

INDICATION

Estimates risk of mortality within ITU.

ADDITIONAL INFORMATION

The following defines "chronic organ insufficiency" and immunocompromise:

- Liver insufficiency
 - Biopsy proven cirrhosis
 - Documented portal hypertension
 - Episodes of past upper GI bleeding attributed to portal hypertension
 - Prior hepatic episodes
- Cardiovascular
 - New York Heart Association Class IV Heart Failure
- Respiratory
 - Chronic restrictive or vascular disease resulting in severe exercise restriction
 - Documented chronic hypoxia, hypercapnia, secondary severe pulmonary hypertension (>40 mmHg), or respiratory dependency
- Renal
 - Receiving chronic dialysis
- Immunosuppression
 - Disease that suppresses resistance to infection:
 - Leukaemia
 - Lymphoma
 - AIDS
 - Therapy that suppresses resistance to infection:
 - Immuno-suppression (e.g. DMARDs)
 - Chemotherapy
 - Radiation
 - Recent high dose steroids

INTERPRETATION

APACHE II SCORE	APPROX. IN-HOSPITAL MORTALITY RATE	
	NON-OPERATIVE	OPERATIVE
0-4	4%	1%
5-9	8%	3%
10-14	15%	7%
15-19	25%	12%
20-24	40%	30%
25-29	55%	35%
30-34	73%	73%
>34	85%	85%

CALCULATION

Total score = sum of scores for each question

QUESTION	POINTS
Age	
≤44	0
45-54	2
55-64	3
65-74	5
>74	6
History of severe organ insufficiency or immunocompromised	
Yes, and non-operative or emergency post-operative patient	5
Yes and elective post-operative patient	2
No	0
Rectal temperature °C	
≥41	4
39 to <41	3
38.5 to <39	1
36 to <38.5	0
34 to <36	1
32 to <34	2
30 to <32	3
<30	4
Mean arterial pressure (mmHg)	
>159	4
>129-159	3
>109-129	2
>69-109	0
>49-69	2
≤49	4
Heart rate (bpm)	
≥180	4
140 to <180	3
110 to <140	2
70 to <110	0
55 to <70	2
40 to <55	3
<40	4
Respiratory rate (min)	
≥50	4
35 to <50	3
25 to <35	1
12 to <25	0
6 to <12	2
<6	4
Oxygenation (use PaO₂ if FiO₂ <50%, otherwise use A-a gradient)	
A-a gradient >499	4
A-a gradient 350-499	3
A-a gradient 200-349	2
A-a gradient <200 (if FiO ₂ over 49%) or pO ₂ >70 (if FiO ₂ less than 50%)	0
PaO ₂ = 61-70	1
PaO ₂ = 55-60	3
PaO ₂ <55	4
Arterial PH	
≥7.70	4
7.6 to <7.70	3
7.50 to <7.60	1
7.33 to <7.50	0
7.25 to <7.33	2
7.15 to <7.25	3
<7.15	4
Serum sodium mmol/L	
≥180	4
160 to <180	3
155 to <160	2
150 to <155	1
130 to <150	0
111 to <130	2
<111	3
Serum potassium mmol/L	
≥7.0	4
6.0 to <7.0	3
5.5 to <6.0	2
3.5 to <5.5	0
3.0 to <3.5	1
2.5 to <3.0	2
<2.5	4
Serum creatinine mg/dL	
≥3.5 and ACUTE renal failure	8
2.0 to <3.5 and ACUTE renal failure	6
≥3.5 and CHRONIC renal failure	4
1.5 to <2.0 and ACUTE renal failure	4
2.0 to <3.5 and CHRONIC renal failure	3
1.5 to <2.0 and CHRONIC renal failure	2
0.6 to <1.5	0
<0.6	2
Haematocrit %	
≥60	4
50 to <60	2
46 to <50	1
30 to <46	0
20 to <30	2
<20	4
White blood cell count ×10⁹/L	
≥40	4
20 to <40	2
15 to <20	1
3 to <15	0
1 to <3	2
<1	4
Glasgow Coma Scale	
15 - GCS	