

Managing Pulmonary Hypertension in Times of COVID-19

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As COVID-19 continues to spread and puts a strain on healthcare resources across the globe, the World Health Organization declared it a global pandemic on 11 March 2020.

Intensive care unit utilization, requirement for mechanical ventilation, and mortality are reported to be higher among patients with pre-existing conditions including cardiopulmonary disease.^{1,2}

As this is a new disease, there is yet no guidance on how to manage COVID-19 patients with underlying pulmonary hypertension (PH).³ Neither do current PH Guidelines have any recommendations on how to manage PH patients in times of epidemics/pandemics or severe infections.^{4,5} This guidance, endorsed by pulmonary artery hypertension and circulation committee in Taiwan Society of Cardiology, is based on current available information, what we know from seasonal influenza, and expert opinion.

2. Proper wearing of face mask even if they have not been exposed to or diagnosed with COVID-19.⁷
3. Staying away from crowded places, especially if it is not well-ventilated.⁷
4. Keeping away from people who are sick or who look sick.⁶
5. Avoiding touching surfaces that are frequently touched.⁶
6. Disinfecting surfaces they will be in contact with, especially if outside of home.⁶
7. Getting influenza and pneumococcal vaccinations.^{4,5}
8. Ensuring enough PH or other medications and oxygen supplement at hand.
9. Following medical instructions on taking medications and hospital visits.⁶
10. Getting in touch with their PH healthcare team at the slightest sign of unwell.

BEING PREPARED

ADVISE TO PH PATIENTS ON PREVENTION

PH patients should be advised:

1. Frequent handwashing with soap and water. If such is unavailable, the use of 60-75% alcohol-based hand sanitizers can be recommended.⁶

PH team needs to be prepared in case PH patients get sick with COVID-19. Working with the following teams will be important to deliver optimal care to our PH patients:

1. Infectious disease team to understand and implement infection control procedures.⁸
2. Critical care team to plan care of patients requiring extracorporeal membrane oxygenation.⁹
3. Intensive care unit (ICU) to understand how to sustain mechanical ventilation outside the ICU and to use bag valve mask (manual resuscitator).⁸
4. Triage team to determine prioritization for hospital admission and/or transfer.
5. Reduce frequency of PH patients visit from every month to every 3-6 months.⁹
6. Technology team to assess deployment of telemedicine so that PH patient will not have to come to the

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hospital for routine out-patient visit and risk getting nosocomial infection.⁹

7. Interventional and surgical cardiology teams to develop protocols for managing acute myocardial infarction.¹⁰
8. Pharmacy team to explore possibility of setting up medication pick-up points outside of hospital or possibility of home delivery.⁹

PROTECTING HEALTHCARE PERSONNEL

Healthcare providers are at the forefront of this fight to stem COVID-19, as such, their health, safety, and welfare is of utmost importance.

1. There were reports of healthcare providers becoming sick with COVID-19 suggesting a need to train healthcare providers on personal protection.^{8,10}
2. Considerations should be made to adjust staffing in case of increased patient load.^{8,9}

As the current pandemic continues and as we understand how it affects our PH patients, we will continue to update this list of recommendations and come up with specifics.

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CONFLICTS OF INTEREST

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