

Post Cardiac Arrest Category

Examine coma and brainstem reflexes (best motor response to voice or pain, pupil reaction to light, corneal response, gag, cough, spontaneous breathing) **and shock** (how much pressor is required to keep SBP>100 mmHg) **and pulmonary status** (can you oxygenate the patient)

Category 1 Awake

Follows commands or makes purposeful movements (e.g. pulling at tubes and lines)

Category 2 Coma without severe shock

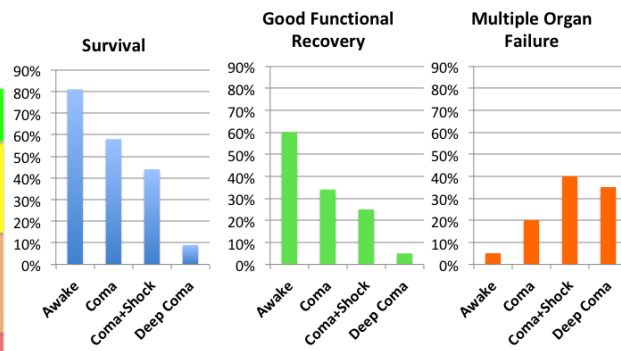
Does not follow commands or make purposeful movement but brainstem reflexes are present. Modest pressor requirements (dopamine ≤10 mcg/kg/min; norepinephrine ≤0.1 mcg/kg/min) and reasonable to oxygenate (e.g. SaO₂ 90-100% with standard pressure control ventilation)

Category 3 Coma with severe shock or pulmonary dysfunction

Does not follow commands or make purposeful movement but brainstem reflexes are present. High pressor requirements (e.g. dopamine >10 mcg/kg/min; norepinephrine or epinephrine ≥0.1 mcg/kg/min) or very difficult to oxygenate (SaO₂ <90% or requiring special ventilation modes)

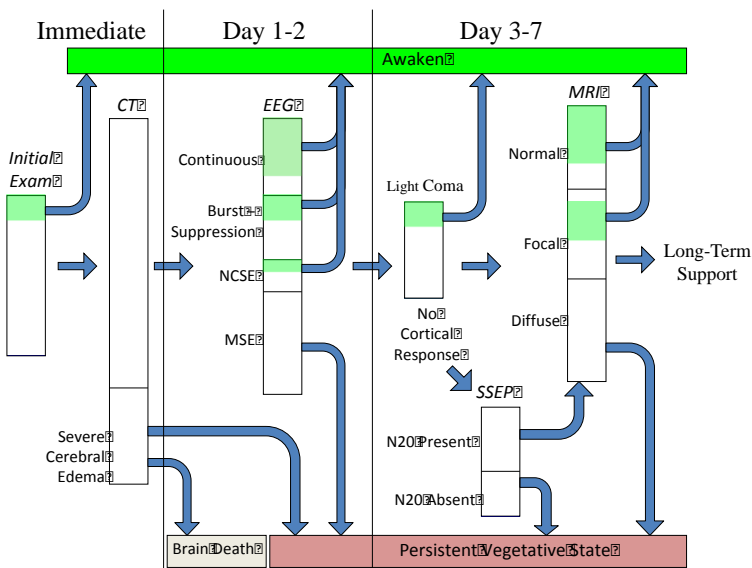
Category 4 Coma with loss of brainstem reflexes

Does not follow commands or make purposeful movement and multiple brainstem reflexes are lost (e.g. no pupil response or gag or cough)..

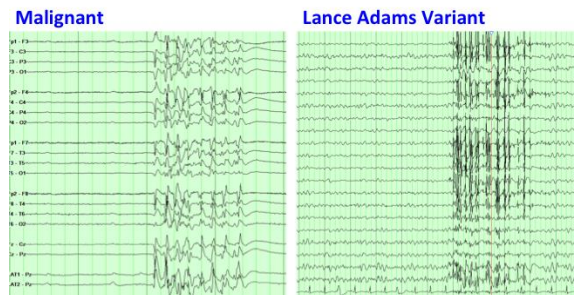


Derivation: Rittenberger 2011; Resuscitation 82: 1399-1404
Validation: Coppler 2015; Resuscitation 89:86-92

- Etiology
 - Heart, Lung Blood, Brain, Bugs, Blockages, Minerals, Environment
- Airway and Ventilation
 - Expect pulmonary edema and ARDS (watch pressure)
 - Minute ventilation ~12-15 lpm to start; PaCO₂ ~40 mmHg
- Blood Pressure and Pressors
 - Mean pressure 80-100 mmHg
 - Arterial Line for CONTINUOUS monitoring
- Coronary Angiography
 - STEMI (PCAC 1-3, maybe PCAC 4)
 - NSTEMI: story is good; shockable rhythm; focal WMA; rising troponin; unstable
- Temperature Management
 - PCAC 1 – not indicated; PCAC 2-4 – 36°C
 - Lower (32-33°C) or longer if cerebral edema, seizures or hypoperfusion of brain
- Prognosis / neuro monitoring
 - CT head, EEG; Expect seizure, brain edema, and treat the treatable ones
 - Later SSEP or MRI if indicated or uncertain



EEG Distinguishes Two Types of Status Myoclonus



Elmer et al., Ann Neurol. 2016; 80: 175-84