

COVID-19 and Indonesia

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ABSTRAK

Pandemi infeksi virus corona 2019 (COVID-19) adalah masalah yang sedang dihadapi di lebih dari 200 negara di dunia. Indonesia juga terkena dampak buruk dari COVID-19 di mana tingkat kematiannya mencapai 8.9% pada akhir Maret 2020. Ketidaksiapan layanan kesehatan dan langkah besar yang diambil oleh pemerintah mungkin dapat diubah untuk memberantas infeksi ini. Dianjurkan bagi Indonesia untuk memperketat himbauan untuk diam di rumah, menurunkan penyebaran penyakit dengan karantina wilayah dalam skala besar, meningkatkan pelayanan kesehatan, serta meningkatkan ketersediaan alat pelindung diri (APD). Penting bagi negara untuk menurunkan epidemic peak agar tidak membuat negara kewalahan dengan cara mengkarantina individu dengan riwayat kontak dengan kasus COVID-19. Karantina wilayah/ lockdown juga dapat meningkatkan doubling time epidemi secara signifikan. Kebutuhan pelayanan kesehatan akan mengalami peningkatan seiring dengan melonjaknya jumlah kasus. Hal ini menggarisbawahi pentingnya melindungi tenaga kesehatan dari risiko infeksi. Penelitian ilmiah di Indonesia juga krusial untuk memberikan anjuran yang berhubungan dengan kasus COVID-19.

Kata kunci: COVID-19, SARS-CoV-2, coronavirus, Indonesia.

ABSTRACT

Coronavirus disease 2019 (COVID-19) pandemic is an ongoing problem in more than 200 countries in the world. Indonesia has been greatly affected by COVID-19 with case fatality rate (CFR) being 8.9% in the end of March 2020. We have some room for improvement related to the unreadiness of healthcare facility and the major steps taken by the government. It is suggested that the country should have stricter Stay-at-Home notice, suppress the spread by imposing lockdown on a large scale, improve healthcare service, and increase the availability of personal protective equipments (PPE). It is important to avoid an epidemic peak that potentially overwhelms healthcare service by quarantining the case contacts. Lockdown may prolong the epidemic doubling time significantly. Demand of health system is likely to grow since the number of COVID-19 case is likely to rise. Effective procedures for protecting medical staff from infection are essential. Scientific research in Indonesia is also crucial to provide suggestion and recommendation pertinent to COVID-19.

Keywords: COVID-19, SARS-CoV-2, coronavirus, Indonesia.

INTRODUCTION

Coronavirus disease 2019 (COVID-19) pandemic is an ongoing problem in more than 200 countries in the world.¹ COVID-19 has been identified as the cause of an outbreak of infectious respiratory disease in Wuhan, People's Republic of China.² As of 31 March 2020, there were 719,758 confirmed cases worldwide. The number of deaths related to COVID-19 also reached 33,673 worldwide. The pandemic has resulted in a rapid surge in research in response to the condition.¹

Indonesia has also been hit badly by SARS-CoV-2 infection. This article will highlight the situation, the measures taken, and the steps suggested in Indonesia from medical point of view.

SITUATION IN INDONESIA

By 31 March 2020, there have been 1,528 confirmed COVID-19 cases in Indonesia and 136 deaths related to the disease. The nation's case fatality rate (CFR) is also much higher than that of People's Republic of China (8.9% vs 4%).³

Indonesia's healthcare facility is not ready to face COVID-19 yet. Massive preparation should have been taken seriously at the beginning of disease spread in the People's Republic of China.⁴ Professor Joseph Wu warned all parties as early as January 2020 in *The Lancet*. At that moment, the author stated that 2019-nCoV could be about to become a global epidemic. He also suggested that preparedness plans should be readied by ensuring the supply of drugs, personal protective equipment (PPE) as well as human resources needed to face the global outbreak.⁵

According to the latest data of the Ministry of Health of Indonesia, there are only 309,100 hospital beds in Indonesia, with most of them being located on Java island. On top of that, there are less than 6,000 Intensive Care Unit (ICU) beds nationwide. The number appears much, but in fact, Indonesia only had 2.7 ICU beds per 100,000 people and thus the country ranked among the lowest in Asia.⁶ In addition, mechanical ventilator is not widely available in rural settings and there is a shortage of protective gear for healthcare workers.

Mass screening was chosen by the State

Palace to be implemented in March 2020. In the end of March 2020, Indonesia's president finally decided to implement large-scale social restriction / *Pembatasan Sosial Berskala Besar* in cities and provinces, instead of regional quarantine. Regional quarantine is one of four types of health quarantine according to 2018 Health Quarantine Law. The government also emphasises the need to stay at home for all Indonesian citizens. To date, regional quarantine is applicable only to neighbourhood / *rukun tetangga* (RT) or villages.⁷ A lockdown scenario was initially prepared in Jakarta and West Java in March 2020. However, the capital city dropped the plan following the rejection from the central government and the Greater Jakarta Transportation agency.⁸

SUGGESTED STEP: STRICTER STAY-AT-HOME NOTICE

Based on 16 studies, when it is applied with high level of compliance (>70%), quarantining of exposed persons is effective to slow down the transmission of disease during an influenza pandemic.⁹ By quarantining only half of all case contacts over a period of one month prior to the epidemic peak, the epidemic peak will occur 1 week later. Not only can the action delay the peak, it can also decrease the case number during epidemic peak by 25%.¹⁰ It is important to avoid an epidemic peak that potentially overwhelms healthcare service.¹¹ During the current pandemic, individuals may have unintentional close contact with people with COVID-19 in public. This is partly due to the presence of several asymptomatic and presymptomatic SARS-CoV-2 infection.¹² It is estimated that 80% of people with COVID-19 only have mild or asymptomatic disease.¹¹

The government may work together with religious leaders, traditional leaders, police officers, and/or Indonesian National Armed Forces to make voluntary plus mandated quarantine successful. Masks and PPE should also be provided for the officers. Although voluntary isolation at home may be a more feasible social distancing plan,¹⁰ not everyone complies with the Stay-at-Home notice. Pandemic plans should consider how to facilitate social distancing

measure. In severe pandemics, more drastic social distancing measure might be needed.¹⁰

Stricter Stay-at-Home notice may lead to less mass gathering in public, too. A systematic review of 45 studies showed that acute respiratory infection is the commonest disease spread through mass gathering, including festival and religious events.¹³ Stricter policy may adopt a law from other parts of the world, for instance, individuals breaking social distancing guidelines are given fines and possible jail time. In New South Wales, Australia, individual and corporations will be hit with fines of AUD 1,000 and AUD 5,000, respectively. COVID-19 social distancing breach could also lead to 6 months of imprisonment under existing enforcement powers.¹⁴

SUGGESTED STEP: SUPPRESSING THE SPREAD THROUGH LOCKDOWN

Lockdown does not eradicate the viral infection in patients with the disease, but it suppresses the disease spread. If the government locked down certain region, no journeys would be allowed in or out of the region. A study showed that lockdown may have positive impact on the spread of COVID-19. After imposing lockdown in Wuhan, China, the doubling time increases significantly from 2 days (95% Confidence Interval, CI): 1.9-2.6) to 4 days (95% CI: 3.5-4.3). The doubling time became even longer after additional alteration in testing and diagnostic methods (19.3 days [95% CI: 15.1-26.3]).¹⁵ The travel restriction also had beneficial effect on an international scale. After imposing lockdown, the number of imported case worldwide dropped by 80% until mid February 2020.¹⁶

“We consider the social distancing measures taken as of today as insufficient, and we believe that additional and more restrictive measures should be taken immediately, as it is already happening in other countries across the world.” So wrote more than 500 academic signatories in the world.¹⁷ However, Indonesian government has decided only to implement city- and province-level large-scale social restriction.⁷ This is contrary to the steps taken by Ghana. The authorities of the developing country imposed lockdown on the Greater Accra and Kumansi

Metropolitan Area in the end of March 2020 in response to the concern about COVID-19. The president of Ghana stated, “We know how to bring the economy back to life. What we do not know is how to bring people back to life.” The Director-General of World Health Organization (WHO) found the presidential statement powerful.¹⁸

It is crucial to respect the welfare of all people affected by certain law. WHO Director-General emphasised that closing down of certain region means that the government should secure the need of individuals who have to work on a daily basis to win the bread. The need of the citizens who lost their income and in desperate need of sanitation and food should also be taken into account.¹⁹

It may be unlikely for the government to cover the daily needs of the affected individuals nationwide. Donation from affluent Indonesians could be an option to help the citizens in need. The estimated number of wealthy citizens in Indonesia from World Wealth Report 2019 was 129,000.²⁰ Donation appears to be a promising solution to help the country hand in hand. This is potentially achievable seeing that Indonesia topped the CAF World Giving Index in 2018 among all countries in the world. Indonesians have a high tendency to help strangers, to volunteer and give financial aid.²¹

SUGGESTED STEP: IMPROVING HEALTHCARE SERVICE

The Executive Director of WHO Health Emergencies Programme suggested Indonesia to have a comprehensive strategy including the strengthening of health system. Demand of health system is likely to grow since the number of COVID-19 case is likely to rise.¹⁹ Estimates suggest that 14% and 6% of people with COVID-19 have severe disease and critical illness, respectively.⁹ Availability of hospital bed as well as mechanical ventilation facility have to be prepared for the worst case. Indonesia may learn from the outbreak of Ebola virus disease. The deaths from other causes became higher due to the deaths of healthcare workers and the saturated healthcare system.¹¹

Not only is the goal successful treatment, it

should also be a better ability to chase after the virus and to diagnose. WHO Director-General stated that any movement restriction or Stay-at-Home notice must be accompanied by the ability to detect suspect cases followed by the isolation of confirmed cases.¹⁹ Mass screening decided by Indonesian government may be the correct step to take, because a majority of COVID-19 cases are only mildly symptomatic or asymptomatic. Symptom-based control alone may not be adequate unless the cases are only lightly infectious.¹¹

In western medicine, physicians practise according to evidence-based medicine. Several medications have been introduced and reported as beneficial in the treatment of COVID-19, but most studies are based on small sample size. There are ongoing clinical trials to assess the safety and efficacy of COVID-19 vaccine as well as treatment.⁴ However, it may take a long time to obtain final study result. Majority of studies were published in English language (89.2%) and conducted by Chinese scholars (67.7%).² SARS-CoV-2 is relatively new compared to other coronavirus and local research has yet to be conducted. The current lack of access to the government's data pertinent to COVID-19 results in the absence of scientific research in this topic in Indonesia. The access is crucial for doctors and scientists, so that statistical analysis of the data may bring about suggestion and recommendation for the prevention of COVID-19, early detection as well as the patient-centred treatment. The simplest study may describe the condition statistically. On the other hand, study results may also allow early detection as well as deterioration of the disease during the pandemic in this country.

SUGGESTED STEP: INCREASING AVAILABILITY OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE is the uniform of modern warfare to eradicate COVID-19. Higher number of health personnel must be accompanied by the availability of PPE. Scientific evidence recommended the use of standard surgical mask in non-aerosol-generating procedures, although

evidence was not done in the case of COVID-19. The usage of mask should be enhanced by personal hygiene and the usage of gown and goggles for optimum protection.²²

Supply disruption helpline and email address help with queries regarding PPE in the UK. National Health Service (NHS) UK stated that it supported the provision of PPE 24 hours a day and 7 days a week. Masks and hand sanitizers were distributed rapidly as the demand keeps rising. Protective equipments were also delivered to care homes, hospices, community pharmacy, general practitioner practice, and dental practice.²³

The deaths of healthcare workers became a problem during the COVID-19 pandemic. Doctors also threaten to stop working due to the lack of PPE.²⁴ Once a front-line staff are contracting the disease, the staff may in turn harm the next patient. This indicates that effective procedures for protecting staff from the infection are essential.¹² Once PPE is available, healthcare staff requires training regarding its usage. All the protective measures are important so that the workers feel safe whilst working.

CONCLUSION

Indonesia has been hit badly by COVID-19 with CFR being 8.9% in the end of March 2020. We have some room for improvement related to the unreadiness of healthcare facility and the major steps taken by the government. It is suggested that the country should have stricter Stay-at-Home notice, suppress the spread through lockdown, improve healthcare service, and increase the availability of PPE. Scientific research in Indonesia about COVID-19 is crucial to provide suggestion and recommendation for the disease prevention, early detection, as well as the patient-centred treatment.

ACKNOWLEDGMENTS

The authors would like to thank all the healthcare workers fighting together during the COVID-19 pandemic. We thank the Almighty God for reasons too numerous to mention.

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