Aerosol and surface stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1

Summary:

1. Virus transmission via respiratory secretions in the form of droplets (>5 microns) or aerosols (<5 microns) appears to be likely.
2. Researchers found that viable virus could be detected in aerosols up to 3 hours post aerosolization, up to 4 hours on copper, up to 24 hours on cardboard and up to 2-3 days on plastic and stainless steel.
3. Results indicate that aerosol and fomite transmission of HCoV-19 is plausible, as the virus can remain viable in aerosols for multiple hours and on surfaces up to days.
4. There have been early indications that individuals infected with HCoV-19 may shed and transmit the virus while pre-symptomatic or asymptomatic.
5. The epidemiology of SARS-CoV-1 was dominated by nosocomial transmission and SARS-CoV was detected on variety of surfaces and objects in healthcare settings. HCoV-19 transmission is also occurring in hospital settings, with over 3000 reported cases of hospital-acquired infections. These cases highlight the vulnerability of healthcare settings for introduction and spread of HCoV-19. However, in contrast to SARS-CoV-1, most secondary transmission has been reported outside healthcare settings and widespread transmission in the community is being seen in several settings, such as households, workplace and group gatherings.

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