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Falls prevention in the elderly

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Greetings



from Australia



Falls- Size of problem

- Sixth leading cause of death in older people
- Each year affects 30% of people over 65 and 50% of over 80
- Repeated falls and half with multiple falls
- Common cause for nursing home



Why prevent falls?

Lots of people fall:

At home

In hospitals & institutions

In public places

A range of injuries-most fractures due to falls but not all falls lead to fractures

Can lead to:

Loss of confidence & Quality Of Life

greater disability, Death

**(AN INTEGRAL PART OF GOOD
GERIATRIC CARE)**



Risk factors

Intrinsic:

- ✓ history of falls
- ✓ CVA
- ✓ Parkinson's disease
- ✓ visual status – acuity, depth perception
- ✓ hearing
- ✓ Gait-quad strength
- ✓ Balance-postural sway

- ✓ transfer ability
- ✓ cognition
- ✓ dizziness
- ✓ sedentary

Extrinsic:

- ✓ *Footwear*
- ✓ *Medication*
- ✓ *Environment*



Falls assessment

- History of fall circumstances
- Medication history
- Assessment of acute or chronic medical problems and mobility levels
- Examination of vision, gait, balance, lower extremity joint function



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- Neuro-mental status, muscle strength, lower extremity peripheral nerves, proprioception, reflexes, cortical, extrapyramidal and cerebellar functions
- CVS- heart rate, rhythm, postural pulse and BP
- if appropriate, HR/ BP responses to carotid sinus stimulation



Investigations

- FBE, U&E, TFTs, FBG, Vitamin B12 (often missed, muscle weakness and peripheral neuropathy)
- MRI, CT (CNS),
- cardiac monitoring (for antiarrhythmics or pacemakers)
- vestibular testing rarely indicated

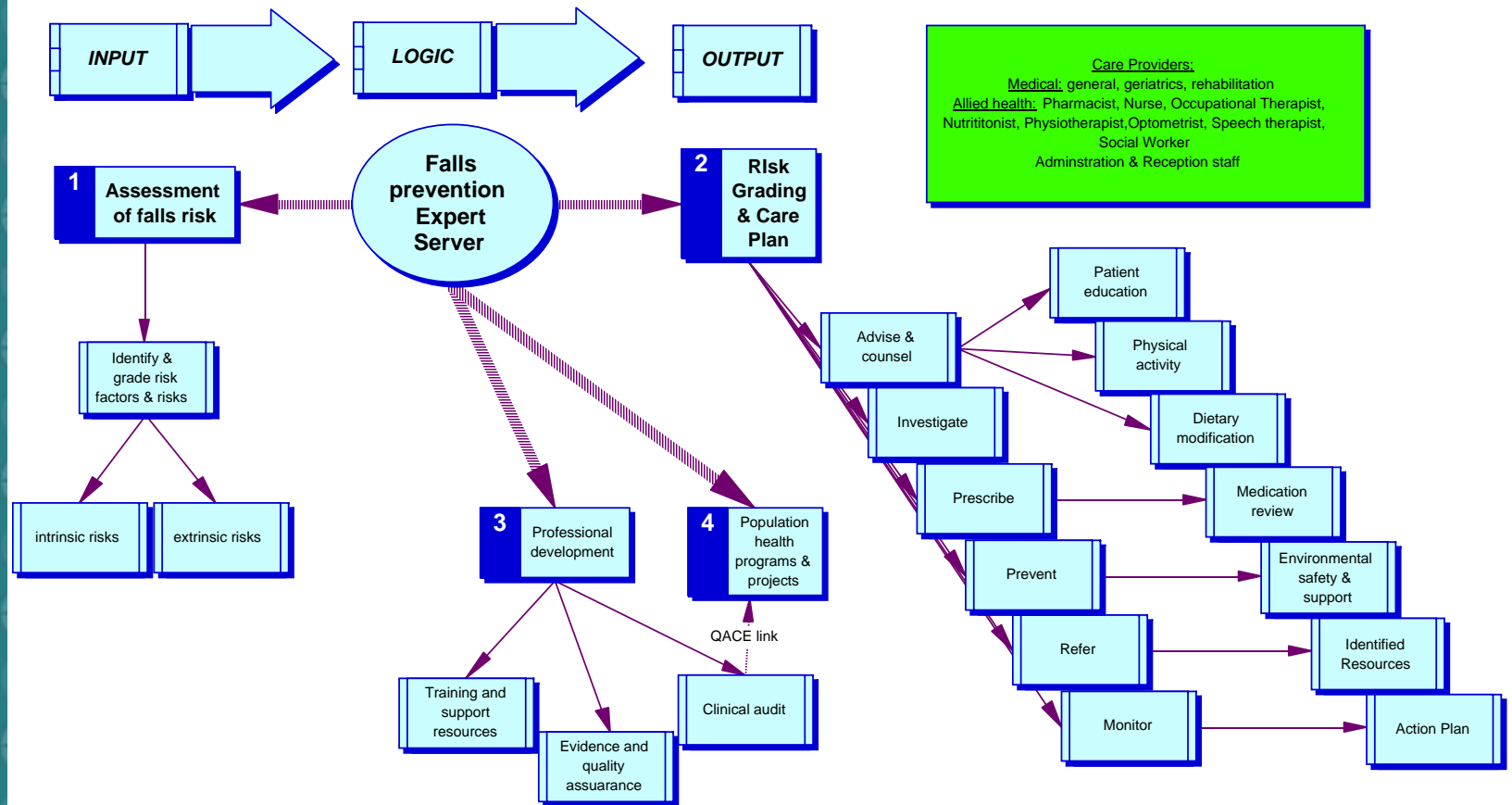


Management

- ❖ Medication adjustment (numbers vs types)
- ❖ Improving gait and balance (tai chi)
 - Improving postural BP, (medications, stockings, getting out of bed slowly 20 sec-15 min)
 - Muscle strength training
 - Visual care
 - Footwear-low heel, thin sole
 - Modifying environmental hazards (mats, lighting)

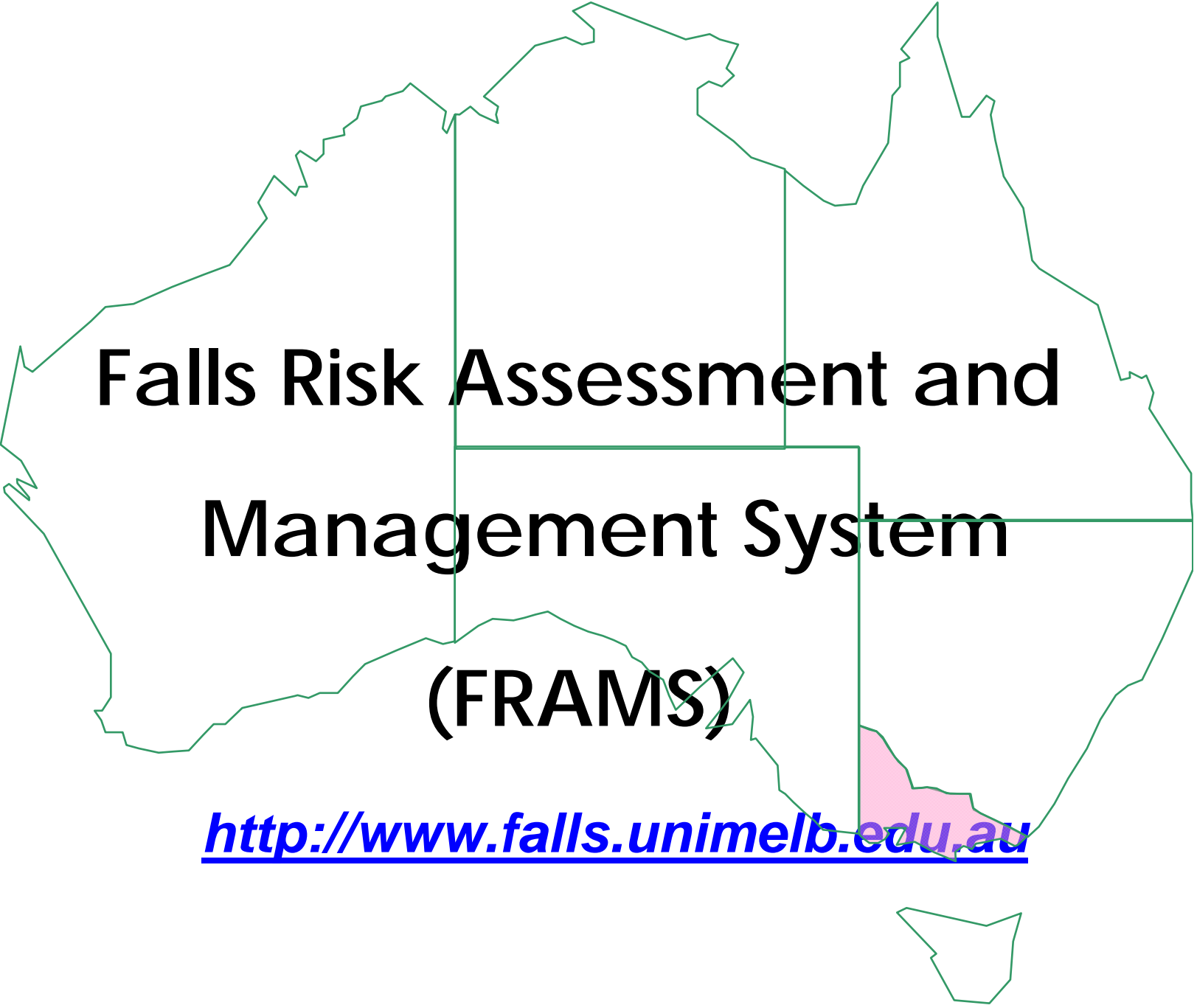


Evidence-based management





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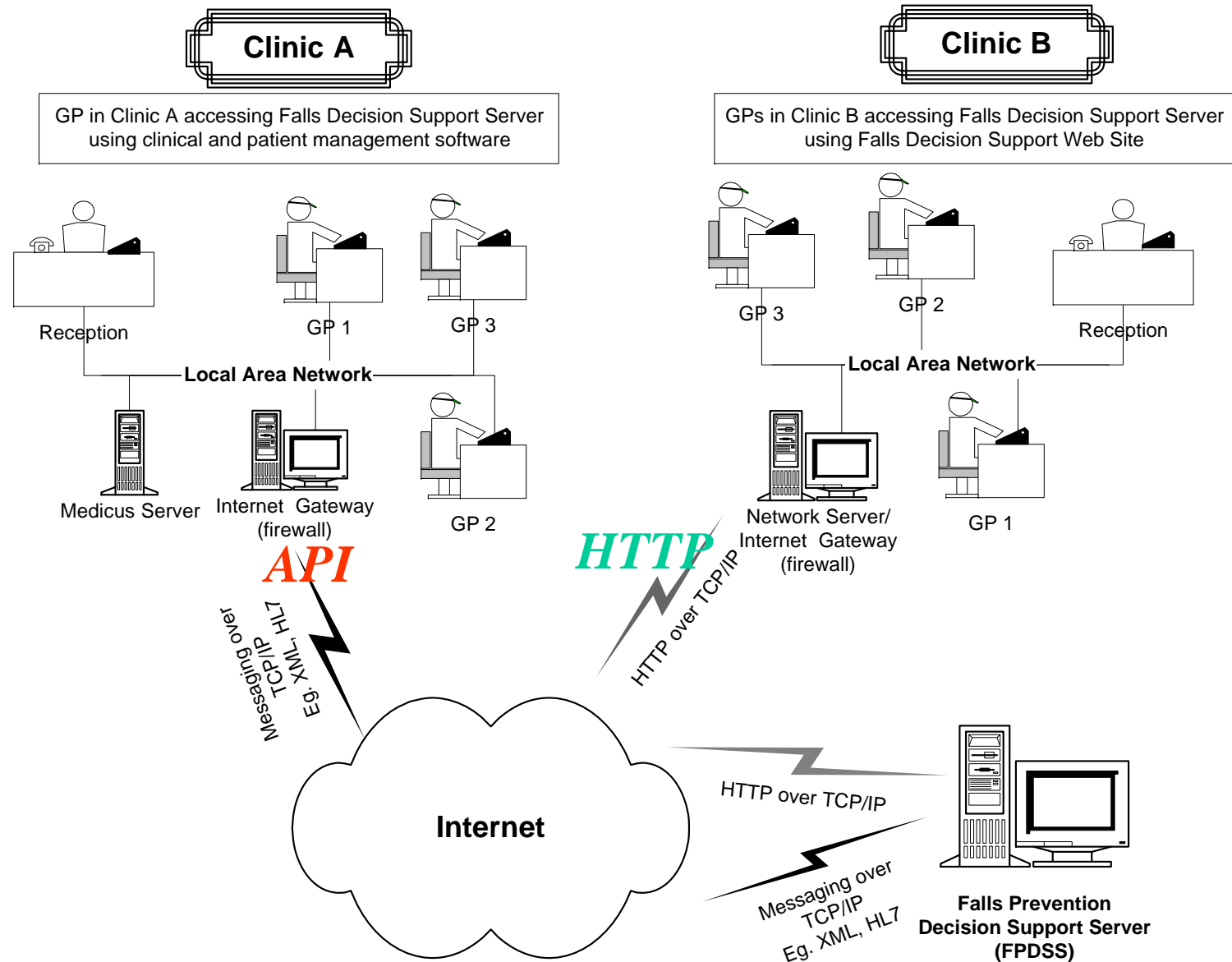
Falls Risk Assessment and Management System (FRAMS)

<http://www.falls.unimelb.edu.au>



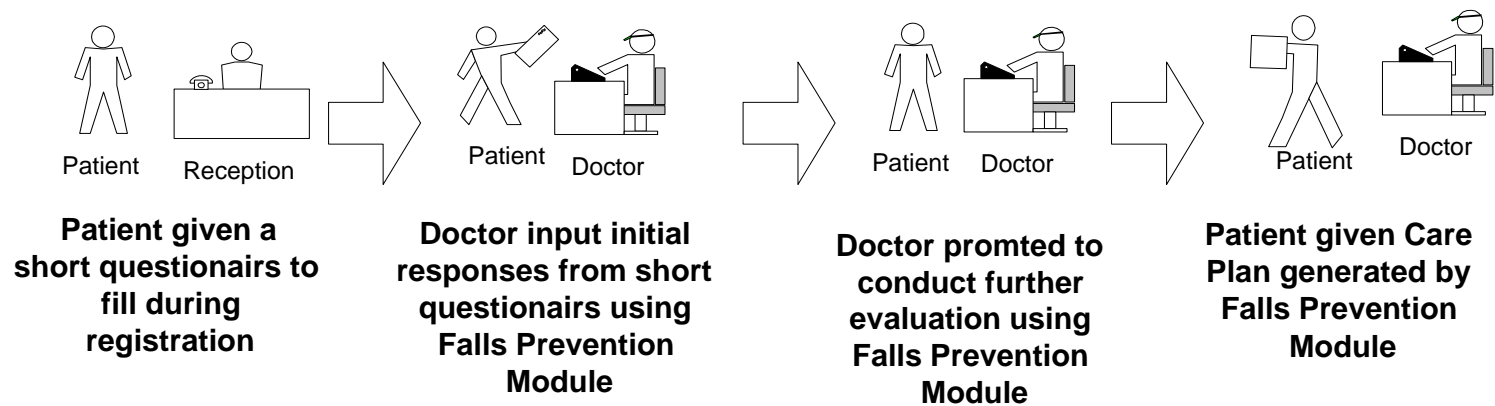
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Typical Clinical Setup for Accessing Falls Prevention Decision Support Server over the Internet





Workflow



Work Flow for use of Falls Prevention Module



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Screening questionnaire

Question	Your Responses	Grading (Nurse to complete score)										
What is your age (years) and gender?	<table border="0"> <tr> <td>.. <u>Female</u></td> <td>.. <u>Male</u></td> </tr> <tr> <td>.. less than 65 years</td> <td>.. less than 65 years</td> </tr> <tr> <td>.. 65-80 years</td> <td>.. 65-74 years</td> </tr> <tr> <td>.. 81-89 years</td> <td>.. more than 75 years</td> </tr> <tr> <td>.. more than 90 years</td> <td></td> </tr> </table>	.. <u>Female</u>	.. <u>Male</u>	.. less than 65 years	.. less than 65 years	.. 65-80 years	.. 65-74 years	.. 81-89 years	.. more than 75 years	.. more than 90 years		[0] [1] [2] [3]
.. <u>Female</u>	.. <u>Male</u>											
.. less than 65 years	.. less than 65 years											
.. 65-80 years	.. 65-74 years											
.. 81-89 years	.. more than 75 years											
.. more than 90 years												
Have you had any falls in the last 12 months?	<ul style="list-style-type: none"> .. None in 12 months .. 1 in the last 12 months .. 2 –3 in the last 12 months .. 4 or more in the last 12 months 	[0] [1] [2] [3]										
Do you have any of the following conditions?	<ul style="list-style-type: none"> .. Stroke .. Parkinson’s Disease .. Arthritis .. Dementia .. Heart condition .. Other conditions affecting your balance or walking 	<i>Number of conditions</i> nil [0] 1-2 [1] 3-4 [2] >4 [3]										
How many different types of medications do you take?	<ul style="list-style-type: none"> .. No medications .. 1 –2 medications .. 3 medications .. 4 or more medications 	[0] [1] [2] [3]										
Do you have any difficulties with your eyesight or hearing?	<ul style="list-style-type: none"> .. No difficulty (does not limit activities at all) .. Mild difficulty (mild limitation of activities) .. Moderate difficulty (moderate limitation of activities) .. Marked difficulty (markedly limits activities) 	[0] [1] [2] [3]										
Do you have any difficulties or unsteadiness when standing up, walking, or turning?	<ul style="list-style-type: none"> .. No difficulty or unsteadiness .. Mild difficulty or unsteadiness .. Moderate difficulty or unsteadiness .. Marked difficulty or unsteadiness 	[0] [1] [2] [3]										





Mr JH aged 71 years

- Retired Parks and Wildlife Officer and lives with his wife
- He loves gardening and has, over the years, constructed various pathways, which can be a little worn and ragged.
- Had a fall in the garden.
- Osteo-arthritis in his knees and hips.
- His knees sometimes give way on uneven ground and over the last three months he has stopped taking his dog for walks, as he feels unsafe.



Mr JH aged 71

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Falls Prevention Decision Support

Short Diagnostics

Patient ID/Name Age Male Female

Frequency of falls over last 12 months

None

1 time

2 -3 times

at least 4 times

Have any of the following medical conditions ?

None

Stroke

Parkinson's Disease

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Mr JH aged 71

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Stroke

Parkinson's Disease

Arthritis

Dementia

Heart condition

Other conditions affecting your balance or walking

Number of Current Medications ?

No Medication

3 medications

1 - 2 medications

4 or more medications

Difficulties with eyesight, feeling in legs, or dizziness ?

No difficulty (does not limit activities at all)

Moderate difficulty (moderate limitation of activities)

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Mr JH aged 71

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4 or more medications

Difficulties with eyesight, feeling in legs, or dizziness ?

- No difficulty (does not limit activities at all)
- Moderate difficulty (moderate limitation of activities)
- Mild difficulty (Mild limitation of activities)
- Marked difficulty (marked limits activities)

Any difficulties or unsteadiness when standing up, walking, or turning ?

- No difficulty or unsteadiness
- Moderate difficulty or unsteadiness
- Mild difficulty or unsteadiness
- Marked difficulty or unsteadiness

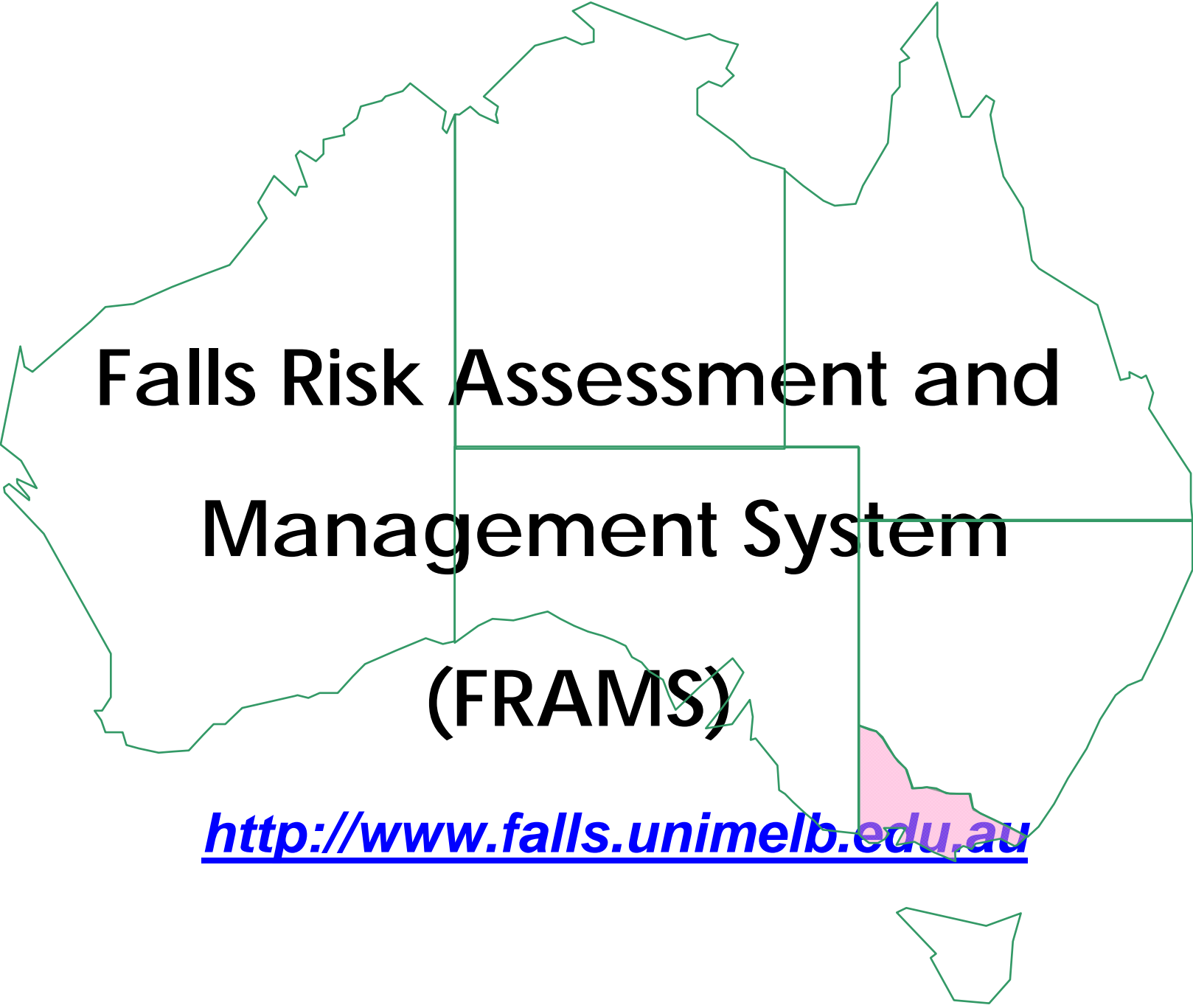
Suggest Action Plan [Next](#)

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Falls Risk Assessment and Management System (FRAMS)

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Thank you