

Severe H1N1 ARDS Case Study

42 y/o white Female, initially seen in the E.D on 10/15, where she was diagnosed with Influenza and discharged with a cough suppressant. Patient presented back on 10/19 for Severe SOB and Hypoxemia. CXR showed bilateral interstitial infiltrates and patients SpO₂ was below 80% on ~100% NRB. Patient was intubated and admitted to the ICU.

Initial Conventional vent settings were (PRVC rate of 24, Vt 450ml, PEEP +14, FiO₂ 100%). 10/21 patient was changed to PCV for high PIP's and PEEP was increased to 15cmH₂O. 10/22 FiO₂ slowly being weaned to a goal of 40%. 10/22 pt crashed FiO₂ increased to 80% Inverse I:E of 1.5:1 and then was placed on the Oscillator. Non-conventional ventilator settings. MAP-35, FiO₂-100%, ΔP-85 Hz-6.0, SpO₂ quickly increased to 100%. In less than 24 hours patients FiO₂ was weaned down to 40% on the Oscillator. 10/24 MAP weaned down to 26, patient de-recruited FiO₂ back up to 60%. 10/25 MAP 30, 10/26 MAP 34 and the patient remained on FiO₂'s around 60%

10/26 first plug noted and patient de-recruited. FiO₂ 100% and slowly weaned down to 60% over the next several days. Spo₂ remained in the high 80's to low 90's with many episodes of desaturation. **10/30 patient taken off Oscillator and placed in PCV with continuous IPV.**

Non-conventional Ventilator parameters: (Rate of 20, PC pressure of 18, PEEP of 15, FiO₂ 100%, I:E 1.5:1). Continuous IPV set at middle Frequency (150) with driving pressure of 40 cmH₂O with Normal Saline. The total circuit pressure achieved a lower MAP than the patient was receiving via Oscillatory ventilation (28 cmH₂O) and the patients Spo₂ quickly increased to 97%. Over the course of the next few hours, the patient was suctioned frequently and Fio₂ was titrated down to 60%. The next day the patient was down to 40% FiO₂. Over the course of the next few days the patients parameters were weaned and the patient was placed back in PRVC. Received Bedside Percutaneous Tracheostomy on 11/4, (that a.m. RSBI was 80). Patient did have massive atrophy secondary to weeks of paralytics. It was the Intensivists fear that the patient would not be able to maintain secretions in the presence of the atrophy and airway secretions. Patient off vent on 11/5 and placed on a trach collar 40%.