

Category :**Sedation - analgesia**

**A197 - Sedation requirements in patients receiving venovenous extracorporeal membrane oxygenation in the era of covid-19**

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**Introduction:**

Current literature regarding sedative dosing in venovenous extracorporeal membrane oxygenation (VV-ECMO) is sparse, with information pertaining to those with SARS-CoV-2 (COVID) requiring VV-ECMO being even rarer. The purpose of this quality improvement project was to examine the sedation practices and requirements of patients who received VV-ECMO in the year prior to and the first year of the COVID epidemic.

**Methods:**

This was a single-center, observational study. Adults who received VV-ECMO from January 1, 2019 through December 31, 2020 were included. Those who received VV-ECMO in 2019 were considered the pre-COVID cohort, while those who received VV-ECMO during 2020 were the COVID cohort. Demographics, clinical and lab parameters, and doses of oral and intravenous (IV) opioids, benzodiazepines (BZD), and other sedatives were recorded.

**Results:**

Twelve pre-COVID and 13 COVID patients were included with a mean duration of VV-ECMO of 10 and 27 days, respectively. Mean medication doses during the first week of VV-ECMO and mean duration of use are described in Table 1. Patients who received IV opioids (11 vs. 13), IV BZD (12 vs. 13), and propofol (10 each) were similar between groups. Median number of IV sedation agents used was similar between groups (3.5 vs. 4), while the number of oral agents (opioids, BZD, phenobarbital) was higher in the COVID group (0 vs. 2).

**Conclusion:**

There were a similar number of IV agents used between the two cohorts. Oral medications were used more often to augment sedation in the COVID cohort of this study.

**Table:**

		Opioids	BZD	Propofol
Mean Dose Days 1-7*	Pre-COVID	3935	275	4419
	COVID	4750	292	6396
Mean Days, (% ECMO time)	Pre-COVID	10 (100)	9 (96)	6 (73)
	COVID	25 (95)	20 (76)	21 (81)

*\*Doses are in mcg fentanyl, mg midazolam, or mg propofol*