**Supplemental table 1**. Quality assessment of included studies following the Quality in Prognosis Studies Tool

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Author and year of publication** | **Study participation** | **Study attrition** | **Prognostic factor measurement** | **Outcome measurement** | **Study confounding** | **Statistical analysis and reporting** |
|  | The source population is adequately described for key characteristics (encephalopathy grade, cooling, APGAR score).  The sampling frame and recruitment are adequately described, incl. methods to identify the sample sufficient to limit potential bias.  Period and place of recruitment is described.  Inclusion and exclusion criteria are adequately described.  There is adequate participation in the study by eligible individuals.  The baseline study sample is adequately described for key characteristics. | Response rate is adequate.  Attempts to collect information on participants who dropped out of the study are described.  Reasons for loss to follow-up are provided.  Participants lost to follow-up are adequately described for key characteristics (encephalopathy grade, cooling, APGAR score).  There are no important differences between key characteristics and outcomes in participants who completed the study and those who did not. | A clear definition or description of prognostic factor is provided.  Method of prognostic factor measurement is adequately valid and reliable to limit misclassification bias.  Continuous variables are reported or appropriate cut-points (i.e., not data-dependent) are used.  The method and setting of measurement of prognostic factor is the same for all study participants.  Adequate proportion of the study sample has complete data for prognostic factor variable.  Appropriate methods of imputation are used for missing prognostic factor data. | A clear definition of outcome is provided, including duration of follow-up and level and extent of the outcome construct.  The method of outcome measurement used is adequately valid and reliable to limit misclassification bias.  The method and setting of outcome measurement is the same for all study participants. | All important confounders, including treatments are measured.  Clear definitions of the important confounders measured are provided.  Measurement of all important confounders is adequately valid and reliable.  The method and setting of confounding measurement are the same for all study participants.  Appropriate methods are used if imputation is used for missing confounder data.  Important potential confounders are accounted for in the study design and analysis. | There is sufficient presentation of data to assess the adequacy of the analysis.  The strategy for model building (i.e., inclusion of variables in the statistical model) is appropriate and is based on a conceptual framework or model.  The selected statistical model is adequate for the design of the study.  There is no selective reporting of results. |
| Aeby 2013 | NA | NA | NA | NA | NA | moderate |
| Al Amrani 2017 | moderate | moderate | low | moderate | low | moderate |
| Al Amrani 2018 | moderate | moderate | low | moderate | low | moderate |
| Alderliesten 2015 | moderate | low | moderate | moderate | low | moderate |
| Alderliesten 2016 | low | low | moderate | moderate | low | moderate |
| Ancora 2013 | moderate | low | moderate | moderate | low | high |
| Azzopardi 2014 | low | low | low | moderate | low | moderate |
| Barta 2018 | low | moderate | moderate | low | low | moderate |
| Burton 2015 | moderate | high | low | low | low | moderate |
| Cainelli 2018 | high | moderate | moderate | low | low | moderate |
| Chalak 2014 | low | moderate | low | low | low | moderate |
| Charon 2016 | low | moderate | moderate | moderate | low | moderate |
| Cseko 2013 | low | moderate | low | moderate | low | moderate |
| De Wispelaere 2018 | low | low | moderate | moderate | low | low |
| Del Balzo 2014 | moderate | low | moderate | moderate | low | high |
| Dereymaeker 2018 | low | low | low | moderate | low | moderate |
| Dunne 2016 | moderate | low | low | moderate | low | moderate |
| Fitzgerald 2018 | low | moderate | moderate | moderate | low | low |
| Garfinkle 2015 | low | moderate | low | moderate | low | moderate |
| Gerner 2016 | moderate | low | moderate | moderate | low | moderate |
| Gluckman 2005 | low | moderate | moderate | moderate | low | moderate |
| Hamelin 2011 | moderate | low | moderate | moderate | low | high |
| Heursen 2017 | moderate | low | moderate | moderate | low | moderate |
| Iyer 2014 | moderate | moderate | low | moderate | low | moderate |
| Lally 2018 | low | low | low | low | low | low |
| Lemmers 2013 | low | low | moderate | low | low | moderate |
| Leroy-Terquem 2017 | low | moderate | low | moderate | low | moderate |
| Li 2013 | low | low | moderate | moderate | moderate | high |
| Liu 2017 | moderate | low | moderate | low | low | moderate |
| Massaro 2015 | moderate | low | low | low | low | moderate |
| Mitra 2018 | moderate | low | low | moderate | low | moderate |
| Mulkey 2012 | moderate | moderate | moderate | moderate | low | moderate |
| Nevalainen 2017 | low | moderate | moderate | moderate | low | moderate |
| Niezen 2018 | low | low | moderate | moderate | low | moderate |
| Rutherford 2010 | low | low | Low | moderate | low | moderate |
| Schregglman 2017 | NA | NA | NA | NA | NA | moderate |
| Sewell 2017 | low | high | low | moderate | low | moderate |
| Shankaran 2011 | moderate | moderate | low | low | low | low |
| Shankaran 2012 | low | low | low | moderate | low | low |
| Shellhaas 2015 | moderate | moderate | moderate | moderate | low | moderate |
| Sijens 2017 | low | low | low | moderate | low | moderate |
| Skranes 2017 | low | moderate | moderate | low | low | low |
| Takenouchi 2011 | moderate | moderate | low | low | low | moderate |
| Thoresen 2010 | low | low | low | moderate | low | moderate |
| Tokuhisa 2015 | moderate | moderate | moderate | moderate | moderate | high |
| Trivedi 2017 | low | low | low | low | low | moderate |
| Tusor 2012 | low | low | low | moderate | low | moderate |
| Vilan 2014 | NA | NA | NA | NA | NA | moderate |
| Weeke 2017 | low | moderate | moderate | moderate | low | moderate |
| Weeke 2018 | low | low | low | moderate | low | moderate |