**Supplemental Table 29. Characteristics of Multicomponent Non-Pharmacologic Studies Focusing on Delirium Reduction**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Author**  **(year)** | **Design** | **Population** | **Intervention** | **Control** | **Summary delirium related Results (intervention vs control)** | **Limitations** | **Risk of bias** |
| Colombo  (2012) [1] | Before-after | Mixed ICU | N=144  Reorientation strategy, and environmental, acoustic and visual stimulation (including music, book reading) | N=170  Usual care | - Delirium: 22% vs. 35%; *HR 0.50 (95%CI 0.31-0.89*), *p=0.02* (using CAM-ICU)  - LOS-ICU: 5days vs 3.5days; *p<0.001* | - before-after study  - uncertain if delirium before inclusion was an exclusion criterion | High risk |
| Foster  (2013) [2] | Before-after | Mixed ICU | N=84  \*MCI protocol (sedation, sleep-wake, sensory stimulation, mobility and music) | N=164  Usual care | - Delirium: 31% vs. 28%; *NS* (using CAM-ICU) | - small sample size  - before-after study  - delirium before inclusion was not an exclusion criterion  - missing data | High risk |
| Moon  (2015) [3] | RCT | Mixed ICU | N=60  MCI prevention program: delirium risk monitoring, cognition and orientation, environment, early therapeutic intervention | N=63  Usual care, no prevention program | - Delirium: 20% vs. 33.3%; *OR 0.50 (95%CI 0.22-1.14),p=0.10* (using CAM-ICU)  *­­-* LOS-ICU: 10.8days vs. 10.0days; *p=0.68*  *­*- In-hospital mortality: 6.7% vs. 20.6%; *OR 0.28 (95%CI 0.08-0.90), p=0.02*  - 30-days in-hospital mortality: 6.7% vs. 17.5%; *OR 0.34 (95%CI 0.10-1.13), p=0.07* | - small sample size  - delirium before inclusion was not an exclusion criterion | High risk |
| Hanison  (2015) [5] | Before-after | Mixed ICU | N=127  2 cycle MCI program: 1st cycle: reducing delirogenic drugs, daily sedation breaks, environment changes, more light exposure, use of communication aid  2nd cycle: natural light, use of clocks | N=23  Usual care | - Delirium: 44% (1st cycle) 29% (2nd cycle) vs. vs. usual care 65%; *NS* (using CAM-ICU) | - sample size  - before-after study  - unclear exclusion criteria  - limited description of study and outcome | High risk |
| Rivosecchi  (2016) [6] | Before-after | MICU | N=253  MCI program: music, opening blinds, reorientation and cognitive stimulation, eye/ear protocol | N=230  Usual care | - Delirium: 9.4% vs 15.7%; *p=0.04* (using ICDSC)  - Time delirious in ICU: 16hrs vs 20hrs; *p<0.001*  - LOS-ICU: 2.8days vs. 2.39days; *p=0.79*  - ICU mortality: 11.1% vs 7.5%; *p=0.21* | - before-after study | High risk |

**References**

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