Hospital care for cancer patients in the last year of life

L Hounsome¹, (luke.hounsome@swpho.nhs.uk), D Gillati², R Persad³, J Verne¹
1 South West Public Health Observatory, Bristol
2 North Bristol NHS Foundation Trust, Bristol
3 University Hospitals Bristol NHS Foundation Trust, Bristol

1. Introduction

The duration and number of admissions, length of stay and costs of hospital inpatient care in the last year of life are likely to vary between cancer types due to the nature of complications and progression of disease. This study examines these differences, based on routine data sources.

We examined Hospital Episode Statistics (HES) data for patients who died of prostate, breast, lung, upper GI, colorectal, and ovarian cancers in 2006-2008. The length of stay and type of admission were selected and Healthcare Resource Group (HRG) codes used to calculate a cost. Costs were calculated for three groups of admissions: last year of life, last 30 days of life and last 30 days of life where death was in hospital.

2. Results

Table 1: Total bed days and cost of inpatient care in the last year of life, by cause of death; 2006-08

<table>
<thead>
<tr>
<th></th>
<th>Prostate</th>
<th>Breast</th>
<th>Lung</th>
<th>Colorectal</th>
<th>Ovarian</th>
<th>Upper GI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective bed days</td>
<td>69,482</td>
<td>80,773</td>
<td>176,274</td>
<td>184,797</td>
<td>53,700</td>
<td>225,906</td>
</tr>
<tr>
<td>Emergency bed days</td>
<td>530,288</td>
<td>491,151</td>
<td>1,401,741</td>
<td>687,714</td>
<td>216,723</td>
<td>358,138</td>
</tr>
<tr>
<td>Elective cost</td>
<td>£166,577,592</td>
<td>£21,060,598</td>
<td>£47,104,679</td>
<td>£49,005,614</td>
<td>£14,274,623</td>
<td>£51,361,303</td>
</tr>
<tr>
<td>Emergency cost</td>
<td>£126,574,654</td>
<td>£123,553,378</td>
<td>£350,633,697</td>
<td>£166,577,592</td>
<td>£58,606,527</td>
<td>£205,905,067</td>
</tr>
</tbody>
</table>

Figures 1a & b: Total bed days per admission and per person, in the last year of life, by cause of death; 2006-08

Figures 2a & b: Total cost per admission and per person, in the last year of life, by cause of death; 2006-08

* Totals calculated from overall cost and all people, so are not equivalent to average or sum of elective and emergency admissions

- For the major cancer groups we examined, the cost of hospital care in the last year of life was highest for those dying from lung cancer.
- Emergency admissions are longer, and more expensive than elective admissions.
- Prostate, colorectal and ovarian cancers had a longer length of stay per admission than the other cancers, both for emergency and elective admissions.
- On a per person basis, upper GI cancers had the longest emergency length of stay, and ovarian cancer the longest elective stay.
- Despite overall high costs, lung cancer had the lowest cost per person. Costs for prostate, colorectal and ovarian cancers were higher; ovarian cancer had the highest overall cost at £8,000 per person.

3. Conclusions

The large variation in end of life care costs, and time spent in hospital, is likely due to differing complications caused by advanced cancers. The cancers affecting the pelvic area have longer lengths of stay per admission and higher overall costs. These cancers can interfere with the urinary tract and require admissions for urinary retention, catheter issues and kidney failure. Service design with these issues in mind may reduce emergency admissions near the end of life.