

TABLE 3 Sedation Alternatives When TCCC Care Cannot Be Met and Environment Allows

SEDATIVES				
Medication	Dose	Action(s)	Contraindication(s)	Side-Effects
Benzodiazepine* (diazepam, midazolam, lorazepam, alprazolam, clonazepam, etc.)	Dosage varies as well as duration of action; lorazepam, midazolam, diazepam most used sedatives in drip form	GABA agonist: anxiolytic, sedative, muscle relaxant, anticonvulsant, amnesic	Renal or hepatic impairment, elderly or critically ill patients, delirious patients, substance abuse	Respiratory depression, depressed mental status, hypotension, paradoxical reactions, tachyphylaxis (drug tolerance)
Etomidate	0.1–0.3mg/kg IV for one time dose; no longer recommended for sedation due to adrenal suppression	GABA agonist, general anesthetic, sedative hypnotic	Adrenal suppression, critical illness, requirement for prolonged sedation	Myoclonus, adrenal suppression, nausea, apnea
Propofol*	0.5–2mg/kg IV initial dose; 5–60µg/kg per min in prolonged sedation	GABA agonist, general anesthetic	Hypertriglyceridemia, bradycardia, hypotension, severe TBI	Bradycardia, QT interval prolongation, profound hypotension, propofol infusion syndrome
Dexmedetomidine (Precedex)	1µg/kg IV over 10 min followed by 0.2–1.5µg/kg/h infusion for sedation	Alpha-2 adrenergic agonist	Cardiac injury, existing bradycardia, hypotension	Hypotension, bradycardia, tachyphylaxis (drug tolerance),
Anesthetic Gases* (nitrous oxide, halothane, isoflurane, desflurane, sevoflurane)	Dosage varies as well as duration of action	Mechanism remains mostly unknown	Vary to include lack of appropriate monitoring devices, those with severe asthma, hepatic failure, renal dysfunction, heart failure	Malignant hyperthermia, nausea and vomiting, carbon monoxide poisoning

*Patients *must* have a protected airway when receiving these medications for deep sedation.

GABA = gamma-aminobutyric acid; IV = intravenous; TBI = traumatic brain injury.