyone lobbied their MP or voted for whichever party seemed to be more engaging with older people there's a lot that can be done.

JULIA: Absolutely

[0:39:13]
JAMES: I think that's probably a good point to finish on. Thank you very much to everyone who submitted a question and we're sorry we didn't have time to answer everybody's but there's still another two weeks of the course to go and there's a lot of things still there to learn. And hopefully we'll answer those unanswered questions. So thanks very much for joining us and thank Lisa and thank you Julia.

JULIA & LISA: Thank you.