

COVID-19 CADTH Reference List

# Respiratory Personal Protective Equipment for Female Presenting Individuals

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To produce this report, CADTH used a modified approach to the selection, appraisal, and synthesis of the evidence to meet decision-making needs during the COVID-19 pandemic. Care has been taken to ensure the information is accurate and complete, but it should be noted that international scientific evidence about COVID-19 is changing and growing rapidly.

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Questions or requests for information about this report can be directed to [requests@cadth.ca](mailto:requests@cadth.ca)

## Key Messages

- No relevant literature was identified regarding the use of respiratory personal protective equipment designed specifically for female presenting individuals.
- No relevant evidence-based guidelines were identified regarding respiratory personal protective equipment designed specifically for female presenting individuals.

## Research Questions

1. What is the clinical evidence regarding the use of respiratory personal protective equipment designed specifically for female presenting individuals?
2. What are the guidelines regarding respiratory personal protective equipment designed specifically for female presenting individuals?

## Methods

### Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were face masks and females. No filters were applied to limit the retrieval by study type. The search was limited to English language documents published between January 1, 2016 and February 2, 2021. Internet links were provided, where available.

### Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

**Table 1: Selection Criteria**

Criteria	Description
<b>Population</b>	Any female presenting individuals (health care provider, patient, general public) required to wear respiratory protection devices (e.g., filtering respirators such as N95 masks, and medical, cloth, or surgical masks), in any setting
<b>Intervention</b>	Personal protective equipment designed specifically for female presenting individuals
<b>Comparator</b>	Standard designed personal protective equipment (e.g., “one size fits all,” unisex)
<b>Outcomes</b>	Q1: Safety, harms, infections rates (e.g., COVID-19 infection), infection exposures, transmission of particulate matter, comfort, and quality of life Q2: Recommendations regarding fit of personal protective equipment for female health care workers, recommendations regarding design of personal protective equipment for health care workers
<b>Study designs</b>	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

## Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding the use of respiratory personal protective equipment designed specifically for female presenting individuals. No relevant evidence-based guidelines were identified regarding respiratory personal protective equipment designed specifically for female presenting individuals.

References of potential interest that did not meet the inclusion criteria are provided in the appendix.

## Overall Summary of Findings

No relevant literature was identified regarding the use of respiratory personal protective equipment designed specifically for female presenting individuals; therefore, no summary can be provided.

No relevant evidence-based guidelines were identified regarding respiratory personal protective equipment designed specifically for female presenting individuals; therefore, no summary can be provided.

## References Summarized

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-Analyses

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Guidelines and Recommendations

No literature identified.

## Appendix 1: Further Information

### References of Potential Interest

#### Poster Presentation

1. Christopher LE, Rohr-Kirchgraber T. The Great Gender Divide: Gender-related discrepancies of N95 mask protection; 2020. Sex and Gender Health Education Summit 2020 – Virtual Meeting. [The Great Gender Divide: Gender-related discrepancies of N95 mask protection \(iupui.edu\)](#) Accessed 2021 Feb 8.

#### Manuscript

2. Ascott A, Crowest P, de Sausmarez E, Khan M, Chakladar A. Respiratory personal protective equipment for healthcare workers: impact of sex differences on respirator fit test results. *Br J Anaesth*. 2021 01;126(1):e48-e49.  
[PubMed: PM33183736](#)