UNIFIED COVID-19 ALGORITHMS

Section 1

GUIDELINES FOR PRIMARY CARE

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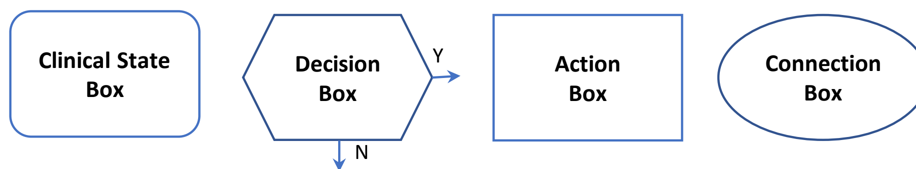
INTRODUCTION

The clinical algorithm (flow chart) is a text format that is specially suited for representing a sequence of clinical decisions which are intended to improve and standardize decisions in delivery of medical care. For the purpose of clarity, a typical clinical algorithm is depicted with basic symbols that represent clinical steps in decision-making:



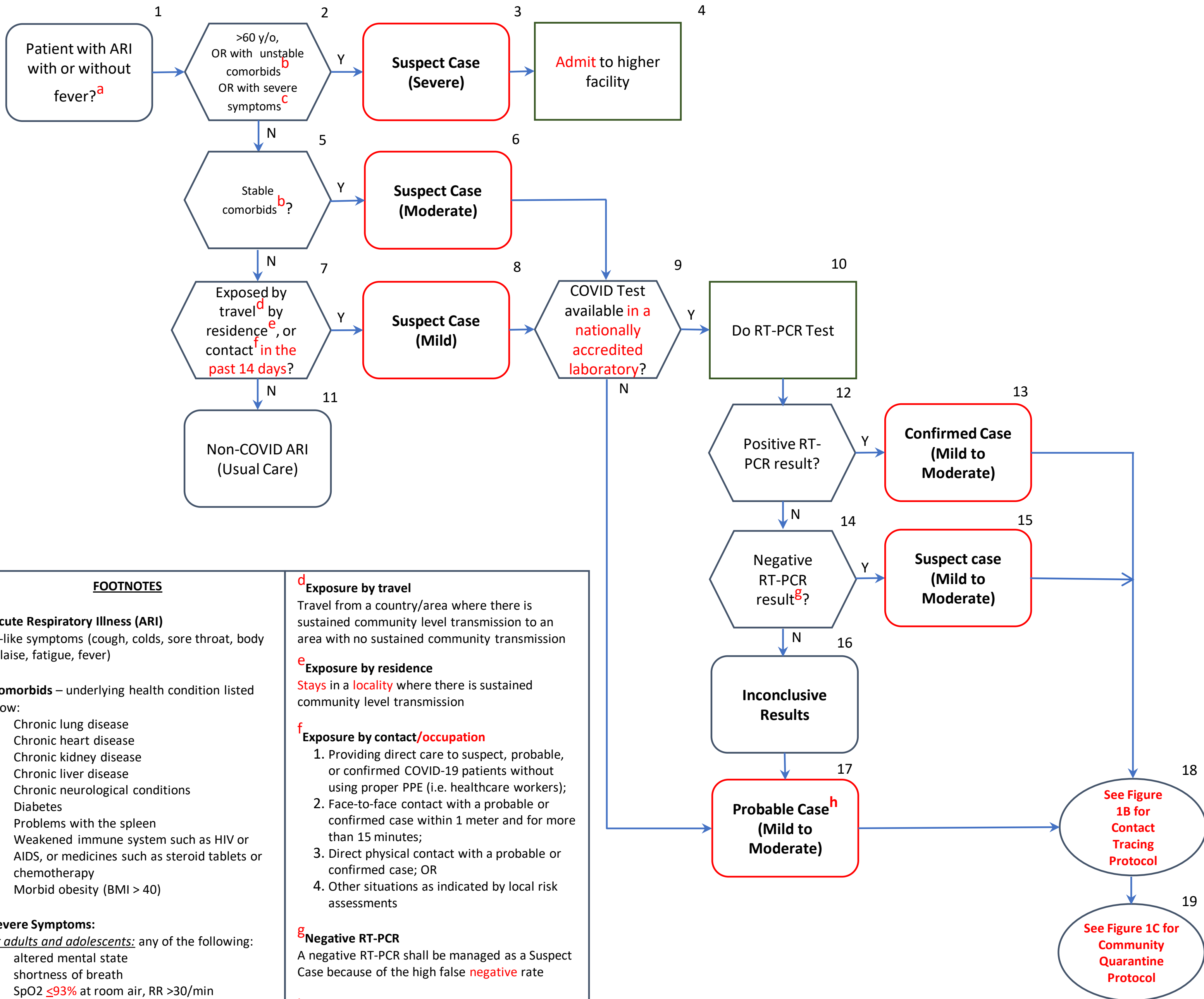
1. The rectangle with rounded edges depicts the current clinical state of an individual patient;
2. The hexagon is decision box which contains a question answerable by yes or no; one arrow going to the right signifies "yes", and one arrow going downwards signifies "no";
3. The rectangle with sharp edges depicts the action to be done; and
4. The oval depicts connection to another algorithm in a different page.

Note that the following algorithms are adapted from multiple guidelines as released by the World Health Organization, Department of Health, and other societies. This document was also reviewed by different experts with the end-goal of having a summarized and comprehensive compilation of guidelines that will aid in management of COVID-19 patients by healthcare workers from both the community and hospital levels.

Lastly, while these patient-centered algorithms intend to summarize and simplify recommendations, these may be subject to change as evidence emerges and guidelines are updated. Any recommendations on patient care are not absolute. Final decisions remain under the discretion of the healthcare provider.

FIGURE 1A. CLASSIFICATION OF CASES

Original Version 06 April 2020, Updated 20 April 2020
(See appendix for explanation of changes)



FOOTNOTES

[a] **Acute Respiratory Illness (ARI)**
Flu-like symptoms (cough, colds, sore throat, body malaise, fatigue, fever)

[b] **Comorbids** – underlying health condition listed below:
- Chronic lung disease
- Chronic heart disease
- Chronic kidney disease
- Chronic liver disease
- Chronic neurological conditions
- Diabetes
- Problems with the spleen
- Weakened immune system such as HIV or AIDS, or medicines such as steroid tablets or chemotherapy
- Morbid obesity (BMI > 40)

[c] **Severe Symptoms:**
For adults and adolescents: any of the following:
- altered mental state
- shortness of breath
- SpO2 ≤93% at room air, RR >30/min
- systolic blood pressure of <90mmHg
- other signs of shock or complications

For children: cough or difficulty in breathing, plus at least one of the following:
- central cyanosis or SpO2 <90%
- severe respiratory distress (e.g. grunting, chest indrawing)
- signs of pneumonia with a general danger sign: inability to breastfeed or drink, lethargy/unconsciousness, or convulsions

Other signs of pneumonia may be present: fast breathing (in breaths/min):
<2 months: ≥60; 2-11 months: ≥50; 1-5 years: ≥40

[d] **Exposure by travel**
Travel from a country/area where there is sustained community level transmission to an area with no sustained community transmission

[e] **Exposure by residence**
Stays in a locality where there is sustained community level transmission

[f] **Exposure by contact/occupation**
1. Providing direct care to suspect, probable, or confirmed COVID-19 patients without using proper PPE (i.e. healthcare workers);
2. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
3. Direct physical contact with a probable or confirmed case; OR
4. Other situations as indicated by local risk assessments

[g] **Negative RT-PCR**
A negative RT-PCR shall be managed as a Suspect Case because of the high false negative rate

[h] **Probable Case**
Proceed to box 10 if repeat test becomes possible/available

FIGURE 1B. CONTACT TRACING PROTOCOL

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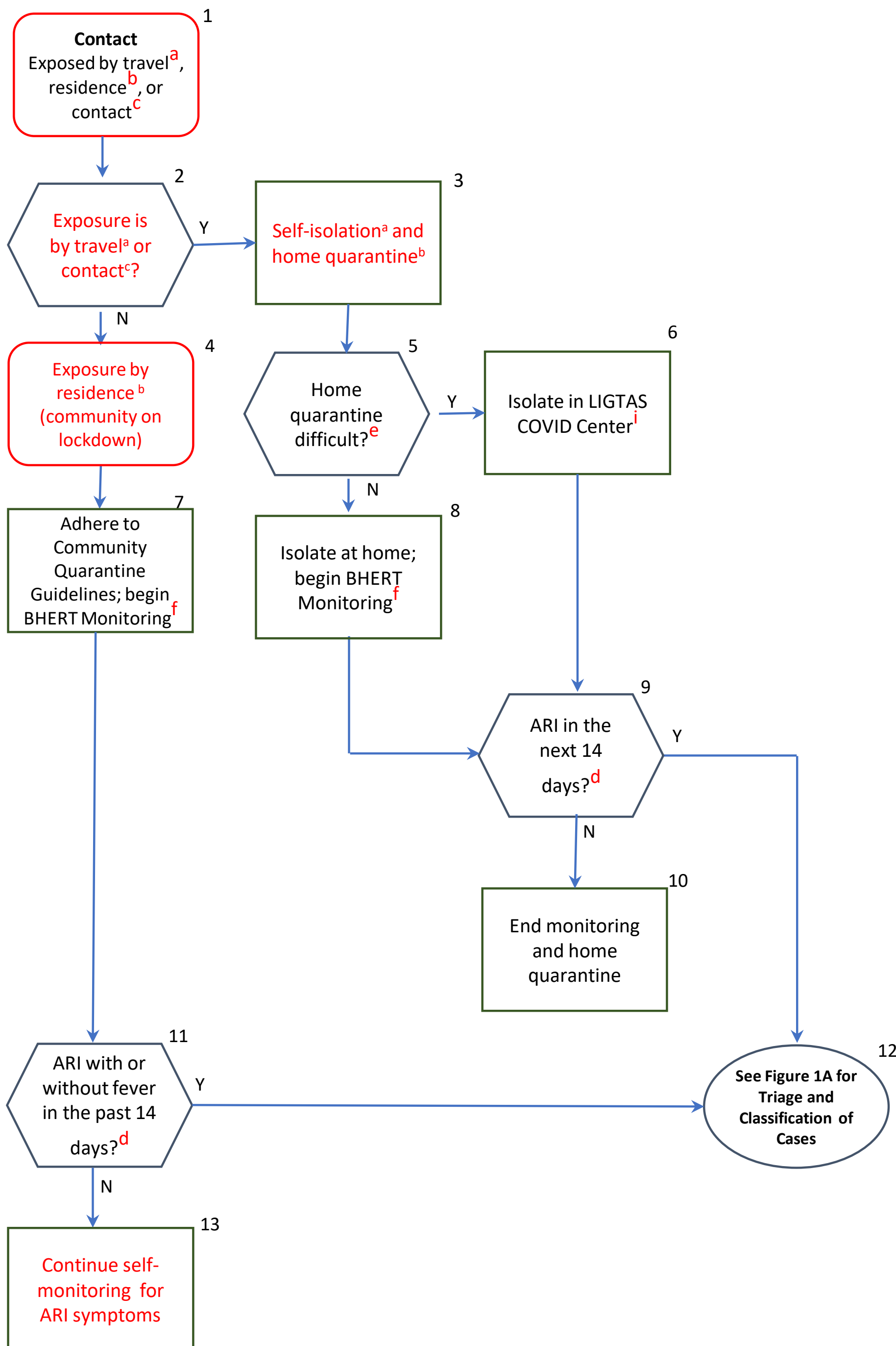
(See appendix for explanation of changes)



FOOTNOTES

[a] **Exposure by travel**
Travel from a country/area where there is sustained community level transmission to an area with no sustained community transmission

[b] **Exposure by residence**
Stays in a locality where there is sustained community level transmission

[c] **Exposure by contact/occupation**
1. Providing direct care to suspect, probable, or confirmed COVID-19 patients without using proper PPE (i.e. healthcare workers);
2. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
3. Direct physical contact with a probable or confirmed case; OR
4. Other situations as indicated by local risk assessments

[d] **Acute Respiratory Illness (ARI)**
Flu-like symptoms (cough, colds, sore throat, body malaise; fatigue, fever)

[e] **Situations where home quarantine is difficult**
1. Living with vulnerable person (with comorbids or >60y/o)
2. No separate bedroom or beds not separated by 1 meter isolation radius
3. Not well-ventilated

[f] **BHERT Monitoring**
Barangay Health Emergency Response Team (BHERT)
- Accomplish a **Case Identification Form (CIF)**
- Ensure monitoring throughout the duration of isolation & quarantine
- Facilitate home care and basic needs
- A daily report shall be forwarded to the Municipality/City Epidemiology and Surveillance Units (MESU/CESU) which in turn are forwarded to the Provincial Epidemiology and Surveillance Units (PESU)

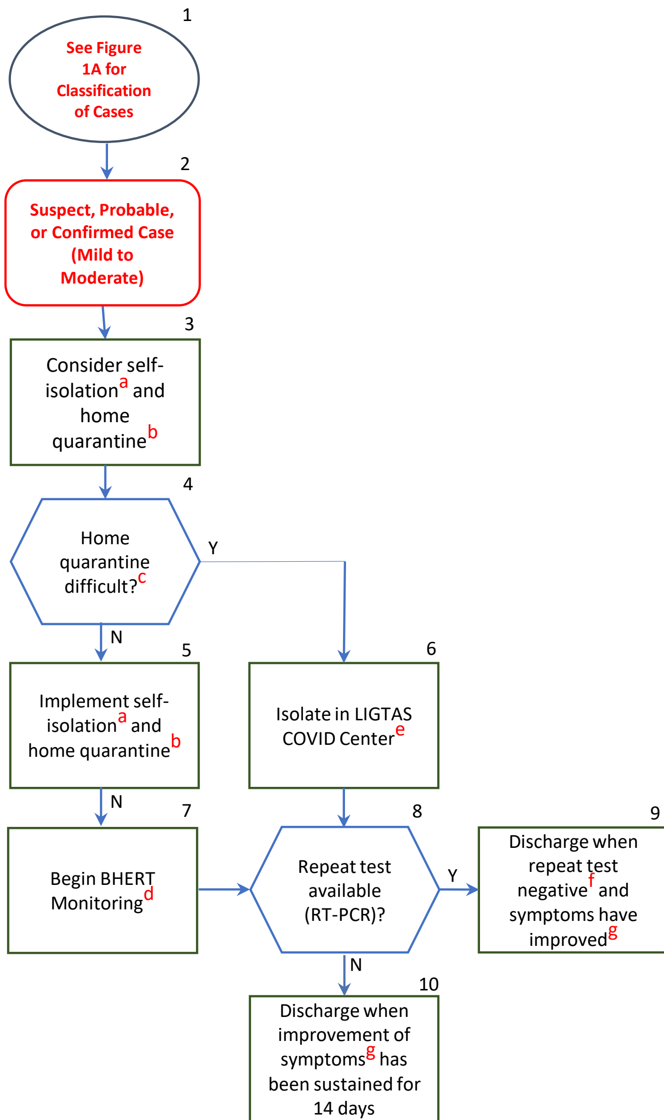
[g] **Self-isolation** – strict isolation of the patient in a separate room or area in the household

[h] **Home Quarantine** – All members of the household (including pets) must strictly stay at home

[i] **LIGTAS COVID Center –** Contacts shall be provided with individual isolation rooms, separate from those who are symptomatic

FIGURE 1C. COMMUNITY QUARANTINE PROTOCOL

Original Version 06 April 2020, Updated 20 April 2020
(See appendix for explanation of changes)



FOOTNOTES

[a]**Self-isolation** – strict isolation of the patient in a separate room or area in the household

[b]**Home Quarantine** – All members of the household (including pets) must strictly stay at home

[c]**Situations where home quarantine is difficult**

1. Living with vulnerable person (with comorbids or >60y/o)
2. No separate bedroom or beds not separated by 1 meter isolation radius
3. Not well-ventilated

[d]**BHERT Monitoring**
Barangay Health Emergency Response Team (BHERT)

- Accomplish a **Case Identification Form (CIF)**
- Ensure monitoring throughout the duration of isolation and quarantine
- Facilitate home care and basic needs
- A daily report shall be forwarded to the Municipality/City Epidemiology and Surveillance Units (MESU/CESU) which in turn are forwarded to the Provincial Epidemiology and Surveillance Units (PESU)

[e]**LIGTAS COVID Center –** Contacts have to be separated from those who are symptomatic

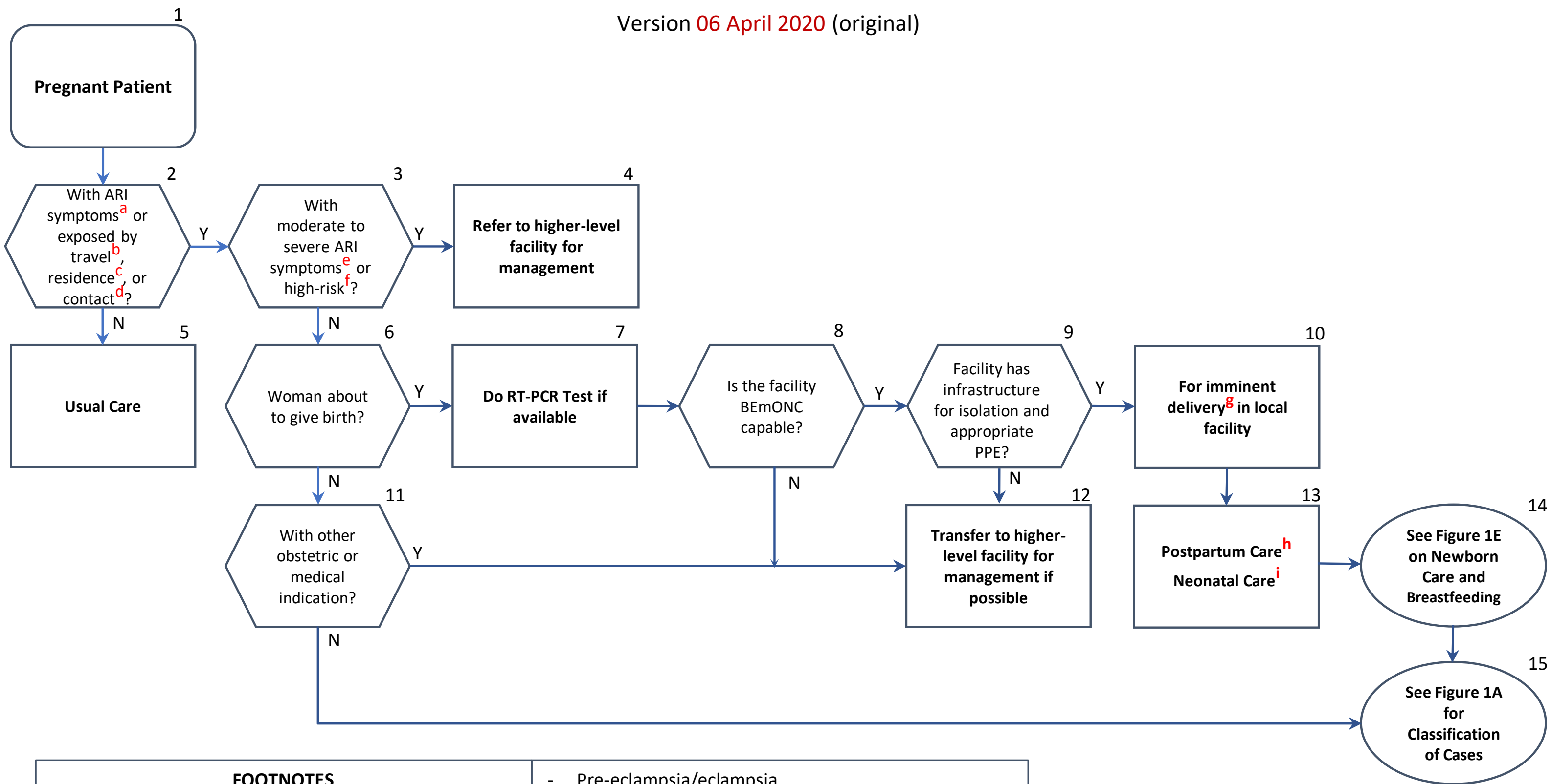
[f]**Repeat Test Negative**

- Two consecutive negative tests 24 hours apart is preferred or at least one negative test prior to discharge

[g]**Improvement of symptoms:**

- Temp <37.8ºC > 3 days,
- Respiratory symptoms reduced significantly
- CXR shows significant improvement

FIGURE 1D. PREGNANT PATIENTS



FOOTNOTES

[a] Acute Respiratory Illness (ARI)
Flu-like symptoms (cough, colds, sore throat, body malaise; fatigue, fever)

[b] Exposure by travel
Travel from a country/area where there is sustained community level transmission

[c] Exposure by residence
Lives in an LGU where there is sustained community level transmission

[d] Exposure by contact

1. Providing direct care to suspect, probable, or confirmed COVID-19 patients without using proper PPE (i.e. healthcare workers);
2. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
3. Direct physical contact with a probable or confirmed case; OR
4. Other situations as indicated by local risk assessments

[e] Severe and Critical – any of the following:

- Altered mental state
- Shortness of breath
- SpO2 <94%
- Respiratory rate >30/min
- Systolic blood pressure of <90mmHg
- Other signs of shock or complications

[f] Examples of High-risk features

- Preterm labor
- Vaginal bleeding
- Pre-eclampsia/eclampsia
- Preterm pre-labor rupture of membranes (pPROM)Malpresentations
- Young primigravid
- Elderly primigravid
- Multifetal pregnancy

[g] Imminent Delivery

- Admit to a designated isolation area
- Require all personnel in attendance to wear the appropriate PPE
- Require all transport personnel to wear appropriate PPE to be removed once patient has been transferred
- Delivered by NSD
- Obtain/verify if the naso-oropharyngeal swab specimens were collected

[h] Postpartum Care

- Monitor postpartum patient in the same isolation area by the same delivery team
- Discharge early once stable, if mild case
- coordinate with RESU for monitoring and surveillance
- Require all transport personnel to wear appropriate PPE (see Figure 3)

[i] Neonatal Care

- Institute appropriate neonatal resuscitation measures as necessary
- Render standard newborn care
- Do routine hearing and newborn screening tests prior to discharge when feasible
- Manage high-risk infants accordingly. Refer to a specialist/subspecialist

FIGURE 1E. NEWBORN CARE AND BREASTFEEDING

(Note: Major revision is ongoing.)

REFERENCES

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World Health Organization. (2020). *Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19)*

Text

APPENDIX

Date	Changes
06 April 2020	Original version
20 April 2020	*Figure 1A* 1. A new status was created: patients with stable co-morbids, who need not be referred to a higher facility. *Figure 1B* 1. Three types of exposure were identified: by contact, by travel, or by residence. 2. Home quarantine denoted as compulsory if exposure is by contact or travel. *Figure 1C* 1. Home quarantine was presented as the default option; the Ligtas COVID center is to be used only if home quarantine is difficult.