Admissions to adult, general critical care units in England, Wales and Northern Ireland in 2010 and 2011

Question

What were the number of admissions to all adult, general critical care units in England, Wales and Northern Ireland in calendar years 2010 and 2011?

Background to the ICNARC Case Mix Programme

The Intensive Care National Audit & Research Centre (ICNARC) was established in 1994 on a two-year (1994-1995), pump-priming grant from the Department of Health (England) and Welsh Health Common Services Authority (Wales), ICNARC became an independent Registered Charity in July, 1994 (Registered Charity Number: 1039417).

ICNARC’s aim is to foster improvements in the organisation and practice of adult critical care (intensive and high dependency care) to improve patient care and outcomes. Towards achieving part of this aim, ICNARC coordinates a national, comparative audit of patient outcomes from adult, critical care units in England, Wales and Northern Ireland known as the Case Mix Programme (CMP). Currently, 92% of adult, general critical care units in England, Wales and Northern Ireland are participating in the CMP.

The CMP is a voluntary, performance assessment programme using high quality clinical data to facilitate local quality improvement through routine feedback of comparative outcomes and key quality indicators to clinicians/managers in adult critical care units.

The CMP recruits predominantly adult, general critical care units. Adult, general critical care units are defined as either standalone intensive care units (ICUs) or combined intensive care/high dependency units (ICU/HDUs). Participation in the CMP is entirely voluntary.

CMP specified data are recorded prospectively and abstracted retrospectively by trained data collectors according to precise rules and definitions - set out in the ICNARC Case Mix Programme Dataset Specification. Data collectors from each unit are trained prior to commencing data collection with retraining of existing staff, or training of new staff, also available. CMP training courses are held at least four times per year.
CMP specified data are collected on consecutive admissions to each participating critical care unit and are submitted to ICNARC quarterly. Data are validated locally, on data entry, and then undergo extensive central validation, for completeness, illogicalities and inconsistencies, with data validation reports returned to units for correction and/or confirmation. The validation process is repeated until all queries have been resolved and then the data are incorporated into the CMP Database (CMPD).

Participating units receive comparative data analysis reports on outcomes and key quality indicators, in which they can identify their own unit data and compare with all units participating in the CMP. In addition, staff at units can interrogate the CMPD by submitting analysis requests which are provided free-of-charge.

Data collected for the CMP include alphanumeric unit/admission identifiers, demographics (e.g. age, sex, ethnicity), case mix (e.g. acute severity, comorbidity, surgical status, reason for admission), outcome (e.g. unit/acute hospital survival) and activity (e.g. unit/acute hospital length of stay) for each admission to each critical care unit.

Available data for report

246,959 admissions to 211 critical care units
1 January 2010 – 31 December 2011

Selection of Cases

All admissions to adult, general critical care units (i.e. excluding admissions to specialist critical care units or standalone high dependency units) that were participating in the CMP from 1 January 2010 to 31 December 2011.

Methods

The estimated total numbers of admissions in a given year was obtained by calculating the rate of admissions per year (number of observed admissions divided by proportion of the year for which data were collected) for each unit, averaging over the units, and multiplying by the total number of adult, general critical care units in England, Wales and Northern Ireland. This was assumed to be 234 units.

The CMP collects data from critical care units in England, Wales and Northern Ireland. Similar data for Scottish critical care units can be obtained from the Audit of Critical Care in Scotland produced by the Scottish Intensive Care Society Audit Group. http://www.sicsag.scot.nhs.uk/

Sarah Power
Statistical Research Officer
Source: Case Mix Programme Database
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Results

In 2010 there were 117,929 admissions to the CMP. Extrapolating to full data for the calendar year 2010, we estimate that these are representative of a total of 142,500 admissions to adult, general critical care units in England, Wales and Northern Ireland.

In 2011 there were 129,030 admissions to the CMP. Extrapolating to full data for the calendar year 2011, we estimate that these are representative of a total of 152,500 admissions to adult, general critical care units in England, Wales and Northern Ireland.

Table 1: Extrapolated number of admissions to all Case Mix Programme (CMP) units, 2010 & 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of admissions to the CMP</th>
<th>Extrapolated number of admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>117,929</td>
<td>142,500</td>
</tr>
<tr>
<td>2011</td>
<td>129,030</td>
<td>152,500</td>
</tr>
</tbody>
</table>

Acknowledgement

Please acknowledge the source of these data in all future presentations (oral and/or written), 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 246,959 admissions to 211 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."

Sarah Power
Statistical Research Officer
Source: Case Mix Programme Database
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