**Cognitive Aids in Resuscitation (EIT 6400)**

**The use of cognitive aids or checklists during resuscitation or resuscitation training compared to no use of cognitive aids or checklists for adults, children and neonates requiring resuscitation or laypersons and health care providers providing resuscitation or learning to provide resuscitation in any setting (in-hospital or out-of-hospital)**

**Risk of Bias Tables**

|  |
| --- |
| **Table 1 Neonatal Resuscitation – Simulation Studies** |
| **RCTs** |  |
| **Study****Author, Year, Country** | **Lack of Allocation concealment** | **Lack of blinding** | **Incomplete accounting of patient and outcome events** | **Selective outcome report** | **Other limitations** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Bould et al, 2009, Canada1 | Low | Low | Low | Low | Use of unvalidated outcome measure (participant opinion) | All | Low |
| Dinur et al, 2021, Israel3 | Low | Low | Low | Low | Low | All | Low |
| Fuerch et al, 2015, United States of America2 | Low | HighOpen video tape review (audio prompts) | Low | Low | Low | All | High |
| Tsang et al, 2022, The Netherlands4 | HighAllocation by day of the week | Unclear | Low | Low | Unclear | All | High |

|  |
| --- |
| **Table 2 Paediatric Resuscitation – Simulation Studies** |
| **RCTs** |  |
| **Study****Author, Year, Country** | **Lack of Allocation concealment** | **Lack of blinding** | **Incomplete accounting of patient and outcome events** | **Selective outcome report** | **Other limitations** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Corazza et al, 2023, Italy6 | Low | High(Outcome assessors unblinded) | Low | Low | Recruitment biasUnvalidated scoring system | All | High |
| Ghazali et al, 2022, France7 | Low | Low | Low | Low | Carry over effectRecruitment bias | All | Low |
| Lerner et al, 2009, United States of America5 | High | High | Low | High | Recruitment bias | All | High |

|  |
| --- |
| **Table 3 Adult Advanced Life Support – Simulation Studies** |
| **RCTs** |  |
| **Study****Author, Year, Country** | **Lack of Allocation concealment** | **Lack of blinding** | **Incomplete accounting of patient and outcome events** | **Selective outcome report** | **Other limitations** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Brophy et al, 2022, Canada8 | Low | High(No blinding possible) | Low | Low | Nil | All | Low |
| Crabb et al, 2021, United States of America9 | High(Order of enrolment) | High(unblinded) | Low | Low | Carry over effect | All | High |
| Field et al, 2014, United States of America10 | Low | High | Low | Low | Carry over effect | All | High |
| Grundgeiger et al, 2021, Germany11 | HighRandomised to first or second use | Low | High(4 teams excluded) | Low | Carry over effect | All | High |
| Hejjaji et al, 2020, United States of America12 | Low | Low | Low | Low | Randomised to first or second use | All | Low |
| Jones et al, 2019, United Kingdom13 | Low | High | Low | Low | Use of unvalidated outcome measure (participant opinion)Carry over effect | All | High |
| Low et al, 2011, United Kingdom14 | Low | High(Participants unblinded,Observer scoring) | Low | Low | Use of unvalidated outcome measure (participant opinion) | All | High |
| Schneider et al, 1995, United States of America15 | High | High | Low | Low | Use of unvalidated outcome measure (participant opinion) | All | High |

|  |
| --- |
| **Table 4 Other Emergency Management – Simulation Studies** |
| **RCTs** |  |
| **Study****Author, Year, Country** | **Lack of Allocation concealment** | **Lack of blinding** | **Incomplete accounting of patient and outcome events** | **Selective outcome report** | **Other limitations** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Arriaga et al, 2013,United States of America16 | High(Days of the week) | High(Participants unblinded) | Low | Low | Carry over effectUse of unvalidated outcome measure (participant opinion) | All | High |
| Dryver et al, 2021, Sweden17 | Low | High | Low | Low | Carry over effectUse of unvalidated outcome measure (participant opinion) | All | High |
| Knoche et al, 2021, Germany18 | High(Fixed date allocation) | Unclear | Low | Low | Carry over effectUse of unvalidated outcome measure (participant opinion) | All | High |
| Sellmann et al, 2022, Germany19 | Low | Low | Low | Low | Use of unvalidated outcome measure (participant opinion) | All | Low |
| Ward et al, 1997, United States of America20 | Unclear | HighObserver scoring | Low | low | Low | All | High |

|  |
| --- |
| **Table 5 Laypersons – Simulation Studies**  |
| **RCTs** |  |
| **Study****Author, Year, Country** | **Lack of Allocation concealment** | **Lack of blinding** | **Incomplete accounting of patient and outcome events** | **Selective outcome report** | **Other limitations** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Choa et al, 2009, Korea21 | Low | Low | Low | Low | Nil | All | Low |
| Hawkes et al, 2015, Ireland22 | High(Aware of participant group) | High(Observer scoring) | Low | Low | Unclear | All | High |
| Hunt et al, 2013, Unites States of America23 | Low | High(Video scoring) | Low | Low | Use of unvalidated outcome measure (participant survey) | All | High |
| Paal et al, 2012, Austria24 | Low | High(Prior orientation to device, ?observer scoring) | Low | Low | Nil | All | High |
| Rossler et al, 2013, Austria25 | Low | High(Observer scoring) | High10% drop out | Low | Use of unvalidated outcome measure (participant rated confidence) | All | High |
| Zanner et al, 2007, Germany26 | Low | High(Observer scoring, ?prior orientation to device) | Low | Low | nil | All | Low |
| Zhou et al, 2023, China27 | Unclear | High(researchers unblinded viewed videos) | High(8% lost to follow up) | Low | Carry over effect | All | High |

|  |
| --- |
| **Table 6 Laypersons – Simulation Studies**  |
| **Non RCTs** |  |
| **Study****Author, Year, Country** | **Confounding** | **Selection** | **Classification of interventions** | **Deviation from interventions** | **Missing data** | **Measurement of Outcomes** | **Selective reporting** | **Outcomes to which these assessments apply** | **Overall risk of bias** |
| Ertl et al, 2007, Germany28 | Serious(time varying) | Low | Low | Low | Low | Low | Low | All | Low |
| Otero-Agra et al, 2022, Spain29 | Low | Mod(university graduates or students) | Low | Low | Low | Low | low | All | Low |