**Question:** Do EEG parameters (Continuous or nearly continuous background without discharges using ACNS definitions, Other EEG patterns with continuous or nearly continuous backgrounds using non-ACNS definitions, Continuous background assessed via reduced montage or amplitude integrated EEG, or other EEG derived indices such as BiSpectral Index) predict favorable neurologic outcome at hospital discharge to 6 months after arrest for patients comatose after cardiac arrest?

|  |  |  |
| --- | --- | --- |
| Certainty Assessment | Certainty | Importance |
| No of Studies | Study Design | Risk of Bias | Inconsistency | Indirectness | Imprecision | Other Considerations |

**Continuous or nearly continuous background without discharges (ACNS definition)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | Observational studies (2474 patients) | Very seriousa | Seriousb | Not serious | Seriousc | Heterogeneity did not allow pooling to generate effect estimates.  | very low | Critical  |

**Other EEG patterns with continuous or nearly continuous backgrounds with other features (Non-ACNS definitions)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | Observational studies (177 patients) | Very seriousa | Very Seriousb | Not serious | Seriousc | Heterogeneity did not allow pooling to generate effect estimates.  | Very low | Critical  |

**EEG – Continuous background assessed via reduced montage and/or amplitude integrated EEG**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | Observational studies (282 patients) | Very seriousa | Very Seriousb | Not serious | Seriousc | Heterogeneity did not allow pooling to generate effect estimates.  | Very low | Critical  |

**EEG-derived indices**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | Observational studies (210 patientsfor BIS and 53 patients for CRI) | Very seriousa | Very Seriousb | Not serious | Seriousc | Heterogeneity did not allow pooling to generate effect estimates.  | Very low | Critical  |

1. Risk of bias due to lack of blinding and consequent risk of self-fulfilling prophecy. Use of medications that could influence EEG patterns was not always reported.
2. Heterogeneity of some EEG pattern definitions and timing of acquisition.
3. Small sample sizes and wide range of sensitivity and specificity between studies.