Admissions transferred to or from adult, general critical care units in England, Wales and Northern Ireland

Question

What is the number of admissions transferred to/from adult, general critical care units in England, Wales and Northern Ireland from/to critical care units in other acute hospitals? How many of these transfers are planned, unplanned or for repatriation?

Available data for report

94,149 admissions to 183 adult, general critical care units
1 January 2009 – 31 December 2009

Selection of Cases

All admissions to adult, general critical care units that were participating in the Case Mix Programme from 1 January 2009 to 31 December 2009 were included in the analysis. The year 2009 was chosen since this was the most recent complete year of data enabling extrapolation.

Definitions for variables included

Transfers in to adult, general critical care units were identified as all admissions, either directly or indirectly via a transient location (e.g. theatre, imaging, emergency department), from a critical care unit (level 3 or combined level 2/3) in another acute hospital. Transfers in were classified as planned, unplanned or repatriation according to the definitions from the Critical Care Minimum Data Set (CCMDS):

- Planned – pre-arranged admission to your unit, after treatment or initial stabilisation but requiring specialist or higher-level critical care that cannot be provided at the source
• Unplanned – emergency or urgent admission to your unit only as a result of an unexpected acute illness

• Repatriation – planned admission transferred to your unit from another location because the admission either originated from your unit or your hospital or your area

Transfers out from adult, general critical care units were identified as all admissions that were discharged to a critical care unit (level 3 or combined level 2/3) in another acute hospital. Transfers out were classified as planned, unplanned or repatriation by the recording of a reason for discharge:

• Planned – discharge for more-specialist critical care (i.e. for specialist critical care, either age appropriate, e.g. paediatric critical care, or specialty appropriate, e.g. neurocritical care, not available in your unit)

• Unplanned – discharge for comparable critical care (i.e. for similar care as provided in your unit)

• Repatriation – returning an admission to their original unit, hospital or area

The observed numbers of transfers were extrapolated to estimate the total numbers of transfers originating or ending in all adult, general critical care units in England, Wales and Northern Ireland. This extrapolation was performed by weighting the observed values by the total unit-years of observed data and multiplying by the total number of adult, general critical care units in England, Wales and Northern Ireland. This was assumed to be 227 units. For transfers both originating and ending in adult, general critical care units, two estimates of the numbers of transfers were available (from transfers into and out of Case Mix Programme units). These two estimates were averaged to produce the overall extrapolated estimates of the numbers of transfers.

Results

Of 94,149 admissions to 183 adult, general critical care units in 2008, there were 2,293 (2.4%) transfers in from level 3 or combined level 2/3 critical care units in other acute hospitals and 2,483 (2.6%) transfers out to level 3 or combined level 2/3 critical care units in other acute hospitals. There was a total of 165 unit-years of observed data from the 183 units, representing 73% coverage of adult, general critical care units in England, Wales and Northern Ireland. Extrapolated estimates of the total numbers of transfers in England, Wales and Northern Ireland by originating and receiving unit type (general or specialist) and classification (planned, unplanned or repatriation) are shown in Table 1.
## Table 1: Transfers to/from adult, general critical care units in England, Wales and Northern Ireland, 2009

<table>
<thead>
<tr>
<th>Originating unit type</th>
<th>Receiving unit type</th>
<th>Classification</th>
<th>Observed in CMP, n (%*)</th>
<th>Extrapolated, n† (%*)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Transferred in</td>
<td>Transferred out</td>
</tr>
<tr>
<td>General</td>
<td>General</td>
<td>Planned</td>
<td>675 (0.7)</td>
<td>539 (0.6)</td>
</tr>
<tr>
<td>General</td>
<td>General</td>
<td>Unplanned</td>
<td>816 (0.9)</td>
<td>933 (1.0)</td>
</tr>
<tr>
<td>General</td>
<td>General</td>
<td>Repatriation</td>
<td>392 (0.4)</td>
<td>175 (0.2)</td>
</tr>
<tr>
<td>Specialist</td>
<td>General</td>
<td>Planned</td>
<td>99 (0.1)</td>
<td>--</td>
</tr>
<tr>
<td>Specialist</td>
<td>General</td>
<td>Unplanned</td>
<td>55 (0.1)</td>
<td>--</td>
</tr>
<tr>
<td>Specialist</td>
<td>General</td>
<td>Repatriation</td>
<td>256 (0.3)</td>
<td>--</td>
</tr>
<tr>
<td>General</td>
<td>Specialist</td>
<td>Planned</td>
<td>--</td>
<td>782 (0.8)</td>
</tr>
<tr>
<td>General</td>
<td>Specialist</td>
<td>Unplanned</td>
<td>--</td>
<td>49 (0.1)</td>
</tr>
<tr>
<td>General</td>
<td>Specialist</td>
<td>Repatriation</td>
<td>--</td>
<td>5 (0.0)</td>
</tr>
</tbody>
</table>

*Percentage of admissions to adult, general critical care units
†Estimated total number of transfers in England, Wales and Northern Ireland during 2009

### Acknowledgement

Please acknowledge the source of these data as follows:

“These data derive from the Case Mix Programme Database. The Case Mix Programme is the national, comparative audit of patient outcomes from adult critical care coordinated by the Intensive Care National Audit & Research Centre (ICNARC). These analyses are based on data for 94,149 admissions to 183 adult, general critical care units based in NHS hospitals geographically spread across England, Wales and Northern Ireland. For more information on the representativeness and quality of these data, please contact ICNARC.”

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Source: Case Mix Programme Database  
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