The way to manage a lack of negative pressure isolation room for COVID-19 patients

Sang-woo Jeon¹, Lowri A. Williams²

₁Department of Nursing, Hallym Polytechnic University, Republic of Korea
₂Domiciliary Care, Gwynedd Council, North Wales, UK

ABSTRACT

The number of COVID-19 infected patients around the world is currently over 9 million already. Some countries have received a sudden and direct hit of COVID-19 and thus lack of medical supplies has occurred in those countries. There is a significant shortage of negative pressure isolation rooms for COVID-19 Patients with the most serious symptoms and because of this, the death rate keeps rising at a fast pace.

Until the vaccine or cure for COVID-19 is developed, preventing COVID-19 patients from death is more realistic. The early stages of COVID-19 should be used to secure treatment for COVID-19 patients with severe symptoms as mandatory lower the death rate, also negative pressure isolation room is clearly necessary, otherwise we are likely to see a large second wave of COVID-19. We scrutinized the national medical center of South Korea's database to find a new way to manage the expected shortage of negative pressure isolation room (NPIR).

Cite this paper as:

Dear Editor

The number of COVID-19 infected patients around the world is currently over 9 million already. Some countries have received a sudden and direct hit of COVID-19 and thus lack of medical supplies has occurred in those countries. There is a significant shortage of negative pressure isolation rooms for COVID-19 Patients with the most serious symptoms and because of this, the death rate keeps rising at a fast pace [1].

Until the vaccine or cure for COVID-19 is developed, preventing COVID-19 patients from death is more realistic. The early stages of COVID-19 should be used to secure treatment for COVID-19 patients with severe symptoms as mandatory lower the death rate, also negative pressure isolation room is clearly necessary, otherwise we are likely to see a large second wave of COVID-19. We scrutinized the national medical center of South Korea's database to find a new way to manage the expected shortage of negative pressure isolation room (NPIR).

Following clinical data of the treatment results of COVID-19 patients, another high-risk group (possibility of ECMO treatment more than 10%) is individuals with:
- body mass index (BMI) over 30
- quick SOFA (qSoFA) score over 1
- respiration rate under 22 times a minute
- systolic blood pressure less than 100mmHg
- age over 65 that has underlying diseases like diabetes, dementia, etc [1].
These patients will need to be hospitalized in NPIR first after they test positive for COVID-19. The simple first screening of high-risk patients and low-risk patients, following this study, we expect to cut down the death rate of COVID-19 patients, focusing on high-risk patients. Also, we think that it helps to prevent collapsing of the medical system by the lack of NPIR

**AUTHOR’S CONTRIBUTION**

The authors agree on this final form of the manuscript, and attested that all authors contributed in the final draft of the manuscript.

**CONFLICTS OF INTEREST**

The authors declare no conflicts of interest regarding the publication of this study.

**FINANCIAL DISCLOSURE**

No financial interests related to the material of this manuscript have been declared.

**REFERENCES**