Appendix H: Example: Care Bundle for the Assessment and Management of Pain in the Critically Ill Adult

	PAIN	AGITATION	DELIRIUM
ASSESS	Assess pain ≥4x/shift & prn Preferred pain assessment tools: ■ Patient able to self-report → NRS (0-10) ■ Unable to self-report → BPS (3-12) or CPOT (0-8) Patient is in significant pain if NRS ≥ 4, BPS > 5, or CPOT > 2	Assess agitation, sedation ≥4x/shift & prn Preferred sedation assessment tools: ■ RASS (-5 to +4) or SAS (1 to 7) ■ NMB → suggest using brain function monitoring Depth of agitation, sedation defined as: ■ *agitated* if RASS = +1 to +4, or SAS = 5 to 7 ■ *awake and calm* if RASS = 0, or SAS = 4 ■ *lightly sedated* if RASS = -1 to -2, or SAS = 3 ■ *deeply sedated* if RASS = -3 to -5, or SAS = 1 to 2	Assess delirium Q shift & prn Preferred delirium assessment tools: ■ CAM-ICU (+ or -) ■ ICDSC (0 to 8) Delirium present if: ■ CAM-ICU is positive ■ ICDSC ≥ 4
TREAT	Treat pain within 30" then reassess: ■ Non-pharmacologic treatment – relaxation therapy ■ Pharmacologic treatment: • Non-neuropathic pain → IV opioids +/- non-opioid analgesics • Neuropathic pain → gabapentin or carbamazepine, + IV opioids • S/p AAA repair, rib fractures → thoracic epidural	Targeted sedation or DSI (*Goal: patient purposely follows commands without agitation*): RASS = -2 – 0, SAS = 3 – 4 ■ If *under sedated* (RASS >0, SAS >4) assess/ treat pain → treat w/sedatives prn (non-benzodiazepines preferred, unless ETOH or benzodiazepine withdrawal is suspected) ■ If *over sedated* (RASS <-2, SAS <3) hold sedatives until at target, then start at 50% of previous dose	■ Treat pain as needed ■ Reorient patients; familiarize surroundings; use patient's eyeglasses, hearing aids if needed ■ Pharmacologic treatment of delirium: • Avoid benzodiazepines unless ETOH or benzodiazepine withdrawal is suspected • Avoid rivastigmine • Avoid antipsychotics if ↑ risk of Torsades de pointes
PREVENT	■ Administer pro-procedural analgesia and/or non-pharmacologic interventions (e.g., relaxation therapy) ■ Treat pain first, then sedate	■ Consider daily SBT, early mobility and exercise when patients are a t goal sedation level, unless contraindicated ■ EEG monitoring if: • at risk for seizures • burst suppression therapy is indicated for ↑ ICP	■ Identify delirium risk factors: dementia, HTN, ETOH abuse, high severity of illness, coma, benzodiazepine administration ■ Avoid benzodiazepine use in those at ↑ first for delirium ■ Mobilize and exercise patients early ■ Promote sleep (control light, noise; cluster patient care activities; decrease nocturnal stimuli) ■ Restart baseline psychiatric meds, if indicated

Abbreviations in Care Bundle

AAA – Abdominal Aortic Aneurysm
BPS – Behavioral Pain Scale
CAM-ICU – Confusion Assessment Method – Intensive Care Unit
CPOT – Critical-Care Pain Observation Tool
ETOH – Alcohol
ICDSC – Intensive Care Delirium Screening Checklist
HTN – Hypertension
NMB – Neuromuscular Blockers
NRS – Numerical Rating Scale
RASS – Richmond Agitation-Sedation Scale
SAS – Sedation Agitation Scale

Note. From "Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit," by J. Barr, G, Fraser, K. Puntillo, E. Wesley Ely, C. Gélinas, J. F. Dasta, et al., 2013, *Critical Care Medicine, 41*(1), 263-306. Copyright (2013) by Wolters Kluwer Health. Reprinted with permission. Promotional and commercial use of the material in print, digital or mobile device format is prohibited without the permission from the publisher Lippincott Williams & Wilkins. Please contact journalpermissions@lww.com for further information.