Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Re: Moore *et al.*, Detection of SARS-CoV-2 within the healthcare environment: a multicentre study conducted during the first wave of the COVID-19 outbreak in England, *Journal of Hospital Infection* 2020;108:189—196

Sir,

We read with interest the study published by Moore *et al.* which reported the detection of SARS-CoV-2 RNA on 8.9% of sampled environmental surfaces around patients in COVID and non-COVID units [1]. At the time of the second COVID-19 wave, and in light of the reported incidence of nosocomial infections, understanding SARS-CoV-2 surface contamination, especially that in non-COVID units, remains of interest [2,3]. Data are controversial regarding the importance of in-hospital environmental contamination with SARS-CoV-2, due to heterogeneous sampling and detection methods [4—6].

We performed a prospective quality control study to assess surface contamination at Geneva University Hospitals, a tertiary care centre in Switzerland. Surface sampling was performed according to WHO guidelines, in COVID- and non-COVID units (two intermediate care, two geriatric, and one mixed unit with separate sectors for COVID- and non-COVID patients) [7]. Samples were collected on diverse surfaces: patients' bed area (bedrail and table); room equipment (doorknob and sink); medical equipment (oximeter and blood-pressure band, which are individual equipment in intermediate care units only); nurses' and doctors' offices (keyboard, telephone, and doorknob); and ward lunchrooms (fridge and boiler handler). We performed three samples per location (30 min before and after cleaning procedures, and 4—8 h after cleaning). Samples were collected in swab specimen collection vials containing 3 mL of viral transport medium (VTM). Each sample was tested individually by real-time reverse transcriptase—polymerase chain reaction (RT—PCR) using the Cobas 6800 SARS CoV2 RT—PCR (Roche, Basel, Switzerland), which includes two targets (ORF1/a and E-gene) for the detection of SARS-CoV-2 RNA, as well as an internal control introduced in each sample to monitor the entire sample preparation and PCR amplification process, and two external controls (low titre positive and negative controls).

In total, SARS-CoV-2 RNA was detected in 7/184 (3.8%) samples. All positive samples were collected in COVID units, with a detection rate of 8.3% (7/84), as previously reported [4]. In their study, Moore *et al.* did not specify the results of sampling according to COVID- and non-COVID units [1]. Interestingly, in our study, SARS-CoV-2 RNA was only detected on surfaces from the patient's bed area, namely the bedrails (two samples collected before and after cleaning in the intermediate care unit, and one sample 4 h after cleaning in geriatrics) and the patient's table (two samples before and several hours after cleaning in geriatrics). Two samples performed on oximeters were also positive (one before cleaning in the intermediate care unit and one after cleaning in geriatrics). As opposed to the results of Moore *et al.*, samples collected in the wider ward environment of COVID and non-COVID units were all negative.

Of the seven positive samples, five had a viral load below the limit of quantification for ORF1/a and E-gene targets (128 viral RNA copies/mL of VTM), while the other two showed estimated values slightly above based on ORF1/a target (2.14E2 and 2.2 E2 viral RNA copies/ml of VTM). Due to the low viral loads, virus isolation was, therefore, not considered [8].

Based on our observations and the results of Moore *et al.*, conclusions regarding virus transmission from an environmental reservoir cannot not be firmly drawn. We therefore respectfully disagree with the conclusion stating that 'effective cleaning should limit the risk of fomite-transmission'. Interventional studies, comprising viral culture, are needed to address the issue of SARS-CoV-2 transmission via contact with contaminated surfaces.

Nevertheless, in the context of the pandemic and awaiting for further studies, the practice of good hand hygiene as well as the appropriate use of personal protection equipment should be reinforced, as being general and key principles for the prevention and control of infections [9].

Conflict of interest statement

None declared.

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