



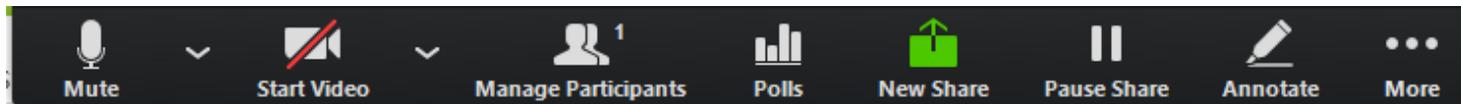
COVID-19 Strategies for OB & Neonatal Units

May 1, 2020
12:00 – 1:00pm

Welcome

Please **be certain you are on "mute"** when not speaking to avoid background noise.

Whether you have joined by phone or computer audio, you can mute and unmute yourself by clicking on the **microphone icon**.



The following shortcuts can also be used

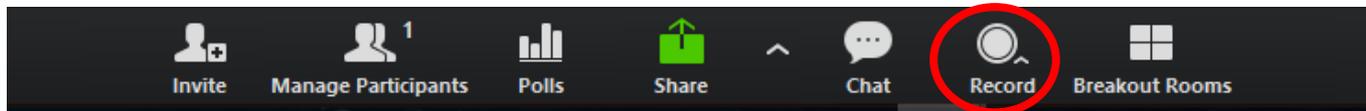
For PC: Alt + A : Mute or Unmute

For Mac: Shift + Command + A: Mute or Unmute

For telephone: *6 : Mute or Unmute

zoom

Housekeeping: We Are Recording Now



ILPQC weekly webinars



- The strategies shared today are examples from individual institutions not IDPH or ILPQC recommendations.
- Having weekly COVID-19 strategies for OB/Neonatal Units webinars every Friday at noon. Please see <https://ilpqc.org/covid-19-information/> for future webinar registration, prior recorded webinars and Q/A's from those webinars. Last week's Q/A is now posted.
- Please let us know if your hospital would like to share on an upcoming webinar, please put questions/comments into the chatbox or email directly to info@ilpqc.org

Overview



- **Introduction**
- **Discussion of OB Unit Strategies**
 - **Jeannie Kelly, MD, MS, Maternal-Fetal Medicine, Barnes Jewish Hospital**
 - **Jean Goodman, MD, Maternal Fetal Medicine, Loyola University Medical Center, Maywood**
 - **Abbe Kordik, MD, OB/GYN, University of Chicago Medical Center, Chicago**
 - **Emily Miller, MD – Maternal-Fetal Medicine, Northwestern University**
 - **Rob Abrams, MD, Executive Director - SIU Center for Maternal - Fetal Medicine, HSHS St. John's Hospital, Springfield**
- **Discussion of Neonatal Unit Strategies**
 - **Carol Hendrian, RN, Director of Obstetrics and Pediatrics, Decatur Memorial Hospital, Decatur, IL**
 - **Beau Batton, MD, Chief of Neonatology, SIU School of Medicine, HSHS St. John's Hospital, Springfield**
 - **Leslie Caldarelli, MD, NICU Director, Prentice Women's Hospital, Chicago**
 - **Justin Josephsen, MD, Medical Director – St. Mary's Hospital NICU, Neonatologist Cardinal Glennon Children's Hospital, St. Louis**

Data Update **April 29, 2020**

CDC/IDPH: COVID-19 Outbreak



CDC (4.30.2020)

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

- Total cases: **1,031,659 confirmed**
- Total deaths: **60,057 confirmed**
- Jurisdictions reporting cases: 55 (50 states, District of Columbia, Guam, Puerto Rico, the Northern Mariana Islands, and the U.S. Virgin Islands)

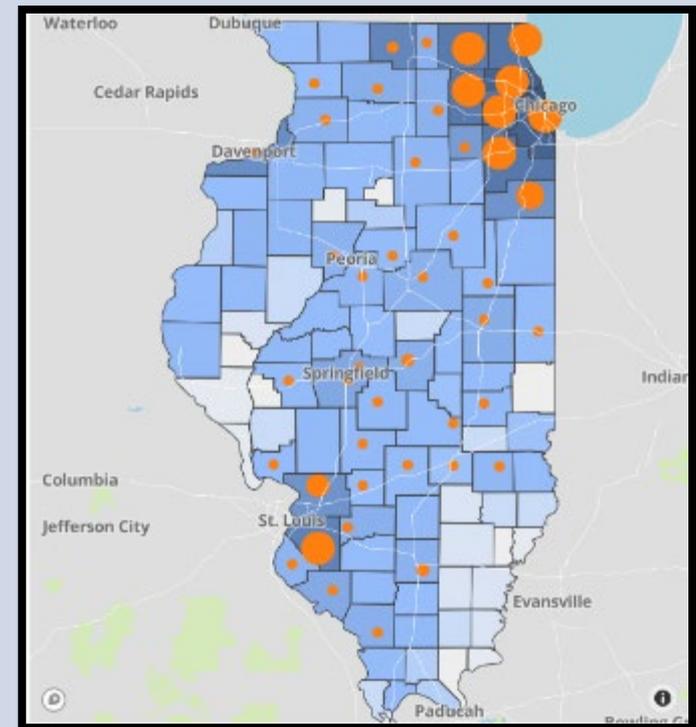
19 states report more than 10,000 cases of COVID-19.



IDPH

<https://www.dph.illinois.gov/covid19>

- **52,918** Confirmed Positive Cases
- **2,355** Deaths



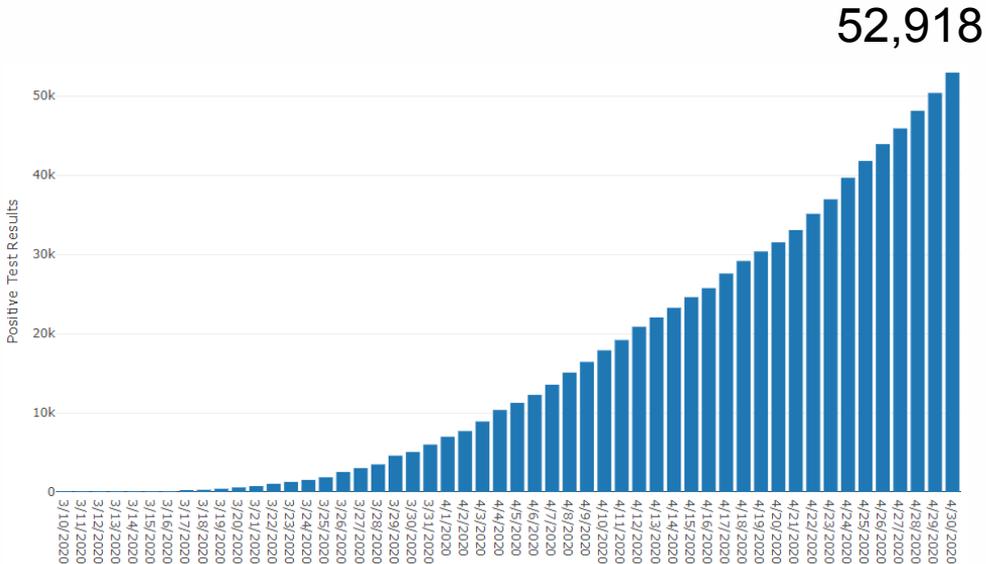
Data Update **April 29, 2020**

IDPH: COVID-19 Outbreak

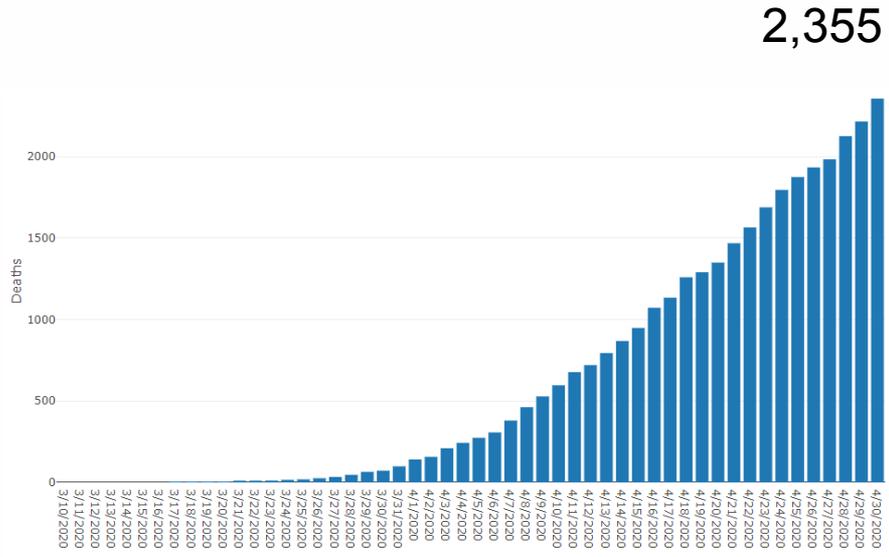
<https://www.dph.illinois.gov/covid19>



IL Positive Cases Over Time



IL Deaths Over Time



Data Update **April 29, 2020**

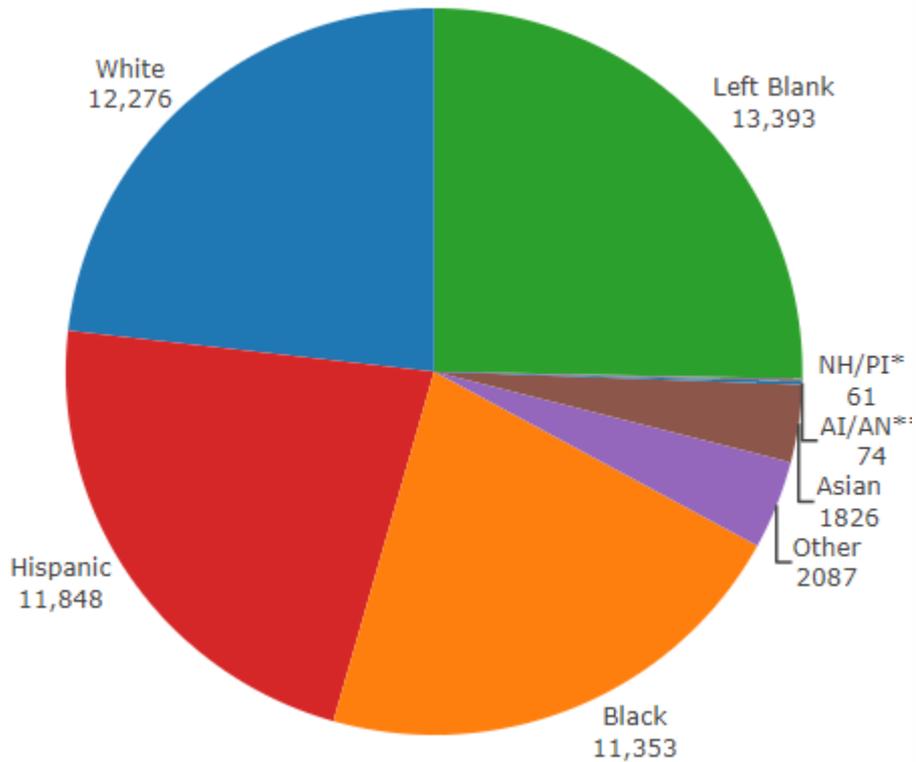
IDPH: COVID-19 Outbreak

Race Demographics

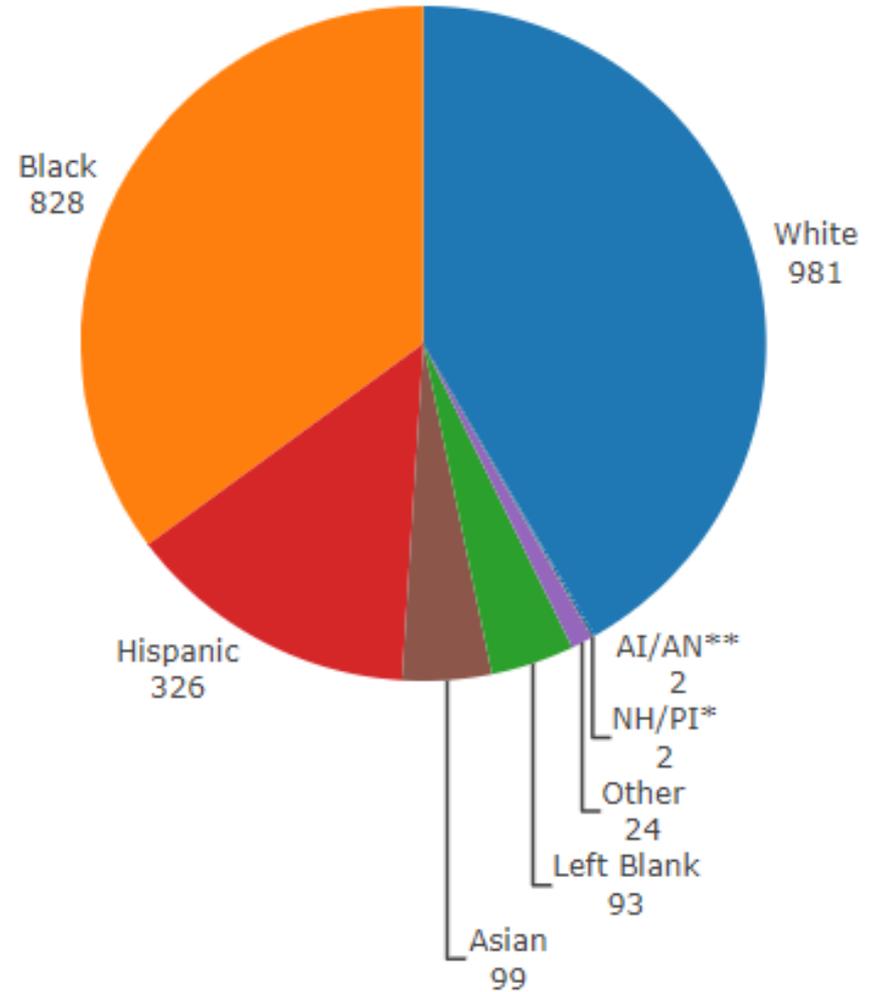
<https://www.dph.illinois.gov/covid19>



Confirmed Cases



Deaths



ILPQC COVID-19 Webpage

www.ilpqc.org



A screenshot of the ILPQC website's COVID-19 information page. The top navigation bar includes 'Home', 'About', 'Initiatives', 'News / COVID-19' (circled in red), and 'Contact'. The main heading is 'COVID-19 Information for ILPQC Hospital Teams'. The text below reads: 'Given these unprecedented times, we wanted to reach out and express our support to all of you on the front lines caring for patients and your concern for the health of our patients and for the health of each of you, your colleagues and families. We will continue to monitor national and state sources regarding the care of pregnant women and newborns during the COVID-19 crisis and will add to our monthly team webinars, we will also share COVID-19 information as it is available and hold a space for teams to share experiences. We will join us as you are able.' Below this is a message: 'Our thoughts are with those affected and continue to be affected by this crisis. Please stay safe and healthy.' A 'Resources' section lists several links: 'Example COVID-19 Hospital Policies/Protocols/Resources', 'CDC Resources', 'ACOG, SMFM, and AJOG Resources', 'Perinatal Mental Health Resources', 'COVID-19 National Registries', and 'Relevant News Articles'. The first link is highlighted with a blue underline.

ILPQC posts national guidelines and OB & Neonatal COVID-19 example hospital protocols & resources

please note dates as guidelines are changing rapidly

<https://ilpqc.org/covid-19-information/>

Updated OB/Neo Resources



- [AAP- Initial Guidance: Management of Infants Born to Mothers with COVID-19 \(4.2.2020\)](#)
- [NEJM: Universal Screening for SARS-COV-2 in Women Admitted for Delivery \(4.13.2020\)**](#)
- [SMFM and SOAP: Labor and Delivery COVID-19 Considerations \(4.14.2020\)](#)
- CDC: [COVID-19 OB Care FAQs \(4.16.2020\)](#)
- ACOG: [COVID-19 Practice Advisory \(4.23.2020\)](#)
- AJOG: [Coronavirus disease 2019 \(COVID-19\) in pregnant women: A report based on 116 cases from China \(4.23.2020\)](#)
- ACOG & SMFM: [COVID-19 Algorithm \(Shared 4.23.2020\)](#)
- SMFM: [Online Learning Resources \(4.24.2020\)](#)
- [FDA Warning on Hydroxychloroquine \(4.24.2020\)](#)
- AJOG: [False-Negative COVID-19 Testing: Considerations in Obstetrical Care \(4.28.2020\)](#)
- SMFM: [Management Considerations for Pregnant Patients With COVID-19 \(4.29.2020\)](#)
- ACOG: [UPDATED COVID-19 FAQs for Obstetrician–Gynecologists, Gynecology \(4.29.2020\)](#)

IDPH Communications

- IDPH: [COVID-19 Considerations for Healthcare Providers in ANY Healthcare Setting](#) (4.26.2020)
- IDPH: [COVID-19 Elective Surgeries & Procedures](#) (4.24.2020)
- IDPH: [Recommended Guidance for the Care of Pregnant Women and Newborns During the COVID-19 Pandemic](#) (3.30.2020)

ILPQC COVID-19 Webpage Resources

- Please click [here](#) for COVID-19 resource webpage

New Patient Education Resources

- ACOG: [COVID-19 Pregnancy & Breastfeeding: A Message to Patients](#) (English & Spanish) (4.16.2020)
- Advocate Children's Hospital: [Caring for Your Infant During the COVID-19 Pandemic](#) (4.14.2020)
- ["Is It Safe to Provide Milk for My Baby if I Have, or Have Been Exposed to, COVID-19?"](#) (Adapted by ILPQC with permissions 4/2020)
- ["If Your Doctors Suspect You Have COVID-19"](#) (Adapted by ILPQC with permissions 4/2020)
- March of Dimes: [COVID-19: What You Need to Know About Its Impact on Moms and Babies](#) (4.8.2020)
- [IL EverThrive: Protecting and Caring for Your Family During the Coronavirus Outbreak](#) (4.3.2020)
- [SMFM Information for Women & Families](#) (4.3.2020)
- [The 4th Trimester Project's patient education website on COVID-19 For New Moms](#) (3.2020)



COVID-19 OB & Neonatal National Registries



OB Registry:

- **PRIORITY:** Nationwide registry established by UCSF for pregnant and postpartum women with suspected COVID-19 or confirmed diagnosis. The goal is to gather a high volume of nationwide data quickly.
- CDC is collecting surveillance data on pregnant women with COVID through a supplement to the regular case report form (CRF), which should be completed on all COVID-19 cases. The [CRF can be found online](#).

Neonatal Registry:

- Section Perina

IL Perinatal Depression & Anxiety Hotline



- Answered live 24/7
- Staffed by licensed mental health professionals trained in perinatal mood & anxiety disorders
- Support for moms, partners, families & providers



[Masks for MOMs wants to get reusable cloth face masks to the moms and moms-to-be who need them in the Chicago-land area.](#)

The aim is to ensure that pregnant moms from vulnerable communities have access to face masks at their prenatal visits and when they arrive at hospitals for delivery.

[Find out more & sign-up to volunteer at https://bit.ly/masksforMOMs](#)

MASKS FOR MOMS

HELPING MOMS &
BABIES STAY SAFE



DONATE CDC APPROVED HANDMADE MASKS FOR EXPECTANT MOMS IN THE CHICAGOLAND AREA.

GET INVOLVED: [BIT.LY/MASKSFORMOMS](https://bit.ly/masksformoms)

EMAIL INFO@BLACKGIRLSBREAKBREAD.ORG FOR MORE INFO.

DONORS SHOULD SPECIFY THE TYPE AND QUANTITY OF MASKS AND WHETHER THEY CAN BE DELIVERED OR PICKED UP, AND INCLUDE THEIR EMAIL ADDRESS AND PHONE NUMBER.

BLACK GIRLS
BREAK BREAD™

Every
Thrive
Illinois
Coalition of
Black Communities

IL & PQC
Black Parents
Quality Collaborative

ADDCS COMMUNITY
HEALTH
NETWORK
TRANSFORMING COMMUNITY HEALTH CARE

I PROMOTE IL
LEADERSHIP IN IMPROVING
RELIABILITY OF SAFETY

UIC
OFFICE of Community Engagement
OUR NEIGHBORHOODS
THRIVE

IDPH

UIC

Center of Excellence in
Maternal and Child Health

AllianceChicago
Partnering for Better Health

WEST SIDE UNITED: Building Blocks
to Better Health

DISCUSSION OF OB UNIT STRATEGIES

Maternal Fetal Medicine, Barnes Jewish Hospital, St. Louis, IL

JEANNIE KELLY, MD, MS

Barnes-Jewish Hospital affiliated with Washington University Physicians St. Louis, Missouri

10,125
employees
1,266 beds

Parkview Tower
Opened Feb. 2018

Women and Infants

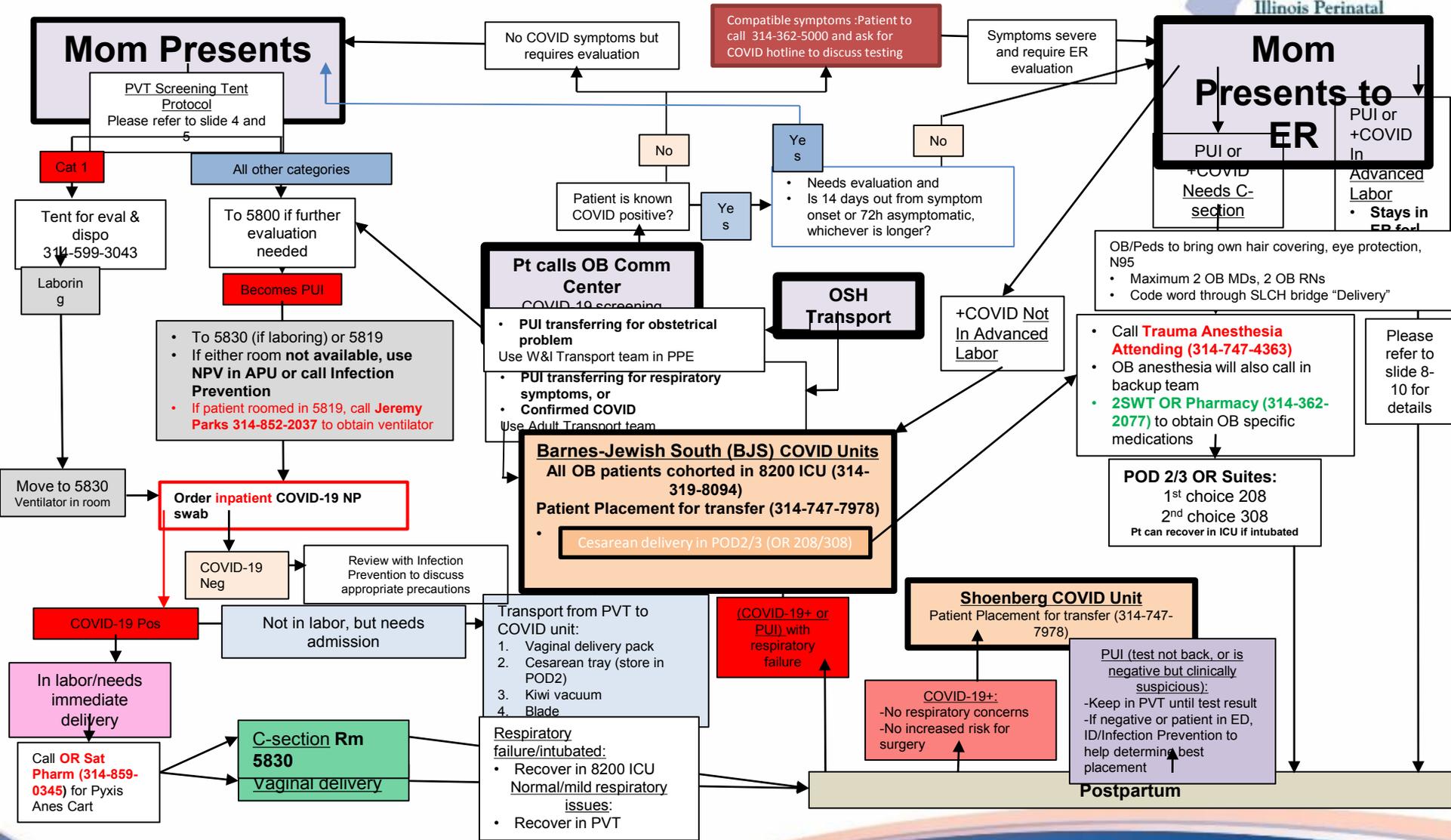
- 18 Labor rooms
- 12 Triage bed unit
- 18 Antepartum bed unit
- 34 Postpartum bed unit
- 3 OR's
 - 1 for Fetal Surgery

3,665 Deliveries

545 Inbound Maternal
Transfers

150 Bed NICU St. Louis
Children's Hospital
(August 2020)





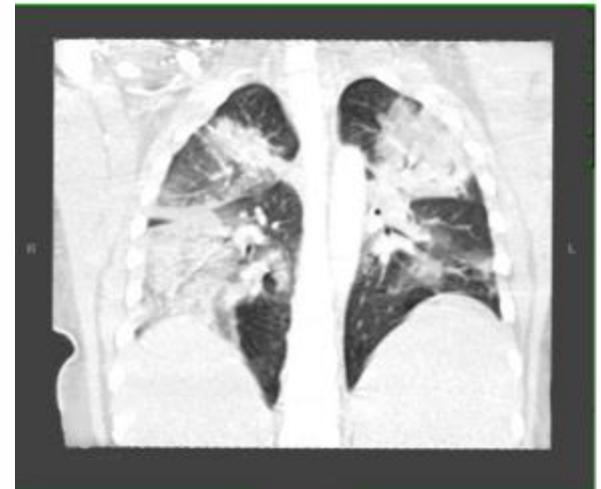
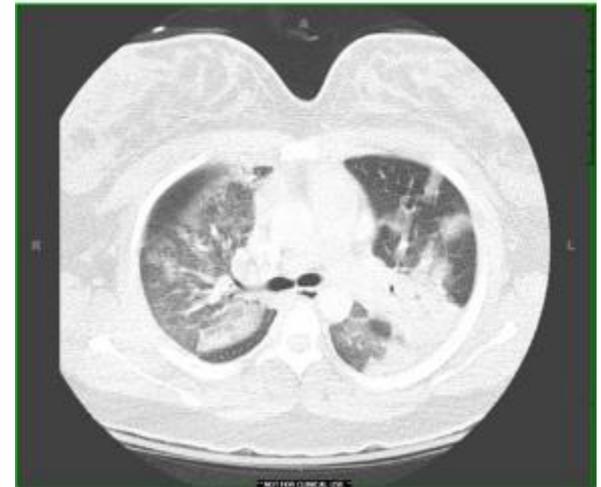
Case

- A 33 wk primip* presented with contractions, emesis, cough x2d
 - Healthy
 - Cervix long, closed
 - Fetus reassuring on NST, well grown
 - COVID-19 nasopharyngeal swab sent
 - Status worsened, transferred to COVID-19 ICU

Days since symptoms	2	3	
Temperature (°C)	38.0	39.2	39.0
Heart rate (beats per minute)	119	126	146
Respiratory rate (per minute)	18	22	46
Blood pressure (mmHg)	100/85	96/50	112/62
White-cell count (per mm ³)	3.8	3.2	4.8
Absolute lymphocyte count (per mm ³)	0.6	0.5	0.6
Hemoglobin (g/dl)	10.7	9.5	9.9
Platelet count (per mm ³)	198,000	186,000	186,000
Aspartate aminotransferase (U/liter)	74	62	64
Alanine aminotransferase (U/liter)	52	45	41
Carbon dioxide (mmol/liter)	16	16	16
Creatinine (mg/dl)	0.72	0.64	0.70
C-reactive protein (mg/liter)	-	-	65.3
Lactate (mmol/liter)	-	0.9	1.3
D-dimer (ng/ml)	-	-	1,887

*age omitted to protect identity

- First swab noted to be sent to OSH
- Second swab sent to in-house lab
 - Both resulted negative
- Third swab sent: negative
- CT-scan obtained demonstrating bilateral disease
- Respiratory status worsened
 - Patient intubated, resuscitated
 - Delivered for worsening status, NRFHS
- **BAL returned COVID positive**



Learning Points

- False negative testing is clinical reality across multiple platforms
 - A negative test result does not rule out COVID-19
 - Specialized nursing team collects all NP swabs
- Should not de-escalate precautions based solely on negative test
 - Infection Prevention now reviews all cases and controls precautions
- True population estimates of the disease are likely underestimated
- Caution with using universal testing to determine PPE



American Journal of Obstetrics & Gynecology
MFM

Available online 28 April 2020, 100130

In Press, Journal Pre-proof 



COVID-19 Pregnancy Research

False-Negative COVID-19 Testing: Considerations in Obstetrical Care

Jeannie C. Kelly MD MS ¹  , Michael Dombrowski MD ¹, Micaela O'neil-Callahan MD ², Annessa S. Kernberg MD ¹, Antonina I. Frolova MD PhD ¹, Molly J. Stout MD MSCI ¹

 **Show more**

<https://doi.org/10.1016/j.ajogmf.2020.100130>

[Get rights and content](#)

Keywords

COVID-19; SARS-CoV-2; pregnancy; coronavirus; diagnostic test sensitivity

Current reports of false-negative RT-PCR nasal and/or pharyngeal testing for COVID-19

Author	Country of origin	Study design	Primary aim	Total N	False negatives (%)	Positive on 1st test (%)	Positive on 2nd test (%)	Positive on 3rd test (%)	Maximum tests to obtain positive
Xiao ¹	China	Case series	Review of all RT-PCR tests that turned positive after initial negative test in one hospital	70	70 (100)	0 (0)	55 (78.6)	15 (21.4)	3
Ai ²	China	Retrospective cohort	Comparison of chest CT with RT-PCR	1014	250* (24.7)	601 (59)	NS	NS	NS
Long ³	China	Retrospective cohort	Comparison of chest CT with RT-PCR	36	6 (16.7)	30 (83.3)	3 (8.3)	3 (8.3)	3
Li ⁴	China	Retrospective cohort	Review of RT-PCR tests in all patients diagnosed with COVID-19 in one hospital	610	384 (63.0)	168 (27.5)	48 (7.9)	7 (1.1)	5
Wang ⁵	China	Case report	Case report from Beijing	1	1 (100)	0 (0)	0 (0)	0 (0)	BAL required
Guo ⁶	China	Retrospective cohort	Comparison of serum antibody testing with RT-PCR	208	58 (27.9)	NS	NS	NS	NS
Chen ⁷	China	Case report	Case report from Hangzhou	1	1 (100)	0 (0)	1 (100)	0	2
Li ⁸	China	Case series	2-patient case series from Beijing	2	2 (100)	0 (0)	1 (50%)	1 (50%)	2
Feng ⁹	China	Case report	Case report from Zigong	1	1 (100)	0 (0)	0 (0)	0 (0)	5
<i>Fang¹⁰</i>	China	Retrospective cohort	Comparison of chest CT with RT-PCR	51	15 (29.4)	36 (70.6)	12 (23.5)	2 (3.9)	4
<i>Wang¹¹</i>	China	Retrospective cohort	Comparison of RT-PCR results in different anatomical samples of confirmed cases	Nasal: 8 Pharyngeal: 398	Nasal: 3 (37.5) Pharyngeal: 272 (68.3)	NS	NS	NS	NS
<i>Yang¹²</i>	China	Retrospective cohort	Comparison of RT-PCR results in different anatomical samples and time points of confirmed cases**	Nasal: 445 Throat: 158	Nasal: 157 (35.3) Throat: 74 (46.8)	NS	NS	NS	NS

NS: not specified

Author names italicized for publications also referenced in manuscript (10-12)

*Based on CT-scan findings and clinical correlation, or repeat RT-PCR

** Results from 14 days of symptom onset included

WUSM CCM/MFM Guidelines



- [Women & Infants COVID-19 Flow Chart \(4.24.2020\)](#)
- [COVID-19 Critical Care in Pregnancy \(4.7.2020\)](#)

OB Discussion Panel



- **Jeannie Kelly, MD, MS**, Maternal-Fetal Medicine, Barnes Jewish Hospital
- **Jean Goodman, MD**, Maternal Fetal Medicine, Loyola University Medical Center, Maywood
- **Abbe Kordik, MD**, OB/GYN, University of Chicago Medical Center, Chicago
- **Emily Miller, MD** – Maternal-Fetal Medicine, Northwestern University
- **Rob Abrams, MD**, Executive Director - SIU Center for Maternal - Fetal Medicine, HSHS St. John's Hospital, Springfield

- [Delivery Guidelines](#) (4.25.2020)
- [ON DVT PROPHYLAXIS & D-DIMER IN COVID-19 PATIENTS](#) (4.15.2020)
- [OB Unit COVID-19 Plan](#) (4.6.2020)

University of Chicago Medical Center OB Strategies



- COVID-19 L&D Pathways [ILI Patient](#) (4.20.2020) & [Asymptomatic Patient](#) (4.17.2020)
- [UCM COVID-19 Inpatient Standard Procedure](#) (4.1.2020)
- UCM COVID-19 [Hospital Policies](#) and [Patient & Provider Video](#) (3.31.2020)
- [UCM Outpatient Management of COVID-19 +/-ILI/PUI Patients](#) (4.1.2020)

Northwestern Memorial Hospital OB Strategies



- Northwestern Medicine COVID-19 Resources
 - [OB Universal Testing Protocol: Scheduled Admissions](#) (4.14.2020)
 - [OB Universal Testing Protocol: Unscheduled Admissions](#) (4.14.2020)
 - [High Risk Exposure Protocol](#) (4.14.2020)
 - [Baby Circumcision](#) (4.13.2020)
 - [Prior COVID-19+ Test Protocol](#) (4.10.2020)
 - [OB PPE Table](#) (4.10.2020)
 - [Mom-Baby Postpartum Testing Protocol](#) (4.7.2020)

SIU Obstetric COVID 19 Resources



- SIU Health: [COVID-19: Changes in Pregnancy and Maternity Care Advice for Women and Their Families](#) (4.16.2020)
- SIU COVID-19 Resources: [SIU COVID + and PUI Education for Huddles](#) (4.14.2020)
- [Easy to understand donning/doffing PPE PAPR instructions](#) (4.13.2020)
- [SIU L&D Checklist: Admission of COVID-19 + Patient or PUI](#) (4.9.2020)
- SIU COVID Simulations: [Antenatal Admission, Labor & Vaginal Delivery](#), and [Cesarean Delivery](#) (4.2.2020)

OB Questions/Discussion

- Questions from chat box
- Questions from registration
- [Q/A from 4.24.2020 webinar \(OB answers\)](#)
- [Q/A from 4.17.2020 webinar](#)
- [Q/A from 4.10.2020 webinar](#)
- [Q/A from 4.3.2020 webinar](#)

DISCUSSION OF NEONATAL UNIT STRATEGIES

Discussion Panel



- **Carol Hendrian, RN**, Director of Obstetrics and Pediatrics, Decatur Memorial Hospital, Decatur, IL
- **Beau Batton, MD**, Chief of Neonatology, SIU School of Medicine, HSHS St. John's Hospital, Springfield
- **Justin Josephsen, MD**, Medical Director – St. Mary's Hospital NICU, Neonatologist Cardinal Glennon Children's Hospital, St. Louis
- **Leslie Caldarelli, MD**, NICU Director, Prentice Women's Hospital, Chicago

Director of Obstetrics and Pediatrics, Decatur Memorial Hospital, Decatur, IL

CAROL HENDRIAN, RN

DECATUR MEMORIAL HOSPITAL



750 Deliveries per year
18 beds (9LDRP) on OB unit
4 bed Level II Nursery
2 OR's with PACU

South Central Illinois
Perinatal Network



PRESENTATION OF PATIENT

- ▶ Patient presented to our unit two days in a row 3-25, 3/26 for pregnancy related complaints/NST
- ▶ Patient had no symptoms of COVID EVER
- ▶ Patient was notified by her employer on 3/31/2020 that he was positive and she was exposed and should be tested
- ▶ At this point patient was having mild hypertension and was scheduled for induction 4/6/2020
- ▶ Patient was tested on 3/31/2020—patient remained asymptomatic
- ▶ Result returned positive on 4/4/2020

GROUND WORK

- ▶ There were multiple calls with health department, respiratory clinic, infectious disease specialists, obstetricians, pediatricians, administrators, and patient for plan of action.
 - ▶ Obstetrician was still off work for exposure to this patient
 - ▶ OB Unit had 5 staff members off for exposure to this patient during asymptomatic time
 - ▶ Negative pressure room ready for use for both mom and baby
 - ▶ Plan with dry runs to remove baby from mom at time of delivery and care for in separate room
 - ▶ Mom aware of plans

DELIVERY

- ▶ Induction began at 4am on 3/6/2020
- ▶ Patient complete at 1940
- ▶ Delivered at 2021
 - ▶ Weight 3255 Grams
 - ▶ APGARS 8-9
 - ▶ Mom Blood Loss 300ml
 - ▶ In attendance during delivery-mom, mom's aunt, labor nurse, doctor
 - ▶ Two level 2 nurses available—one dressed and ready to go into room for resuscitation and/or take baby and place in isolette for transport across hall

POST DELIVERY

- ▶ Per Health Department mom was “cleared” 4/7/2020 at 1500 because mom was “symptom free for 7 days”
- ▶ Baby was kept in negative air pressure with COVID swabs done at 24 hours
- ▶ 4/7/2020 1530 baby returned to mom in her negative pressure room observing distancing in room, gown, handwashing, breast washing, and mask for any interaction with baby. We had “cooling” issues in the room. Baby had 96.7 temp X2. Kept baby for observation.
- ▶ 48 hour COVID testing completed—Both 24 and 48 hour tests on baby negative.
- ▶ Discharged home 4/10/20

NEONATAL QUESTIONS/DISCUSSION

Neonatal Questions/Discussion

- Questions from chat box
- Questions from meeting registration
- Q/A from 4.24.2000 webinar ([Neonatal Answers](#))
- Q/A from [4.17.2020](#) webinar
- [Q/A from 4.10.2020 webinar](#)
- [Q/A from 4.3.2020 webinar](#)

Thank You

- We continue to give thanks to the nurses, doctors, health care workers, public health teams and others across our state at work confronting the COVID-19 pandemic.
- Please send questions, comments and recommendations, cases / willingness to share for future COVID-19 OB/Neo discussion webinars to info@ilpqc.org
- Recording of this webinar will be available at www.ilpqc.org



THANKS TO OUR

FUNDERS



JB & MK PRITZKER

Family Foundation

Email info@ilpqc.org or visit us at www.ilpqc.org