Person—partial pressure of carbon dioxide, millimetres of mercury NNN

Exported from METEOR (AIHW's Metadata Online Registry)

Person—partial pressure of carbon dioxide, millimetres of mercury NNN

Identifying and definitional attributes

Metadata item type:	Data Element
Short name:	Partial pressure of carbon dioxide
METEOR identifier:	320642
Registration status:	Health!, Recorded 14/07/2006
Definition:	The partial pressure of carbon dioxide in a person's arterial blood gas measured in millimetres of mercury.
Data Element Concept:	Person—partial pressure of carbon dioxide
Value Domain:	Millimetres of mercury NNN

Value domain attributes

Representational attributes

Representation class:	Total	
Data type:	Number	
Format:	NNN	
Maximum character length:	3	
	Value	**Meaning**
Supplementary values:	999	Not stated/inadequately described
Unit of measure:	Millimetre of mercury (mmHg)	

Data element attributes

Source and reference attributes

Submitting organisation:	ANZICS Database Management Committee
Reference documents:	Knaus WA, Draper EA, Bergner M, Murphy DJ, Harrell FE. The APACHE III Prognostic System: Risk Prediction of Hospital Mortality for Critically III Hospitalized adults. Chest 1991;100:1619-1636.

Relational attributes

Implementation in Data Set Specifications: Intensive care DSS
Health!, Recorded 14/07/2006

DSS specific information:

~~Required for use in the assessment of severity of illness in intensive care patients. Used to adjust for case-mix in statistical reports.~~

~~If Partial pressure of carbon dioxide ($PaCO_2$) in arterial blood gas is not collected or recorded, use code 999.~~

~~Used in the calculation of APACHE II and APACHE III scores.~~

~~Oxygenation method for APACHE II and APACHE III:~~

~~When the FiO_2 is less than 0.5 mmHg, record the value associated with the~~

~~quantitatively lowest Partial pressure of oxygen (PaO_2) only.~~

~~When the Fractional value of inspired oxygen (FiO_2) is 0.50 mmHg or greater, APACHE II & III scores require the use of an algorithm for oxygenation called the alveolar-arterial (A-a) gradient for determining the $PaCO_2$ to record. All variables used in the oxygenation method calculation must come from the one blood gas sample.~~

~~Acid-Base method for APACHE III:~~

~~All variables used in the acid-base method calculation must come from the one blood gas sample.~~

~~In conjunction with the pH of the same blood sample, the $PaCO_2$ associated with the highest points according to the APACHE III acid-base scoring algorithm is recorded.~~

~~The $PaCO_2$ is determined from a patient's blood collected over the first 24 hours of intensive care.~~

~~APACHE III and APACHE II scores calculation – oxygenation method:~~

~~For non-intubated patients or intubated patients whose FiO_2 is <0.5 mmHg, record the PaCO2 associated with the arterial blood gas sample with the lowest PaO_2.~~

~~For intubated patients whose oxygen is >0.5 mmHg, record the PaCO2 from the arterial blood gas with the highest alveolar arterial (A-A) gradient. Use the following formula to calculate the A-a gradient:~~

~~A-a gradient = 713 x FiO_2 – PaO_2 – $PaCO_2$~~

~~APACHE III score calculation -acid-base scoring algorithm:~~

~~In conjunction with the pH of the same blood sample, record the partial pressure of carbon dioxide associated with the highest points APACHE III acid-base scoring algorithm. The point weight score is calculated using the table below.~~

<table>
<tr><th>$PaCO_2$
pH</th><th><25</th><th>25-
<30</th><th>30-
<35</th><th>35-
<40</th><th>40-
<45</th><th>45-
<50</th><th>50-
<55</th><th>55-
<60</th><th>≥60</th></tr>
<tr><td><7.15</td><td colspan="6" rowspan="2">12</td><td colspan="3" rowspan="2">4</td></tr>
<tr><td>7.15-<7.2</td></tr>
<tr><td>7.20-
<7.25</td><td colspan="2" rowspan="3">9</td><td colspan="2" rowspan="2">6</td><td colspan="2" rowspan="2">3</td><td colspan="3" rowspan="2">2</td></tr>
<tr><td>7.25-
<7.30</td></tr>
<tr><td>7.30-
<7.35</td><td colspan="3" rowspan="3">0</td><td colspan="4" rowspan="3">1</td></tr>
<tr><td>7.35-
<7.40</td><td colspan="2" rowspan="3">5</td></tr>
<tr><td>7.40-
<7.45</td></tr>
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<7.50</td><td colspan="3">2</td><td colspan="4">12</td></tr>
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<7.55</td><td colspan="4" rowspan="2">3</td><td colspan="5" rowspan="3">12</td></tr>
<tr><td>7.55-
<7.60</td></tr>
<tr><td>7.60-
<7.65</td><td>0</td><td colspan="3"></td></tr>
</table>

>7.65			

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