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52. Intravenous Lipid Emulsion Therapy use in the Toxicology Investigators Consortium (ToxIC)

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Background: In May 2012, the Intravenous Lipid Emulsion (ILE) subregistry was created as part of the ToxIC registry. The purpose of this subregistry is to prospectively collect detailed information regarding the use of ILE by toxicologists.

Objective: The primary objective of this interim analysis is to describe the patient characteristics for which ILE is being administered.

Methods: Retrospective review of prospectively collected data.

Results: Between 1 May 2012 through 30 October 2013, 44 patients received ILE. The subregistry analysis was complete on 34 of these patients. The 34 cases were derived from 17 different institutions. Males accounted for 13/34 (38.2 %) of subjects. The median (IQR) age was 48 (34.5–56) years, with the youngest patient being 13 months. ILE was administered most often for nondihydropyridine calcium channel blockers (n=9), followed by dihydropyridine-class calcium channel blockers (n=5), or the combination of a beta blocker and a calcium channel blocker (n=4). ILE was administered for beta blockers alone in five subjects. Local anesthetics accounted for only three cases of ILE administration. Various other medications accounted for the remaining cases. Bradycardia (HR<50 bpm) was observed in 11/34 (32.3 %), while hypotension (systolic blood pressure <90 mmHg) occurred in 29/34 (85.3%). Three patients experienced a high-grade AV block prior to ILE administration. Six (17.6 %) patients experienced cardiac arrest prior to implementation of ILE. In total, 10/34 (29.4 %) patients died. Acute kidney injury (creatinine >2.0mg/dL) was present in 7/34 (20.6%), while metabolic acidosis (pH <7.2) was present in 14/34 (41.7 %)

Conclusion: In this series of patients who received ILE, the majority of cases involved nonlocal anesthetics. Most patients were in shock and had evidence of abnormal tissue perfusion.