

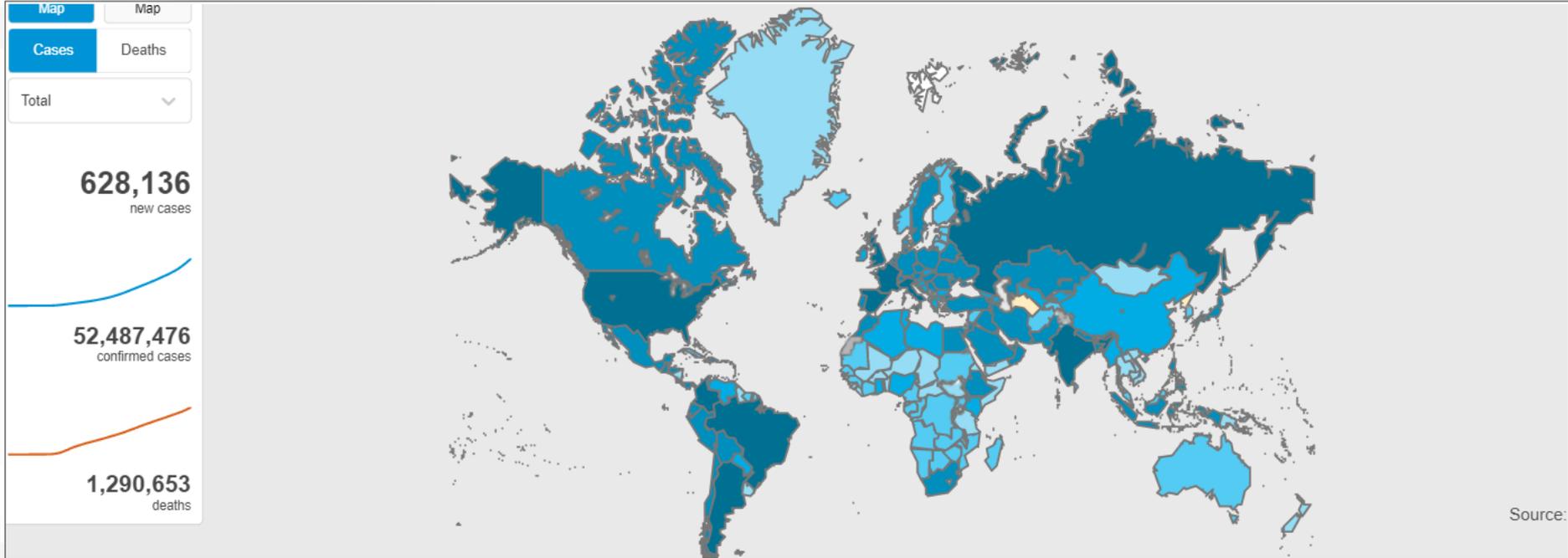
COVID-19 and Maternal/Perinatal Care



Rei Haruyama, MD, MSc
National Center for Global Health and Medicine
Japan Society of Obstetrics and Gynecology



COVID-19 pandemic (13 November)



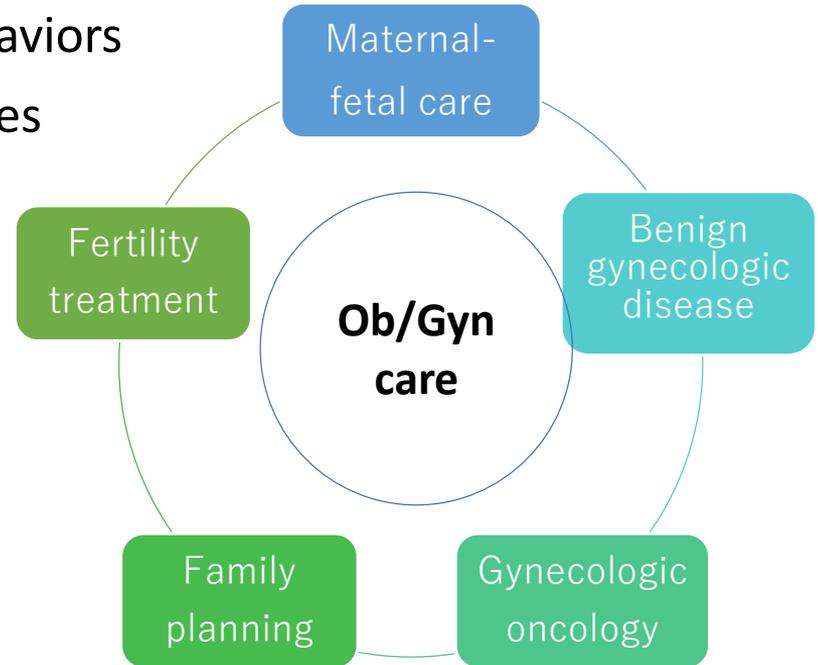
Globally, as of **4:14pm CET, 13 November 2020**, there have been **52,487,476 confirmed cases** of COVID-19, including **1,290,653 deaths**, reported to WHO.

Major impact on obstetric and gynecologic care

- Patient-side: restraint in health seeking behaviors
- Provider-side: restraint in health care services
- Hospital wide: restriction of family visits



- More psychosocial stress
- Delay in diagnosis & treatment
- Increase in unanticipated pregnancies
- Increase in domestic violence



Contents

1. Effect of COVID-19 on pregnancy
2. Clinical guidance on maternal and perinatal care
3. National clinical guidance : a case of JSOG

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1. Effect of COVID-19 on pregnancy
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Quiz: Yes or No?

1. Pregnant women are more likely to show symptoms (e.g. fever) than non-pregnant women when they have COVID-19
2. The risks of stillbirth is increased in pregnant women with COVID-19
3. Cesarean section is preferable in women with COVID-19
4. Breastfeeding should be avoided in women with COVID-19

Quiz: Yes or No?

1. Pregnant women are more likely to show symptoms (e.g. fever) than non-pregnant women when they have COVID-19

Answers are all *NO*.



3. However, because COVID-19 is new and the pandemic is still evolving, **evidence may be updated as new evidence emerges.**

4. Breastfeeding should be avoided in women with COVID-19

Transmission of COVID-19 in pregnant women

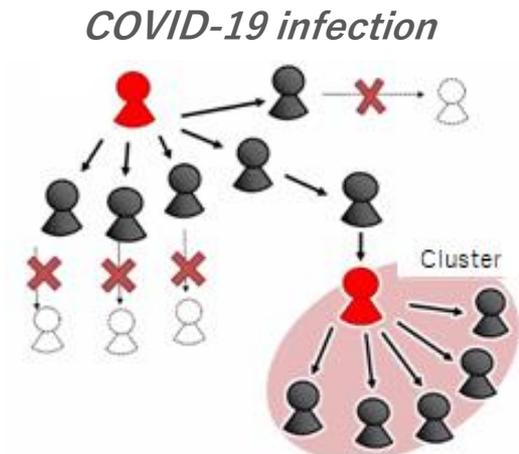
- **Human-to-human transmission**

- 4 out of 5 infected people (80%), do not infect others
- But 1 person (20%) does, and occasionally becomes a super-spreader
- **Risk: pregnant women = general population**

- **Maternal-child (vertical) transmission** may occur, but uncommon.

Not affected by:

- mode of delivery
- method of feeding
- **whether the mother and baby stay together**



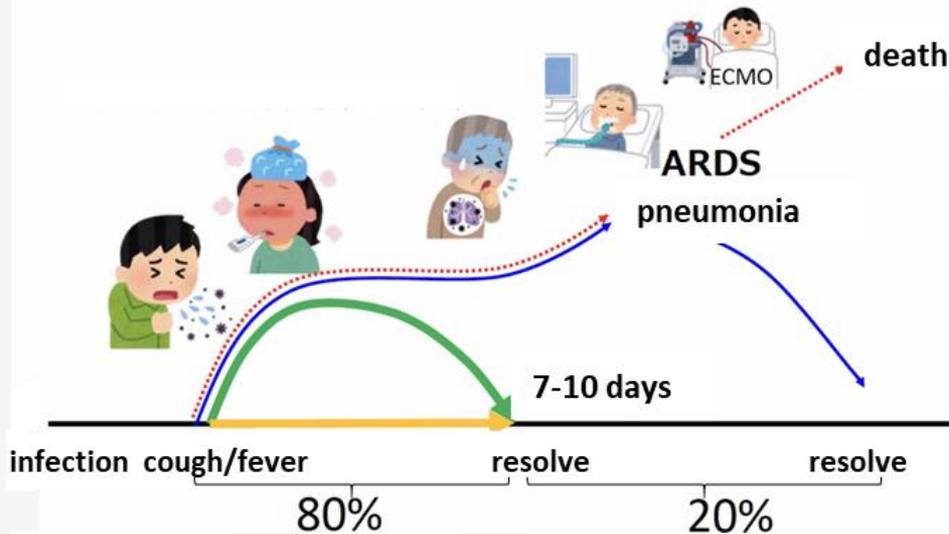
Sources:

Figure by Dr. Takaji Wakita

Walker KF. BJOG 2020;127(11):1324-36.

Salvatore CM. Lancet Child Adolesc Health 2020;4(10):721-27.

Symptoms of pregnant women with COVID-19



Symptoms of pregnant women
(vs. non-pregnant women of same age)

	Odds Ratio (95% CI)
Fever	0.43 (0.22-0.85)
Cough	0.67 (0.37-1.23)
Shortness of breath	0.82 (0.47-1.43)
Muscle pain	0.48 (0.45-0.51)

Aggravation of symptoms in pregnant women with COVID-19

- Severe symptoms (e.g. pneumonia, hypoxia) is more common in pregnant women:
 - Age: >35 years old
 - BMI: >25kg/m²
 - Pre-existing diabetes
 - Chronic hypertension
 - Third trimester or peripartum



Photo: Reuters

Source:
Allotey J. BMJ 2020;370:m3320
Knight M. BMJ 2020;369:m2107

Pregnancy-related outcomes in high-resource settings

Pregnant women **with** COVID-19 (vs. pregnant women **without** COVID-19)

Odds Ratio (95%CI)

Maternal outcomes:

Preterm birth <37 weeks 3.01 (1.16-7.85)

Caesarean section 2.02 (0.67-6.10)

Perinatal outcomes:

Stillbirth 2.45 (0.41-14.71)

Neonatal death 3.26 (0.30-36.07)

Admission to neonatal unit 3.13 (2.05-4.79)

Fetal distress 1.86 (0.50-6.94)



- No significant report on congenital abnormalities

Source:

Allotey J. BMJ 2020;370:m3320

RCOG COVID-19 infection in pregnancy version 12

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During COVID-19 pandemic...



- Should we do COVID-19 testing for all pregnant women?
- Should women with COVID-19 have vaginal birth or cesarean section?
- How can we protect ourselves during labour and birth? (mask + gown + gloves +...?)
- How should labor room and OR be managed?
- How should we provide antenatal and postnatal care?

... many questions!!

Clinical guidelines/protocols

- Purpose:

- help individual physicians keep up with new evidence and make unbiased judgements
- reduce variations in care delivery
- increase patient and provider safety
- improve quality of care

Source: WHO. HEARTS 2018

- Types of clinical guidance:

- International (WHO, FIGO, etc)
- National (MoH, professional organizations)

WHO clinical guidance on COVID-19

Sexual and Reproductive Health and COVID-19



Health Topics ▾

Countries ▾

Newsroom ▾

Emergencies ▾

Data ▾

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Publications



1 June 2020

**Maintaining essential health services:
operational guidance for the COVID-19
context interim guidance**

[Download](#) [Read More](#)



27 May 2020

Clinical management of COVID-19

[Download](#) [Read More](#)



21 April 2020

**Addressing Human Rights as Key to the
COVID-19 Response**

[Download](#) [Read More](#)



7 April 2020

COVID-19 and violence against women

[Download](#) [Read More](#)

Q&A

**Coronavirus disease (COVID-19):
Pregnancy and childbirth**

**Coronavirus disease (COVID-19):
Contraception and family planning**

**Coronavirus disease (COVID-19):
Adolescents and youth**

**Coronavirus disease (COVID-19):
Breastfeeding**

**Coronavirus disease (COVID-19):
Violence against women**

**Coronavirus disease (COVID-19): HIV
and antiretrovirals**

Photo story



Source: <https://www.who.int/reproductivehealth/publications/emergencies/COVID-19-SRH/en/>

WHO clinical guidance on COVID-19

Q. Should pregnant women be tested for COVID-19?

- Testing protocols and eligibility during pregnancy vary depending on where you live. However, pregnant women with symptoms of COVID-19 should be prioritized.

Q. What care should be available during pregnancy and childbirth?

- All pregnant women and their newborns have the right to high quality care before, during and after childbirth.

Before, during and after childbirth, all women have the right to high quality care. This includes:



Antenatal and intrapartum



Newborn



Postnatal



Mental health



World Health Organization

#COVID19 #CORONAVIRUS

WHO clinical guidance on COVID-19

Q. Should pregnant women with COVID-19 give birth by cesarean section?

- **No.** WHO advice is that caesarean sections should only be performed when medically justified.

Q. Can women with COVID-19 breastfeed?

- **Yes.** Women with confirmed or suspected COVID-19 can breastfeed if they wish to do so.



Close contact and early, exclusive breastfeeding helps a baby to thrive.

A woman with COVID-19 should be supported to breastfeed safely, hold her newborn skin-to-skin, and share a room with her baby.



#COVID19 #CORONAVIRUS

Types and characteristics of clinical guidance

International



- Globally agreed contents
- Excellent as general principle applicable to all country settings
- However, **details may not be enough**

National



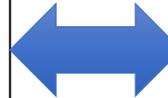
대한산부인과학회
Korean Society of Obstetrics and Gynecology



The Royal Australian
and New Zealand
College of Obstetricians
and Gynaecologists
Excellence in Women's Health

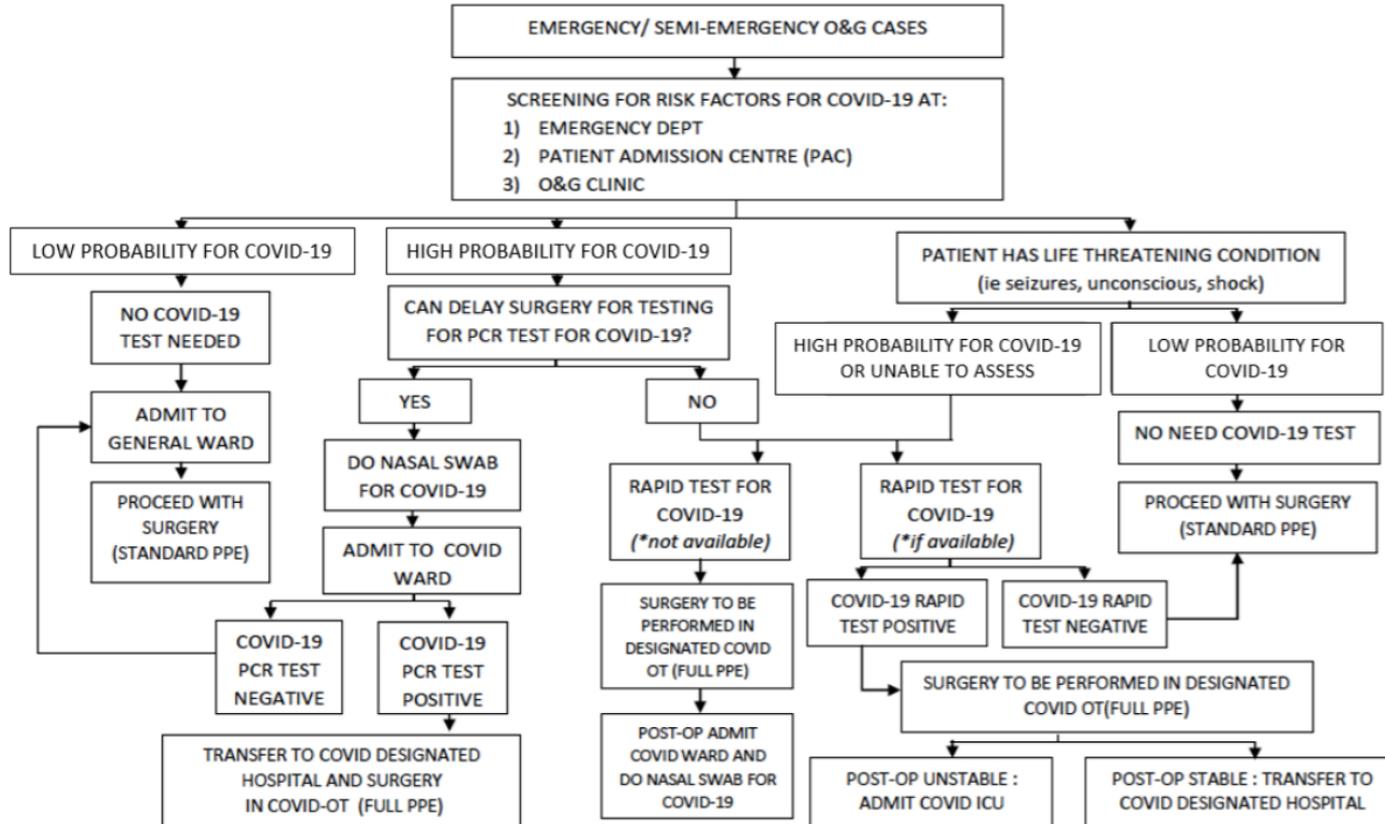


- Nationally agreed contents
- **Management details included in line with the national/local context**
- **Not applicable to other countries**



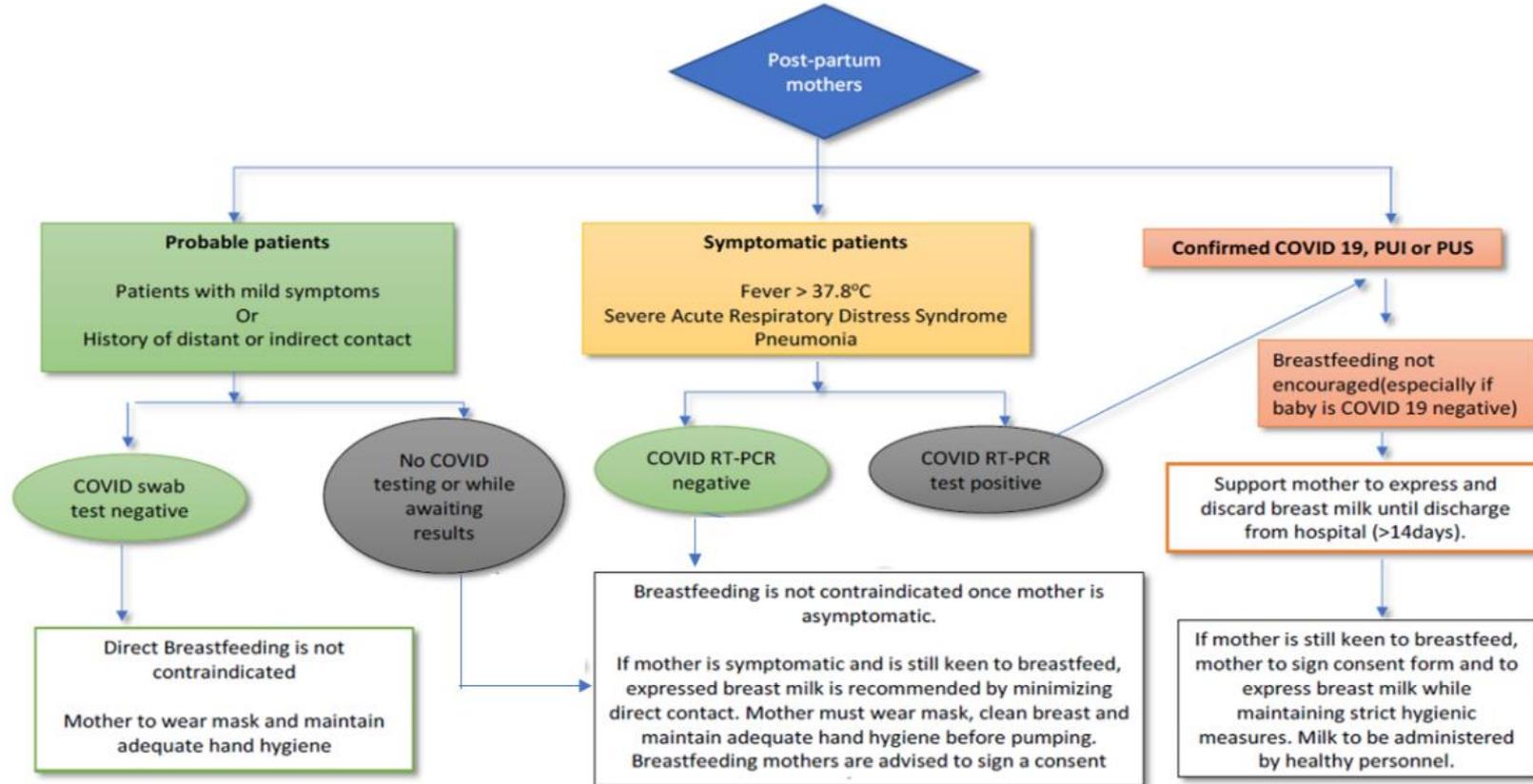
Example: National guidance (Malaysia)

TESTING FOR COVID-19 FOR OBSTETRIC AND GYNAECOLOGICAL CASES (EMERGENCIES/ SEMI- EMERGENCIES)

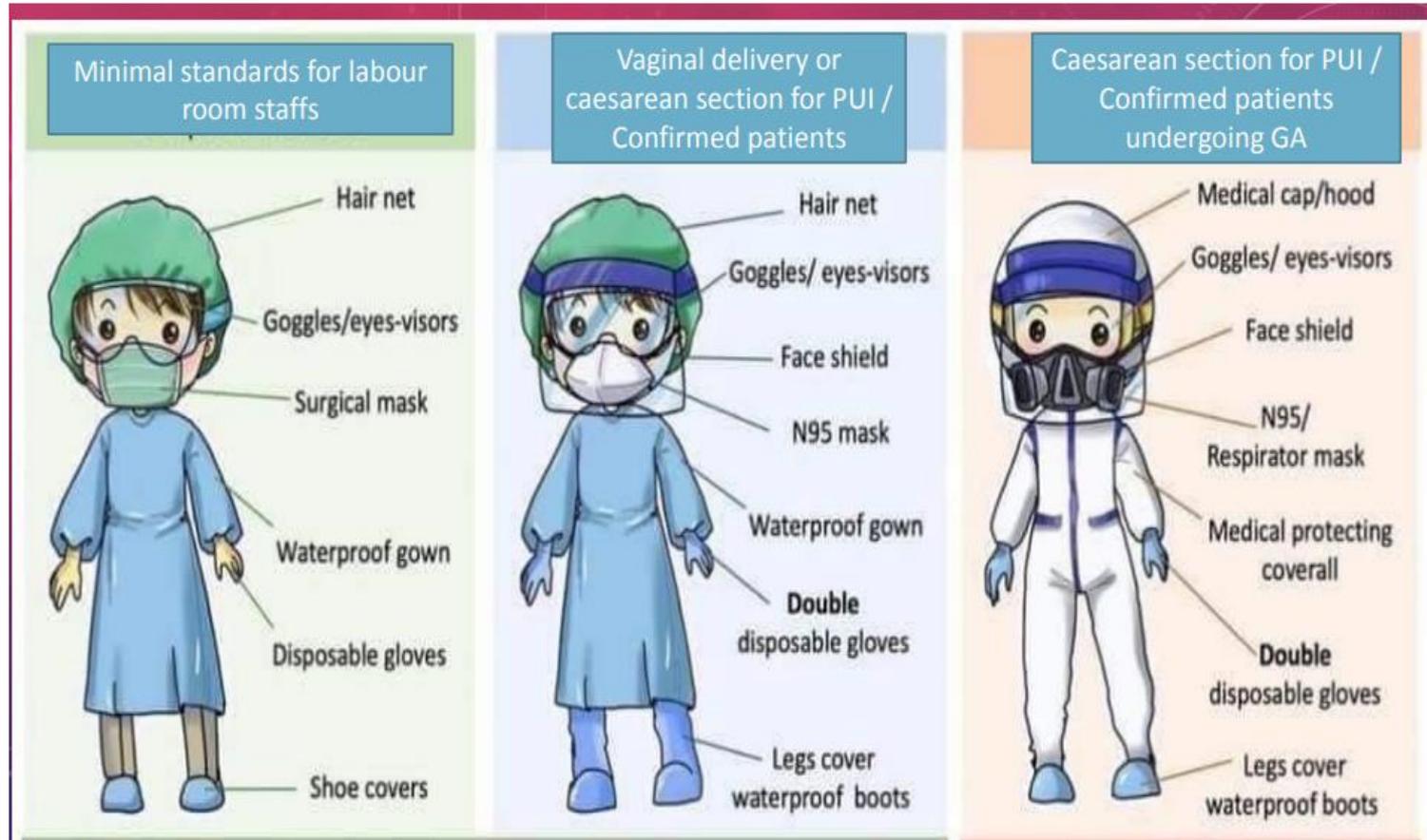


Example: National guidance (Malaysia)

Flowchart for breastfeeding mothers (Confirmed, PUI, PUS and probable patients)



Example: National guidance (Malaysia)



National guidance from AOFOG member organizations

Source: <http://www.aofog.net/>

FOGSI GCPR
Good Clinical Practice Recommendation on
PREGNANCY WITH COVID-19 Infection

India

Edited by
Dr Alpesh Gandhi | Dr Alui Ganatra | Dr Parikshit Tank

Version 2 | 28th April 2020

Antenatal Care
in the Ward for COVID-19
confirmed or suspected patients

Sri Lanka

Sri Lanka College of
Obstetricians & Gynaecologists

COVID-19 and Women's Health

OGBS Guidelines
April, 2020

Bangladesh

Obstetrical and Gynaecological Society of Bangladesh (OGBS)
Email: oghs@ogbs.com

NESOG Clinical Practice guidance for management of Reproductive Health during COVID-19 pandemic

Nepal

Version 1.0
Published: 12 July 2020

COMMITTEE OPINION

MANAGEMENT OF PREGNANCY AND BIRTH IN WOMEN WITH CORONA VIRUS DISEASE (COVID-19)

Singapore

ACADEMY OF MEDICINE SINGAPORE
COLLEGE OF OBSTETRICIANS & GYNAECOLOGISTS, SINGAPORE

Recommendations for gynecologic cancer care during the COVID-19 pandemic

The standard of care in gynecologic cancers has been inevitably hampered by the COVID-19 crisis. As a result, patients and medical staffs are facing unprecedented challenges in treating cancer. This recommendation is intended for clinicians taking care of patients with gynecologic cancers during the pandemic of COVID-19. It is desirable to cautiously apply this recommendation in consideration of the hospital's resources and the situation of COVID-19 transmission. We classified the recommendations into three categories, depending on the severity of patient's condition with gynecologic cancers.

This classification has been modified referring to the clinical guidelines from Ontario Health.

Priority A: The patient's condition is life-threatening or needs emergency care.

Priority B: The patient's condition is non-life-threatening and could be deferred 6-8 weeks during the COVID-19 pandemic.

Priority C: The patient's condition is stable even in the discontinuation of treatment during the current COVID-19 crisis.

Table 1. Cervical Cancer

Priority (in a %)	Patient's status	Recommendation
A	New diagnosis	Diagnosis should be prioritized within 2 weeks
A	Massive and/or bleeding from	Diagnosis of the lesion could be prioritized within 2 weeks
C	Routine screen	Diagnosis of the lesion could be prioritized within 2 weeks
B	Abnormal Pap result	Diagnosis of the lesion could be prioritized within 2 weeks
B	Suspicion of low-grade cervical disease	Diagnosis of the lesion could be prioritized within 2 weeks
B	Suspicion of high-grade cervical disease without invasive cancer	Diagnosis of the lesion could be prioritized within 2 weeks
B	Suspicion of invasive cervical cancer	Diagnosis of the lesion could be prioritized within 2 weeks
C	Early-stage cervical cancer	Diagnosis of the lesion could be prioritized within 2 weeks
C	Stage A1 based on LLETZ pathology	Diagnosis of the lesion could be prioritized within 2 weeks
C	Stage A2 based on LLETZ pathology	Diagnosis of the lesion could be prioritized within 2 weeks

Korea

Recommendation is possible based on the transmission of COVID-19 risk up during COVID-19 local cases.

Assessment could be deferred up to 12 months
It is appropriate to evaluate lesions within 3 months
Diagnosis of the lesion could be prioritized within 2 weeks
It might be possible to observe the lesion without further treatment up to 6-8 weeks
It should be prepared to observe further treatment up to 6-8 weeks

REKOMENDASI PENANGANAN INFEKSI VIRUS CORONA (COVID-19)

Indonesia

PERKUMPULAN OBSTETRI DAN GINEKOLOGI INDONESIA TAHUN 2020

PHILIPPINE OBSTETRICAL AND GYNECOLOGICAL SOCIETY (Foundation), INC.
PHILIPPINE SOCIETY OF MATERNAL FETAL MEDICINE, INC.

COVID-19 and Pregnancy: Interim Guidelines on Labor and Delivery for MFM Specialists and General Obstetric Practitioners

Philippines

These are only best practice recommendations that should be adapted to fit local/institutional settings. This document is offered as best practice recommendations as needed based on incidence of COVID and limitations in capacity and resources in their settings.

Updated Interim Guidelines On Management of COVID-19 in Obstetrics & Gynaecology

Malaysia

Version 2
Updated 04/05/2020

Updated Interim Guidelines On Management of COVID-19 in Obstetrics & Gynaecology

Thailand

Version 2
Updated 04/05/2020

Technical Guidance for Maternal and Newborn Health in the context of COVID-19
Ver 1, June 2020

Lao PDR

Key recommendations for Maternal and Newborn Health in context of COVID-19 remain unchanged from existing MOH policy and guidelines:

- Promote pregnant women to have at least 4 times face-to-face ANC visit during pregnant period
- Emphasize on birth preparedness counselling and respectful care at ANC to promote delivery with SBA and facility-based delivery, especially addressing COVID-19 related fear to give childbirth at health facilities
- Set up and/or consolidate safe abortion care services
- Safe abortion care should continue to be available at DH(B) and above
- Babies born to women should receive a full Early Essential Newborn Care (EENC) such as thorough drying, immediate & prolonged skin-to-skin contact, early initiation and exclusive breastfeeding (This applies also to COVID-19 cases)

Technical Guidance for Maternal and Newborn Health in the context of COVID-19
Ver 1, June 2020

Japan

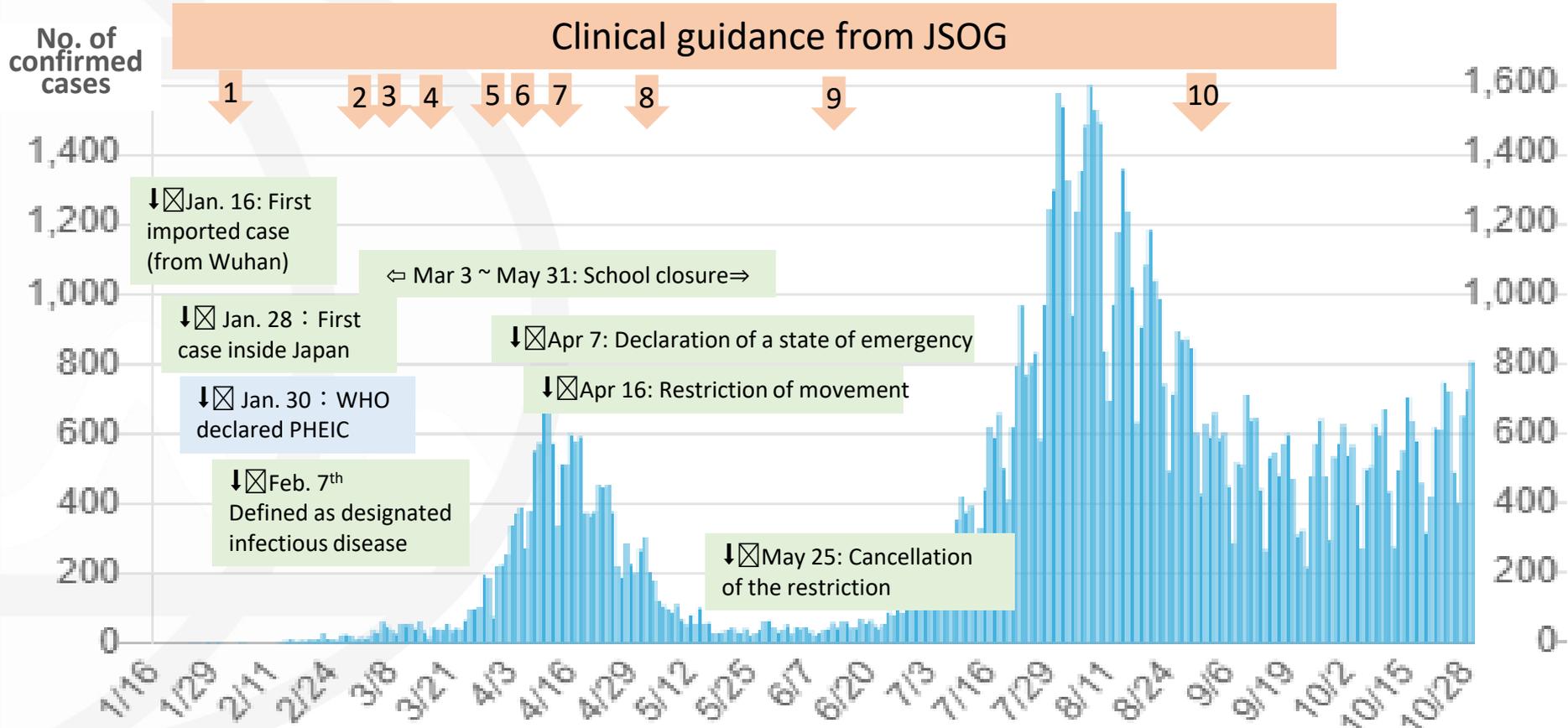
Key recommendations for Maternal and Newborn Health in context of COVID-19 remain unchanged from existing MOH policy and guidelines:

- Promote pregnant women to have at least 4 times face-to-face ANC visit during pregnant period
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COVID-19 in Japan



JSOG clinical guidance documents

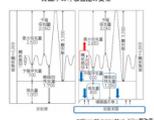
	Date of issue	Name	Pages
1	Feb 6	Measures to prevent novel coronavirus infection in pregnant women and postpartum mothers	3
2	March 5	Guidelines for ob/gyn response to COVID-19	8
3	March 10	Q&A on what to do when your pregnant patient has or is suspected of COVID-19	2
4	March 20	Guidelines for ob/gyn response to COVID-19 (2 nd edition)	9
5	April 2	Gynecological oncology care under the spread of COVID-19 infection	1
6	April 7	Guidelines for ob/gyn response to COVID-19 (3 rd edition)	13
7	April 16	Q&A on safety of the COVID-19 medicines to pregnant women	1
8	May 2	Definition of close contact and standard precaution ob/gyn care	3
9	June 11	Guidelines for ob/gyn response to COVID-19 (4 th edition)	13
10	Sep 3	Guidelines for ob/gyn response to COVID-19 (5 th edition)	15

First technical note on Feb 6th (just 3 pages, but enough)

妊婦・産褥期の新型コロナウイルスの感染予防対策について

新型コロナウイルスは発熱や上気道症状を引き起こすウイルスで、人に感染をおこすものは複数あり、重症性呼吸器症候群(SARS)などの重症化傾向のある疾患の原因ウイルスも含まれる。新型コロナウイルスは口から口への感染の割合は高くないが、誤嚥・心配をなく、密着した空間で長時間にまじりあつた場合、うがい、手洗い等の感染対策を行う事が重要である。

一般的に妊婦は増大する子宮による機械的圧上、1回換気量が増えより予備呼吸量、換気量、機械的換気量がそれぞれ約20%減少する。分娩後の末期で自力ではけいはいが減少する。さらには妊婦に免疫寛容状態であるために妊婦は発熱反応に対してインフルエンザ等の呼吸器感染症が重症化しやすいため特徴がある。



妊婦中の呼吸機能的変化

予備法について

一般的な標準治療として、妊婦継続時、妊婦・産褥時に低エネクトや手洗いをなどを行うべくよう、治療を行う。また、呼吸器症状のある妊婦さんへ、外来では入室で待たせることも考慮してよい。診察室、椅子、すりなど接触機会の多いものは1時間毎に次亜塩素酸ナトリウム(0.1%)で拭き上げる。手洗消毒剤はアルコール(70%)を腕内に入り口、診察室、病室の入り口に配置し、入室時の使用を勧誘する。

妊婦、産褥期で発熱を要する疾患

妊婦、産褥期で発熱を認めた場合、血液検査、培養検査、レントゲン検査を躊躇しない事が重要である。必要があれば診断目的にて検査を行うてよい。分娩後の発熱は肺炎の原因となり、肺炎、敗血症など予後不良の可能性が一般に高い。また、産後1週間以内の発熱は産後感染なども強力な抗菌薬投与が第一選択となるため、鑑別診断が必要である。レントゲン、血液検査で肺炎を認めるときには非中葉炎の他、インフルエンザ、アデノウイルス感染症

が鑑別に挙げられる。

妊婦への影響

新型コロナウイルスの情報は少ないので、コロナウイルス(SARSを含む)についてわかっていることを記述する。妊婦にからって重症化し、集中治療の必要が多くなることには留意される。また、治療後、免疫寛容を考慮する。胎児インフルエンザなどの呼吸器感染症と同様に呼吸器感染症が重症化し重症感染することはない。妊婦初期のコロナウイルス感染症は、新型コロナウイルスであっても現時点では重症、胎児の先天発症のリスクとなることは考えにくく、重症化した妊婦の重症化に配慮する事が無いよう配慮を行う。

妊婦中のコロナウイルスの診断

現在コロナウイルスに関する有効な抗ウイルス剤はない。妊婦がコロナウイルスに罹患したら、十分な観察と鑑別による2次感染予防目的に必要時に抗菌薬投与を検討する。

検査について

コロナウイルス感染が確定し発熱を認める場合には母体コロナウイルス血症となっていることが考えられ、検査は控えるように指導する。解熱後3日までは感染があるかと判別し、痰を採取、手洗い、接触のある物を次亜塩素酸ナトリウム(0.1%)で拭き上げることを実施する。検査実施は解熱後4日を目処とする。ただし、今後の情報によって上記の日には変更される。

新型コロナウイルス感染症の届け出について

調査報告の精度やその信頼性などにおいて、集中治療その他これに準ずるものが必要な場合や重症化から結果と診断され、かつさらに特定の感染症と診断できない場合においては、非妊婦と同様に妊婦においても新型コロナウイルス感染症を疑っての報告対象として地域の保健所に届け出が必要に応じて検体を提出する必要がある。

その他

今後、新型コロナウイルス感染症に対し、診断、予防対策、新たな治療法入ることが予想されます。厚生労働省HP(<https://www.mhlw.go.jp/index.html>)にご注意ください。

4) 報告対象は届け出基準は(5月1日開始)発熱性呼吸器疾患(発熱)1)発熱または呼吸器症状(疑いの場合を含む)を見せる者であり、新型コロナウイルス感染症であると判断したものと濃厚接触があるもの

2) 37.5℃以上の発熱かつ呼吸器症状を有し、発症後14日以内にWHOの公表内容から新型コロナウイルス感染症の流行が確認されている地域に渡航又は居住したものと濃厚接触歴があるもの

3) 37.5℃以上の発熱かつ呼吸器症状を有し、発症後14日以内にWHOの公表内容から新型コロナウイルス感染症の流行が確認されている地域に渡航又は居住したものと濃厚接触歴があるもの

4) 発熱、呼吸器症状その他感染症を疑わせるような症状のうち、医師が一般に認められている医学的知見に基づき、集中治療その他これに準ずるものが必要であり、かつ、さらに特定の感染症と診断することができると判断し(注第14条第1項に規定する厚生労働省で定める疑い症に相当)、新型コロナウイルス感染症の鑑別を要したものと

以上

令和2年2月6日

小島社団法人日本産科婦人科学会
理事長 木村 正
産褥期委員会委員長 池田 啓明

- How to prevent infection (wash hands, wear mask, sanitize environment)
- Differential diagnosis of fever in pregnant women
- Effect of coronavirus infection on women and fetus (evidence from SARS infection)
- Treatment (there is no effective treatment)
- Breastfeeding (avoid until being afebrile for 4 days)
- Important information source (MHLW website)

JSOG clinical guidance documents

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4	March 20	Guidelines for ob/gyn response to COVID-19 (2nd edition)	9
5	April 2	Guidelines for ob/gyn response to COVID-19 (3rd edition)	1
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LIVING GUIDELINES

Most recent guidance (September 3rd)

会員各位

令和2年9月2日

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理事長 山田 秀人

新型コロナウイルス感染症（COVID-19）への対応（第5版）

昨年末に発生した新興感染症であるCOVID-19は、全世界に拡散し、2020年3月11日WHOはパンデミックを宣言しました。我が国でも3月末から4月にかけて都市部を中心に感染者の急激な増加が見られましたが、幸いなことに欧米のような感染爆発に至らず、6月には一旦終息に向かいました。しかし、7月以降、第2波と考えられる患者数の増加があり、現在も続いています。本疾患の診療には全ての診療科が関わりますが、妊婦に対する感染制御と周産期管理は産婦人科医にとって喫緊の課題です。新型コロナウイルス感染症に対しては、3月5日、3月20日、4月7日、6月10日付で日本産科婦人科学会、日本産婦人科医会、日本産婦人科感染症学会による合同ガイドラインを策定しました。基本的には関連学会である日本感染症学会、およびACOG、CDCガイドラインに準拠していますが、貴施設における分擔取り扱い状況や医師、医療スタッフを含む医療資源から弾力的に運用されるようお願いいたします。

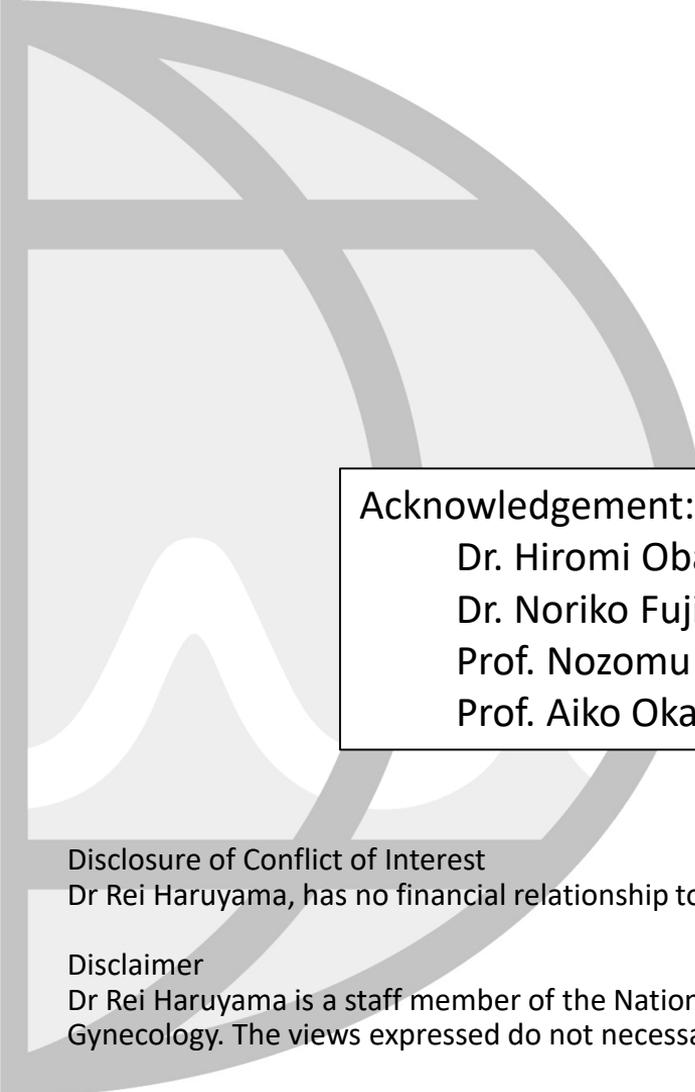
1. Summary of updates
2. How to prevent nosocomial infections
3. Current status of infection spread in Japan
4. How to diagnosis COVID-19
5. Basic infection control measures during clinical practice
 - 1) General care
 - 2) Obstetric care
 - 3) Gynecologic oncology care
 - 4) Fertility treatment
 - 5) Prescription of medicines
6. COVID-19 as a designated infectious disease (e.g. reporting)
7. Treatment of COVID-19 infection
8. Important information sources (URL links of MHLW, NIID, ROCG, ACOG, CDC websites)

Conclusion

- Ob/Gyns must be equipped with essential knowledge about **the effect of COVID-19 on pregnancy and provision of best care taking into the account the safety** of the clinical team.
- Since COVID-19 is new and pandemic is still evolving, **evidence and information are rapidly updated.**
- Clinical guidance can greatly:
 - help individual physicians keep up with new evidence and make unbiased judgements
 - reduce variations in care delivery
 - improve patient/provider safety

Conclusion (continued)

- **National obstetric and gynecologic societies can take the lead** and work with MoH to develop national clinical guidance
- From JSOG experience
 - **Development can start anytime** even with very limited information.
No need to be perfect!
 - **Periodic review and update** as new evidence emerges (*living guidelines*)



Thank you!

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Disclaimer

Dr Rei Haruyama is a staff member of the National Center of Global Health and Medicine and a member of Japan Society of Obstetrics and Gynecology. The views expressed do not necessarily represent the decisions, policy or views of these organizations.