

# **PRONE PATIENT X PREVENTION OF PRESSURE INJURY: A CHALLENGE FOR THE MULTIDISCIPLINARY TEAM IN THE ICU COVID**

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## INTRODUCTION

The systemic inflammatory process and the worsening of lung function associated with the use of mechanical ventilation, brought to light the use of a position little used in intensive care until then: the prone or prone position.

The patient affected by an infectious disease from the new SARS CoV-2 virus, can evolve into a severe condition of viral pneumonia called COVID-19, and in extreme cases Severe Acute Respiratory Syndrome (SARS).

The proposed treatment for this situation includes continuous oxygen therapy, use of corticosteroids, antibiotics, antivirals, anti-inflammatories and, in more severe cases, non-invasive and invasive ventilatory support associated with sedation, analgesia and neuromuscular blockade. When the patient continues to deteriorate, studies have shown that the prone position favors ventilatory switching, thus leading to a reduction in patient mortality when early placed in this position.

According to Ramondetta (2020), there is an increase in injuries attributed to the pressure exerted, mainly to the prone position in patients using MV. In view of this scenario, measures were developed in the CTI COVID to protect the dermis of patients who are eligible for prone: Installation of silicone foam on the bony prominences of the face, use of a padded face protector; implementation of a spreadsheet to record changes in the head position, containing information about the times and names of the employees included in the process.

## OBJECTIVE

Seek prevention and reduction of cases of facial injury in prone patients using MV, with the implementation of a protocol that would allow the redistribution of facial compression

associated with cephalic repositioning, thus avoiding tissue hypoxia.

## METHODOLOGY

The choice of protective devices was based on clinical grounds such as Perrillat, et al, (2020) who present an article that discusses the use of devices such as “silicone-based pads or silicone gels, regular head rotation, adequate fixation of the orotracheal tube with silicone foam.”

From January to April, extrafine hydrocolloids were used on bony prominences and silicone foam was used improperly, which contributed to the incidence of injuries.

In the following months, new measures were adopted: installation of silicone foam of the correct size in the areas where the greatest pressure was felt, use of the silicone head protector and training of the team in the correct use of the positioning change control worksheet.

Another practice adopted was the reinforcement of guidelines on cephalic repositioning. Creating an awareness in the team with the objective of reducing the risks that the maneuver implies for the prone patient.

To direct the work of the on-duty team, a standard image was used with the correct positioning of the silicone protectors, through photographic records. After supine, there is a new recording and reassessment after 24 hours. This action is authorized by the family after signing the image term.

A comparison of the incidence of facial lesions in the months from January to April and from May to October was used for the evaluation.

## RESULTS

The period in which the evaluation was carried out was from 01/01/2021 to 10/13/2021, the target audience being

patients admitted to the ICU in the COVID sector.

According to EPIMED MONITOR (2021), the sector admitted 814 patients, of which 183 (28%) evolved to use MV; with an average length of stay of 11 days. Of the patients using MV - 90 patients needed to be prone (47%); with an average time in the prone position of 19 hours (average of 09 head/prone lateralizations). A total of 352 prone positions were performed (average of four prone positions/patient).

From January to April, with the use of the protections used, 35 prone cases of this total occurred, and 5 cases of injuries to the face (14% in the incidence rate of injuries to the face). This fact led to the need to carry out specialized training in loco, leading to a review of the adopted protocols.

In the subsequent months with the adoption of the new measures, there were 55 prone patients and only 2 cases (4% in incidence), demonstrating a reduction of 71.42%.

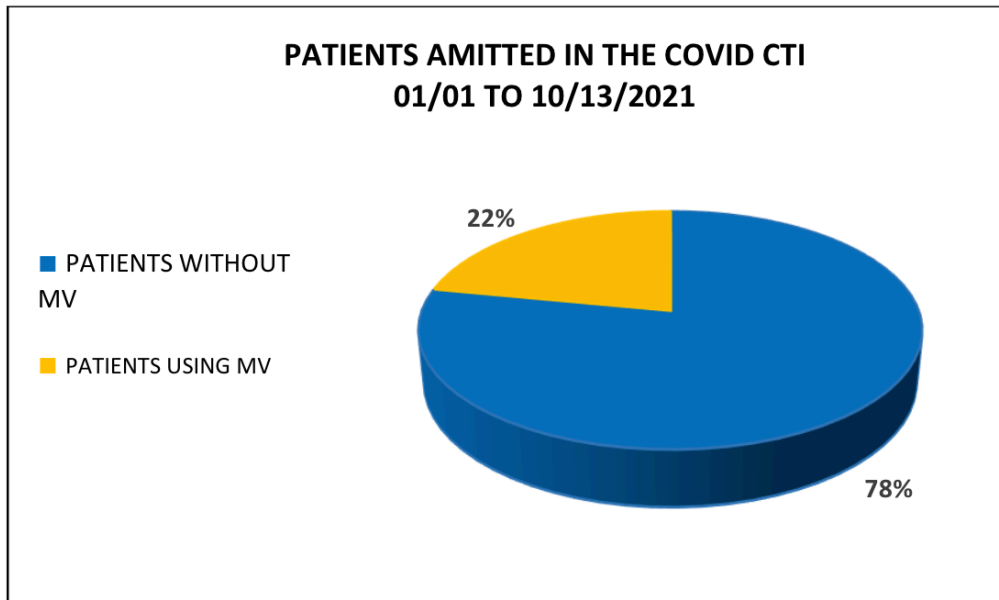


Table 1 – Information regarding patients admitted to the COVID CTI who required the use of mechanical ventilation.

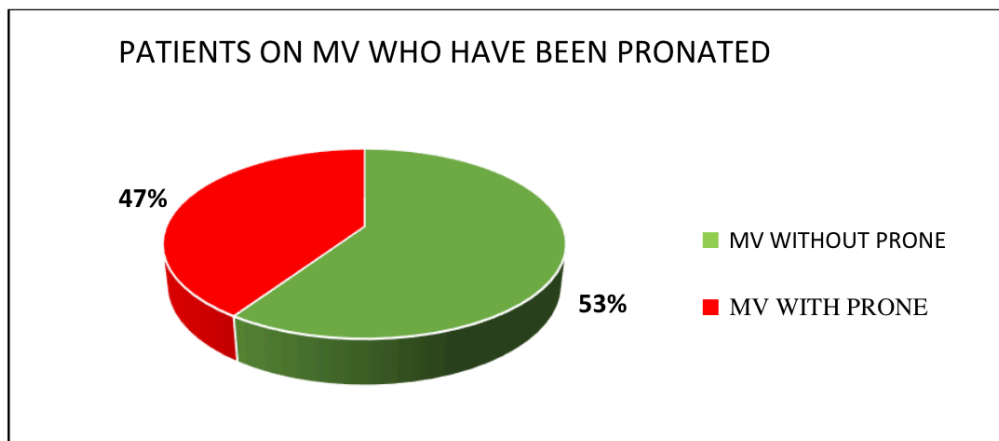


Table 2 – Data regarding the proportion of patients on mechanical ventilation and prone affected by COVID-19.

### DATA RELATED TO PERFORMING THE PRONE

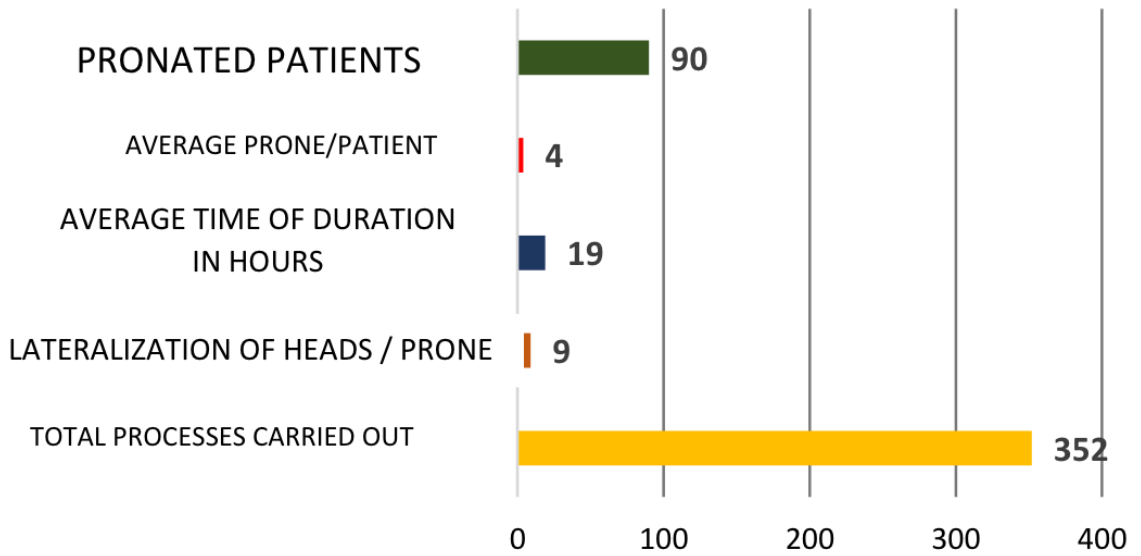


Table 3 – Data referring to patients on mechanical ventilation and prone affected by COVID-19.

### LESIONS ON THE FACE OF PRONATED PATIENTS

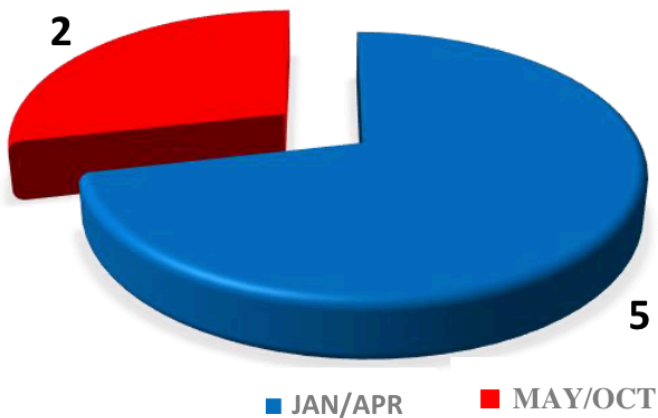


Table 4 – Number of cases of facial pressure injury in patients on mechanical ventilation and submitted to prone position.

## EFFECTIVENESS WITH THE APPLICATION OF THE NEW CONDUCT

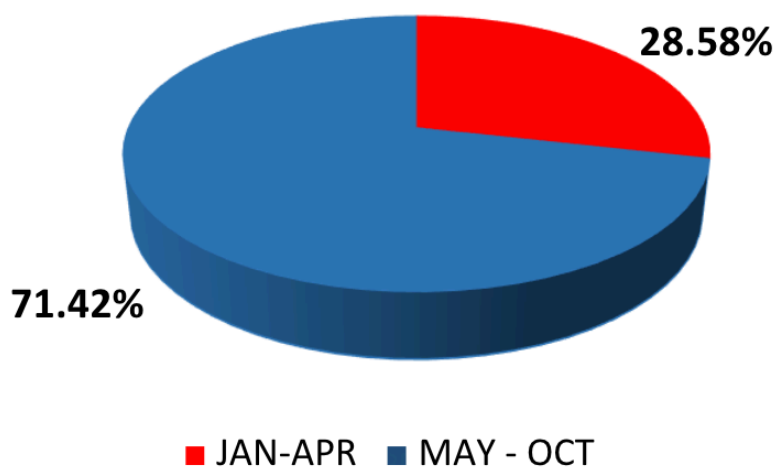


Table 5 – After adopting new preventive measures, graphic demonstration of the effectiveness in preventing pressure injuries in prone patients.

### CONCLUSION

The Covid-19 pandemic brought a huge challenge for health professionals, it was a moment of change, fears, at the same time it brought overcoming and maturing, remaining in the ideal of employees always the primacy in the offer of the assistance provided.

This important reduction came in line with the need for the nursing team to seek technical updating for better performance and expertise in the care of patients in the prone position. The educational actions carried out in loco were essential for achieving the best result. We identified that the understanding of the viral condition, the precocity of measures to prevent pressure injuries and the adoption of new protocols, brought a more favorable prognosis for these patients.

All preventive measures for pressure injuries on the face were built through work carried out by a multidisciplinary team, with the aim of increasing the safety and quality of care for people who are at risk of developing this condition.

## REFERENCES

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Sistema Epimed Monitor. Relatório gerado no dia 19/10/2021 às 07:33 horas.