TRANSMISSION:
COVID-19 is a viral respiratory infection that is highly contagious and is primarily transmitted via large droplet respiratory person-person contact. It is most likely spread by being in close contact (within 6 feet) when an infected person coughs or sneezes. This is similar to the transmission of influenza. Recent evidence indicates that the virus may remain airborne for up to 30-minutes.

There are some data indicating that the virus can also be transmitted by touching a contaminated surface and then touching eyes, mouth or nose because the virus can live from 24 - 72 hours on some surfaces. Although the virus has been identified in other body fluids it is unknown if they can transmit the virus.

The incubation period is unclear, but evidence suggests that most individuals who become symptomatic do so between 2 – 14 days after exposure, with a median incubation time of 5-days. It is believed that asymptomatic or mildly symptomatic people may also transmit the infection. It is currently unknown if a person can be infected more than once. It is currently unknown how long a person can remain infectious.

SYMPTOMS:
• Fever >100.4°F (38°C)
• Fatigue
• Dry cough
• Shortness of breath or difficulty breathing
• Less common – GI symptoms (loss of appetite, diarrhea, vomiting, abdominal pain), sore throat, headache, runny nose
The symptoms are similar to influenza or other respiratory infection. It is possible for an infected person to have symptoms ranging from none to severe. For healthy adults this disease was thought to be mild-moderate; however, recent CDC data indicate that 58% of patients with COVID-19 severe enough for hospital admission and 12% of those requiring ICU admission were younger than 65 years old. Older adults (65 and older) and people with comorbidities (for example, respiratory or cardiovascular disease, diabetes, autoimmune disorders, or immunosuppressive medications) are at the greatest risk for severe illness (60% of those hospitalized and 25% of ICU admissions).²

It is unclear if pregnant women fall into this high risk group or if there is vertical transmission from mother to fetus. In limited case series of infants born to mothers with COVID-19, the infants have not tested positive.³ It is unclear if infants fall into the high risk group, but a recent study of 2000 ill children in China report nearly 6% with very severe illness, with 60% of those in children under 5-years of age.⁴ Pregnant women, due to physiologic changes in their immune and cardiovascular systems, may be more at risk for severe illness as seen in other viral respiratory infections, although has not been demonstrated in the data thus far, possibly because of very limited availability of data for pregnant individuals.

Person-to-person community transmission is occurring in the U.S. The case fatality rate of COVID-19 has been difficult to determine due, in part, to limited testing; however, the current estimate for the U.S. is around 1.6%, which is more than 10 times higher than for influenza (0.1%). There is no vaccine currently available for this virus. There is no treatment currently confirmed to lessen this virus’s virulence (such as Tamiflu for influenza), thus care is currently supportive in nature. Case-fatality rates were much higher in those over 65 compared to those under 65 (17% vs 2.6%).²

Guidance for Birth Centers:

Because this situation is constantly changing, each birth center must stay apprised of the situation in your community and remain flexible as you make decisions about what is best for your staff and clients. Not all of these suggestions will be appropriate for your birth center at all times or in all situations.

CABC is confident in the birth centers’ ability to adapt to and manage the issues presented to them by COVID-19.

Community Outreach

1. Establish contact with your local health department to receive any needed community updates and assure that the health department is aware of the birth center and its capabilities. Birth centers can be a part of local community planning for triaging pregnant people if needed.

2. Consider reaching out to your collaborative hospital with an offer to help. Ask what you can do to work with them and help them.
3. Consult with hospital Infectious Disease providers or department about a plan for screening and triaging your clients that fits with their needs.

4. Be informed about current screening and testing availability and procedures in your community. If mildly symptomatic individuals are not being tested (which is currently true in most areas), advise clients who call you with concerns about possible exposure or mild symptoms to quarantine at home for 14-days unless symptoms worsen.

5. Discuss any needed changes in transfer procedures with hospital OB and NICU personnel.

**Health Care Personnel**

1. Hand washing is the first line of defense
   a. Washing thoroughly with soap and water for at least 20-seconds is preferable to using hand sanitizer.
   b. When soap and water are unavailable, use an alcohol-based sanitizer with at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry.
   c. Wash hands before and after touching a client.

2. Avoid touching your eyes, nose, and mouth, especially with unwashed hands.

3. Maintain as much distance as possible from clients, do not shake hands, and touch only as essential for necessary procedures.

4. Universal precautions (as always) should be followed

5. Staff Illness
   a. Consider screening staff for fever and other symptoms upon arrival at the office/birth center.
   b. All personnel with symptoms of an URI or influenza should **NOT** come to work. They should self-isolate at home and check with their PCP and/or local or state health department for any needed testing and for guidance on when it is safe to return to work. Current CDC return to work recommendations for symptomatic healthcare workers not meeting criteria for COVID-19 testing are:
      i. Afebrile for 72 hours without antipyretic medications AND
      ii. Symptoms have improved AND
      iii. At least 7 days have passed since symptoms first appeared

6. Have plans in place for contingency staffing patterns if one or more staff members are exposed or become ill.

7. Plan for how mildly ill or PUI staff can continue to work from home if they desire – chart reviews and other CQI activities, PDR data entry, telephone triage, developing client education materials, conducting PNV's remotely, etc.

8. Modify staffing patterns to limit the number of staff working together at the same time so that an exposure does not impact your entire staff.

9. Review your sick time personnel policies.

10. Review infection control procedures with clinical and administrative staff.

11. Discuss with staff the level of risk you are willing to take regarding screening clients who report COVID-19 symptoms and make a plan that considers their feelings. Community screening resources should also be considered in this decision.

12. Provide staff training and discussion on how to talk with clients about COVID-19.

3/10/20: **Anthony Fauci - Talking with Patients about COVID-19 (NEJM Journal Watch)** - Podcast; running time 13 minutes

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17. Consider a drill and role play on how staff will respond to a client who is unhappy about new procedures, such as wearing a mask, transferring to hospital birth, decreasing in-person visits, limits on support people.

18. **It is important to continue your usual CQI activities – chart reviews, facility checks, etc. Times of stress and increased volume provide greater potential for things to fall through the cracks and result in errors and decreased quality.**

19. **N-95 masks**
   - If you are facing a situation in which it seems you should use an N-95 mask, consider referring that client out for evaluation at the hospital (following guidelines about calling first and where to send). *The CDC is currently advising, because of limited supply, that N-95 masks be reserved for aerosol-generating procedures and personnel who are directly caring for known COVID-19 patients.*
   - If you have the mask, they must be fit tested in order to be effective OSHA Respirator Fit Testing. Fit test kits are available online or you can use a professional fit testing service.
   - Although not ideal, individual staff may be able to reuse N-95 mask for several days if it is not soiled by storing it in an enclosed paper or plastic bag between uses.
   - The CDC currently advises the following when interacting with clients with suspected COVID-19:
     - Regular surgical mask
     - Fluid proof gown
     - Gloves
     - Eye protection
     - Surgical mask for the symptomatic client
     - In addition, avoiding close contact to the extent possible is critical.

20. **There is no benefit to healthcare personnel wearing a regular mask when caring for asymptomatic clients.**

21. The CDC just issued Strategies for Optimizing the Supply of PPE. Although intended for public health officials and other decision-makers in hospitals, they can provide some guidance for birth center administrators as well.

22. **Although not optimal, in light of current shortages of surgical masks, there is evidence that cloth homemade masks provide some protection.** Use of these in lower risk situations will preserve the use of more effective masks for use when screening symptomatic clients. Recommendations for use:
   - Restrict use to no more than 3-hours
   - Wash, dry, and sterilize after each use.
   - Have replacements to use while being laundered and sterilized.

23. **Home Visits**
   - Consider canceling all home visits and doing the visit remotely or having client and newborn come to the office.
   - Personnel doing home visits should call prior to entering the home to inquire about any household members who are symptomatic, have had COVID-19 exposure, or are under quarantine.
   - When possible, contact and assessment should be conducted by electronic means rather than in the home.
   - Asymptomatic clients can come to the office for early follow up rather than home visits if there is any concern about a symptomatic individual in the home or if staff are uneasy about doing home visits.
e. Personnel should employ universal precautions and use appropriate PPE for all home visits.
f. Consider obtaining CCHD screen prior to discharge from the birth center. There will be a higher false positive rate, but this will assure that the screening isn’t missed if a home visit cannot be done.
g. Consider performing newborn metabolic screening prior to discharge from the birth center if you are not already doing so.

24. Staff should wear scrubs instead of clean street clothes. Consider having them remove scrubs prior to going home in a room that can be isolated and cleaned thoroughly (or in their garage at home). Scrubs can then be laundered separately from other birth center or family laundry and placed in a plastic bag for later use.

25. **Emergency Drills**
   a. It is important to continue drills in order to maintain staff confidence and competency and “muscle memory”, but modification may be needed to ensure staff safety. For example:
   b. Conduct drills more frequently but in smaller groups (e.g. the same groups who are working together – see #3 above).
   c. Have other staff join the drill using videoconferencing. They can participate in discussion as well as serve as observers to critique drill performance.
   d. Conduct “spontaneous drills” when a couple of staff are together in the birth center – e.g. before or after office hours, during a long labor or postpartum when client doesn’t need direct care continuously.
   e. Continue to assure that every member of the clinical staff participates in drills in some way.
   f. Encourage individual staff members to practice some skills, e.g. neonatal resuscitation, independently using birth center equipment outside of drills in order to maintain competency.

26. Conduct staff meetings and any non-drill training remotely using a videoconferencing service such as Skype or Zoom.

27. This is a stressful time for everyone, both clients and staff. It is important to care for yourself and each other. Here are some resources: Living with worry and anxiety amidst global uncertainty and from the CDC, Manage Anxiety and Stress and WHO Mental Health & Psychological Considerations During COVID-19 Outbreak. Staff families are worried and experiencing loss of loved ones’ time and attention. Explain what is going on and why you may be less present. Check in with each other frequently, be gentle and supportive.

**Clients**

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Each day, the information changes. Inform your clients that each day you give the best advice you can on that day, but that this is a rapidly evolving situation.
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1. Understand that childbearing families are fearful and anxious. Be patient and responsive when they call more frequently. Provide them with as much current information for informed decision-making as you can. Explain the rationale for changes that you are making in birth center routines and procedures and the need to protect clients and staff.

2. Consider implementing a plan for both decreased frequency of prenatal visits and virtual prenatal visits. This helps to limit potential exposure for both staff and clients.

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a. Develop criteria for when an in-person visit is required and when a remote visit is acceptable.
b. Provide staff (both clinical and office) training and client instructions on the use of the videoconferencing platform as needed.
c. Conduct virtual PNV’s for established pregnant clients who are <36 weeks or do not need labs drawn.
d. Develop client information and consent form for telehealth visits. Changes are being made rapidly in response to COVID-19. Center for Connected Health Policy is a good source of current information about policies in your state. Sample telehealth consent forms are available online.

3. Consider limiting those who can accompany clients in the office and/or birth center for visits (e.g. no other people, one other person, no children except the newborn) and for labor (e.g. significant other, one other asymptomatic support person, doula, no children).
4. Instruct client in social distancing, handwashing, and respiratory hygiene and enforce the use of these.
5. Develop a document notifying clients of all changes in procedures, restrictions, and the reasons for these changes.
6. Consider rescheduling or canceling all non-essential well-woman visits.

7. Screening
   a. Depending upon your birth center’s resources, you may want to consider NOT triaging clients with COVID-19 symptoms and sending them to a PCP colleague or local hospital testing facility instead.
   b. Screen all clients for new respiratory infection symptoms in client or household members before all non-urgent care visits. Ask about cough, fever, shortness of breath.
   c. Although community transmission has been established it is still considered prudent to question clients about recent travel internationally or to areas of the U.S. with high rates of community transmission or contact with individuals with such travel. These clients are felt to be at greater risk and should be screened carefully for symptoms and referred for testing as indicated. At this point, most countries are a Level 3 Travel Health Notice (widespread COVID-19 with ongoing community transmission).

8. Clients should be informed of the symptoms of COVID-19, and when to call their primary care provider and/or midwife.
9. Instruct clients to call ahead if they have a scheduled appointment and are ill. In general, it is preferable for a client with mild symptoms to reschedule. If that is not possible, they should be seen in a room in which they can be isolated (or in their car).
10. Restrict attendance at PNV’s – limit number of people, no children, no one who is symptomatic or has traveled to areas within the U.S. or internationally in the past 14-days.
11. Inform clients that wearing a surgical mask (when they are asymptomatic) provides little to no protection and is not recommended.
12. They should be informed that wearing a surgical mask is recommended if they have any URI or influenza symptoms to reduce transmission to others.
13. Regular handwashing, cough etiquette, and respiratory hygiene should be reinforced.
14. If a midwife suspects the possibility of COVID 19 and is transferring to another facility, then the appropriate department of the hospital should be notified prior to the client’s arrival.
15. No client + for COVID 19 or PUI (person under investigation) should be admitted to the birth center for birth or regular prenatal exam.
16. Inform Labor & Delivery and the ID department at your collaborative hospital if any confirmed case or PUI needs OB services for complications or labor/delivery.
17. Develop a virtual tour and orientation to substitute for cancelling on-site tours.
18. Cancel all classes and other group gatherings and explore ways of doing these remotely.
   Remote classes will allow continued attendance for any required classes. Lamaze International
   provides excellent information on Tips for Teaching Virtual Childbirth Classes.

Facility Controls
1. Restrict all symptomatic individuals (clients or support people) from birthing rooms.
   Symptomatic clients should be triaged to a hospital for labor and birth.
2. Place a staff member at the entrance to office to ask clients about any fever, cough, or recent
   travel or known contact with an infected person. These individuals should be asked to leave and
   alternate arrangements made for their routine visit.
3. Post signs at entrances and in other client areas about preventative actions and any restrictions
   that you set on office visits or other birth center encounters.
4. Notify clients that any children/support people/family with “colds” or symptoms suggestive of
   respiratory illness may not come to the birth center for classes, visits, or birth activities.
5. Masks and tissues should be available in client areas and anyone showing up with respiratory
   symptoms should be asked to wear one if they must be seen.
6. Place hand sanitizer in each exam room, waiting room, front desk, and other public areas.
   Handwashing is preferable, but hand sanitizer may be more likely to be used by clients.
7. Restrict pens for client use to just one pen and wipe down often or provide disinfecting wipes
   with which clients can wipe pen(s) before and after using.
8. There is no value/need for asymptomatic clients to wear a mask.
9. Ask clients to call ahead if they have a fever, respiratory, or GI symptoms or an ill family
    member. If they need to be seen, have them call from the car when they arrive at the birth
    center so that they can be seen in the car by staff member with appropriate PPE or can be
    isolated upon entering the building.
10. Designate a specific room for use for screening symptomatic clients – avoid waiting room,
    separate entrance if possible, closed door, thorough cleaning after encounter.
11. Ask clients about symptoms during appointment reminder calls if you are doing those.

Cleaning and Disinfecting
1. In general, the cleaning substances birth centers currently use with bactericidal and virucidal
   properties are adequate for COVID-19.
2. Plan for the fact that you may have increasing difficulty obtaining these supplies.
3. This EPA list of disinfectants for use against COVID-19 shows products that are effective and
   contact time required for each disinfectant, including diluted household bleach and alcohol
   solutions with at least 70% alcohol.
4. The CDC provides these recommendations for cleaning and disinfecting.
5. The use of spray devises for cleaning may aerosolize virus on surfaces and should be not be
    used.
6. Proper PPE should be worn with cleaning (fluid impermeable gown, mask, disposable gloves or
   those dedicated to cleaning and disinfection)
7. Universal precautions should be followed, including washing hands after removing gloves.
8. If a client with symptoms is seen in the facility, that client care area should be cleaned prior to
   any other client encounter.
9. The client care areas such as waiting or family or class rooms should be cleaned daily.
10. Wipe down frequently touched surfaces (door knobs, cabinet handles, counters, keyboards,
    phones, light switches, toilets, faucets, sinks) multiple times during the course of the day.
11. Clean client care equipment (such as blood pressure cuffs and dopplers) and other exam room
    surfaces (counters, desktop, exam table, chair arms and backs, etc.) between clients.

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12. Know your inventory and supply chain. Keep in mind that there may be delays or shortages of some of your usual cleaning and medical supplies. Assess stock more frequently and order prior to stock getting too low. Plan for acceptable substitute in case you are unable to obtain something that you normally use.

13. If you are not already using, consider reusable (i.e. washable) gowns or coveralls that can be washed in hot water. Most have an indicator to track the number of washings prior to loss of impermeability.

14. If you are unable to obtain surgical masks, consider asking a client (or your mother) to make masks for you. Although they should only be used as a last resort, there is some evidence that are better than no protection at all. 5

15. Remove toys, reading materials, or other communal objects if they cannot be thoroughly cleaned at least daily.

16. Since it is unclear how long the virus can remain infectious on some materials, such as textiles, use universal precautions and PPE (as usual) for handling linens.

**Other Planning**

1. Give serious consideration to whether or not you will accept client desiring to transfer to your practice from hospital to birth center birth late in pregnancy due to fears about COVID-19 exposure in the hospital.

2. Consider the risks and benefits for your birth center and staff, capacity for a sudden increase in volume, realistic assessment of your resources to allow you to continue providing safe and high quality care.

3. If you are increasing your volume, explore how you can also increase your birth centers capacity to adjust to this – e.g. temporary credentialing of outside midwives, delegating some activities to RN’s or other clinical staff.

4. Temporarily suspending some less essential aspects of your birth center program.

**Sources of information:**

This is your best source for accurate, evidence-based, up-to-date information. At the bottom of their page are links to advice specific to healthcare professional and facilities. You can sign-up for regular e-mail updates on COVID-19 in order to remain current on this rapidly evolving situation.

https://www.who.int/emergencies/diseases/novel-coronavirus-2019
The World Health Organization also has a COVID-19 dashboard

For birth center owners, these publications by WHO are helpful:
COVID-19: Rights, Roles, & Responsibilities of Health Workers, Including Key Considerations for Occupational Safety & Health

Getting Your Workplace Ready for COVID-19

It is also important to check with your state and local health departments since many have information regarding the specific situation in your area. Here are examples of some state DOH websites:
https://www.health.pa.gov/topics/disease/Pages/Coronavirus.aspx

https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx

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https://www.doh.wa.gov/Emergencies/Coronavirus

https://www.health.state.mn.us/diseases/coronavirus/index.html

The CDC has information about breastfeeding, as does https://www.lli.org/coronavirus/ and United States Breastfeeding Committee

Here are two COCA (Clinician Outreach & Communication Activity) webinars from the CDC:


3/5/20 COCA Call recording: Coronavirus Disease 2019 (COVID-19) Update—WhatClinicians Need to Know to Prepare for COVID-19 in the United States

AABC Toolkit: COVID-19

NACPM webinar March 19, 2002 - Coronavirus: Midwives on the Front Line

NIH has created a coronavirus-specific PubMed site called LitCovid. You can use this link to research scientific questions about COVID-19. https://www.ncbi.nlm.nih.gov/research/coronavirus/?fbclid=IwAR00WEOSWsmjozcYsfEMU5ZCmd8myOG_V0Cthyl6R-waQFIldv6KCFpz1ds

Society for Maternal-Fetal Medicine offers this site, including information about coding for remote client monitoring services.

ACNM website information Responding to COVID-19. ACNM will be offering a town hall on March 21 that will be available on their website afterword.


The publisher of UpToDate has a website on COVID-19 that is available for open use. https://www.osha.gov/video/respiratory_protection/fittesting_transcript.html, including client education materials. The site is being updated frequently.

References:

