Supplementary Table. Summary of peer-review publications in the detection of SARS-CoV-2 RNA in air in the patient areas of hospitals

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| --- | --- | --- | --- | --- | --- | --- |
| Ref. | Country [publication] | Setting [ACH, if mentioned] | Air sampler, [duration / volume of air, if mentioned] | Detection of SARS-CoV-2 RNA in air [Ct of VL in air, if mentioned] | Patient viral load (Ct or VL) | Mask for patients |
| 1 | Singapore [May 2020] | AIIR [ACH: 12] | NIOSH aerosol sampler; [4 h / 5040 L] | 2 of 3 (66.7%) AIIR; [916 to 2000 copies /m3] | Ct: 18.45 to 20.11 | NM |
| 2 | China[Jun 2020] | Patient areas in two hospitals a | Presterilized gelatin filters with pore size 3 μm | 63.6% (7/11) samples; [1 to 113 copies /m3] | NM | NM |
| 3 | US [Jun 2020] | A clinic  | Laminar-flow water vapor condensation; [1 h / 390 L] | 50% (1/2) samples; [0.87 copies / L] | NM | NM |
| 4 | China [Jul 2020] | ICU [ACH: 12] & GW [ACH: 8] | SASS 2300 wetted wall cyclone sampler; [30 min / 9000 L] | 35% (14/40) of ICU samples and 12.5% (2/16) of GW samples | NM | Yes |
| 5 | US [Jul 2020] | AIIR [ACH: >12] | Sartorius airport MD8 air sampler; [15 min / 750 L] | 80.0% (32/40) samples; [average: 2.99 copies/L of air] b | NM | NM |
| 6 | UK [Jul 2020] | Patient cares in hospital | Coriolis μ air sampler; {NM] | 12.5% (2/16) samples; [404 to 7048 copies /m3] | NM | NM |
| 7 | China [Oct 2020] | ICU & isolation ward | Air sampler not specified; [1 h / 300 L] | 8.3% (1/12) samples c | NM | Yes |
| 8 | Italy [Nov 2020] | ICU  | MD8 airport portable air sampler; [40 min / 2000 L] | 100% (20/20) samples in patient corridor & contaminated zone  | NM | NM |
| 9 | China [Nov 2020] | ICU & isolation ward | Two-stage cyclonic bioaerosol sampler; [4 h / 840 L] | 1 sample in ICU [Ct: 41.5] & 3 samples in isolation ward [Ct: 35.6 to 44.6] | VL: 1.7 to 7x107 copies/ml | Yes |
| 10 | Iran [Dec 2020] | ICU & other clinical areas | Liquid impinge biosampler; [NM] | 14.3% (2/14) samples d | NM | NM |
| 11 | Singapore [Jan 2021] | AIIR [ACH: 12] | BioSpot-VIVAS BSS300-P bioaerosol sampler; [NM] | 50% (6/12) samples; [Ct: 32.62 to 38.36] e | Ct: 15.22 to 20.53 | NM |
| 12 | US [Feb 2021] | ICU & medical ward [ACH: >6] | Sartorius MD8 airscan sampler; [20-40 min / 1000-4000 L] | 14.2% (2/14) samples; [Ct: 33.04 to 36.27] | NM | NM |
| 13 | India [Apr 2021] | ICU, medical & emergency ward | Total suspended particulate air sampler; [1 h / 90 L to 1620 L] | 60% (54/90) samples; [Ct 16.11 to 32.5] f | NM | NM |

Note. ACH, air change per hour; AIIR, airborne infection isolation room; Ct, cycle threshold value; GW, general ward; ICU, intensive care unit; NM, not mentioned; VL, viral load.

a Renmin Hospital and Fangcang Hospital in Wuhan, China.

b Analysis of data from the supplementary information.

c The positive air sample was collected within 10 cm of a patient who was undergoing endotracheal intubation for mechanical ventilation.

d Two positive air samples were collected in ICU.

e Virus culture from air samples was negative.

f Air samples collected from nursing station area separated from the patients by glass wall were excluded for analysis.

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