

ALLEGATO 3. APACHE 2 SCORE

William A. Knaus, MD; Elizabeth A. Draper, MS; Douglas P. Wagner, PhD; Jack E. Zimmerman, MD. APACHE II: A severity of disease classification system. Crit. Care Med. 1985; 818-829

PHYSIOLOGIC VARIABLE	HIGH ABNORMAL RANGE					LOW ABNORMAL RANGE			
	+ 4	+ 3	+ 2	+ 1	0	+ 1	+ 2	+ 3	+ 4
TEMPERATURE – rectal (C°)	0 ≥ 41°	0 39° - 40.9°	0	0 38.5° - 38.9°	0 36° - 38.4°	0 34° - 35.9°	0 32.3° - 33.9°	0 30° - 31.9°	0 ≤ 29.9°
MEAN ARTERIAL PRESSURE – mm Hg	0 ≥ 160	0 130 - 159	0 110 - 129	0	0 70 - 109	0	0 50 - 69	0	0 ≤ 49
HEART RATE (ventricular response)	0 ≥ 180	0 140 - 179	0 110 - 139	0	0 70 - 109	0	0 55 - 69	0 40 - 54	0 ≤ 39
RESPIRATORY RATE – (non ventilated or ventilated)	0 ≥ 50	0 35 - 49	0	0 25 - 34	0 12 - 24	0 10 - 11	0 6 - 9	0	0 ≤ 5
OXYGENATION: A aDO ₂ or PaO ₂ (mm Hg) a. FIO ₂ ≥ 0.5 record a A aDO ₂	0 ≥ 500	0 350 - 499	0 200 - 349	0	0 <200	0	0	0	0
b. FIO ₂ < 0.5 record only PaO ₂	0	0	0	0	0 PO ₂ > 70	0 PO ₂ 61 - 70	0	0 PO ₂ 55 - 60	0 PO ₂ <55
ARTERIAL pH	0 ≥ 7.7	0 7.6 - 7.69	0	0 7.5 - 7.59	0 7.33 - 7.49	0	0 7.25 - 7.32	0 7.15 - 7.24	0 < 7.15
SERUM SODIUM (mMol/L)	0 ≥ 180	0 160 - 179	0 155 - 159	0 150 - 154	0 130 - 149	0	0 120 - 129	0 111 - 119	0 ≤ 110
SERUM POTASIUM (mMol/L)	0 ≥ 7	0 6 - 6.9	0	0 5.9 - 5.9	0 3.5 - 5.4	0 3 - 3.4	0 2.5 - 2.9	0	0 < 2.5
SERUM CREATININE (mg/100ml) (Double point score for acute renal failure)	0 ≥ 3.5	0 2 - 3.4	0 1.5 - 1.9	0	0 0.6 - 1.4	0	0 < 0.6	0	0
HEMATOCRIT (%)	0 ≥ 60	0	0 50 - 59.9	0 46 - 49.9	0 30 - 45.9	0	0 20 - 29.9	0	0 < 20
WHITE BLOOD COUNT (total/mm ³) (in 1.000s)	0 ≥ 40	0	0 20 - 39.9	0 15 - 19.9	0 3 - 14.9	0	0 1 - 2.9	0	0 < 1
GLASGOW COMA SCORE (GCS) Score = 15 minus actual GCS									
A Total ACUTE PSYIOLOGIC SCORE (APS) Sum of the 12 individual variable points									
Serum HCO ₂ (venous mMol/L) (Not preferred, use if no ABGs)	0 ≥ 52	0 41 - 51.9	0	0 32 - 40.9	0 22 - 31.9	0	0 18 - 21.9	0 15 - 17.9	0 < 15

B AGE POINTS:
Assign points to age as follows

AGE (yrs)	Points
≤ 44	0
45 - 54	2
55 - 64	3
65 - 74	5
≥ 75	6

C CHRONIC HEALTH POINTS
If the patient has a history of severe organ system insufficiency or is immuno-compromised assign points as follows

- for nonoperative or emergency postoperative patients – 5 points
- or
- for elective postoperative patients – 2 points

DEFINITIONS
Organ Insufficiency or immuno-compromised state must have been evident **prior** to this hospital admission and conform to the following criteria
LIVER: Biopsy proven cirrhosis and documented portal hypertension, episodes of past upper GI bleeding attributed to portal hypertension or prior episodes of hepatic failure/encephalopathy/coma

CARDIOVASCULAR: New York Heart Association Class IV
RESPIRATORY: Chronic restrictive, obstructive or vascular disease resulting in severe exercise restriction, i.e., unable to climb stairs or perform household duties; or documented chronic hypoxia, hypercapnia, secondary polycythemia, severe pulmonary hypertension (>40mmHg); or respirator dependency.
RENAL: Receiving chronic dialysis
IMMUNO-COMPROMISED: The patient has received therapy that suppresses resistance to infection, e.g. immuno-suppression, chemotherapy, radiation, long term or recent high dose steroids or has a disease that is sufficiently advanced to suppress resistance to infection e.g. leukemia, lymphoma, AIDS

APACHE II score
A + **B** + **C**

A APS points
B Age points
C Chronic Health points
Total ---- APACHE II