**Supplemental Table 13. Summary of Studies: Protocolized vs. Daily Sedation Interruption**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Author, Year, Country** | **Study Type** | **Total N** | **N for DSI** | **N for NP** | **Ability to achieve and maintain light sedation** | **Comments** |
| Carson, 2006, USA [1] | RCT | 132 | 68 | 64 | No difference between cohorts for all 6 Ramsay score levels (p=0.15 to 0.97) | Multi-institutional trial (n=2). Goal Ramsay scale of 2-3, lorazepam bolus therapy with NP vs. propofol as a continuous infusion with DSI. |
| Mehta, 2012, Canada [2] | RCT  | 423 | 214 | 209 | Mean difference in SAS between groups, 0.05; 95% confidence interval -0.10 to 0.19, p=0.52 | Multi-institutional trial (n=16). Comparators were DSI +NP vs. NP only. Goal sedation was SAS of 3 - 4 or RASS -3 to 0. RASS scores converted to SAS for statistical comparisons.  |
| de Wit, 2008, USA [3] | RCT | 74 | 36 | 38 | DSI patients had +0.6 higher RASS scores vs. NP (p=0.049) | Single institution trial. DSI patients had significantly higher RASS scores and had a greater proportion of time with agitation (RASS>0; 18% vs. 5%, p < 0.0001). Study terminated prematurely due to increased mortality associated with DIS though unclear causality. No difference in the probability of being awake between the groups.  |
| Nassar, 2014, Brazil [4] | RCT | 60 | 30 | 30 | Target SAS of DSI 3.2 vs. 3.6 for NP (p=0.035). Percent at target SAS for DSI 63% vs. 75% for NP (p=0.62) | Single institution trial. Low nurse staffing ICU per authors. Goal SAS of 3-4.  |
| Yiliaz, 2010, Turkey [5] | RCT | 50 | 25 | 25 | DSI patients had more light sedation (p<0.001) | Single institution trial. Light sedation defined by the authors as Ramsay <3. Predefined sedation level was not achieved in 0% of the DSI group and in 32% of those with NP. |
| RCT, randomized control trial; DSI, daily sedation interruption; NP, nursing protocolized targeted sedation; SAS, Sedation Agitation Scale; RASS, Richmond Agitation Sedation Scale |

References

1. Carson SS, Kress JP, Rodgers JE, Vinayak A, Campbell-Bright S, Levitt J, Bourdet S, Ivanova A, Henderson AG, Pohlman A *et al*: A randomized trial of intermittent lorazepam versus propofol with daily interruption in mechanically ventilated patients. *Crit Care Med* 2006, 34(5):1326-1332.

2. Mehta S, Burry L, Cook D, Fergusson D, Steinberg M, Granton J, Herridge M, Ferguson N, Devlin J, Tanios M *et al*: Daily sedation interruption in mechanically ventilated critically ill patients cared for with a sedation protocol: a randomized controlled trial. *JAMA* 2012, 308(19):1985-1992.

3. de Wit M, Gennings C, Jenvey WI, Epstein SK: Randomized trial comparing daily interruption of sedation and nursing-implemented sedation algorithm in medical intensive care unit patients. *Crit Care* 2008, 12(3):R70.

4. Nassar Junior AP, Park M: Daily sedative interruption versus intermittent sedation in mechanically ventilated critically ill patients: a randomized trial. *Ann Intensive Care* 2014, 4(1).

5. Yiliaz C, Kelebek Girgin N, Ozdemir N, Kutlay O: The effect of nursing-implemented sedation on the duration of mechanical ventilation in the ICU. *Ulus Travma Acil Cerrahi Derg* 2010, 16(6):521-526.