icnarc intensive care national audit & research centre

Napier House
24 High Holborn
London WC1V 6AZ
tel +44 (0)20 7831 6878
fax +44 (0)20 7831 6879
email icnarc@icnarc.org

Number of admissions and mortality of patients associated with self-poisoning with cardiovascular drugs in critical care, January 2009–December 2012

Question

What is the number of admissions and associated mortality for patients that have been admitted to a critical care unit in England, Wales and Northern Ireland participating in the Case Mix Programme (CMP) with a primary or secondary reason for admission of self-poisoning with cardiovascular drugs, between 1 January 2009 and 31 December 2012?

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,

Emily Robinson
Statistical Research Assistant
Source: Case Mix Programme Database
22 November 2013

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

550,502 admissions to 249 CMP units between 1 January 2009 and 31 December 2012.

Selection of cases

All admissions between 1 January 2009 and 31 December 2012 with a primary or secondary reason for admission of self-poisoning with cardiovascular drugs.

Definitions for variables included

The ICNARC Coding Method (ICM) is a 5-tiered hierarchical method specifically designed for coding reasons for admission to critical care. Primary reason for admission is mandated; but secondary reason for admission is optional, unless the patient was admitted following surgery. For the purpose of this analysis, admissions with a primary or secondary reason for admission of self-poisoning with cardiovascular drugs were included.

The primary reason for admission is assessed and recorded at admission to and during the first 24 hours in a unit and it is the most important underlying condition or reason for admission. It should describe what is happening, or could possibly happen, to this admission that precluded management on the hospital ward.

The secondary reason for admission is assessed and recorded at admission to and during the first 24 hours in a unit. It should describe, in addition to the primary reason for admission, what is happening, or could possibly happen, to this admission that precluded management on the hospital ward.

Critical care unit mortality was defined as the status at discharge from the critical care unit.

Acute hospital mortality was defined as the status at ultimate discharge from acute hospital, wherever.

Emily Robinson
Statistical Research Assistant
Source: Case Mix Programme Database
22 November 2013

Results

Table 1 details the 662 (0.1 %) admissions that were admitted to a critical care unit in England, Wales and Northern Ireland participating in the Case Mix Programme (CMP) with a primary or secondary reason for admission of self-poisoning with cardiovascular drugs, between 1 January 2009 and 31 December 2012.

Table 1: Number of admissions and mortality of patients with a primary or secondary reason for admission of self-poisoning with cardiovascular drugs

	2009	**2010**	**2011**	**2012**	**Total**
Number of admissions, (%) [N]	123 (0.1) [109,789]	153 (0.1) [131,785]	189 (0.1) [149,737]	197 (0.1) [159,191]	662 (0.1) [550,502]
Critical care unit mortality, (%) [N]	16 (13.0) [123]	15 (9.8) [153]	17 (9.0) [189]	22 (11.2) [197]	70 (10.6) [662]
Acute hospital mortality*, (%) [N]	17 (13.8) [123]	16 (10.5) [153]	17 (9.0) [188]	25 (12.7) [197]	75 (11.3) [661]

*Excluding readmissions to the critical care unit within the same hospital stay

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 550,502 admissions to 249 adult, general critical care units based in NHS hospitals geographically spread across England and Wales. For more information on the representativeness and quality of these data, please contact ICNARC.”

Emily Robinson
Statistical Research Assistant

Source: Case Mix Programme Database
22 November 2013