

Ambulatory COPD patients

- 25% of patients with severe COPD, (FEV1 less than 35%), die within two years and 55% by four years.
- Additional independent indicators of reduced survival time include low body mass index, serum inflammatory biomarkers, (such as C-reactive protein, IL-6, and fibrinogen, and low PaO2).
- The BODE index, which takes into consideration BMI, exercise capacity, and subjective estimates of dyspnea has been shown to help predict survival over two years.

Variable	Points on BODE Index			
	0	1	2	3
FEV1 (% predicted)	≥65	50-64	36-49	≤35
Distance walked in 6 min (meters)	>350	250-349	150-249	≤149
MMRC dyspnea scale*	0-1	2	3	4
Body-mass index (BMI)	>21	≤21		

*MMRC dyspnea scale range from 0 (none) to 4, (4 = dyspnea when dressing or undressing)

BODE Index Score	Two year mortality
0-2	6%
3-4	8%
4-6	14%
7-10	31%

Hospitalized COPD patients

- 10% of patients admitted with a PaCO₂ > 50 mmHg will die during that hospitalization, 33% will die within six months, and 43% will die within one year
- COPD patients who require mechanical ventilation have an in-hospital mortality of approximately 25%.
- Poor prognostic indicators:
 - Co-morbid illnesses
 - Low serum albumin
 - BMI ≤ 21
 - Severity of illness, (APACHE II score)
 - Low hemoglobin
- Patients ventilated more than 48 hours had a 50% one-year survival, (shown in one study)
 - Functional status and severity of illness were associated with short-term mortality
 - Presence of co-morbidities was associated with a one-year mortality
- Patients admitted to the ICU have greater symptom burden and less input from other services, such as palliative care.

General

- Clinical measures, such as cor pulmonale, elevated pCO₂, and low FEV₁, along with a history of respiratory failure, are highly predictive of 6-month mortality.
- A combination of simple measures of disease severity and comorbidities can provide a reasonable indication of death within 6-12 months, such as Charlson Comorbidity Index.