Effectiveness of service provision in reducing risk of falls in people with visual impairment.

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Background and drivers

• Older people with visual impairment are more likely to fall than their fully sighted counterparts (Dhital et al 2010).
• Age-related macular degeneration (ARMD) is the most common cause of VI in older adults and has been attributed to an increase in falls risk (Szabo et al 2010).
• National Institute Health and Clinical Excellence (2013) identifies visual impairment as a specific risk factor for falls in older people.
• The Royal National Institute for Blind People has Eye Care Liaison Officers (ECLOs) who work directly with those newly diagnosed with visual impairment.

Study Purpose

To establish if the ECLLO service, as an existing resource and having direct contact with individuals with ARMD, could reduce falls incidence by providing specific falls prevention information.

Study Design

Design: A randomised control trial
Setting: out-patient macular clinic in a large city hospital
Participants: consenting adults with a diagnosis of age-related macular degeneration attending clinic (total number recruited 62)

Method

All Participants: 50% Random Allocation
- Control Group (n=31)
- Intervention group (n=32)
- Usual ECLLO service
- Enhanced ECLLO service - falls prevention advice and RNIB literature
- All Participants: 6 month completion of falls calendar and monthly telephone calls

Results

Falls

- 41% reported falls and near falls
- Total of 12% falls and near falls recorded
- 72% reported falls and near falls
- 328 falls and near falls recorded

Of total fallers, 84% experienced frequent falls. A total of 453 falls and near falls reported throughout the study period. Overall, 60.3% of adults with ARMD experienced a fall and/or near fall.

Falls Characteristics

Location of Falls

<table>
<thead>
<tr>
<th>Activity</th>
<th>60% of Falls</th>
<th>10% of Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>In home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indoors  community/shops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoors community (church, road, pavement)</td>
<td></td>
<td></td>
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</tbody>
</table>

Activity before total falls

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>5 (33%)</td>
</tr>
<tr>
<td>Bending</td>
<td>10 (67%)</td>
</tr>
<tr>
<td>Turning</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Standing on one leg</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Rising sitting, reaching plate</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Rising sitting, reaching</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Reaching</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Resisting</td>
<td>1 (6%)</td>
</tr>
</tbody>
</table>

Perceived cause of falls

Environmental (42%) (trips on unexpected items and objects e.g. furniture, steps and stairs) and loss of balance (36%). Only 2% of fallers attributed cause to their eyesight.

Conclusion/Discussion

• high falls incidence in individuals with ARMD
• significantly higher falls incidence in intervention group - more falls reported by the intervention group. Further exploration of ECLLO role in falls prevention is required.
• need for close working links between falls services and visual services, including clear referral pathways.
• health professionals working in falls setting, need to be visually aware, understanding the link between VI and falls, ensuring interventions are focused on evidence-based risk areas.

REFERENCES

National Institute Health and Clinical Excellence (2013)
Assessment and prevention of falls in older people. National Clinical Guideline 161: NICE.