Performance Profiles

Potentially avoidable admissions for COPD and CHF, July 2009 to June 2010
Nepean Blue Mountains Local Health Network

The Insights Series
Volume 2, PART 1
Blue Mountains District Anzac Memorial Hospital: Activity profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Total hospitalisations¹
Select medical hospitalisations²
Total potentially preventable hospitalisations³
Chronic Obstructive Pulmonary Disease (COPD) admissions⁴
Congestive Heart Failure (CHF) admissions⁴

Rates per 1,000 select medical hospitalisations⁵

Blue Mountains District Anzac Memorial Hospital: Patient profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Potentially avoidable COPD admissions¹,⁴

Age profile (years)

Socioeconomic status⁶ (quintile of disadvantage)

Smoking status at admission⁷

Aboriginal status⁸

Rural postcode⁹
Blue Mountains District Anzac Memorial Hospital: Hospital stay profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

COPD admissions\(^4\)  | This period (2009-10) | Last period (2008-09) | Peer group (2009-10)
---|---|---|---
% Unplanned\(^\d\) | 99% | 100% | 97%
% from ED\(^\d\) | 92% | 92% | 77%

CHF admissions\(^4\)  | This period (2009-10) | Last period (2008-09) | Peer group (2009-10)
---|---|---|---
% Unplanned\(^\d\) | 100% | 99% | 97%
% from ED\(^\d\) | 92% | 91% | 70%

COPD average length of stay in days\(^\d\)

<table>
<thead>
<tr>
<th>Length of stay profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of admissions</td>
</tr>
<tr>
<td>0-1 days</td>
</tr>
<tr>
<td>2-5 days</td>
</tr>
<tr>
<td>6-10 days</td>
</tr>
<tr>
<td>11+ days</td>
</tr>
</tbody>
</table>

CHF average length of stay in days\(^\d\)

<table>
<thead>
<tr>
<th>Length of stay profiles</th>
</tr>
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<tbody>
<tr>
<td>% of admissions</td>
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<tr>
<td>2-5 days</td>
</tr>
<tr>
<td>6-10 days</td>
</tr>
<tr>
<td>11+ days</td>
</tr>
</tbody>
</table>

Blue Mountains District Anzac Memorial Hospital: Total bed days, potentially avoidable admissions for COPD and CHF
July 2005 to June 2010 (monthly)

<table>
<thead>
<tr>
<th>Total bed days</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPD(^\d)</td>
</tr>
<tr>
<td>CHF(^\d)</td>
</tr>
</tbody>
</table>

\(^\d\) Suppressed: relative standard error ≥ 40%.
\(^\d\) Interpret with caution: 30% ≤ relative standard error < 40%.
1. A hospitalisation corresponds to one ‘episode of care’. A single patient can have multiple hospitalisations in the time period.
2. Excludes hospitalisations for renal dialysis, obstetrics, psychiatry, and all surgery.
4. For criteria used for COPD / CHF admissions, see Technical Supplement at www.bhi.nsw.gov.au
5. Rates are directly standardised to the NSW admitted patient population 2009-10 on the basis of age, sex, and socioeconomic status.
6. Index of Relative Social Disadvantage (IRSD), as defined by the Australian Bureau of Statistics.
7. Smoking status as recorded on admission; termed current if patient smoked tobacco within last month; previous if patient smoked tobacco in the past but excluding last month.
8. We use the term Aboriginal, rather than Aboriginal and Torres Strait Islander in line with NSW Health usage, which recognises that Aboriginal people are the original inhabitants of NSW.
9. Postcode of usual residence at time of admission classified as outer regional or remote.
10. Admissions with emergency status of ‘non-emergency / planned’. 
\(^\d\) Emergency Department Note: Only records with valid and non-missing data are included in each analysis.
Note: Length of stay and total bed days calculated on ‘acute’ episodes only (comprising 98.7% COPD and 97.4% CHF PAA) .
Note: Additional detail and definitions can be found in the Bureau’s Technical Supplement at www.bhi.nsw.gov.au
Source: Admitted Patient Data Collection, Health Information Exchange, NSW Health. Data extracted on 28 February 2011.
Lithgow Health Service: Activity profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Total hospitalisations
- 4,656

Select medical hospitalisations
- 2,040

Total potentially preventable hospitalisations
- 629

Chronic Obstructive Pulmonary Disease (COPD) admissions
- 83

Congestive Heart Failure (CHF) admissions
- 44

Rates per 1,000 select medical hospitalisations:

<table>
<thead>
<tr>
<th>COPD</th>
<th>This period (2009-10)</th>
<th>Last period (2008-09)</th>
<th>Peer group (2009-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>40.9</td>
<td>38.0</td>
<td>41.4</td>
</tr>
<tr>
<td>Standardised</td>
<td>*</td>
<td>26.8†</td>
<td>38.8</td>
</tr>
<tr>
<td>95% CI</td>
<td>(9.5 - 47.3)</td>
<td>(36.4 - 41.3)</td>
<td>(4.5 - 8.3)</td>
</tr>
</tbody>
</table>

Rates per 1,000 select medical hospitalisations:

<table>
<thead>
<tr>
<th>CHF</th>
<th>This period (2009-10)</th>
<th>Last period (2008-09)</th>
<th>Peer group (2009-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>21.7</td>
<td>27.8</td>
<td>22.5</td>
</tr>
<tr>
<td>Standardised</td>
<td>6.2</td>
<td>*</td>
<td>24.1</td>
</tr>
<tr>
<td>95% CI</td>
<td>(4.5 - 8.3)</td>
<td>*</td>
<td>(21.8 - 26.4)</td>
</tr>
</tbody>
</table>

Lithgow Health Service: Patient profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Potentially avoidable COPD admissions

Age profile (years)
- 45-64: 22%
- 65-74: 29%
- 75-84: 35%
- 85+: 14%

Socioeconomic status (quintile of disadvantage)
- Q1: 32%
- Q2: 26%
- Q3: 19%
- Q4: 15%
- Q5: 8%

Smoking status at admission
- Current smoker: 17%
- Previous smoker: 42%
- Non-smoker: 41%

Aboriginal status
- 4%

Rural postcode
- 0%

Potentially avoidable CHF admissions

Age profile (years)
- 45-64: 10%
- 65-74: 18%
- 75-84: 37%
- 85+: 34%

Socioeconomic status (quintile of disadvantage)
- Q1: 28%
- Q2: 24%
- Q3: 21%
- Q4: 16%
- Q5: 11%

Smoking status at admission
- Current smoker: 0%
- Previous smoker: 73%
- Non-smoker: 16%

Aboriginal status
- 2%

Rural postcode
- 0%
Lithgow Health Service: Hospital stay profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

COPD admissions
- This period (2009-10)
- Last period (2008-09)
- Peer group (2009-10)

% Unplanned
- 98%

% from ED
- 78%

COPD average length of stay in days
- Actual 6.1
- 5.7
- 5.8

CHF admissions
- This period (2009-10)
- Last period (2008-09)
- Peer group (2009-10)

% Unplanned
- 100%

% from ED
- 59%

CHF average length of stay in days
- Actual 6.3
- 7.5
- 6.7

Length of stay profiles

Lithgow Health Service: Total bed days, potentially avoidable admissions for COPD and CHF
July 2005 to June 2010 (monthly)

COPD
- 2005-06: 795
- 2006-07: 794
- 2007-08: 709
- 2008-09: 439
- 2009-10: 494

CHF
- 2005-06: 309
- 2006-07: 381
- 2007-08: 378
- 2008-09: 387
- 2009-10: 261

(*) Suppressed: relative standard error \( \geq 40\% \).

1. A hospitalisation corresponds to one ‘episode of care’. A single patient can have multiple hospitalisations in the time period.
2. Excludes hospitalisations for renal dialysis, obstetrics, psychiatry, and all surgery.
4. For criteria used for COPD / CHF admissions, see Technical Supplement at www.bhi.nsw.gov.au
5. Rates are directly standardised to the NSW admitted patient population 2009-10 on the basis of age, sex, and socioeconomic status.
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7. Smoking status as recorded on admission: termed current if patient smoked tobacco within last month; previous if patient smoked tobacco in the past but excluding last month.
8. We use the term Aboriginal, rather than Aboriginal and Torres Strait Islander in line with NSW Health usage, which recognises that Aboriginal people are the original inhabitants of NSW.
9. Postcode of usual residence at time of admission classified as outer regional or remote.
10. Admissions with emergency status of ‘non-emergency / planned’.

Note: Only records with valid and non-missing data are included in each analysis.
Note: Length of stay and total bed days calculated on ‘acute’ episodes only (comprising 98.7% COPD and 97.4% CHF PAAs).
Note: Additional detail and definitions can be found in the Bureau’s Technical Supplement at www.bhi.nsw.gov.au
Source: Admitted Patient Data Collection, Health Information Exchange, NSW Health. Data extracted on 28 February 2011.

PERFORMANCE PROFILES: Chronic disease care, admissions for COPD and CHF July 2009 to June 2010 www.bhi.nsw.gov.au
Nepean Hospital: Activity profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Total hospitalisations¹ 52,349
Select medical hospitalisations² 13,916
Total potentially preventable hospitalisations³ 4,334
Chronic Obstructive Pulmonary Disease (COPD) admissions⁴ 378
Congestive Heart Failure (CHF) admissions⁴ 273

Rates per 1,000 select medical hospitalisations⁵

<table>
<thead>
<tr>
<th>COPD⁴</th>
<th>This period (2009-10)</th>
<th>Last period (2008-09)</th>
<th>Peer group (2009-10)</th>
<th>CHF⁴</th>
<th>This period (2009-10)</th>
<th>Last period (2008-09)</th>
<th>Peer group (2009-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>27.0</td>
<td>28.7</td>
<td>27.1</td>
<td>Actual</td>
<td>19.7</td>
<td>24.0</td>
<td>23.4</td>
</tr>
<tr>
<td>Standardised</td>
<td>24.4</td>
<td>29.0</td>
<td>28.3</td>
<td>Standardised</td>
<td>23.1</td>
<td>25.5</td>
<td>24.4</td>
</tr>
<tr>
<td>95% CI</td>
<td>(20.6 - 28.5)</td>
<td>(24.1 - 34.2)</td>
<td>(27.4 - 29.2)</td>
<td>95% CI</td>
<td>(18.7 - 27.9)</td>
<td>(21.5 - 29.8)</td>
<td>(23.6 - 25.3)</td>
</tr>
</tbody>
</table>

Nepean Hospital: Patient profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

Potentially avoidable COPD admissions¹,⁴

<table>
<thead>
<tr>
<th>Age profile (years)</th>
<th>45-64</th>
<th>65-74</th>
<th>75-84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td>22%</td>
<td>29%</td>
<td>35%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>28%</td>
<td>28%</td>
<td>33%</td>
<td>11%</td>
<td></td>
</tr>
</tbody>
</table>

Socioeconomic status⁶ (quintile of disadvantage)

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>26%</td>
<td>19%</td>
<td>15%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Smoking status at admission⁷

<table>
<thead>
<tr>
<th>Current smoker</th>
<th>Previous smoker</th>
<th>Non-smoker</th>
</tr>
</thead>
<tbody>
<tr>
<td>17%</td>
<td>42%</td>
<td>41%</td>
</tr>
<tr>
<td>21%</td>
<td>51%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Aboriginal status⁸

<table>
<thead>
<tr>
<th>Nepean Hospital</th>
<th>4%</th>
<th>23%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Rural postcode⁹

<table>
<thead>
<tr>
<th>Nepean Hospital</th>
<th>2%</th>
<th>19%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Nepean Hospital: Hospital stay profiles, potentially avoidable admissions for COPD and CHF
July 2009 to June 2010

COPD admissions\(^4\) This period (2009-10) Last period (2008-09) Peer group
% Unplanned\(^{10}\) 99% 99% 97%
% from ED\(^3\) 86% 86% 87%

CHF admissions\(^4\) This period (2009-10) Last period (2008-09) Peer group
% Unplanned\(^{10}\) 99% 100% 98%
% from ED\(^3\) 85% 84% 86%

COPD average length of stay in days\(^4\)

<table>
<thead>
<tr>
<th>Length of stay</th>
<th>Actual</th>
<th>Last period</th>
<th>Peer group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 days</td>
<td>4.9</td>
<td>5.8</td>
<td>6.1</td>
</tr>
</tbody>
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CHF average length of stay in days\(^4\)

<table>
<thead>
<tr>
<th>Length of stay</th>
<th>Actual</th>
<th>Last period</th>
<th>Peer group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 days</td>
<td>6.0</td>
<td>6.2</td>
<td>7.1</td>
</tr>
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</table>

Nepean Hospital: Total bed days, potentially avoidable admissions for COPD and CHF
July 2005 to June 2010 (monthly)

COPD\(^4\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total bed days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>1,913</td>
</tr>
<tr>
<td>2006-07</td>
<td>2,454</td>
</tr>
<tr>
<td>2007-08</td>
<td>2,219</td>
</tr>
<tr>
<td>2008-09</td>
<td>2,310</td>
</tr>
<tr>
<td>2009-10</td>
<td>1,715</td>
</tr>
</tbody>
</table>

CHF\(^4\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total bed days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>1,830</td>
</tr>
<tr>
<td>2006-07</td>
<td>1,967</td>
</tr>
<tr>
<td>2007-08</td>
<td>2,095</td>
</tr>
<tr>
<td>2008-09</td>
<td>1,948</td>
</tr>
<tr>
<td>2009-10</td>
<td>1,572</td>
</tr>
</tbody>
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The Bureau is an independent, board-governed statutory health corporation. The conclusions in this report are those of the Bureau and no official endorsement by the NSW Minister for Health, the NSW Department of Health or any other NSW statutory health corporation is intended or should be inferred.

About the Bureau

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Download our reports

The report, Chronic Disease Care: A piece of the picture - admissions for chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF), July 2009 to June 2010 and related reports are available at www.bhi.nsw.gov.au

The suite of products includes:

- Main report
- Performance Profiles (reports for 79 hospitals and NSW as a whole)
- Technical Supplement

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Please note that there is the potential for minor revisions of data in this report. Please check the online version at www.bhi.nsw.gov.au for any amendments.