A Review Study On Contamination Rate Of Covid-19

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ABSTRACT
Outbreaks have arisen in civilization such as extreme acute coronavirus 1 (SARS-CoV-1) in 2003, Eastern Coronavirus (MERS-CoV) in 2012, Ebola virus in 2014, and today SARS-CoV-2. Although health care professionals are searching for a vaccine to mitigate the disease outbreak, environmental engineers need to consider the effect of the virus organisation in sewages, provided that viruses are documented for multiple days to survive in human faeces and wastewater conditions. Here, on the basis of a study of recent research on SARS-CoV-2 as well as past pandemic incidents, the debate will be conducted on questions about the on-courage virus in faeces and sewages of humans¹,². In order to deter unprecedented coronaviral spread 2019 (COVID-19) especially in developed countries, faeces and sewage-derived routes of transmission may be of significant significance as a result of the recorded environmental stability of coronaviruses. However, there have, up to now, been small numbers of experiments that have been identified with the SARS-CoV-2, also in human faeces. In prospective experiments, for example, an improvement in the number of samples, a study of the usefulness of procedures for viral viability analysis, a review of the medical records of patients and so forth are warranted and are still still in the probability of this dissemination.

KEYWORDS: Pandemic, COVID-19, Infection rate

BACKGROUND
Today in the hyperlinked environment, there is a growing global fear of viral pandemics. The Spanish H1N1 influenza pandemic caused over 50 million deaths in 1918. Since then we have been suffering infectious pandemics of 774, 456 and 10,353 deaths, respectively including SARS, MERS and Ebola virus disease. Coronaviridae-affiliated respiratory viruses such as SARS-CoV-1 and MERS-CoV are considered zoonotic viruses that are both animal (e.g., bats) and human as host viruses. Further mutation occur, in the absence of immunity from new stress, causes a high risk of transmission³-⁷. Moreover, increasing foreign travel, increased food demand and the illegality of the trade of endangered species (especially animals), will encourage the spread of viruses and technologies. The high infectious and environmental persistence of this disease can at least be partly attributed to the unprecedented SARS-CoV-2 Pandemic (CoV-19), which infected at least 19.5 million people and caused at least 722,285 deaths⁸-¹¹.

Even in developed nations, like African countries, the SARS-CoV-2 infection has spread. Therefore, developing countries should have special concerns for the mitigation of the spread
of SARS-CoV-2 especially in low-income and heavily populated areas with restricted health care facilities, and limited access to clean water and adequate hygiene\textsuperscript{12-16}. Around 60 percent of the population of Sub-Saharan Africa subsists in slum settlements without basic sanitation such as drainage systems. For instance, Nairobi and Uganda are mainly engaged in wastewater treatment with latrines, small bore sews and natural wetlands. In Africa, the coverage of consolidated waste water technology (e.g. activated sludge, trickling filters, lagoons stabilised and oxidation ditch) is minimal. Egypt and Tunisia maintain 51\% to 75\% of clean waste water, as stated in the latest study from the United Nations (UN), while Morocco is actually between 26 and 50 per cent cleaner than or inadequate for the rest of the African states\textsuperscript{17,18}.

\textbf{INFECTIONS SPREAD}

Since SARS-CoV-2 is primarily spread through respiratory droplets and contagion (hence a communitarian activity is essential in the pandemic pathway) it can also be established that this respiratory virus is excreted in human residual waste. Therefore, in developed countries the fecal-oral pollution path could be one of the problems of inadequate sanitation\textsuperscript{19-22}. Moreover, we still have sewage-related virus transmission paths, despite the fact that new developments in the sewage system can be successful in safe transport of sewage and the elimination of such pathogens, in the countries with safe sanitation systems such as waste water treatment plants (WWTPs). Therefore we are addressing problems related to the presence of the viruses in human faeces and sews with regard to the potential transmission of SARS-CoV-2 through faecal oral pathway and sanitation channels, which in developed countries are of special concern. We also address the problems of the future research and summarise safeguards for potential transmission from faecal and sewage sources\textsuperscript{23-25}.

The widespread dissemination of COVID-19 disease (SARS-CoV-2) and deaths in the world afterward contributed to the statement of the pandemic situation worldwide in late December 2019. At the onset of the outbreak, care is paid to the movement of virus-contaminated surfaces, disinfection and social distance. There is a considerable amount of discussion however regarding the mechanisms for transmission of diseases, including airborne transmission, so the precise route of transmission of COVID-19 is necessary to be understood. For this reason, the first systematic analysis study has been carried out with a view to systematically searching all databases for study indoor air-borne SRS-CoV-2 transmission\textsuperscript{21,26-31}. A total of 14 studies were included, appropriate and qualifying. On the basis of the results, indoor air conditions there is a strong opportunity for airborne SARS-CoV-2 transmission. There are therefore certain procedures such as improvements in ventilation and observation of interpersonal distance of more than 2 m, particularly at hospitals and crowded areas, so that indoor air Qualität experts see this as improvements in indoor air conditions. Finally, the air transmission direction should be regarded as a more security for health care workers, hospital patients and the public in other public buildings in addition to the guidelines made by the centres and official bodies, such as the hand washing and control of social distances.In Wuhan City, central Hubei Province, China, a novel human coronavirus from the Betacoronavirus Subgenus first appeared at the end of December 2019. The epidemic has widely spread around the world. On 12 March 2020, however, a new 2019 coronavirus (COVID-19) disease which is the causative of serious acute coronavirus 2 syndrome (SARS-CoV-2) was declared a global pandemic by the World Health Organisation (WHO).
WHO GUIDELINES

The WHO Guidelines have suggested that the principal route of COVID-19 transmission is individual transmission, especially extended and unprotected virus exposure. It is advised also to wash hands more than once a day and to watch the social gap of at least 1 m (arm length) as the key measures to prevent exposure are\(^{32–35}\). Health officials reported that the virus is mainly spread through coughing or sneezing droplets and patient surfaces by direct or indirect contact. These precautions have led to emergency quarantine situations and lock-up practises impeding social movement in countries and health authorities\(^{36}\).

DISCUSSION

Unfortunately, all the countries in the world continue to suffer from this disease and pandemic condition due to the high levels of infection and mortality, despite all of the precautions, disease prevention and control measures mentioned above. Domingo et al., 2020 have explored the effects of COVID-19 airborne SARS-CoV-2 transmission recently. It was proposed that prolonged exposure to certain air contaminants can result in more serious and lethal disease types and delay in patient recovery from COVID-19, based on the findings of the studies examined\(^{3,8–11,37–39}\). We should also conclude that the diverse facets of viral propagation processes are not fully known and we perceive the dissemination of the disease in rudimentary terms, including a major problem concerning the road to viral transmission.

The first identified coronavirus disease (COVID-19) in Wuhan, China in late 2019 has been the global pandemic ever since. According to latest updates (14 August 2020) from the World Health Organisation, 20,730,456 confirmed cases of COVID-19, and 751,154 deaths worldwide were registered. Present attempts to avoid further COVID-19 spread include social distancing by self-isolation or the use of domestic quarantine or 'locking downs' (PPE). Present prevention steps must be understood that COVID-19 is primarily spread by infected individuals by respiratory droplets emitted while coughing both sneezing, and by direct communication routes with infected individuals and surfaces\(^{40–44}\).

REFERENCES:


