

1 Supplementary Table 1. Definition of adverse events related to LAST

Severity of adverse event	Clinical manifestation	Objective definition	Source
Minor event			
Tremor	Focal muscle twitching	Focal muscle twitching then spontaneous resolution within one hour	Nursing record at PACU
Agitation	Irritability and restlessness	Irritable and bizarre behaviors then spontaneous resolution within one hour	Nursing record at PACU
Delayed emergence	Not fully awake upon PACU arrival	GCS score < 8 upon PACU arrival	Nursing record at PACU
Delayed extubation	Not fulfilling extubation criteria at OR	Extubation at PACU	Anesthesia record; Nursing record at PACU
Airway insertion	Not fully awake thus requiring airway support	Nasal/oral airway insertion at OR or PACU	Nursing record at PACU
Oxygen requirement	Oxygen saturation < 95% in room air	Oxygen mask support at ward	Nursing record at PACU and ward
Post-operative vomiting	Postoperative vomiting at PACU or ward	Vomiting at PACU or ward	Nursing record at PACU and ward
Major event			
Seizure	Generalized convulsions	Administration of midazolam after operation	Anesthesia record; nursing record at PACU
Bradycardia or arrhythmia	heart rate $\leq$ 45 bpm, ventricular arrhythmia, new-onset arrhythmia	Administration of atropine or antiarrhythmics after operation	Anesthesia record; Nursing record at PACU
Severe event	Refractory seizure or arrhythmia despite repeat midazolam or antiarrhythmics	Prior administration of midazolam or antiarrhythmics, then rescue lipid infusion	Anesthesia record; Nursing record at PACU

2 Abbreviation: GCS, Glasgow coma scale; LAST, local anesthetic systemic toxicity; OR, operation
3 room; PACU, post-anesthesia care unit.

4