**Supplemental 4**

**Table 2.** GRADE\* evidence profile for case-control and cohort studies

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Risk factor of acquisition** | **Risk of bias** | **Inconsistency** | **Indirectness** | **Imprecision** | **Publication bias** | **High magnitude/strength** | **Dose-response relationship** | **No residual confusion** | **Overall quality of evidence** |
| **CASE-CONTROL STUDIES** |  |  |  |  |  |  |  |  |  |
| **Epidemiological characteristic** |  |  |  |  |  |  |  |  |  |
| Age (years) | Yes | Yes (I2=85%) | No | No | Not assessed | No | No | No | Very low |
| Length of stay overall (days) | Yes | Yes (I2=83%) | No | No | Not assessed | No | Yes | No | Very low |
| APGAR at 5 min <5 | Yes | No (I2=0%) | No | Yes | Not assessed | No | No | No | Very low |
| **Underlying medical condition** |  |  |  |  |  |  |  |  |  |
| Immunosuppression | Yes | Not assessed | No | Yes | Not assessed | No | No | No | Very low |
| **Device exposure** |  |  |  |  |  |  |  |  |  |
| Central venous catheter | Yes | No (I2=10%) | No | Yes | Not assessed | No | No | No | Very low |
| Umbilical catheter | Yes | Yes (I2=73%) | No | Yes | Not assessed | No | No | No | Very low |
| **Medication/nutrition exposure** |  |  |  |  |  |  |  |  |  |
| Antibiotic use | Yes | No (I2=0%) | No | Yes | Not assessed | No | No | No | Very low |
| Hemofiltration | Yes | Not assessed | No | Yes | Not assessed | No | No | No | Very low |
| Total parenteral nutrition | Yes | Yes (I2=80%) | No | Yes | Not assessed | No | No | No | Very low |
| **Environment exposure** |  |  |  |  |  |  |  |  |  |
| Incubator care | Yes | Yes (I2=65%) | No | No | Not assessed | No | No | No | Very low |
| Unfiltered water | Yes | Not assessed | No | No | Not assessed | No | No | No | Very low |
| **COHORT STUDIES** |  |  |  |  |  |  |  |  |  |
| **Epidemiological characteristic** |  |  |  |  |  |  |  |  |  |
| Age (years) | Yes | Not assessed | No | No | Not assessed | Mean difference, 3.7  (95% CI 0.94-6.46) | Yes | No | Low |
| Stay in ICU | Yes | Not assessed | No | Yes | Not assessed | OR,3.47  (95% CI 1.01-11.90) | Yes | No | Low |
| Length of stay in ICU (days) | Yes | No assessed | No | No | Not assessed | Mean difference, 41.0  (95% CI 16.72-65.30) | Yes | No | Low |
| Therapeutic activity  (OMEGA score) | Yes | Not assessed | No | No | Not assessed | OR,1.002  (95% CI 1.001-1.004) | No | No | Low |
| **Device exposure** |  |  |  |  |  |  |  |  |  |
| Duration of mechanical ventilation  ( >10 days) | Yes | Not assessed | No | No | Not assessed | HR, 2.56  (95% CI 1.46-4.50) | Yes | No | Low |
| **Medication exposure** |  |  |  |  |  |  |  |  |  |
| Duration of antibiotic therapy  (days) | Yes | Not assessed | No | Yes | Not assessed | OR,0.78  (95% CI 0.69-0.87) | Yes | No | Very low |
| **Environment exposure** |  |  |  |  |  |  |  |  |  |
| Having Water fitting near | Yes | Not assessed | No | No | Not assessed | HR,1.76  (95% CI 1.09-2.84) | Yes | No | Low |

\*GRADE: Grading of Recommendations Assessment Development and Evaluation system, OR: odds ratio, HR: hazard ratio, ICU: intensive care unit