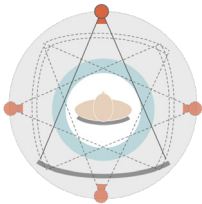**Post-cardiac arrest care**

PREDICTING OUTCOMES AFTER CARDIAC ARREST

Prognostication for comatose survivors of cardiac arrest may help temper the expectations of surviving family and friends, as well as improve resource allocation. Unfortunately, it is often very difficult to predict outcomes, especially soon after arrest.
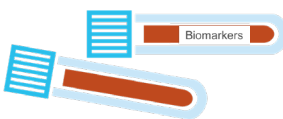

Physical exam and imaging

Physical exam findings like pupillary response and corneal reflex are unfortunately not very reliable. Imaging studies like computed tomography (CT) or magnetic resonance imaging (MRI) may have some utility, and are generally more helpful for identifying injury. A normal exam is more difficult to interpret.

Other test results

Abnormal results from electrophysiological studies, such as electroencephalogram (EEG), or somatosensory evoked potentials, correlate with poor long-term outcomes. Biomarkers like neuron-specific enolase (NSE) or S100-β have also shown increased promise for predicting neurological injury.

When should I make predictions?

72 hours

Most sources suggest that prognostication should be delayed until at least 72 hours following the arrest, or in cases using therapeutic hypothermia, 72 hours after rewarming. It is also important to account for the effects of sedative medications, which may have a prolonged duration of effect after cardiac arrest or in patients on mechanical circulatory support.