



PROCEEDING OF THE INTERNATIONAL WEBINAR COVID-19 PANDEMIC:

**Impacts, Strategies, and Challenges
on The Urban Health**

WEBINAR SERIES

20- 21 and 27- 28 August 2021

PAPER PRESENTATION

“Impact of Covid-19 pandemic on health, medical education,
healthcare, physical activity, and others”

3- 4 September 2021

**School of Medicine and Health Sciences
Atma Jaya Catholic University of Indonesia 2021**

**PROCEEDING OF THE
INTERNATIONAL
WEBINAR
COVID-19
PANDEMIC:**

**Impacts, Strategies, and Challenges
on The Urban Health**

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on The Urban Health**

EDITOR

Dr. dr. Veronika Maria Sidharta, M.Biomed.
apt. Sherly Tandi Arrang, M.Farm-Klin



**PENERBIT UNIVERSITAS KATOLIK INDONESIA
ATMA JAYA**

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INTERNATIONAL WEBINAR “COVID-19 PANDEMIC: IMPACTS, STRATEGIES, AND CHALLENGES ON THE URBAN HEALTH”

20-21 August 2021, 27-28 August 2021, 3-4 September 2021

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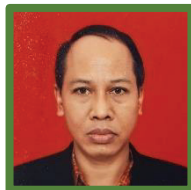


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FOREWORD

from the Chair – Organizing Committee:



I want to extend a warm welcome to all participants of Atma Jaya Catholic University of Indonesia's International Webinar 2021!

This international webinar is entitled 'COVID-19 Pandemic: Impacts, Strategies, and Challenges on the Urban Health'. The COVID-19 pandemic that began in March 2020 has changed many things in all areas of life. This webinar discusses the impact of the COVID-19 pandemic on urban health in the fields of infection, geriatrics, and addiction, which are the main fields of FKIK Unika Atma Jaya.

International experts from the UK, the Netherlands, Australia, Thailand, and Indonesia will present the material according to their expertise. This international webinar also provides an opportunity for other speakers to present their papers in the free paper session. The information from this webinar is undoubtedly beneficial for doctors, scientists, participants, and the government to overcome the pandemic, especially the impacts, strategies, and challenges in urban health.

I want to express my deepest gratitude to Alomedika for enabling this international webinar to be well organized and attended by many participants. Also, to the sponsors who have supported this international webinar.

Finally, to the speakers, free paper presenters, and participants, I congratulate you on joining this international webinar.

Thank you,
Nawanto Agung Prastowo



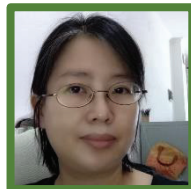
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20-21 August 2021, 27-28 August 2021, 3-4 September 2021

FOREWORD

from the Dean – School of Medicine and Health Sciences:

First, I would like to express my gratitude to God Almighty because the online international webinar can run smoothly.



We held this international seminar as a form of our contribution in the scientific field. During this COVID-19 pandemic, holding online seminars has become normal and makes it very easy for us to interact with each other even though we are far apart. This online seminar is intended so that we can continue to share knowledge and experiences, especially those related to urban health problems that are developing during the COVID-19 pandemic. I hope that this international seminar can increase the knowledge and insight of the participants, especially on geriatric topics, infections, and addictions related to the COVID-19 pandemic.

Finally, I would like to thank the organizers who have worked hard to prepare for this event, the resource persons, Alomedika who have facilitated this online seminar, and the event's sponsors.

Stay healthy,

Felicia Kurniawan



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“COVID-19 PANDEMIC: IMPACTS, STRATEGIES, AND CHALLENGES
ON THE URBAN HEALTH”

20-21 August 2021, 27-28 August 2021, 3-4 September 2021

EVENT SCHEDULE

Friday, 20 August 2021

Plenary Session 1 – Infectious Disease

Time	Title	Speaker
14.00-14.30 GMT+7	Welcoming	
	Opening speech (Rector of Atma Jaya Catholic University of Indonesia)	Agustinus Prasetyantoko, S.E., M.Sc. Ph.D.
14.30-15.00 GMT+7	Secondary Infectious Complications in COVID-19	Linda J. Wammes, M.D., Ph.D. (Netherlands)
15.00-15.30 GMT+7	The Role of Host genetics on COVID-19 Infection and Severity	Dr. Beben Benyamin (Australia)
15.30-16.00 GMT+7	New strain of SARS CoV 2: is there any implication on diagnostic tools and vaccine development?	Dr. dr. Soegianto Ali, M.Med.Sc. (Indonesia)
16.00-17.00 GMT+7	Q and A	Moderator: Maria M.M. Kaiser, Ph.D.

Saturday, 21 August 2021

Plenary Session 2 – Geriatrics

Time	Title	Speaker
14.00-14.30 GMT+7	COVID-19 and Dementia	Prof. Eef Hogervorst, Ph.D. (United Kingdom)
14.30-15.00 GMT+7	Long COVID Syndrome in Older Adults	Prof. Siti Setiati, M.D., Ph.D. (Indonesia)
15.00-15.30 GMT+7	Coagulopathy in Senior Adults with COVID-19	Hilman Tadjoeidin, M.D., Ph.D. (Indonesia)
15.30-16.30 GMT+7	Q and A	Moderator: dr. Rensa, Sp.PD, K-Ger, FINASIM



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Friday, 27 August 2021

Plenary Session 3 – Psychiatry Aspect of COVID-19 Era

Time	Title	Speaker
14.00-14.30 GMT+7	Global Clinician Survey Findings on Behalf of the International Society in Addiction Medicine (ISAM) around COVID-19 and Substance Misuse Services	Prof. Alex Baldacchino, M.D., M.Phil., Ph.D., FISAM, FRCPsych, FRCP(E) (United Kingdom)
14.30-15.00 GMT+7	Substance Abuse and Mental Health During COVID Pandemic: Problems and Solution	Apisak Wittayanookulluk, M.D. (Thailand)
15.00-15.30 GMT+7	Behavioral Addiction During Social Distancing: How to Cope	Dr. dr. Kristiana Siste, Sp.KJ(K) (Indonesia)
15.30-16.30 GMT+7	Q and A	Moderator: dr. Eva Suryani, Sp.KJ

Saturday, 28 August 2021

Plenary Session 4 – Related Impacts of COVID-19

Time	Title	Speaker
14.00-14.30 GMT+7	Travel Medicine in the COVID Era	Prof. Leo G. Visser, M.D., Ph.D. (Netherlands)
14.30-15.00 GMT+7	Building Evidence in Pharmacy Practice Research	Prof. Zaheer-Ud-Din Babar, B.Pharm., M.Pharm., Ph.D., SFHEA (United Kingdom)
15.00-15.30 GMT+7	Drug Discovery and Development During and Post COVID-19	Raymond Rubianto Tjandrawinata, Ph.D. (Indonesia)
15.30-16.00 GMT+7	Mental Health Care for People with HIV in the Pandemic Era	Dr. dr. Astri Parawita Ayu, Sp.KJ (Indonesia)
16.00-17.00 GMT+7	Q and A	Moderator: Dr. dr. Soegianto Ali, M.Med.Sc.



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Friday, 3 September 2021

Oral Presentation 1

Session/Time	Title	Presenter
Session 1A 10.00-12.00 GMT +7 Moderator: dr. Komang A. Wahyuningsih, M.Biomed., Sp.KKLP	1A-1 A Systematic Review: Blood Clot Risk Factors in Covid-19 Vaccination and Hormonal Contraception	Martanty Adity, Fibe Yulinda Cesa
	1A-2 Association between Frailty and COVID-19 Severity in Hospitalized Elderly Patients	Rensa, Angelina Yuwono, Febie Christya, Mario Steffanus
	1A-3 Overview of Anosmia Symptoms in Covid-19 Patients	Fari Ananda Daud, Hana Ratnawati
	1A-4 Adverse Effects of mRNA-1273 Vaccine on the Vaccination day: A Preliminary Study in Healthcare Workers of Atma Jaya Hospital	Angelina Yuwono, Mario Steffanus, Ardelia Yardhika, Rensa, Febie Christya
	1A-5 Impaired Liver Function in COVID-19 Patients: Literature Review	Kevin Tandarto, Resley Ongga Mulia, Maureen Miracle Stella
	1A-6 Association between Laboratory Parameters and Disease Severity in COVID-19	Ardelia Yardhika, Mario Steffanus, Angelina Yuwono, Rensa, Febie Christya
	1A-7 Antibacterial Activity Test of Marine Sponge Extracts (Aptos suberitoides)	Deny Rudiansyah, Sunarjati Sudigdoadi, Eko Fuji Ariyanto
	1A-8 Study of Online Muscle Health Assessment during Covid-19 Pandemic on Indonesian Elderly	Maria Dara, Rita Dewi, Jenny Hidayat, Cipta Mahendra, Florenca
	1A-9 Identification of Factors Affecting the Workload of Primary Healthcare (Puskesmas) Officers during the Covid19 Outbreak	Tria Giri Ramdani, Aurik Gustomo



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Session/Time	Title	Presenter
Session 1B 10.00-12.00 GMT +7 Moderator: Dr. dr. Adrienne Priska Regina Satya W., M.Sc.	1B-1 Autoimmune Disease and COVID-19: Are They Affecting Each Other? – A Case Series	Marcella Adisuhanto, Valencia Shirleen, Angelina Yuwono, Mario Steffanus, Ardelia Yardhika, Rensa, Febie Christya
	1B-2 Challenges in Managing COVID-19 Severe Illness in a Rural Setting: A Serial Case Report	Eduward Thendiono
	1B-3 Subacute Thyroiditis as Manifestation of Covid-19 Infection: A Case Report	Sarah Firdaus, Putri Nabillah Mulya, Suryawati, Azizah Vonna
	1B-4 Clinical and Histopathological Characterization of Skin Lesions in COVID-19	Veronika M. Sidharta, Maureen M. Stella, Danny Gunawan
	1B-5 NSAID for COVID-19 Vaccine Side Effects, Does It Do More Good or Harm?: A Literature Review	Mario S., Angelina Y., Ellita A., Fransisca J., Farren O.S., Josephine I., Petra J.A., Sharon C., Valencia S.
	1B-6 Clinical Characteristic of Covid-19 in Elderly at Ulin Hospital, Banjarmasin	Aditya Noor Rachman, Wiwit Agung Sri Nur Cahyawati
	1B-7 Frailty and COVID-19 Outcomes: A Literature Review	Delia A.T., Clarence M.A., Erlina S., Gabriella, Jessica S., Jonathan S., Imagia I., Nadya N., Novia A.Z.
	1B-8 Analysis of measuring the level of service quality on BPJS Health patient satisfaction during the COVID 19 pandemic with the service quality method (Servqual): Case study at Ar-Rahman Medika Clinic Karawang – West Java)	Sigit Aryanto, Nur Budi Mulyono
	1B-9 Preliminary Study: Physical Activity and Nutritional Status of the Elderly during the Covid-19 Pandemic	Maria Dara, Rita Dewi, Ayly Margaret, Liza Widjaya, Erina Damayanti



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Saturday, 4 September 2021

Oral Presentation 2

Session/Time	Title	Presenter
Session 2A 10.00-12.00 GMT +7 Moderator: dr. Kevin Kristian, M.Sc.	2A-1 Lactate Dehydrogenase as a Predictor for Severe COVID-19: A Cross-Sectional Study	Mario Steffanus, Angelina Yuwono, Ardelia Yardhika, Rensa, Febie Christyaya
	2A-2 Factors that Influenced the Covid-19 Titer Antibody Post-Vaccination	Hana Ratnawati, Demes Chornelia, Steven Felim
	2A-3 Observation on Inconclusive Results of SARS-CoV-2 by RT-qPCR	Christian Ardianto, Anastasia Venna, Anita D. K. Thantry, Maria M.M. Kaisar
	2A-4 Classification of COVID-19 Dermatological Manifestations	Audrey Melanie, Gabriela Christy, Lorettha Wijaya
	2A-5 First Year Medical Student Challenges of Basic Biomedical Block Online Study in Pandemic Covid-19 Era at Faculty of Medicine Cenderawasih University Papua	Hendrikus M.B. Bolly
	2A-6 Undergraduate Medical Students' Online Learning Experiences during the COVID-19 Pandemic: Continue or Not?	Sandy Theresia, Sanny Winardi, Daniel Ardian Soeselo
	2A-7 The Relationship between the Online Learning System and New Students' Anxiety Levels during the Covid-19 Pandemic	Yustiana Olfah, Atik Badi'ah, Siti Nur Kumala Sari
Session 2B 10.00-12.00 GMT +7 Moderator: dr. Gisella Anastasia, MHPE	2B-1 The Obstacles in Routine Online Yoga Exercise Due to Social Restriction in Covid-19 Pandemic Among Middle Age and Elderly Population	Lilis, Angela S.D. Amita., Ana Lucia Ekowati, Isadora Gracia, Marcella Adisuhanto
	2B-2 Developing "Ibu Sehati" Application for Anemia Preventing Program: Information, Education, Communication Media during Covid-19	Aurelia Rifkha Anyndie, Nur Hidayat, Tri Siswati



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Session/Time	Title	Presenter
	2B-3 The Aspects of Pathogen, Population, and the Behavior of the Population, in the Relationship between Herd Immunity and COVID-19 (A Systematic Review)	Erina Yatmasari
	2B-4 Sedentary Life Style and Risk of Metabolic Syndrome of Public Health Center Nurses during the Covid-19 Pandemic	Yustiana Olfah, Katri Andini Surijati, Tri Siswati
	2B-5 The Knowledge of Adolescents about Preventing Covid-19 Infection in West Java	Diyan Indrayani, Lola Noviani Fadilah, Tria Giri Ramdani
	2B-6 Translation and Adaptation Guide of WHO 'iSupport for Dementia' Indonesian Language version	Yuda Turana, Kevin Kristian, Tara P. Sani, Ika Suswanti, Yvonne S. Handayani
	2B-7 Overview and Education of the Use of Red Ginger as Herbs to Increase Immunity during Covid-19 Pandemic	Sherly Tandi Arrang, Lorensia Yolanda, Angeline Kurniawan, Celine Yoanita P., Laurentine Belinda A., Natalia Veronica, Monica Arvia Chiara, Ruth Septiana



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ABSTRACTS

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INTERNATIONAL WEBINAR
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Friday, 20 August 2021 – INFECTIOUS DISEASES

Secondary Infections during SARS-CoV-2 Infection: Experiences from the Netherlands

Linda J. Wammes, M.D., Ph.D.

Leiden University Center for Infectious Diseases, Leiden University Medical Center, Leiden, The Netherlands

The COVID-19 pandemic confronted us with an unprecedented number of hospital and especially ICU admissions. Since health care workers were unfamiliar with the disease, there were many unknowns around this infection. In patients with severe influenza infections, it is known that secondary infection with for example *Staphylococcus aureus* or *Aspergillus* species can occur. Knowledge in this area has slowly evolved around SARS-CoV-2. Later in the epidemic, anti-inflammatory therapeutics such as dexamethasone and tocilizumab (IL-6 receptor antagonist) were implemented in SARS-CoV-2 treatment, which cause reduction in mortality, but may increase the risk of secondary infections. Studies are ongoing in LUMC to evaluate this and will be discussed in the webinar.



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The Role of Host Genetics on Covid-19 Infection and Severity

Dr. Beben Benyamin

Australian Centre for Precision Health
University of South Australia

People responds differently to *sars-cov2* infection that causes Covid-19. While the majority of people who are infected by the virus do not develop symptoms or only having mild symptoms, a significant minority will develop into severe disease that may lead to death. Older age, male sex and pre-existing medical conditions, such as obesity and diabetes are among the known factors that increase the risk of severe disease or death due to Covid-19. However, these risk factors do not explain all variation in disease severity between patients. Individual (host) genetic differences are suggested to play a role in explaining the differences in susceptibility to Covid-19 and severity. Several international collaborative efforts have identified genetic variants associated with individual differences in covid-19 susceptibility and severity. The presentation will review the current understanding of host genetics contribution to Covid-19 and the efforts to map the responsible genetic variants.



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New Strain of SARS CoV 2: Is There Any Implication on Diagnostic Tools and Vaccine Development?

Dr. dr. Soegianto Ali., M.Med.Sc.

School of Medicine and Health Sciences, Atma Jaya Catholic University of Indonesia, Jakarta, Indonesia

The beginning of the year 2020 was marked by the announcement of a new coronavirus disease caused by SARS-CoV-2 and widely known as COVID-19. The disease had developed into a pandemic and currently infected almost 200 million people and killed more than 4 million people worldwide.

SARS-CoV-2 is an RNA virus prone to mutation, and new strains or variants had been reported from all parts of the world. Of several new variants reported, some are of concern due to their ability to infect more rapidly and efficiently or have the potential to avoid the protection of antibodies from prior COVID-19 infection or vaccination. There is also concern that current diagnostic tools could not detect the new variant of SARS-CoV-2.

This presentation will discuss the genesis of the new strain of SARS-CoV-2, its implication on diagnostic tools, and the impact of currently available and future development of vaccines.



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Saturday, 21 August 2021 – GERIATRICS

COVID and Dementia

Prof. Eef Hogervorst, Ph.D

Respati University, Indonesia and SSEHS Loughborough University, LE11 3TU, United Kingdom

In the UK, excess mortality during the lockdown of Spring 2020 was highest in people living with dementia (PWD). This was the case both for deaths due to COVID-19, but also for deaths not directly related to COVID-19. Dementia is characterised by cognitive disorders, including poor memory, planning, understanding and communication, which impact on activities of daily life. This morbidity has no cure, but high human, social and economic costs due to high care and support needs. Using tests developed at Oxford University and validated in Indonesia, we and others estimated that dementia prevalence would double in the next decades in Indonesia (1,2). With migration of younger people as carers away from poorer rural areas (where dementia risk is highest, with few care homes), this could lead to serious care need issues. In our most recent paper, we found that poor health was one of the main contributors of dementia risk in Indonesia (3). In this seminar we discuss reasons why dementia was associated with such a high mortality rate in the UK and would like to discuss whether there were similar trends in Indonesia. Firstly, a lack of social contacts and loneliness was found to be a risk factor for dementia, while engaging in exercise and community activities reduced risk and slowed cognitive decline in the UK and Indonesia. Lockdown would have impacted significantly on these activities, possibly accelerated cognitive decline. A lack of understanding of PWD of and infection prevention (hand washing, social distancing and mask wearing) and COVID-19 symptom, but also impaired communication of their symptoms associated with COVID-19, and the fact that fevers do not always occur in older people when they are infected could have resulted in detection bias. Cerebrovascular risk factors accelerate risk for dementia and increased blood clotting could



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have had cumulative effects on risk. Indonesian researchers found stroke to be a major risk factor for dementia (2). Lastly, recent data have shown that COVID-19 is associated with increased risk for dementia and long term cognitive impairment. The role of inflammatory factors in dementia is currently much researched. Poor nutritional intake which is common in dementia could have further accelerated infection risk and promoted health decline.

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Long COVID Syndrome in Older Adults

Prof. Siti Setiati, M.D., Ph.D

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Indonesian Geriatrics Society (PERGEMI)

Recently, there is growing evidence of Long COVID-19 Syndrome, which are symptoms lingering even after the person has been healed from COVID-19 infection. The National Institute for Health and Care Excellence (NICE) developed a guideline on defining Long COVID-19 Syndrome, which are: ongoing symptomatic COVID-19 if the person is showing sign and symptom of COVID-19 from 4 to 12 weeks, and post-COVID-19 syndrome if the sign and symptom persist for more than 12 weeks and are not explained by an alternative diagnosis.¹ Even when the patients had mild COVID-19 infection, there is a study showing that one third of the patients even get persistent symptoms after 2-6 weeks from the first onset of the symptoms.² Study from the UK's Office of National Statistics (ONS) using a Kaplan-Meier approach showing that the prevalence of Long COVID-19 syndrome was 21% and 10% at 5 and 12 weeks from onset, respectively.³ Study in Mediterranean also showed that more than 50% of the COVID-19 patients, recovering from non-severe and severe infection, developed persistent symptoms 10-14 weeks after the first symptom onset.⁴

Study by Nalbandian et al stated that several common symptoms are⁵: dyspnea, decrease exercise tolerability, thromboembolic events may still occur, palpitations, dyspnea, chest pain, fatigue, myalgia, cognitive impairment (memory loss), anxiety, depression, sleeping disorder, and hair loss. With the most common symptoms are fatigue, dyspnea, cough, and brain fog. Fatigue may be related to congestion of the lymphatic system and the subsequent toxic build-up within the central nervous system (CNS), resulting in increased resistance of the CSF (cerebrospinal fluid) drainage. In addition, hypometabolism in the frontal lobe and cerebellum also thought to play a role. CNS affected by the infection may also result in some cognitive



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disorder, also known as "brain fog" when the person is complaining of having memory loss and maybe unable to perform daily tasks due to confusion.⁶ Pathophysiology behind the Long COVID-19 syndrome can be explained by several mechanism, which are endothelial damage and microvascular injury; immune system dysregulation and stimulation of a hyperinflammatory state; hypercoagulability with resultant in situ thrombosis and macrothrombosis; and maladaptation of the angiotensin-converting enzyme 2 (ACE2) pathway.⁵

Managing Long COVID-19 symptoms can be challenging. A study by Crook et al published in BMJ developed an algorithm on how to manage COVID-19 patients.⁶ When the person is having an acute COVID-19 infection, we should not forget the psychosocial impact of the patients, which are impacts to their life, families, and their mental health. We also need to develop the discharge planning, whether they may still need oxygen support, who are taking care of them at home, how they are feeling, how the families are coping with it, etc. We also should include multidisciplinary rehabilitation, including physical, psychological, and psychiatric aspects. As for older adults, we need to ensure that they have a caregiver/family that take care of them at home, as we know that they may suffer from dependency even for performing daily tasks. Simple Respiratory Breathing Exercise can be performed to improve the oxygenation and relieve respiratory symptoms. Do not forget to quit smoking and drinking alcohol as it can aggravate the symptoms. Do not exercise too much, mobilize as you can but you still need to be aware of your own condition and limitation.

There is still limited amount of study of Long COVID-19 in older adults. Comprehensive evaluation of the elderly when they first diagnosed with COVID-19 infection is still important. We can use Comprehensive Geriatric Assessment (CGA) consisted of functional, mental, nutrition, cognitive, frailty, sarcopenia, and polypharmacy. Knowing the baseline condition of the patient, we can further evaluate whether they will be prone to develop Long COVID-19 or not. For example, an elderly with frail status and total



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dependency may need a continuous monitoring at home later. Otherwise, they are prone to fall and get another infection at home. After the elderly has been discharged from the hospital, we need to ensure that they get the proper discharge and rehabilitation planning, not only for physical but also psychological, and psychiatric aspects. Elderly who are isolated in the hospital due to COVID-19 prone to develop depression, anxiety, and even insomnia, which can aggravate their COVID-19 infection. Study by Sagarra-Romero, et al showed that older people diagnosed with a COVID-19 infection are at a higher risk of severe muscle weakness and atrophy that may have negative consequences on functional disability.⁷ Infection and inflammation may have a negative impact on the muscle mass, therefore resulting in sarcopenia and frailty. Thus, a multidisciplinary collaboration with a dietician may also needed as we need to supply the elderly with nutritional supplement if needed. At home, careful monitoring of the vital signs, signs and symptoms still need to be performed by trained caregivers and families. If possible, use telemedicine to communicate to the doctors if they are no emergency, such as decrease consciousness or sudden loss of appetite.

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Coagulopathy in Senior Adult with COVID-19

Hilman Tadjoedin, M.D., Ph.D

Dharmais National Cancer Centre-School of Medicine Universitas Indonesia

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus-2, which has posed a significant threat to global health. Although the infection is frequently asymptomatic or associated with mild symptoms, in a small proportion of patients it can produce an intense inflammatory and prothrombotic state that can lead to acute respiratory distress syndrome, multiple organ failure, and death.

The World Health Organization (WHO) declared SARS-CoV-2 as a pandemic on March 11, 2020. As of March 23, 2020, at 13:25 EST, there were 362,019 confirmed cases of SARS-CoV-2 reported from 168 different countries, with 15,488 deaths and an overall projected case fatality rate (CFR) of 4.3%. The Centers for Disease Control and Prevention (CDC) reported that although individuals older than age 65 comprise 17% of the total population in the United States, they make up 31% of COVID-19 infections, 45% of hospitalizations, 53% of intensive care unit admissions, and 80% of deaths caused by this infection. This suggests that older individuals are more likely to get COVID-19 and have worse outcomes compared with the general population.

Three components of Virchow's triad appear to be involved, including: endothelial injury, stasis, and hypercoagulable state. Endothelial injury is evident from the direct invasion of endothelial cells by SARSCoV-2; endothelial cells have a high number of angiotensin-converting enzyme 2 (ACE-2) receptors. SARS-CoV-2 enters the cell through the ACE-2 receptor. Increased angiogenesis was also seen in these patients. Increased cytokines are released, such as interleukin (IL)-6, and various acute-phase reactants in COVID-19 can lead to endothelial injury.



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Stasis is due to immobilization in all hospitalized patients, especially those who are critically ill. A hypercoagulable state is seen due to several coagulation abnormalities from elevated circulating prothrombotic factors such as elevated von Willebrand factor (vWF), factor VIII, D-dimer, fibrinogen, neutrophil extracellular traps, prothrombotic microparticles, and anionic phospholipids.

Having identified the various populations vulnerable to coagulopathy-associated severity of COVID-19, we now turn towards possible therapeutic solutions and preventive strategies. Recent guidelines recommend thromboprophylaxis for all hospitalized Covid-19 patients or full therapeutic-intensity anticoagulation. For anticoagulation, the drug of choice is low molecular weight heparin, and in patients who might have severe renal impairment or extremely high risk of bleeding, unfractionated heparin is recommended. Preventive aspects deal with treating the comorbidities and end with a maximum level of thromboprophylaxis, but all of these measures are suggested after a patient is hospitalized.



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Friday, 27 August 2021 – PSYCHIATRY ASPECT OF COVID-19 ERA

Global Clinician Survey Findings on Behalf of the International Society in Addiction Medicine (ISAM) around COVID-19 and Substance Misuse Services

Prof. Alexander Baldacchino, M.D., M.Phil., Ph.D., FISAM, FRCPsych, FRCP(E)
NHS Fife and University of St. Andrews, United Kingdom

COVID-19 has had a devastating impact on vulnerable populations, including people with substance use disorders (SUDs). Quarantines, travel bans, regulatory changes, social distancing and 'lockdown' measures have affected drug and alcohol supply chains and subsequently their availability, price and use patterns, with possible downstream effects on presentations of SUDs and demand for treatment.

Given the lack of multicentric epidemiologic studies, we conducted a rapid cross sectional global survey within the International Society of Addiction Medicine (ISAM) network in order to understand the status of substance-use patterns during the current pandemic. Participants reported a decrease in drug supply (69.0%), and at the same time an increase in price (95.3%) globally. With respect to changes in use patterns, an increase in alcohol (71.7%), cannabis (63.0%), prescription opioids (70.9%), and sedative/hypnotics (84.6%) use was reported while the use of amphetamines (59.7%), cocaine (67.5%), and opiates (58.2%) was reported to decrease overall.

Participants reported that SUD treatment and harm reduction services had been significantly impacted globally early during the COVID-19 pandemic. Based on our findings, we highlight several issues and complications resulted by the pandemic concerning people with SUDs to be tackled more efficiently during the future waves or similar pandemics. The issues and potential strategies comprise: 1) helping policymakers to generate business continuity

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plans, 2) maintaining the use of evidence-based interventions for people with SUDs, 3) being prepared for adequate medication supplies, 4) integrating harm reduction programs with other treatment modalities and 5) having specific considerations for vulnerable groups such as immigrants and refugees.



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Substance Abuse during COVID-19 Pandemic: Problem and Solution, and Mental Health during Pandemic

Apisak Wittayanookulluk, MD, FRCPsyT.

Addiction Medicine Department of Medical Services, Ministry of Public Health, Thailand

The World Health Organization (WHO) has identified mental health as an integral component of the COVID-19 response. Prevention and promotion mental health services and programmes were most severely affected. Around three-quarters of school mental health or workplace mental health services were wholly or partially disrupted. Approximately only 30% of mental health services for children and adolescents or for older adults were available with no disruption, and fewer than 40% of antenatal or postnatal mental health services were not disrupted. Almost 60% of all psychotherapy and counselling services were reported as partially disrupted. Overdose prevention and management programmes and critical harm reduction services were disrupted in more than 50% of countries. The main causes of disruption were identified as a decrease in outpatient volume due to patients not presenting, travel restrictions hindering access to health facilities for patients and a decrease in inpatient volume due to cancellation of elective care. Community-based services and mental health prevention and promotion programmes, already limited in availability, are reported to be disrupted at a time when society needs them the most due to the adverse mental health impacts COVID-19.



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Behavioural Addiction during Social Distancing: How To Cope

Dr. dr. Kristiana Siste, Sp.KJ(K)

Department of Psychiatry, Faculty of Medicine Universitas Indonesia - dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia

For many people, the uncertainty, misinformation, and self-isolation during the COVID-19 pandemic have led to strong emotional impacts. These stresses, if not managed properly, may lead to mental health problems, including behavioural addiction such as internet, gaming, and gambling addiction. A national study conducted during May - July 2020, which involved 2,932 adolescents (aged 10-20 years) and 4,734 adults (aged over 21 years), reported that the prevalence of IA was 14.4% and 19.3%, respectively. Research in adults before the pandemic showed a prevalence of around 3.0-3.2%, indicating an increase of at least almost 5 times which was supported by an increase in internet use by 52% (equivalent to 3.4 hours per day) and in more detail it was found that 40.3% of respondents used the internet more than 11 hours per day during the pandemic. Risk factors for internet addiction during the pandemic included an increased daily online duration (>11 hours per day), as well as having confirmed/suspected COVID-19 cases within the household. Developing a positive coping mechanism is key to maintaining mental health. Firstly, make sure to fulfill your physical needs, including getting enough sleep, balanced nutritious meals, and regular exercise. This can be encouraged by creating a structured daily schedule with healthy habits. Secondly, reduce your stress and anxiety by setting limits on the time you spend reading and watching news related to COVID-19. Thirdly, practice mindfulness, such as deep breathing, journaling, or meditation. Fourthly, schedule time for digital detoxification. Several mobile applications can be used to support your digital detoxification, such as the Forest App. Furthermore, try to stay connected with friends and families. Remember that distancing yourself physically does not mean you have to isolate yourself socially. Lastly, perform screening for behavioral addiction, such as using the Kuesioner Diagnosis Adiksi Internet (KDAI) Mobile App or Website every 6



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months. If your screening results indicate a high risk for behavioural addiction, or if are experiencing severe stress that causes difficulty in daily activities, suicidal thoughts or ideation, and if you have any psychiatric comorbidities that may cause you to be at risk for a behavioural addiction, please consult your nearest psychiatrist, psychologist, general practitioner, or a trusted social worker.



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Saturday, 28 August 2021 – RELATED IMPACTS OF COVID-19

Travel Medicine in the COVID Era

Prof. Leonardus G. Visser, M.D., Ph.D.

Leiden University Medical Centre, Netherlands

Since the start of the pandemic over 200 million confirmed cases of COVID-19 have been reported. The subsequent global travel restrictions have reduced the number of international inbound tourist arrivals by 74% in 2020. The impact of this fall in tourism on the gross domestic product is estimated to range between 1.8 and \$2.4 trillion US dollars putting over 100 million tourism jobs directly at stake.

Many national health systems are struggling to cope with the unprecedented numbers of COVID-19 patients. As a consequence, at least 24 million people in 21 Gavi-supported lower-income countries were at risk of missing out on vaccines against polio, measles, typhoid, yellow fever, cholera, rotavirus, HPV, meningitis A, and rubella due to postponed campaigns.

The impact of COVID-19 on both routine immunization and campaigns cancelled in the countries at highest risk will provide the perfect conditions for a post-pandemic measles catastrophe in particular, as it has delivered a critical immunity-gap legacy. Urgent action is required to reverse a pending measles catastrophe. In Sub-Saharan Africa especially the access to effective diagnosis and treatment of falciparum malaria has been affected. In addition, in areas where control measures have reduced the disease transmission intensity, there indications that local emergence of Pfkclh13-related artemisinin resistance is occurring. As a consequence, we need to be vigilant for delayed parasite clearance as assessed by day 3+ also in travellers with falciparum malaria returning from Africa.



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The diversity in the Spike protein between common cold corona virus and SARS-CoV-2 indicates that coronaviruses have broad potential to tolerate changes in both sequence and structure without substantial loss of function. This partially explains why coronaviruses can undergo zoonotic transmission and suggests that the full evolutionary potential of SARS-CoV-2 has yet to be revealed. In general, the circulating variants of concern are characterised by increased transmissibility and reduced sensitivity to neutralising antibodies. Some rules of thumb for a personalised risk-based COVID-19 travel-advise will be proposed.



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Building Evidence in Pharmacy Practice Research

Prof. Zaheer-Ud-Din Babar, B.Pharm., M.Pharm., Ph.D., SFHEA

University of Huddersfield, United Kingdom

As COVID-19 is threatening to change the course of healthcare systems, economies and countries, it has also emphasized the need for humanity to create credible scientific evidence to act upon in public policy space. Pharmacy practice research (PPR) is a specialty field within the wider area of health services research and it focuses on studies of how and why people access pharmacy services, the cost of care and services and what happens to the patients as a result of this care. This study aimed to evaluate and quantify the effects of medication review by pharmacists on substantive clinical outcomes (namely, hospital admissions, and mortality) and on quality of life and patient satisfaction. The pandemic outbreak COVID-19 has put community pharmacists at the frontline of prevention, preparedness, response, and recovery efforts. Perspective paper in 2019 identified 43 pharmacists' role in disaster throughout the stages of response to a public health emergency. The role of pharmacists included medical supply, vaccination, and educating the patients and consumers. Common features include disaster response and mitigation efforts to ensure continuing medication supply and patient care. Home delivery of medications and increased changes to repeat dispensing also impacted the role of pharmacists around the world. Prices increase by the wholesalers and suppliers, frequent inspection of authorities, extending working hours, financial loss in the pharmacy, reimbursement delay to pharmacies, and mental health issues also challenge the pharmacists in pandemic COVID-19. Human resource, understanding the methods of research, health systems, and how this research would be used are needed to produce evidence informed research in COVID-19.



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Drug Discovery and Development before and during COVID-19 Pandemic

Raymond Rubianto Tjandrawinata, Ph.D.

Molecular Pharmacologist

Dexa Group

Atma Jaya Catholic University of Indonesia

A drug discovery programme initiates because there is a disease or clinical condition without suitable medical products available and it is this unmet clinical need which is the underlying driving motivation for the project. The initial research, often occurring in academia, generates data to develop a hypothesis that the inhibition or activation of a protein or pathway will result in a therapeutic effect in a disease state. The outcome of this activity is the selection of a target which may require further validation prior to progression into the lead discovery phase in order to justify a drug discovery effort. During lead discovery, an intensive search ensues to find a drug-like small molecule or biological therapeutic, typically termed a development candidate, that will progress into preclinical, and if successful, into clinical development and ultimately be a marketed medicine. One of the most important steps in developing a new drug is target identification and validation. A target is a broad term which can be applied to a range of biological entities which may include for example proteins, genes and RNAs. A good target needs to be efficacious, safe, meet clinical and commercial needs and, above all, be 'druggable'. Data mining of available biomedical data has led to a significant increase in target identification. In this context, data mining refers to the use of a bioinformatics approach to not only help in identifying but also selecting and prioritizing potential disease targets.

During the COVID pandemic, scientists rush to find repurposed and newly discovered drugs for COVID-19. There are several strategies in antiviral drugs for coronaviruses including empirical testing of known antiviral drugs, large-scale phenotypic screening of compound libraries and target-based drug



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discovery. To date, an increasing number of drugs have been shown to have anti-coronavirus activities in vitro and in vivo, but only remdesivir and several neutralizing monoclonal antibodies have been approved by the US FDA and health authorities around the world for treating COVID-19. One of the recently discovered neutralizing monoclonal antibodies is the Regdanvimab originated from a Korean convalescent patient. Monoclonal antibodies that target the spike protein have been shown to have a clinical benefit in treating SARS-CoV-2 infection especially in mild high-risk patients still not requiring oxygen therapy. Clinical data of regdanvimab suggest that this monoclonal antibody plays a role in preventing replication of SARS-CoV-2 virus in infected patients. In randomized, placebo-controlled trials of nonhospitalized patients who had mild to moderate COVID-19 symptoms and certain risk factors for disease progression, regdanvimab reduced the risk of hospitalization and death in mild high-risk COVID-19 patients.



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Mental Health Care for People Living with HIV during the Pandemic Era **Dr. dr. Astri Parawita Ayu, Sp.KJ**

University Center of Excellence, AIDS Research Center Health Policy and Social Innovation, Atma Jaya Catholic University of Indonesia
Department of Psychiatry and Mental Behaviour, School of Medicine and Health Sciences, Atma Jaya Catholic University of Indonesia

People living with HIV are at a higher risk of having mental health problems than the general population. Mental health problems in people living with HIV can be associated with the pathophysiological process of chronic inflammation, stigma and other psychosocial stressors, and side effects of antiretroviral (ARV) medications (1). Having mental health problems may affect the course of HIV and the patient's adherence to ARV treatment (1). People living with HIV who experience mental health problems may also suffer from more stigma and poor quality of life (1).

The COVID-19 pandemic has brought about fear and anxiety due to the virus infectivity and dramatic changes in living conditions. People living with HIV are considered at a higher risk of getting COVID-19 with more severe complications due to immunosuppression conditions (2). Consequently, it intensified their fear of being contracted with SARS-COV-2. As the general population, people living with HIV may also suffer from the consequences of social and physical distancing, a measure to control the spread of COVID-19. Hence, people living with HIV are at a higher risk of mental problems during the pandemic (2).

There is an urgent need for mental health care for people living with HIV during the COVID-19 pandemic (2,3). However, providing mental health care in a pandemic situation can be challenging. It is then fundamental to address the challenges since good quality mental health care will benefit HIV treatment and the patient's quality of life.



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A Systematic Review: Blood Clot Risk Factors in Covid-19 Vaccination and Hormonal Contraception

Martanty Aditya, Fibe Yulinda Cesa*

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The use of hormonal contraception has a correlation with the administration of the Covid-19 vaccine associated with the risk of blood clots in some people for some cases (1,2). However, it is not clear about factors that are associated with this incident. The purpose of this review is to collect evidence of possible causes of blood clots in patients using a systematic reviews approach. The source of data collection uses the Google Scholar search engine which was carried out in August 2021. The eligibility criteria determined by the reviewers were studies related to Covid-19 vaccination, blood clots, and hormonal contraception. Data extraction and synthesis were carried out by two reviewers who independently screened the study, extracted data, assessed the quality of the study using critical appraisal and then reviewed the results. A total of three articles (3–5) were included in the final analysis. Several studies related to this condition are reported in the results obtained from searches using these keywords. The studies stated that the occurrence of blood clots was not at risk in patients receiving contraception. The relevant research results showed that there is no significant relationship between vaccination and contraception used by patients. These results are shown by three research reports that have similar studies. The results of this review indicate that cases of risk of blood clots can occur in patients who do not use contraception as well as productive women. However, with the limited literature, it still needs to observe for vaccinated persons correlated with the use of hormonal contraception. Therefore, estrogen can increase fibrinogen and coagulation factor activity and develop into cloth. The presence of vaccination causes an inflammatory stimulus causing an increase in cloth so



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that it is entered at high risk. Future studies need to examine related to vaccination monitoring associated with the use of contraception. So that, the effectiveness of vaccine performance can be maximized.

Keywords: Covid-19 vaccine, hormonal contraception, blood clots, review

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1A-2

Association between Frailty and COVID-19 Severity in Hospitalized Elderly Patients

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Background: The coronavirus diseases 2019 (COVID-19) pandemic is associated with high rates of mortality among elderly patients. Frailty is defined as an extreme vulnerability to endogenous and exogenous stressors, which exposes an individual to a higher risk of negative health-related outcomes and commonly impacts older adult. Thus, frailty may related in severity of COVID-19 in elderly patients.

Objectives: To determine association between frailty syndrome and COVID-19 severity in elderly patients.

Methods: This cross-sectional study includes all COVID-19 patients aged \geq 60 years old who were admitted in Atma Jaya hospital during April 2020 – May 2021. Age, gender, number of comorbidities, COVID-19 severity and frailty assessment was taken at the day of admission. We used Clinical Frailty Scale (CFS) to assess frailty.

Outcome: Eighty-nine subjects were included in the study, 8% of subjects had more than 3 comorbid diseases, 54% subjects had moderate disease. The common symptoms in our subjects were cough (55.1%), fever (44.9%), fatigue and malaise (42.7%), nausea and vomiting (32.6%), shortness of breath (27%) and anorexia (15.7%). 49.4% of our subjects were frail and the median of frailty score on admission was 4. From multivariate analysis we found a significant association between frailty and COVID-19 severity ($P=0.000$)

Conclusion: Frailty is associated with COVID-19 severity in elderly patients. Frailty is recommended to be assessed early on admission in order to predict COVID-19 outcomes in hospitalized elderly patients.

Keywords: COVID-19, elderly, frailty, hospitalized



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1A-3

Overview of Anosmia Symptoms in Covid-19 Patients

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Introduction: It's been more than a year since Covid-19 was declared as a pandemic in March 2020, but until now there are still many things not clearly understood. Firstly, the symptoms of Covid-19 were similar to influenza with fever, cough, myalgia, arthralgia and fatigue, but later it was discovered that Covid-19 often causes anosmia, hyposmia and dysgeusia. That's why currently if someone experiences symptoms of sudden anosmia without any airway obstruction or rhinitis, it is necessary to check the possibility of being infected with SARS-CoV2. The purpose of this study was to determine the anosmia symptoms in Covid-19 patients.

Methods: This is a retrospective study using medical record data from the outpatient ENT clinic of RSUD Sumedang, in January-February 2021. Qualitative anosmia examination using the ODoR-19 scale, with 3 sources of odor, which are eucalyptus oil, alcohol and peppermint. A value of 0 indicates anosmia and a value of 10 is normal.

Result: The results showed that there were 68 Covid-19 patients consisting of 43 women (63.2%) and 25 men (36.8%) with ages between 13-81 years and an average of 46.5 years. Anosmia was found in 24 patients (35.5%) and only 3 patients had dysgeusia. Anosmia was more common in women (70.8%) than men (29.2%) and was more common in patients younger than 50 years (66.7%). There were 2 patients aged 13 years with severe anosmia. The initial onset of anosmia was on day 3 and no later than day 9 since the first symptoms with a mean of 4.8 days. There were no patients who only experienced symptoms of anosmia, but all of them were accompanied by fever (100%), cough (62.5%), and cephalgia (29.2%). The results of the qualitative anosmia examination with the ODoR-19 scale showed that 38 patients (84.4%) had severe anosmia, 5 patients (11.1%) had



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moderate anosmia and 2 patients (4.4%) had mild anosmia. What is interesting about this study is that dyspnea was much more common in patients without anosmia (75%) compared to patients with anosmia (20.8%).

Conclusion: Anosmia was found in 35.5% of Covid-19 patients and only 12.5% were accompanied by dysgeusia. Anosmia was more common in women (70.8%) than men and more at a young age. The initial onset of anosmia was on the 3rd day and all accompanied by fever. Qualitative anosmia examination using the ODoR-19 scale, showed 84.4% had severe anosmia.

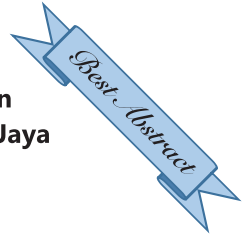
Keywords: anosmia, Covid-19



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1A-4

Adverse Effects of mRNA-1273 Vaccine on the Vaccination Day: A Preliminary Study in Healthcare Workers of Atma Jaya Hospital

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Background: COVID-19 has been a pandemic since March 2020. COVID-19 vaccines have been developed to decrease the cases of COVID-19 and prevent severe manifestation of COVID-19. In Indonesia, since August 2021, health care providers have been receiving mRNA-1273 for the third dose vaccine. Local and systemic adverse effects may occur after vaccination and more severe adverse effects had been reported in those who had previously infected with COVID-19.

Objective: This study aims to describe the adverse effects of mRNA-1273 vaccines in healthcare worker in Atma Jaya Hospital.

Method: An observational prospective cohort study was conducted on Atma Jaya Hospital during August 2021. Our subjects were the health workers of Atma Jaya Hospital who received mRNA-1273 vaccine and gave consent to fill the questionnaire. The subjects were grouped by their history of COVID-19 infection. The association of symptoms on the same day after the vaccination and history of COVID-19 infection was analyzed using the chi-square test.

Result: In this preliminary study, we had 132 subjects with median age 33 years old. 16 (12.1%) subjects had history of COVID-19 and 23 (17.4%) had history of allergy. All subjects had no symptoms before vaccination. On the same day after vaccinated, 130 (98.5%) subjects had adverse reactions. The common reactions were myalgia (72%), fever (31.1%), weakness (25.8%), shiver (15.9%), nausea and vomiting (15.9%). Other symptoms such as starvation, drowsiness, palpitations, dizziness, and shortness of breath was



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reported by 6.9% subjects. 125 (94.7%) subjects reported pain on the injection site, with VAS score median was 5 ± 2.3 , and 5 (1.7%) subjects had bruise on the injection site. 35 subjects (26.5%) reported having pain on the other site, such as headache, shoulder, arthralgia, and back pain after the vaccination. We found there were no association between the presence of adverse reactions on the same day after vaccination with history of COVID-19 infection ($P = 1.00$). Myalgia and shiver may be associated with history of COVID-19 infection ($P=0.03$ and $P=0.07$).

Conclusion: This preliminary study shows that although history of COVID-19 does not associate with adverse reactions on the same day after vaccination, it is associated with myalgia and shiver symptoms.

Key words: mRNA-1273 vaccine, COVID-19 vaccination, adverse effects, post COVID-19

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1A-5

Impaired Liver Function in COVID-19 Patients: Literature Review

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Background: In early December 2019, the World Health Organization (WHO) has officially recognized COVID-19 as a global pandemic. The very rapid spread of the SARS-CoV-2 virus as the cause of COVID-19 harms both the economic sector and the health sector in the form of increased morbidity and mortality of the population worldwide. Research reveals that the SARS-CoV-2 virus generally infects the human respiratory tract. Still, several studies suggest that the SARS-CoV-2 virus can also infect the hepatobiliary system and impairing liver function. We conducted a literature review focused on the effects, mechanism of action, and treatment of liver injury in COVID-19 patients.

Results: Liver injury in COVID-19 patients is defined as liver damage that can occur as part of the course of the disease or as a result of a reaction to treatment for COVID-19 patients who have not previously or have had liver disease. In general, patients who develop liver dysfunction in COVID-19 are mainly males, older adults, and those with higher body mass index. Increased liver enzyme function is more common. In the male sex, especially in severe cases, decreased albumin levels indicate severe infection with a poorer prognosis. In a study conducted in China, it was reported that 2.1% of COVID-19 patients had chronic hepatitis B disease. Increased levels of SGPT and SGOT were noted to be higher in severe cases than mild cases, with a percentage of 28.1% (SGPT) and 39.4% (SGOT) in extreme cases and 19.8% (SGPT) and 18.2% (SGOT) in mild cases. Bilirubin is also abnormally elevated in 10.5% of patients infected with COVID-19. Many of the COVID-19 patients in the hospital had a varying degree of elevated liver enzymes. The degree of injury was mild in most cases, and it appears to correlate with the severity



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of COVID-19 infection. Severe liver injury causing significant liver damage, liver failure, or death is uncommon.

Conclusion: Several studies have shown that there is a correlation between COVID-19 and liver disease. The role of proinflammatory cytokines such as interleukins and hepatotoxic drugs can cause liver injury in COVID-19 patients.

Keywords: covid19, liver injury, liver enzyme



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1A-6

Association between Laboratory Parameters and Disease Severity in COVID-19

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Introduction: Coronavirus disease 2019 (COVID-19) is an emerging zoonotic disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). Clinical features of COVID-19 infection are classified as mild, moderate, severe, or critical. Patients with mild features have similar symptoms to other viral upper respiratory tract infections such as dry cough, fever, sore throat, nasal congestion, and muscle pain. Severe COVID-19 is characterized by features of pneumonia with respiratory frequency more than 30 breaths per minute or blood oxygen saturation less than 90%. Changes in several clinical laboratory parameters have been linked to COVID-19 severity and can be used to predict the patient's prognosis. This study aimed to assess the clinical laboratory parameters in non-severe and severe COVID-19 patients in Atma Jaya Hospital.

Methods: The cross-sectional study was conducted from November 2020 until August 2021, in Atma Jaya Hospital. Patients aged 18 or older with confirmed Reverse Transcription Polymerase Chain Reaction (RT-PCR) SARS-CoV-2 test was included. Patients were classified as mild-moderate and severe. Laboratory parameters such as Complete Blood Count (CBC), C-Reactive Protein (CRP), D-dimer, Ferritin, Lactate dehydrogenase (LDH), and Procalcitonin were evaluated on the first day of admission.

Results: A total of 192 inpatients were included, which consisted of 20 severe cases (12%). Patients with severe cases had significantly higher Neutrophil-to-Lymphocyte Ratio ($p < 0.001$), CRP ($p < 0.001$), D-dimer ($p < 0.001$), Ferritin ($p < 0.001$) and LDH ($p < 0.001$).

Conclusion: Our findings suggest that increased level of Neutrophil-to-Lymphocyte Ratio, CRP, D-dimer, Ferritin and LDH were associated with severe COVID-19 cases.

Keywords: COVID-19, severity, LDH, Ferritin, D-dimer, NLR, CRP



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1A-7

Antibacterial Activity Test of Marine Sponge Extracts (*Aptos suberito-ides*) Against *Salmonella Typhi* In Vitro

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Background: *Salmonella enterica* serotype Typhi (*S. Typhi*) is a bacterial pathogen that causes typhoid fever and includes Gram-negative rods. There has been resistance of *S. Typhi* to several antibiotics. Thus, the search for active compounds as antibacterial substances from marine biota is necessary for alternative solutions to resistance. *Aptos suberitoides* is a marine sponge that has potential as an antibacterial that has not been widely exploited.

Objective: To test the antibacterial activity of *A. suberitoides* extract against *S. Typhi* in vitro.

Methods: Antibacterial activity test using the Kirby Bauer pit modification method, then minimal inhibitory concentration (MIC), minimal bactericidal concentration (MBC), and morphology examination using electron microscopy (SEM) was carried out. The concentration of *A. suberitoides* extract tested against *S. Typhi* was 12,800, 6,400, 3,200, 1,600, 800, 400, 200, 100 ppm.

Results: *A. suberitoides* contains alkaloids, flavonoids, and saponins. *A. suberitoides* extract formed inhibition zones at concentrations of 12,800 ppm and 6,400 ppm with an average diameter of 19.97 mm and 15.63 mm. The MIC value was obtained at a concentration of 6,400 ppm while the KBM value was not obtained. SEM provides information on the damaged morphology of *S. Typhi*.

Conclusion: *A. suberitoides* has antibacterial activity against *S. Typhi* at concentrations of 12,800 ppm and 6,400 ppm which are categorized as strong.

Keywords: *Aptos suberitoides*; antibacterial; *Salmonella Typhi*; SEM



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1A-8

Study of Online Muscle Health Assessment during Covid-19 Pandemic on Indonesian Elderly

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Restrictions on community activities during the COVID-19 pandemic have affected various aspects of life on wide range of people, including health sector of physical performance in the elderly. Muscle health problems such as sarcopenia, frailty and balance disorders in the elderly have not been widely realized by the community. Can the education and screening of risk factors as well as assessments of muscle health in the elderly be conducted online?

This study is divided into 3 interventions: 1) Virtual education and discussion (1.5 hour) through a webinar session done by online meeting application (Zoom meeting); 2) A muscle health survey consisting of screening for risk factors through nutritional and activity questionnaire (10-15 minutes); 3) Assessing the level of physical performance through personal video call online consultations within estimated time (50-70 minutes).

A total of 103 elderly (83.1% female, 61.5% high risk elderly) from Jabodetabek (63.4%) and outside Jabodetabek (36.6%) attended a webinar session about the importance of muscle health in the elderly. A total of 66 elderly (64.07%) participated in the health survey. The drop outs in participation rates in muscle health surveys is caused by the limitations of the elderly in the use of technology. Through this activity, the elderly know and determine the level of physical performance, and the risk factors they have so that they are expected to increase awareness of various muscle health problems.

The use of webinar and online tools for screening and assessing the muscle health in the elderly was well-received in the midst of the pandemic as it is accessible, low cost, flexible and safe. In the future, health institutions are expected to optimize the implementation of online interventions in muscle health education and screening activities.

Keyword : muscle health, elderly



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1A-9

Identification of Factors Affecting the Workload of Primary Healthcare (Puskesmas) Officers During the Covid19 Outbreak

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Covid-19 which has occurred since 2019 has become a global pandemic that has caused the death of millions of people, including in Indonesia. These conditions require the support of strong health services to be able to control and manage cases. Primary healthcare (Puskesmas) is one of the healthcare facilities in Indonesia with its own challenges in dealing with the Covid-19 outbreak. This relates to the function of the Puskesmas as a provider of comprehensive, sustainable, quality, and holistic basic health services to the community. Puskesmas must calculate the ideal need for health workers to fulfill their health service needs. Calculation of the ideal need for health workers is carried out through workload analysis. With the Covid-19 outbreak, there will be additional Puskesmas functions in 3T (Tracing, Testing, and Treatment) services, affecting the burden on health workers. Based on these facts, it is necessary to identify various factors related to the workload of health workers at the Puskesmas during the Covid-19 outbreak. This study aimed to identify the factors that affect the workload of health workers at the Primary Healthcare (Puskesmas) Garuda, Bandung City during the Covid-19 outbreak. This study used a qualitative method with a narrative approach. The sample criteria were determined by purposive sampling and data collection through in-depth interviews and completed with data triangulation. Data analysis was carried out manually with the reduction, coding, categorization, theme formation, and concluding stages. The results showed that there were 5 factors, both internal and 27 external factors that affected the workload of health workers at Puskesmas Garuda during the Covid-19 outbreak. External factors consist of 11 environmental subfactors, 1 physical task subfactor, and 15 organizational subfactors. This study can describe various factors that affect the workload of health workers at the Puskesmas Garuda, Bandung City during the Covid-19 outbreak.

Keywords: workload, health workers, primary healthcare, puskesmas, covid-19 outbreak



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1B-1

Autoimmune Disease and COVID-19: Are They Affecting Each Other? – A Case Series

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Background: COVID-19 caused by coronavirus-19 (SARS-CoV-2) is an acute disease which has various manifestations from asymptomatic to severe cases due to multiorgan injury¹. COVID-19 may induce excessive T cell responses which cause cytokine storms and further contribute to severe disease and mortality^{2,3}. People with autoimmune disease may get infected with COVID-19. The presence of autoantibodies causes chronic inflammation. SARS-COV-2 can disturb self-tolerance and may trigger autoimmune response. Several studies show that COVID-19 may also cause disease flare in autoimmune patients^{4,5}.

Objectives: We would like to present a case series of COVID-19 patients, which develop no flare during hospitalization.

Case Illustration: The first case was a 50 years old woman with a history of systemic lupus erythematosus (SLE) 5 years ago and had been taking mycophenolate and methylprednisolone which were continued during hospitalization. Her SLEDAI score on admission was 0. She had moderate COVID-19. The second case was a 27 years old woman with a history of lupus nephritis and her therapy had been discontinued. She had mild COVID-19 disease. Her SLEDAI score on admission was 0. The third case was a 43 years old man with a history of rheumatoid arthritis (RA) and he had been consuming methotrexate irregularly. He had moderate COVID-19 and his DAS-28 score was 2. He was given oral corticosteroid for his RA during hospitalization. All of the patients had no flare of their disease activity and they also did not experience worsening COVID-19 severity during hospitalization.



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Conclusion: Autoimmune disease does not change the course of COVID-19 and COVID-19 does not change the disease activity in these patients. Routine medication for autoimmune disease should be continued and help in preventing relapse of the disease during COVID-19 infection

Keyword: COVID-19, autoimmune disease, SLE, RA, disease activity

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1B-2

Challenges In Managing COVID-19 Severe Illness In A Rural Setting: A Serial Case Report

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Background: Current guidelines for the treatment of severe COVID-19 recommend patients to be hospitalized and receive remdesivir, dexamethasone, interleukin inhibitor or kinase inhibitor and anticoagulant. However, this modality is not available at secondary hospitals in a rural area.

Case description: This is a serial case of three unvaccinated geriatric patients with severe COVID-19 (a 60-year-old female, a 67-year-old male and a 79-year-old male) who were admitted due to respiratory distress for at least 12 hours (respiratory rate >24 breath/min and SpO₂<90% on room air. They were supposedly to be referred but the referral hospital was out of capacity. Noted commorbid of hypertension. Due to unavailability of intensive care unit, the patients were hospitalized in isolation ward. Other findings were leucocytosis with lymphopenia, azotemia, cardiomegaly and infiltrates in both lungs (>50%). Polymerase chain reaction swab test for SARS-CoV-2 were positive. Fifteen liters/min oxygen via non-rebreather-mask (NRM) on prone position, dexamethasone, ceftriaxone, azithromycin, vitamins (B,C,D3,E), aspirin, clopidogrel, amlodipine were administered. Seventy-two hours later, there was improvement in clinical status and SpO₂. Three days later, they were able to breath comfortably on low flow nasal cannula (5 liter/min). Ceftriaxone and azithromycin were completed to 7 days while dexamethasone was tapered off gradually until 10 days. Twenty days admission, they were able to breath on room air and only complained of occasional dry cough and fatigue. There was minimal clearing of infiltrates on chest x-ray and normalization of blood test. They were discharged three days later and consistently improving on outpatient.

Discussion: Due to overwhelming second wave COVID-19 in our city, the three patients with confirmed COVID-19 severe illness has to be admitted in



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the isolation ward with all of its limitations. In conjunction with the pathophysiology of COVID-19 severe, we optimized dexamethasone to counter the cytokine storm and using antiplatelet in absence of anticoagulant. Since no high-flow oxygen device available, we use maximal oxygen flow via NRM on prone position to improve the oxygen saturation. No antivirus were available. Though seems pragmatical, those approaches were proven to be effective. The underlying comorbid and unvaccinated status were probably contributing to severe illness of COVID-19.

Conclusion: Practical approach with NRM oxygen therapy, dexamethasone and antiplatelet seems to be effective in managing COVID-19 severe in rural setting, secondary hospital.



1B-3

Subacute Thyroiditis as Manifestation of Covid-19 Infection: A Case Report

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Covid-19, caused by SARS-Co-V-2, is usually manifested as respiratory disease. However, numerous reports have revealed that the clinical manifestation of Covid-19 is not limited to the respiratory tract. We report a patient who presented with neck pain for a week. She experienced palpitations. A week before this complaint, she had a fever, accompanied by a sore throat when swallowing. Coughing, nausea, and diarrhea were all ruled out. Excessive sweating, weight loss, and tremor were all denied. Physical examination revealed diffuse enlargement of the thyroid gland with consistency soft and tenderness, size 5×3×2 cm. It moved on swallowing, no thrill and no bruit. Laboratory findings showed leukocytes 17.600/mm³, ESR 80 mm/h, TSH 0.02 uIU/ml (N 0,35-5,50), FT4 3.6 ng/dl (N 0,89-1,76). Thyroid ultrasound showed enlargement of the right lobe, hypoechoic feature, firm boundaries, irregular edges, size ±2.76x4.13x3.03 cm. There was no intralesional hypervascularity—suggestive thyroiditis. The patient was diagnosed with a suspected hyperthyroid phase of Subacute Thyroiditis. The patient was referred to pathology anatomy for FNAB. A nasopharyngeal swab for PCR detection of Covid-19 is required before the FNAB procedure. Surprisingly the result was positive for Covid-19. She was diagnosed with Covid-19 and Subacute Thyroiditis. She was advised to undergo 14 days of self-isolation and received a favipiravir of 1,600 mg bid on the first day, followed by a 600 mg bid on day 2 to day 5. She was treated with Ibuprofen 400 mg tid. She reported that the neck pain did not decrease after five days.



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As she did not respond to NSAIDs, ibuprofen was switched to prednisone 15 mg tid for one week, then tapered down 5 mg/week. She was recovered clinically and laboratory after four weeks of treatment. This report emphasizes the importance of physicians' awareness of extrapulmonary symptoms of Covid-19, as found incidentally in this case. In general, the management of SAT with Covid-19 is not different from SAT, in which NSAIDs are used as the initial treatment to reduce the pain. If the patient did not respond to NSAIDs, it should be switched to steroid immediately.

Keywords: subacute thyroiditis, covid-19, ibuprofen, prednisone



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1B-4

Clinical and Histopathological Characterization of Skin Lesions in COVID-19

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Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory coronavirus 2 (SARS-CoV-2). Besides the lungs, heart, liver, and other vital organs, one of the parts of the body that are affected by COVID-19 and that cause clinical symptoms is the skin. Skin rashes have been reported as associated with COVID-19, but there is not much information about this cutaneous manifestation. So the aim of this study is to provide a comprehensive review and analyze the clinical and histopathological characterization of the skin lesions in COVID-19 patients.

This research method is a review of the Google Scholar and PubMed literature. The inclusion criteria consisted of literature published in English language and clinical research methods in the form of case reports. At the same time, literature reviews, systematic literature, and meta-analysis were excluded. The searching keywords for this study were "skin" or "cutaneous" and "histopathology" or "histology" and "COVID19" or "coronavirus."

Clinical symptoms on the skin can be divided into two types, specific and non-specific types. COVID-19 patients with skin manifestations can give various images of maculopapular eruptions, vesicular eruptions, petechiae, and also chilblains with various histological appearances. Determination of whether a symptom is triggered by virus specificity requires the direct detection of the virus particle in the skin lesion. This can be an obstacle in



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diagnosing a skin lesion due to COVID-19. Biopsy examinations from the skin lesions of COVID-19 patients show a wide range of histopathological appearances, especially evidence of viral interaction with the skin. Laboratory tests related to the skin manifestation were high C-reactive protein (CRP), D-dimer, ferritin, interleukin-6, and the presence of lymphopenia.

It is still unclear whether these cutaneous lesions are secondary consequences of the respiratory-related infection or the primary skin infection caused by the virus. We should pay more attention to these clinical and histopathological manifestations. Therefore we can have more knowledge on the etiology of COVID-19.

Keywords: skin/cutaneous, histopathology, COVID-19



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1B-5

NSAID for COVID-19 Vaccine Side Effects, Does It Do More Good or Harm?: A Literature Review

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Introduction: SARS-CoV-2 first emerged in Wuhan, China, December 2019 and has caused a number of cases and deaths. It is deemed as a global pandemic and still poses a challenge in various sectors. The COVID-19 vaccines have been developed and now are being distributed.^{1,2} There are six vaccines which have been approved for use in Indonesia: Sinovax, AstraZeneca, Sinopharm, Moderna, Pfizer, and Novavax. As other vaccine, there are several adverse reactions following COVID-19 vaccination, ranging from local and systemic reaction with mild to moderate severity but short-lasting. Some adverse reactions often occur are fever, fatigue, headache, muscle pain, chills, diarrhoea, and pain at the injection site. Taking Non-steroidal Anti-inflammatory Drugs (NSAIDs) for reducing and preventing adverse event is still on debate, whether it will reduce the immune production in vaccinated people. CDC recommends the use of NSAIDs if there're any adverse effects of COVID-19 vaccination.

Objective: To describe the effects of using NSAID to ameliorate COVID-19 vaccination adverse event.

Methods: We conducted a review of original articles, systematic review and meta-analysis, case report articles related to COVID-19 vaccine adverse events and NSAID from September 2016 to April 2021. We exclude the articles which have no full-text.

Result: The use of NSAIDs are expected to have more beneficial than harmful effects on people experiencing adverse events following COVID-19 vaccine. CDC doesn't recommend to use as a vaccination adverse effect prophylaxis because it's still unknown whether the drugs affects the our body response



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to the vaccine.^{3,4} Although studies have shown a decrease in immune response, there are also some studies proving that people who consumed NSAID after vaccination is still able to produce adequate immune responses. Time of administering NSAID also plays an important role in the result of reduced immune production.^{5,6}

Conclusion: NSAIDs may have beneficial effects in dampening inflammatory response yet using it as a prophylaxis to prevent adverse events of COVID-19 vaccine are still in debate.

Keywords: NSAID, Vaccine, COVID-19, COVID-19 vaccination

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1B-6

Clinical Characteristic of Covid-19 in Elderly at Ulin Hospital, Banjarmasin

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Introduction: South Borneo is in sixth place for the city that has the most confirmed cases of COVID-19 in Indonesia with 8,527 cases, with data for the age group 60 years is 765 cases. This study aimed to describe the clinical characteristics of elderly patients (age ≥ 60 years old) with COVID-19 at Ulin Hospital, Banjarmasin period of May-July 2020.

Method: This was a descriptive study; we collected data from the medical records of elderly patients who were treated with COVID-19 at the Ulin Hospital, Banjarmasin from May to July 2020.

Result: Of the 35 elderly patients with COVID-19 treated at Ulin Hospital from May to July 2020, there were 26 (74%) males and 9 (26%) females. Based on age grouping, the most common patients were young-old (60-69 years old) 22 (63%) patients, middle-old (70-79 years old) 12 (34%) patients, and old-old (80+ years old) 1 (3%) patient. The common symptoms were shortness of breath 29 (83%) patients, cough 27 (77%) patients, fever 25 (71%) patients, general weakness 14 (40%) patients, nausea and vomiting 13 (37%) patients, sore throat 10 (29%) patients, chills 6 (17%) patients, decreased of appetite 5 (14%) patients, diarrhea 4 (11%) patients, headache 4 (11%) patients, myalgia-arthralgia 2 (6%) patients, abdominal pain 2 (6%) patients, colds 1 (3%) patient, and anosmia 1 (3%) patient. The comorbid diseases we found were hypertension in 13 (37%) patients, diabetes 8 (23%) patients, chronic kidney disease 3 (9%) patients, coronary heart disease 2 (6%) patients. For COPD, pulmonary TB, stroke, hepatitis, cancer, and immunodeficiency, we found 1 (3%) patients, respectively. The number of



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patients who died was 26 (74%) people, of which the majority were male 18 (69%) patients.

Discussion: Several studies found that the most common symptoms of COVID-19 in elderly patients were fever, cough, and fatigue. However, elderly patients can show atypical symptoms without fever or cough. In Azwar et al study at Cipto Mangunkusumo General Hospital, the classic symptoms of COVID-19 were fever (59%), cough (59%), and shortness of breath (57%) in elderly patients and 9 (90%) of the patients who died were male. Following our study where the most common were shortness of breath (83%), cough (77%), and fever (71%). The majority of those who died were male (69%), with the most comorbid in this group was hypertension (42%) followed by diabetes (23%).

Keywords: elderly, COVID-19, symptoms, geriatric, comorbid, mortality



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1B-7

Frailty and COVID-19 Outcomes: A Literature Review

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Introduction: Coronavirus Disease 2019 (COVID-19) pandemic has involved 190 million cases globally with over 4 million deaths.¹ Various factors determine the severity of the disease. Studies have demonstrated that geriatric population is vastly vulnerable to COVID-19 due to old age and preexisting chronic comorbidities.^{2,3} The estimated mortality due to COVID-19 is higher in older people, with more than 50% of the fatalities occurring in patients 50 years of age or older.⁴

Older people are also prone to suffer from frailty. Frailty is a common clinical syndrome often found in older adults and an increased risk of poor health outcomes such as falls, disability, hospitalization and mortality. It is a clinically recognizable state of increased vulnerability as a result of decline in reserve and physiologic function in its ability to cope with certain stressors due to aging.⁵ Frailty can be measured by Clinical Frailty Scale, Hospital Frailty Risk Score, Frail Non-Disabled Survey, FRAIL scale, and Palliative Performance Scale.⁶

Objectives: In this literature review, we elaborate more on the relationship of frailty and COVID-19 outcome based on the risk of mortality, severity, admission to the ICU, the need of mechanical ventilation, an length of stay

Methods: A literature review was made based on journals from 2019-2021, involving frailty, COVID-19 especially in older people and also the relation between frailty and COVID-19.

Result: Frailty has been studied to have an impact on COVID. Frailty was found to increase the risk of mortality for any cause, COVID severity, admission to intensive care unit, application of invasive mechanical ventilation, and long-length stay.



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Conclusion: it is highly suggested that frailty is associated with increased mortality and morbidity risk in COVID-19.⁷

Keywords: Frailty, COVID-19, geriatric, mortality, disability

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1B-8

Analysis of Measuring the Level of Service Quality on BPJS Health Patient Satisfaction during the COVID 19 Pandemic with the Service Quality Method (Servqual): Case study at Ar-Rahman Medika Clinic Karawang - West Java)

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Introduction/Main Objectives: Many people currently use BPJS health insurance for treatment. Medical visits to community clinics are different before the COVID-19 pandemic and during the COVID-19 pandemic, affecting services at health facilities. Along with the increasing standard of living of the community which is a demand for quality health. Clinics have a strategic role in efforts to accelerate the improvement of public health status. The main problem of health facilities, especially clinics, is the increasing number of competitors so that they are required to maintain consumer confidence by improving service quality so that customer satisfaction increases. This study aims to determine the level of conformity between the expectations of BPJS Health patients and the quality of health services at the Ar-Rahman Medika Clinic during the Covid-19 pandemic. To determine the effect of service quality on BPJS Health patient satisfaction at Ar-Rahman Medika Clinic Karawang.

Background Problems : BPJS Health patient visits at the Ar-Rahman Medika clinic during the pandemic have decreased compared to before the pandemic which caused complaints every day. On the other hand, during the pandemic, patient visits decreased, so researchers tried to get an analysis of service quality during the COVID-19 pandemic.

Research Methods : The study was conducted on BPJS Health patients who seek treatment at ar-rahman medika using service quality (servqual) where the method uses quality attributes, namely: tangible, reliability, responsiveness, assurance and empathy. Then the researchers distributed



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questionnaires to 100 BPJS Health patients so that service quality problems could be known by the subject Researchers also use fishbone diagrams as a tool to find the root cause.

Results/finding : it is known that from the results of the gap score between the performance value and the expected value, it is known that the largest score gap value lies in Polite and Friendly Service (- 2.84), Availability of Medical Support Tools and Pharmacies (- 2.6), Correct Schedule (- 1.17), Speed of Medical Services (- 0.94), Ease of Giving Criticism and Suggestions (- 0.69).

Conclusion: Based on the gap analysis of the overall service dimensions at the Ar-Rahman Medika Clinic regarding the service quality method, namely the quality of services provided by the Ar-Rahman Medika Clinic has not met the expectations of BPJS patients because the average quality value (Q) is calculated < 1 or negative. Evaluation and improvement of facilities and infrastructure are still needed to increase patient satisfaction.

Keywords: bpjs health ,clinic, covid 19, fishbond diagram, service quality



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1B-9

Preliminary Study: Physical Activity and Nutritional Status of the Elderly During the Covid-19 Pandemic

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The enforcement of social distancing during the COVID-19 pandemic interferes with the ability to perform physical activity. Physical activity and nutrition are the factors that determine a human nutritional status. This study aims to assess the physical activities, food intake, and nutritional status of the elderly population during the COVID-19 pandemic.

This study is a descriptive cross-sectional study. The data for this study were obtained using online questionnaires and online survey (video call) methods. The nutritional status assessments were conducted by measuring the participant's body mass index (BMI), Mini Nutritional Assessment (MNA), and abdominal circumference. All data obtained were analyzed using computer statistical software.

A total of 58 elderly participants (78.4% female, 21.6% male) meets the inclusion criteria for this study. However, only 63% consented and hence included for data analysis. Most elderly participants were found to be healthy and independent with normal cognitive functions. More than half of the participants have obtained a high educational level (62.5%) and are married (62.5%). Only 18.9% of the participants are doing medium-intensity physical activities, while only approximately one-quarter (29.7%) undertake the exercise to a recommended minimum frequency (5 times per week). Only about a third (37.5%) of the participants meet the recommended minimum physical activity duration of 30 minutes per day. Regarding the nutritional status, this study shows a relatively similar trend with the physical activity assessments. More than half of the participants (70.3%) meet the minimum recommended daily food intake, but only 29.7% conform to the standard of 3 full-portion meals per day. However, the majority of the participants show



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poor nutritional status. Some nutritional status issues found are the following: risk of malnutrition (81.1%, by MNA parameter), malnutrition (91.7%, by BMI parameter), and central obesity (64.9%, by abdominal circumference measurement).

Lack of physical activity and status of malnutrition in the elderly population are prevalent during the COVID-19 pandemic. More efforts from relevant stakeholders are needed to encourage physical activity and food intake with sufficient amount and quality as recommended to prevent future health issues in this population.

Keyword : physical activity, nutritional status, elderly



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2A-1

Lactate Dehydrogenase as a Predictor for Severe COVID-19: A Cross-Sectional Study

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Background: COVID-19 is a disease caused by SARS-CoV-2, a species of Coronavirus, and has been declared as pandemic disease since March 2020. To enter the cell and cause damage, the virus needs to bind with an angiotensin converting enzyme (ACE)-2 receptor, which is expressed in major organs. This receptor is highly expressed in lung epithelial cells. By entering the cell, the virus replicates and the release of new viral particles induces cell damage and inflammation. Lactate dehydrogenase (LDH) is an enzyme that is used in anaerobic metabolic pathways. It is present in almost all body tissue. LDH level is increased during inflammation, tissue hypoperfusion and cell damage.

Objectives: This study aims to determine the correlation between LDH levels and COVID-19 severity in hospitalized COVID-19 patients.

Methods: A cross-sectional study of hospitalized COVID-19 patients aged 18 or older and was conducted in the isolation ward of Atma Jaya Hospital Jakarta from November 2020 until August 2021. COVID-19 severity is classified as mild-moderate, and severe. LDH level and COVID-19 severity were determined on the first day of admission.

Results: From 189 COVID-19 patients, 20 patients (10.6%) had severe disease. LDH level was found higher in the severe group than in the non-severe group (455.5U/L vs 195U/L). Our data was not normally distributed so we used Mann-Whitney test and we found there was a significant correlation between LDH level and disease severity on admission (P value : <0.001). The AUC from ROC analysis showed LDH predicted COVID-19 disease severity with AUC 0.918, best cut-off was 244.5U/L (sensitivity 95% and specificity 72.2%).



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Conclusion: LDH >244.5 U/L is a good predictor for severe COVID-19 infection

Keywords: Lactate dehydrogenase, LDH, COVID-19, inflammation, hypoxia

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2A-2

Factors that Influenced the Covid-19 Titer Antibody Post-Vaccination

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Introduction: As of 8 August 2021, almost 24 million doses of Covid-19 vaccines have been administered in Indonesia and has covered 11,4% of the Indonesian population with two doses vaccines. The first Covid-19 vaccine used in Indonesia was the inactivated SARS-CoV-2 vaccine with aluminum hydroxide adjuvant, known as CoronaVac produced by Sinovac Biotech Ltd., Beijing, China, with the efficacy in Indonesia was 65,3%. SARS-CoV-2 as the cause of Covid-19, is a single-stranded RNA virus, which has envelope, membrane, nucleocapsid and spike glycoprotein (S). This spike protein consists of S1 subunits with the Receptor Binding Domain (RBD) and S2 subunit. The RBD protein has a strong affinity with ACE-2 receptor in the host cells and will mediate the entry of the virus. The purpose of this study was to analyze the vaccine recipient-related factors that influence the antibodies post-Covid-19 vaccination titer.

Methods: Participants were healthy adult, with no history of Covid-19, have been received two doses of CoronaVac, with intramuscular injection. Exclusion criteria include immuno-suppressive therapy, received of any blood products or immunoglobulins and bleeding disorders within the past 3 months. Quantitative antibody specific for the RBD of the SARS-CoV-2 spike protein was measured between 28-30 days after the second vaccination with ELISA Anti SARS-CoV-2-S RBD protein assay and were carried out at Prodia Clinical Laboratory. Data analyzed using Mann-Whitney non-parametric test and Pearson correlation to analyze the correlation between BMI and antibody titer.

Result: All participants (20 men and 16 women) showed reactive antibody results with the lowest titer was 1.51 U/mL and the highest titer above 250



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U/mL. Participants over 45 years age showed lower antibody titers (58,18 U/mL) compared to the young adult group below 45 years age (85,94 U/mL). Gender also showed differences, men (61,47 U/mL) showed lower antibody titers than women (87,02 U/mL). Participants with obese (BMI >25.00 kg/m²) has lower antibody titers (56,04 U/mL) compared to normal BMI (82,32 U/mL). Antibody titers were almost the same between those with comorbid (73,24 U/mL) and those without comorbidities (72,50 U/mL). However statistically all of these factors were not significantly different ($p > 0,05$). Pearson correlation coefficient -0.206 means that there is a negative correlation between BMI and antibody titer, but the relationship is weak.

Conclusion: Factors related to vaccine recipients that affect antibody titers are gender, age, and Basal Metabolic Index. There is an inverse correlation between BMI and Covid-19 titer antibody post vaccination.

Keywords: Covid-19, titer antibody post-vaccination, gender, age, basal metabolic index



2A-3

Observation on Inconclusive Results of SARS-CoV-2 by RT-qPCR

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Nucleic Acid Amplification Test is currently the gold standard for SARS-CoV-2 detection. Among them, Reverse Transcript-quantitative PCR has highly been used. RT-qPCR utilizes the ORF1ab, N, and or E gene specific primers for detection. The sensitivity of detection in clinical samples by RT-qPCR ranges from 32-95% depending on the specimen type being used. Clear-cut positive or negative results are easy to interpret, whereas a small portion of samples with either only one gene detected or those with borderline *Cycle Threshold* (CT) values for any one of the genes are considered as inconclusive. Several factors lead to inconclusive results, such as inadequate sampling, failure of a cold chain, poor quality of viral transport medium (VTM), poor samples storage, lack of amplification in internal control, or extraction failure. Inconclusive results are difficult to interpret and require repeat testing, which adds to the laboratory cost, requires more manpower, and cause a delay in reporting the result to the hospital or patient. Still, retesting of inconclusive RT-qPCR results is mandated for confirmation and decision on patient isolation strategy.

Retrospective analysis of 249 inconclusive samples extracted using Maccura Mag-Bind RNA, then amplified and quantified using Maccura SARS-CoV-2 Fluorescent PCR kit was done. Inconclusive result (according to manufacturer's instruction) divided into four categories: i) ORF1ab gene only, ii) N gene only, iii) E gene only, iv) both N and E gene without expression of ORF1ab gene. Positive results will have either all the three genes (ORF1ab, N, and E genes) detected with CT values within cut-off value or detection of



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ORF1ab gene along with either N or E gene expression. The inconclusive results were retested and categorized as positive if there were gene expressions within CT cut-off value and negative if there was no gene expression.

Among the inconclusive results from the first test, 78% of samples which expressed N and E gene (without ORF1ab gene) turned out to be positive in the repeat test ($p < 0.001$), while 56% of samples that had only one gene expressed initially, turned positive on repeat testing. E gene was detected (without N and ORF1ab gene) in nine samples, of which seven were negative on re-testing. In conclusion, our study suggests that it is beneficial to repeat the test, especially when two genes were expressed, and disregard the test when only the E gene was expressed.

Keyword: Inconclusive, RT-qPCR, COVID-19, SARS-CoV-2



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2A-4

Classification of COVID-19 Dermatological Manifestations

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COVID-19 pandemic has been going on for more than a year. By the 26th of July 2021, there have been 194,070,340 cases and 4,160,337 deaths due to COVID-19. The most commonly reported symptoms are flu-like and respiratory symptoms, but there are case reports of symptoms in other organ systems, such as integument.

The dermatological manifestation of COVID-19 is varied and some researchers have proposed to categorise it into 6 groups, namely (i) urticarial rash, (ii) confluent erythematous/maculopapular/morbilliform rash, (iii) papulovesicular exanthem, (iv) chilblain-like acral pattern, (v) livedo reticularis/racemosa-like pattern, dan (vi) purpuric "vasculitic" pattern. Each group differs in some characteristics.

The first group, urticarial rash, has a predilection for trunk and limbs area. Often accompanied by itching and other symptoms mimicking allergies like angioedema, it manifests itself during the prodromal period of mild to moderate cases of COVID-19.

Confluent erythematous/maculopapular/morbilliform rash, which is the second group, is most commonly found on the trunk a few days after the beginning of systemic manifestations. It is often accompanied by itching.

The third group, named papulovesicular exanthem, shares many of the characteristics with varicella but in absence of itch. This lesion often appears on the trunk of a geriatric patient of mild COVID-19.

The fourth group, chilblain-like acral pattern, is commonly found on the acral areas of paediatric patients with mild COVID-19. It is often the only symptom present in an otherwise asymptomatic child.



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The fifth group, livedo reticularis/racemosa-like pattern, is encountered in moderate to severe COVID-19. It is often found on the lower extremities.

The final group, purpuric “vasculitic” pattern, tends to appear on the lower extremities and is only present in severe COVID-19. It appears at the same time as the systemic manifestations and often includes skin necrosis with haemorrhagic blisters.

We believe that the dermatological manifestations of COVID-19 can play a role in aiding to determine COVID-19 diagnosis and prognosis in terms of its onset in the course of disease and the correlation between lesion type and systemic disease severity.



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2A-5

First Year Medical Student Challenges of Basic Biomedical Block Online Study in Pandemic Covid-19 Era at Faculty of Medicine Cenderawasih University Papua

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Basic biomedical is one of the important block in first year medical study consist of major integration topics of anatomy, histology, physiology and biochemistry. The block provide basic knowledge in medical study. Our first year students at medical programme of Cenderawasih University have been facing some challenges during online learning activity for this block during Covid-19 pandemic.

A Likert-scale questionnaire designed in Google Form already fulfilled by 80 students in first year medical study. Five choices of answers were given with a value of 1 equal to strongly disagree to 5 for strongly agree. The extracted data were analyzed descriptively.

Our results showed that 31% students experienced difficulties in self learning study due to difficulties in access of learning resources and 40% have problem with learning environment. About 17% from expressed their less motivation, more distraction and low psychological support in online learning. Furthermore, 31% students expressed the difficulties in time management in study planning for the block. Another challenge that more than quarter of our respondents had financial support to purchase the internet quota and about 2% do not have personal computer or laptop. As the conclusion that our students have challenge in their basic biomedical online learning in the era of pandemic Covid-19.



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2A-6

Undergraduate Medical Students’ Online Learning Experiences during the COVID-19 Pandemic: Continue or Not?

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The coronavirus disease 2019 (COVID-19) pandemic has caused a worldwide impact, including the closure of schools and the workplaces which caused a sudden shift towards distance learning method in education sectors including in medical schools. As a response to the COVID-19 pandemic, medical education has urgently transitioned the entire undergraduate curriculum to online learning. Online learning activities may seem functional; however, the outcomes of these changes will require subsequent evaluation. This research aims to review the undergraduate medical students’ experiences of online learning, and eventually identify its advantages and disadvantages in medical education. Focus Group Discussions (FGDs) were conducted to explore three main themes regarding the undergraduate medical students’ experiences of online learning which include study habits and skills, lifestyle factors, and community of inquiry (COI) with phenomenological approach. A total of 20 undergraduate medical students were selected from the School of Medicine and Health Sciences, Atma Jaya Catholic University of Indonesia by purposive sampling method. Investigator and data source triangulation method were used to ensure the validity of the data. The results showed that most of the undergraduate medical students have great satisfactions regarding the full online learning system that has been well-implemented in keeping the medical education going especially during the COVID-19 pandemic. Although some of the undergraduate medical students complained of having too many assignments with this learning method. In an after-pandemic scenario, most of the undergraduate medical students stated that they would like to prefer to continue their



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studies in a conventional learning method. In conclusion, undergraduate medical students are satisfied with the flexibility and easy access of online learning. However, there are still several disadvantages that need to be considered. More evaluations are also needed in order to improve the quality of online learning to ensure its efficiency and effectiveness in medical education.



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2A-7

The Relationship between the Online Learning System and New Students' Anxiety Levels during the Covid-19 Pandemic

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Background: The covid-19 pandemic, new students of the Nursing Department of the Applied Nursing Undergraduate Study Program, Yogyakarta Ministry of Health Polytechnics are unfamiliar with the on-campus learning system, as they have transitioned from high school with face-to-face or offline learning to online learning. Anxiety, emotional, and mental disorders can occur in first semester students as a result of the adjustment process from high school to university.

Aim: To investigate the relationship between the online learning system and the anxiety level of new students during the COVID-19 pandemic, Nursing Department of the Applied Nursing Undergraduate Study Program, Yogyakarta Ministry of Health Polytechnics.

Method: A correlation study was the research method . This study was carried out in January 2021. The instrument for anxiety used the Depression Anxiety Stress Scales 42 (DASS-42) while the questionnaire for the online learning system category was tested for validity and reliability with Cronbach's Alpha results of 0.9440. This research study's population consisted of students from Nursing Department of the Applied Nursing Undergraduate Study Program. There were 42 students in the sample. Spearman rho was used to analyze data. The ethics test was conducted at the Health Research Ethics Committees, with the letter of ethics no. e-KEPK/POLKESYO/0087/I/2021.

Result: The findings revealed that female respondents had more characteristics than male respondents, with 38 students (90.47 %) compared to 4 male respondents (9.53%). According to the respondents' ages, there were as many as 20 students aged 17 to 18 years (47.62 %) and as many as 22 students aged 19 to 20 years (52.38%). According to the place of



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residence, as many as 23 students (54.76 %) lived in dormitories, while as many as 19 students lived outside the dormitory, such as homes and boarding houses (45.24%). For the category of anxiety level of new students, the category of not experiencing anxiety was 3 (7.14%), mild anxiety 14 students (33.33%), moderate anxiety 12 students (28.57%), severe anxiety 6 students (14.29%), and very severe anxiety 7 students (16.67%). The data was analyzed using Spearman rho correlation at a significance level of 0.000 (0.000 0.05).

Conclusion: there is a relation between the online learning system and new students' anxiety levels during the Covid-19 pandemic.

Keywords: online learning system, anxiety, new students



2B-1

The Obstacles in Routine Online Yoga Exercise Due to Social Restriction in Covid-19 Pandemic Among Middle Age and Elderly Population

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Introduction: During the COVID-19 pandemic, most activities are carried out from home (online). It impacts many aspects of our life including doing regular exercise. Studies to evaluate the adaptation of online exercise among those who rarely exercise in Indonesia have not been widely reported. The purpose of the study was to determine the obstacles, especially in the group of age above 45 years who did not regularly exercise, to start exercising online.

Methods: This is a descriptive evaluation report of yoga online exercise program. Eight series of yoga exercises was held biweekly from April to June 2021. The target of subjects are all participants. Each participants filled online questionnaire which includes demographic data and physical condition

Results: A total of 356 subjects participate in this online yoga exercise, 297 (83.4%) subjects aged ≥ 45 years old. Most of the participants lived in Jabodetabek area. There were also participants from other cities such as Bandung, Yogyakarta, Semarang, Blora, Solo (Java), Pekanbaru dan Padang



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(Sumatra) and Bali. More than 95% of participants were women. The main interest in participating yoga was specific practice goal suitable with their problem e.g lower back pain relieve. Most of the participants used smartphone while doing online practice. Due to visual impairment, the participants were difficult to see the instructions. Another obstacle was inability to use gadget.

Conclusion: This study shows that vision impairment and the lack of capabilities in using digital media are some obstacles to start online regular exercise among middle age and elderly population in pandemic era especially those who are not exercise regularly. Family assistances are important to overcome this obstacle. Glasses can help common visual impairment in elderly, but wearing it during exercise need special precaution. In addition, a specific exercise goals are also important to attract this population to start exercise regularly.

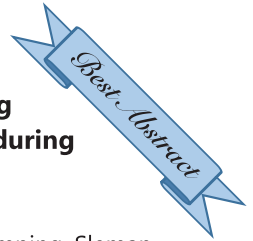
Keywords: online yoga, middle age and elderly, COVID-19 pandemic



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2B-2

Developing “Ibu Sehati’ Application for Anemia Preventing Program: Information, Education, Communication Media during Covid-19

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Background: Superspreader of Covid-19 now was a global pandemic and well known have enormous impact. IEC conventional program like face to face was no longer recommended due to avoid the transmission of Covid-19. The “Ibu Sehati” (Healthy Pregnant Women Without Anemia) application was application to educate and respons maternal health on anemia preventing.

Purposes: To find out the feasibility of the “Ibu Sehati” application.

Method: This research was Research & Development using ADDIE (analysis, design, development, implementation, and evaluation model. The analysis stage was carried out to determine the needs of field programmer and user conducting by interviews, the design stage were drafting features, flowcharts, storyboards and information. The development stage was creating the application and panel assessment (media, substansial, user). Re-design and re-development based on panel assesment. The implementation stage was carried out by implementing to pregnant women. The application was feasible due to score > 75 point, while an evaluation stage was by interviewing the panel and research subjects qualitatively. The study was conducted in January-March 2021, at Gamping II Public Health Center, Sleman, DIY, had an android and willing to be a participant. Data were analyzed descriptively.

Result: The analysis stage showed that application contained about anemia prevention, early detection, reminder notifications to consume Fe, balanced



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diit during or pregnancy. The design stage poured features such as profiles, hemoglobin and MUAC score, anemia prevention, notification consuming Fe, and balance diit. The develop stage and panel assesment show that the 'Ibu Sehati" was feasible (media, substantial and user panelist score were 95.6 ± 7.6 . 80.6 ± 5.6 , and 93.2 ± 5.9 respectively, categories very feasible. While the implementation showed 78.63 ± 4.6 (very feasible). An evaluation stage showed that application was feasible as media IEC to prevent anemia during pregnancy.

Conclusion: During the COVID-19 pandemic, the "Ibu Sehati" application was appropriate to be used as an online educational media to support anemia prevention programs in pregnant women.

Keywords: application, Ibu Sehati, anemia, pregnant



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2B-3

The Aspects of Pathogen, Population, and the Behavior of the Population in the Relationship Between Herd Immunity and COVID-19 (A Systematic Review)

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Background Prevention may be the only and best tool to prevent from severe COVID-19 cases, whereas COVID-19 vaccine studies are essential to protect older adults from the disease, but it may be should not ignore children who play a key role in the overall immunity in the population, to affect transmission at a large scale and achieve herd immunity. The motto must be prevention first, since human being all have only one life. A recent simulation study by the universities of Uppsala and Stockholm described, that if social distancing were to be implemented consistently, it shows that the death rate decrease significantly.

Aim of study According to the relentless spread of COVID-19, this study need to correctly understand the relationship between herd immunity and COVID-19 from the aspects of pathogen, population, and the behavior of the population.

Methods This study is a systematic review study, by analyzing more than 15 articles from variates reputable journals, analyzed qualitatively and descriptive.

Results The results of this study described the relationship between herd immunity and COVID-19 from the aspects of pathogen, population, and the behavior of the population.

Conclusion This study will conclude about the relationship between herd immunity and COVID-19 clearly.

Keywords: aspect, COVID-19, herd immunity, prevention, vaccine



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2B-4

Sedentary Life Style and Risk of Metabolic Syndrome of Public Health Center Nurses during the Covid-19 Pandemic

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Background: The Covid-19 pandemic had an impact on various aspects including increased anxiety and less physical activity due to the overload task for health workers including inpatient Public Health Centre (PHC). Both of these increase the risk of metabolic syndrome.

Objective: To describe the sedentary life style and the risk of metabolic syndrome in nurses who work in inpatient PHC in Sleman Regency, Yogyakarta.

Methods: This research was descriptive quantitative, conducted in August 2020. The data were collection using questionnaire form such as subject characteristics, sedentary life style and syndrome metabolic using test of random blood glucose, blood pressure, measuring body mass index (BMI) and abdominal circumference. The sedentary life style were categorized by sedentary when physical activity less than 5 times a week and less than 150 minutes a week while Pre DM were categorized by normal: 80-144mg/dL, pre DM: 145-199mg/dL and DM: >200 mg/dL. Blood tension were categorized by normotension: <130/<80 mmHg, prehypertension: 130-139/80-89 mmHg, hypertension: ≥140/80mmHg. Obese central were categorized by obese (female ≥80 cm, male ≥90 cm). and BMI categorized by wasting: <18.5, normal 18.5-24.9, overweight 25-30, obese >30. Syndrome metabolic were if three or more category was high. The subject were all nurses at Inpatient Public Health Center in Sleman Yogyakarta, willingness to involve this study, so the subject were as many as 99 persons. Data was



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presented by descriptive. The research was approved by MHREC Polkesyo, number e-KEPK/POLKESYO/0516/VI/2020

Results: The results showed that majority of subject were female (76.8%) and aged <30 years old (47.6%). Most of them have not physical activity regularly or sedentary life style habit (71.7%). Based on body mass index (BMI) measurement, as many as 36.4% was obese, while 47.5% suffer form central obesity. Random blood test showed that 25.3% were the pre-DM and DM and more than a half were pre-hypertension and hypertension (52.5%). The three indicators showed that 70.7% participants were suffer from syndrome metabolic.

Conclusion: Most of the respondents have sedentary life style and suffer from syndrome metabolic.

Keywords: Sedentary life style, metabolic syndrome, nurse



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2B-5

The Knowledge of Adolescents about Preventing Covid-19 Infection in West Java

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The Corona Virus Disease 2019 (Covid-19) pandemic is a serious problem for almost all countries in the world, including Indonesia. The status of the pandemic indicates that the virus spreads rapidly. COVID-19 can infect humans at all ages, including adolescent. Adolescents are in the age range of 10-19 years, which is a critical period of transition from children to adults. Changes in physical, psychological, and social occur during this period and it affects their biological and psychological development. The changes also affect them in dealing with the pandemic. Several government policies were carried out to prevent the spread and transmission of the virus. The policy demands changes to the pattern of activity in diverse fields. It makes all people, including adolescence, unprepared. Therefore, knowledge about the prevention of COVID-19 infection is needed. This study aimed to identify knowledge about the prevention of COVID-19 infection.

The study adopted descriptive quantitative with purposive random sampling technique. The data obtained through questionnaire assessment on knowledge of COVID-19 prevention. The instrument used a questionnaire with google form. The data were analyzed descriptively using the SPSS program.

This research was conducted in 2020 involving 1285 respondents spread across 27 districts/cities in West Java. Respondents who took part in this study were in the age range of 10-19 years, the majority were women (70%), most of the participants were at the age of 14 (27.6%) and most of the participants were junior high students (58.4%). The results of the



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Kolmogorov Smirnov test data on adolescent knowledge about preventing COVID-19 are not normally distributed with $p < 0.005$, the median knowledge of adolescents about preventing COVID-19 is 91. Adolescents with good knowledge are 71% and there are still adolescents who have poor knowledge of 29%. The value of knowledge is not good, especially related to the use of masks and how to wash hands properly. The results of the study showed that knowledge about preventing Covid-19 infection in adolescents in West Java is good, but some need emphasis on the use of masks and how to properly wash hands according to standards. It is expected to support behavior in preventing Covid-19 infection among adolescents because their knowledge can be the basis for behavior change. Therefore, the results of this study can be used as a basis for the government policies regarding the control and prevention of Covid-19 infection.

Keywords: Covid-19, knowledge, adolescent



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2B-6

Translation and Adaptation Guide of WHO 'iSupport for Dementia' Indonesian Language version

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Background: Prevalence figures of dementia showed an increase which is quite significant both in global and national. This condition has an impact on increasing the need for long - term care for the elderly with dementia. Family and companion for people with dementia (PwD) often face many challenges that lead to disruption of physical and mental health. Increased competence of companion was known to provide positive benefits such as, one of them, in developing the skills to overcome behavior disorders.

The study aims to find out the various problems when translating and adapting the guide of WHO ' *iSupport for Dementia*', which is an online skill training with evidence based on independent learning and supporting program for the dementia informal companion. This study is a part of the project research across the country to develop *iSupport Virtual Assistant* which will be conducted in 3 years (*Empowering Dementia carers With an iSupport Virtual Assistant* (e-DIVA).

Methodology: The process of translation will follow WHO iSupport Free Adaptation and Implementation, which focus on equality across cultures, beliefs of individuals and society. The difference in groups of metropolitan, regional or subcultural in the process, are also taken into consideration. The process of adaptation consists of five phases, as follows : 1) Translation process by an authorized translator, 2) Focus group discussions (FGDs) with panels from psychological health expert and representative of the Alzheimer Foundation Indonesia, 3) FGD with families caregiver, 4) FGD with professionals caregiver, and 5) Discussion of internal investigators to conduct another review again and summarize all stages. The final translated product will be sent to WHO for quality assurance.



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Research results: Various problems that arise at the current stage of translation and adaptation process, among others: 1) Due to the treatment of PwD will include various phases of the disease course, this guide, at some stages, are too general for some companions. 2) Various terms, although there are in Indonesian Language, are not too popular in the community so that it required several stages of translation and adaptation to suit the culture and customs that exist in Indonesia. and 3) Some inputs when the FGD has not been able to be facilitated in the translation module is because the module is based on international module.

Conclusion: The translation and adaptation process of this WHO iSupport book guide in the future, need to be expanded with a guide that is more specific to the various phases of the disease courses as well as in accordance with local culture experience which experienced by caregiver of the people with dementia.



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2B-7

Overview and Education of the Use of Red Ginger as Herbs to Increase Immunity during Covid-19 Pandemic

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COVID-19 (Corona Virus Disease 19) is a global health problem that occurs throughout the world. The first country that was hit by this outbreak was Wuhan (China) in December 2019. The first detection of COVID-19 cases in Indonesia was in early March 2020. There is no drug approved as an agent to treat COVID-19. During the COVID-19 pandemic, maintaining the immune system is very important. One of the prevention steps by Indonesian people to increase immunity is to take medicinal plants or herbs. Red ginger rhizome (*Zingiber officinale* var. *rubrum*) is an herbal plant widely used by the public because it is cheap, easy to obtain, and contains shogaol compounds (antioxidants anticancer and anti-inflammatory). The initial Survey on the use of red ginger among young people (12-30 years old) was found one hundred thirty-two respondents, only 7.6% of respondents consumed ginger regularly during the COVID-19 pandemic, and 56.8% took multivitamins to improve immune system. About 22.7% of respondents misunderstood the effectiveness of red ginger. The utilization of red ginger still lacks among young people.

For this reason, education is carried out regarding the benefits and processing of red ginger rhizome so that people can use it wisely and appropriately in improving their immune systems (April - May 2021). The educational method used to disseminate information related to red ginger through video is distributed via social media (Instagram). The Survey is being held to explore respondents' knowledge about red ginger after the watched video is carried out through the ig quiz. The number of participants who



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watched the educational video was 175 people (12-25 years old), and 91.4% of participants were interested in taking red ginger to improve their immune system after watching the video. About 64.57% answered the indication of red ginger correctly; 79.4% of participants knew the content of ginger red ginger (shogaol) accurately; 86.8% knew that red ginger should not be used excessively; 97.14% understand how to process red ginger; 91.4% of participants knew the regular dosage of red ginger; 92% knew how to store red ginger, and 89.7% knew the side effects of red ginger. It can be concluded that the use of red ginger among young people is still lacking, and education on the use of red ginger can increase knowledge of the use of red ginger among young people.

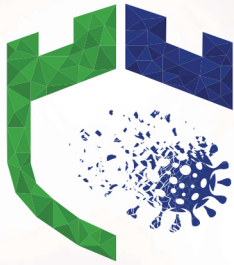


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Antibodi monoklonal penetralisasi SARS-CoV-2



Regkirona™ (*regdanvimab*) adalah antibodi monoklonal yang menetralkan berbagai varian virus SARS-CoV-2 dengan cara mengikat *receptor binding domain* (RBD) *spike protein*.^{1,2,3}



Menurunkan kebutuhan perawatan di rumah sakit bagi pasien Covid-19 derajat ringan hingga sedang yang berisiko tinggi.⁴



Mengurangi risiko morbiditas dan mortalitas pada pasien Covid-19 derajat ringan hingga sedang.⁴

Referensi:

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Protokol
Kesehatan
Covid-19



HANYA UNTUK PROFESI KESEHATAN

 **Dexa Medica**

Expertise for the Promotion of Health



STEM CELL MANUFACTURING FACILITIES



Didirikan pada tahun 2013, Regenic adalah fasilitas pengolahan *stem cell* yang bernaung di bawah PT Kalbe Farma Tbk.

Sertifikasi dan legalitas yang wajib dimiliki :

- Ijin Operasional dari Kementerian Kesehatan, diperoleh tahun 2013 dan sudah diperbaharui tahun 2018.
- Sertifikasi Cara Pembuatan Obat yang Baik (CPOB) dari Badan POM, diperoleh pada tahun 2014 dan diperbaharui tahun 2019.

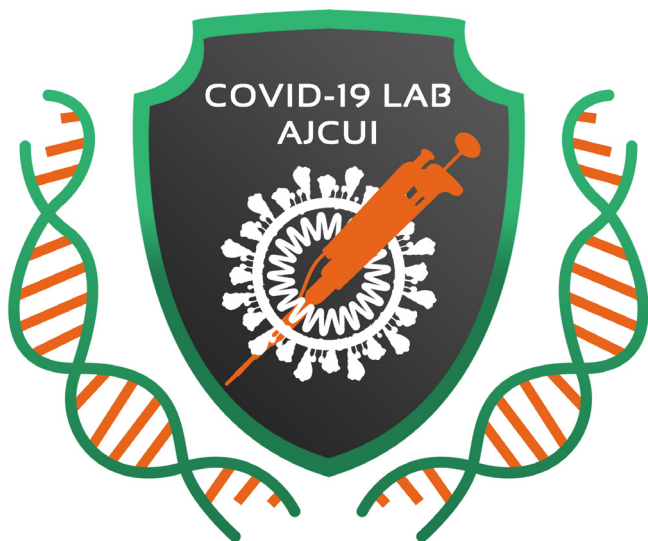
Saat ini, Regenic memiliki fasilitas baru di Kalbe Business Innovation Centre yang akan mulai beroperasi di tahun 2021. Fasilitas ini juga sudah mendapatkan Sertifikasi CPOB pada September 2021 (PW-S.01.04.1.3.333.09.21-0082).

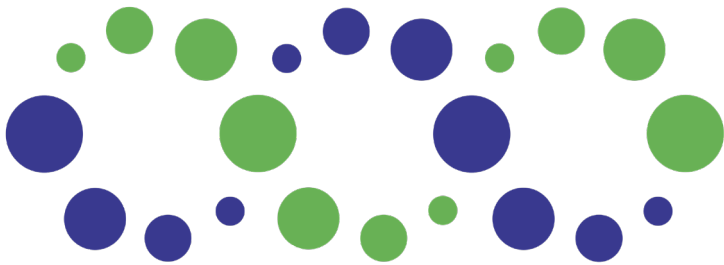
PRODUCTS & SERVICES

- Cell therapy Autologous (Bone Marrow MSC, Adipose MSC, UC-MSC)
- Cell therapy Allogenic (UC-MSC)
- Secretome MSC

SAFETY

- Proses dilakukan di fasilitas yang telah tersertifikasi CPOB.
- Produk sudah melalui uji preklinis untuk toksisitas akut dan kronis.
- Secretome sudah mendapatkan *approval* OPB untuk *rejuvenation*.
- *Stem Cell* sudah mendapatkan *approval* OPB untuk indikasi Osteoarthritis.





GeneCraft Labs

PROCEEDING OF THE INTERNATIONAL WEBINAR COVID-19 PANDEMIC:

Impacts, Strategies, and Challenges on The Urban Health

Prosiding ini merupakan kumpulan abstrak makalah seminar internasional yang diselenggarakan oleh FK Unika Atma Jaya, Jakarta dengan tema '*COVID-19 Pandemic: Impact, Strategies, and Challenges on The Urban Health*'. Terdapat 13 makalah dari pembicara utama dari luar negeri maupun dalam negeri, dan sekitar 32 makalah bebas dari peserta free paper.

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