

**Designing forms to prompt action and improved outcomes in falls prevention.**

Prepared by Mandy Harden

Hunter New England Health

Presented at:

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# **Human Factor Principles**

**Application of those principles that relate to the interface of humans with their natural, residential, recreational, and vocational environments and the procedures, practices, and design considerations that increase a human's performance and safety at those interfaces**

HUMAN FACTORS AND ERGONOMICS SOCIETY CODE OF ETHICS. USA. 2005





**The design of an  
object should reveal  
how it is to be used**



## **Our Human Factor Experience**

- RCA for SAC 1 in Residential Care
- AHS Review Committee and Clinical Excellence Commission



## Problems Identified:

Falls assessment forms were either:

- not used
- used but strategies not implemented

Forms need to include a three tier zoning:

- a yellow and red zone (e.g. SAGO)

FRAT section **did** include a Red Zone

Process was:

- passive in nature
- do not force an action/outcome by the user





## **10 Risk Identified Domains**


- Falls
- Medication
- Psychological / Cognition
- Sensory Impairment
- Mobility / Balance
- ADLs
- Environment
- Nutrition
- Continence
- Acute / Chronic Conditions



## **10 Risk Identified Domains**

- **Acute / Chronic Conditions**
- **Falls**
- **Medication**
- **Cognition / Psychological**
- **Mobility / Balance**
- **ADLs**
- **Continence**
- **Environment**
- **Sensory Impairment**
- **Nutrition**




Risk Identified	Problem	Action required	Goal	Noted in care plan and initial
<b>Mobility Balance</b>	<ul style="list-style-type: none"> <li>•Mobility or balance problem</li> <li>•Unsafe transfer</li> <li>•Difficulty with upright postures in bed, chair, standing or walking</li> <li>•Foot problems present: ie corns, bunions, pain, loss of sensation</li> <li>•Poor fitting footwear</li> <li>•Pain</li> <li>•Artificial limbs</li> <li>•Reduced lower extremity strength and balance</li> <li>•Uses a mobility aid</li> <li>•Independent for mobility or transfers</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Refer to VMO</li> <li><input type="checkbox"/> Refer to physiotherapist for assessment</li> <li><input type="checkbox"/> Refer to podiatrist for assessment</li> <li><input type="checkbox"/> Footwear assessment, check, plan</li> <li><input type="checkbox"/> Walking aids appropriate and accessible</li> <li><input type="checkbox"/> Supervise walking / assistance with transfers</li> <li><input type="checkbox"/> Advise on wearing of hip protectors</li> <li><input type="checkbox"/> Lifter – standing or sling</li> <li><input type="checkbox"/> Refer for pain assessment and management</li> <li><input type="checkbox"/> Optimise nutrition and fluid intake</li> <li><input type="checkbox"/> Other:</li> </ul>	Optimise residents full potential with mobility and enablement	





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- Mobility or balance problem
- Unsafe transfer
- Difficulty with upright postures in bed, chair, standing or walking
- Foot problems present: ie corns, bunions, pain, loss of sensation
- Poor fitting footwear
- Pain
- Artificial limbs
- Reduced lower extremity strength and balance
- Uses a mobility aid
- Independent for mobility or transfers

Risk Category	√ Problem
<b>Mobility Balance</b>	<input type="checkbox"/> Inappropriate use of a mobility aid <input type="checkbox"/> Unsafe when mobilising <input type="checkbox"/> Unsafe balance <input type="checkbox"/> Unsafe when transferring <input type="checkbox"/> Difficulty with upright postures in bed, chair, standing or walking <input type="checkbox"/> Reduced strength or muscle tone: <ul style="list-style-type: none"> <li><input type="checkbox"/> Lower extremity</li> <li><input type="checkbox"/> Upper extremity</li> </ul> <input type="checkbox"/> Poor fitting footwear  <input type="checkbox"/> Foot problems present: i.e. corns, bunions, pain or loss of sensation <input type="checkbox"/> Pain: joint, bone, muscle <input type="checkbox"/> Artificial limb(s)



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- Refer for pain assessment and management
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- Other:

Risk Category	Action required
<b>Mobility Balance</b>	<p><b>Document into Care Plan:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mobilisation strategies &amp; supervision</li> <li><input type="checkbox"/> Use of lifter &amp; sling</li> <li><input type="checkbox"/> Advice provided to resident/family about safe footwear</li> </ul> <p><b>Referred to RN/Physiotherapist for:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Assessment of walking aids</li> <li><input type="checkbox"/> Assessment of fit of artificial limb(s)</li> <li><input type="checkbox"/> Development of an individualised physical activity program</li> <li><input type="checkbox"/> Referred to RN/Podiatrist for assessment of feet and footwear</li> <li><input type="checkbox"/> Referred to VMO for medical assessment and management of pain</li> <li><input type="checkbox"/> Information and order form provided to resident/family for purchase of Hip protectors</li> <li><input type="checkbox"/> Equipment provided documented on mobility care plan</li> </ul>





Risk Category	√ Problem	Action required
<b>Mobility Balance</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Inappropriate use of a mobility aid</li> <li><input type="checkbox"/> Unsafe when mobilising</li> <li><input type="checkbox"/> Unsafe balance</li> <li><input type="checkbox"/> Unsafe when transferring</li> <li><input type="checkbox"/> Difficulty with upright postures in bed, chair, standing or walking</li> <li><input type="checkbox"/> Reduced strength or muscle tone:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Lower extremity</li> <li><input type="checkbox"/> Upper extremity</li> </ul> </li> <li><input type="checkbox"/> Poor fitting footwear</li> <li><input type="checkbox"/> Foot problems present: i.e. corns, bunions, pain or loss of sensation</li> <li><input type="checkbox"/> Pain: joint, bone, muscle</li> <li><input type="checkbox"/> Artificial limb(s)</li> </ul>	<p><b>Document into Care Plan:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mobilisation strategies &amp; supervision</li> <li><input type="checkbox"/> Use of lifter &amp; sling</li> <li><input type="checkbox"/> Advice provided to resident/family about safe footwear</li> </ul> <p><b>Referred to RN/Physiotherapist for:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Assessment of walking aids</li> <li><input type="checkbox"/> Assessment of fit of artificial limb(s)</li> <li><input type="checkbox"/> Development of an individualised physical activity program</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Referred to RN/Podiatrist for assessment of feet and footwear</li> <li><input type="checkbox"/> Referred to VMO for medical assessment and management of pain</li> <li><input type="checkbox"/> Information and order form provided to resident/family for purchase of Hip protectors</li> <li><input type="checkbox"/> Equipment provided documented on mobility care plan</li> </ul>

Risk Category	√ Problem	Action required
<p>Three or more problems with an * per risk category requires commencement of fall alert strategy</p>		
<p><b>Mobility Balance</b></p>	<p><b>Automatic high risk falls: - implement fall alert strategy if</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inappropriate use of a mobility aid</li> <li><input type="checkbox"/> Unsafe when mobilising</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> *Unsafe balance</li> <li><input type="checkbox"/> *Unsafe when transferring</li> <li><input type="checkbox"/> *Difficulty with upright postures in bed, chair, standing or walking</li> <li><input type="checkbox"/> *Reduced strength or muscle tone:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Lower extremity</li> <li><input type="checkbox"/> Upper extremity</li> </ul> </li> <li><input type="checkbox"/> *Poor fitting footwear</li> <li><input type="checkbox"/> Foot problems present: i.e. corns, bunions, pain or loss of sensation</li> <li><input type="checkbox"/> Pain: joint, bone, muscle</li> <li><input type="checkbox"/> Artificial limb(s)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Commence Fall Alert Strategy – see Part 1 FRAT on page 1</li> </ul> <p><b>Document into Care Plan:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mobilisation strategies &amp; supervision</li> <li><input type="checkbox"/> Use of lifter &amp; sling</li> <li><input type="checkbox"/> Advice provided to resident/family about safe footwear</li> </ul> <p><b>Referred to RN/Physiotherapist for:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Assessment of walking aids</li> <li><input type="checkbox"/> Assessment of fit of artificial limb(s)</li> <li><input type="checkbox"/> Development of an individualised physical activity program</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Referred to RN/Podiatrist for assessment of feet and footwear</li> <li><input type="checkbox"/> Referred to VMO for medical assessment and management of pain</li> <li><input type="checkbox"/> Information and order form provided to resident/family for purchase of Hip protectors</li> <li><input type="checkbox"/> Equipment provided documented on mobility care plan</li> </ul>



**I hope this will help you when:**

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## **QUESTIONS**

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