
June 25, 2021
Research Objectives

To summarize the available evidence on:

• international guidance on testing and surveillance for SARS-CoV-2 and its variants of concern in a fully vaccinated population*.

This targeted literature review was conducted between June 13 2021 and June 25 2021.

*Fully vaccinated refers to individuals who have received complete dosage of a given vaccine
Methods

• A thorough hand search of grey literature was conducted, including a Google search and websites of the following organizations to identify any published guidance documents:
  • International health organizations (e.g., WHO, Pan American Health Association)
    o Government websites (e.g., Departments/Ministries of Health, National Governments) and subsidiaries of national governments (e.g., Public Health England, Centre for Disease Control)
    o National network consortiums (e.g., McMaster Health Forum (COVID-END))
Results

Figure 1: Flow chart of included guidance documents for review

Handsearching grey literature: guidance documents captured and screened for eligibility (n=68)

Full-text review (n=26)

Guidance documents included in synthesis (n=26)

Excluded (n=42):
- Publication date prior to December 2020 without clear indication of surveillance method ongoing (n=18)
- Not a guidance document (n=15)
- Not surveillance methods (n=6)
- Duplicate (n=3)
Surveillance Methods for COVID-19 Cases

- 7 Overarching surveillance methods:
  - Polymerase chain reaction (PCR) testing
  - Genomic screening
  - Serosurveillance
  - Wastewater surveillance
  - Antigen testing
  - Health record screening
  - Syndromic surveillance

Figure 2: Surveillance Methods Reported in Included International Guidelines (n=26)
Key messages

• Guidance documents were identified from 11 countries/regions including: Australia, Europe, India, New Zealand, Spain, the United Kingdom, and the United States.

• Most guidance was not specific to vaccinated-populations; it was assumed that it was still in effect but has not yet been updated.

• Only one guidance document was specific to surveillance methods to be used in a vaccinated population:
  • The Public Health England COVID-19 Vaccine Surveillance Strategy includes PCR-testing, health record screening, serosurveillance, and genome sequencing.¹

• Guidance documents were generally in consensus about the following:
  • Population PCR screening, supplemented by rapid antigen tests, was the most recommended method across jurisdictions.
  • PCR-testing, antigen-testing, syndromic surveillance, health record screening, and serosurveillance was used to: monitor the intensity, spread, and severity of COVID-19 to estimate the burden of disease, identify at-risk populations, identify outbreaks, and to adjust public health measures as needed.¹-⁴
  • Genomic sequencing was used to identify variations and evolution of SARS-CoV-2 to identify variants of concern.⁵-⁶
  • Wastewater surveillance was used to complement other surveillance methods, to detect if COVID-19 and its variants are present in a community settings.⁷-⁹
Key Gaps

- There is very limited evidence-based international guidance on surveillance in fully vaccinated populations.
Considerations and Limitations

- Due to the rapid nature of this review, we were unable to carry out an exhaustive and systematic search of the literature, therefore, international guidance captured may not include all countries’/institutes’ guidance for surveillance of SARS-CoV-2.

- We were unable to address the quality of the evidence reported in guidance documents due to the variation in reporting and level of detail provided.
Acknowledgement

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References