

Category : **Respiratory: ARDS**

## ***A221 - Optimizing the effect of inhaled nitric oxide therapy of covid-19 patients with acute respiratory failure***

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### **Introduction:**

Inhaled Nitric Oxide (NO) is a pulmonary vasodilator that is inhaled and works by relaxing smooth muscle to dilate blood vessels in the lungs. It is used together with a ventilator to treat acute respiratory failure. Severe acute respiratory syndrome Corona virus, which is responsible for COVID-19 pandemic, caused a massive influx of patients presenting with Acute Respiratory Distress Syndrome (ARDS).

This study aims to improved percentage of oxygenation of COVID-19 patient with acute respiratory failure using Nitric Oxide therapy by more than 50 % by the end of 2021.

### **Methods:**

The data were collected using ISBAR (Introduction – Situation – Background – Assessment – Recommendation) hand over tool and arterial blood gas results from RAPIDCOMM blood gas server from the months of May 2021 to October 2021. Data collected includes date of intubation and extubation, start date and end date of iNO treatment, blood gases measurements before, during and after iNO treatment, dose of inhaled Nitric Oxide in PPM (parts per million), total number of days in iNO therapy.

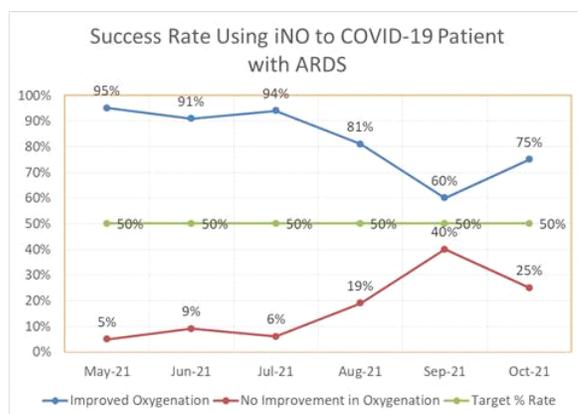
### **Results:**

Based on the patients data collected from May to October 2021, 91 – 95% of COVID-19 patients who were treated with iNO in the months of May, June, July showed improvement in oxygenation and were wean-off from ventilator. During the month of August 2021, influx of ARDS due to COVID-19 became twice as much the number compared from the previous months and it was observed during the months of August and September 2021. Number of patients without improvement in oxygenation has increased due to several factors such as availability of Nitric oxide (NO) machine and co-morbidities like chronic renal failure.

### **Conclusion:**

Our data indicates that the utilization of iNO is useful in improving arterial oxygenation of COVID-19 patients and could provide immediate help and delay of respiratory deterioration and further complications

### **Image :**



*Figure 1*