Changing diabetes care in the elderly living within nursing and residential homes

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Introduction

• In the UK, diabetes mellitus is increasing in frequency within the elderly population, many of whom live in residential or nursing homes.
• A report published by the British Diabetic Association has identified patients living in residential or nursing homes as a particularly vulnerable group. For example, diabetes in the elderly is associated with co-morbidities such as physical and cognitive disability, both of which may impair self-treatment. In addition, elderly patients may suffer from increased susceptibility to infections, increased hospitalisation rates and an excess rate of mortality.
• The National Service Frameworks provide guidelines for the care of the older adult and also for diabetes, which can be used to identify areas for improvement in the service provided to elderly patients with diabetes in care homes. Collaborative working is essential in terms of implementing existing guidelines, and also for identifying future areas for development and training.

Aims

• A comprehensive audit of care homes in Salford was undertaken to establish the local prevalence of diabetes, and the provision of care offered, with a view to enhancing future treatment of diabetes in the elderly.

Methods

• An extensive questionnaire and a data collection tool were developed and ratified by Salford Primary Care Trust (PCT), and used to collate data.
• Individual assessments of each care home in Salford were made by appointment and with the assistance of care home staff. Each care home was visited at least once, but some required up to 3 visits.
• In particular, the audit focused on the following areas:
  - quality of life
  - safety
  - fair access to diabetes services
  - improvement of diabetes care.

Results

Care homes, staff and training

• Findings were taken from 42 homes comprising 1522 residents in total, 14.2% of whom had diabetes (range 0–30% of residents in individual homes; Table 1).
• Around one third of care homes had some form of guideline for diabetes care in place; these included pre-written care plans for diabetes, management systems and policies (Table 1).
• Throughout Salford there has been little training, apart from ad hoc from Diabetes Specialist Nurses (DSNs) about individual patients. Furthermore, there are no formal courses.
• Despite the significance of their work undertaken with individual residents, the majority of staff (most of whom are not trained in diabetes care) felt under-confident when caring for their residents with diabetes.

Table 1. Summary of care homes audited in Salford. Data are shown as total numbers, data in parentheses are percentages as indicated

<table>
<thead>
<tr>
<th>Type of home</th>
<th>Home</th>
<th>Residents</th>
<th>Residents with diabetes (% of residents)</th>
<th>Carers</th>
<th>Carers with diabetes (% of residents)</th>
<th>Homes with diabetes protocols/guidelines in place</th>
<th>Homes with diabetes protocols/guidelines in place (% of homes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing and residential</td>
<td>14</td>
<td>730</td>
<td>113 (15.5)</td>
<td>398</td>
<td>6 (42.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>3</td>
<td>106</td>
<td>19 (17.9)</td>
<td>55</td>
<td>2 (33.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>25</td>
<td>686</td>
<td>84 (12.2)</td>
<td>492</td>
<td>6 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>1522</td>
<td>216 (14.2)</td>
<td>945</td>
<td>14 (33.3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diet and lifestyle

• Exercise for diabetes patients across care homes was encouraged, and included skittles, bowls, keep fit, walks, chair exercises, outings, disco, music, health, games and ‘Healthy Hips and Hearts’.
• In terms of diet, 16 homes shared recipe and menu ideas specifically for patients with diabetes. 13 homes had a separate menu for these patients, while 29 homes provided a similar diet as given to non-diabetes residents, but with reduced sugar content.

Treatment

• The majority of diabetes patients (50.5%) residing in the audited care homes received OADs, either as mono- or combination therapy. Insulin was taken by 26.4% of the patients and all but one of these patients received help from trained nurses or district nurses with their injections. This one patient self-administered their insulin (Figure 1).

Disease monitoring and access to services

• The percentages of care homes performing or overseeing specific monitoring tests for diabetes patients are shown in Figure 2. A total of 80% of care homes ensured blood glucose was monitored, and half of the residents with diabetes had their own blood glucose monitor.
• Many of the care homes in the audit were looked after by around 11 practices (a range of 2–17 practices for each home), and between 1–27 GPs and practice nurses visited each care home on a regular basis. One home employed a GP.

Discussion

During the course of the audit, several key challenges for care homes were identified. These included a high turnover of staff, changes in homes (for example, location moves, change of management), and limited resources. However, despite these difficulties, the majority of residents had good access to NHS services, regular monitoring systems in place and were supported in the treatment of their diabetes. Staff frequently reported a lack of confidence with diabetes, and could benefit from support and training in diabetes care. Access to training for staff was an issue in many care homes, and there was a preference for in-house training and/or online resources. When asked, approximately half of staff members thought that training should be repeated every 6 months, and half every 12 months, with 2 hours being the preferred length of time for a training session.

Conclusion and ongoing developments

• Diabetes Education with social services (NVQ) and e-learning initiatives to help improves access.
• Development of diabetes care home guidelines and resource pack.
• Hypoglycaemia recognition and treatment advice poster.
• Commission for Health Care Inspectorate discussions and meetings.
• Raising awareness study days.
• Exploration of blood glucose monitoring provision and quality control.
• Chronic disease management involvement.

This audit was funded by Novo Nordisk

Figure 1. The majority of patients, in all types of care home, received OAD therapy. Insulin treatment, whether as monotherapy or combined with OADs, was taken by around a quarter of patients with diabetes

Figure 2. The proportion of care homes monitoring 7 diabetes tests

<table>
<thead>
<tr>
<th>Treatment regimen</th>
<th>Number of homes performing regular tests (%)</th>
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</thead>
<tbody>
<tr>
<td>Diet OADs</td>
<td></td>
</tr>
<tr>
<td>Insulin + OADs</td>
<td></td>
</tr>
<tr>
<td>Insulin only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cardiovascular screening</th>
<th>Regular blood pressure measurement</th>
<th>Regular venous blood tests</th>
<th>Individual finger prickers for diabetic patients</th>
<th>Residents have own blood glucose monitor</th>
<th>Urine testing</th>
<th>Blood glucose monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of homes performing regular tests (%)</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
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<td>60</td>
</tr>
<tr>
<td>Urine testing</td>
<td>70</td>
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<tr>
<td>Blood glucose monitoring</td>
<td>80</td>
</tr>
</tbody>
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