

Research Colloquium Series 4/ 2023

CLINICAL EVALUATION OF MULTI-NATION, MULTI-CENTER CASE STUDY FOR SARS-COV-2 VARIANT ANALYSIS AND RESPIRATORY VIRUSES' CO-INFECTION

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Introduction:

The outbreak of pneumonia cases diagnosed as coronavirus disease 2019 (COVID-19) led to the disruption of community-circulating respiratory viruses, which exacerbated the severity of suspected co-infected severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) patients with common respiratory viruses. As the world moves towards the endemic phase of COVID-19, Malaysia has recorded over 5 million cases and nearly 40,000 deaths. However, there are arguments about uncertain positions in studies concerning co-infections of respiratory viruses. Some studies have reported no significant decrease in the co-circulation of common respiratory viruses during the COVID-19 pandemic. Therefore, there is a need for concerns and surveillance regarding the co-infection of respiratory viruses and SARS-CoV-2.

Objective:

To examine the circulating SARS-CoV-2 variants and determine the presence of other respiratory viruses in both SARS-CoV-2 positive and negative clinical samples.

Methodology:

Real-time Polymerase Chain Reaction (PCR) was conducted on 103 SARS-CoV-2 positive clinical samples and 108 SARS-CoV-2 negative clinical samples obtained from Hospital Sultan Abdul Aziz Shah UPM (HSAAS) (JKEUPM 2021-838). These samples underwent heat inactivation at 56°C for 30 minutes before total viral nucleic acids were extracted using the SEEPREP32 semi-automated nucleic acids extractor. The Allplex™ RV Master assay was utilized to detect various viruses, including SARS-CoV-2 (SC2, S/N, and RdRP genes), Human Adenovirus (AdV), Human Metapneumovirus (MPV), Human Rhinovirus (HRV), Human Respiratory Syncytial Virus (RSV), Influenza A Virus (Flu A), Influenza B Virus (Flu B), and Human Parainfluenza Virus (PIV). Furthermore, the Novaplex™ SARS-CoV-2 Variants VII Assay was applied to identify mutations in the S/N and RdRP genes' spike proteins (E484A, N501Y, HV69/70 deletion) and the RdRP gene of SARS-CoV-2 in the positive samples.

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LIVE WEBINAR

THURSDAY
9 November 2023

2.15PM – 3.00 PM
Clinical evaluation of multi-nation, multi-center case study for SARS-CoV-2 variant analysis
Associate Prof. Dr. Chee Hui Yee
Principal Investigator

3.00PM – 3.45 PM
Prevalence of Mental Health Status and Its Associated Factors Among Patient Attending Primary Health Care
Dr. Fadlilah Mohamad
Principal Investigator

3.45PM – 4.30 PM
Knowledge, Practices, And Its Associated Factors of Proper HBPM Among Medical Doctors in UPM
Dr. Aneesa Abdul Rashid
Principal Investigator

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Results:

AdV was the most common respiratory virus detected in SARS-CoV-2 positive samples, while HRV was the most frequently identified in SARS-CoV-2 negative samples. The co-infection of HRV with AdV represented the highest number of cases observed among SARS-CoV-2 negative samples. Among the studied SARS-CoV-2 positive clinical samples, the spike protein mutation groups (E484A + N501Y + HV69/70 deletion) and (E484A + N501Y) were the two most recorded mutation groups.

Conclusion:

Understanding the prevalence of co-infections and specific mutations in SARS-CoV-2 positive cases is crucial for clinical management, public health strategies, and the development of targeted interventions, including vaccine adaptations or treatments.

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PREVALENCE OF MENTAL HEALTH STATUS AND ITS ASSOCIATED FACTORS AMONG PATIENTS VISITING PRIMARY HEALTH CARE CLINIC, HOSPITAL SULTAN ABDUL AZIZ SHAH (HSAAS) UPM

Muhammad Amir Wafiy Mohd Shahmizan, Tay Huey May, Sritharan Nagendheran, AP Dr. Aneesa Abdul Rashid and Dr. Fadzilah Mohamad*

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Introduction:

Poor mental health status is a worldwide concern. The aim of this study is to identify the association of sociodemographic status, social support, and social media use toward mental health status.

Method:

A cross-sectional study was conducted from October 2022 to July 2023 at Family Medicine Specialist Clinic, HSAAS. Respondents were chosen by convenience sampling. A self-administered questionnaire that consisted of six sections: socio-demographic profile, underlying medical illness, social support (MOS), social media used and mental health screening was used. The data was analysed using SPSS.

Result:

148 respondents were recruited and 15% (n=22) were found to have poor mental health status. Mean age of respondents was 48.6 ± 13.6 and majority of them were Malay (91.2%) and had chronic illness (78.4%). Factors that were found to be significant with mental health status were social support ($p=0.010$) and frequency of using the internet ($p=0.010$). Higher the social support was associated with good mental health status, whereby the longer use of the internet a day was associated with poor mental health status.

Conclusion:

The prevalence of poor mental health status among patients visiting primary health care clinics was 15%. This study serves as a reference for policymakers and relevant authorities to plan for an intervention to address mental health issues particularly among primary care patients.

Keywords: Mental health status ,primary care, Social support, depression, anxiety

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KNOWLEDGE, AWARENESS , PRACTICE AND ITS ASSOCIATED FACTORS ON PROPER HOME BLOOD PRESSURE MONITORING (HBPM) AMONG MEDICAL DOCTORS IN UPM.

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Introduction:

High blood pressure, often known as hypertension, is a chronic medical problem that affects the majority of people globally. In managing hypertension, measuring accurate blood pressure plays a vital role. Home blood pressure monitoring (HBPM) has been introduced in preventing hypertension and making a new trend of self-healthcare among communities. When it comes to HBPM in the medical sector, practitioners are expected to have a thorough grasp, awareness, and practice in pursuing a patient's subsequent diagnosis. The aim of this study is to determine the level of knowledge, practices of recommendation, awareness of normal HBPM and its associated factors on proper home blood pressure monitoring (HBPM) among medical doctors in UPM.

Methods:

A cross-sectional study was conducted among medical doctors from the Faculty of Medicine and Health Sciences (FMHS) and Hospital Sultan Abdul Aziz Shah (HSAAS), Universiti Putra Malaysia. A total of 107 doctors participate in the study. A set of questionnaires used which includes participants' socio-demographic profiles, knowledge of HBPM, practice of recommending HBPM and awareness of normal level of HBPM.

Results:

The calculation on response rate is 56%. Results showed that the knowledge mean is 13.46 (range score: 0-22). For the practice of recommending HBPM, 97% have a high practice of recommending, meanwhile only 39% of them have good awareness of normal HBPM value. Only specialty or department factors are significant to the practice of recommending HBPM and awareness of normal HBPM value.

Conclusion:

Sociodemographic factors (age, gender, race, highest education qualification, position, speciality/department) does not affect the level of knowledge of HBPM among medical doctors in the FMHS and HSAAS, Universiti Putra Malaysia. Meanwhile, all sociodemographic factors did not affect the practice of recommendation and awareness on normal HBPM except for speciality/department factors. The results of this study will also provide useful data for more researchers conducting other similar studies.

Keywords: Level of knowledge, practice of recommending, awareness of normal HBPM value, home blood pressure monitoring, medical doctors