case management was introduced are shown in Table 1. The average length of stay per admission was six days, so admission avoidance relieved pressure on acute beds and resources could be better spent.

The “before” group averaged four avoidable admissions per month. In the “after” group, there were three admissions in nine months, giving a mean of 0.3 per month. If the average rate of admission avoidance is then 3.7 per month, this represents a considerable saving.

Even in this small study, it was calculated that 33 admissions were avoided in nine months. At an average stay of six days, this represents 198 saved bed days over nine months, or 266 bed days per year as a result of outpatient proactive case management alone.

At a minimum cost of £250 per acute bed based on the 2009 tariff (NHS Institute for Innovation and Improvement, 2010) this represents a total saving of £66,500 per year for the admission avoidance this represents a total saving of £66,500 for Innovation and Improvement, 2010).

The length of stay per admission was six days, so admission avoidance relieved pressure on acute beds and resources could be better spent.

Table 2. ACUTE ADMISSIONS BEFORE AND AFTER PROACTIVE CASE MANAGEMENT

<table>
<thead>
<tr>
<th></th>
<th>Total admissions (n)</th>
<th>Admissions for symptom control (n)</th>
<th>Average admissions per month (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before proactive case management (six months)</td>
<td>69</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>After proactive case management (nine months)</td>
<td>29</td>
<td>3†</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*This does not include five A&E presentations where, after patient assessment and discussions with the consultant oncologist or chest physician, admission was avoided. A decision was made with the team and patient that admission to the acute centre was not the optimal pathway. Two patients were transferred directly to an inpatient hospice bed for end-of-life care.

Although this study was small, it highlighted the role intervention and auditing best practice can play in identifying areas for service improvement and to support changes in activity. Many specialist nursing groups struggle to show their contribution and return on investment. Defining KPIs or audit against national standards could be an effective way of showing this.

The refocus of the service endorsed the adoption of proactive case management and the implementation of national guidance on the nursing management of patients with lung cancer. This resulted in better patient outcomes, supported patients being in their preferred place of care at the end of life, and avoided unnecessary costly hospital admissions. The more productive use of nursing time allowed new initiatives like a patient self-management programme to take place in conjunction with the local psychology service.

Cancer nurse specialists play an important part in making services more cost-effective. Being responsive to patient needs and taking a proactive approach to case management appear to be effective ways of promoting their role. This approach was practised only in the outpatient setting and it would be interesting to see if inpatient proactive case management reduced length of stay.

This study could be expanded to examine other possible KPIs for specialist nursing practice drawn from national models.

Many specialist nurses spend 20-30% of their time performing administration for a service (Leary and Oliver, 2010; Leary et al 2008). As there have been no initiatives such as Productive Ward in specialist practice – which frees up specialist nurses’ time so they can manage care – a national programme may save the NHS money.

**Conclusion**

Using national guidance and best practice allows specialist practitioners to determine KPIs for their service, which they can then use to evaluate it and demonstrate their activity and possible cost benefits or return on investment. Combined with quality data such as questionnaires, this can be a useful method of evaluating nursing services.

We found that clinical nurse specialists who practise proactive case management and refocus services in line with best practice appear to represent a good return on investment.

The authors wish to thank Pacinta Maranao, Di Howard, Sarah Elkin, Dani Power and Professor Christine Norton of Imperial College Healthcare Trust and Melissa Reddish from St John’s Hospice Community Palliative Care Team.

**Table 2. REASONS FOR ADMISSION**

<table>
<thead>
<tr>
<th>Reason for Admission</th>
<th>Admissions in “before” group (six months) (n)</th>
<th>Admissions in “after” group (nine months) (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncological emergency*</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Acute non-cancer*</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Procedure (readmission)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Symptom control (cancer)</td>
<td>24</td>
<td>3†</td>
</tr>
<tr>
<td>Pleural effusions</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Other chronic</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Not known</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

*Oncological/chest emergencies (cystis, chest infection, cord compression, brain metastasis, pleural effusions). Admission was the optimal action for these patients.

“OOPD; ear, nose and throat emergency; falls; cardiovascular emergency, non-oncological emergency.”

**References**


NHS Institute for Innovation and Improvement (2011) Return on Investment (ROI) Calculator. tinyurl.com/return-investment-calculator
