

# Potential SARS-CoV-2 (COVID-19) Carrier by PM2.5

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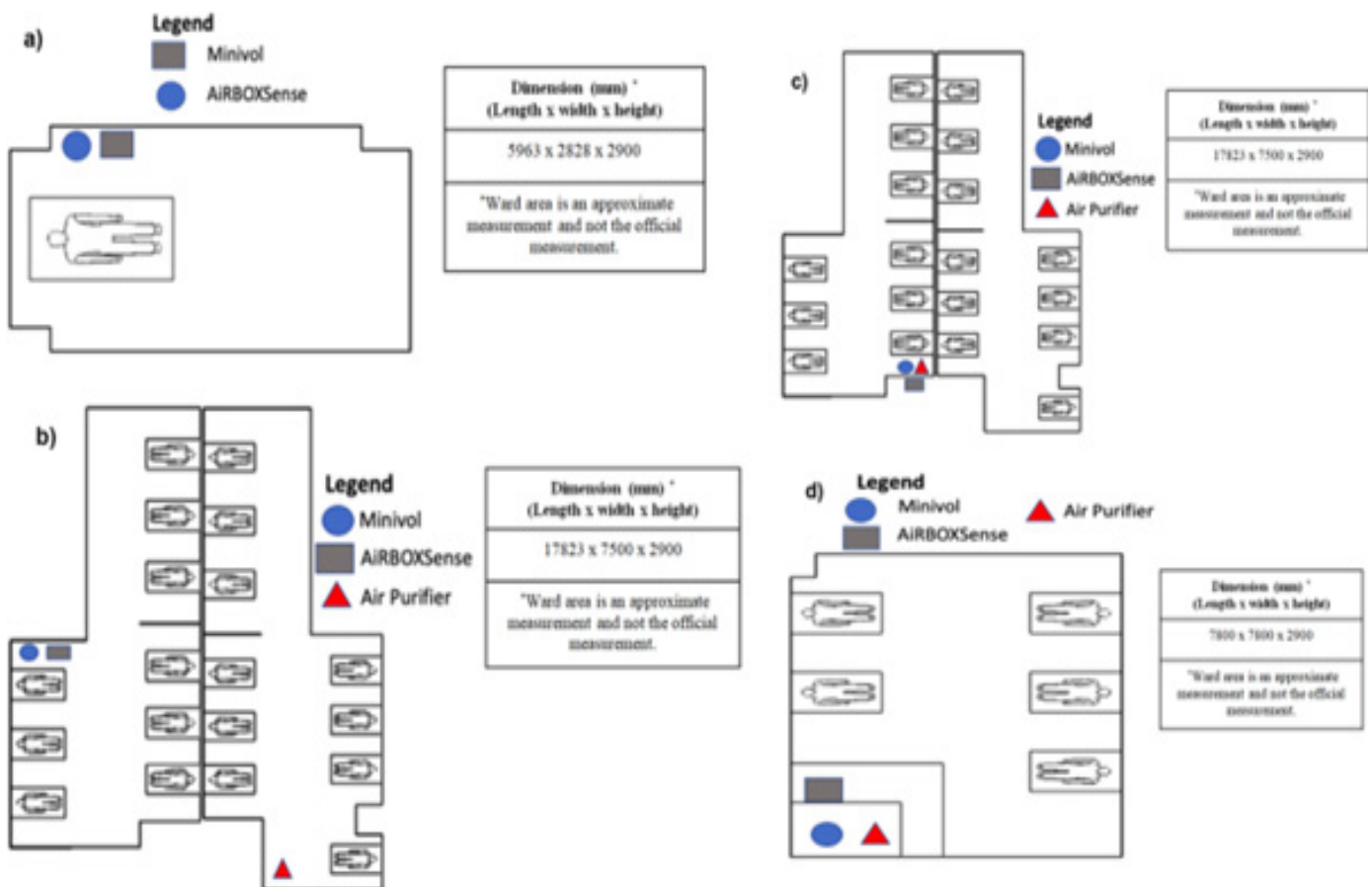
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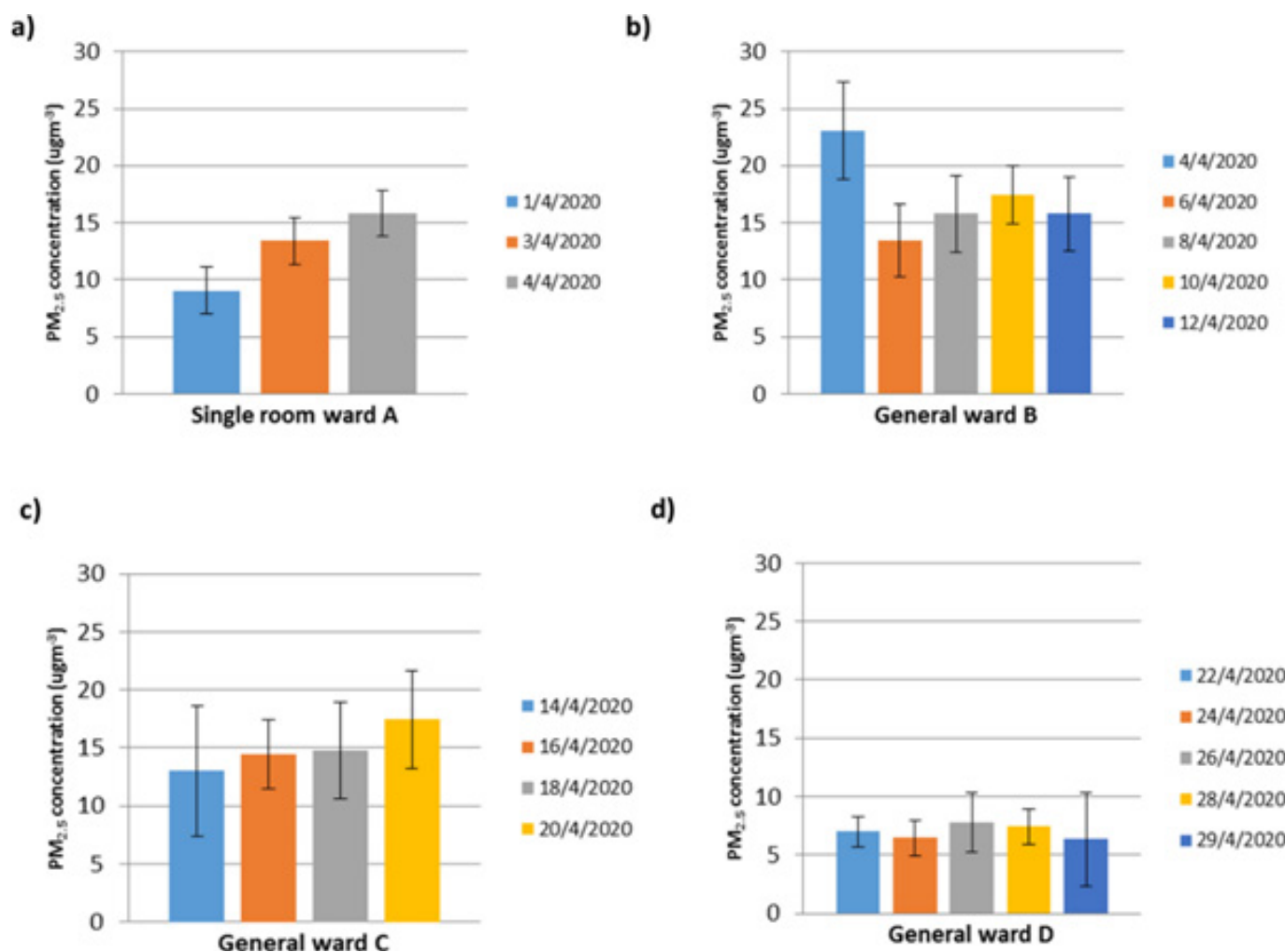
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## Editorial

PM2.5, a fine solid aerosols with diameter of 2.5 μm or less is ambient air.<sup>1</sup> There have reports of association between respiratory viruses and PM2.5,<sup>2</sup> but no correlation was found between PM's diameter and the virus concentration.<sup>1</sup> PM2.5 in indoor environments is derived mainly from common outdoor sources.<sup>3-5</sup> PM2.5 with longer lifetime of the particles can be deposited in hospitals' flooring<sup>6,7</sup> and any other surface materials.<sup>8,9</sup> A recent study at a teaching hospital, in Kuala Lumpur, Malaysia revealed that there was highest SARS-CoV-2 (COVID-19) RNA on PM2.5 in the number-of-occupant wards.<sup>1</sup> They demonstrated the association between the ward's design and the SARS-CoV-2 (COVID-19)-laden PM2.5 (Figure 1 and Figure 2).<sup>1</sup>



**Figure 1** Demonstrating the layout and dimension of the wards with instrumentation deployment a single room A b general ward B, c general ward C and d general ward D. (Note: The beds in the figure does not represent the actual number of beds in the wards, at a teaching hospital in Kuala Lumpur, Malaysia).<sup>1</sup>



**Figure 2** Particulate matter (PM2.5) as a potential SARS-CoV-2 carrier 48 h average concentration PM2.5 at a single room ward A b general ward B, c general ward C and d general ward D (at a teaching hospital in Kuala Lumpur, Malaysia).<sup>1</sup>

### Conclusion

In conclusion, in an enclosed environment, PM2.5 with number of airborne-SARS-CoV-2 (COVID-19) can influence patients’ clinical manifestations.

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### Conflict of interests

Author declares that there is no conflict of interest.

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