

COVID-19

What Maternity and Neonatal Care Providers Are Learning

March 27, 2020
12 – 1 pm EST

Ohio Perinatal Quality Collaborative

Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.

Today's presenters:

Updated March 27, 2020



Carole Lannon, MD, MPH
OPQC QI Lead



Mike Marcotte, MD
OPQC OB Faculty Lead/
Tri-Health



Nancy Cossler, MD
University Hospitals Cleveland



Heather Kaplan, MD, MSCE
OPQC neo faculty/CCHMC



Scott Wexelblatt, MD
Cincinnati Children's
Hospital Medical Center



William Schnettler, MD
Tri-Health



Jennifer Doyle, MSN, CNP
Summa Health



Patrick Schneider, MD
The Ohio State University
Wexner Center

Welcome

Updated March 27, 2020

- Much is unknown and what we know is changing quickly
- Some thoughts on what we all are feeling
- Will need your feedback to improve
- The case scenarios are from individual institution responses, not OPQC recommendation

In the spirit of collaboration

Updated March 27, 2020

- Goals:
 - Share practicalities of implementing strategies now
 - Discuss what people are doing in situations where it is unclear and guidance doesn't exist
 - **ALL TEACH ~ ALL LEARN**
- 415 registered; MANY questions; we reviewed, prioritized 3 topics and scenarios (~15 minutes of presentation/chat/discussion per topic)
- Logistics-will keep attendees muted, please use chat box; we will call on folks for Qs
- Plans:
 - We will provide resource links on website and update regularly
 - We will send follow-up survey. We will need your feedback to improve
 - If you think this is helpful, we will plan another webinar next week, same time on Friday

Data Update **March 26, 2020**

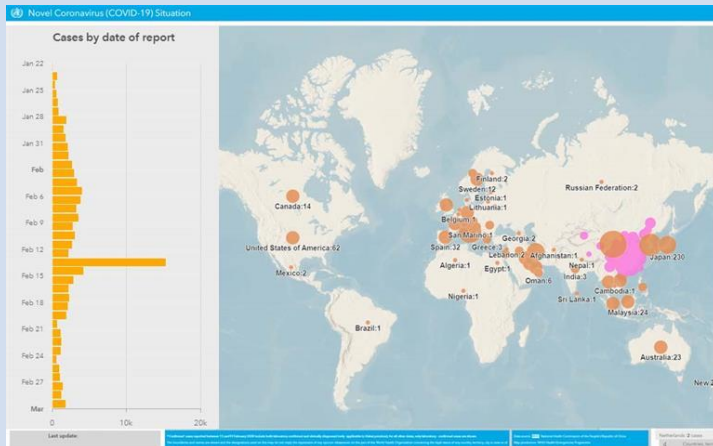
WHO/CDC/ODH: COVID-19 Outbreak

WHO

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Updated : 26 March 2020
Coronavirus (COVID-19) outbreak

- **462,684** Confirmed cases
- **20,834** Confirmed deaths
- **200** Countries, areas or territories with cases

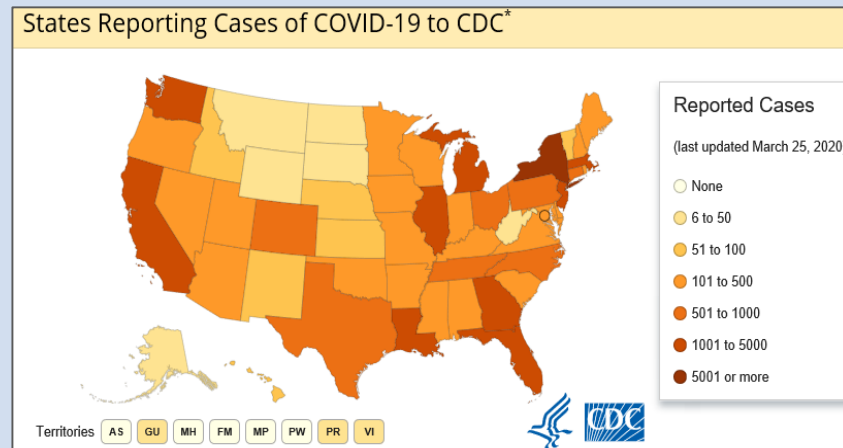


CDC

<https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

- Total cases: **68,440**
- Total deaths: **994**
- Jurisdictions reporting cases: 54 (50 states, District of Columbia, Puerto Rico, Guam, and US Virgin Islands)

* Data include both confirmed and presumptive positive cases of COVID-19 reported to CDC or tested at CDC since January 21, 2020, with the exception of testing results for persons repatriated to the United States from Wuhan, China and Japan.



ODH

<https://coronavirus.ohio.gov/wps/portal/gov/covid-19/>

- **867** Confirmed Cases in Ohio
- **91** ICU admissions
- **223** Hospitalizations in Ohio
- **15** Deaths

Number of counties with cases: 55 – Ashland (1), Ashtabula (3), Belmont (3), Butler (18), Carroll (3), Champaign (1), Clark (2), Clermont (5), Clinton (2), Columbiana (4), Coshocton (4), Crawford (1), Cuyahoga (206), Darke (1), Defiance (2), Delaware (12), Erie (2), Fairfield (5), Fayette (1), Franklin (88), Gallia (1), Geauga (4), Greene (3), Hamilton (48), Hancock (1), Highland (1), Huron (2), Knox (2), Lake (14), Lawrence (1), Licking (3), Logan (2), Lorain (37), Lucas (23), Madison (2), Mahoning (42), Marion (4), Medina (22), Mercer (1), Miami (19), Montgomery (14), Pickaway (1), Portage (4), Richland (4), Sandusky (1), Seneca (1), Stark (12), Summit (43), Trumbull (9), Tuscarawas (3), Union (3), Warren (8), Washington (1), Wayne (1), Wood (3)

Poll #1: Question for OBs

Updated March 27, 2020

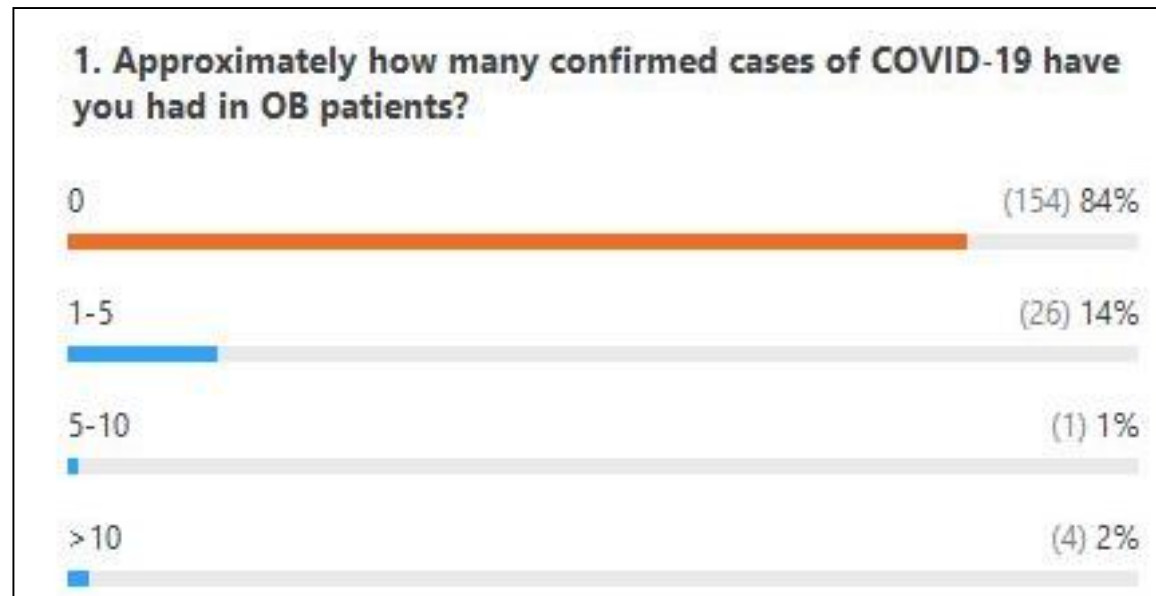
Approximately how many **confirmed** cases of COVID-19 have you had in OB patients?

0

1-5

5-10

>10

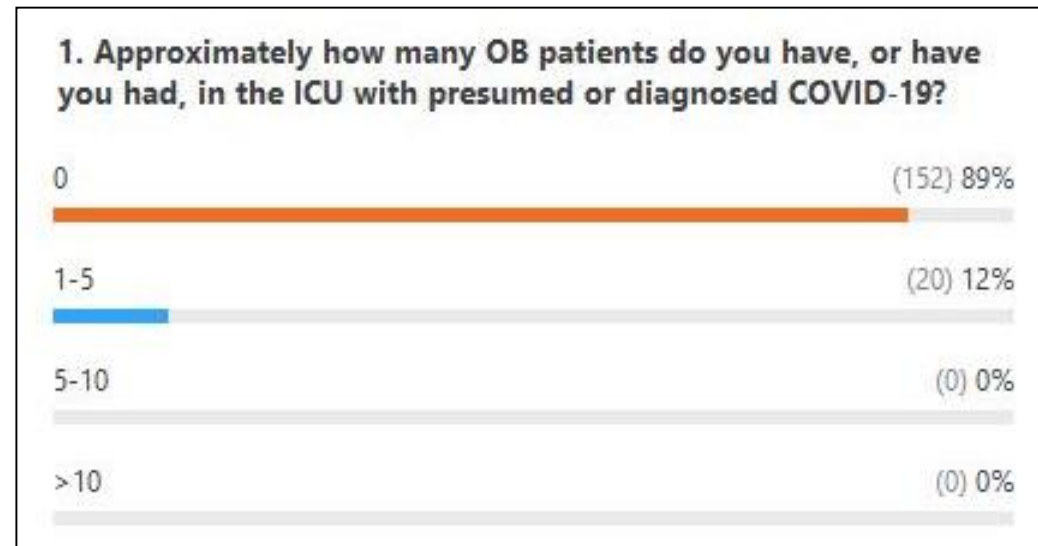


Poll #2: Question for OBs

Updated March 27, 2020

Approximately how many OB patients do you have, or have you had, *in the ICU* with presumed or diagnosed COVID-19?

- 0
- 1-5
- 5-10
- >10

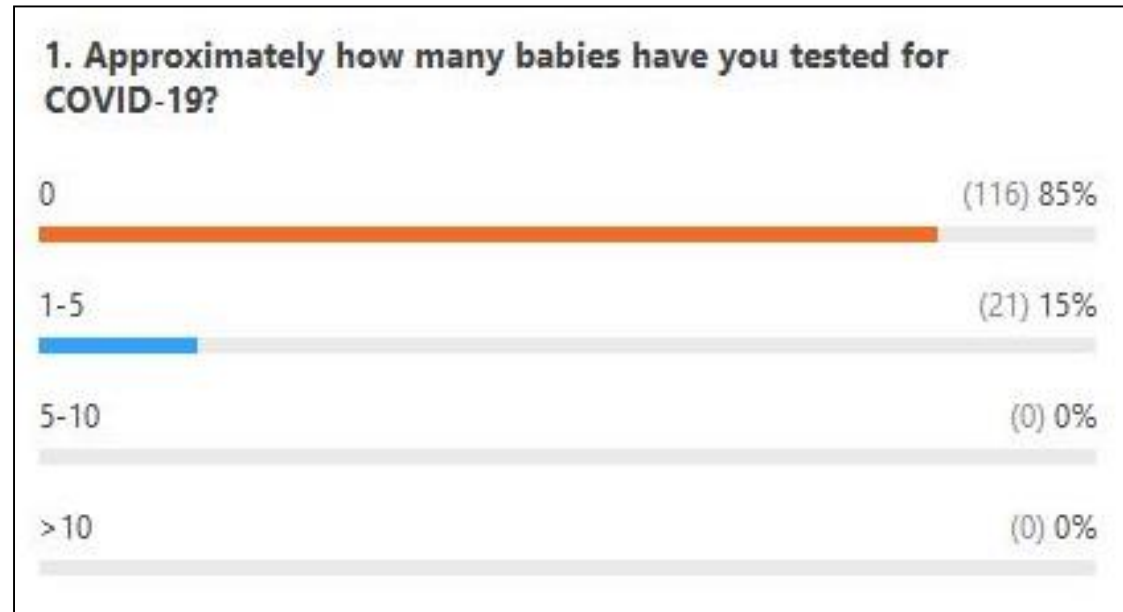


Poll #3: Question for Neo/Pediatricians

Updated March 27, 2020

Approximately how many babies have you **tested** for COVID-19?

- 0
- 1-5
- 5-10
- >10

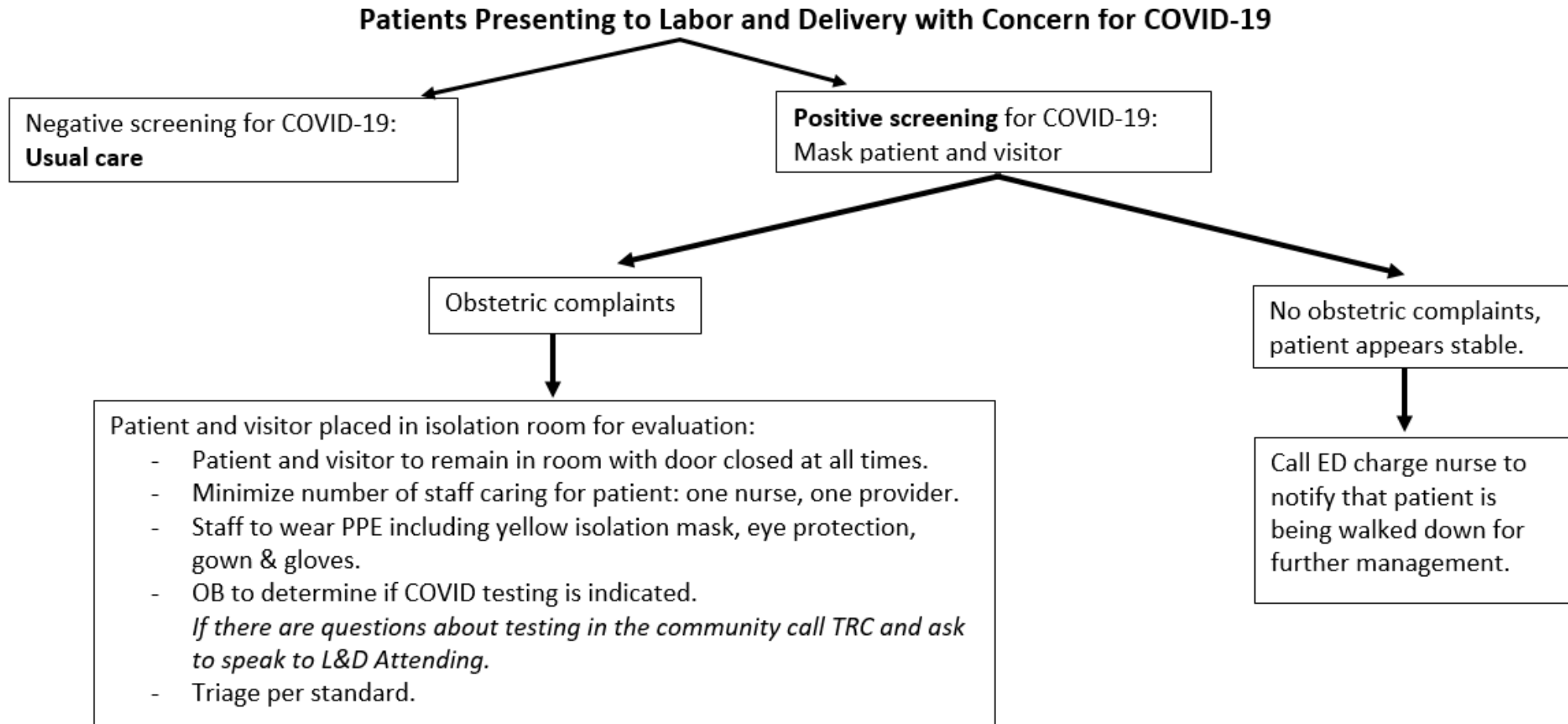


Care of an OB patient on Labor & Delivery who is probable for COVID-19

Nancy J. Cossler, MD
Chief, System Quality in Obstetrics
University Hospitals



COVID-19 OB Triage Algorithm



L&D Workflow of PUI/COVID+ Patient

Updated March 27, 2020

Identify Care Team Members

Bedside RN:	L+D Attending:
Resident:	Anesthesia:

Discuss Plan of Care on Patient Arrival and at Start of Each Shift

- Review isolation protocol and use of PPE; charge RN to distribute N95 masks as needed
- Discuss plan of care
- Discuss plans to minimize room entry/exit and exposure of multiple staff
- Review newborn care algorithm; pediatric consult for post-delivery plan

Labor

- Limit caregivers
- Bedside RN to wear N95 mask during any prolonged, face-to-face exposure (epidural placement, etc.)
- Bedside RN and Provider to wear N95 mask during second stage and delivery
- Baby RN to wear N95 mask when in delivery room
- No delayed cord clamping or skin-to-skin
- Placenta: isolated PUI/COVID+ is not an indication to send; if sent, include PUI/COVID+ on requisition
 - Consider not sending placenta for soft indications such as HTN, DM, etc.
 - Wipe outside of biohazard bag with purple sani-wipe prior to moving placenta from room
 - Placenta may be stored per usual protocol for three days

L&D Workflow of PUI/COVID+ Patient needing CD

Updated March 27, 2020

If Patient Requires Transfer to OR

- If non-urgent, clean headboard, footboard, and side rails with purple sani-wipes
- Patient wears isolation mask and a clean sheet is used to cover her for transport
- Anesthesia and RN at foot of bed do not change PPE upon exit of patient room unless visibly soiled; wear full PPE for transfer to OR (gown, gloves, N95 mask, eye protection)
- Surgeon becomes “clean person” for transfer to the OR; wears only N95; responsible for touching wall plates, door handles, etc. with clean hands; may not touch mask at any time
- If regional anesthesia is already established, visitor comes to OR at same time as patient: dons normal OR visitor attire, washes hands before exiting the room, and keeps isolation mask on en route to OR
 - In the case of a scheduled cesarean delivery, the visitor will wait in the room to be escorted
- Appropriate isolation signage is posted to OR door

On Arrival to OR

- Limit caregivers in OR; all staff wear gown, gloves, N95 mask, and eye protection
- Carefully strip the bed of linens in the OR after transfer to OR table and move bed to hallway
 - OR tech 2 immediately wipes down all bed surfaces with purple sani-wipes while wearing gown, gloves, yellow isolation mask, and eye protection
- After patient is transferred to OR table, anesthesia and RN doff gown/gloves, wash hands, don new gown/gloves
- Surgeons wash hands, don N95 mask and face shield, scrub, and enter the OR for immediate gowning/gloving
- Huddle occurs after attending and resident are gowned/gloved to preserve PPE
- OR equipment handled per usual routine; trash must be double-bagged
 - Any personal equipment used on mother or newborn (stethoscope, etc.) cleaned with purple sani-wipes
- No delayed cord clamping or skin-to-skin; placenta management as above

Transfer Back to Room for Recovery

- Anesthesia and RN at foot of bed do not change PPE upon exit of OR unless visibly soiled
- Surgeon doffs all PPE except N95 mask and is the “clean person” for transfer back to room

39 yo G6P2031 at 30 6/7 wks w/ underlying myotonic dystrophy & BAV

- 4 days of worsening SOB, cough → SpO₂ 93-94% on 4 L O₂ NC, HR 90s, RR 30s, MAP 75 mmHg
- CXray, CTPA, lung US, labs – consistent with COVID-19 but RT-PCR pending
- Rapid decompensation to SpO₂ 78%, minimal improvement w/non-rebreather → intubation / mechanical vent

READINESS	RECOGNITION	RESPONSE	REPORTING
<ul style="list-style-type: none"> • Pre-Hospital <ul style="list-style-type: none"> • Awareness • Testing • Transport • Therapies 	<ul style="list-style-type: none"> • Presentation <ul style="list-style-type: none"> • Signs Symptoms • Physiologic considerations 	<ul style="list-style-type: none"> • Bed Placement <ul style="list-style-type: none"> • Nurse : patient • Capabilities • Isolation 	<ul style="list-style-type: none"> • Internal <ul style="list-style-type: none"> • Debrief • Iris reporting • QA
<ul style="list-style-type: none"> • Hospital <ul style="list-style-type: none"> • Staffing • Bed space • Equipment • PPE • Preparedness / simulation 	<ul style="list-style-type: none"> • Work-up <ul style="list-style-type: none"> • Labs • Imaging • Ancillary teams • Point people / champions 	<ul style="list-style-type: none"> • Multi-disciplinary <ul style="list-style-type: none"> • Communication • Huddles • Assign “Captain” • Delivery preparedness & decision tree 	<ul style="list-style-type: none"> • External <ul style="list-style-type: none"> • Regional HD • State ODH • National - CDC, SMFM registry
	<ul style="list-style-type: none"> • Logistics <ul style="list-style-type: none"> • Timely triage • Timely dispo • Communication • Minimizing exposure 	<ul style="list-style-type: none"> • Treatment <ul style="list-style-type: none"> • Medications • Ventilation/Oxy • Positioning • Surveillance • Family / support • Care for self 	

COVID-19 OB Case

Updated March 27, 2020

William T. Schnettler, MD FACOG | Perinatologist
 Director, TriHealth Center for Maternal Cardiac Care & Critical Care Obstetric Task Force



TriHealth
 Critical Care Obstetrics

Case study: Mom with new onset fever in labor or postpartum -> hypothermic infant @ 20hrs

Updated March 27, 2020

- How can you tell the difference between new-onset fever in labor/post-partum related to delivery versus early signs of COVID-19?
- Do you re-screen for symptoms in the setting of a new onset fever in labor or postpartum?
- **Communication between OB/Neo/Infection Prevention especially important now!**
 - Ensuring assessment of the likely etiology of the fever is documented in the chart
 - Where do you document screening for symptoms and exposure in the medical record? Can all disciplines and provider types access?
 - How do you communicate across Nursing, OB, Pediatrics, and Infection Prevention related to....COVID + status? Probable COVID + status?

Heather Kaplan, MD, MSCE
Neonatologist- Good Samaritan Hospital



Managing the newborn when the mom has COVID-19 or is probable positive

Updated March 27, 2020

- **Maternal/Infant Separation Immediately Following Delivery:** The CDC continues to recommend maternal/infant separation in suspected or confirmed cases of COVID-19.
- Still need NRP recommendation numbers for attendance at delivery.
- Infant should be in a **separate, private room under droplet precautions.**
- Discuss benefits of cord clamping above 32 weeks.
- **Bathe** the infant as soon as he/she is stable. Do not wait until 12 hours of age.
- **The mother will identify a healthy designated caregiver to provide care for the infant.** The designated caregiver will practice **Droplet Precautions** (including gown, surgical mask, gloves, and eye protection) while in the role.

Managing the newborn when the mom has COVID-19 or is probable positive

Updated March 27, 2020



Management of the Asymptomatic Newborn: Newborn Nursery

CDC recommends separation of mother and infant

Parents agree to recommendation

Parents decline recommendation/
Separate room not available

Single patient room
Enhanced droplet
precautions

Room precautions

Mother's room; infant in
incubator >6ft from mom
Airborne + eye protection

Expressed breast milk

Feeding

Expressed breast milk or
breastfeeding with PPE

Father/labor support person
considered direct contact,
cannot visit

Visitation

Father/labor support person
wears PPE in room but does not
care for infant

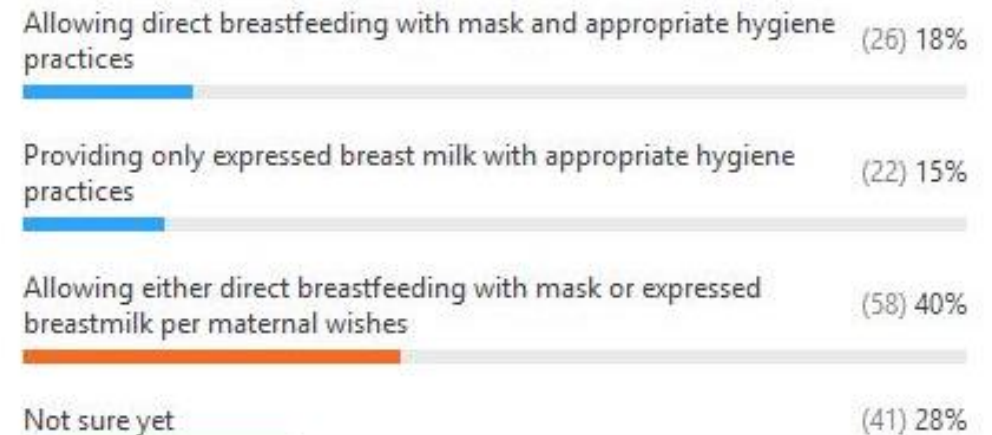
Poll Breastfeeding Q1

Updated March 27, 2020

For mothers that are **PUI** and plan to provide breastmilk or breastfeed their infants, our hospital is:

- Allowing direct breastfeeding with mask and appropriate hygiene practices
- Providing only expressed breast milk with appropriate hygiene practices
- Allowing either direct breastfeeding with mask or expressed breastmilk per maternal wishes
- Not sure yet

1. For mothers that are PUI and plan to provide breastmilk or breastfeed their infants, our hospital is:



Poll Breastfeeding Q2

Updated March 27, 2020

For mothers that are **COVID+** and plan to provide breastmilk or breastfeed their infants, our hospital is:

- Allowing direct breastfeeding with mask and appropriate hygiene practices
- Providing only expressed breast milk with appropriate hygiene practices
- Allowing either direct breastfeeding with mask or expressed breastmilk per maternal wishes
- Not sure yet

1. For mothers that are COVID+ and plan to provide breastmilk or breastfeed their infants, our hospital is:



CDC breastfeeding link

https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/maternal-or-infant-illnesses/covid-19-and-breastfeeding.html



[A-Z Index](#)

Breastfeeding

[CDC](#) > [Breastfeeding](#) > [Breastfeeding and Special Circumstances](#) > [Maternal or Infant Illnesses or Conditions](#)

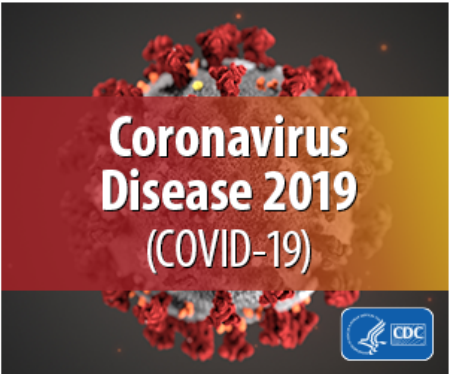


- [Breastfeeding](#)
- [About Breastfeeding](#) +
- [Data & Statistics](#) +
- [Guidelines & Recommendations](#) +
- [Breastfeeding and Special Circumstances](#) -**
- [Contraindications](#)
- [Diet and Micronutrients](#) +
- [Maternal or Infant Illnesses or Conditions](#) -**

Coronavirus Disease (COVID-19) and Breastfeeding

If you are breastfeeding and have symptoms of or confirmed COVID-19, take steps to avoid spreading the virus to your baby:

- Wash your hands before touching your baby
- Wear a face mask, if possible, while feeding at the breast
- Wash your hands before touching pump or bottle parts and clean all parts after each use



Breast Feeding with a COVID-19 Positive mom or PUI

Updated March 27, 2020

- Mothers should be encouraged to provide breast milk for her infant. Whether and how to start or continue breastfeeding should be determined by the mother in coordination with her family and healthcare providers.
- During Temporary separation, mothers who intend to breastfeed should be encouraged to express their breast milk to establish and maintain milk supply. If possible, a dedicated breast pump should be provided. If possible, consider having someone who is well feed the expressed breast milk to the infant.
- If a mother and newborn *do* room-in and the mother wishes to feed at the breast, she should put on a face mask and practice hand hygiene before each feeding.

Infant Discharge: for an infant born to a COVID-19 Positive or PUI

Updated March 27, 2020

- Infant shall be discharged when otherwise deemed medically ready. Discharge before 36-48 hours is discouraged.
- A healthy individual designated to care for the infant shall be identified when possible. ***Both infant and mother shall remain in droplet isolation while leaving the building.***
- **Direct physician to physician contact** prior to discharge.
- Consider telehealth if necessary, for discharge instructions.

Workforce Considerations for your Intrapartum Unit for COVID Response

Updated March 27, 2020

Preparing your Intrapartum Unit for COVID response: Requires Multiple, Multidisciplinary Planning Sessions!

- Provider 'pool'- restricting to OB Service only; single high-level provider designated
- Nurse Staffing Considerations: 1:1, PPE; leave phone out, remove jewelry; clear lab bag over badge
- Staff Tracker Sheet for Room entry, ED Algorithm, Outpatient prenatal care and assessment algorithms; Letters for patients; Care Guidelines/p&p
- Aerosol and other Considerations in Labor: Intubation, aerosol tx, O2 use for intrauterine resuscitation; Pushing Phase; Nitrous Oxide Use; DCC, BF; NRP- in isolette or other room; Room (negative pressure vs. room with door closed). Equipment for only single patient (thermometer, BP Cuff); Disposable food trays; Discharge: 1 day SVD, 2 day C/D.
- Support Person for Labor, PP (1: Go/No Go)
- Separate mom & baby? Yes- CDC, No- WHO (world view)
- Transport to a Higher level of Care? S&S, negative pressure rooms, Resource Availability, and Risk-Benefit Consideration for exposure (EMS, Multi facility Staff, etc)

Workforce Considerations for your Intrapartum Unit for COVID Response

Updated March 27, 2020



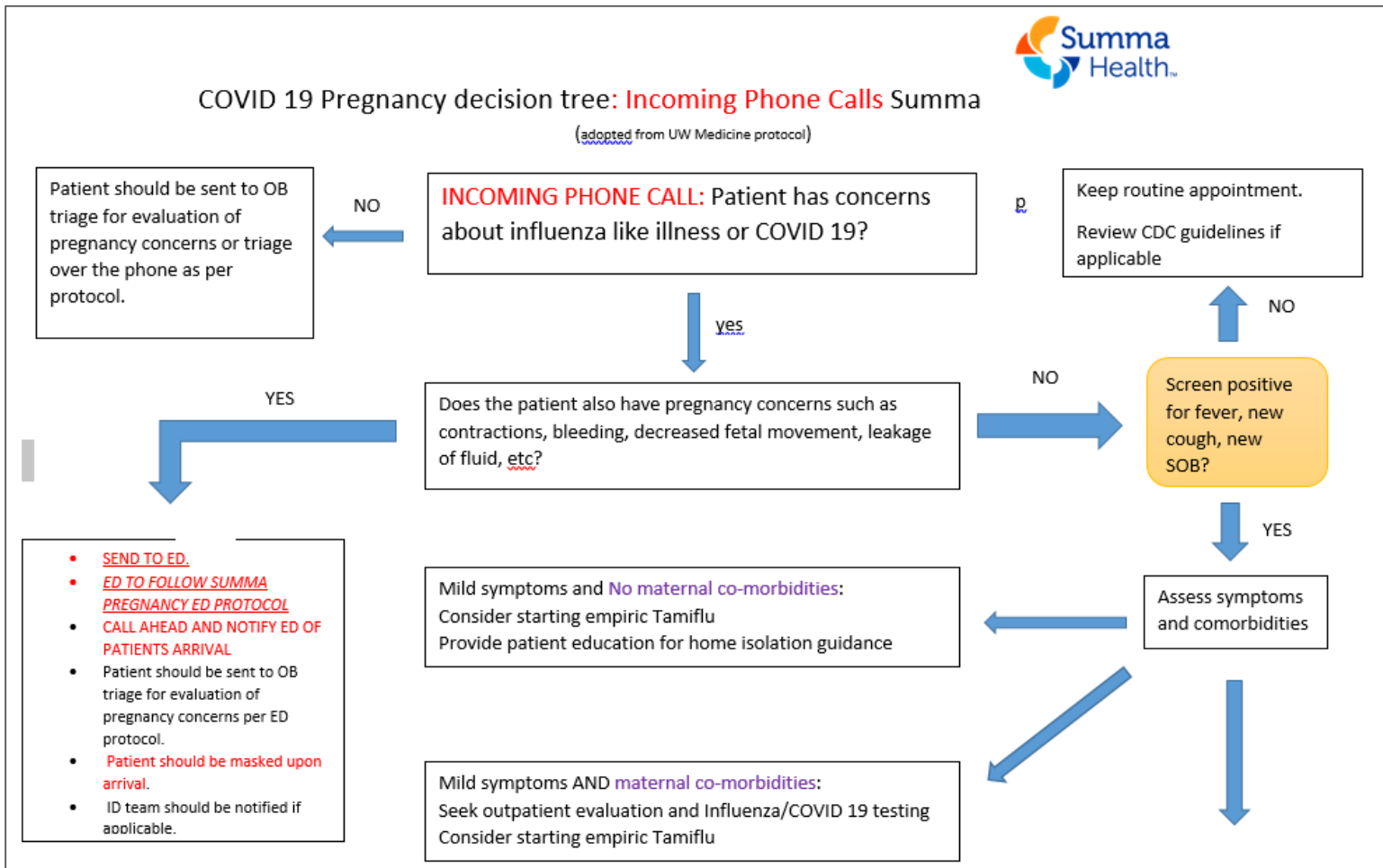
Staff Tracer Sheet Person Under Investigation (PUI) or Positive COVID

Date	Name (include employee ID #)	Time In	Time Out	Reason in room/comment	PPE donned/doffed
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles
					<input type="checkbox"/> gloves <input type="checkbox"/> N95 <input type="checkbox"/> papr <input type="checkbox"/> gown <input type="checkbox"/> face shield <input type="checkbox"/> goggles



Workforce Considerations for your Intrapartum Unit for COVID Response

Updated March 27, 2020



Maternal Co-morbidities: (consult MFM if in doubt)

- Immuno-compromised or suppressed: Transplant, inflammatory bowel disease, rheumatologic disease, Prednisone or biologics
- Obesity
- IDDM or poorly controlled DM
- Maternal cardiac disease
- Hypertensive disease in pregnancy requiring medical therapy
- Renal Insufficiency
- Moderate/Severe Respiratory Disease (Asthma, CF)
- Neurologic disease (Parkinson's, ALS, spinal cord injury, seizure disorder, CVA)
- Active Cancer

SEVERE SYMPTOMS: regardless of co-morbidities:

Immediate evaluation in the ED.

FOLLOW SUMMA ED PREGNANCY PROTOCOL

Case study: Work force adjustments in response to PUI or COVID-19 cases

Updated March 27, 2020

- While working in the outpatient clinic, your partner texts you that they woke up this morning with chest pain, shortness of breath, dry cough, myalgias, and malaise
- Recognizing their potential for them and you to potentially be infected, what steps should be reasonably taken to protect:
 - Your partner/family
 - You
 - The healthcare team
 - The hospital system

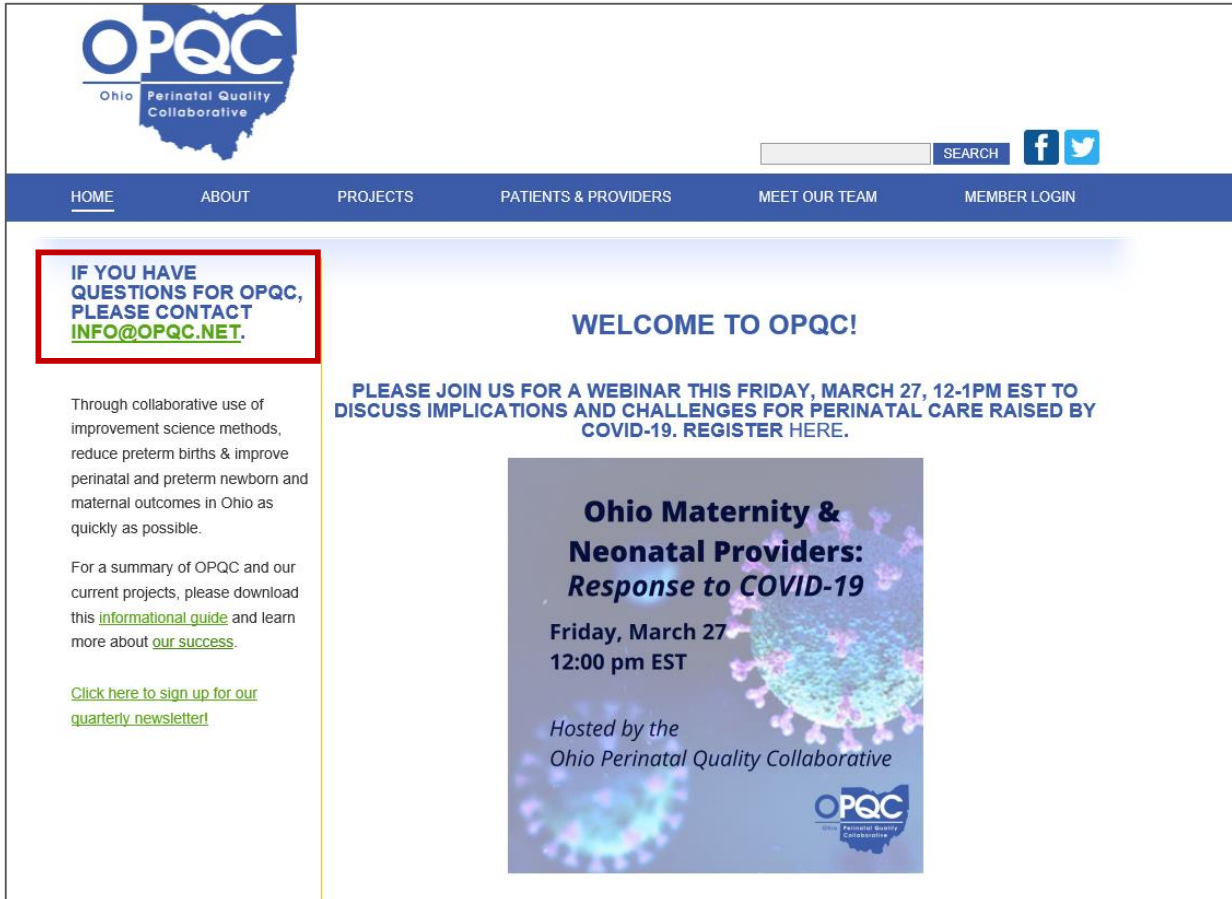
Future Discussion

Updated March 27, 2020

- Modifications to in-person prenatal care and use of telehealth in OB setting in high risk pregnancy settings
- Care for pregnant women with substance use disorder during the SARS CoV-2 pandemic
- Breastfeeding recommendations

Updated Resources on OPQC Website

Updated March 27, 2020



The screenshot shows the OPQC website homepage. At the top left is the OPQC logo (Ohio Perinatal Quality Collaborative). To the right is a search bar and social media icons for Facebook and Twitter. Below the logo is a navigation menu with links for HOME, ABOUT, PROJECTS, PATIENTS & PROVIDERS, MEET OUR TEAM, and MEMBER LOGIN. The main content area features a red-bordered box on the left with the text: "IF YOU HAVE QUESTIONS FOR OPQC, PLEASE CONTACT INFO@OPQC.NET". Below this is a paragraph about collaborative use of improvement science methods to reduce preterm births and improve outcomes. Another paragraph mentions an informational guide and success stories. A link says "Click here to sign up for our quarterly newsletter!". The center of the page has a "WELCOME TO OPQC!" heading, followed by a webinar announcement: "PLEASE JOIN US FOR A WEBINAR THIS FRIDAY, MARCH 27, 12-1PM EST TO DISCUSS IMPLICATIONS AND CHALLENGES FOR PERINATAL CARE RAISED BY COVID-19. REGISTER HERE." Below the announcement is a graphic for the webinar: "Ohio Maternity & Neonatal Providers: Response to COVID-19" on Friday, March 27, 12:00 pm EST, hosted by the Ohio Perinatal Quality Collaborative. The graphic includes the OPQC logo and a background of blue and purple virus-like particles.

The OPQC website has a list of information and resources that will be updated regularly:
<https://opqc.net/>

Contact us:
info@opqc.net

Take care out there.

It takes a village...

Updated March 27, 2020



Ohio Children's Hospital Association
Saving, protecting and enhancing children's lives



The OPQC QI projects are funded by the Medicaid Technical Assistance and Policy Program (MEDTAPP) and administered by the Ohio Colleges of Medicine Government Resource Center. The views expressed in this meeting are solely those of the authors and do not represent the views of state or federal Medicaid programs.

