Role of Naso-oropharyngeal Antiseptic Decolonization to Reduce COVID-19 Viral Shedding and Disease Transmission

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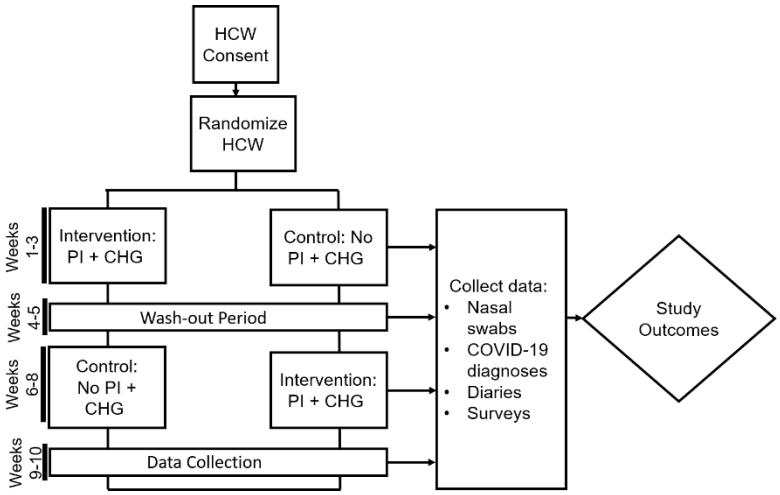
Objective: This study aims to evaluate the effectiveness of an antiseptic decolonization intervention (nasal povidone iodine swabs and oral chlorhexidine gluconate rinse) to prevent transmission of the SARS-CoV-2 virus to healthcare workers interacting with patients with suspected or known COVID-19.

Background: Povidone iodine (PI) and chlorhexidine gluconate (CHG) are antiseptic agents commonly used in the healthcare setting to reduce surgical site infections. PI and CHG have broad-spectrum antibacterial and virucidal activity, including against viruses causing respiratory infections like influenza. *In vitro*, PI inhibits the coronaviruses SARS-CoV and MERS-CoV. The effectiveness of PI and CHG specifically on SARS-CoV-2 has not yet been studied in humans.

Study Design: We are conducting a crossover randomized controlled trial, where all participants will receive the intervention during one 3-week period during the course of their participation (see figure).



Eligible Participants: Healthcare workers who currently or may in the future interact with suspected or known COVID-19 patients are eligible to participate.

Intervention: Participants will be asked to decolonize their nose using PI nasal swabs and their mouth using CHG oral rinse during their assigned three-week intervention phase.

Data Collection: Participants will collect nasal swabs (taken from about 2cm inside the nose) three times per week to measure SARS-CoV-2 viral load. The test in this study cannot be used for diagnostic purposes, so participants should continue to follow all recommendations for formal COVID-19 testing. We will ask participants to self-report any COVID-19 tests and diagnoses during their participation in the study.

Participants will answer questionnaires around their relevant medical history, potential exposures to individuals with confirmed or suspected COVID-19, and work practices. Participants will also complete surveys about their experience using PI and CHG to provide information about the feasibility of this intervention.

If you have any questions or are interested in participating, please contact the study team at shield@medicine.wisc.edu or visit https://shield.medicine.wisc.edu/.