



COVID-19

Recommendations for the use of Nitrous oxide/Entonox for labour analgesia during the COVID-19 pandemic

23 August 2021

This guidance is based on what is currently known about COVID-19 and the transmission of other viral respiratory infections. The Ministry of Health will update this guidance as needed, as additional information becomes available.

The purpose of this guidance is to provide advice on the use of Nitrous oxide/Entonox for labour analgesia during the COVID-19 pandemic, with the aim of reducing the spread of COVID-19 from person to person in New Zealand. Evidence does not suggest that use of Nitrous oxide/Entonox is an aerosol generating procedure, and it can be used with a single patient microbiological filter.

Key points

- Nitrous oxide can be provided to pregnant, labouring or postpartum women who have been defined as suspected, probable or confirmed for COVID-19 infection, with the midwife and other health professionals wearing the appropriate PPE. See [PPE use in health and disability settings \(https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-information-specific-audiences/covid-19-personal-protective-equipment-central-supply/personal-protective-equipment-use-health-and-disability-care-settings#ppe001\)](https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-information-specific-audiences/covid-19-personal-protective-equipment-central-supply/personal-protective-equipment-use-health-and-disability-care-settings#ppe001)
- Midwives and other healthcare workers should wear appropriate personal protective equipment (PPE) when attending all pregnant, labouring and postpartum women.
- No protective measure is 100% effective. The most effective way to reduce spread is to use multiple measures including PPE, frequent and effective hand hygiene, and physical distancing/isolation measures.
- There is evidence that human-to-human risk of transmission of coronaviruses is increased in hospital and aged care settings.

Nitrous oxide/Entonox

- Nitrous oxide is commonly used and is a safe method of analgesia for labouring women.
- The nitrous oxide is supplied mixed with oxygen, either as a 50:50 prepared mixture (Entonox), or via a gas blender fitted to the wall.

- Nitrous oxide is supplied to the woman via a lightweight plastic hose with a mouthpiece or face mask on the end.
- The woman should breathe in and out of the mouthpiece or face mask, as required. However, a woman breathing vigorously often breathes out past the mouthpiece rather than through it, which releases droplets into the air around the woman.
- A filter can be placed between the hose and the mouthpiece to filter out droplets from the woman's expired air. The most common filter, widely available in hospitals, is known as a Heat and Moisture Exchanger (HME). A standard HME is not designed to provide filtration of virus particles. Viral filters are expensive, and not currently widely available. This is why it is important for the health professionals providing care to wear the appropriate PPE.
- Nitrous oxide can be provided, if requested to women who are defined as suspected, probable or confirmed for COVID-19 infection as long as all other standard precautions are being followed.