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# Are Older People with Severe Cognitive Impairment, At Risk of Falls Being Let Down by A Lack of Evidence Based Guidance?

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**Abstract**

Within this paper the authors will use the term '1to1 Support' to describe the use of a dedicated carer(s) to provide complete, uninterrupted, enhanced observation *and* various forms of restraint. It is referred to by a number of other terms: these include, 'Specialling, 'Sitting' or 'Enhanced Observations'. (1,2) Whilst acknowledging that Enhanced Observation appears to be the term of choice in the UK, for the sake of this paper the term 1-1 support is being used due to the fact that it is more than just observation. It is inclusive of restriction, restraint and engagement to prevent, ameliorate falls or physically stop a person from ingesting inedible objects (Pica).

Within care settings for older people in the UK, incidents of actual or risk of falls are a cardinal reason for 1-1 support interventions.

There is no question that falls are a significant cause of injury to older people. For those with cognitive impairment, evidence indicates that the incidence of falls within community-based settings (including care homes) is twice that of older people who are cognitively intact according to a study by Taylor et al (3).

As clinicians who evaluate the function and need of 1-1 support within care settings, it is our experience that over the last four years, the risk of falls, as the primary reason for 1-1 support, has accounted for more than 79% of requests and applications for funding.

When the risk of falls is combined with other behaviours (e.g. wandering or aggression) this can rise significantly the number of applications/reasons for 1-1 support within care and residential settings.

The aim of this paper is to explore approaches to falls by examining current national guidance around best practice for managing falls in people with cognitive impairment investigate whether there is evidence of innovative practice internationally, but also challenging the often erroneous belief that 1-1 support is the most appropriate and least restrictive intervention to manage falls. It also aims to explore the fact that much of the guidance provided by NHS England and other august bodies on falls in older people with cognitive impairment is both limited and virtually unexplored.

Finally the authors will strive to identify interventions tailored to provoke discussion around alternative models that may improve practice, protect the person's right to freedom and ensure interventions are person centred care.

## Introduction

Preventing and managing falls within health and social care settings presents a massive challenge today and with an ageing population in the western world. And the forecast is not positive. Within the National Institute for Clinical Excellence (NICE) Quality Standard (statement 2), There are over 400 risk factors associated with falling, and the risk of falling appears to increase with the number of risk factors. (4)

According to a Guideline scope by the NICE, between 2019 and 2020 there were approximately 234,800 emergency hospital admissions in England related to falls among people aged 65 and over with those aged 80 and over accounting for 67% of these admissions (5).

The evidence internationally is just as bleak. Within European countries falls resulting in death from injuries for those aged over 65 years was eight times higher than for persons aged under 65 years. (6)

The World Guidelines for falls prevention and management for older adults (7) established a steering committee and worldwide multidisciplinary group of experts and stake holders – including older adults with the aim of creating a set of expert consensus and evidence based falls prevention and management recommendations that are applicable to older adults for use by healthcare and other professionals that include:

- A person-centred approach
- Gaps in previous guidelines
- Recent developments in e-health
- Implementation across locations with limited access to resources such as low- and middle income countries

Despite such a monumental project and supplementary paper consisting of no fewer than 57 authors the issue of addressing falls amongst people with cognitive impairment struggles to support carers of this growing demographic with clear action plans. However we will return to this document later within this paper.

**Current situation in England**

Guidance from NHS England (8) recommends that:

'Older people who present for medical attention because of a fall, or report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should be offered a multifactorial falls risk assessment. This assessment should be performed by a healthcare professional with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualised, multifactorial intervention'.

The experience of the authors, is that in dealing with more than 24 care homes directly and speaking with managers from a further thirteen homes during a number of presentations, between March 2023 and January 2024 only five of the homes were familiar with the term 'Multifactorial' risk assessment, (MFAs) and only 3 of these homes actually confirmed that they used MFAs. Of no less concern one falls team were reported to not even be familiar with what a MFA risk assessment was!

None of the NICE guidelines produced by NHS England advises using close enhanced observations (1-1 support) to prevent or reduce the risk of someone falling. (4,5,7,8).

Nevertheless the 'accepted' recommendation and resultant practice has been (and still is) that 1-1 support is prescribed and implemented as a 'catch all' (no pun intended) response that is viewed as least restrictive, and most effective.

Bearing this in mind, it is important to highlight that such a response has its own inherent impact on a person's dignity autonomy and human rights (Article 3 freedom from torture, inhuman or degrading treatment of movement, Article 5 the right to liberty and security and Article 8 respect for private and family life…' (9). Often resulting in a disturbing restriction if not complete loss of liberty as 24-hour 1-1 support is initiated. It can be argued that such an interventions is a risk averse, 'safeguarding' control measure.

**Multifactorial risk assessments (MRAs)**

Multifactorial Risk Assessments are defined as: 'An assessment with multiple components that aims to identify a person's risk factors for falling'.

NICE Guidelines (4) identify 9 areas of the person, their own medical history and environment to be assessed see below.

1. identification of falls history
2. assessment of gait, balance and mobility, and muscle weakness
3. assessment of osteoporosis risk
4. assessment of the older person's perceived functional ability and fear relating to falling
5. assessment of visual impairment
6. assessment of cognitive impairment and neurological examination
7. assessment of urinary incontinence
8. assessment of home hazards
9. cardiovascular examination and medication review.

**Does cognition impact on a person's risk of falls?**

There is evidence – both clinical and research in nature that has identified a very close link between gait – the pattern of walking a person has - which as we get older requires greater effort as we try to manage what we see against how well we can articulate our limbs to negotiate using purposeful movements. When people experience cognitive impairment there is also a decline in one's gait. These gait changes can be used as a biomarker of dementia. (10,11,12).

Montero Obasso et al (13) describes how the task of 'walking in the real world requires paying attention to various environmental features and recovering from postural perturbations (a disturbance of one's motions, walking expertise and balance) to avoid stumbles or falls. Therefore, it is not surprising that deficits in attention and executive function processes are independently associated with risk of postural instability, impairment in activities of daily living, and future falls.'

The fact is that falls associated with cognitive impairment in general and dementia in particular warrant more than the generic protocols contained within 'best practice' guidance. These are some of the major reasons why there has to be further research into using more dedicated screening measures and also into developing 'exercises' that people with significant memory deterioration, poor information retention, inability to learn from previous near falls and poverty of judgement are designed that can improve and enhance quality of independence.

Zhang et al (15) suggest that both gait assessment and cognitive assessment – with particular focus on executive function should an integral part of fall risk screenin.

Point 6 of MRA, is that part of the appraisal is to: 'Assess cognitive impairment and neurological examination'(4). However there is little cogent advice or guidance for practitioners to follow. It does not give much guidance to practitioners in terms of what to do once it is established or 'what to do next' once it is evident that the person is cognitively impaired. 'Advice' ranges from, 'Refer back to mental health team' or 'Exclusion from falls team input'. This is not a criticism. It is a symptom of a lack of cogent guidance.

Worryingly there is anecdotal evidence that some Falls Teams will advocate 1-1 support to prevent a person falling. Yet this guidance is proffered without a foundation of sound evidence and on one occasion when this was challenged with a request to provide a rationale, some homes have been advised to make this a safeguarding concern in an attempt to secure funding for 1-1 support. There is an argument that such an uncertain and almost desperate sounding set of guidance can be viewed as discriminatory to older people with cognitive impairment.

Many older people with cognitive impairment (e.g. Dementia) will present seriously different challenges compared to those people with minimal cognitive impairment. The World Guidelines for falls prevention and management for older adults (7) actually recommend screening for cognitive disorders. Testing may include the Mini Mental State Examination, The Clock Drawing Test, the Montreal Cognitive Assessment

(MoCA) or Trail Making Test Part B (TmT-B)(15,16,17,18,) and they also recommend further assessment and additional testing (full neuropsychological test battery) where indicated. What is also clear from this comprehensive set of guidelines is that they recommend the following:

- '…Recommend that routine assessment of cognition should be included as part of multifactorial risk assessment in older adults
- '…Recommend including both the adult's and caregiver's perspectives, when creating the individual falls prevention care plans for adults with cognitive impairment since this strategy has shown better adherence to interventions and outcomes.' (7)

However, whether formal testing is actually employed by assessors, surely establishing the person's mental capacity to understand, decide and act upon what is required is sufficient screening?

Within the document's discussion around falls in care homes the same authors makes a strong recommendation that care homes: 'Do not use of (sic) physical restraints as a measure for falls prevention in care homes.'

This recommendation cites a systematic review in 2012 (20) in which the authors of their paper listed physical restraints devices that should be avoided for the purpose of falls prevention include lap belts, bed rails, Posey restraints or similar chairs with tables attached or chairs/mattresses that are 'designed' to make it difficult to get out of. Including reclining chairs, water chairs, bean bags and curve edged mattresses. However it is caveated that the use of some of these items may be justified for other well – defined purposes, subject to care assessment and review when agreed with the residents or their advocates. I will come back to this moot point later within the document.

When there is a risk of falls – either based upon a falls risk assessment (FRAT), (21) previous history or part of a preventative admission procedure, 1-1 support is almost the only intervention requested by care providers.

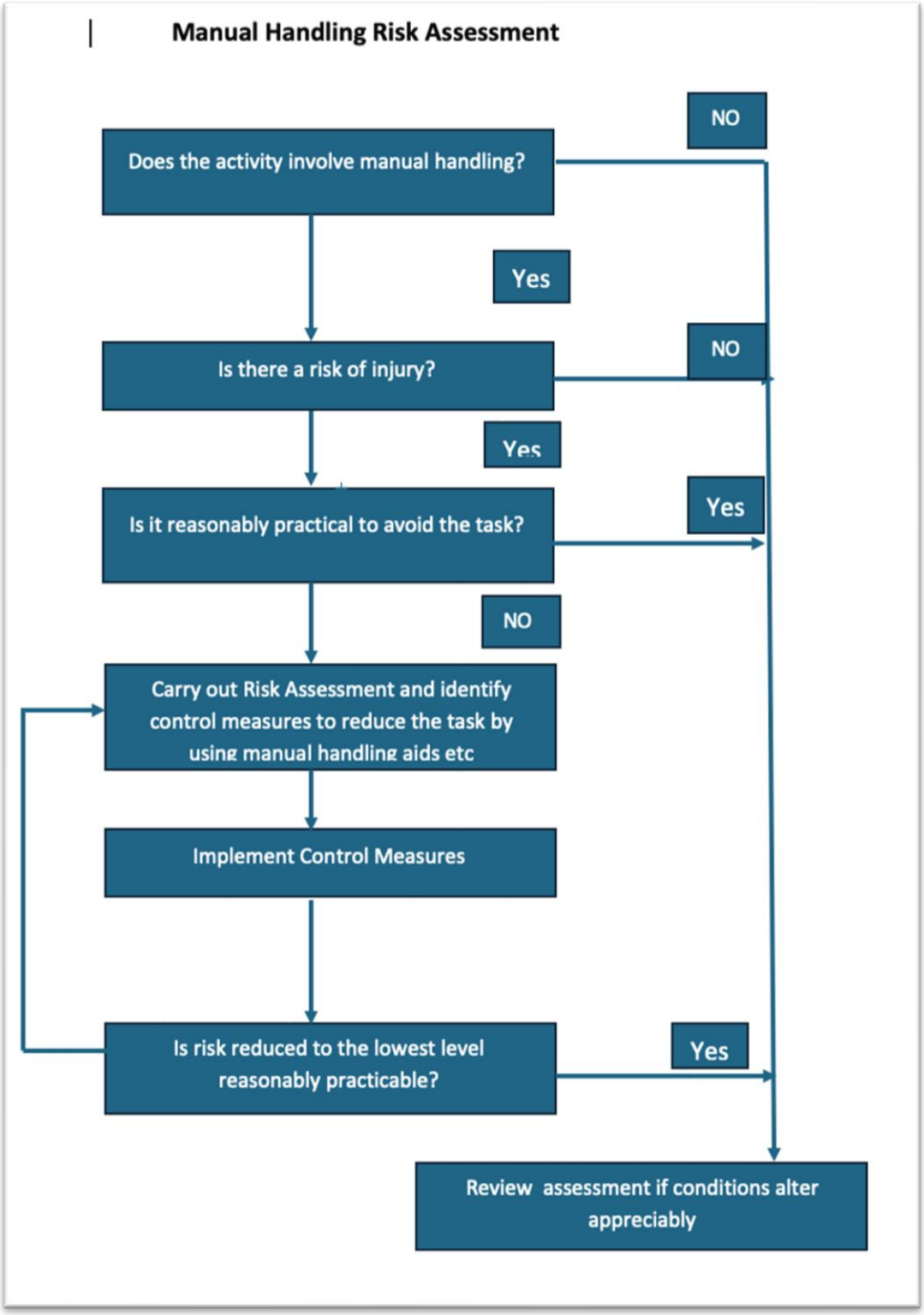
Yet one to one support – almost equivalent to Level 4 observations to prevent falls (22) whereby the person needs to be no more than at arm's length at all times, means that liberty, privacy (and ultimately dignity) are compromised. Furthermore, whether the term is close observation or enhanced observation – these terms are deceptive. Often the function of the carer is not just to observe and engage the person in therapeutic activities, it is often also to restrict, restrain or even catch a person who is falling!

Nonetheless, whilst it is often the intervention of choice for many care providers, the use of 1-1 support must be viewed with caution for the following reasons:

- 1-1 support is a restrictive and most intrusive intervention
- Excessive use of 1-1 support can also result in the person becoming isolated and then it can amount to long term segregation or de facto seclusion. (23)
- 1-1 support may also be a trigger for other behaviours that challenge, including violence towards others as the person's lack of privacy and liberty may prove to be a trigger factor violating Articles 3, 5 and 8 of the Human Rights Act 1998 (9).

Using 1-1 support to guide and assist a person at risk of falls can prove to be unsafe as there are serious concerns about how one carer, who, as mentioned previously is in effect restricting the person's freedom, but who is also guiding the person as they attempt to walk, is engaging in a dangerous and potentially unsafe moving and handling operation. Then what is being carried out is much more than just Enhanced Observation.

1 The Health and Safety Executive have attempted to provide some clarity offering guidance, stating:
2 'Having made the individual comfortable, they can determine how to move them safely – often with a mechanical aid.'
3 Whilst The Manual Handling Operations Regulations do not prohibit lifting or other forms of manual handling , they do require risks to be assessed and kept to a minimum.(24)




**The Health and Safety Executive Guidance**

The HSE also add the following information:

- 'Staff should understand the impact this may have on moving and handling practices.
- Individuals may become upset or agitated when being moved. Others, though willing to assist at the start of a manoeuvre, may find themselves unable to continue.
- Training may prevent injury arising in such circumstances.
- Properly positioned, the helper may prevent a fall or allow a controlled slide.'
- Such guidance will be predicated on the significance of the risk assessment not only of the client, but the competence of the carer also.

This then proposes a number of questions:

- Is there a correct position for staff to adopt whilst walking with a person to ensure they are able to implement fall prevention and/or a controlled fall should the need arise?
- What is the best kind of fall preventer or controlled slide the helper (carer should use) if they '… may prevent a fall or allow a controlled slide.'?

- One of the most critical recommendations from the HSE guidelines, (25) is assessing the competence and capability of their staff trying to carry out such a complex, technical high risk intervention. How is staff competence - technically but more importantly physically assessed to do this?
- According to statistics from the Health and Safety Executive (HSE) (26) there were an estimated 53,000 workers suffering from a work related musculoskeletal disorder (new or long standing), this is 19% of all injuries in health and social care.
- Of further relevance is the fact that whilst 21% of injuries are related to moving and handling activities, a further 29% of non fatal injuries are linked to slips, trips and falls… for carers.
- The HSE highlight this fact by recording: 'A natural reaction, while helping with walking, for example, is to try to prevent a fall. Injuries have occurred to both staff and the service user in such circumstances.'
- A study in the early 1980s, a paper by Kroemer, (27) highlighted the links between lifting and injury, stating "increasing numbers of injuries indicate techniques to select persons suitable for material handling need to be improved." It is reasonable to add that carers are also unprepared and poorly trained to manage falls.

In an attempt to address the disparity between lifting/restraint demands versus employee capability, the du Plessis Scale was developed (28) to assess physical competence using a scoring system. It highlights the need for employees in general and carers in particular must be screened to ensure their physical capability either to use a restrictive physical intervention or move and handle a client who is at risk of falling and is resistant to non physical guidance. Failing to address this gap between capability and requirement puts both service user and carer at risk of injury.

**Trying to prevent falls older people with cognitive impairment within care and residential settings.**

Previously we made reference to the World Guidelines for falls prevention and management for older adults: a global initiative. (7) One of their key messages, is that within care home and hospital settings *all* older adults should be considered as high risk and a standard comprehensive assessment followed by multidomain interventions should be considered.

**Multidomain interventions what do we mean?**

Multidomain interventions are about working with a person and exercising more than one component: e.g. physical and cognitive exercises.

Cognitive decline, which includes impairments in memory, attention, and executive functions, is another critical aspect affecting healthy aging. Cognitive flexibility; the ability to adapt cognitive processes in response to changing circumstances, plays a vital role in maintaining cognitive function and overall well-being in older adults [29].

Enhancing cognitive flexibility through cognitive training and engaging in intellectually stimulating physical activities, such as dual-task physical–cognitive training, may mitigate cognitive decline and consequentially reduce their risk of falling.

Libardo et al (30) cite a 'treatment paradigm that could potentially address both cognitive decline and risk of falls in Mild Cognitive Impairment is to combine physical exercise and cognitive training. Neuroplastic changes (structural and functional changes that occur in the brain in response to experiences and stimuli) in the brain may be more evident if these two interventions are integrated. Though once again seems that there is a dearth of training programmes for both health practitioners and people with more advanced or significant cognitive impairment.

## Conclusion

Unfortunately, in the author's experience such a key message from NHS England appears not to be received. The standard practice appears to be one of resorting straight to 1-1 support with little or no evidence of any kind of screening tool(s) or protocol in place.

Earlier within this paper we cited the work of Sze et al (20) which has been incorporated into the World guidelines for falls prevention and management for older adults. This one review recommends that physical restraints should not be used as a measure for falls prevention in care homes.

As authors we question the sweeping nature of this statement. The reality is that within a vacuum of effective interventions, physical restraint used correctly within a framework of best interest, correct training and regular reviewing, there *is* a place for the individualised and safe use of such an intervention. And paradoxically it can prove to be less restrictive than 1-1 support.

However it is important to note in relation Odassao et al (&), they did also state: 'Use of some of these items may be justified for other well defined purposes subject to careful assessment and review and when agreed with the resident or their advocates.' Could this include falls?

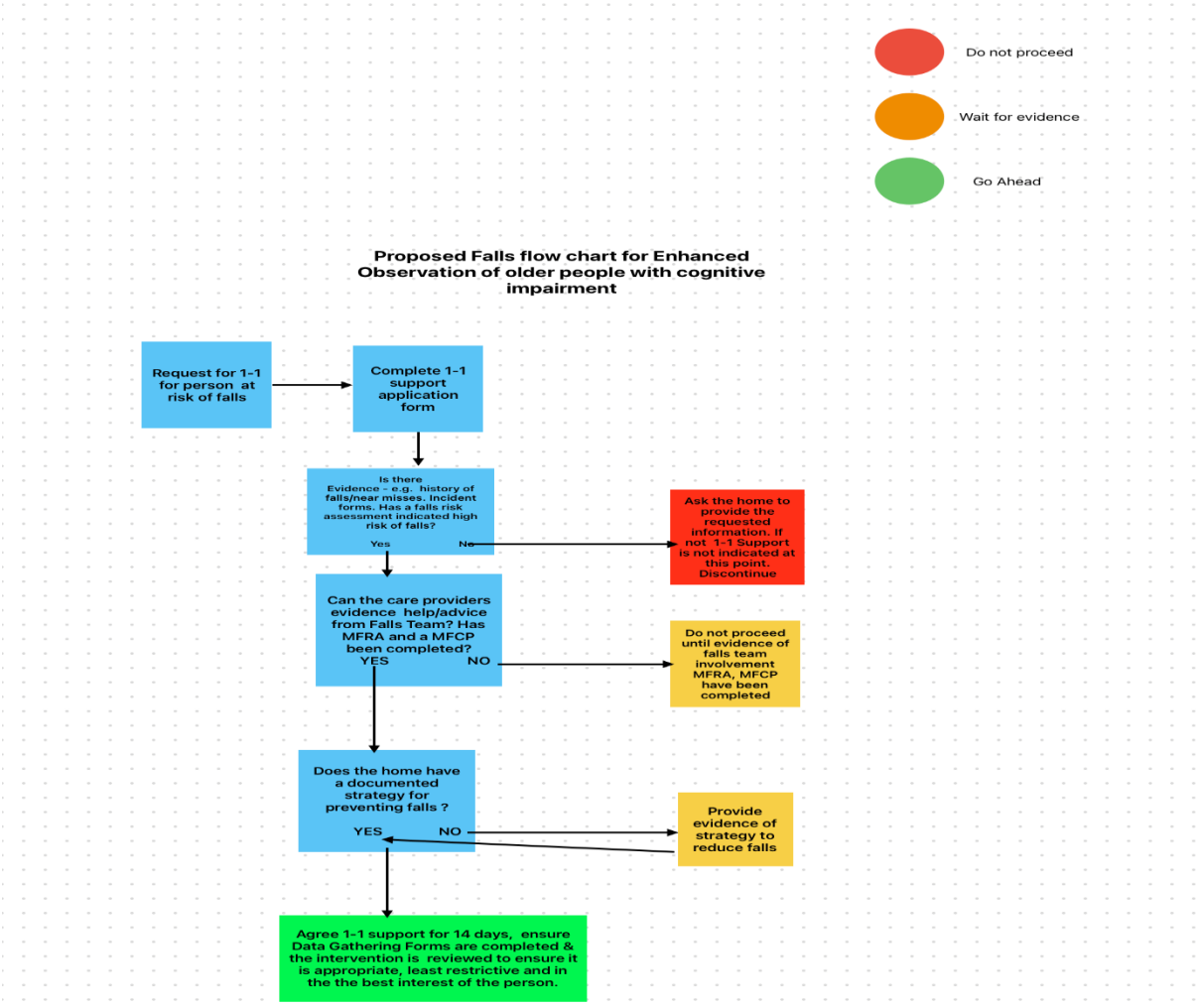
A document entitled: The practice of falls risk assessment and prevention in acute hospital settings: a realist investigation, whilst not aimed at care and residential settings, was also clear that future research on falls risk assessment and prevention includes those with cognitive impairment…' (31)

There may be a value in having 1-1 support in place for people at risk of falling, however it should never be used until all other investigations have been exhausted if it is to be a person-centred operation. The taboo of using a tilting chair or a lap strap mean that such practice is virtually 'outlawed' as being restraint, when 1-1 support is categorised almost always as less restrictive.

There are occasions when the use of reclining chairs or lap straps *are* less restrictive, isolating and more humane than 20 hours of close enhanced observations, specialling, sitting or 1-1 support. Our starting position for this paper was that almost all guidance, support and literature was (and still is) geared towards people without a cognitive impairment. Those people with a cognitive impairment need more evidence-based support to enable carers and even falls specialists alike to avoid the worrying restrictive 'panacea' that insists enhanced observation in the form of 1-1 support is *always* the least restrictive plan of action for people with cognitive impairment who are at risk of falls.

## Case Study

Cynthia is 74 years old and is living with dementia. There have been a number of incidents when she has tried to stand up from her chair and walk. Unfortunately, she is unable to mobilize once she is standing up. She has previously fractured her femur. The home has requested 1-1 support to protect her from falling. To achieve this, aim the home stated that the observing staff will persuade Cynthia to stay in her chair. Cynthia's dementia is such that she cannot process instructions and therefore will not heed the advice. This results in her trying to stand on average of 20 to 30 times per day. The falls team advised the use of 16 hours 1-1 support to prevent her falling. This means that a member of staff will sit within touching distance of Cynthia for 16 hours.
Or…Cynthia is in a tilt back chair with a lap strap. She is being restrained. She cannot get out of the chair. However, every hour two members of staff take Cynthia out of the chair and take her for a 'walk' or time in her wheel chair for 10 minutes. This allows for Cynthia to be subject to general observations and enjoy some privacy.
Which is the less restrictive plan?

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