**Table 4.** Risk of Bias Assessment using the Newcastle-Ottawa Quality Assessment Scale

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ITEM** | **Ahmad et al. (2019) A** | **Ahmad et al. (2019) B** | **Akin et al. (2012)** | **Bagur et al. (2012)** | **Bhardwaj et al. (2018)** | **Buellesfeld et al. (2012)** | **Buja et al. (2013)** | **Cha et al. (2021)** | **Chamandi et al. (2018)** | **Costa et al. (2019)** | **Cresse et al. (2019)** | **D’Ancona et al. (2011)** | **De Carlo et al. (2012)** | **De Torres-Alba et al. (2018)** | **Denegri et al. (2021)** | **Dizon et al. (2015)** | **Dolci et al. (2019)** | **Doshi et al. (2017)** | **Doshi et al. (2018)** | **Du et al. (2020)** | **Elchinova et al. (2021)** |
| **A** | **Selection** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Exposed truly representative of average | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Selection of non-intervention from the same community | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ❌ | ✅ | ✅ | ✅ |
|  | Exposure ascertained by secure record or interview | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Demonstration of outcome of interest not present at the start of the study | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
| **B** | **Comparability** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Study controls for age, sex, marital status | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ❌ | ✅ | ✅ | ✅ |
|  | Study controls for any additional factor | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ❌ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ❌ | ✅ | ❌ | ❌ |
| **C** | **Outcome** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assessment outcome | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Follow-up long enough for the outcome to occur | ✅ | ✅ | ✅ | ❓ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ❓ | ❌ | ✅ | ✅ |
|  | Adequacy of follow-up cohorts | ❓ | ❓ | ❌ | ❓ | ❓ | ❓ | ❓ | ❓ | ✅ | ❌ | ❌ | ❓ | ✅ | ❓ | ✅ | ✅ | ❓ | ❓ | ❌ | ❓ | ❓ |
|  | SCORE | **7** | **8** | **8** | **7** | **8** | **8** | **5** | **7** | **9** | **5** | **8** | **8** | **9** | **7** | **6** | **9** | **5** | **4** | **7** | **7** | **7** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ITEM** | **Ferreira et al. (2021)** | **Gaede et al. (2017)** | **Gensas et al. (2014)** | **Giustino et al. (2016)** | **Gonska et al. (2016)** | **Gonska et al. (2018)** | **Guetta et al. (2011)** | **Hamdan et al. (2015)** | **Hayashida et al. (2012)** | **Humphries et al. (2012)** | **Husser et al. (2019)** | **Kostopoulou et al. (2015)** | **Ledwoch et al. (2013)** | **Leong et al. (2017)** | **Maeno et al. (2019)** | **Malebranche et al. (2021)** | **Mangieri et al. (2018)** | **Marzahn et al. (2017)** | **Mazzella et al. (2020)** | **Meduri et al. (2019)** | **Monteiro et al. (2017)** |
| **A** | **Selection** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Exposed truly representative of average | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Selection of non-intervention from the same community | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Exposure ascertained by secure record or interview | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Demonstration of outcome of interest not present at the start of the study | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
| **B** | **Comparability** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Study controls for age, sex, marital status | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ❌ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Study controls for any additional factor | ❌ | ✅ | ❌ | ❌ | ❌ | ❌ | ❌ | ✅ | ❌ | ❌ | ❌ | ❌ | ✅ | ❌ | ❌ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ |
| **C** | **Outcome** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assessment outcome | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Follow-up long enough for the outcome to occur | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Adequacy of follow-up cohorts | ❓ | ❓ | ❓ | ✅ | ❓ | ✅ | ❓ | ❓ | ✅ | ❓ | ❓ | ✅ | ✅ | ❌ | ❌ | ❓ | ❓ | ✅ | ❓ | ❓ | ❓ |
|  | SCORE | **6** | **8** | **5** | **8** | **5** | **8** | **7** | **7** | **6** | **7** | **4** | **6** | **9** | **6** | **7** | **7** | **8** | **9** | **7** | **8** | **8** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ITEM** | **Mouillet et al. (2015)** | **Nadeem et al. (2018)** | **Nazif et al. (2015)** | **Nishiyama et al. (2016)** | **Pellegrini et al. (2018) A** | **Pellegrini et al. (2018) B** | **Pollari et al. (2019)** | **Raelson et al. (2017)** | **Rodriguez-Olivares et al. (2016)** | **Sannino et al. (2018)** | **Schewel et al. (2018)** | **Sharma et al. (2017)** | **Shivamurthy et al. (2020)** | **Sinhal et al. (2008)** | **Stamou et al. (2019)** | **Urena et al. (2012)** | **Urena et al. (2013)** | **Van Gils et al. (2017)** | **Vejpongsa et al. (2018)** | **Wang et al. (2019)** | **Zhang et al. (2021)** |
| **A** | **Selection** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Exposed truly representative of average | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Selection of non-intervention from the same community | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ❌ | ✅ |
|  | Exposure ascertained by secure record or interview | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Demonstration of outcome of interest not present at the start of the study | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
| **B** | **Comparability** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Study controls for age, sex, marital status | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Study controls for any additional factor | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ✅ | ❌ | ✅ | ✅ | ✅ | ✅ | ✅ | ❌ | ✅ | ❌ | ✅ | ❌ | ✅ |
| **C** | **Outcome** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assessment outcome | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ |
|  | Follow-up long enough for the outcome to occur | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❓ | ✅ | ✅ | ✅ | ✅ | ✅ | ✅ | ❓ | ✅ | ✅ | ✅ | ❓ | ❓ | ✅ |
|  | Adequacy of follow-up cohorts | ❓ | ❓ | ❓ | ❓ | ❓ | ❓ | ✅ | ❌ | ✅ | ❓ | ✅ | ✅ | ❓ | ❓ | ❓ | ✅ | ✅ | ❓ | ❓ | ❓ | ❓ |
|  | SCORE | **8** | **8** | **8** | **8** | **6** | **8** | **7** | **7** | **9** | **6** | **9** | **9** | **8** | **8** | **7** | **7** | **9** | **6** | **7** | **5** | **8** |