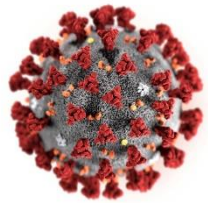
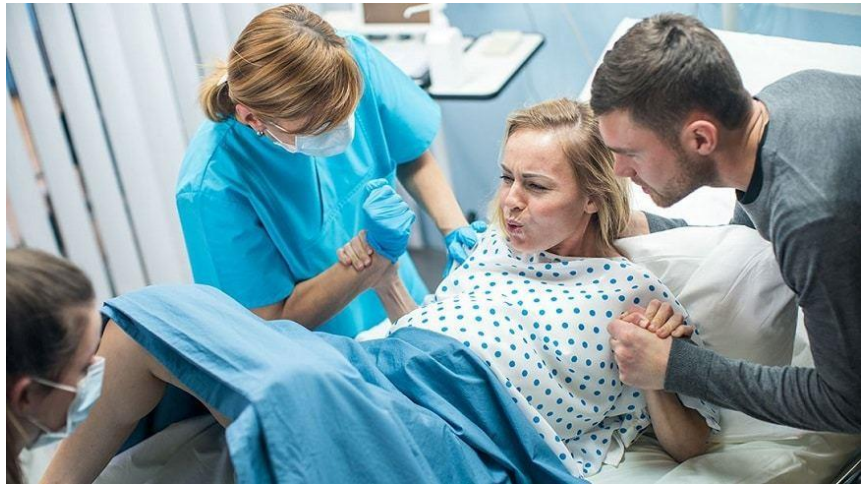


COVID-19: gestantes e transmissão vertical



Aline Carralas Queiroz de Leão

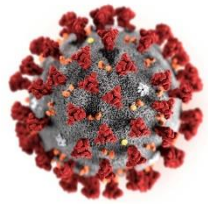
18/06/2020

CRT Programa Estadual Centro de Referência e Treinamento DST/AIDS-SP

CASA DA PESQUISA CRT DST/AIDS-SP

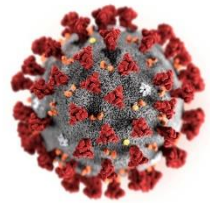
Instituto de Infectologia EMÍLIO RIBAS

Declaração de Conflito de Interesse



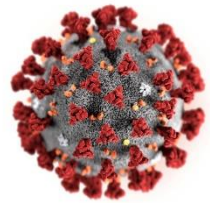
- Supervisora de Equipe Médica do Ambulatório do Instituto de Infectologia Emílio Ribas
- Médica Infectologista do CRT DST-AIDS SP
  - Ambulatório de Pré-Natal
- Médica Pesquisadora da Casa da Pesquisa do CRT DST-AIDS SP
- Atividades de Pesquisa Clínica
  - Sub-investigadora de estudos clínicos
    - GSK/ViiV, AbbVie, Gilead, Amgen Inc, NIH, UHN
- **Sem conflitos de interesse para essa aula**

Agenda



- Epidemiologia COVID-19
- Evidências científicas em gestantes
- Transmissão Vertical
- Parto
- Aleitamento materno
- Cuidados na prática clínica no CRT
- Conclusões

Agenda



- **Epidemiologia COVID-19**
- Evidências científicas em gestantes
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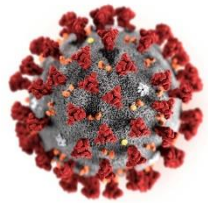
- Conclusões

COVID-19



Seven Human Coronaviruses (HCoVs)

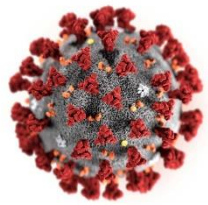
- **Common HCoVs (lower pathogenicity):**
  - HCoV-229E (alpha)
  - HCoV-NL63 (alpha)
  - HCoV-OC43 (beta)
  - HCoV-HKU1 (beta)
- **Other HCoVs (higher pathogenicity):**
  - SARS-CoV (beta)
  - MERS-CoV (beta)
  - **SARS-CoV-2*** (beta)

The illness COVID-19 is caused by SARS-CoV-2, which is more like SARS-CoV than MERS-CoV

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it

BOLETIM DIÁRIO COVID-19 Nº83

SUS CIDADE DE SÃO PAULO SAÚDE

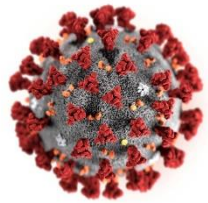


Dados atualizados em 17/06/2020. Horário: 15:00

Casos Confirmados, Suspeitos e Óbitos Confirmados

	SUSPEITOS	CONFIRMADOS		ÓBITOS			
		Casos Confirmados	Variação dia anterior %	SIVEP	Variação dia anterior %	PRO-AIM	Variação dia anterior %
Mundo	...	8.196.735	1,7	444.249	1,5	...	...
Brasil	...	923.189	3,9	45.241	2,9	...	...
Estado de São Paulo	...	190.285	4,9	11.132	3,4	...	...
Município de São Paulo	**235.037**	**109.192**	**3,3**	**5.997**	**2,2**	**5.942**	**2,9**

Fonte: Johns Hopkins - Coronavirus resource center (Mundo e Brasil); CVE-SES-SP (Estado SP); DVE/ COVISA – Sivep-Gripe/ E-SUS VE (dados município de São Paulo) atualizados em 17/06/2020 e *SIM Proaim SMS- SP atualizados em 16/06/2020



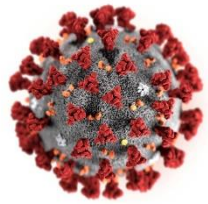
Evolução dos Óbitos – MSP (SIM / SMS-SP)

Município de São Paulo	COVID-19 Confirmados	COVID-19 Suspeitos	Total
9-jun	5.123	4.642	9.765
10-jun	5.206	4.792	9.998
11-jun	5.252	4.822	10.074
12-jun	5.366	4.794	10.160
13-jun	5.428	4.823	10.251
14-jun	5.474	4.847	10.321
15-jun	5.772	4.860	10.632
16-jun	**5.942**	**4.818**	**10.760**

Novo Coronavírus (COVID-19)

Situação Epidemiológica

GOVERNO DO ESTADO SÃO PAULO



Atualização: 16/06/2020 06:03:00

Situação em números de COVID-19 (casos confirmados e óbitos)

Mundial	Óbitos Mundiais	Estado de São Paulo	Óbitos Estado de São Paulo
7.941.791	434.796	190.285 ¥	11.132 ¥

*FONTE: World Health Organization - Coronavirus Disease 2019 (COVID-19) Data: 16/06/2020 00:00:00 GMT 00:00

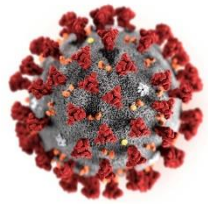
¥ FONTE: CVE/CCD/SES-SP

Casos e óbitos confirmados para COVID-19, acumulados até 16/06/2020. Estado de São Paulo

Novo Coronavírus (COVID-19)

Situação Epidemiológica

GOVERNO DO ESTADO SÃO PAULO



Atualização: 16/06/2020 06:03:00

Óbitos por COVID-19 por fatores de risco*
Estado de São Paulo

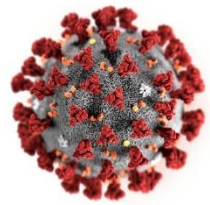
Cardiopatia	58,1%
Diabetes Mellitus	43,0%
Doença Neurológica	11,2%
Doença Renal	10,0%
Pneumopatia	8,7%
Obesidade	7,0%
Imunodepressão	6,5%
Asma	3,2%
Doença Hepática	2,3%
Doença Hematológica	2,1%
Síndrome de Down	0,4%
Puérpera	0,2%
Gestante	0,1%

*o somatório excede o n total de pessoas com fatores de risco devido às múltiplas respostas.
Fonte: SIVEP-Gripe, dados sujeitos a alteração.

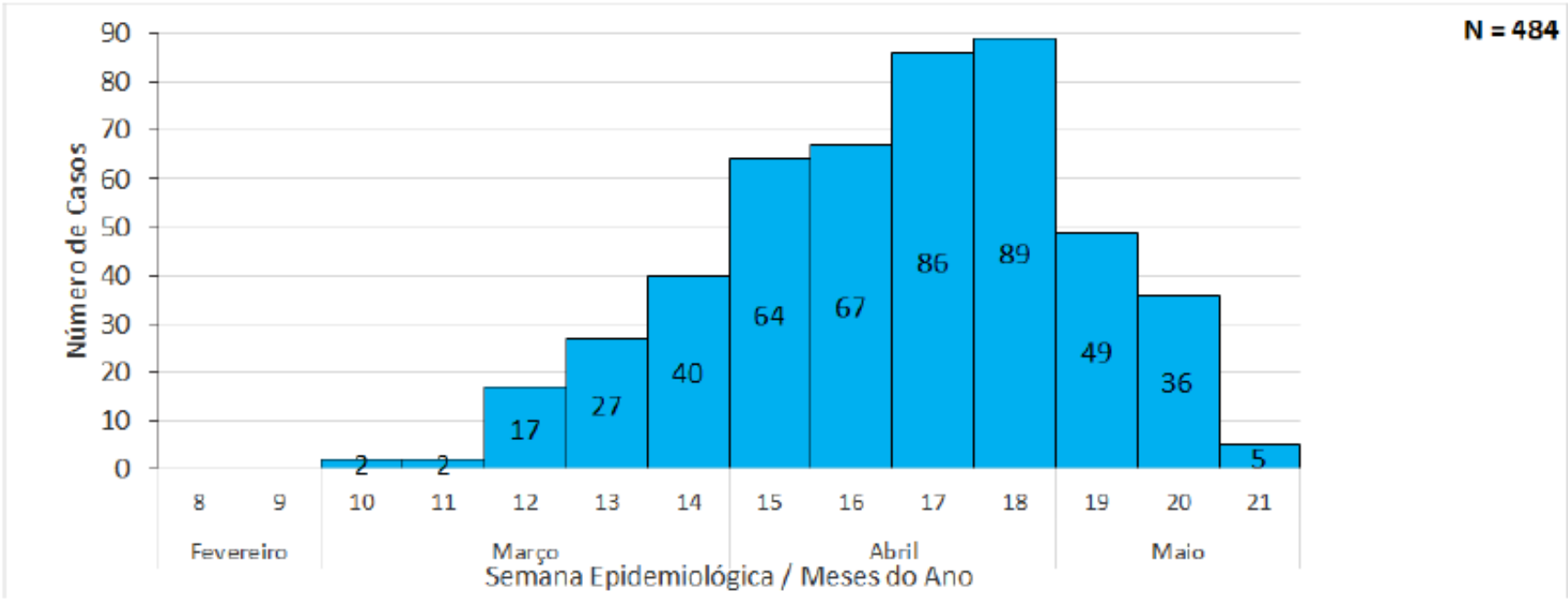
Ministério da Saúde
Secretaria de Vigilância em Saúde

BOLETIM EPIDEMIOLÓGICO ESPECIAL

COE-COVID19



Semana Epidemiológica 21 (17 a 23/05)



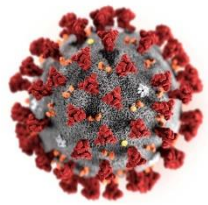
Fonte: Ministério da Saúde/Secretaria de Vigilância em Saúde/Coordenação Geral do Programa Nacional de Imunizações/Grupo Técnico-Influenza. Dados do Sivep-Gripe atualizados até 24 de maio de 2020 às 01:40 hs, sujeitos a alterações.

Figura 33: Casos de SRAG em gestante confirmados para COVID-19, segundo semana epidemiológica de início de sintomas, Brasil, fevereiro-maio, 2020.

Ministério da Saúde
Secretaria de Vigilância em Saúde

BOLETIM EPIDEMIOLÓGICO ESPECIAL

COE-COVID19



Semana Epidemiológica 21 (17 a 23/05)

Tabela 5: Distribuição de gestantes com SRAG por COVID-19, segundo faixa etária e raça / cor, Brasil, fevereiro-maio de 2020.

Variáveis	Evolução das gestantes confirmadas para COVID-19 (n=288)			
	Cura (n=252)		Óbito (n=36)	
	n	%	n	%
Faixa etária (anos)				
12 a 19	17	6,7	1	2,8
20 a 29	101	40,1	15	41,7
30 a 39	114	45,2	18	50
40 a 49	20	7,9	2	5,6
Raça/cor				
Branca	67	26,6	5	13,9
Preta	14	5,5	1	2,8
Parda	107	42,5	19	52,8
Amarela	2	0,8	0	-
Indígena	1	0,4	0	-
Ignorado/Em branco	61	24,2	11	30,5

Fonte: Ministério da Saúde/Secretaria de Vigilância em Saúde/Coordenação Geral do Programa Nacional de Imunizações/Grupo Técnico-Influenza. Dados do Sivep-Gripe atualizados até 24 de maio de 2020 às 01:40 hs, sujeitos a alterações.

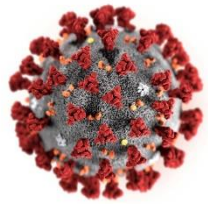


Tabela 6: Distribuição de gestantes com SRAG por COVID-19, segundo idade gestacional e comorbidades, Brasil, fevereiro-maio de 2020.

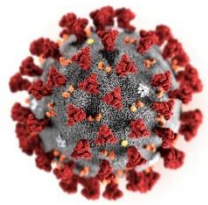
Variáveis	Evolução das gestantes confirmadas para COVID-19 (n=288)			
	Cura (n=252)		Óbito (n=36)	
	n	%	n	%
Idade gestacional				
1º trimestre	20	7,9	1	2,8
2º trimestre	51	20,2	11	30,6
3º trimestre	168	66,7	22	61,1
Idade gestacional ignorada	13	5,2	2	5,6

17

Ministério da Saúde
Secretaria de Vigilância em Saúde

BOLETIM EPIDEMIOLÓGICO ESPECIAL

COE-COVID19



Semana Epidemiológica 21 (17 a 23/05)

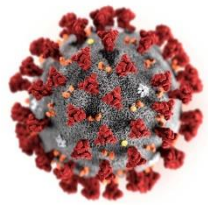
Comorbidades

Cardiopatia	11	4,4	9	25
Asma	11	4,4	3	8,3
Diabetes	31	12,3	6	16,7
Hipertensão arterial	10	3,9	5	13,9
Obesidade	11	4,4	4	11,1
Hipotireoidismo	2	0,8	1	2,8
Doença Neurológica Crônica	3	1,2	0	-
Doença Pulmonar Crônica	3	1,2	1	2,8
Doença Hematológica Crônica	9	3,6	0	-
Doença Renal Crônica	2	0,8	0	-
Imunodeficiência/imunodepressão	3	1,2	0	-

Ministério da Saúde
Secretaria de Vigilância em Saúde

BOLETIM EPIDEMIOLÓGICO ESPECIAL

COE-COVID19



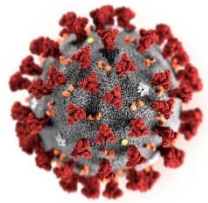
Semana Epidemiológica 21 (17 a 23/05)

Tabela 7: Distribuição de gestantes com SRAG por COVID-19, segundo alguns tipos de atendimento recebidos. Brasil, fevereiro-maio de 2020.

Variáveis	Evolução das gestantes confirmadas para COVID-19 (n=288)			
	Cura (n=252)		Óbito (n=36)	
	n	%	n	%
Internação em UTI	43	17,1	21	58,3
Suporte ventilatório	74	29,4	26	72,2
Invasivo	6	8,1	21	80,8
Não invasivo	68	91,9	5	19,2
Uso de antiviral	101	40,1	11	30,6

Fonte: Ministério da Saúde/Secretaria de Vigilância em Saúde/Coordenação Geral do Programa Nacional de Imunizações/Grupo Técnico-Influenza. Dados do Sivep-Gripe atualizados até 24 de maio de 2020 às 01:40 hs, sujeitos a alterações.

Gestantes e puérperas: fator de risco?



- Maior risco de adquirir infecções?
- E o SARS-CoV-2?
- Infecções são mais graves ou mais letais na gravidez?

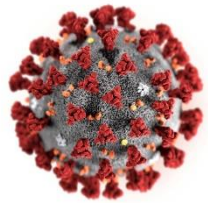
Cardiovasculares

Imunológicas

Pulmonares

Hematológicas

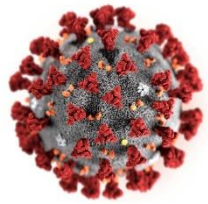
Agenda



- Epidemiologia COVID-19
- **Evidências científicas em gestantes**
- Transmissão Vertical
- Parto
- Aleitamento materno
- Cuidados na prática clínica no CRT
- Conclusões

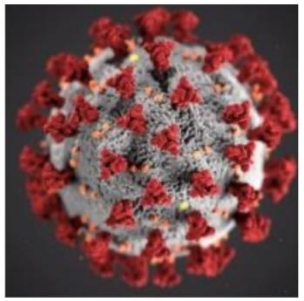
Escassez de estudos

Estudos COVID-19: Fertilidade e Gestação



Cochrane Gynaecology and Fertility

COVID-19 (coronavirus disease) - Fertility and Pregnancy



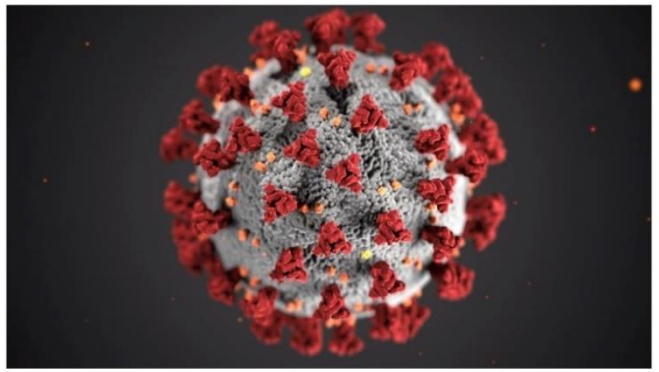
Coronavirus disease (COVID-19) is caused by a new strain of Coronavirus (SARS-CoV-2) discovered in 2019 and not previously identified in humans. Common symptoms include fever, cough, and shortness of breath. On March 11, the World Health Organization (WHO) announced the current COVID-19 outbreak as a pandemic. Currently there are more than 6,000,000 confirmed cases globally (data from June 2, 2020) with the numbers increasing rapidly every day.

According to WHO, pregnant women **do not appear to be at higher risk of severe disease**. Furthermore, WHO reports that currently there is **no known difference between the clinical manifestations of COVID-19 in pregnant and non-pregnant women** of reproductive

We have also created an Excel sheet that contains data extracted from all published reports on pregnancy and neonatal outcomes in women with confirmed COVID-19. We are updating the data as soon as new reports are published online. Please note that this data table has not been peer reviewed.

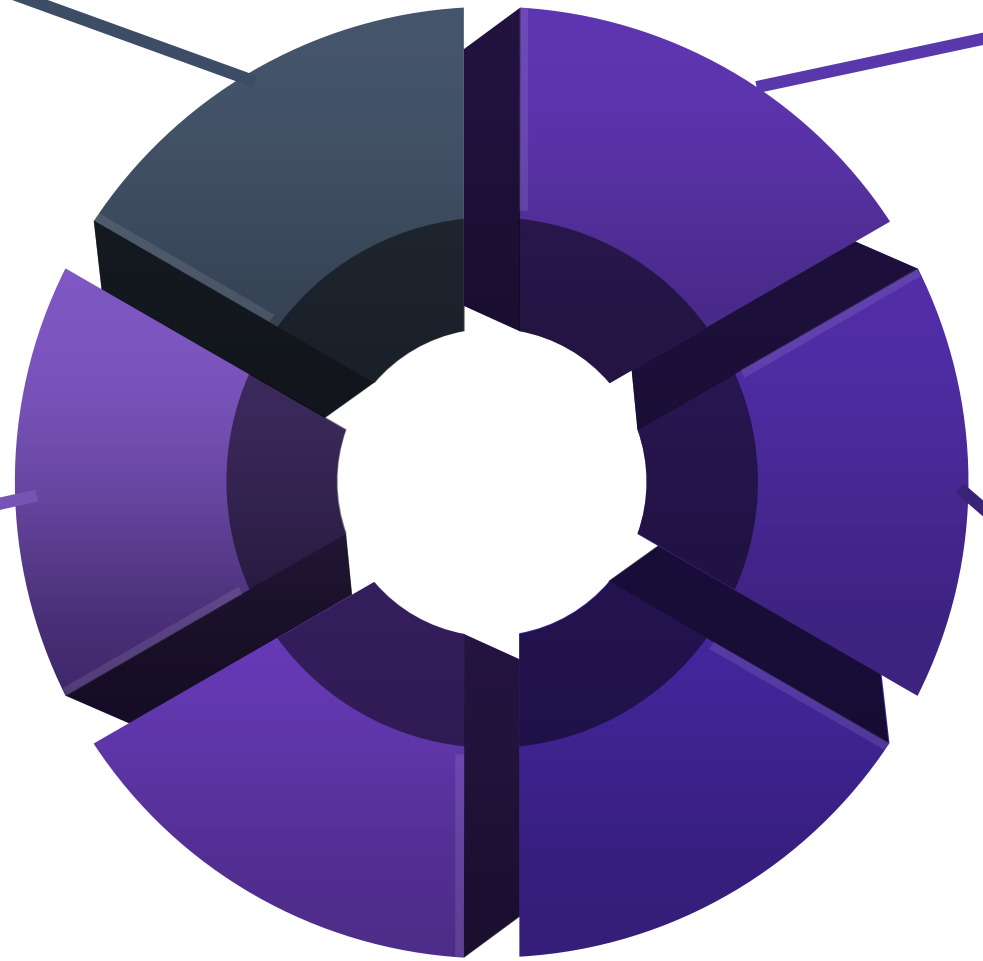
If you have unpublished data on pregnancy and neonatal outcomes in women with confirmed COVID-19 from your institute, and you would like us to include it in the table, please send it to dr Madelon van Wely (m.vanwely@amsterdamumc.nl). It is important for all of us to have as much information as possible.

Download Excel sheet Perinatal outcomes in COVID-19 infection.



Link: https://cgf.cochrane.org/news/covid-19-coronavirus-disease-fertility-and-pregnancy

148 estudos registrados:
28/Fev/2020 – 13/Jun/2020



Pré-eclampsia 62
Diabetes gestacional184
Ruptura prematura de membranas 48
Perda gestacional 26

3.122 gestantes
83 1º trimestre
263 2º trimestre
1.588 3º trimestre

Gestação em andamento 985
Perda gestacional 26
Término de gestação 21
Partos 2090
Partos cesárea 1030

Link: https://cgf.cochrane.org/news/covid-19-coronavirus-disease-fertility-and-pregnancy

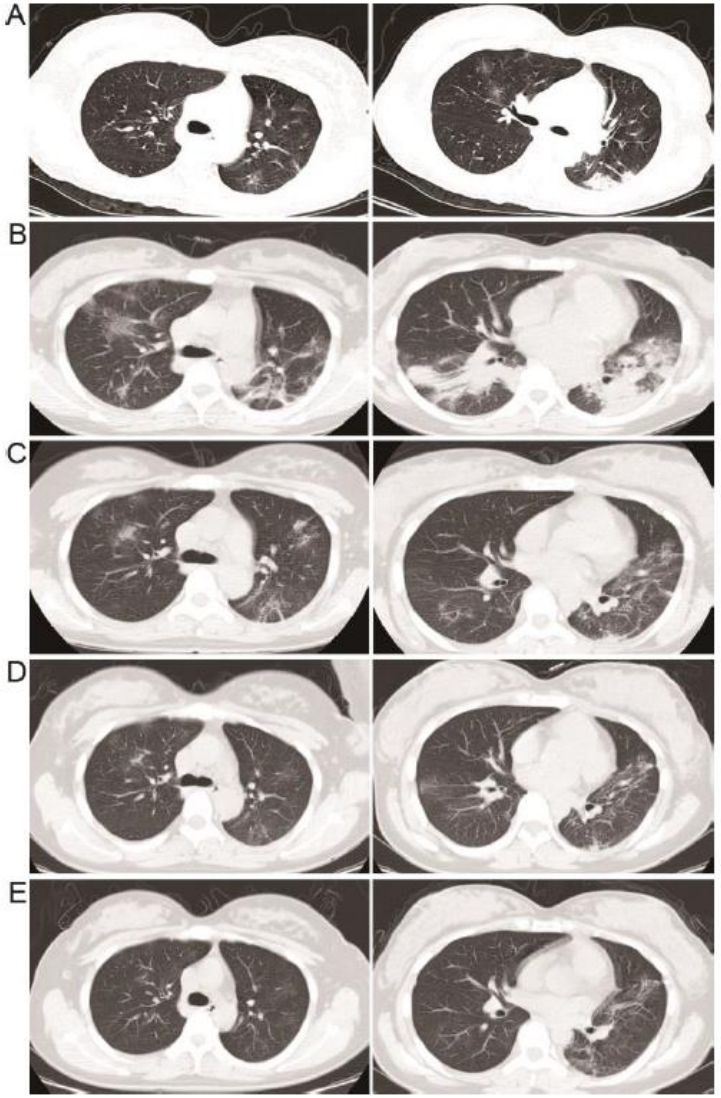
Primeiro relato de caso em gestante

A case of 2019 Novel Coronavirus in a pregnant woman with preterm delivery

Xiaotong Wang[1a], Zhiqiang Zhou[2a], Jianping Zhang[3], Fengfeng Zhu[4], Yongyan Tang[5], Xinghua Shen[4]

Abstract

We presented a case of a 30-week pregnant woman with COVID-19 delivering a healthy baby with no evidence of COVID-19.



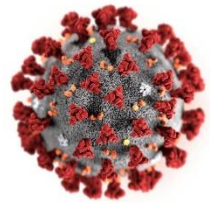
- Clin Infect Dis. 2020 Feb 28 : ciaa200.
- Published online 2020 Feb 28.
  doi: 10.1093/cid/ciaa200
- Caso da China

Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records

Huijun Chen, Juanjuan Guo*, Chen Wang*, Fan Luo, Xuechen Yu, Wei Zhang, Jiafu Li, Dongchi Zhao, Dan Xu, Qing Gong, Jing Liao, Huixia Yang, Wei Hou, Yuanzhen Zhang*

Lancet 2020; 395: 809–15

Published **Online**
February 12, 2020
https://doi.org/10.1016/S0140-6736(20)30360-3



This online publication has been corrected. The corrected version first appeared at thelancet.com on March 23, 2020

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9	n (%)
Clinical characteristics										
Date of admission	Jan 20	Jan 25	Jan 27	Jan 26	Jan 27	Jan 27	Jan 28	Jan 29	Jan 30	..
Age (years)	33	27	40	26	26	26	29	28	34	..
Gestational age on admission	37 weeks, 2 days	38 weeks, 2 day	36 weeks	36 weeks, 2 days	38 weeks, 1 day	36 weeks, 3 days	36 weeks, 2 days	38 weeks	39 weeks, 4 days	..
Epidemiological history	Yes (exposure to relevant environment)*	Yes (contact with infected person)	Yes (contact with infected person)	Yes (exposure to relevant environment)*	Yes (exposure to relevant environment)*	Yes (contact with infected person)	Yes (contact with infected person)	Yes (contact with infected person)	Yes (exposure to relevant environment)†	9 (100%)
Other family members affected	No	Yes	Yes	No	No	Yes	No	Yes	No	4 (44%)
Onset to delivery (days)	1	6	4	3	1	4	2	2	7	..
Complications	Influenza	None	Gestational hypertension	Pre-eclampsia	Fetal distress	None	PROM	Fetal distress	PROM	..
Signs and symptoms										
Fever on admission	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	7 (78%)
Post-partum fever	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	6 (67%)
Myalgia	No	Yes	No	No	Yes	Yes	No	No	No	3 (33%)
Malaise	No	No	No	No	Yes	Yes	No	No	No	2 (22%)
Rigor	No	No	No	No	No	No	No	No	No	0
Cough	Yes	Yes	Yes	No	No	Yes	No	No	No	4 (44%)
Dyspnoea	No	No	No	Yes	No	No	No	No	No	1 (11%)
Sore throat	No	No	No	No	No	Yes	Yes	No	No	2 (22%)
Diarrhoea	No	No	No	Yes	No	No	No	No	No	1 (11%)
Chest pain	No	No	No	No	No	No	No	No	No	0

Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records

Huijun Chen, Juanjuan Guo*, Chen Wang*, Fan Luo, Xuechen Yu, Wei Zhang, Jiafu Li, Dongchi Zhao, Dan Xu, Qing Gong, Jing Liao, Huixia Yang, Wei Hou, Yuanzhen Zhang*

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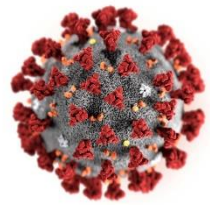

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9	n (%)
(Continued from previous page)										
CT evidence of pneumonia										
Typical signs of viral infection	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	8 (89%)
Delivery										
Method of delivery	C-section	C-section	C-section	C-section	C-section	C-section	C-section	C-section	C-section	..
Indication for C-section	Severely elevated ALT or AST; COVID-19 pneumonia	Mature; COVID-19 pneumonia	History of C-section (×2); COVID-19 pneumonia	Pre-eclampsia; COVID-19 pneumonia	Fetal distress; COVID-19 pneumonia	History of stillbirth (×2); COVID-19 pneumonia	PROM; COVID-19 pneumonia	Fetal distress; COVID-19 pneumonia	PROM; COVID-19 pneumonia	..
Treatment after delivery										
Oxygen support (nasal cannula)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9 (100%)
Antiviral therapy	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	6 (67%)
Antibiotic therapy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9 (100%)
Use of corticosteroid	No	No	No	No	No	No	No	No	No	0

PROM=premature rupture of membrane. NA=not applicable. ALT=alanine transaminase. AST=aspartate transaminase. COVID-19=2019 novel coronavirus disease. C-section=caesarean section. SARS-CoV-2=severe acute respiratory syndrome coronavirus 2. *Exposure to Hankou, the area in Wuhan where the epidemic was first detected. †A university where the patient works, and a gathering of people. ‡Data missing for one patient.

Table 1: **Maternal clinical and laboratory characteristics**

Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records

Huijun Chen, Juanjuan Guo*, Chen Wang*, Fan Luo, Xuechen Yu, Wei Zhang, Jiafu Li, Dongchi Zhao, Dan Xu, Qing Gong, Jing Liao, Huixia Yang, Wei Hou, Yuanzhen Zhang*

Lancet 2020; 395: 809–15

Published **Online**
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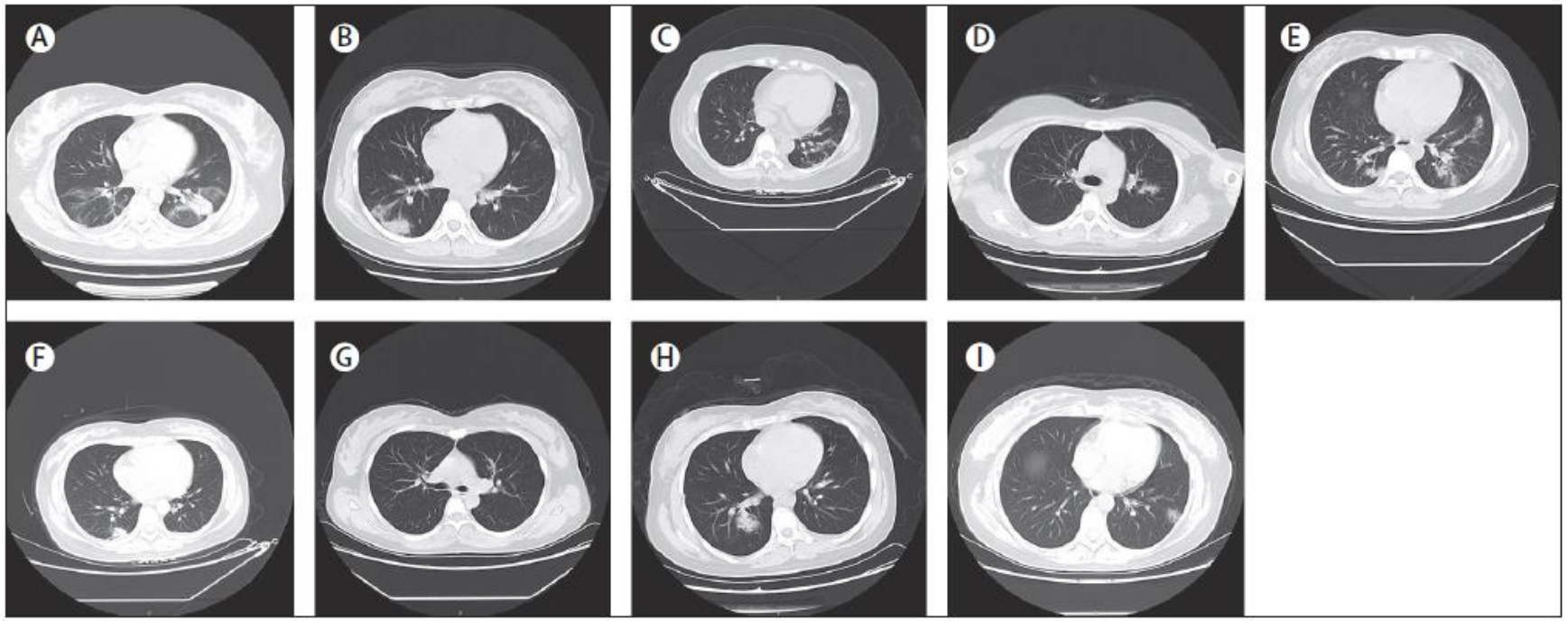

Figure: **Chest CT scans (transverse plane) of nine patients**
(A) Patient 1: left-sided patchy consolidation and multiple bilateral ground-glass opacities. (B) Patient 2: subpleural patchy consolidation in the right lung and slightly infiltrated shadows around left bronchus. (C) Patient 3: bilateral multiple ground-glass opacities, prominent on the left. (D) Patient 4: left-sided patchy ground-glass opacity. (E) Patient 5: multiple ground-glass opacities bilaterally. (F) Patient 6: right-sided subpleural patchy consolidation. (G) Patient 7: bilateral clear lung fields with no obvious ground-glass opacities. (H) Patient 8: multiple bilateral ground-glass opacities, prominent on the right. (I) Patient 9: multiple bilateral ground-glass opacities.

Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records

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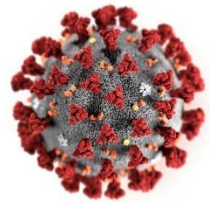


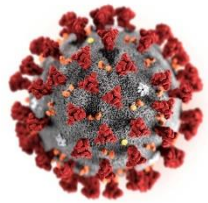
	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9	n (%)
Gestational age at delivery	37 weeks, 2 days	38 weeks, 3 days	36 weeks	36 weeks, 2 days	38 weeks, 1 day	36 weeks, 3 days	36 weeks, 2 days	38 weeks	39 weeks, 4 days	..
Birthweight (g)	2870	3730	3820	1880	2970	3040	2460	2800	3530	..
Low birthweight (<2500 g)	No	No	No	Yes	No	No	Yes	No	No	2 (22%)
Premature delivery	No	No	Yes	Yes	No	Yes	Yes	No	No	4 (44%)
Apgar score (1 min, 5 min)	8, 9	9, 10	9, 10	8, 9	9, 10	9, 10	9, 10	9, 10	8, 10	..
Severe neonatal asphyxia	No	No	No	No	No	No	No	No	No	0
Neonatal death	No	No	No	No	No	No	No	No	No	0
Fetal death or stillbirth	No	No	No	No	No	No	No	No	No	0

Table 2: **Neonatal outcomes**

- Sem evidência de transmissão vertical (amostras de LA, sangue de cordão, amostras respiratórias de RN e leite materno com PCR negativo).

Maternal and neonatal outcomes of pregnant women with COVID-19 pneumonia: a case-control study

Na Li, MD [1^], Lefei Han, MPH [2^], Min Peng, MD[3*], Yuxia Lv, MM[3], Yin Ouyang, MM[3], Kui Liu, MM[3], Linli Yue, MM[1], Qiannan Li, MM[1], Guoqiang Sun, MM [3], Lin Chen, MD [1], Lin Yang, PhD [3*]



Severe maternal and neonatal complications were not observed in pregnant women with COVID-19 pneumonia who had vaginal delivery or caesarean section. Mild respiratory symptoms of pregnant women with COVID-19 pneumonia highlight the need of effective screening on admission.

- *Clinical Infectious Diseases*, https://doi.org/10.1093/cid/ciaa352
- Publicação: 30/Março/2020
- China

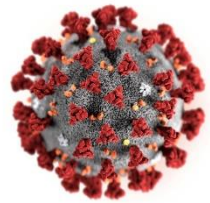


Table 1. Demographic characteristics of two case groups and two control groups.

	Confirmed cases (n=16)	Suspected cases (n=18)	*P* value [a]	Control 2020 (n=121)	*P* value [a]	Control 2019 (n=121)	*P* value [a]
Age (years ± SD)	30.9 ± 3.2	29.8 ± 2.3	0.624	30.1 ± 3.3	0.509	29.3 ± 2.6	0.090
Caesarean delivery (n, %)	14 (87.5%)	16 (88.9%)	1.000	57 (47.1%)	0.003	44 (36.4%)	<0.001
Preterm delivery (n, %)	3 (18.8%)	3 (16.7%)	1.000	7 (5.8%)	0.094	6 (5.0%)	0.071
Chronic illness (n, %)	2 (12.5%)	1 (5.6%)	0.591	5 (4.1%)	0.190	0 (0.0%)	0.013
Complications in pregnancy (n, %)	11 (68.8%)	13 (72.2%)	1.000	38 (31.4 %)	0.005	32 (33.3%)	0.011

[a] *P* value of Fisher's exact tests and Mann-Whitney U tests, the laboratory confirmed cases as reference group.

Clinical Infectious Diseases, https://doi.org/10.1093/cid/ciaa352

Table 2. Clinical characteristics of pregnant women with confirmed or suspected COVID-19 pneumonia.

Characteristic	Confirmed cases (%)	Suspected cases (%)
Length of stay, median (IQR), d	9.5 (5.8, 11)	6.0 (5.0, 9.3)
Symptoms		
Fever on admission	4 (25.0%)	1 (5.6%)
Fever after childbirth	8 (50.0%)	6 (33.3%)
Cough	0 (0.0%)	1 (5.6%)
Sore throat	0 (0.0%)	1 (5.6%)
Dyspnoea	0 (0.0%)	1 (5.6%)
CT imaging		
Pneumonia in one lung	8 (50.0%)	10 (55.6%)
Pneumonia in two lungs	7 (43.8%)	7 (38.9%)
Treatment		
Steroid	0 (0.0%)	0 (0.0%)
Antibiotics	16 (100.0%)	18 (100.0%)
Antivirals	4 (25.0%)	0 (0.0%)
High throughput oxygen	0 (0.0%)	0 (0.0%)
ECMO	0 (0.0%)	0 (0.0%)
Outcome		
Discharge	8 (50.0%)	18 (100.0%)
Transfer	8 (50.0%)	0 (0.0%)

Abbreviations: ECMO, extracorporeal membrane oxygenation.

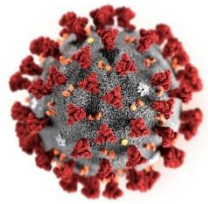
Clinical Infectious Diseases, https://doi.org/10.1093/cid/ciaa352

Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study

Nan Yu, Wei Li *, Qingling Kang, Zhi Xiong, Shaoshuai Wang, Xingguang Lin, Yanyan Liu, Juan Xiao, Haiyi Liu, Dongrui Deng, Suhua Chen, Wanjiang Zeng, Ling Feng, Jianli Wu*

Lancet Infect Dis 2020; 20: 559–64

Published Online March 24, 2020 https://doi.org/10.1016/S1473-3099(20)30176-6



	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7
Age, years	34	30	31	33	29	34	34
Gravida (parity)	2 (0)	2 (0)	2 (1)	5 (1)	1 (0)	2 (1)	2 (1)
Gestational age at admission, weeks + days	39 + 6	38 + 5	41 + 2	37	40 + 4	38 + 2	38 + 4
Exposure to Huanan seafood market	No	No	No	No	No	No	No
Contact history of epidemic area	Yes	Yes	Yes	Yes	Yes	Yes	Yes
History of chronic basic diseases	Hypothyroidism	Polycystic ovary syndrome	No	No	No	No	No
Pregnancy complications	No	No	No	Uterine scarring	No	Uterine scarring	Uterine scarring
Clinical manifestations of obstetrics	Abdominal pain (labour)	No	Abdominal pain (premonitory labour)	Increased fetal movement	Abdominal pain (premonitory labour)	Abdominal pain (premonitory labour)	No
Pneumonia-related manifestations							
Fever (days)	Yes (3)	Yes (4)	Yes (14)	No	Yes (3)	Yes (4)	Yes (8)
Cough	No	No	No	Yes	No	No	No
Shortness of breath	No	Yes	No	No	No	No	No
Diarrhoea	No	No	Yes	No	No	No	No
Incubation period, days	5	7	4	2	9	5	3

Table 1: **Maternal characteristics of seven patients with COVID-19**

Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study

Nan Yu, Wei Li *, Qingling Kang, Zhi Xiong, Shaoshuai Wang, Xingguang Lin, Yanyan Liu, Juan Xiao, Haiyi Liu, Dongrui Deng, Suhua Chen, Wanjiang Zeng, Ling Feng, Jianli Wu*

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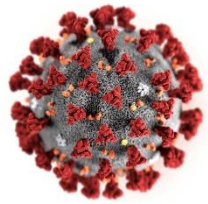

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7
Pregnancy outcome	Discharged	Discharged	Discharged	Discharged	Discharged	Discharged	Discharged
Neonatal outcome	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Birthweight, g	3250	3350	3200	3000	3500	3300	3250
Apgar score (1 min)	8–9	8–9	8–9	8–9	8–9	8–9	8–9
Apgar score (5 min)	9–10	9–10	9–10	9–10	9–10	9–10	9–10
Admission to neonatology department	Yes	No	Yes	No	No	No	Yes
Nucleic acid test of SARS-CoV-2	Positive (36 h)	Not tested	Negative	Not tested	Not tested	Not tested	Negative
Days of follow-up	40	28	28	28	28	28	28
Neonatal complications	No	No	No	No	No	No	No

None of the women were admitted to intensive care. Normal=no respiratory symptoms or fever or neonatal complications, such as neonatal respiratory distress syndrome, feeding abnormalities, or abnormal growth or development. SARS-CoV-2=severe acute respiratory syndrome coronavirus 2.

Table 2: **Maternal and neonatal outcomes of seven patients with COVID-19**

Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study

Nan Yu, Wei Li *, Qingling Kang, Zhi Xiong, Shaoshuai Wang, Xingguang Lin, Yanyan Liu, Juan Xiao, Haiyi Liu, Dongrui Deng, Suhua Chen, Wanjiang Zeng, Ling Feng, Jianli Wu*

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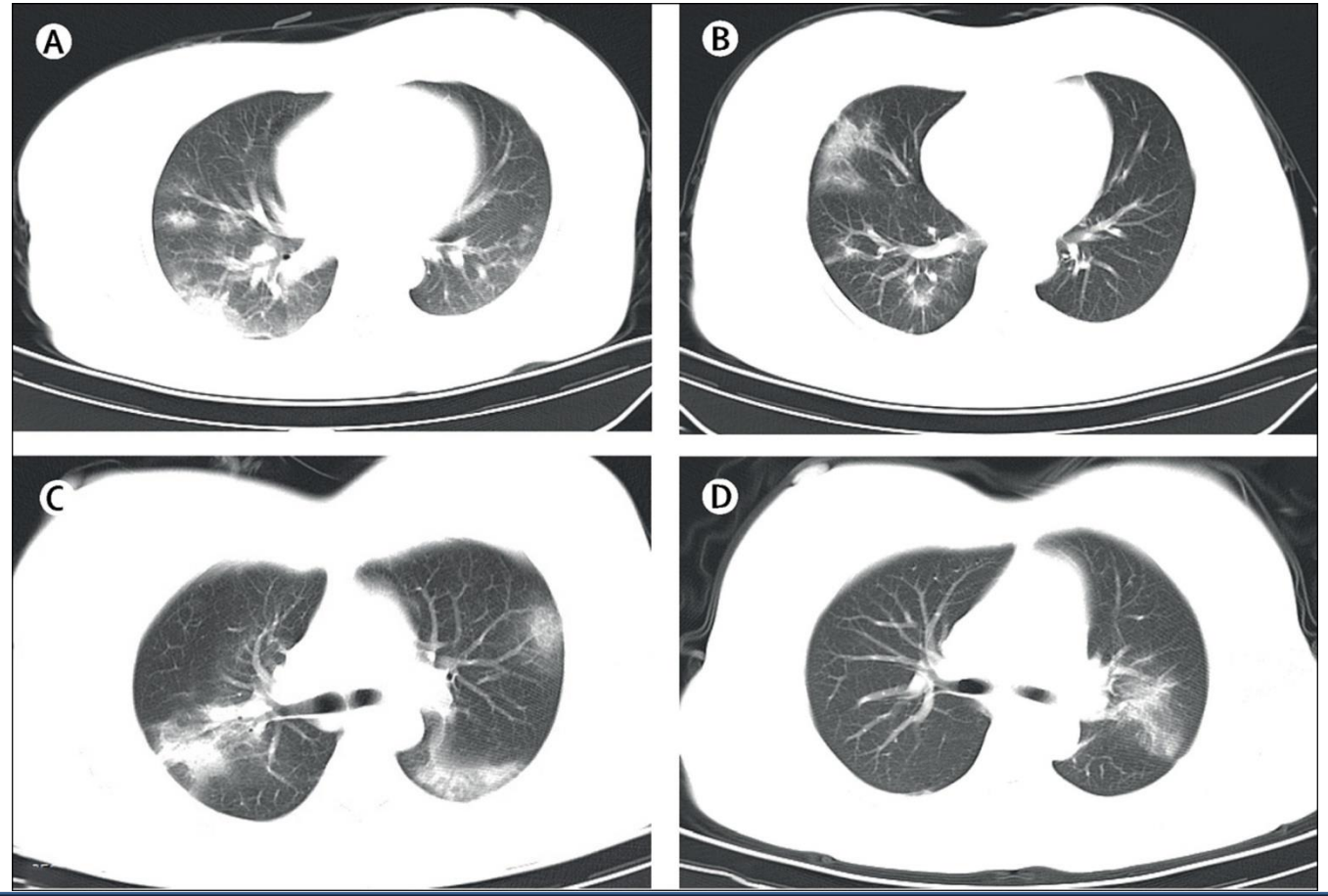
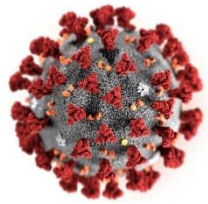


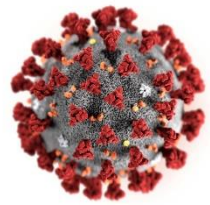


CORRESPONDENCE

Clinical Characteristics of Pregnant Women with Covid-19 in Wuhan, China

Table 1. Demographic and Clinical Characteristics of Pregnant Women with Covid-19, According to Disease Severity.*

Characteristic	All Patients (N = 118)	Disease Severity	
		Nonsevere (N = 109)	Severe (N = 9)
General characteristics			
Median age (IQR) — yr	31 (28–34)	30 (28–34)	34 (33–35)
Nulliparous — no./total no. (%)	55/106 (52)	51/97 (53)	4/9 (44)
Parous — no./total no. (%)	51/106 (48)	46/97 (47)	5/9 (56)
Signs and symptoms			
Asymptomatic — no. (%)†	6 (5)	6 (6)	0
Symptomatic — no. (%)‡	112 (95)	103 (94)	9 (100)
Fever — no./total no. (%)	84/112 (75)	77/103 (75)	7/9 (78)
Cough — no./total no. (%)	82/112 (73)	73/103 (71)	9/9 (100)
Chest tightness — no./total no. (%)	20/112 (18)	15/103 (15)	5/9 (56)
Fatigue — no./total no. (%)	19/112 (17)	17/103 (17)	2/9 (22)
Dyspnea — no./total no. (%)	8/112 (7)	5/103 (5)	3/9 (33)
Diarrhea — no./total no. (%)	8/112 (7)	6/103 (6)	2/9 (22)
Headache — no./total no. (%)	7/112 (6)	5/103 (5)	2/9 (22)



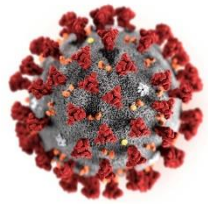
CORRESPONDENCE

Clinical Characteristics of Pregnant Women with Covid-19 in Wuhan, China

Pregnancy outcome			
Delivery — no. (%)	68 (58)	61 (56)	7 (78)
Live birth — no./total no. (%)§	70/70 (100)	63/63 (100)	7/7 (100)
Preterm birth — no./total no. (%)	14/68 (21)	11/61 (18)	3/7 (43)
Iatrogenic	8/14 (57)	6/11 (55)	2/3 (67)
Abortion — no. (%)	9 (8)	9 (8)	0
Spontaneous abortion — no./total no. (%)	3/9 (33)	3/9 (33)	0
Induced abortion — no./total no. (%)¶	4/9 (44)	4/9 (44)	0
Ectopic pregnancy — no./total no. (%)	2/9 (22)	2/9 (22)	0
Cesarean section — no./total no. (%)	63/68 (93)	58/61 (95)	5/7 (71)
Due to obstetrical indications	24/62 (39)	22/57 (39)	2/5 (40)
Due to concern about Covid-19	38/62 (61)	35/57 (61)	3/5 (60)
Natural delivery — no./total no. (%)	5/68 (7)	3/61 (5)	2/7 (29)
Pregnancy ongoing — no. (%)‖	41 (35)	39 (36)	2 (22)
Median 1-min Apgar score (IQR)**	9 (8–9)	9 (8–9)	8 (8–10)
Neonatal asphyxia — no./total no.	0/70	0/63	0/7
Neonatal death — no./total no.	0/70	0/63	0/7

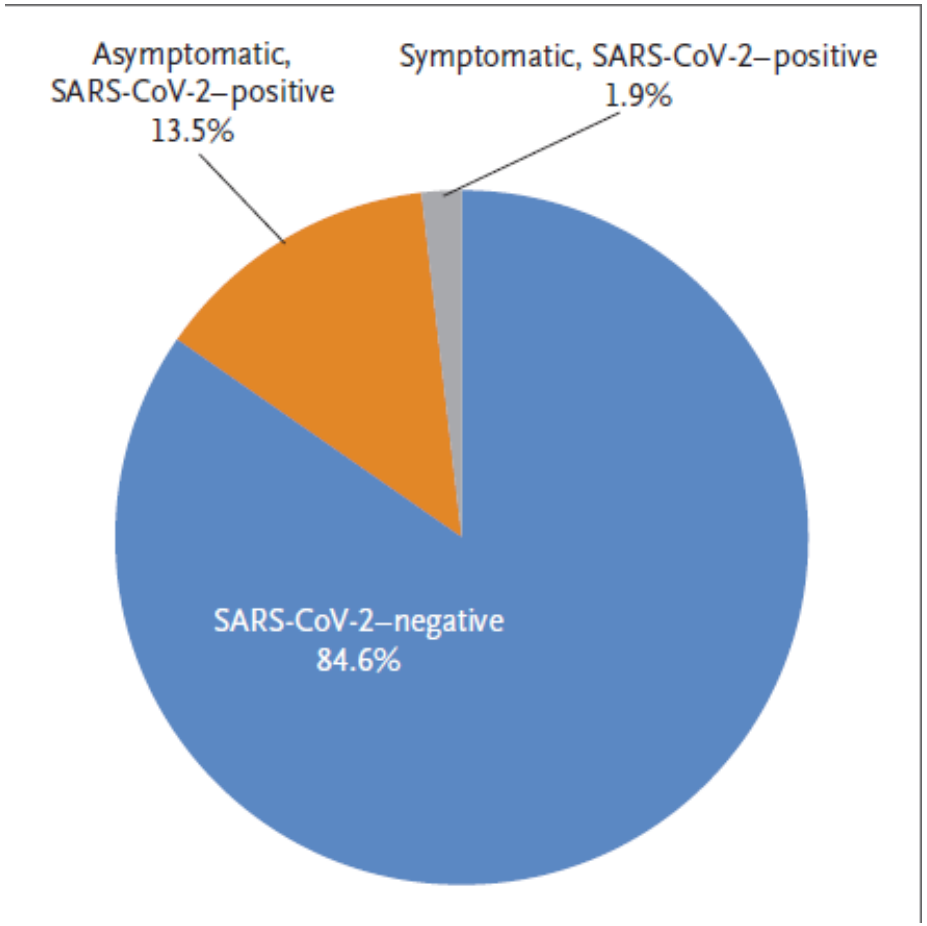
The NEW ENGLAND JOURNAL of MEDICINE

Abril/2020



CORRESPONDENCE

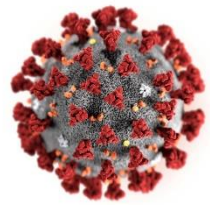
Universal Screening for SARS-CoV-2 in Women Admitted for Delivery



Between March 22 and April 4, 2020, a total of 215 pregnant women delivered infants at the New York–Presbyterian Allen Hospital and Columbia University Irving Medical Center. All the women were screened on admission for symptoms of Covid-19. Four women (1.9%) had fever or other symptoms of Covid-19 on admission, and all 4 women tested positive for SARS-CoV-2 (Fig. 1). Of the 211 women without symptoms, all were afebrile on admission. Nasopharyngeal swabs were obtained from 210 of the 211 women (99.5%) who did not have symptoms of Covid-19; of these women, 29 (13.7%) were positive for SARS-CoV-2. Thus, 29 of the 33 patients who were positive for SARS-CoV-2 at admission (87.9%) had no symptoms of Covid-19 at presentation.

Coronavirus disease 2019 infection among asymptomatic and symptomatic pregnant women: two weeks of confirmed presentations to an affiliated pair of New York City hospitals

MAY 2020 AJOG MFM



https://doi.org/10.1016/j.ajogmf.2020.100118

Noelle Breslin, MD; Caitlin Baptiste, MD; Cynthia Gyamfi-Bannerman, MD, MPH; Russell Miller, MD; Rebecca Martinez, MD; Kyra Bernstein, MD; Laurence Ring, MD; Ruth Landau, MD; Stephanie Purisch, MD; Alexander M. Friedman, MD, MPH; Karin Fuchs, MD; Desmond Sutton, MD; Maria Andrikopoulou, MD; Devon Rupley, MD; Jean-Ju Sheen, MD; Janice Aubey, MD; Noelia Zork, MD; Leslie Moroz, MD; Mirella Mourad, MD; Ronald Wapner, MD; Lynn L. Simpson, MD; Mary E. D'Alton, MD; Dena Goffman, MD

TABLE
Patient characteristics

Characteristics	Values
Demographics	
Maternal age (y), mean (SD)	29.7 (6.0)
Gestational age at diagnosis (wk), median (IQR)	37.0 (32.6–38.9)
BMI (kg/m^2), mean (SD)	30.9 (5.3)
Comorbid conditions,[a] % (95% CI)	41.5 (30.4–58.9)
Signs and symptoms, n (%); 95% CI	
Fever	14 (48.3); 31.4–65.6
Cough	19 (65.5); 47.3–80.1
Myalgias or fatigue	11 (37.9); 22.7–56.0
Dyspnea	7 (24.1); 12.2–42.1
Chest pain	5 (17.2); 7.6–34.6
Headache	8 (27.6); 14.7–45.6
Diarrhea	0 (0); 0.0–11.7
Sick contacts	10 (34.5); 19.9–52.7
Maximum temperature (°C), mean (SD); range	37.5 (0.8); 36.4–39.4
Disposition, n (%); range	
Outpatient only	22 (51.2); 36.8–65.4
Admission (antepartum)	3 (7); 2.4–18.6
Admission (labor unit)	18 (41.9); 28.3–56.7
Admission (postpartum)	1 (2.33); 0.1–12.3
ICU admission	2 (4.7); 1.3–15.5

BMI, body mass index; *CI*, confidence interval; *ICU*, intensive care unit; *IQR*, interquartile range; *SD*, standard deviation.

[a] Comorbid conditions include asthma, type 2 diabetes mellitus, chronic hypertension, thyroid disorder, seizure disorder, and dermatological disease.

Breslin et al. COVID-19 among asymptomatic and symptomatic pregnant women. AJOG MFM 2020.

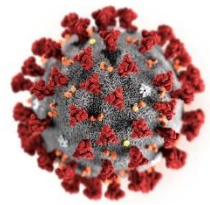
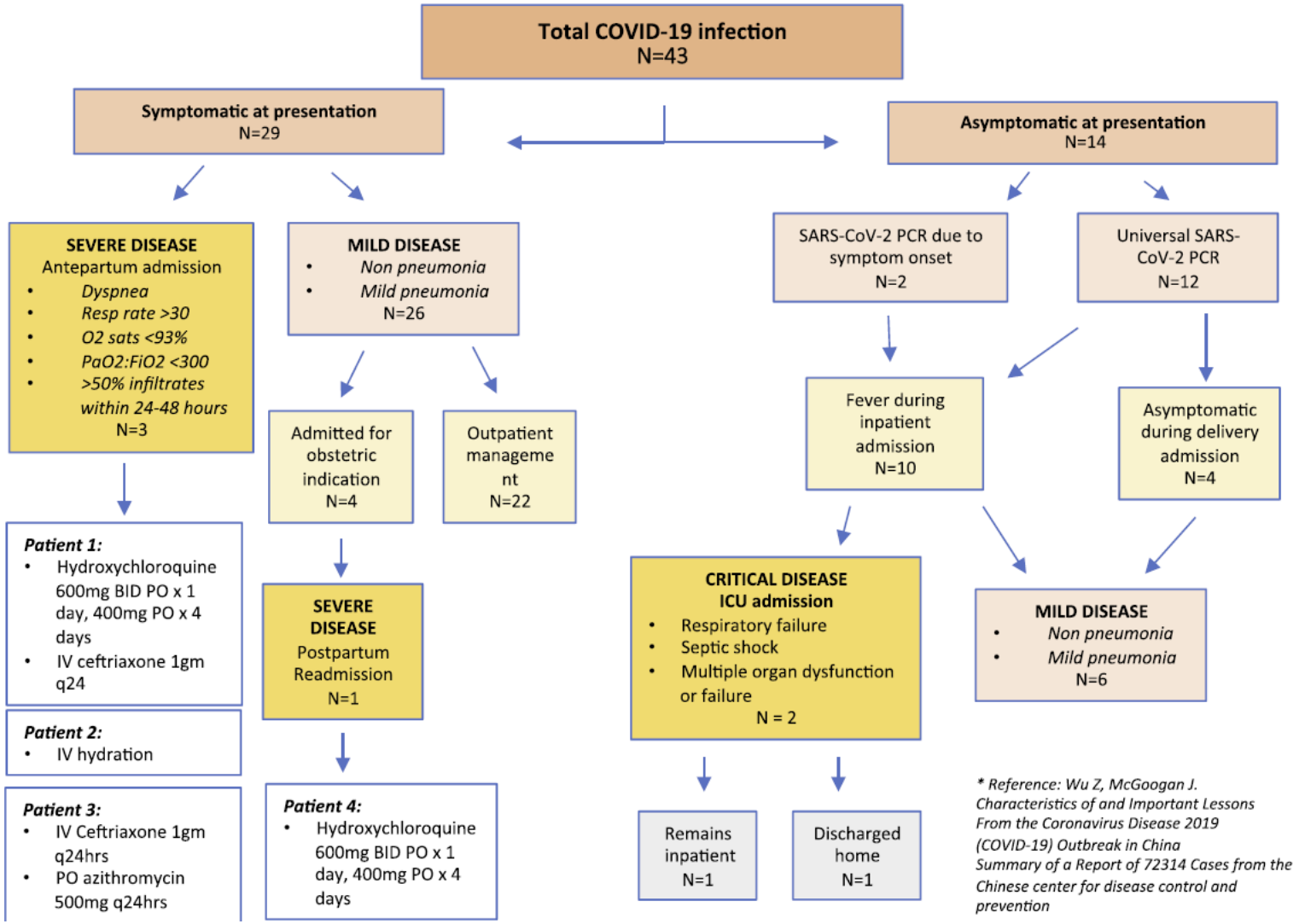


FIGURE
Severity of COVID-19 infections in asymptomatic and symptomatic COVID-19—positive patients



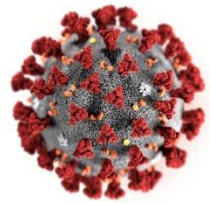
** Reference: Wu Z, McGoogan J. Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China Summary of a Report of 72314 Cases from the Chinese center for disease control and prevention*

Conclusion

COVID-19 disease severity in pregnant women—86% mild, 9.3% severe, and 4.7% critical—appears similar to that in nonpregnant adults. Our strategy of universal testing identified asymptomatic women with COVID-19, many of whom subsequently developed temperature elevations or disease symptoms. We believe that universal testing for all pregnant women admitted to the labor unit, in addition to those who present for triage evaluation of symptomatic complaints, has obvious benefits that should inform best practices to protect patients, their families, and the obstetric care providers. Further research is needed to understand the true magnitude of risks and improve management.

Screening all pregnant women admitted to labor and delivery for the virus responsible for coronavirus disease 2019

MONTH 2020 American Journal of Obstetrics & Gynecology



TABLE

Accuracy of maternal symptoms in predicting coronavirus disease 2019 infection

	Positive COVID-19	Negative COVID-19	Total
Symptomatic	11	5	16
Asymptomatic	21	124	145
Total	32	129	161

Sensitivity=11/32 (34.4%); specificity=124/129 (96.1%); positive predictive value=11/16 (68.7%); negative predictive value=124/145 (85.5%); positive likelihood ratio=8.8; negative likelihood ration=0.68.

COVID-19, coronavirus disease 2019.

Vintzileos. Coronavirus disease 2019 screening of all pregnant women admitted to labor and delivery unit. Am J Obstet Gynecol 2020.

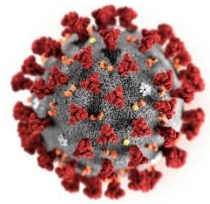
COMMENT: The results showed that 20% (32/161) of women admitted to L&D were positive for COVID-19; moreover, almost two-thirds (66%) of COVID-19–positive women were asymptomatic. All 29 neonates from COVID-19–positive mothers received negative results.

Routine testing for COVID-19 upon admission to L&D resulted in an overall increase in the use of PPE in approximately 10% of cases. This, however, focused the use of PPE on the right patient encounters.

Our results can be used as a guide to other L&D units in deciding whether all admitted obstetrical patients should be routinely tested for SARS-CoV-2, the virus responsible for COVID-19.

Universal SARS-CoV-2 testing on admission to the labor and delivery unit: Low prevalence among asymptomatic obstetric patients

Infection Control & Hospital Epidemiology (2020), 1–2
doi:10.1017/ice.2020.255



Ilona Telefus Goldfarb MD, MPH[1,2], Khady Diouf MD[1,4], William H. Barth Jr MD[1,2], Julian N. Robinson MD[1,4], Daniel Katz MD[1,4,6], Katherine E. Gregory PhD, RN[1,7], Andrea Ciaranello MD[1,3], Sigal Yawetz MD[1,5], Erica S. Shenoy MD, PhD[1,3,8,a] and Michael Klompas MD, MPH[1,5,a]

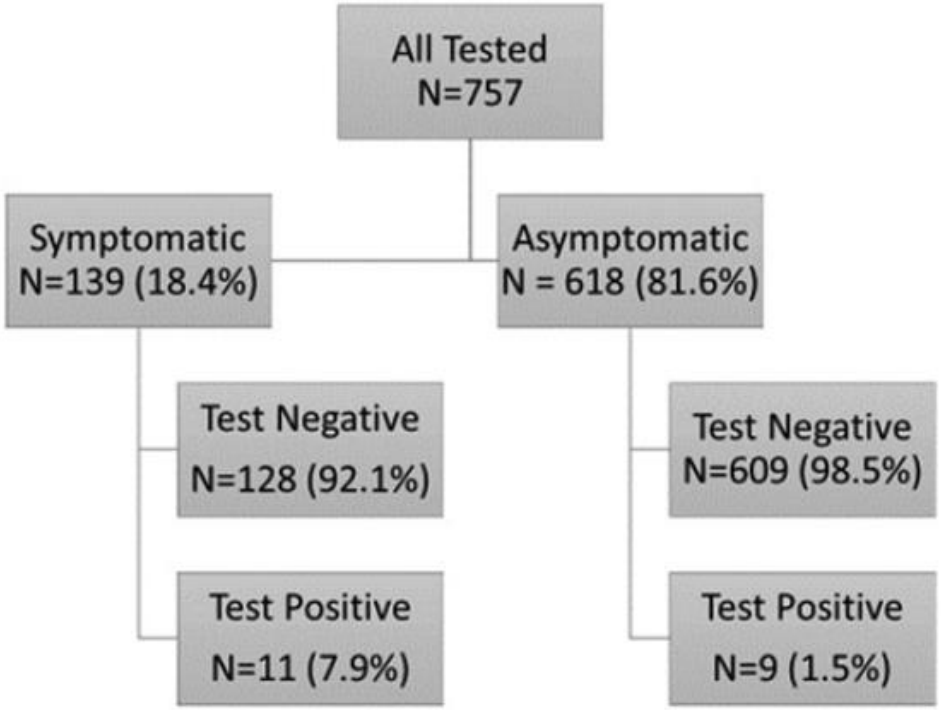


Fig. 1. All women tested for SARS-CoV-2 on the labor and delivery units.

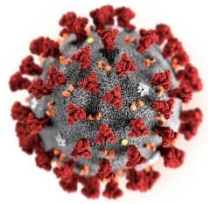
Universal testing of women presenting for labor and delivery, as one element of a multipronged approach to reducing the risk of SARS-CoV-2 transmission in healthcare facilities, is likely to remain a core strategy for the foreseeable future to inform both clinical care and infection control operations. Universal testing in this specific patient population is an especially important public health priority given the implications of SARS-CoV-2 on maternal and newborn care at the time of birth and during the postpartum and neonatal period. In addition, testing the asymptomatic obstetric population provides a window into the community prevalence of infection which in turn can inform the timing and effect of when, where, and how to enhance versus relax social distancing measures. Assessing the community-based COVID-19 prevalence rates must take into account the possibility of local clustering of disease where a community lies within the pandemic curve and the status of contemporaneous mitigation strategies. These data may, therefore, guide decision making about moving between mitigation versus containment measures and thoughtfully resuming both healthcare and nonhealthcare operations.

Original Research

Testing of Patients and Support Persons for Coronavirus Disease 2019 (COVID-19) Infection Before Scheduled Deliveries

Angela Bianco, MD, Ayisha B. Buckley, MD, Jessica Overbey, DrPh, Scott Smilen, MD, Brian Wagner, MD, Cheryl Dinglas, MD, Holly Loudon, MD, Alan Garely, MD, Michael Brodman, MD, and Joanne Stone, MD

OBSTETRICS & GYNECOLOGY



Box 1. Telephone Screening Tool

All patients must answer these questions.

1. Do you have a fever or feel hot?
2. Do you have a cough, shortness of breath, or a sore throat?
3. Are you vomiting, or do you have diarrhea?
4. Do you have a rash?

Table 1. Demographics of Patients Who Tested Positive or Negative for Coronavirus Disease 2019 (COVID-19) Infection

	COVID-19–Positive (n=24)	COVID-19–Negative (n=131)
Age (y)	32.7±6.4	33.7±6.0
Race		
African American	1 (4.2)	16 (12.2)
Asian	0	14 (10.7)
Caucasian	17 (70.8)	78 (59.5)
Hispanic	4 (16.7)	17 (13)
Other	2 (8.3)	6 (4.6)
Nulliparous	8 (33.3)	30 (22.9)

Based on epidemiologic trajectories for SARS-CoV-2 infection, it is likely that obstetric units, particularly in densely populated regions, will continue to care for patients who are asymptomatic but potentially infectious.[23] We propose that universal testing of patients and support persons in high-prevalence areas will inform obstetric and newborn care practices as well as help ensure the safety of the health care professionals caring for them.

Original Article

A snapshot of the Covid-19 pandemic among pregnant women in France

Gilles Kayem[a,*,1], Edouard Lecarpentier[l,1], Philippe Deruelle[f,1], Florence Bretelle[c,1],

Journal of Gynecology Obstetrics and Human Reproduction xxx (2019) xxx–xxx

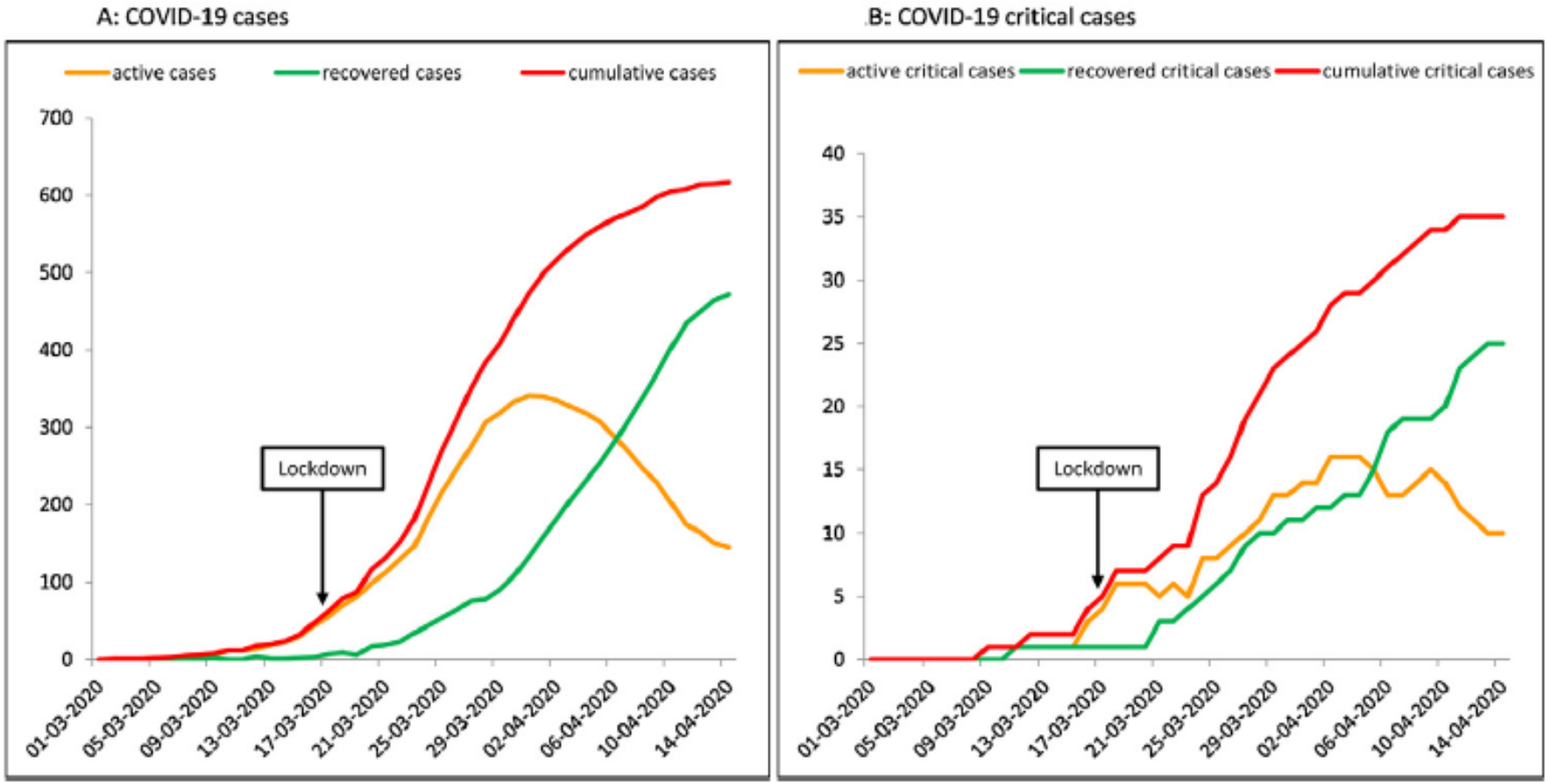


Fig. 1. Temporal trends of COVID-19 cases in pregnant women in France.

Original Article

A snapshot of the Covid-19 pandemic among pregnant women in France

Gilles Kayem[a,*,1], Edouard Lecarpentier[l,1], Philippe Deruelle[f,1], Florence Bretelle[c,1],

Journal of Gynecology Obstetrics and Human Reproduction xxx (2019) xxx–xxx

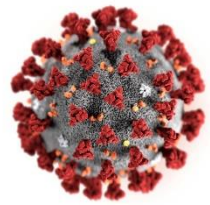


Table 1
Diagnosis and COVID-19 severity among pregnant women in France.

	Pregnant women with COVID-19 N = 617
Reasons for diagnosis*	
Cough	384 (62.2)
Fever	285 (46.2)
Anosmia	172 (27.9)
Dyspnea	165 (26.7)
Diarrhea	54 (8.8)
Other minor symptoms	124 (20.1)
Positive contact person	115 (18.6)
Systematic	5 (0.8)
Mode of diagnosis*	
Positive RT-PCR	597 (96.8)
Chest CT typical features	51 (8.3)
Gestational age at diagnosis	
14–21 wk	105 (17.0)
22–31 wk	238 (38.6)
32–36 wk	142 (23.0)
≥ 37 wk and post-partum period	132 (21.4)
Hospitalization	253 (41.0)
Respiratory support	128 (20.7)
Nasal oxygen therapy	83 (13.5)
Noninvasive ventilation	10 (1.6)
Invasive mechanical ventilation	29 (4.7)
Extracorporeal membrane oxygenation	6 (1.0)

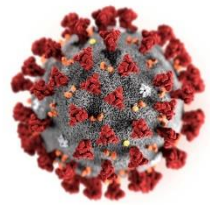
Our main objectives were to describe the course over time of SARS-CoV-2 infection in French pregnant women, the clinical profile and risk factors for women with maternal respiratory complications, and short-term pregnancy outcomes.

This case series came from a research network of 33 French maternity units (including 24 tertiary referral centers representing around 114 000 deliveries annually, 15 % of French births).

In conclusion, COVID-19 in French pregnant women can be a serious condition and may be responsible for severe acute, potentially deadly respiratory distress syndromes. The most vulnerable pregnant women, those with comorbidities, may particularly benefit from prevention measures such as a lockdown.

Original Article

A snapshot of the Covid-19 pandemic among pregnant women in France



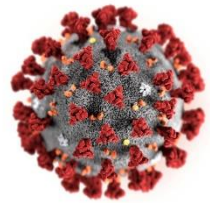
Gilles Kayem[a,*,1], Edouard Lecarpentier[l,1], Philippe Deruelle[f,1], Florence Bretelle[c,1],

Journal of Gynecology Obstetrics and Human Reproduction xxx (2019) xxx–xxx

Table 2
Maternal characteristics and maternal, pregnancy and neonatal outcomes according to COVID-19 severity among pregnant women in France.

Outcomes	All N = 617	Non-severe N = 489	Requiring oxygen N = 93	Critical N = 35	*P* for trends	Any respiratory support N = 128	RR 95 % CI*
Maternal characteristics							
Age > 35	194 (31.4)	135 (27.6)	41 (44.1)	18 (51.4)	<0.001	59 (46.1)	1.7 (1.3–2.1)
Body mass index before pregnancy > 30	139 (22.5)	93 (19.0)	29 (31.2)	17 (48.6)	<0.001	46 (36.0)	1.9 (1.4–2.5)
Asthma	37 (6.0)	28 (5.7)	6 (6.5)	3 (8.6)	0.50	9 (7.0)	1.2 (0.6–2.5)
Other chronic respiratory disease	6 (1.0)	4 (0.8)	1 (1.1)	1 (2.9)	0.30	2 (1.6)	1.9 (0.4–10.3)
Preexisting diabetes type 1 or 2	14 (2.3)	7 (1.4)	6 (6.5)	1 (2.9)	0.04	7 (5.5)	3.8 (1.4–10.7)
History of preeclampsia	27 (4.4)	15 (3.1)	8 (8.6)	4 (11.4)	0.001	12 (9.4)	3.1 (1.5–6.4)
Chronic hypertension	18 (2.9)	11 (2.2)	4 (4.3)	3 (8.6)	0.02	7 (5.5)	2.4 (0.96–6.1)
Gestational diabetes	71 (11.5)	54 (11.0)	14 (15.1)	3 (8.6)	0.78	17 (13.3)	1.2 (0.7–2.0)
Gestational hypertension or preeclampsia	21 (3.4)	13 (2.7)	4 (4.3)	4 (11.4)	0.01	8 (6.2)	2.4 (1.0–5.6)
Smoking during pregnancy	16 (2.6)	11 (2.2)	5 (5.4)	0	–	5 (3.9)	1.7 (0.6–4.9)
Maternal outcomes**							
Maternal death	1 (0.2)	0	0	1 (2.9)	–	1 (0.8)	–
Recovered from COVID-19	486 (78.8)	391 (80.0)	75 (80.6)	20 (57.1)	0.05	95 (74.2)	–
Delivered	181 (29.3)	123 (25.1)	29 (31.2)	29 (82.9)	<0.001	58 (45.3)	–
Cesarean	87/181 (48.1)	39/123 (31.7)	25/29 (86.2)	23/29 (79.3)	<0.001	48/58 (82.8)	–
Cesarean for COVID-19 symptoms	45/181 (24.9)	4/123 (3.3)	19/29 (65.5)	22/29 (75.9)	<0.001	41/58 (70.7)	–
Pregnancy outcomes**							
Fetal loss at 14–21 wk	5/181 (2.8)	5/123 (4.1)	0	0	–	0	–
Preterm birth at 22–31 wk	21/181 (11.6)	3/123 (2.4)	4/29 (13.8)	14/29 (48.3)	<0.001	18/58 (31.0)	–
Preterm birth at 32–36 wk	29/181 (16.0)	10/123 (8.1)	10/29 (34.5)	9/29 (31.0)	<0.001	19/58 (32.8)	–
Overall preterm birth at 22–36 wk	50/181 (27.6)	13/123 (10.6)	14/29 (48.3)	23/29 (79.3)	<0.001	37/58 (63.8)	–
Intrauterine or intrapartum fetal death	7/181 (1.3)	5/123 (1.0)	0/29	2/29 (6.9)	–	2/58 (3.4)	–
Neonatal outcomes,*****							
SARS-CoV-2 positive	2/190 (1.1)	1 (0.8)	1 (3.4)	0	–		–
Admission in Neonatal Intensive Care Unit	37/190 (19.5)	10/131 (7.6)	14/30 (46.7)	13/29 (44.8)	<0.001	27/59 (45.8)	–
Neonatal death	1/190 (0.5)	0	0	1 (3.4)	–	1/59 (1.7)	–

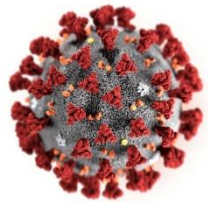
Agenda



- Epidemiologia COVID-19
- Evidências científicas em gestantes
- **Transmissão Vertical**
- Parto
- Aleitamento materno
- Cuidados na prática clínica no CRT
- Conclusões

RESEARCH LETTER

JAMA Published online March 26, 2020



Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn

Table 1. Laboratory Results for the Mother

Time	Laboratory test	Value	Reference range
Feb 2	White blood cell count, $\times 10^9$/L	8.03	3.5-9.5
	Neutrophil count, $\times 10^9$/L	6.57	1.8-6.3
	Neutrophil ratio, %	81.9	40-75
	Lymphocyte count, $\times 10^9$/L	1.08	1.1-3.2
	Lymphocyte ratio, %	13.4	20-50
	C-reactive protein, mg/L	57	0-10
	PCT, ng/mL	0.086	0.1
	ALT, U/L	40	7-40
	AST, U/L	38	13-35
Feb 10	PCR of nasopharyngeal swab	+	–
Feb 19	PCT of nasopharyngeal swab	+	–
	PCR of vaginal secretion	–	–
Feb 21	SARS-CoV-2 IgG, AU/mL	107.89	<10
	SARS-CoV-2 IgM, AU/mL	279.72	<10
Feb 26	PCR of nasopharyngeal swab	+	–
Feb 28	Breast milk	–	–
Feb 29	SARS-CoV-2 IgG, AU/mL	116.30	<10
	SARS-CoV-2 IgM, AU/mL	112.66	<10
Mar 1	PCR of nasopharyngeal swab	+	–

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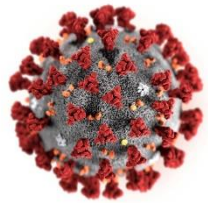


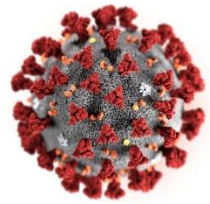
Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn

Table 2. Laboratory Results for the Neonate

Time	Laboratory test	Value	Reference range
Feb 22	White blood cell count, $\times 10^9$/L	18.08	3.5-9.5
	Neutrophil count, $\times 10^9$/L	13.46	1.8-6.3
	Neutrophil ratio, %	74.5	40-75
	Lymphocyte count, $\times 10^9$/L	2.89	1.1-3.2
	Lymphocyte ratio, %	16.00	20-50
	C-reactive protein, mg/L	<5.0	0-10
	PCT, ng/mL	0.137	<0.1
	ALT, U/L	11	7-40
	AST, U/L	65	13-35
	Total bilirubin, μmol/L	44.2	0-23
	Direct bilirubin, μmol/L	7.5	0-8.0
	Creatine kinase, U/L	937	40-200
	Lactate dehydrogenase, U/L	629	120-250
	Glucose, mmol/L	2.91	3.9-6.1
	Potassium, mmol/L	4.88	3.5-5.3
	IL-6, pg/mL	28.26	≤20.0
	IL-10, pg/mL	153.60	≤5.9
	SARS-CoV-2 IgG, AU/mL	140.32	<10
	SARS-CoV-2 IgM, AU/mL	45.83	<10
Feb 24	PCR of nasopharyngeal swab	–	–
Feb 27	PCR of nasopharyngeal swab	–	–
Mar 1	PCR of nasopharyngeal swab	–	–
Mar 6	PCR of nasopharyngeal swab	–	–
Mar 7	SARS-CoV-2 IgG, AU/mL	69.94	<10
	SARS-CoV-2 IgM, AU/mL	11.75	<10
Mar 9	PCR of nasopharyngeal swab	–	–

RESEARCH LETTER

JAMA Published online March 26, 2020



Antibodies in Infants Born to Mothers With COVID-19 Pneumonia

Table 1. Antibody and IL-6 Levels in Infant Sera Samples

		Infant[a]					
Clinical value	Reference range	1	2	3	4	5	6
IgM, AU/mL	<10	39.6	16.25	3.79	1.9	0.96	0.16
IgG, AU/mL	<10	125.5	113.91	75.49	73.19	51.38	7.25
IL-6, pg/mL	0.1-2.9	15.07	33.65	19.16	18.15	32.75	19.62

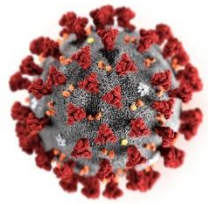
[a] Infants and mothers correspond by number between tables.

Table 2. Antibody Levels in Mother Sera Samples

		Mother[a]					
Clinical value	Reference range	1	2	3	4	5	6
IgM, AU/mL	<10	83.97	236.6	5.58	33.26	15.61	1.39
IgG, AU/mL	<10	136.72	117.37	120.63	103.46	70.05	8.12

[a] Mothers and infants correspond by number between tables.

Unlikely SARS-CoV-2 vertical transmission from mother to child: A case report



Zhoujie Peng [a,1], Jianhui Wang [b,1], Yunbo Mo [a], Wei Duan [a], Guangjun Xiang [a], Ming Yi [a,*], Lei Bao [b,**], Yuan Shi [b]

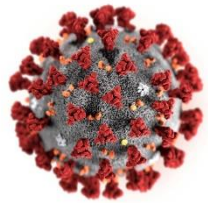
Journal of Infection and Public Health 13 (2020) 818–820

Table 1
Results of SARS-CoV-2 nucleic acid testing in mother.

	Amniotic fluid	Vaginal secretion	Cord blood	Placenta	Serum	Anal swab	Breast milk	Throat swab
Prepartum	/	/	/	/	/	/	/	(22.69, 22.37)
Day 1 of delivery	(–)	(–)	(–)	(–)	(–)	(–)	/	(23.38, 24.55)
Day 2	/	/	/	/	(–)	(–)	(–)	(25.29, 25.97)
Day 3	/	/	/	/	(–)	(–)	(–)	(24.95, 25.82)
Day 4	/	/	/	/	(–)	(–)	(–)	(26.52, 27.31)
Day 5	/	/	/	/	(–)	(–)	(–)	(27.63, 27.98)
Day 6	/	/	/	/	(–)	(–)	(–)	(28.27, 28.58)
Day 7	/	/	/	/	(–)	(–)	(–)	(28.68, 29.42)
Day 10	/	/	/	/	(–)	(–)	(–)	(–)
Day 14	/	/	/	/	(–)	(–)	(–)	(–)

Note: The number in the bracket indicates cycle threshold value of ORF1ab gene (left) and N gene (right) on real-time fluorescent polymerase chain reaction, with a cutoff value of 30 in this study.

Unlikely SARS-CoV-2 vertical transmission from mother to child: A case report



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Journal of Infection and Public Health 13 (2020) 818–820

As the 2019 novel coronavirus disease (COVID-19) rapidly spread across China and to more than 70 countries, an increasing number of pregnant women were affected. The vertical transmission potential of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is of great concern to the obstetrics, neonatologists, and public health agencies. Though some studies indicated the risk of vertical transmission is low, few cases have been reported with comprehensive serial tests from multiple specimens. In this case, a female preterm infant was born to a mother with confirmed COVID-19. She presented with mild respiratory distress and received general management and a short period of nasal continuous positive airway pressure support. During her stay at the hospital, a series of SARS-CoV-2 nucleic test from her throat and anal swab, serum, bronchoalveolar lavage fluid, and urine were negative. The nucleic acid test from the mother's amniotic fluid, vaginal secretions, cord blood, placenta, serum, anal swab, and breast milk were also negative. The most comprehensively tested case reported to date confirmed that the vertical transmission of COVID is unlikely, but still, more evidence is needed.

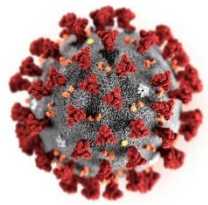
Table 2
Results of SARS-CoV-2 nucleic acid testing in newborn.

	Throat swab	Anal swab	Serum	Sputum	Urine
2 h after birth	(−)	(−)	(−)	/	(−)
Day 1	(−)	(−)	(−)	(−)	(−)
Day 2	(−)	(−)	(−)	/	(−)
Day 3	(−)	(−)	(−)	/	(−)
Day 7	(−)	(−)	(−)	(−)	(−)
Day 14	(−)	(−)	(−)	/	(−)

Conclusion

Conclusively, it should still be cautious about concluding that the vertical transmission is unlikely, as the biological characteristics and pathogenesis of SARS-CoV-2 remains unclear. Further evidence from epidemiological surveillance and experiment studies is still necessary to clarify this issue.

Am J Perinatol



Severe COVID-19 during Pregnancy and Possible Vertical Transmission

Maria Claudia Alzamora, MD[1] Tania Paredes, MD[2] David Caceres, MD[3] Camille M. Webb, MD[4,5] Luis M. Valdez, MD[5,6] Mauricio La Rosa, MD[1,7]

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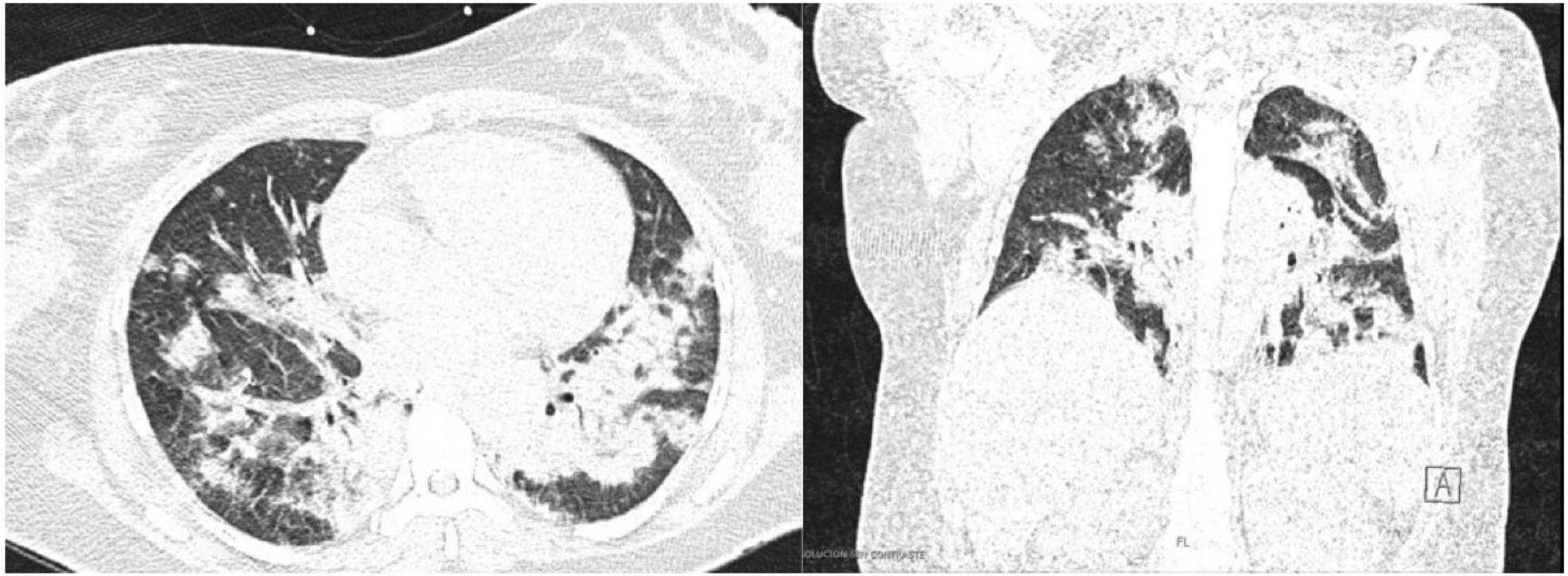
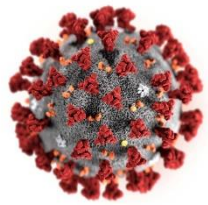


Fig. 1 CT scan of the chest showing multiple consolidations in both lungs, predominantly in bases and associated with bilateral pleural effusi
CT, computed tomography.

Am J Perinatol



Severe COVID-19 during Pregnancy and Possible Vertical Transmission

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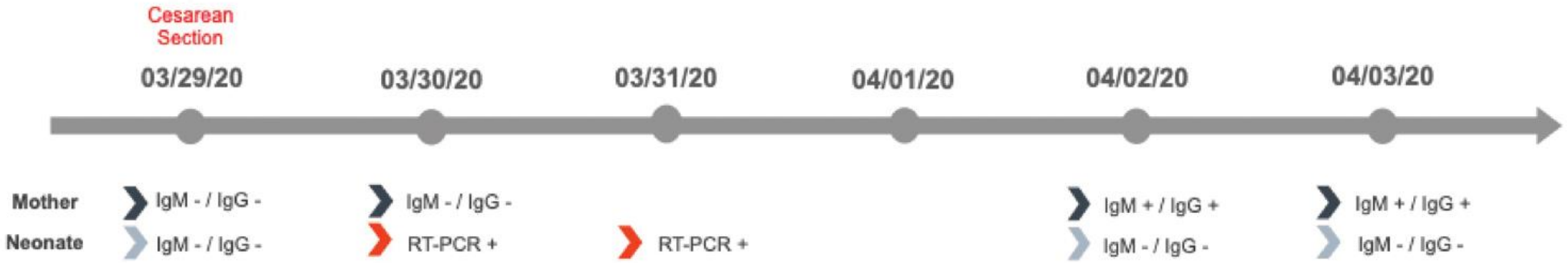


Fig. 2 Timeline illustrating serologic assay results evolution in mother and neonate. Ig, immunoglobulin; RT-PCR, real-time polymerase chain reaction.

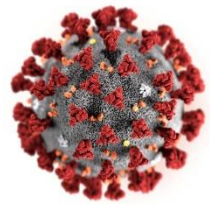
Limitations

Our report has some limitations. The lag-time to neonatal nasopharyngeal swab, due to the current national criteria for testing, raises the possibility of perinatal transmission, though this was minimized by the procedures described above. We did not evaluate the presence of virus in amniotic fluid, cord blood, or placental tissue that could further clarify pathogenesis.

Conclusion

We describe a severe maternal presentation of COVID-19 during the third trimester of pregnancy, leading to mechanical ventilation and preterm delivery, as well as positive RT-PCR, in the neonate. We believe these findings have important public implications both due to the severity of disease presentation, and the concern for vertical transmission. Given this information, pregnant women should be considered a vulnerable population in which exposure is to be avoided.

Detection of severe acute respiratory syndrome coronavirus 2 in placental and fetal membrane samples



TABLE

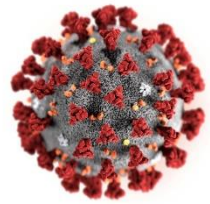
Summary of PCR results of placental or membrane samples from patients with COVID-19

Patient no.	Age, y	Gestational age	Interval from diagnosis of COVID-19 to delivery, d	Mode of delivery	PCR result of placental sample	PCR result of membrane sample	COVID-19 status	PCR results of infants				
								DOL1	DOL2	DOL3	DOL4	DOL5
1	37	36wk 6d	2	CD	N/A	Pos	Critical	—	Neg	—	Neg	—
2	36	26wk 5d	1	CD	N/A	Pos	Critical	Neg	—	—	—	Neg
3	38	38wk 3d	0	CD	N/A	Neg	Critical	Neg	—	Neg	—	—
4	40	34wk 2d	1	CD	Pos	N/A	Severe	Neg	—		Neg	Neg
5	26	37wk 6d	0	NSVD	N/A	Neg	Severe	Neg	—	Neg	—	—
6	34	37wk 1d	10	NSVD	N/A	Neg	Mild	—	—	Neg	Neg	—
7	23	41wk 3d	1	NSVD	N/A	Neg	Mild	—	Neg	—	—	—
8	23	40wk 5d	8	NSVD	N/A	Neg	Mild	—	Neg	—	—	—
9	35	39wk 6d	15	NSVD	N/A	Neg	Mild	Neg	—	—	—	—
10	34	40wk 0d	5	NSVD	N/A	Neg	Mild	Neg	—	—	—	—
11	22	41wk 0d	15	NSVD	N/A	Neg	Mild	—	Neg	—	—	—

CD, cesarean delivery; *COVID-19*, coronavirus disease 2019; *DOL*, day of life; *N/A*, not available; *Neg*, negative; *NSVD*, normal spontaneous vaginal delivery; *PCR*, polymerase chain reaction; *Pos*, positive.

Penfield. Detection of severe acute respiratory syndrome coronavirus 2 in placental and fetal membrane samples. AJOG MFM 2020.

Detection of severe acute respiratory syndrome coronavirus 2 in placental and fetal membrane samples



CONCLUSION: Of 11 placental or membrane swabs sent for testing after delivery, 3 swabs returned with positive results for SARS-CoV-2, all in women with severe to critical COVID-19 at time of delivery. This is the first study to find the presence of SARS-CoV-2 RNA in placental or membrane samples. Although there were no clinical signs of vertical transmission, the findings indicate the possibility of intrapartum viral exposure. Given the mixing of maternal and fetal fluid and tissues at the time of delivery, the origin of the detected SARS-CoV-2 RNA in this study is unclear. The source may be from maternal blood, amniotic fluid, or fetal membranes and amniotic sac. For those infants who were delivered vaginally, vaginal secretions is also a possible source; however, previous studies have not been able to demonstrate the presence of SARS-CoV-2 in vaginal secretions.[5]

Although the neonates in this study tested negative in the first 5 days of life, many were born through cesarean deliveries with decreased length of exposure to these tissues, which may be associated with a decreased likelihood of vertical transmission. In addition, if the exposure occurred at the time of delivery, the virus may require a longer incubation period before test swabs show positive results. As a consequence, nasopharyngeal testing immediately after delivery may not be the ideal approach to evaluate vertical transmission. In summary, the presence of viral RNA in placental and membranes samples by RT-PCR at the time of delivery indicates the need for further research into the possibility of vertical transmission and use of multiple testing methods for neonates after birth. ■

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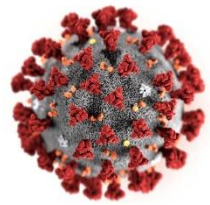

Second-Trimester Miscarriage in a Pregnant Woman With SARS-CoV-2 Infection

Results | A 28-year-old obese, primigravida woman presented at 19 weeks' gestation with fever (102.5 °F [39.2 °C]), myalgia, fatigue, mild pain with swallowing, diarrhea, and dry cough for 2 days. A nasopharyngeal swab was positive for SARS-CoV-2. She was given oral acetaminophen and discharged home.

Two days later, she presented with severe uterine contractions, fever, and no improvement of her symptoms. A stillborn infant was delivered vaginally after 10 hours of labor. Swabs from the axillae, mouth, meconium, and fetal blood obtained within minutes of birth tested negative for SARS-CoV-2 and bacterial infection. Fetal autopsy showed no malformations, and fetal lung, liver, and thymus biopsies were negative for SARS-CoV-2.

Table. SARS-CoV-2 RT-PCR Results[a]

Sample type	SARS-CoV-2 results	Bacterial culture and RT-PCR	
Maternal			
Deep nasopharyngeal (March 18)	Positive		
Deep nasopharyngeal control (March 22)	Positive		
Vagina (March 20 and March 22)	Negative	Normal flora	
Blood (March 22)	Negative		
Fetus (March 20)			
Umbilical cord blood	Negative		
Amniotic fluid	Negative		Sterile
Fetal mouth	Negative		
Fetal armpit (2 samples)	Negative		
Placental submembrane	Positive		Sterile
Placental cotyledon	Positive		Sterile
Fetal anus	Negative		
Fetal liver	Negative		
Fetal thymus	Negative		
Fetal lung	Negative		

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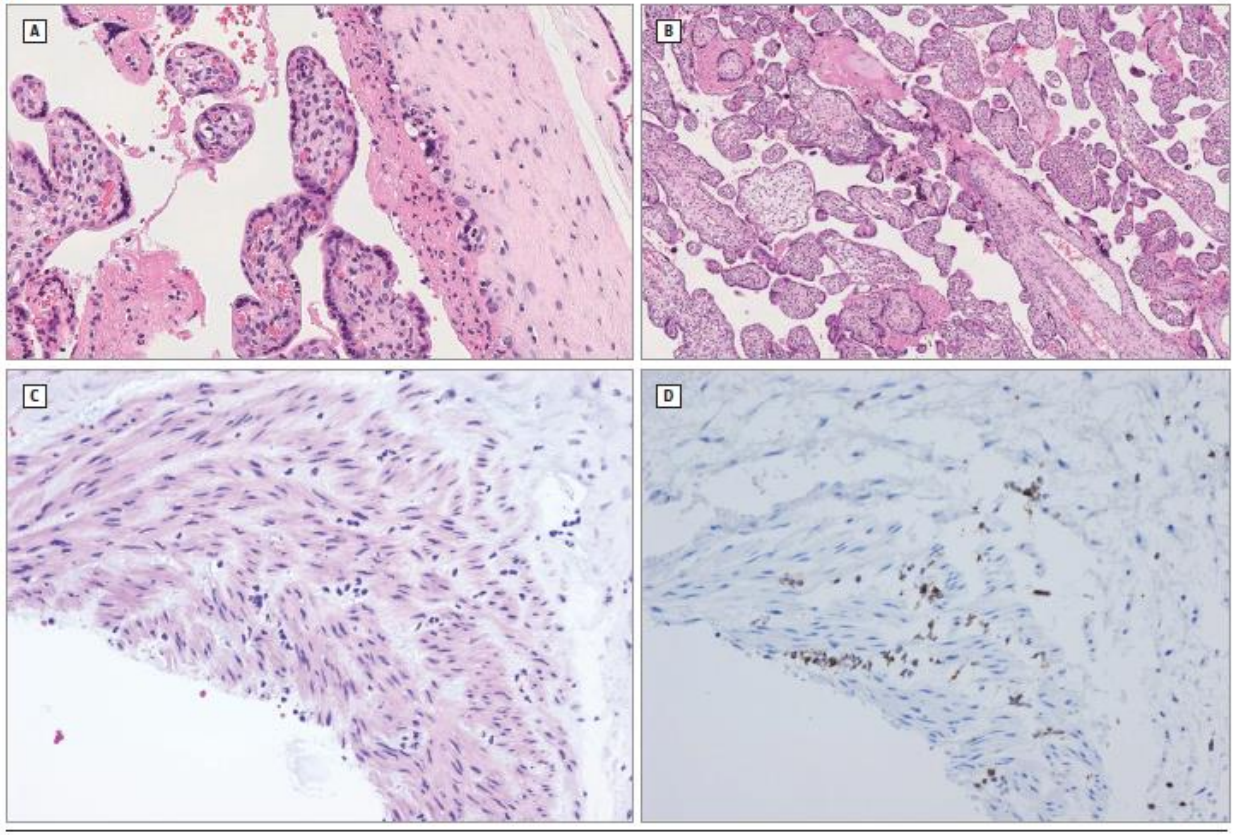
Second-Trimester Miscarriage in a Pregnant Woman With SARS-CoV-2 Infection

Figure. Placental Histology

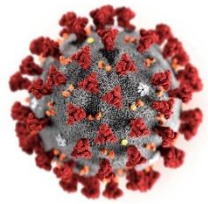


Limitations include the single case and that other causes of miscarriage, such as spontaneous preterm birth, cervical insufficiency, or undetected systemic or local bacterial infection, cannot be ruled out.

Infection of the maternal side of the placenta inducing acute or chronic placental insufficiency resulting in subsequent miscarriage or fetal growth restriction was observed in 40% of maternal infections with Middle East respiratory syndrome coronavirus and severe acute respiratory syndrome coronavirus.[5,6] Additional study of pregnant women with COVID-19 is warranted to determine if SARS-CoV-2 can cause similar adverse outcomes.

American Journal of Obstetrics & Gynecology
AJOG MFM
Maternal-Fetal Medicine

Vertical transmission of COVID-19: SARS-CoV-2 RNA on the fetal side of the placenta in pregnancies with COVID-19 positive mothers and neonates at birth



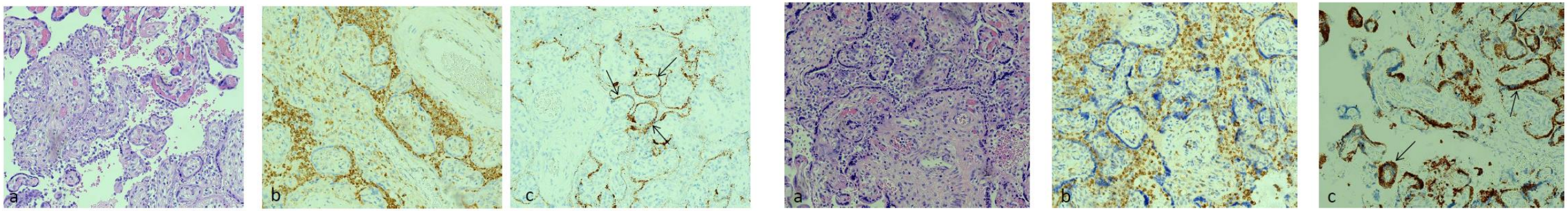
Luisa Patanè, Denise Morotti, Monica Rosaria Giunta, Cristina Sigismondi, Maria Giovanna Piccoli, Luigi Frigerio, Giovanna Mangili, Marco Arosio, Giorgio Cornolti

Accepted Date: 14 May 2020

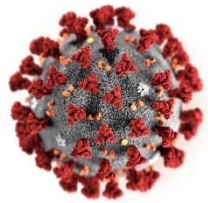
DOI: https://doi.org/10.1016/j.ajogmf.2020.100145

This is the first study describing SARS-CoV-2 RNA on the fetal side of the placenta in two cases of mothers infected with COVID-19 and with neonates also positive for the virus at birth. These findings support the possibility of vertical transmission of SARS-CoV-2, the virus responsible for COVID-19 infection, from the mother to the baby in utero.

Moreover, the direct visualization of SARS-CoV-2 RNA in the infected placentas raise the possibility of estimating the viral load in cells with morphological context. Further studies are required to confirm our results.



Agenda



- Epidemiologia COVID-19
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- Transmissão Vertical
- **Parto**
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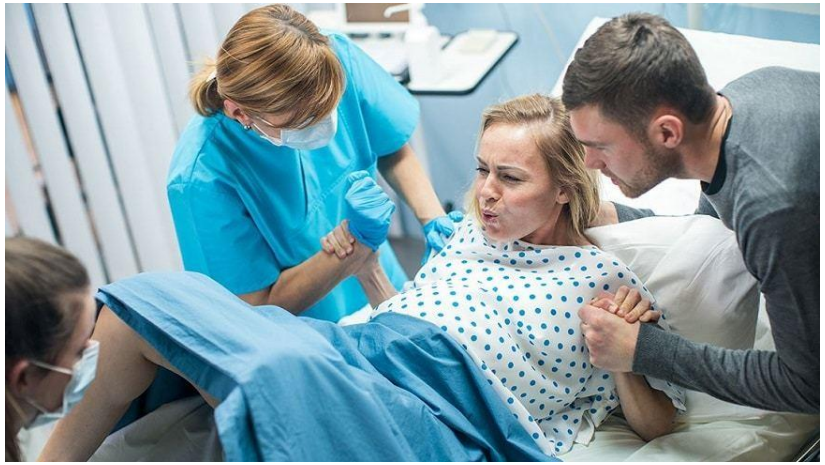
- Cuidados na prática clínica no CRT
- Conclusões



The NEW ENGLAND JOURNAL of MEDICINE

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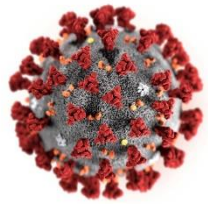


CORRESPONDENCE

An Uncomplicated Delivery in a Patient with Covid-19 in the United States

At 39 weeks of gestation, a 34-year-old woman (gravida 7, para 5) presented to the labor and delivery unit with a 3-day history of fever, chills, dry cough, and myalgia. She reported decreased fetal movements during the past day. She worked as a waitress and reported that she had not traveled recently. Her husband had had similar symptoms for the past 24 hours.

This case describes uncomplicated labor and vaginal delivery in a woman with Covid-19. Care was taken to avoid infecting hospital staff, and 7 days after the delivery, no caregivers appeared to be infected. Further information on patient follow-up, procedures, and references is provided in the Supplementary Appendix.

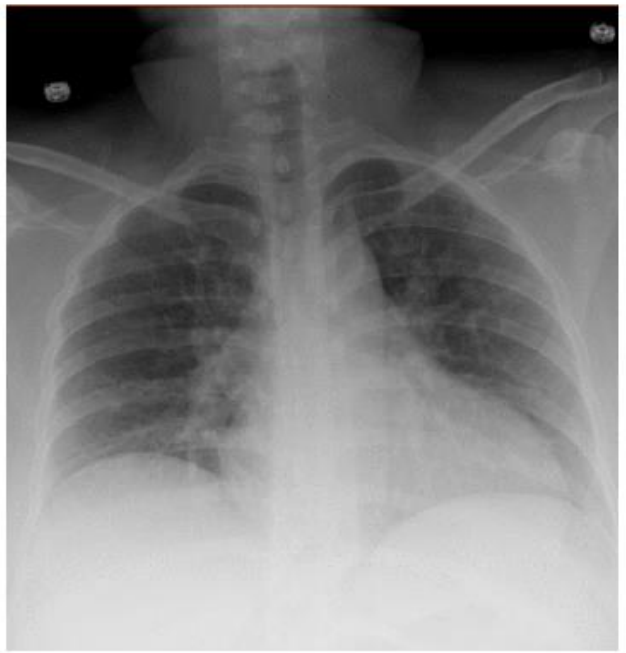
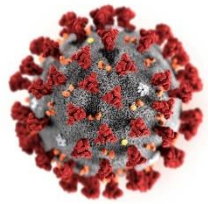


Figure: Chest radiograph showing mild reticulation of the interstitium (Hospital Day 1, Day 4 of Onset of Symptoms).

RESEARCH LETTER

JAMA Published online June 8, 2020



Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain

Table 1. Maternal Characteristics, Clinical Presentation, and Obstetrical Management

Characteristics	Asymptomatic/mild COVID-19 symptoms		Severe COVID-19 symptoms and cesarean delivery (n = 4)
	Vaginal delivery (n = 41)	Cesarean delivery (n = 37)	
Maternal characteristics			
Age			
Median (range), y	35 (19-43)	33 (19-48)	36 (22-47)
>35, No. (%)	21 (51.2)	18 (48.7)	2 (50.0)
Parity, No. (%)			
Nulliparous	16 (39.0)	9 (24.3)	1 (25.0)
Multiparous >3	3 (7.3)	5 (13.5)	0
Comorbidities, No. (%)			
Any[a]	14 (34.1)	11 (30.6)	1 (25.0)
Gestational diabetes	1 (2.4)	0	0
Preeclampsia	1 (2.4)	2 (5.6)	1 (25.0)
Asthma	3 (7.3)	3 (8.3)	0
Smoking, No. (%)	3 (7.3)	3 (8.3)	0
BMI			
Median (range)	23 (17-35)	26 (19-38)	23 (22-30)
>30, No. (%)	3 (8.8)	15 (36.6)	1 (25.0)

(continued)

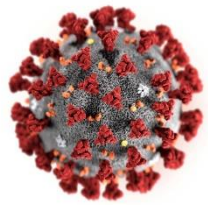


Table 1. Maternal Characteristics, Clinical Presentation, and Obstetrical Management (continued)

Characteristics	Asymptomatic/mild COVID-19 symptoms		Severe COVID-19 symptoms and cesarean delivery (n = 4)
	Vaginal delivery (n = 41)	Cesarean delivery (n = 37)	
COVID-19 history and prepartum clinical presentation			
Signs and symptoms at presentation, No. (%)			
Asymptomatic	13 (31.7)	9 (25.0)	NA
Oxygen supplementation at admission	4 (9.8)	7 (18.9)	4 (100.0)[b]
Diagnostic tests, No. (%)			
Abnormal chest x-ray	8 (19.5)	12 (32.4)	3 (75.0)
Abnormal ALT/AST	5 (12.2)	0	0
Lymphopenia (<1.0 × 10^9/L), No. (%)	4 (9.8)	2 (5.6)	1 (25.0)
Delivery management			
Time from onset of symptoms to delivery, median (range), d	2 (0-14)	1 (0-10)	4 (1-6)
Gestational age at delivery			
Median (range)	39 wk 1 d (27 wk 3 d-41 wk 3 d)	38 wk 3 d (25 wk 0 d-41 wk 4 d)	29 wk 6 d (28 wk 0 d-34 wk 0 d)
Preterm birth, No. (%)			
34 wk to <37 wk	4 (9.8)	10 (27.0)	1 (25.0)
Iatrogenic preterm birth	1 (25)[c]	4 (40.0)[c]	1 (100.0)[d]
<34 wk	3 (7.3)	4 (10.8)	3 (75.0)
Iatrogenic preterm birth	0	3 (75.0)[e]	3 (100.0)[d]
Premature rupture of membranes, No. (%)	9 (22.0)	9 (24.3)	0
Preterm premature rupture of membranes, No. (%)	3 (7.3)	4 (10.8)	0
Obstetrical management, No. (%)			
Prelabor cesarean delivery	NA	13 (35.1)	4 (100.0)
Induction of labor	8 (19.5)	8 (21.6)	0
Spontaneous onset of labor	33 (80.5)	16 (43.2)	0
In-labor cesarean delivery	NA	24 (64.9)	0
Instrumental delivery	12 (29.3)	NA	NA
Anesthesia, No. (%)			
Locoregional analgesia	32 (78.0)	32 (86.5)	2 (50.0)
General anesthesia	NA	5 (13.5)	2 (50.0)

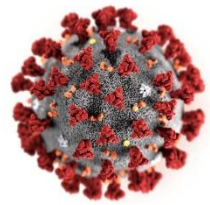


Table 2. Maternal and Neonatal Outcomes[a]

Outcomes	Asymptomatic/mild COVID-19 symptoms				Severe COVID-19 symptoms and cesarean delivery, No. (%) (n = 4)
	Vaginal delivery, No. (%) (n = 41)	Cesarean delivery, No. (%) (n = 37)	Odds ratio (95% CI)	Adjusted odds ratio (95% CI)	
Maternal outcomes					
Severe adverse outcomes	0	5 (13.5)	NA	NA	4 (100.0)
Severe pneumonia	0	3 (8.1)			2 (50.0)
Sepsis	0	0			1 (25.0)
Postnatal intensive care unit admission	0	5 (13.5)			4 (100.0)
Length of stay, median (range), d	NA	10 (2-18)			4 (1-13)
Mechanical ventilation	0	4 (10.8)			2 (50.0)
Clinical deterioration	2 (4.9)	8 (21.6)	5.4 (1.0-54.6)	13.4 (1.5-121.9)	2 (50.0)
Neonatal outcomes					
Neonatal intensive care unit admission	8 (19.5)	11 (29.7)	8.3 (1.6-80.5)	6.9 (1.3-37.1)	3 (75.0)
SARS-CoV-2 perinatal transmission rates					
Total with tests at birth	41 (100)	30 (81.1)			1 (25.0)
Suspected[b]	2 (4.9)	1 (3.3)	0.7 (0.0-13.6)	NA	0
Confirmed[c]	0	2 (5.4)	NA	NA	0
Secondary outcomes					
Apgar score <5 at 5 min	0	3 (8.1)			0
Arterial umbilical pH <7.10	3 (7.3)	3 (8.1)			0
Birth weight, median (range), g	3060 (940-4750)	3210 (910-4510)			1450 (1110-1580)
<10th percentile	1 (2.4)	0			0
Breastfeeding	23 (56.1)	19 (51.4)			0

RESEARCH LETTER

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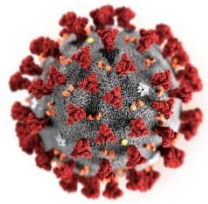
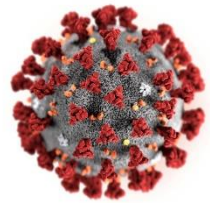


Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain

Among patients with mild symptoms at presentation, all patients with a vaginal birth had excellent outcomes. In contrast, 13.5% of women undergoing cesarean delivery had severe maternal outcomes and 21.6% had clinical deterioration. Women undergoing cesarean delivery may have been at higher risk of adverse outcomes, but after adjusting for confounding factors, cesarean birth remained independently associated with an increased risk of clinical deterioration. The physiological stress induced by surgery is known to increase postpartum maternal complications.[4,5] Cesarean delivery was also associated with an increased risk of NICU admission.

Limitations include a lack of sufficient information on newborns to determine vertical transmission. Also, the 95% CIs around the odds ratios for cesarean birth were wide and the estimates fragile.

Agenda



- Epidemiologia COVID-19
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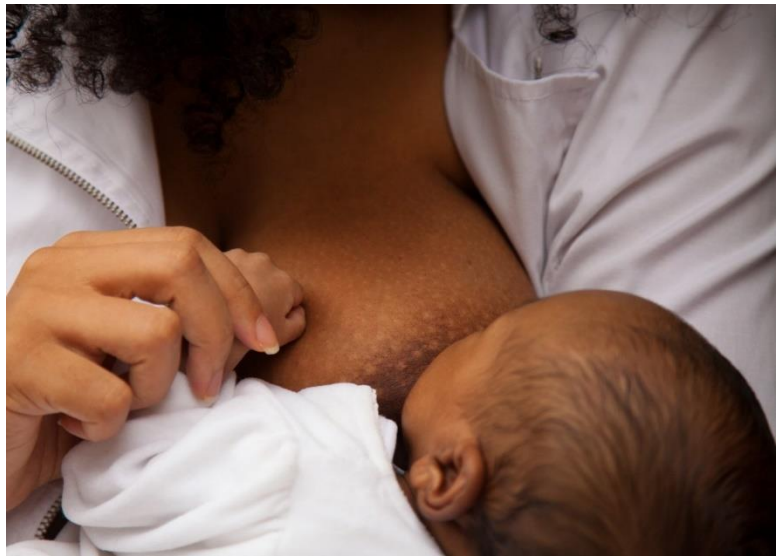
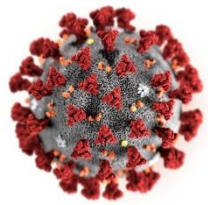


Nº 9, Março 2020



sociedade brasileira de pediatria

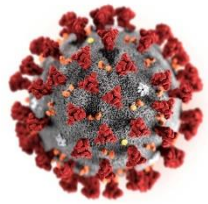
Nota de Alerta

O Aleitamento Materno nos Tempos de COVID-19!

- Lavar as mãos antes de tocar no bebê na hora da mamada;
- Usar máscara facial durante a amamentação.

No caso da mãe não se sentir à vontade para amamentar diretamente a criança, ela poderá extrair o seu leite manualmente ou usar bombas de extração láctea (com higiene adequada) e um cuidador saudável poderá oferecer o leite ao bebê por copinho, xícara ou colher (desde que esse cuidador conheça a técnica correta de uso desses utensílios).

Nº 9, Março 2020

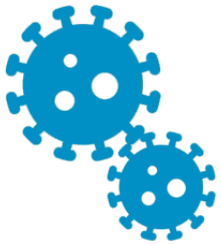


sociedade brasileira de pediatria

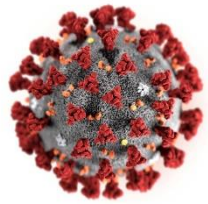
Nota de Alerta

O Aleitamento Materno nos Tempos de COVID-19!

Portanto, finalizamos dizendo que, em sintonia com o pronunciamento da FEBRASGO[6,7], o DCAM - SBP, até o momento, é favorável à manutenção da da amamentação em mães portadoras do COVID-19 (se for o desejo das mesmas). As principais publicações nesse tema, até então indicam que, como em várias outras viroses, os benefícios da amamentação superam os riscos de transmissão do COVID-19"



Aleitamento materno



Women with COVID-19 can breastfeed if they wish to do so. They should:

- Practice respiratory hygiene and wear a mask
- Wash hands before and after touching the baby
- Routinely clean and disinfect surfaces

World Health Organization

#COVID19 #CORONAVIRUS

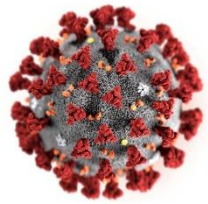
If a woman with COVID-19 is too unwell to breastfeed, she can be supported to safely provide her baby with breastmilk in other ways, including by:

- Expressing milk
- Relactation
- Donor human milk

World Health Organization

#COVID19 #CORONAVIRUS

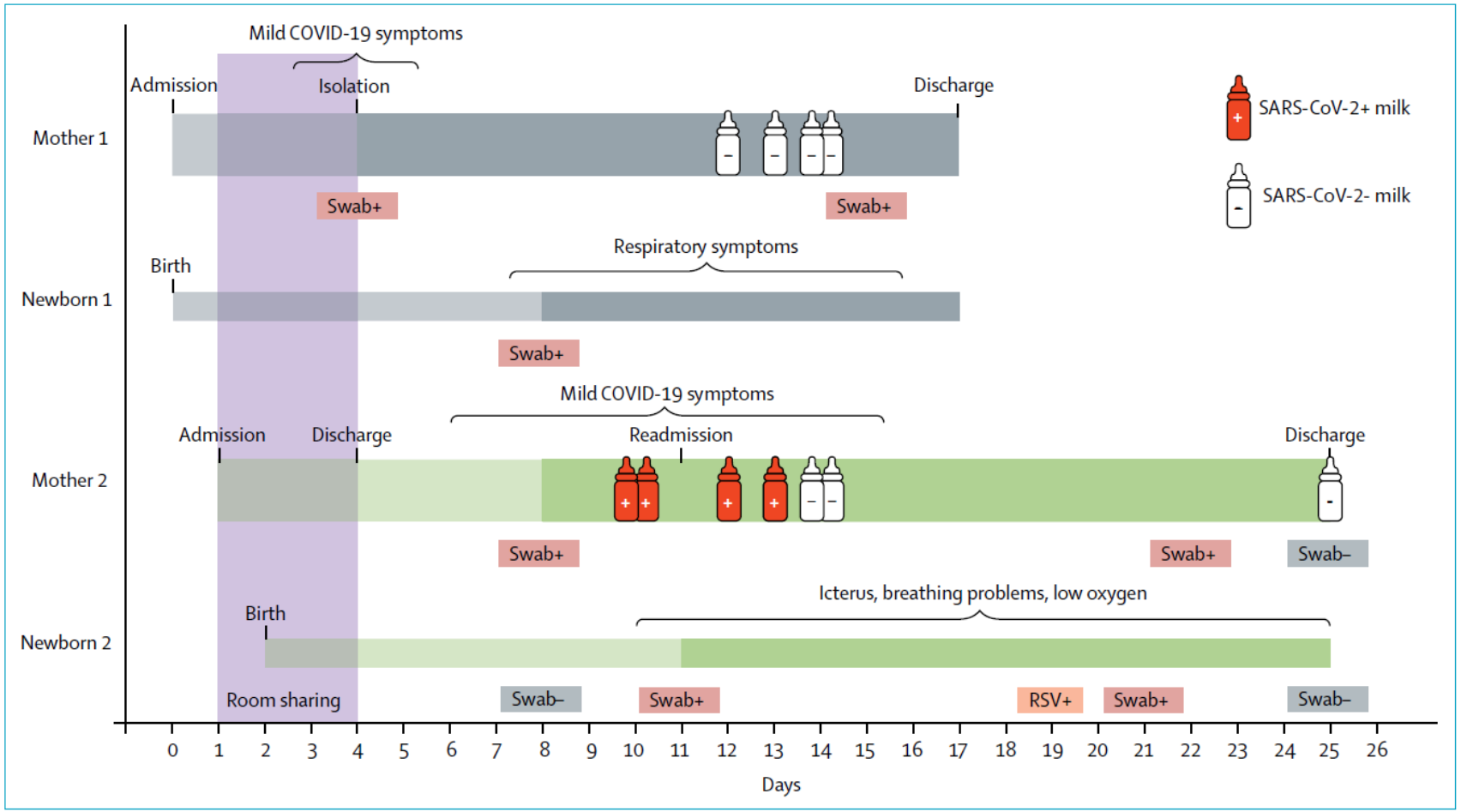
Novas evidências



Correspondence

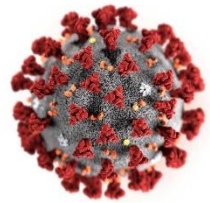
Detection of SARS-CoV-2 in human breastmilk

Published Online
May 21, 2020
https://doi.org/10.1016/
S0140-6736(20)31181-8



We detected SARS-CoV-2 RNA in milk samples from Mother 2 for 4 consecutive days. Detection of viral RNA in milk from Mother 2 coincided with mild COVID-19 symptoms and a SARS-CoV-2 positive diagnostic test of the newborn (Newborn 2). Mother 2 had been wearing a surgical mask since the onset of symptoms and followed safety precautions when handling or feeding the neonate (including proper hand and breast disinfection, strict washing, and sterilisation of milk pumps and tubes). However, whether Newborn 2 was infected by breastfeeding or other modes of transmission remains unclear. Further studies of milk samples from lactating women and possible virus transmission via breastfeeding are needed to develop recommendations on whether mothers with COVID-19 should breastfeed.

Agenda



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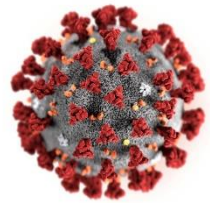
Ambulatório de Pré Natal – Gestante HIV

- Equipe
  - Infectologista
  - Ginecologista obstetra
  - Enfermeira
  - Assistente Social
  - Psicóloga
  - Doula
- Amb. InfectoPediatria
- Farmácia – adesão e “Kit do Parto”

CRT Programa Estadual Centro de Referência e Treinamento DST/AIDS-SP

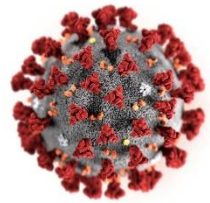
Equipe do Ambulatório de Pré-Natal do CRT DST/Aids São Paulo

Prática clínica - CRT



- Mantido consultas presenciais do pré-natal
- Mantido exames de rotina do pré-natal
- Reforço à adesão ao TARV e vacinas
- Uso obrigatório de máscara.
- Orientado manter o distanciamento social.
- Consultas com horários espaçados
- Interrupção da reunião presencial do grupo de gestantes
- Grupo online com gestantes e participação da doula

Agenda



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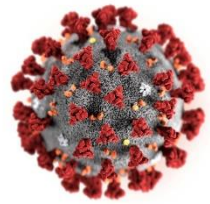
- **Conclusões**

Conclusões



- Estudos clínicos em gestantes e lactantes com COVID-19 são necessários e devem ser incentivados.
- Manifestações clínicas semelhantes (gestantes e não-gestantes da mesma faixa etária).
- Via de parto: indicação obstétrica (cesárea com mais complicações).
- Aleitamento materno pode ser mantido com cuidados.
- Manter rotina de pré-natal.

Conclusões

- **Risco/Benefício para a mãe**
  - Distanciamento social
  - Manifestações clínicas
  - Via de parto

- **Risco/Benefício para o bebê**
  - Prematuridade
  - Transmissão vertical?
  - Leite materno

Obrigada!

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