

## A. Physiologic Variables Points

| PHYSIOLOGIC VARIABLE   | HIGH ABNORMAL RANGE   |          |         |           |                      | LOW ABNORMAL RANGE    |                    |                       |                      | PT SCORE |
|--|---|----------|---------|-----------|----------------------|-----------------------|--------------------|-----------------------|----------------------|----------|
|  | 4   | 3        | 2       | 1         | 0                    | 1                     | 2                  | 3                     | 4                    |          |
| Temperature - rectal (°C)  | ≥ 41  | 39-40.9  |         | 38.5-38.9 | 36-38.4              | 34-35.9               | 32-33.9            | 30-31.9               | ≤ 29.9               |          |
| MAP (mmHg)   | ≥ 160   | 130-159  | 110-129 |           | 70-109               |                       | 50-69              |                       | ≤ 49                 |          |
| Heart Rate   | ≥ 180   | 140-179  | 110-139 |           | 70-109               |                       | 55-69              | 40-54                 | ≤ 39                 |          |
| Respiratory Rate (non-ventilated or ventilated)                            | ≥ 50  | 35-49    |         | 25-34     | 12-24                | 10-11                 | 6-9                |                       | ≤ 5                  |          |
| Oxygenation: $[A-aDO_2 = (FiO_2 \times 710) - (PCO_2 \times 1.25) - PO_2]$ |   |          |         |           |                      | FiO <sub>2</sub> =    | PCO <sub>2</sub> = | PO <sub>2</sub> =     |                      |          |
| a. FiO <sub>2</sub> ≥ 0.5 record A-aDO <sub>2</sub>                        | ≥ 500   | 350-499  | 200-349 |           | < 200                |                       |                    |                       |                      |          |
| b. FiO <sub>2</sub> < 0.5 record only PaO <sub>2</sub>                     |   |          |         |           | PO <sub>2</sub> > 70 | PO <sub>2</sub> 61-70 |                    | PO <sub>2</sub> 55-60 | PO <sub>2</sub> < 55 |          |
| Arterial pH  | ≥ 7.7   | 7.6-7.69 |         | 7.5-7.59  | 7.33-7.49            |                       | 7.25-7.32          | 7.15-7.24             | < 7.15               |          |
| Serum Na (mmol/L)  | ≥ 180   | 160-179  | 155-159 | 150-154   | 130-149              |                       | 120-129            | 111-119               | ≤ 110                |          |
| Serum K (mmol/L)   | ≥ 7   | 6-6.9    |         | 5.5-5.9   | 3.5-5.4              | 3-3.4                 | 2.5-2.9            |                       | < 2.5                |          |
| Serum Creatinine (umol/L)  | > 305   | 170-304  | 130-169 |           | 53-129               |                       | < 53               |                       |                      |          |
| Hematocrit (%)   | ≥ 60  |          | 50-59.9 | 46-49.9   | 30-45.9              |                       | 20-29.9            |                       | < 20                 |          |
| WBC (total/mm <sup>3</sup> )   | ≥ 40  |          | 20-39.9 | 15-19.9   | 3-14.9               |                       | 1-2.9              |                       | < 1                  |          |
| Glasgow Coma Score (GCS)   | Score = 15 minus actual GCS (see below)   |          |         |           |                      |                       |                    |                       |                      |          |
| Serum HCO <sub>3</sub> (venous mmol/L) - not preferred, use if no ABG's    | ≥ 52  | 41-51.9  |         | 32-40.9   | 22-31.9              |                       | 18-21.9            | 15-17.0               | < 15                 |          |
| <b>Creatinine double points for ACUTE Renal Failure</b>                    | <b>ACUTE PHYSIOLOGY SCORE (APS): Sum of the 12 individual variable points =</b> |          |         |           |                      |                       |                    |                       |                      |          |

## 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      |
| <b>AGE SCORE =</b> |        |

## C. Chronic Health Points - If the patient has a history of severe organ system insufficiency (see below) or is immunocompromised assign points as follows:

- For nonoperative or emergency postoperative pt -- 5 points
- For elective postoperative pt -- 2 points

**CHRONIC HEALTH SCORE =**

## D. APACHE II SCORE - Sum of A + B + C

|                          |                      |
|--------------------------|----------------------|
| A. APS points            | <input type="text"/> |
| B. Age points            | <input type="text"/> |
| C. Chronic Health points | <input type="text"/> |
| <b>APACHE II SCORE =</b> |                      |

| GLASCOW COMA SCALE     |                         |                                 |
|------------------------|-------------------------|---------------------------------|
| Parameter              | Response                | Points Assigned (please circle) |
| Eyes Open              | Spontaneously           | 4                               |
|                        | On spoken command       | 3                               |
|                        | On pain                 | 2                               |
|                        | No response             | 1                               |
| Best Motor Response    | To spoken command       | 6                               |
|                        | To painful stimulus:    |                                 |
|                        | Localized pain          | 5                               |
|                        | Flexion withdrawal      | 4                               |
|                        | Flexion abnormal        | 3                               |
|                        | Extension               | 2                               |
| Best Verbal Response   | No response             | 1                               |
|                        | (Not on ventilator)     |                                 |
|                        | Oriented & converses    | 5                               |
|                        | Disoriented & converses | 4                               |
|                        | Inappropriate words     | 3                               |
|                        | Incomprehensible sounds | 2                               |
|                        | No response             | 1                               |
|                        | (On ventilator)         |                                 |
|                        | Appears oriented        | 5                               |
| Questionably oriented  | 3                       |                                 |
| Generally unresponsive | 1                       |                                 |
| <b>TOTAL GCS =</b>     |                         | <input type="text"/>            |

## CHRONIC HEALTH DEFINITIONS

Organ insufficiency or immuno-compromised state evident prior to this hospital admission and are consistent with the following criteria:

**LIVER:** Biospy-proven cirrhosis and documented portal hypertension; prior episodes of 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 activities of daily living or household duties; or documented chronic hypoxia, hypercapnia, secondary polycythemia, severe pulmonary hypertension (>40 mmHg), or ventilator dependency

**RENAL:** Receiving chronic dialysis

**IMMUNO-COMPROMISED:** The patient has received therapy that suppresses resistance to infection (i.e., immuno-suppressive treatment, chemotherapy, radiation, long term or recent high dose steroids, or has a disease that is sufficiently advanced to suppress resistance to infection (i.e., leukemia, lymphoma, AIDS)