

# Use of home pulse oximetry to enhance remote COVID-19 monitoring: Evaluating a single centre experience.

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## Abstract

**Abstract** Introduction Telehealth and remote monitoring of patients of patients with mild COVID-19 infection have developed rapidly in response to the pandemic. Many healthcare systems have embraced telehealth for remote clinical monitoring and pulse oximetry for enhanced monitoring. **Methods** The experience of a large healthcare centre's COVID Virtual Ward was reviewed retrospectively with a particular focus on evaluating the effectiveness, safety and utility of finger pulse oximetry within the home. Data from a 2 month period in early 2022 during a BA1 Omicron wave was retrospectively reviewed. 551 high risk patients were issued with pulse oximeters for monitoring oxygen saturations within their home. All patients received daily clinical review via telephone by a nurse or doctor. The group was highly vaccinated with only 6.4% of the cohort unvaccinated. Oximeters were promptly delivered via a courier service across a vast geographical area. **Results** Pulse oximetry was well utilised by most patients. Only 2.7% of the cohort demonstrated resting oxygen saturations of <94% during their Virtual Ward admission. Most patients reporting dyspnoea were able to be safely managed without escalation to an emergency department due to reassuring clinical and oximetry assessment. Home oxygen saturations correlated well with saturations recorded within the ED, with no patients found to have lower saturations compared with home saturations. **Discussion** Within a high risk population experiencing COVID-19 infection, pulse oximetry was a useful tool in clinical assessment and allowed a substantial reduction in COVID-19 related ED presentations.

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