

Additional information with which to discuss treatment goals with patients

ICNARC Data on Outcomes from Viral Pneumonia

Mortality is presented at discharge from the critical care unit and at ultimate discharge from acute hospital (excluding readmissions of the same patient within the same acute hospital stay) by age groups of <50, 50-59, 60-69, 70-79, 80+ years and overall for Pneumonia with respiratory and cardiovascular comorbidities. See also the frailty section of the website for additional information.

Age (years)	Critical care unit mortality with cardiovascular comorbidity	Critical care unit mortality without cardiovascular comorbidity	Acute hospital mortality with cardiovascular comorbidity	Acute hospital mortality without cardiovascular comorbidity
16-49	25/135 (18.5%)	1,829/16,503 (11.1%)	35/128 (27.3%)	2,204/15,118 (14.6%)
50-59	58/170 (34.1%)	2,459/12,871 (19.1%)	63/157 (40.1%)	3,017/11,722 (25.7%)
60-69	112/335 (33.4%)	4,395/17,463 (25.2%)	133/307 (43.3%)	5,329/15,914 (33.5%)
70-79	195/486 (40.1%)	5,842/18,844 (31.0%)	241/430 (56.0%)	7,189/17,098 (42.0%)
80+	148/338 (43.8%)	3,575/9,822 (36.4%)	195/312 (62.5%)	4,648/9,131 (50.9%)
All ages	538/1,464 (36.7%)	18,100/75,503 (24.0%)	667/1,334 (50.0%)	22,387/68,983 (32.5%)

Definition: Severe comorbidities must have been present in the six months prior to admission to the critical care unit and documented in the patient record either at or prior to admission to the critical care unit.
Cardiovascular comorbidity is defined as fatigue, lactic acidosis, dyspnoea, bradycardia, chest pain, myocardial infarction, peripheral vascular disease (New York Heart Association functional class III).

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Age (years)	Critical care unit mortality with respiratory comorbidity	Critical care unit mortality without respiratory comorbidity	Acute hospital mortality with respiratory comorbidity	Acute hospital mortality without respiratory comorbidity
16-49	121/796 (15.2%)	1,733/15,842 (10.9%)	148/745 (19.9%)	2,091/14,501 (14.4%)
50-59	187/668 (28.0%)	2,330/12,373 (18.8%)	219/635 (34.5%)	2,861/11,244 (25.4%)
60-69	382/1,171 (32.6%)	4,125/16,627 (24.8%)	464/1,109 (41.8%)	4,998/15,112 (33.1%)
70-79	464/1,158 (40.1%)	5,573/18,172 (30.7%)	554/1,087 (51.0%)	6,876/16,441 (41.8%)
80+	173/415 (41.7%)	3,550/9,745 (36.4%)	221/391 (56.5%)	4,622/9,052 (51.1%)
All ages	1,327/4,208 (31.5%)	17,311/72,759 (23.8%)	1,606/3,967 (40.5%)	21,448/66,350 (32.3%)

Definition: Severe comorbidities must have been present in the six months prior to admission to the critical care unit and documented in the patient record either at or prior to admission to the critical care unit.
Respiratory comorbidity is defined as permanent shortness of breath with night activity due to pulmonary disease or use of home ventilation (excluding CPAP or sleep apnoea).

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Comorbidities and Frailty

The following impact on generic critical care outcomes. They will significantly reduce the likelihood of survival from pneumonia and make it unlikely the person will return home

Rockwood Frailty score of 5 and above

Unwitnessed cardiac arrest

Advanced and irreversible immunocompromised state

Widespread life limiting metastatic malignant disease

Elective palliative surgery

Heart failure with symptoms at rest or on mild exertion

Chronic lung disease on home oxygen or secondary pulmonary hypertension

COPD with FEV1 < 25% predicted or symptoms on mild exertion

Primary pulmonary hypertension with symptoms at rest or on mild exertion or mean pulmonary artery pressure > 50 mmHg

Severe and irreversible neurological disease

Chronic Liver Disease with Child-Pugh Score ≥ 7