QUADAS-2
Phase 1: State the review question:

<table>
<thead>
<tr>
<th>Patients (setting, intended use of index test, presentation, prior testing):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Index test(s):</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Reference standard and target condition:</td>
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</table>

Phase 2: Draw a flow diagram for the primary study
Phase 3: Risk of bias and applicability judgments

QUADAS-2 is structured so that 4 key domains are each rated in terms of the risk of bias and the concern regarding applicability to the research question (as defined above). Each key domain has a set of signalling questions to help reach the judgments regarding bias and applicability.

### DOMAIN 1: PATIENT SELECTION

#### A. Risk of bias

<table>
<thead>
<tr>
<th>Question</th>
<th>Risk of bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Does the study primarily include patients in a medically stable phase, i.e. not intensive care patients where clinical changes can be expected over very brief time-spans, rendering the relationship between behavioral and electrophysiological assessments difficult to interpret. If the electrophysiological and behavioral assessments are performed within the same session, bias is not considered present even in patients in a very early phase of recovery.</td>
<td>Yes/No/Unclear</td>
</tr>
<tr>
<td>2: Did the study clearly differentiate patients with DoC from patients in a coma or patients with Locked In Syndrome when relevant?</td>
<td>Yes/No/Unclear</td>
</tr>
<tr>
<td>3: Was a consecutive or random sample of patients enrolled?</td>
<td>Yes/No/Unclear</td>
</tr>
<tr>
<td>4: Did the study avoid inappropriate exclusion, meaning that concurrent referrals, outpatients and patients admitted to rehabilitation programs were included? If not avoided, this can represent bias in sample selection. e.g. regarding injury severity and prognosis.</td>
<td>Yes/No/Unclear</td>
</tr>
</tbody>
</table>

Could the selection of patients have introduced bias?  
**RISK: LOW/HIGH/UNCLEAR**

#### B. Concerns regarding applicability

<table>
<thead>
<tr>
<th>Question</th>
<th>Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe included patients (prior testing, presentation, intended use of index test and setting):</td>
<td>Are there concerns that the included patients and setting do not match the review question?</td>
</tr>
</tbody>
</table>
DOMAIN 2: INDEX TEST

A. Risk of bias

Describe the index test and how it was conducted and interpreted:

1: Were the index test results interpreted without knowledge of the results of the reference standard (i.e. are researchers conducting electrophysiological assessment blinded to the behavioral assessment)? If the index test is always conducted and interpreted prior to the reference standard, this item can be rated “yes”.

Yes/No/Unclear

2: Is a detailed description of procedures for preprocessing and analysis of the EEG data provided?

Yes/No/Unclear

3: Is a detailed and reproducible description of experimental procedures provided?

Yes/No/Unclear

Could the conduct or interpretation of the index test have introduced bias?

RISK: LOW/HIGH/UNCLEAR

B. Concerns regarding applicability

Are there concerns that the index test, its conduct, or interpretation differ from the review question?

CONCERN: LOW/HIGH/UNCLEAR

DOMAIN 3: REFERENCE STANDARD

A. Risk of bias

Describe the reference standard and how it was conducted and interpreted:

1: Did conclusions based on behavioral patient assessments adhere to established diagnostic criteria for VS and MCS?

Yes/No/Unclear

2: Were the behavioral assessment results interpreted without knowledge of the results of the electrophysiological assessment?

Yes/No/Unclear

Could the reference standard, its conduct, or its interpretation have introduced bias?

RISK: LOW/HIGH/UNCLEAR

B. Concerns regarding applicability

Are there concerns that the target condition as defined by the reference standard does not match the question?

CONCERN: LOW/HIGH/UNCLEAR
DOMAIN 4: FLOW AND TIMING

A. Risk of bias

1. Was the behavioral assessment conducted on the same day as the electrophysiological recording?
   Yes/No/Unclear

2. Were all patients behaviorally assessed with the same standardized measure?
   Yes/No/Unclear

Could the patient flow have introduced bias?
RISK: LOW/HIGH/UNCLEAR

Guidelines:
If any signaling-question is answered “no,” potential for bias exists, and the domain is judged as “high risk of bias”. The “unclear” category should be used only when insufficient data are reported to permit a judgment. If a study is judged as “low” on all domains relating to bias or applicability, then it is appropriate to have an overall judgment of “low risk of bias” or “low concern regarding applicability” for that study. If a study is judged “high” or “unclear” in 1 or more domains, then it may be judged “at risk of bias” or as having “concerns regarding applicability.”