

**OP31 CODE BLUE VERSUS CODE PURPLE: A 6-MONTH STUDY ON HOW THE COVID-19 PANDEMIC AFFECTS OUTCOMES OF IN-HOSPITAL CARDIAC ARREST IN A TERTIARY HOSPITAL**

ANNDRIAN L<sup>1</sup>, FARINA MS<sup>1</sup>, AHMAD SUHAILAN M<sup>1</sup>, AZHARI R<sup>1</sup>

<sup>1</sup> *INSTITUT JANTUNG NEGARA, KUALA LUMPUR, MALAYSIA*

**INTRODUCTION**

Institut Jantung Negara (IJN) has a dedicated resuscitation team to attend in-hospital cardiac arrest (IHCA). Before COVID-19, IHCA immediate and 24-hour survival was 50% and 44% respectively. Despite the pandemic causing systems disruptions and deaths, there is paucity of information on IHCA outcomes during this period. IJN announces 'Code Blue' (CB) for cardiac arrest patients and 'Code Purple' (CP) for similar patients with suspected or confirmed COVID-19.

**METHOD**

Information on all IHCA between January and June 2021 was collected using Utstein style method. Data collected from patient's medical records were analyzed using Excel software for age, gender, ethnicity, co-morbidities, initial rhythm at cardiac arrest, duration of Cardio Pulmonary Resuscitation (CPR), time to return of spontaneous circulation (ROSC) and survival to discharge. Descriptive statistics for each variable were obtained.

**RESULTS**

A total of 163 IHCA occurred where 138 events were announced as CB and 25 were CP. Comparing the 2 groups, composition of male gender was similar at 67% (CB) and 68% (CP) with a median age of 62 years (CB) and 70 (CP). Both groups were

compared for diseases: Hypertension 49% CB vs. 60% CP, Diabetes 49% CB vs. 56% CP and Hyperlipidemia 22% CB vs. 20% CP. Main presenting rhythm in CB was Pulseless Electrical Activity at 32% whilst in the CP group, 52% had Ventricular Tachycardia. 96% of patients received Advanced Cardiac Life Support (ACLS) within 5 minutes in CB compared to 78% in CP. Median duration of CPR was 104 minutes for CB and 17 minutes in CP. In terms of outcomes, the immediate survival rate was 60% for CB and 52% for CP and survival to discharge was 44% in CB and 24% in CP.

**DISCUSSION**

The American Heart Association ACLS Guidelines for Suspected or Confirmed COVID-19 Patients recommends precautions including donning of Personal Protective Equipment and limiting personnel to reduce aerosolization, which may cause delays to resuscitation. Advanced directives for severe patients could influence CPR duration and outcomes.

**CONCLUSION**

Resuscitation during a pandemic requires regular simulation to improve team dynamics, reduce risk of infection and improve patient outcomes.

**KEYWORDS**

In-Hospital Cardiac Arrest, Covid-19, ACLS