Questions and Answers with Professor Jacqui Close

1. Does the use of Psychotropic medication increase or decrease the incidence of fall?
   The use of centrally acting medications INCREASES risk of falls. These include sleeping tablets, antidepressants and antipsychotics
2. How many days/week or hours per week were the interventions in pilot study 1?
   See link to the paper: https://bmcgeriatr.biomedcentral.com/articles/10.1186/1471-2318-13-89 3-6 exercises were prescribed and to be undertaken 3 times a week.
3. Why does strength have an important impact on mood?
   The impact is thought to be on neurochemicals in the brain such as dopamine, norepinephrine and serotonin
4. It's hard to implement any exercise program to people with dementia as they're not able to follow up the instructions and especially with the agressive behaviour. In what ways can we help manage these people?
   There is no easy answer but for many people with dementia, it is about taking the time to get to know them and working out how best to interact with them.
5. Does the FINALEX study outline the actual exercise home based program that was used?
   The exercises used can be found in the appendix of the trial Pitkälä, K.H., Pöysti, M.M., Laakkonen, M.-L., Tilvis, R.S., Savikko, N., Kautiainen, H., Strandberg, T.E., 2013. Effects of the Finnish Alzheimer Disease Exercise Trial (FINALEX). JAMA Internal Medicine. doi:10.1001/jamainternmed.2013.359
6. What is the link between the treatment of osteoporosis and dementia?
   No suggested link but people with dementia fall more often and therefore fracture more often. The slide I showed suggests that they are also less likely to be offered treatment for dementia
7. It is alarming to consider those with cognitive impairment are less likely to be treated for osteoporosis. Is this not a form a medical negligence? Our ageing population, particularly those with dementia rely heavily on their GPs and clinicians to protect them with any interventions that may be of benefit to support them staying at home and prevent fractures.
   Only 20% of older people with a low trauma fracture are actually systematically identifed, assessed and offered treatment for osteoporosis. Thie issue is bigger than dementia and a number of us have been trying to highlight this for many years.
8. It is known that improving balance responses to decrease risk of falls require optimal volume, intensity, and real-life stimuli. However, I have noticed that in the studies you have reported you mainly covered physical interventions aimed to generally improve balance but it is not clear whether the procedures you used provided sufficient stimuli to allow neuroplastic changes with respect to reactive balance

strategies that only happen after true unpredicted perturbations. My question is, based on your studies on cognitive levels and severity of dementia, did you notice any differences with dementia levels and how would you account for the unavoidable worsening of dementia with time when follow-up interventions take place?
Interesting question. We didn't look at reactive balance training in this population but are exploring the impact in other populations. It is something to consider for the future. In our work, poorer cognition was not associated with more falls.

9. Based on your studies on cognitive levels and severity of dementia, did you notice any differences between mild, moderate and severe levels?
Interestingly no but it is more complex than that. People with poorer cognition are more likely to have a live in carer. They are often less active and so exposure to risk is less.
10. It is common for #NOF patients to be discharged without consideration for OP medications. Why is this happening when it is proven these medications work to prevent further fractures and disability?
The number of hip fracture patients leaving hospital with treatment for osteoporosis is slowly increasing. There are multiple reasons why it is difficult to get treatment started in hospital - the main reasons are: 1) not Vit D replete, 2) need medication review, 3) hospital reluctant to cover the cost of the treatment
11. Do you have suggestions from preventing inpatient falls for the cognitively impaired cohort? Organisational risk versus Dignity of risk for the individual?
Ongoing training of staff across a hospital in managing people with delirium and dementia. High observation areas, alarm devices, activities to occupy people, music, proactive toileting, involving families etc.
12. How to implement exercise program to the people with dementia who are not able to follow the instructions and people especially with the aggressive behaviour?
I don't think that an exercise intervention is the way to prevent falls in everyone. Studies over the last few years are showing that people at the frailier end of the spectrum may not benefit and may actually have an increased risk of falls with an exercise intervention. Need to be clear why you would want to put someone through an exercise program. When we are talking about people with severe cognitive impairment and behavioural issues, falls prevetion strategies are more directed at the staff rather than the patient.