**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** |