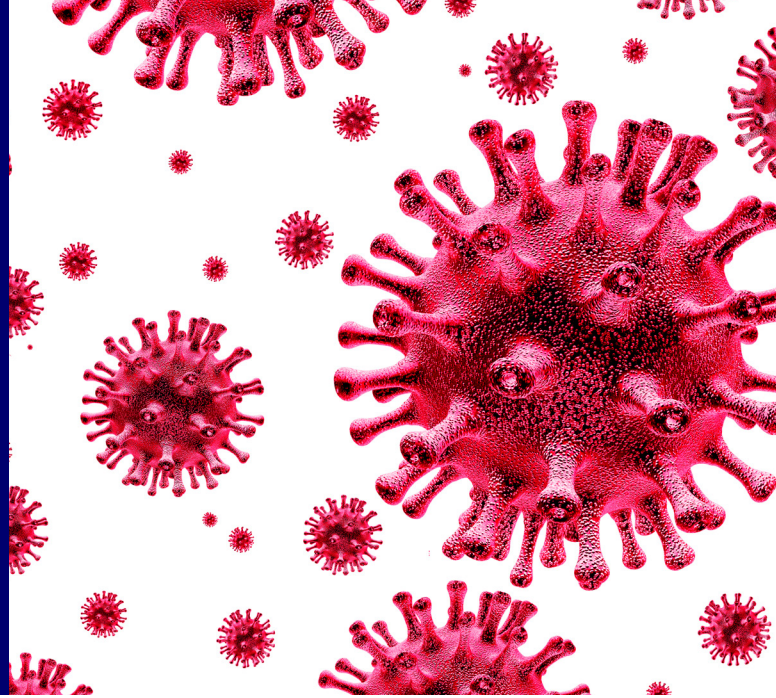


COVID-19 RESEARCH STUDIES FACT SHEET 1

BY THE ACADEMY OF SCIENCES MALAYSIA (ASM)

ASM is a statutory body of eminent Malaysian scientists elected for their contributions to science. At this period of unprecedented uncertainty due to the Covid-19 pandemic, ASM has established a Special Interest Group (SIG) on COVID-19 comprising Fellows of the Academy to review key research findings around the world and issue fact sheets to help the public understand the implications (and limitations) of the research studies. This first fact sheet describes the interpretation of two key research studies published between 16 and 20 March 2020.



UNDERSTANDING THE STABILITY OF CORONAVIRUS DISEASE 2019 (COVID-19)

Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1

[<https://www.nejm.org/doi/pdf/10.1056/NEJMc2004973>]

In this study, investigators at the National Institutes of Health (USA) used a nebuliser to spray either the SARS-CoV-2 or SARS-CoV-1 into a tank, and they measured whether each virus is still alive after different periods of time.

SARS-CoV-1 is the virus associated with the SARS epidemic and SARS-CoV-2 is the virus associated with the Covid-19 pandemic.



AIRBORNE

More than 3 hours

but the amount of viable virus decreased exponentially with time



PAPER

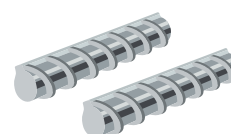


COPPER

Up to 4-8 hours



PLASTIC



STEEL

Up to 72 hours (3 days)

What does this research mean?

1

This research confirms what doctors already knew, that people can be infected by the coughing and sneezing of an infected person. **This implies that all infected individuals should wear a mask when they come close to another individual, and staying 3-6 feet away can help reduce the risk of spreading infection.**

What should we do now?

1

Public should continue to practice social distancing: stay at home as much as possible and if you go out, wear a mask and stay 3-6 feet away from other people.

2

This research suggests that plastic and steel surfaces are more likely than copper and paper surfaces to have viable virus. This suggests that we should take care to clean plastic and steel surfaces because these are more likely to have a viable virus for a longer period. The risk of infection is much higher from close contact with an infected person than from touching a contaminated plastic or steel surface. Plastic and steel surfaces should be cleaned properly and tissue paper that an infected person sneezes into should be disposed of carefully. Everyone should continue to keep clean hands and to wash their hands regularly and avoid touching their eyes, nose and mouth.

3

This research shows that SARS-CoV-2 and SARS-CoV-1 are very similar in terms of infection rate. It is therefore necessary to find another reason to explain why SARS was limited to a few countries in Asia, whereas Covid-19 has become a pandemic. The researchers suggest that one possible reason is that SARS patients develop symptoms quickly and are therefore isolated quickly, whereas Covid-19 patients develop symptoms slowly (or don't develop symptoms at all) and therefore they go around infecting more people.

2

Public should continue to practice good hygiene practices including avoiding touching the mouth, eyes and nose, washing hands with soap on a regular basis, and disposing used tissues immediately.

3

Healthcare facilities or homecare facilities providing quarantine facilities for individuals with Covid-19 or individuals with symptoms (fever and dry cough) should clean all surfaces that the individuals come into contact with on a regular basis, particularly plastic and steel surfaces.

Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV-2)

[<https://science.sciencemag.org/content/early/2020/03/13/science.abb3221>]

In this study, investigators at Imperial College London, Columbia, and Tsinghua University, built a computer model to explain why Covid-19 spread so quickly. They found that the virus was undetected for weeks and as a result, many people were infected but did not have any symptoms. Therefore, there is a delay in preventing further infections which resulted in more people being infected.

What does this research mean?

1

This research confirms what doctors already knew, that unlike SARS where people developed symptoms quickly, Covid-19 does not always cause symptoms immediately.

What should we do now?

1

Public should continue to practice social distancing: stay at home as much as possible and if you go out, wear a mask and stay 3-6 feet away from other people.

2

Anyone who has come into close contact with a Covid-19 patient should self-isolate as soon as possible, inform their close contacts and inform the Ministry of Health.