Falls Injury Prevention in Residential Aged Care: How can we translate strategies into effectiveness.

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Falls Injury Prevention in RACF

• Project hypothesis
  – That the employment of a project officer to assist residential aged care facilities to implement an evidence-based multi-factorial strategy to reduce falls injuries would reduce the number of hip fractures.
  – The bedday savings to the Area Health Service would make the on-going employment of the project officer cost-effective.
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- Profile of intervention and control group

- 98 facilities
  6 too small
  4 declined

  ➔ 88 for randomisation

- Balance rural and urban

- Balance bed numbers

- Balance bed types

<table>
<thead>
<tr>
<th>Combinations</th>
<th>Total number of facilities</th>
<th>Total in intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>High care + dementia specific</td>
<td>25</td>
<td>13</td>
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<tr>
<td>High and low care only</td>
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<td>5</td>
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<tr>
<td>High and low care + dementia specific</td>
<td>11</td>
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<tr>
<td>Low care + dementia specific</td>
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<tr>
<td>Low care only</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88</strong></td>
<td><strong>46</strong></td>
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</tbody>
</table>
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- Results:
- 5,388 residents at the census followed for almost 1½ years (Feb 2006 – July 2007)
- 221 fell with fractured neck of femur in the observation period
  - = 147 per year
  - = 27 per 1000 beds per year
  - Around what was expected per year = 150
  - 28 per 1000 beds per year
- 5% fell within 90 days of their first admission.
- No difference between intervention and control with respect to number of #NOF overall.
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- Reasons for failure to reduce hip fractures
  - Cross contamination between intervention and control groups
  - Short duration of intervention
  - Failure to increase use of strategies
    - medication reviews
    - confusion about calcium
  - Ineffectiveness of strategies
    - hip protectors
  - High number of people with dementia
  - Inability of staff to allocate resources - time
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Hip Protectors
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Vitamin D
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Medication Reviews

"The problem is that you're overmedicated. Luckily there are drugs that can help with that."
Safe Footwear

- Footwear older people wear in health care facilities should be assessed as part of pre-admission screening & on admission.
- Residents should have their footwear reviewed at regular intervals.

- The shoe should have the following features:
  - **Safe Feature**
  - **Foot**
    - Low & broad (<2.5cm)
    - Straight through sole
    - Firm heel collar to provide support
  - **Sole**
    - Cushioned, flexible, non-slip
  - **Weight**
    - Lightweight
  - **Tie box**
    - Adequate width, depth & height for natural spread of toes
    - One centimetre space between longest toe and end of shoe
  - **Upper**
    - Smooth seam-line
  - **Safety**
    - Protected feet from injury
  - **Shape**
    - Same shape as feet, without causing pressure or friction on the foot
  - **Purpose**
    - Appropriate for the activity being undertaken
  - **Orthoses**
    - Comfortably accommodating orthoses
  - **Podiatrist or physiotherapist advice**

Only after Cinderella decided to leap the last five steps, did she remember that she was wearing glass slippers.
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Post Fall Review
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• National implications
  – Need a palatable calcium for older people
  – Need a high dose vitamin D
  – More effective system of medication reviews
  – Advice on hip protectors
    • durability, cost, effectiveness
  – Special funding for ACFs to provide resources for falls injury prevention programs for ‘high risk falls'
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- State implications
  - Consider funding a longer trial
  - Fund Liaison Nurses to work with ACFs on:
    - falls injury prevention
    - advance care planning
    - hospital avoidance programs
    - post-acute and acute care in ACFs
    - discharge planning to ACFs
    - end of life care
    - care of terminal dementia
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• Area Health Service implications
  – Employment of full-time project officer not justified
  – RACF Falls Injury Prevention Network to meet by telephone regularly to encourage programs
  – Liaison Nurse to include Falls Injury Prevention in role responsibility and coordinate Network
  – Health Service to identify patients from ACFs with neck of femur fractures
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Takes co-operation from the team