



Editorial

## We Need More Public Hospitals and to Review Rapidly Possibility of Therapeutics as a COVID-19 Mitigation Strategy to Prevent the Collapse of the National Health Care Service



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A second wave of coronavirus disease 19 (COVID-19) has been observed in some countries across the world (independent of viral mutation or virus/host interactions) as relaxation in attitudes to social distancing has created a favorable environment for viral transmission. Some countries such as the UK, implemented risk containment strategies to reduce the transmission of COVID-19, and relaxed these strategies when the number of patients with COVID-19 decreased. The UK began vaccinating against COVID-19 on the 8<sup>th</sup> December 2020 [1]. Europe and the US [2] are expected to start vaccinating soon, and China and Russia are developing promising vaccines. However, it is expected that procurement of a COVID-19 vaccine for Republic of Korea will be in the early to middle of 2021 which is late compared with other countries worldwide.

It will be interesting to observe the response strategies to COVID-19 that will be used by countries that are vaccinating medical professionals, the elderly, and those at high risk, compared with the countries that do not have access to a

COVID-19 vaccine. In the Republic of Korea efficient COVID-19 testing, and effective contact tracing has led to a successful COVID-19 response strategy. Most infections are transmitted during person-to-person contact, with transmission by aerosols limited droplets and fomites even though people practice mask wearing and frequent hand washing to prevent the transmission of the virus. These practices prevented the need for lockdowns in the country. In addition, Community Treatment Centers were created as a response strategy to COVID-19 to alleviate the collapse of the health care system; in intensive care units in the Republic of Korea only 10% of COVID-19 patients required oxygen therapy. These established COVID-19 response strategies must remain in place even when vaccines are administered completely because 70-80% level of herd immunity will interrupt the virus transmission.

Investment in public hospitals to increase the number of ICU beds available for critically ill patients with respiratory tract complications, and a request that private general hospitals become the designated hospital for COVID-19 in areas where the number of public hospitals are insufficient are essential strategies even this late in the course of COVID-19. Military doctors and nursing officers should be dispatched to work in designated public hospitals for COVID-19, and while private institutions should be in charge of treating chronic diseases such as diabetes, and high blood pressure. In preparation for the increase in patients, home medical care should be actively encouraged and introduced, and local clinic doctors should take care of patients delegated by public health centers.

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A risk mitigation strategy is needed to prevent the collapse of the health care system in the Republic of Korea due to the rapid increase in patient numbers due to COVID-19. However, without new therapeutic regimens for COVID-19 this will not be true, "Prevention is the active treatment [3]. To reduce the spread of infection and death caused by COVID-19, early mass screening and early treatment of all symptomatic patients (potentially by a new drug) is needed. In the 2009–2010 the Influenza Type A H1N1 strategic program delivered more than 3 million doses of oseltamivir phosphate (Tamiflu) extensively for therapeutic use from September 2009, which reduced the incidence of infection, and prevented a large influx of patients to medical institutions. The vaccine against Influenza Type A H1N1 was developed by the end of October 2009, and the vaccination program succeeded in combating this disease, and prevented over burdening medical centers.

The problem is that currently there is no effective prophylactic drug or therapeutics against COVID-19. If there were effective drugs it could reduce the current number of infections in the Republic of Korea (which account for 500–1,000 patients per day) from potentially increasing to a total number of infections of about 100,000 patients by early 2021. Effective treatment will alleviate the risk of further waves of infection, and prevent the collapse of the health system. Those drugs are currently being developed in the Republic of Korea that can be used to treat COVID-19 patients with mild, severe, and critical symptoms of infection. Phase 2/3 clinical trial monoclonal antibody was launched [4] the results are under reviewing process whether or not the infectivity period and the symptomatic period for mild and moderate COVID-19 patients can be significantly reduced. And another drug which is drug repositioning and convenient to use, via oral route, under 2<sup>nd</sup> phase of clinical trial [5]. To establish the safety and

efficacy of these new drugs, a rapid review process of drug approval is needed before being administered to all patients (as the vaccines which are currently being administered in the UK according to the number of available doses of vaccine by the rapid review of approval process). If the results are promising, the mass clinical use with early detection will be a new strategy in COVID-19 measures. Rapid screening of symptomatic patients, and rapid administration of drugs against COVID-19, would reduce the spread of the virus. This strategy would be one of mitigation similar to the strategy used to control the influenza pandemic in 2009–2010, and could fill the gap before a vaccine supply is procurement and administered to the public.

### Conflicts of Interest

The author has no conflicts of interest to declare.

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