

ICU Liberation Bundle - Element B

Both spontaneous awakening trials (SATs) and spontaneous breathing trials (SBTs)

What is ICU Liberation?

ICU Liberation refers to key clinical elements aimed at reducing pain, oversedation, delirium, mechanical ventilation, immobility, isolation, sleep disturbances, and ICU acquired weakness ¹. These experiences contribute to life altering post discharge residual effects, or Post Intensive Care Syndrome (PICS), and are modifiable.

ICU Liberation aims to improve patient and family involvement and encourage interdisciplinary team communication. ICU Liberation Bundle Elements are most effective when implemented by an interdisciplinary team and unit champions.

Do SATs and SBTs make a difference in patient outcomes?

Yes, researchers report that pairing SATs and SBTs together can reduce:

✓ mortality (28-day - 7%; 1 yr. - 11% [SAT/SBT vs SBT + usual care] ²)

✓ mechanical ventilation days (3.1 days ¹)

 \checkmark necessity for tracheostomy (21% 2)

✓ ICU length of stay (~ 4 days ²)

Recommendations

- Set a unit goal to target light/no sedation (RASS 0) as per the PADIS Guidelines³.
- Discuss sedation target and score, and results of SBT during daily interdisciplinary rounds.
- Identify a unit standard for SBT assessment time and mode and broadly communicate amongst interdisciplinary teams to support consistency and workflow.
- Screen daily and complete SBT when criteria are met, in alignment with organizational guidance.
- Document sedation targets, RASS scores and results of SBTs to support safe handover, continuity
 of care, quality improvement evaluation, research to improve patient outcomes, and growth of a
 learning health system.

The ICU Liberation Bundle is about improving the culture of care. By working as an interdisciplinary team, adhering to evidence informed practices, and making sedation and ventilation decisions that prioritize patient well-being, we can improve outcomes and reduce the long-term effects of PICS.¹

Up to 80% of ICU patients experience PICS symptoms that can last for years. 4

< Space to paste QR codes for Health Authority SAT and SBT CDSTs >



References

- 1. Society of Critical Care Medicine (n.d.) ICU Liberation Bundles. <u>ICU Liberation Bundle (A-F) | SCCM | SCCM</u>
- 2. Girard, T. D., Kress, J. P., Fuchs, B. D., Thomason, J. W., Schweickert, W. D., Pun, B. T., Taichman, D. B., Dunn, J. G., Pohlman, A. S., Kinniry, P. A., Jackson, J. C., Canonico, A. E., Light, R. W., Shintani, A. K., Thompson, J. L., Gordon, S. M., Hall, J. B., Dittus, R. S., Bernard, G. R., & Ely, E. W. (2008). Efficacy and safety of a paired sedation and ventilator weaning protocol for mechanically ventilated patients in intensive care (Awakening and Breathing Controlled trial): a randomised controlled trial. Lancet (London, England), 371(9607), 126–134. https://doi.org/10.1016/S0140-6736(08)60105-1
- 3. Devlin, J. W., Skrobik, Y., Gélinas, C., et al. Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU (2018). *Critical Care Medicine*. 46(9):825-873. https://doi.org/10.1097/CCM.0000000000003299
- 4. Harvey, M. A., Davidson, J. E. (2016). Postintensive Care Syndrome: right care, right now...and later. Critical Care Medicine. 44(22), 381-385. https://doi.org/10.1097/CCM.0000000000001531
- 5. Marra, A., Ely, E. W., Pandharipande, P. P., Patel, M. B. (2017). The ABCDEF Bundle in Critical Care. *Critical Care Clinics*. 33(2):225 243. https://doi.org/10.1016/j.ccc.2016.12.005
- 6. Balzer, F., Weiss, B., Kumpf, O., Treskatsch, S., Spies, C., Wernecke, K. D., Krannich, A., Kastrup, M. (2015). Early deep sedation is associated with decreased in-hospital and 2-years follow-up survival. *Critical Care*. 19:197. https://doi.org/10.1186/s13054-015-0929-2
- 7. Grissom, C. K., Holubkov, R., Carpenter, L., Hanna, B., Jacobs, J. R., Jones, C., Knighton, A. J., Leither, L., Lisonbee, D., Peltan, I. D., Winberg, C., Wolfe, D., Srivastava, R. (2023). Implementation of coordinated spontaneous awakening and breathing trials using telehealth enabled, real time audit and feedback for clinician adherence (TEACH): a type II hybrid effectiveness implementation cluster randomized trial. *Implementation Science*. 18(1):45. https://doi.org/10.1186/s13012-023-01303-1
- 8. Khan, B. A., Fadel, W. F., Tricker, J. L., et al. (2014). Effectiveness of implementing a wake up and breathe program on sedation and delirium in the ICU. *Critical Care Medicine*. 42(12):791-795. https://doi.org/10.1097/CCM.0000000000000660
- 9. Lancaster, B., Shifrin, M. M., & Gast, S. (2022). Using a Standardized Rounding Tool to Improve the Incidence of Spontaneous Awakening and Breathing Trials. *Critical Care Nurse*, 42(2), 1–8. https://doi.org/10.4037/ccn2022854
- 10. Ely, E. W., Truman, B., Shintani, A., Thomason, J. W., Wheeler, A. P., Gordon, S., ... & Bernard, G. R. (2003). Monitoring sedation status over time in ICU patients: reliability and validity of the Richmond Agitation–Sedation Scale (RASS). *JAMA*, 289(22), 2983-2991. https://doi.org/10.1001/jama.289.22.2983