Interim Considerations for Obstetric Anesthesia Care related to COVID19

This is interim guidance based on expert opinion and published recommendations from the WHO and CDC.
The understanding of this virus is rapidly evolving. Please consult CDC and WHO guidelines for healthcare workers for up-to-date recommendations (Drafted 3/15/2020).

Considerations for L&D

Implement pre-hospital screening:

- For elective procedures (e.g. planned cesarean delivery, elective induction of labor, cerclage); patients should be phoned the night before to screen for symptoms consistent with COVID. Screening of the planned support person(s) should be included in this call.

Staff, training & equipment

- Plan and minimize who will be in the room to care for the COVID19 patient during labor and at delivery and cesarean delivery. Log all staff that goes in and out of the room.
- Plan with the NICU team for separation of the infant to prevent maternal-infant transmission.
- Simulate scenarios for the care of a COVID19 patient, including the donning and doffing of PPE, transport to the OR, and patient arriving on L&D with symptoms concerning for COVID19.
- Create COVID19 kits with all equipment including drugs for labor analgesia and cesarean delivery that would minimize the traffic and would avoid contaminating drug dispensing machines in an OR setting.
- Limit visitors/ support people for suspected and confirmed COVID19 patients per hospital policy.

OB Anesthesia specific considerations:

These general recommendations follow the APSF (Anesthesia Patient Safety Foundation) guidelines for management of women who tested positive for COVID19 or who are persons under investigation (PUI).

1. Admit to isolation room, preferably a negative pressure room, and limit the number of care providers to the strict minimum.
2. ALL healthcare workers should implement airborne and contact precautions with eye protection upon entering delivery or operating room (gown, gloves, mask, eye protection)
3. Donning and doffing takes time. Avoid crash situations by anticipating needs.
    - Early epidural analgesia may reduce the need for general anesthesia for emergent cesarean delivery.
    - A COVID 19 diagnosis itself is NOT considered a contraindication for neuraxial anesthesia.
    - Avoid emergent cesarean deliveries as much a possible - proactive communication with obstetrical and nursing teams. For respiratory distress intubate early using appropriate PPE.
    - Assign the most experienced anesthesia provider whenever possible for procedures (neuraxial, intubation)
    - Consider minimizing use of trainees in direct care of COVID19 patients. Minimize the number of personnel in the room.
4. If general anesthesia and intubation is required;
    - Anesthesia providers and necessary assistants should wear N95 or PAPRs prior to pre-oxygenation

- Apply N95/PAPR or face shield (if PAPR is not used), impermeable gown, gloves, and head covers. Use donning and doffing check lists and trained observers. **Double glove** for ALL procedures and replace the outer layer of gloves after intubation.

- Minimize to only essential personnel during intubation - use your best judgement, while making sure you have some assistance readily available
- If GA indicated, and it is a life-threatening situation, wear PPE/N95 mask - All personnel in the OR at the time of intubation should also wear an N95 and, if not wearing a N95 or PAPR should contact occupational health
- Pre-oxygenation (~5 L/min flow) should occur with a circuit extension and HEPA filter at the patient side of the circuit
- Use a closed suction system (if available).
- Intubation should occur via a means to maximize success on first attempt and minimize any need to provide bag-mask ventilation (video-laryngoscope)
- Extubation is equally, if not more of a significant risk; minimize personnel, utilize N95/PAPR and PPE precautions. If proceeding with extubation at the end of case, extubate in the OR, keep PPE (PAPR/N95) on until after extubation. Consider transporting intubated to a negative pressure room (e.g. ICU) for emergence/ extubation.

5. In accordance with the rational use guidance issued by the WHO, hospitals are recommending N-95's only for special procedures, e.g. aerosolizing procedures such as intubations. Institutions may have different institutional guidelines, which should be followed for don/doff.
6. Consider suspending nitrous oxide programs in L&D units due to concerns regarding aerosolization in even asymptomatic patients as there is insufficient information regarding safety in this setting.
7. Since the care of a COVID19 patient, including the time for donning and doffing, is time intensive, additional staffing may be needed, and back-up strategies may need to be developed.

Drafted by Mihaela Podovei, Kyra Bernstein, Ronald George, Ashraf Habib, Rachel Kacmar, Brian Bateman and Ruth Landau.

Useful resources:

Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 (COVID-19) in Inpatient Obstetric Healthcare Settings.
https://www.cdc.gov/coronavirus/2019-ncov/hcp/inpatient-obstetric-healthcare-guidance.html?deliveryName=USCDC_1052%20DM22171

https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID-19-PPE.pdf

Anesthesia Patient Safety Foundation Perioperative Considerations for the 2019 Novel Coronavirus (COVID-19).
https://www.apsf.org/news-updates/perioperative-considerations-for-the-2019-novel-coronavirus-covid-19/

https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf

https://icmanaesthesiacovid-19.org/obstetric-anaesthesia