

Acceptability of Serial SARS-CoV-2 Testing in Healthcare Workers

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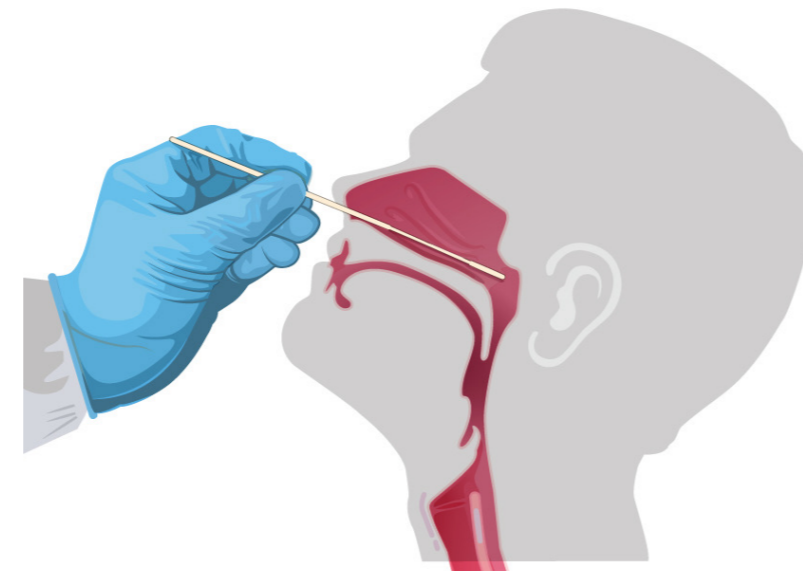
Introduction

Testing for SARS-CoV-2 is a vital public health and infection control strategy in managing COVID-19. There is increasing debate about the utility and practicality of the implementing enhanced SARS-CoV-2 testing, including rapid-antigen testing, in high-risk environments such as healthcare facilities. One key element being missed in these conversations is the voice of the healthcare worker (HCW). What are their perceptions of having to undertake serial SARS-CoV-2 testing? What method and frequency do they find most acceptable? Population acceptability of a test is an essential component of any successful high-quality serial testing programme, and our findings provides key insights in this area.

Method

Healthcare workers were invited to answer an anonymous 20-item questionnaire with 5-item, 10-item, rank order and free text questions in January 2021, prior to widespread HCW vaccination. Qualitative results were analysed using Wilcoxon

rank-sum and Kruskal-Wallis tests. Free-text responses were analysed using inductive approach thematic analysis.



Results & Discussion

Quantitative Results

157 HCWs from 29 different healthcare facilities responded to the questionnaire. Serial SARS-CoV-2 was rated as important with a median score of 9/10 (mean 8.43). Both nasopharyngeal (NP) and mid-nasal (MN) were highly acceptable with median scores of 7/10 and 9/10 respectively. HCW acceptability of NP and MN swabs increased with previous number of swabs (see table), with a slight decline after >10 swabs. This may be due to testing fatigue at higher frequencies.

No. Of Swabs	Mean Score (NP)	Mean Score (MN)
0	5.43	7.47
1-2	6.90	7.53
3-5	7.40	8.24
6-10	7.90	9.06
>10	7.67	8.47

Respondents were asked to select factors which would motivate them to engage in serial testing. 89% indicated protecting family followed by protecting patients (87%), and colleagues (81%) were key motivating factors. This should be considered when drafting guidelines and educational materials on testing programs. 84% of respondents were very comfortable or somewhat comfortable performing Rapid Antigen Detection Tests (RADT) independently.

Qualitative Results

Potential barriers to testing were identified. These included discomfort of nasal swabs, access to tests including testing capacity, and receiving timely results. These are important factors to safeguard workforce staffing and healthcare delivery.

Other themes identified included, concerns about test performance and interpretation, and the utility of serial testing in low prevalence settings, as well as a desire for more testing becoming available for HCWs.

Conclusion

- There is widespread acceptability of serial SARS-CoV-2 testing among HCWs.
- HCWs consider serial testing important and are motivated to participate.
- HCWs are generally comfortable (84%) performing RADTs independently.
- HCWs valued ease of access and timely results of testing methods that would not impact on existing resources or staff.
- The optimal frequency that would retain high compliance rates remains unclear.
- Understanding the acceptability in this high-risk population is an important component in implementing any serial testing programme, as its success is reliant on the uptake of the test by the target population.