

In Hospital falls prevention '101'

Mark Pratt
CNC
Dementia/Delirium
Northern Beaches
Health Service



Introduction

- Why don't falls risk assessment tools do what they say they will?
- Why cognition is a bigger risk factor than we realise.
- What can we do to reduce the risk of a patient falling?

Falls Risk Assessment Tools

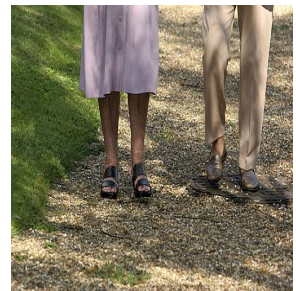
- **Ontario STRATIFY**

- **Devised at St Thomas' Hospital, London**
- **Amended in Ontario, Canada**
- **Most researched and validated tool and is the best of a 'bad bunch' (Oliver and Healey 2009)**
- **Only has 91% sensitivity – patients who are at a high risk of falling; and**
- **60% specificity – patients who are identified as high risk but do not fall**

Papaloannou et al (2004). Oliver et al. (2006)

Cognition

- Older people may lack the neural processing resources required for swift multitasking.
Melzer and Oddsson (2004)
- This means that a sudden change in surface can cause a fall, as the person may react too slowly.



Concept of dual tasking

- Hausdorff et al (2006) found that people who fell, performed poorly in tests of executive function, attention and motor skills.



Executive Function

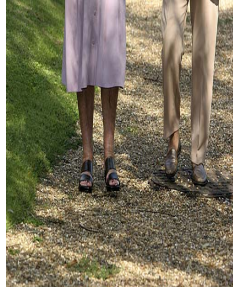
- Incorporates information from posterior cortices to allow initiation or intention of action, planning, use of working memory and attention (Sheridan et al 2003)



Executive Function

- Allows the person to estimate, plan and make real time adjustments when carrying out an activity, such as walking.

(Hausdorff et al 2005)



Attention

- Three types of attention:
 - **Selective** – focus on single, relevant stimulus whilst ignoring irrelevant stimuli.
 - **Sustained** – maintain focussed attention over a prolonged period of time.
 - **Divided** – focus on several relevant stimuli simultaneously.

Motor Skills

- “Walking may be the lower limb equivalent of rhythmic finger tapping”.

- Study found that walking is actually more like catching.

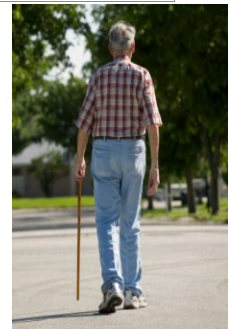
Hausdorff et al (2005)



Executive function and gait

- Executive function is significantly correlated with gait variability during dual tasking, but not during normal walking.

Yogev et al (2005)



Acute care and falls

- We haven't moved very far from here.
- Bed areas getting smaller, more like obstacle courses.
- Need a lot of cognition to manoeuvre.



What can we do?

- Don't rely on Ontario Stratify, need to concentrate on modifiable risk factors.
- Don't rely on MMSE to assess cognition as a risk factor for falling, need to use tests of executive function and dual tasking such as Clox I and Clox II or Trail Making Test .
- Don't rely on timed up and go alone, need to add in cognitive test.
- Minimise obstacles around the wards.

Questions



References

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