**Supplemental Table 3a. Newcastle-Ottawa Scale (NOS) for Quality of Cohort Studies**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Quality assessment criteria** | **Acceptable (\*)** | **Leung** | **Jeong** | **Yildizeli** | **Koster** | **Todd** | **Flink** | **Roggenbach** | **Wang** | **Zhang** | **Bosmak** | **Cheraghi** |
| **2015** | **2016** | **2005** | **2009** | **2017** | **2012** | **2014** | **2015** | **2015** | **2017** | **2017** |
| ***Selection*** | | | | | | | | | | | | |
| Representativeness of exposed cohort? | Representative of average adult in community (age/sex/being at risk of disease) | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| Selection of the non-exposed cohort? | Drawn from same community as exposed cohort | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| Ascertainment of exposure? | Secured records, Structured interview | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |  |  | **\*** | **\*** |
| Demonstration that outcome of interest was not present at start of study? | Yes | **\*** |  | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |  |
| ***Comparability*** | | | | | | | | | | | | |
| Study controls for or restricts to age category | Yes | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| Study controls for any additional risk factors? | Sex, alcohol use, depression, antipsychotics, dementia |  | **\*** | **\*** |  | **\*** | **\*** | **\*** | **\*** | **\*** |  | **\*** |
| ***Outcome*** | | | | | | | | | | | | |
| Assessment of outcome? | Independent blind assessment, record linkage | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| Was follow-up long enough for outcome to occur? | Follow-up within 3days post operatively | **\*** | **\*** | **\*** |  | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| Adequacy of follow-up of cohorts? | Complete follow-up, or subjects lost to follow-up unlikely to introduce bias | **\*** |  | **\*** |  | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** | **\*** |
| ***Overall Quality Score (Maximum = 9)*** | | **8** | **7** | **9** | **6** | **9** | **9** | **9** | **8** | **8** | **8** | **8** |

**Supplemental Table 3b**. **Newcastle-Ottawa Scale (NOS) for Quality of Case Control Studies**

|  |  |  |
| --- | --- | --- |
| **Quality assessment criteria** | **Acceptable (\*)** | **Gupta** |
| **2001** |
| ***Selection*** |  |  |
| Is the case definition adequate? | Yes, with independent validation | **\*** |
| Representativeness of cases? | Consecutive or obviously representative series of cases | **\*** |
| Selection of controls? | Community controls | **\*** |
| Definition of controls? | No diagnosis of delirium | **\*** |
| ***Comparability*** |  |  |
| Study controls for age | Yes | **\*** |
| Study controls for at least 3 additional factors | Sex, alcohol use, depression, antipsychotics, dementia | **\*** |
| ***Outcome*** |  |  |
| Ascertainment of exposure? | Secure record, Structured interview by healthcare practitioner, blind to case/control status | **\*** |
| Same method of ascertainment of cases/controls? | Yes | **\*** |
| Non-response rate? | Same for both groups | **\*** |
| ***Overall Quality Score (Maximum = 9)*** | | **9** |