Interim Obstetric Anesthesia Guidelines for Pregnant Women and COVID-19
Winnipeg Regional Health Authority and Shared Health

These Guidelines are based on recommendations from the Society of Obstetric Anesthesia and Perinatology, the Society of Obstetricians and Gynaecologists of Canada, Obstetric Anaesthetists Association UK, as well as information on measures being taken by maternity units around the country. As information becomes updated, these guidelines may be subject to alteration. (Draft No. 4, April 22, 2020)

For the Obstetric patient with diagnosed or suspected COVID-19:

• All patients in the Operating Room will be cared for with Enhanced Droplet Contact Precautions (EDCP) regardless of COVID-19 status given community spread of the illness, and the possibility that patients may be asymptomatic carriers.

• Suspect or positive patients are to wear a procedure mask when being moved around the hospital (NOT an N95 mask).

• If possible, a labour room should be designated for PUI or confirmed COVID-19 patients. An AIIR room is not required. Patients should be admitted to this room and the door kept closed. PPE for vaginal delivery is enhanced droplet/contact precautions.

• For labouring patients, epidural analgesia is recommended, barring any contraindications. Early epidural is advisable and may reduce the need for a general anesthetic for emergent cesarean delivery. It is advisable to ensure a well-functioning epidural, and to keep good communication with the obstetrical and nursing teams to anticipate emergency c-sections and avoid any crash c-sections, particularly under GA.

• The epidural cart should be kept outside, with only the items required for the procedure brought into the room.

• PPE for Enhanced droplet/contact precautions should be used for epidural placement.

• For now, nitrous oxide will NO LONGER BE USED on LDR units due to concerns regarding aerosolization in even asymptomatic patients, as there is insufficient information regarding safety in this setting.

• In an event of an emergent cesarean section, one room can be designated as a room for COVID-19 positive or suspect cases if possible.

• During the briefing, a discussion should occur regarding PPE for all team members involved, in accordance with Shared Health/WRHA/IP&C recommendations. Anesthesia will lead the briefing.

• The Anesthetic machine should be prepared with N99 filters on both limbs and a closed suction on the circuit. In-line suctioning should be available.

• A videolaryngoscope should be immediately available and should be used if the patient requires endotracheal intubation.
• A COVID drug kit or cart that contains all routine drugs and airway equipment could be made available, so as to avoid contaminating the entire drug cart and minimizing traffic in the room.

• A PPE cart should be kept immediately outside the operating room. It should NOT be taken into the operating room or any other room.

• Neuraxial block is appropriate in patients with COVID-19 and should be used, provided not otherwise contraindicated.

• General anesthesia should be avoided if at all possible, to avoid intubation and aerosolization of the virus.

• A team huddle before the case should occur before entry into the operating room if possible, to outline staff roles (including assigning assistant to anesthesia should conversion to GA occur), PPE requirements, and to discuss anticipated need for any equipment or medication that is not in the room that should be brought in before any AGMP occurs.

• PPE for Cesarean Sections under neuraxial anesthesia should be donned in the following manner for suspect or confirmed COVID-19 cases:
  • For elective or emergency C-section using spinal or epidural top-up that is deemed to have an adequate block for surgical anesthesia, staff should follow Enhanced droplet/contact precautions using a procedural/surgical mask and face shield
  • The following situations involve a higher risk of rapid conversion to General Anesthetic during the case. The anesthesia team, staff assigned to assist with intubation, and staff that will be scrubbed in who cannot exit the case if conversion to GA should occur, should don Enhanced droplet/contact precautions using an N95 mask. Neonatology staff will also require an N95 mask if they are in the room within 30 minutes of a maternal AGMP.
    • Concern for inadequate spinal or epidural block
    • No time for epidural top up
    • Risk massive intra op blood loss (>1.5L)
    • Transverse Lie
    • Any case where the anesthesiologist is concerned about intraoperative conversion to general anesthetic

If the patient is converted to GA, any staff who are not wearing an N95 mask must quickly exit the room prior to intubation, doff and redon with an N95 before re-entry. They should attempt to return PRIOR to intubation since the door must be closed for 30 minutes after an AGMP.

• PPE for a General Anesthetic for any case requires full Enhanced droplet/contact precautions, including a N95 mask, for all staff in the room.

• If a GA occurs, the doors should not be opened within 30 minutes of the AGMP (intubation or extubation), the only exception being for transfer of the infant to the care of the neonatal team.
• If the case starts with a general anesthetic (as opposed to conversion from regional midway through the case), all staff that are required to be in the room for the case should be present during intubation to minimize the doors being opened after the AGMP.

• Before extubation, everyone should leave the room except the anesthesiologist and an assistant, so that the patient can be extubated and the doors kept closed for 30 minutes. Anyone who stays in the room must have the appropriate N95 mask and must remain in the OR for 30 minutes.

• Donning PPE is time consuming (when done properly it takes approximately 2 minutes) and will impact on decision to delivery time for STAT caesarean delivery

• Precautions outlined with intubation for any COVID-19 patient should be undertaken. Minimal staff (only essential personnel) during both intubation and extubation.

• Following a cesarean section under neuraxial anesthesia, a known COVID-19 positive patient or PUI should be recovered in the operating room, or they may return back to their labour room. This should be a private room and the door should remain closed. They should NOT be recovered in PACU.

• If the patient is not known COVID-19 positive or a PUI, they may be recovered in PACU.

• Following a cesarean section under general anesthesia, the patient should be recovered in the operating theatre for 30-60 minutes depending on the air exchange in the OR before going to either a private room or PACU (as outlined above, depending on COVID status). Staff should continue to wear N95 masks. Refer to extubation guidelines for further details.

• Approximately one third of patients in a case series from Wuhan developed thrombocytopenia (platelet count <150). Notably these patients were from the general population, not just obstetric patients. Checking the platelet count before insertion of epidural or spinal could be considered. However, if there is not time for a platelet count, we feel the benefit of neuraxial block in this setting outweighs the risk of proceeding with neuraxial block, barring any other contraindications.

• Antiemetics should be administered to prevent vomiting in patients undergoing cesarean delivery. However, due to potential risks of steroids in the setting of COVID infection, consider avoiding the use of dexamethasone for PONV prophylaxis in PUI/COVID patients

Please refer to separate documentation regarding more specific and comprehensive recommendations on patient flow during their hospital stay.

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The following resources are available for further information.

AGMP (Use of N95 respirator): https://www.youtube.com/watch?v=syh5UnC6G2k
This video shows the procedure for donning and doffing PPE required for an AGMP.


https://static1.squarespace.com/static/5e6613a1dc75b87df82b78e1/t/5e6b63e3c92147436c169f6d/1584096230183/OAA-RCoA-COVID-19-guidance.pdf