Guidance for Obstetric Anesthesia Care at Strong Memorial Hospital (SMH) during the Coronavirus Pandemic

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NOTE: As the coronavirus pandemic proceeds, an enormous amount of information is being generated to advise us on clinical care and health care team safety. Also, individual advisories change from day to day as the overall situation evolves. This document is designed to help you safely provide anesthesia care in OB Anesthesia at SMH, but it cannot anticipate every possible variation you may encounter. Please use your common sense and anesthesia practice experience to navigate the clinical challenges. Also, please page Dr. Wissler at 220-0360 at any time to discuss problems in OB Anesthesia at SMH.

General Comments:

1. The goals of the current modifications in clinical practice include providing excellent clinical care to our patients, while minimizing the risks of viral transmission to members of the health care team and other patients. These goals are compatible with each other.

2. Personal protective equipment (PPE) is the cornerstone of minimizing viral transmission from patients to members of the health care team. There are a variety of devices and strategies described elsewhere. Two issues have come to the forefront during recent discussions.

    a. There is fear in some institutions that adequate supplies of PPEs will not be available to protect members of the health care team at all times. Recent statements by local and State officials (including some today), suggest that PPEs are available in all institutions in adequate supplies for CURRENT use.

b. Opinions vary among members of the health care team concerning the necessary PPE devices. The expert consensus opinion is that surgical masks are adequate to prevent infection from droplets. For potential exposure to aerosolized virus, a N95 mask or PAPR/CAPR is recommended.

3. The current laboratory testing for coronavirus infections has been controversial in terms of accurately identifying individuals (symptomatic or asymptomatic) who may be contagious to others. There are two types of laboratory tests; one that identifies viral genome in upper respiratory secretions (presumably positive in active infections), and another test that identifies serum antibodies against the coronavirus (presumably positive after recovery from an active infection). However, there are many unanswered questions about testing and contagious status. As test availability expands, interpretations of contagious status are likely to change. During this transition period, we should ask these two questions about each patient:
    a. Is the patient symptomatic?
    b. If testing was performed; is the result negative, pending or positive?

4. The key issue in deciding on specific PPE choices is the risk of exposure to droplets vs. aerosols. For droplets only, a surgical mask should be adequate. For aerosols, a N95 mask or PAPR/CAPR should be used. The major risk to anesthesia personnel for exposure to aerosols is airway management during general anesthesia.

5. General anesthesia for cesarean delivery occurs most often for stat cesareans where the life of the fetus or the mother is in extreme jeopardy. In these situations, rapid induction of general anesthesia permits the abdominal delivery of the fetus within a few minutes of the mother arriving in the OR.

6. For all OB Anesthesia personnel, your plan for PPEs during a general anesthetic for stat cesarean delivery must be implemented in a rapid manner to avoid delays that may harm the mother or fetus. This means that you must have a specific plan, and the PPE equipment to implement this plan must be immediately available for the OB ORs (OR-A, OR 32 and OR 33).

7. **For both residents and attending anesthesiologists, you should not accept sign-out for the OB Anesthesia service at change of shift until you have verified the immediate availability of the PPEs necessary to implement your safety plan for general anesthesia in OB. Likely sources of PPEs at shift change are the Main OR or the 3-1400 nurses station.**

Nitrous oxide labor analgesia has been suspended indefinitely due to concerns about the potential for generating airway aerosols.

NOTE: The choice of appropriate PPEs for neuraxial analgesia in labor rooms and neuraxial anesthesia in the OB ORs is a decision based on the contagious status of the patient (see section 3 above). Overall, the aerosol generation during the placement of a neuraxial block is minimal. For a low-contagious status patient, neuraxial placement PPEs are likely to include head cover, surgical mask and sterile gloves. For a high-contagious status patient, you would likely add a gown and eye protection.

Neuraxial Analgesia in the Labor Rooms:

1. Everyone in the labor room (including the patient) will wear a surgical facemask covering their nose and mouth during the preanesthetic evaluation and the block placement procedure. The only exception is removal of the facemask from the patient to allow an adequate airway physical exam during the preanesthetic evaluation.
2. If anesthesia personnel need to re-enter the labor room for any purpose after block placement, then everyone in the labor room will need to wear a surgical facemask.
3. The most likely cause of labor epidural malfunction is over-threading of the epidural catheter during initial catheter placement. We expect that all epidural catheters will be threaded 3 to 4 cm into the epidural space during initial placement.

Neuraxial Anesthesia in the ORs:

1. The patient will wear a surgical facemask at all times, unless precluded by airway management or other necessary clinical events.
2. Supplemental oxygen is not routinely administered to mothers unless there is a medical indication for either the mother or fetus. Is so, please use a maternal facemask instead of nasal cannula (to minimize aerosols).

General Anesthesia in the OB ORs:

1. Remember: By code, the air turnover in any of our ORs, with the external doors closed, is at least 20 times per hour of filtered air.
2. Negative pressure airflow is not available in our current OB ORs (OB-A, 32 and 33). Negative pressure ORs theoretically decrease the possibility of spreading infectious agents beyond the ORs, but do so at the expense of theoretically increasing patient infections from infectious agents drawn into the OR by negative pressure.
3. The Anesthesia Techs have small HEPA filters that fit into the anesthesia breathing circuit between the y-piece and the endotracheal tube. This HEPA filter is mandatory and for single-use only.
4. Techniques for airway management, as always, should be chosen to maximize patient safety. For example, all patients should have adequate pre-oxygenation before induction of general anesthesia. However, when clinically appropriate, emphasize airway management techniques that minimize multiple intubation attempts or positive pressure mask ventilation.
5. Whenever feasible, the non-anesthesia personnel in the OR should step into the hallway and close the OR door before extubation. They should delay re-entry to the OR for 10 minutes after extubation, unless they are needed in the OR for acute patient care.
6. After extubation and clinical stabilization, the patient should have a surgical facemask applied for transport and her PACU stay.
7. After the OR is cleaned by Environmental Services, the OR doors must be closed for at least 10 minutes, before the OR may be used for another patient.

Other URMC Documents Related to this Topic

1. Anesthesia Team Management of Patients with Known or Suspected COVID-19. Drs. Eaton and Lutik. 3/24/20.

2. OR Patient Management during COVID. Drs. Eaton and Lustik. 4/6/20.

3. Obstetric Service Coronavirus Plans. Dr. Olson-Chen. 4/4/20.

4. URMC Anesthesia Pandemic (COVID) Airway Teams. APA Team. 3/25/20.

5. GCH/URMC Pediatric Anesthesia Routine OR Management Guidelines for Use During COVID 19 Outbreak. Dr. Correll. 3/25/20