Ortho-geriatric liaison – the missing link?

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Cooperation between orthopaedic surgeons and geriatricians is fundamental to the management of patients with fragility fracture. In more recent years the emphasis has moved from rehabilitation to multidisciplinary, peri-operative care.

The recent publication of the British Orthopaedic Association’s Blue Book on the care of patients with fragility fracture highlights the deficiencies of current practice in the United Kingdom. Using an adaptation of work by Heyburn et al, it describes four models of orthogeriatric care currently in use in Britain.

- **Model A:** The traditional model, where the elderly patient with a fracture is admitted to a trauma ward where care is managed by the orthopaedic team with a consultative medical service.
- **Model B:** A variation on the traditional model with multidisciplinary ward rounds.
- **Model C:** Pre-operative management by the orthopaedic team with early transfer after operation to a Geriatric Orthopaedic Rehabilitation Unit.
- **Model D:** Combined orthogeriatric care with a medical consultant or staff grade physician working full time on the fracture ward.

The model which is adopted depends on local resources. The model in which a full-time geriatrician provides daytime medical cover is seen as the best way of providing a high standard of care for elderly patients with fractures. This allows the early identification and treatment of complications with a reduction in adverse events, optimal scheduling of operations on the fractures, better communication with patients, relatives and the multidisciplinary team, the facilitation of research, education and audit; earlier initiation of rehabilitation and more effective use of resources for discharge.

The current provision of orthogeriatric care in England

At the end of 2003 we undertook a study of the current orthogeriatric liaison services in England. A questionnaire, restricted to a single side of A4, accompanied by a letter explaining the background of the study, was sent to the general managers in the Trauma and Orthopaedic departments of the 155 Acute Trusts in England which, at that time, were admitting and treating patients with fractures of the neck of the femur. The trusts were identified from the published Performance Indicators and addresses were obtained from the Department of Health website. The managers who were surveyed were asked to indicate which model of orthogeriatric care they currently had in place and any changes in care planned in the following year. They were also asked to indicate the presence or absence of orthopaedic specialist nurse practitioners working in the department and, in particular, nurse practitioners dedicated to the care of patients with fractures of the neck of the femur. They were asked whether they undertook continuous data collection compatible with the Standardised Audit of Hip Fractures in Europe.

Responses were received from 94 (60.6%) of the trusts contacted (Table I).

The survey showed that four departments (4%) have Model D care and although 34% (31/90) of responding trusts wished to upgrade their model of orthogeriatric care, only 11% (10/90) had plans to adopt such a system. A key feature of this system is the daytime presence of a geriatrician on the acute fracture ward. While this may be desirable, particularly in the larger units, it is unlikely that sufficient clinicians with appropriate training would be available to fill the potential vacancies if Model D were widely adopted. Smaller trusts might feel that they would rather use the resources in the main department of medicine for the elderly.

The use of nurse practitioners

For the past year we have been working with a variation of the traditional model using an enhanced multidisciplinary team at Basildon University Hospital. The elderly patients with...
fragility fractures are still admitted to our two acute wards from where they are discharged to the community or progress to the orthogeriatric rehabilitation ward as appropriate. During the time that they are on the acute ward patients over the age of 65 years with fractures of the proximal femur are admitted under the joint care of a consultant orthopaedic surgeon (RW) and a consultant in medicine for the elderly (GHJ). Other patients with fragility fracture are managed by their admitting teams with the help of the oncalk medical geriatric service.

The wards are covered during the day by the orthopaedic house officers and at night by an SHO. Each weekday, a staff grade physician and a nurse practitioner from the orthogeriatric rehabilitation ward review, with the house officers, the patients with fractures of the neck of the femur who are unwell. There are three consultant rounds each week, one of which is multidisciplinary and involves the whole team, including the osteoporosis nurse practitioner, in order to ensure secondary prevention. A designated trauma anaesthetist is available to advise on the timing of surgery for patients who have been found to be unfit for operation at the time of admission. The cornerstone of this model is the adoption of nurse practitioners specifically for patients with these fractures.

Nurse practitioners have increased in numbers and in the variety of work which they undertake since they developed from specialist nurses in the 1960s. Of our responding Trusts, (54%) already have orthopaedic nurse practitioners in varying roles, including outpatient nurse practitioners, arthroplasty nurses, fracture/trauma liaison nurses, co-ordinators and trauma and orthopaedic nurse practitioners.

We believe that the role of nurse practitioners is primarily one of clinical nursing. We employed 1.5 whole time equivalents of ‘G’ grade nurses to provide daytime cover on the acute wards which treat 300 patients with fractures of the neck of the femur each year. They maintain communication between the lead clinicians for the patients with fractures of the neck of the femur and the weekly trauma teams. They provide a model of care for those patients which produces many of the benefits of ward based geriatricians as outlined in the Blue Book.

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Table 1. Results from the 94 trusts which responded to the survey

<table>
<thead>
<tr>
<th>Type of trust</th>
<th>All = 94 (%)</th>
<th>Small = 25 (%)</th>
<th>Medium = 39 (%)</th>
<th>Large = 17 (%)</th>
<th>Teaching = 13 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B 38 (40)</td>
<td>B 6 (24)</td>
<td>B 18 (46)</td>
<td>B 5 (29)</td>
<td>B 9 (69)</td>
</tr>
<tr>
<td></td>
<td>C 9 (10)</td>
<td>C 0</td>
<td>C 4 (10)</td>
<td>C 2 (12)</td>
<td>C 3 (23)</td>
</tr>
<tr>
<td></td>
<td>D 4 (4)</td>
<td>D 0</td>
<td>D 3 (9)</td>
<td>D 1 (8)</td>
<td>D 0 0</td>
</tr>
<tr>
<td>Proposed change</td>
<td>B 9</td>
<td>B 1</td>
<td>B 5</td>
<td>B 3</td>
<td>B 0</td>
</tr>
<tr>
<td></td>
<td>C 12</td>
<td>C 4</td>
<td>C 5</td>
<td>C 1</td>
<td>C 2</td>
</tr>
<tr>
<td></td>
<td>D 10</td>
<td>D 2</td>
<td>D 4</td>
<td>D 1</td>
<td>D 3</td>
</tr>
<tr>
<td>Trusts with nurse practitioners</td>
<td>51 (54)</td>
<td>11 (44)</td>
<td>21 (54)</td>
<td>10 (59)</td>
<td>9 (69)</td>
</tr>
<tr>
<td>Number of NOF1 nurse</td>
<td>19 (20)</td>
<td>4 (16)</td>
<td>10 (26)</td>
<td>2 (12)</td>
<td>3 (23)</td>
</tr>
<tr>
<td>SAHFE audit</td>
<td>46 (49)</td>
<td>16 (64)</td>
<td>15 (38)</td>
<td>9 (53)</td>
<td>6 (46)</td>
</tr>
</tbody>
</table>

* A, traditional; B, variant traditional; C, early GORU; D, combined  
† neck of femur  
‡ Standardised Audit of Hip Fractures in Europe12

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...
We believe that while the Blue Book8 sets out a model for excellence which may be suitable for larger trusts, medium and small trusts should not overlook the recommendations regarding fracture liaison nurses and the role they may play in audit. They should consider a model in which the existing medical staff are organised to work with ward-based nurse practitioners. While the appointment of a significant number of additional doctors may take many years, most hospitals admitting patients with fragility fractures should be able to recruit a nurse practitioner within a very short time, who could then undergo further professional development while in post.

Within a few months a network of nurse practitioners for fracture of the neck of the femur could be established, producing enhanced local care. They would be ideally placed to collect data for a continuous British or Regional Hip Fracture Audit, along the lines adopted in Scotland and practised to a more limited extent in England and Northern Ireland.

References