Does Comprehensive Geriatric Assessment have a role in Care Homes?

Adam Gordon
Consultant & Honorary Associate Professor in Medicine of Older People
Division of Rehabilitation & Ageing, University of Nottingham
E-mail: adam.gordon@nottingham.ac.uk

adamgordon1978
This presents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research funding scheme (RP-PG-0407-10147).

The views expressed in this presentation are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.
The Care Home Workstream Researchers

Isabella Robbins
Pip Logan
Jane Dyas
John Gladman
Lucy Bradshaw
Matt Franklin
Rob Jones

Tony Avery
Rachel Elliott
Justine Schneider
Davina Porock
Phillip Clissett
Yadiki Jayakumar
Claire Forster
Jonathan Mamo

Vladislav Berdunov
Mick Bachner
Liz Andrews
Claire Litherland
Calum-Forrester Paton
Care Home Literature Review

Records identified through database searching (n = 3226)

Records screened (n = 3226)

Records excluded (n = 2895)

Full-text articles assessed for eligibility (n = 331)

15 non-RCT studies
15 conducted outside care homes
4 methods papers
2 duplicate publications
2 post-hoc analyses of RCTs
1 feasibility study
1 review article

Studies included in systematic mapping review (n = 291)
Issues....

- Often very small studies.
- Often not adequately blinded.
- Often not accounting for cluster effect.
- Or where they did, the cluster sizes were all wrong....
Existing models of care were inadequate

- 57% of residents couldn’t access all healthcare services required.
- One of more prescribing error in up to 80% of residents.
- Quality outcomes Framework:
  - 29% exception reported for CHD
  - 34% for stroke
  - 35% for diabetes
Care Home Outcome Study

- Observational Cohort study
- Baseline data collection with 6 month follow-up
- Inclusion criteria:
  - Care home resident
  - Aged 65 years or over
- Exclusion criteria:
  - Actively dying
  - Short-term respite
<table>
<thead>
<tr>
<th>Variable</th>
<th>Whole Cohort</th>
<th>Residential homes</th>
<th>Nursing Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants</td>
<td>227</td>
<td>124</td>
<td>103</td>
</tr>
<tr>
<td>Mean Age (SD)</td>
<td>85.2 (7.5)</td>
<td>86.8 (7.3)</td>
<td>83.2 (7.3)**</td>
</tr>
<tr>
<td>% of residents who are female</td>
<td>78.9</td>
<td>80.6</td>
<td>76.7</td>
</tr>
<tr>
<td>Mean no of GPs per home (SD)</td>
<td>4.63 (2.73)</td>
<td>5 (2.60)</td>
<td>4.2 (3.11)</td>
</tr>
<tr>
<td>Median no. of days since admitted to home (IQR)</td>
<td>79 (148)</td>
<td>68 (157)</td>
<td>94 (132)</td>
</tr>
<tr>
<td>Median MNA Score (IQR)</td>
<td>20 (6.5)</td>
<td>21.5 (5.5)</td>
<td>17.5 (7)**</td>
</tr>
<tr>
<td>Mean body mass index (SD)</td>
<td>23.8 (5.9)</td>
<td>24.5 (5.9)</td>
<td>22.8 (5.7)</td>
</tr>
<tr>
<td>Median Barthel Index (IQR)</td>
<td>9 (11)</td>
<td>11 (8)</td>
<td>5 (7)**</td>
</tr>
<tr>
<td>Median MMSE (IQR)</td>
<td>13 (18)</td>
<td>16 (15)</td>
<td>10 (18)**</td>
</tr>
<tr>
<td>Mean SOF Score (SD)</td>
<td>0.9 (0.7)</td>
<td>1.1 (0.7)</td>
<td>0.8 (0.7)**</td>
</tr>
<tr>
<td>Median grip strength in PSI (IQR)</td>
<td>4 (5)</td>
<td>5 (2.5)</td>
<td>3 (6)**</td>
</tr>
<tr>
<td>Mean no of diagnoses (SD)</td>
<td>6.2 (4)</td>
<td>6.9 (3.1)</td>
<td>5.5 (2.4)**</td>
</tr>
<tr>
<td>Median no of medications (IQR)</td>
<td>8 (5)</td>
<td>7 (5)</td>
<td>8 (5)</td>
</tr>
<tr>
<td>Median NPI score (IQR)</td>
<td>3 (15)</td>
<td>2 (9)</td>
<td>6 (27)**</td>
</tr>
</tbody>
</table>

**Significant difference between residential/ nursing homes (p<0.01)
<table>
<thead>
<tr>
<th>Specific Dependencies from BI</th>
<th>Whole cohort</th>
<th>Residential Homes</th>
<th>Nursing Homes</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incontinent of urine (regularly)</td>
<td>56.83%</td>
<td>42.74%</td>
<td>73.79%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Incontinent of faeces (regularly)</td>
<td>41.85%</td>
<td>28.23%</td>
<td>58.25%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need help to wash/brush hair</td>
<td>59.47%</td>
<td>45.16%</td>
<td>76.70%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need at least some help to use the toilet (help on off; wiping)</td>
<td>74.89%</td>
<td>62.90%</td>
<td>89.32%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need at least some help with eating (food cutting; spreading)</td>
<td>45.37%</td>
<td>29.84%</td>
<td>64.08%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need help of two people to transfer to bed/chair</td>
<td>38.33%</td>
<td>18.55%</td>
<td>62.14%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Have no mobility (cannot walk even with aids or help of one person; unable to be independent with wheelchair)</td>
<td>36.12%</td>
<td>18.55%</td>
<td>57.28%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need at least some help to walk or wheel indoors</td>
<td>29.07%</td>
<td>35.48%</td>
<td>21.36%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Need to be dressed (unable to do half the task unaided)</td>
<td>86.78%</td>
<td>81.45%</td>
<td>93.20%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Unable to manage stairs</td>
<td>80.62%</td>
<td>77.42%</td>
<td>84.47%</td>
<td>0.21</td>
</tr>
<tr>
<td>Needs help with bathing</td>
<td>93.83%</td>
<td>91.94%</td>
<td>96.12%</td>
<td>0.19</td>
</tr>
</tbody>
</table>

* Calculated using Mann-Whitney U for difference between residential and nursing homes
<table>
<thead>
<tr>
<th>Behavioural Symptom</th>
<th>Any Behavioural Symptoms</th>
<th>Severe Behavioural Symptoms</th>
<th>Frequent Behavioural Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agitation</td>
<td>37.9%</td>
<td>16.7%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Nervousness</td>
<td>33.5%</td>
<td>11%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Irritability</td>
<td>30.4%</td>
<td>15.4%</td>
<td>21.1%</td>
</tr>
<tr>
<td>Depression</td>
<td>22.9%</td>
<td>8.4%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Difficulty sleeping</td>
<td>20.3%</td>
<td>5.3%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Appetite disturbance</td>
<td>17.2%</td>
<td>11.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Motor behaviour</td>
<td>16.7%</td>
<td>11%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Apathy</td>
<td>13.7%</td>
<td>7.5%</td>
<td>11%</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>13.2%</td>
<td>10.1%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Delusions</td>
<td>8.8%</td>
<td>5.7%</td>
<td>17%</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>7.9%</td>
<td>3.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Elation</td>
<td>2.6%</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Weight lost</td>
<td>Malnourished</td>
<td>At risk of malnutrition</td>
<td>Normal nutritional status</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>-------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>No weight loss</td>
<td>23</td>
<td>97</td>
<td>28</td>
</tr>
<tr>
<td>Weight loss</td>
<td>38</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>113</td>
<td>29</td>
</tr>
</tbody>
</table>
Deaths

- Death rate over 6 months
  - 16% for whole group
  - Range 0-31% between homes
  - 21% for nursing
  - 12% for residential

- Mean no. of days to death
  - 83 for the cohort as a whole
  - 96 for residential homes
  - 72 for nursing homes
To summarise

- Care home residents:
  - Frail
  - Malnourished
  - Dependent
  - Effected by challenging behaviour.
  - Have multiple diagnoses.
  - Take multiple medications.
  - Are approaching death.
Effective healthcare responses will….

- Take account of the evidence-base.
- Have expertise in management of:
  - Multiple diagnoses
  - Immobility
  - Incontinence
  - Challenging behaviour
  - Polypharmacy
  - Manutrition
  - End-of-life care
Staff Interviews in Care Homes (STICH) Study

- 7 care home managers
- 2 care home nurses
- 9 care home care assistants
- 6 GPs
- 3 dementia outreach nurses
- 2 district nurses
- 2 advance nurse practitioners
- 1 OT
Important observation

• Care home managers are pivotal.

• Relationships between GPs and care home managers are pivotal.
Common problems

- Older people are very complicated.
- Trajectories are difficult to predict.
- Don’t have the training.
- Resources are tight.
- Regulation is always present.
- Roles and responsibilities aren’t clear.
- Communication is a problem.
Identified responses

- Regulate (stick)
- Remunerate (carrot)
- Parachute in troops
- The social movement model.
Mechanistic solutions – the “LES”

- Comprehensive assessment at the point of admission.
- Regular contact with home (at least two weekly).
- Regular review of resident (at least 6 monthly).
- 1:1 relationships GP:care home.
Necessary but not sufficient

1:1 relationship

Trusting relationship with mutual respect

“I wouldn’t wish our GP/care home on my worst enemy”
Assessment

Stratified problem list

Goals

Bespoke Management Plan
MDT Chair (Charge nurse)

Geriatrician

Occupational therapist

Social worker

Physiotherapist
