

Date:	June 23, 2020
To:	Clinical Operations Leadership Acute Care Perinatal Care Providers Northern Divisions of Family Practice
From:	Dr. Bill Kingston, Medical Lead, Perinatal Program; Vanessa Salmons, Executive Lead, Perinatal Program; Kelly Gunn, VP Primary & Community Care and Chief Nursing Executive
CC:	Tanis Hampe, VP Pandemic Response; Penny Anguish, Northern Interior Chief Operating Officer; Angela De Smit, Northeast Chief Operating Officer; Ciro Panessa, Northwest Chief Operating Officer
Re:	UPDATE: Entonox Use in Labour and Delivery

Issue:

To provide an update and clarification on the use of Entonox in Labour and Delivery in acute care maternity units in Northern BC.

Background:

Previous direction instructed sites to discontinue the use of inhaled nitrous oxide (Entonox) during the COVID-19 pandemic due to uncertainty around the risk of contamination and the potential for aerosolization. Upon appraisal of current evidence, this position has been reversed provincially due to the following points:

- Entonox delivery systems do not utilize positive pressure when delivering gas and instead relies on the patient breathing in, under their own effort. This does not create the increased velocity necessary to aerosolize a droplet, and as such the use of Entonox is not considered an aerosol generating medical procedure (AGMP), and standard droplet contact precautions can take place in the presence of a COVID-19 positive or suspect patient.
- Circuit contamination can be prevented by the use of a bacterial/viral filter placed between the patient mouthpiece or mask and the Entonox delivery circuit, and these are readily available at acute care sites in Northern Health.

Recommendations:

- Based on the above information, **Entonox can be safely used on labour and delivery units for pain management** (with the appropriate hydrophobic filter - ≤ 0.05µm pore size)
- This direction is in alignment with the current BC Centre for Disease Control [Guideline for the Admission and Hospital Management of Pregnant Women/Individuals Who Are a Confirmed or Suspect Case of COVID-19](#)
- Sites are to connect with the Supply Chain to recommend filters available on the provincial contract that are suitable for the particle size necessary to filter out COVID-19 (BOMImed, Covidien/Medtronic, intersurgical and Drager (and others) all have filters that are rated to perform filtration adequately and all are in use in our region at any given time)

For more information, please contact Dr. Bill Kingston, Medical Lead, Perinatal Program Bill.kingston@northernhealth.ca or Vanessa Salmons, Executive Lead, Perinatal Program Vanessa.salmons@northernhealth.ca