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## Can nasal irrigation with chlorine dioxide be considered as a potential alternative therapy for respiratory infectious diseases? The example of COVID-19

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### Abstract

Chlorine dioxide (ClO<sub>2</sub>) is a high-level disinfectant that is safe and widely used for sterilization. Due to the limitations on preparing a stable solution, direct use of ClO<sub>2</sub> in the human body is limited. Nasal irrigation is an alternative therapy used to treat respiratory infectious diseases. This study briefly summarizes the available evidence regarding the safety/efficacy of directly using ClO<sub>2</sub> on the human body as well as the approach of nasal irrigation to treat COVID-19. Based on the available information, as well as a preliminary experiment that comprehensively evaluated the efficacy and safety of ClO<sub>2</sub>, 25-50 ppm was deemed to be an appropriate concentration of ClO<sub>2</sub> for nasal irrigation to treat COVID-19. This finding requires further verification. Nasal irrigation with ClO<sub>2</sub> can be considered as a potential alternative therapy to treat respiratory infectious diseases, and COVID-19 in particular.

**Keywords:** COVID-19; SARS-CoV-2; chlorine dioxide (ClO<sub>2</sub>); nasal irrigation; respiratory infectious diseases.

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