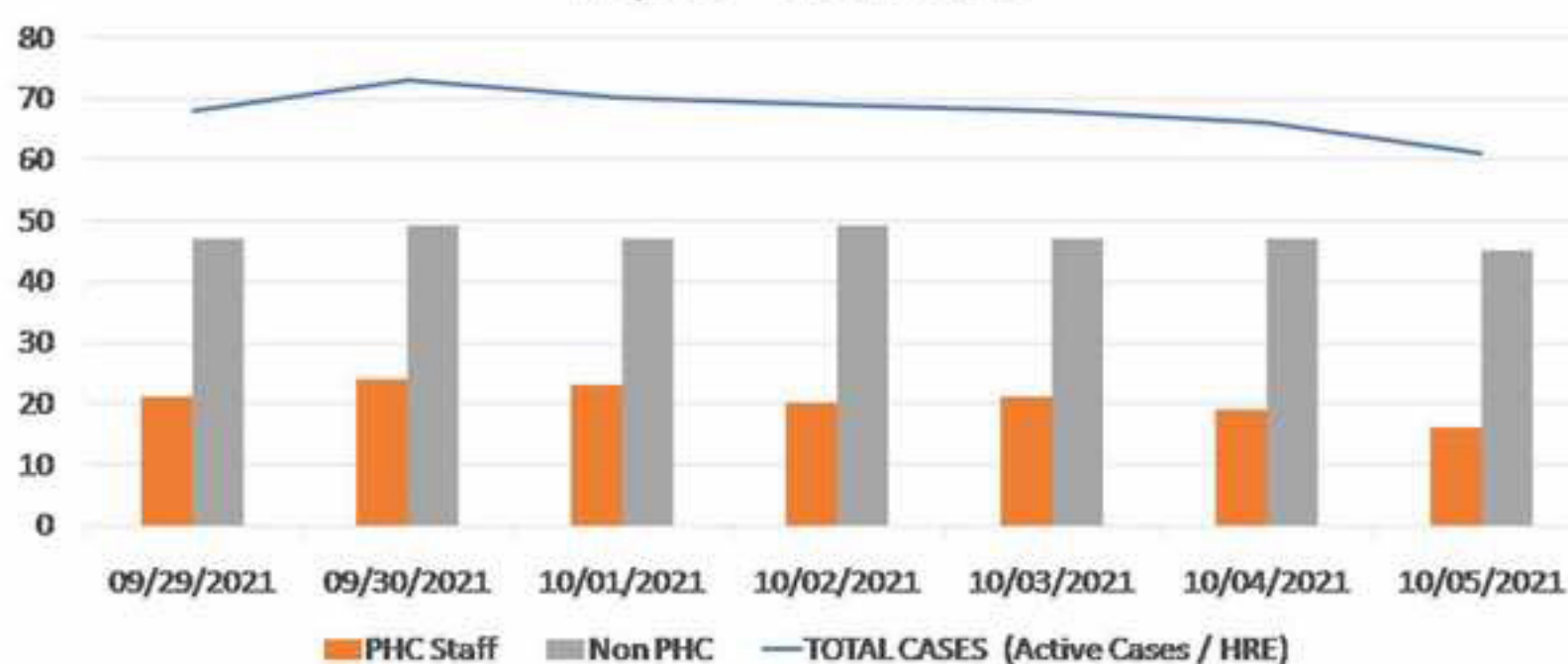


## Decreasing Covid Census

The Covid PHC and National Graph showing the steady and hopefully continuous decline in daily cases. Especially noteworthy is the less than 20 cases of PHC HCW.

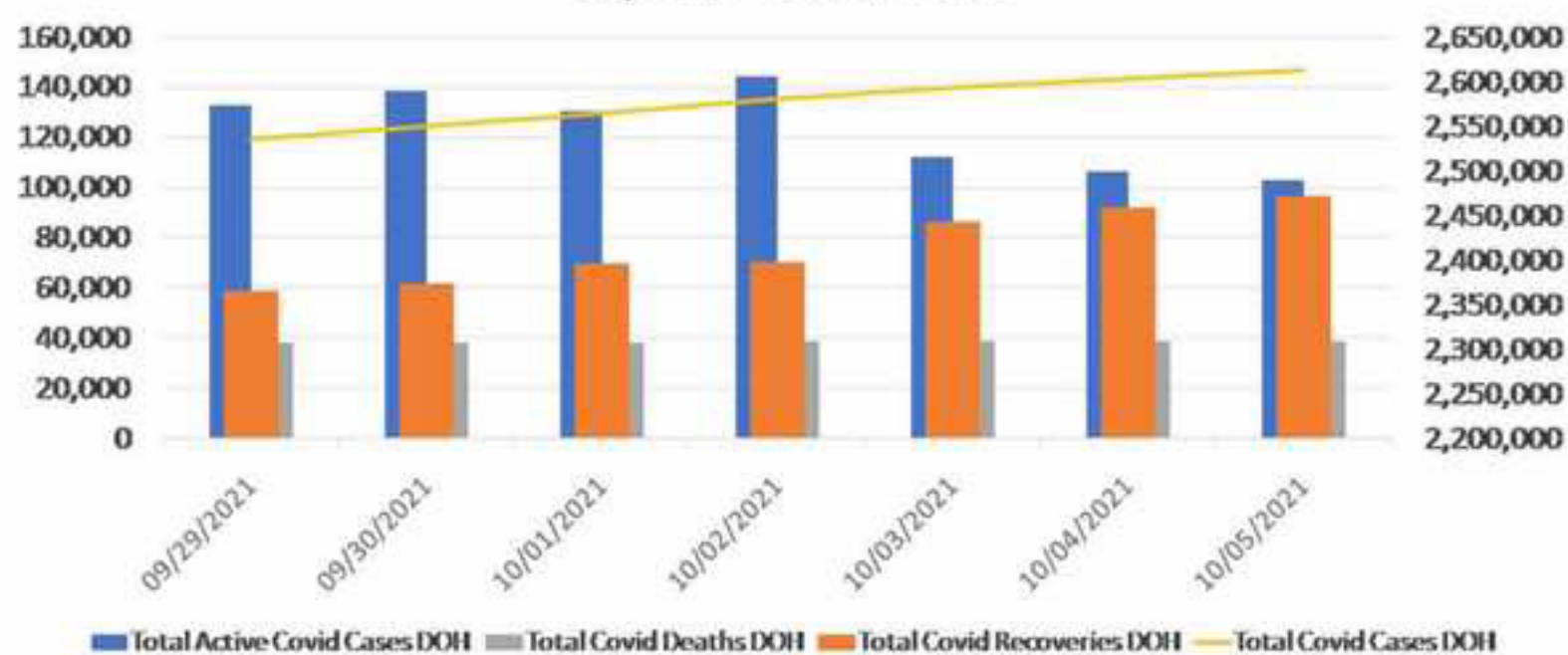
### Covid Care Census

Sept 29 - Oct 5, 2021



### National Covid Census

Sept 29 - Oct 5, 2021



## Director's Corner:

### Approval of the PHC Budget



The PHC Budget was presented during the Plenary Congress Budget Hearing, September 8, 2021

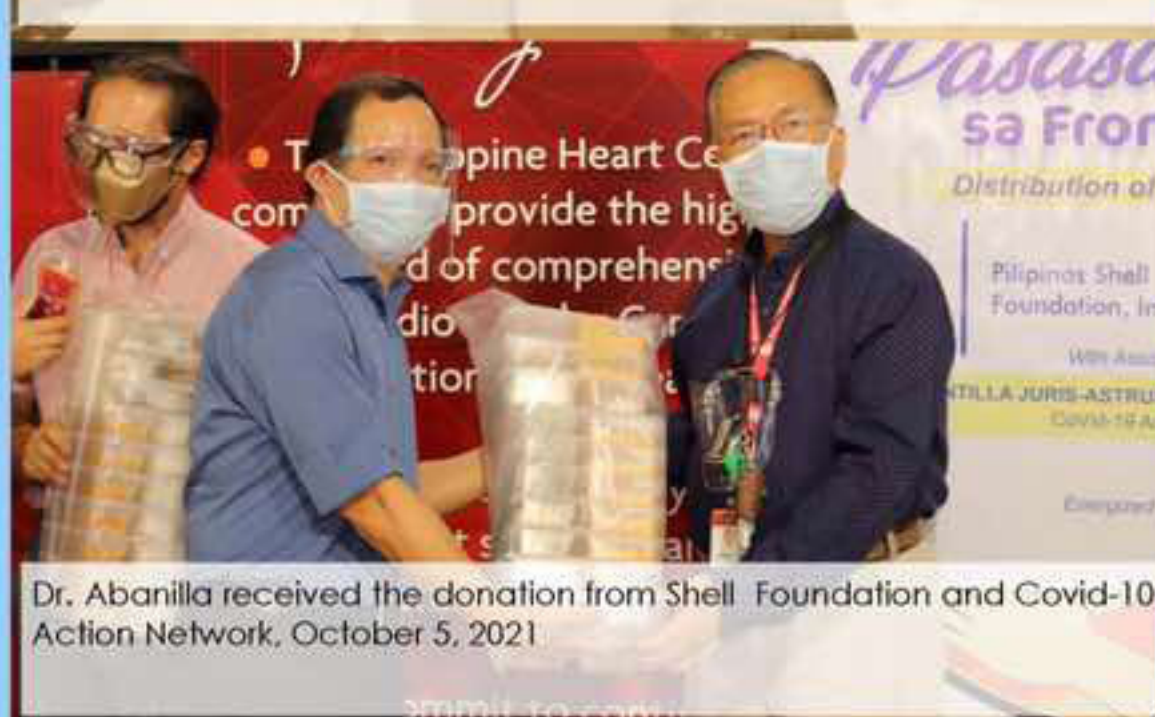


DOH Sponsor at Congress Plenary Budget Hearing, Cong. Duke Frasco

### Pilipinas Shell Foundation, Inc. & DZRH's Pasaalamat sa Frontliners



We Care Packs were given to PHC frontliners as part of the Pasaalamat sa Frontliners program of Pilipinas Shell Foundation, Inc. & DZRH



Dr. Abanilla received the donation from Shell Foundation and Covid-10 Action Network, October 5, 2021

## ICP Prepares for the Pilot Pedia Vaccination Roll-out



Dr. Pascual heads the meeting with members of the ICP in preparation for the Pilot Pedia Vaccination Roll-out



Vaccination Team



ICP Incident Commander, Dr. Manzo and Dr. Panganiban during the ICP Meeting





Covid Patients at PHC ER- Special Triage



Recognition of the PHC Research Paper

PHC Research paper entitled "Association of Initial Hemodynamic Profile to In-hospital Mortality of Critical COVID-10 patients in a Cardiology Referral Center," from the Division of Critical Care Medicine was recognized in the European Society of Intensive Care Medicine Annual Congress, LIVES 2021.

We are proud of you!  
Congratulations!

**Distributive Shock and Cardiogenic Shock** were frequently observed in Critical COVID-19. Shock was associated with mortality, but hemodynamic profile parameters were not associated.

Association of initial Hemodynamic Profiles to In-hospital Mortality of Critical COVID-19 patients in a Cardiology Referral Center

INTRODUCTION

Coronavirus Disease 2019 (COVID-19) has been declared by the World Health Organization as a pandemic with cases overflowing Intensive Care Units across the world. Critical COVID-19 patients may develop shock from inflammation, cardiac injury and other mechanisms. There is limited data on their hemodynamic profile; measured thru invasive and non-invasive means. As a Cardiology Referral Center, different and multiple types of shock are anticipated.

OBJECTIVES

To determine the association of clinical and hemodynamic profiles to in-hospital mortality of critical COVID-19 patients admitted at the ICU.

METHODS

This was a retrospective cohort study conducted in the Philippine Heart Center from March 2020 to December 2020. Adult, PCR-confirmed COVID-19 patients admitted in the Intensive Care Unit were included. Clinical profiles were obtained. Hemodynamic parameters (Cardiac Output, Cardiac Index and Systemic Vascular Resistance) were obtained thru invasive and non-invasive methods on patients who developed shock. Types of shock were categorized. Mortality rates were observed.

CONCLUSIONS

Hemodynamic alterations from distributive shock and cardiogenic shock frequently observed in Critical COVID-19. Shock regardless of type was associated with increased mortality. Hemodynamic parameters did not differ significantly between two groups.

REFERENCES

- World Health Organization. Director-General's remarks at the media briefing on 11 February 2020.
- Awamleh, N. A. et al. (2020). Outcomes from intensive care in patients with COVID-19: a systematic review and meta-analysis of observational studies. *Anaesthesia*, 75(10), 1240-1246. doi: 10.1111/anae.15201
- Martin-Garcia JG. Early Hemodynamic Profile in Critically Ill Patients with COVID-19. *Int J Emerg Med* 2020; 13(2): 199-204.
- Carvalho J et al. Hemodynamic characteristics of COVID-19 patients with acute respiratory distress syndrome requiring mechanical ventilation: An invasive assessment using right heart catheterization. *Eur J Heart Fail* 2020; doi:10.1002/ejhf.2117. doi: 10.1002/ejhf.2117. Epub 2020 Dec 7. PMID: 33080564; PMCID: PMC7517474

M. Patricia<sup>1</sup>, A. Longos<sup>2</sup>, A. Tan<sup>1</sup>, C. Tortosa<sup>1</sup>, J. Centre<sup>1</sup>, C. Permejo<sup>1</sup>, L. Habana<sup>1</sup>  
<sup>1</sup>Division of Critical Care Medicine  
<sup>2</sup>Department of Adult Cardiology  
Philippine Heart Center, Quezon City, Philippines  
Contact information: mdpatricio1@up.edu.ph



RESULTS

Total of 77 patients were included. Mean age was 61 years old with a number having Cardiovascular comorbidities at admission (Acute Coronary Syndrome and Heart Failure). Initial SOFA, serum lactate and inflammatory markers were predictive of mortality with a rate of 56%. Acute Respiratory Distress Syndrome, Acute Heart Failure and Shock were the most common complications. Among patients who developed shock, Fick's method and Echocardiography were the most commonly used modalities to determine the hemodynamic parameters. Mean Cardiac Output was 3.85 (3.30 to 6.70). Mean Cardiac Index was 2.29 L/min (1.76 to 3.55) and mean SVR was 1518 dyne-cm<sup>2</sup> (895 to 1650) by Fick's method, but did not differ significantly between groups. Regardless of Distributive and Cardiogenic shock type profile, both are associated with mortality.

Table 1: Fick's Determination of Hemodynamic Profiles

	Total Frequency (%)	Survival (Mean ± SD) Median (IQR)	Mortality (Mean ± SD) Median (IQR)	P-value
Cardiac Output (L/min)	3.85 (3.30 to 6.70)	3.65 (3.34 to 3.70)	5.09 (3.16 to 7.64)	.250
Cardiac Index (L/min/m <sup>2</sup> )	2.29 (1.76 to 3.55)	1.92 (1.75 to 2.4)	2.88 (1.78 to 3.70)	.329
Stroke Volume (ml/kg/beat)	48.48 (26.58 to 96.93)	44 (30.91 to 52.88)	54.12 (24.32 to 127)	.506
Systemic Vascular Resistance (dynes/cm <sup>2</sup> )	1513 (770 to 1650)	1606 (895 to 1821)	1098 (703 to 1397)	.204

Table 2: Type of Shock and Mortality

Hemodynamic Profile	Total	Survival	Mortality	P-value
	Frequency (%)	Frequency (%)	Frequency (%)	
Distributive Shock	38 (49%)	5	33	<.001
Cardiogenic Shock	28 (36%)	6	22	.004
Obstructive Shock	3 (4%)	0	3	.315
Multiple Types of Shock	8 (10%)	1	7	.004



Clean Hands are Safe Hands

5 Commonly Missed Areas during Handwashing

1. Tip of the fingers
2. In between fingers
3. Dorsum part of the hand
4. Thumb
5. Side of the pinkie finger



We salute the three dedicated retirees from the Department of Pediatric Cardiology: Dr. Aurora Gamponia (Outgoing Department Manager), Dr. Magdalena Lagamayo (Past Clinical Division Chief), Ms. Lorna Mangaliman-30 years Department Secretary

Whatever you do, do it all for the glory of God

1 Corinthians 10:31

