

Supplemental Digital Content 1: Pediatric Perioperative Crisis Scenarios

1. Hyperkalemia progressing to Ventricular fibrillation

This is an 18-month-old child with extensive crush injury to the left lower extremity from an accident. He is in the operating room and has just been intubated using etomidate and succinylcholine.

There are increasing peak T waves and ECG changes that eventually progress to ventricular fibrillation.

2. Local Anesthetic Toxicity (LAST) progressing to Asystole

This is a 12-month-old boy (12 kg) presenting for bilateral hernia repair. He receives a caudal block with 10 ml of 0.25 % bupivacaine with 1:200k epi.

There are occasional PVCs and ectopy progressing to wide complex arrhythmia that eventually slows to asystole.

3. Supraventricular tachycardia (SVT) progressing to pulseless Ventricular Tachycardia (VT)

This is a 10-month-old child with a right thigh abscess presenting for I&D.

Child will develop SVT at a rate of 240 soon after handover.

4. Anaphylaxis progressing to pulseless electrical activity (PEA)

This is a 12 month old child with a right thigh presenting for I&D. The child has vancomycin infusing over an hour, which was started ~15 minutes ago.

Child has progressive desaturation, obstructive etco₂ pattern, increasing tachycardia and hypotension. If anaphylaxis is not suspected by 5 minutes, the team will be notified of new onset diffuse rash.