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UNIVERSAL HEALTH CARE
KALUSUGAN AT KALINGA PARA SA LAHAT

PHILHEALTH CIRCULAR
No. 2022 - 0027

TO : **ALL ACCREDITED HEALTH CARE PROVIDERS, PHILHEALTH MEMBERS, PHILHEALTH OFFICES (HEAD OFFICE AND REGIONAL OFFICES) AND ALL OTHERS CONCERNED**

SUBJECT : **Quality Policy on the Diagnosis and Management of COVID-19 in Children (In-patient) as Reference of the Corporation**

I. RATIONALE

Republic Act No. 11223 otherwise known as the Universal Health Care Act of 2013 provides that PhilHealth shall support the implementation of standards for clinical care set forth by the Department of Health (DOH) based on approved clinical practice guidelines. Further, the revised Implementing Rules and Regulations of the National Insurance Act of 2013 provides the implementation of quality assurance standards as reference for ensuring quality of care services.

Since Corona Virus Disease 2019 (COVID-19) is a novel illness, recommendations based on best available evidence were translated into policy statements and shall be used primarily to provide guidance to doctors, hospitals, and patients as to what tests, medicines and procedures are strongly recommended if benefits clearly outweigh the risks. As such, it shall be used by the Corporation as one of its references in ensuring quality of care through various activities such as educational resource, claims review, performance monitoring, and other activities as necessary.

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COVID-19 affects all populations including the vulnerable pediatric age group. Although they constitute a smaller percentage of cases compared to adults, the treatment and management remain consequential.

These evidence-based policy recommendations were approved by the PhilHealth Quality Assurance Committee (QAC) and shall be used by the Corporation as one of its references in ensuring quality of care rendered by PhilHealth-accredited health care providers.

II. OBJECTIVES

This PhilHealth Circular aims to establish the standards of care in the diagnosis and management of COVID-19 in Children (In-patient) in line with the quality assurance program of the Corporation.

III. SCOPE

This Policy shall be applicable for pediatric patients (aged 19 years old and below) who are hospitalized due to COVID-19.

IV. DEFINITION OF TERMS

A. **COVID-19** - an infectious respiratory illness caused by SARS-CoV-2.

B. **Severe Acute Respiratory Syndrome Corona Virus 2 or SARS-CoV-2** - a highly transmissible and pathogenic novel virus that surfaced in the latter months of 2019 and evolved into a pandemic outbreak which threatens human health and public safety.

V. POLICY STATEMENTS

A. On Clinical Presentation

1. Children diagnosed with COVID-19 most commonly present with fever (59.1%) and cough (55.9%). While other clinical symptoms include rhinorrhea (nasal congestion), myalgia (fatigue), sore throat, dyspnea (shortness of breath), abdominal pain, diarrhea, vomiting and nausea, headache, dizziness, pharyngeal erythema, decreased oral intake, and skin rash.

2. No symptoms were seen in 19.3% of infected children. Hence, may not warrant in patient care (hospital admission).

3. Pneumonia is considered a main clinical feature in some cases associated with COVID-19 in children. It should be classified as either non-severe or severe pneumonia.

B. On Risk Factors

1. Similar to adults, children with pre-existing conditions increases the risk to develop severe COVID-19 infection and may require intensive care.

2. The common underlying conditions that predisposed children to COVID-19 infection are the following:

   a. Immunosuppression (30.5%)
   b. Respiratory conditions (21%)
   c. Cardiovascular conditions (13.7%)
   d. Complex congenital malformations (10.7%)
   e. Hematologic conditions (3.8%)
   f. Neurologic conditions (3.4%)
   g. Obesity (3.4%)
   h. Prematurity (3.4%)
   i. Endocrine/metabolic conditions (2.1%)
   j. Renal conditions (1.7%)
   k. Gastrointestinal conditions (0.5%)
   l. Major surgical conditions

C. On Confirmatory Test for COVID-19

1. The currently recommended test to confirm COVID-19 infection (ON-GOING infection) is plate-based or cartridge-based Real Time–reverse transcription Polymerase Chain Reaction (RT-PCR) from DOH-licensed laboratory using saliva, oropharyngeal or nasopharyngeal specimen for the diagnosis of COVID-19 in children.

2. A sick child with a negative RT-PCR test result should NOT be labelled as having COVID-19.

3. A facility-based, FDA-approved positive rapid antigen test result using nasal, nasopharyngeal, and/or oropharyngeal specimens can be used as a basis for reporting a confirmed COVID-19 case for symptomatic patients.

4. Serologic testing (IgM and IgG) is not recommended as a stand-alone test for diagnosing COVID-19 and must always be done in conjunction with RT-PCR testing.

5. A validated* rapid antibody test kit may be used as an adjunct to diagnosis of patients who satisfy ALL of the following criteria:

   a. Symptomatic patients (greater than or equal to 15 days from symptom onset);
   b. Tested at least twice negative with RT-PCR; and
   c. with clinical and diagnostic manifestations of COVID-19.

   * Validated rapid antibody test kits should be registered at Food and Drug Administration (FDA) AND validated by Research Institute for Tropical Medicine (RITM) and other designated institutions (i.e. Department of Science and Technology (DOST), National Institutes of Health (NIH), United States-Food Drug Administration, World Health Organization-Foundation for Innovative New Diagnostics (WHO-FIND), Therapeutic Good Administration (TGA) Australia, Medicines and Healthcare products Regulatory Agency United Kingdom (MHRA UK).

D. On Chest Imaging

The following are the chest imaging modalities which may be used to assist in the diagnosis and identification or exclusion of pulmonary complications:

1. Chest x-ray is recommended as first-line investigation in children suspected to have COVID-19 presenting with respiratory symptoms requiring hospitalization. Classic CXR changes of COVID-19 are well described as showing bilateral multi-lobar consolidation or infiltrative changes, with multiple peripheral air space opacities;

2. Chest CT scan is NOT recommended as routine screening in children suspected to have COVID-19 but may ONLY be considered when there is worsening progression of clinical course. CT scan findings typically show a combination of ground glass opacities and peripheral consolidations; and

3. Lung ultrasound may be used as an alternative imaging test in the diagnosis of Pneumonia in COVID-19 patients due to its advantages in terms of ease of use at point of-care, no radiation exposure, and lower cost than CT scan.

E. On Other Diagnostic Tests

Other laboratory tests may be recommended to support the diagnosis and monitoring depending on the child's presentation and service capability of the facility:

1. Complete Blood Count (CBC)
2. Inflammatory markers such as C-reactive protein (CRP), Procalcitonin, Erythrocyte Sedimentation Rate (ESR), Interleukin-6 (Il-6)
3. Other laboratory tests associated with severe COVID 19: D-dimer, Lactate Dehydrogenase (LDH), Ferritin, Creatinine Phosphokinase (CPK), Fibrinogen
4. Arterial Blood Gas (ABG) measurement or pulse oximetry
5. Blood cultures, if concomitant bacterial infection is suspected
6. Dengue NS1 and dengue serologic tests (IgM, IgG), as necessary
7. Rapid antigen detection test for specific bacterial or viral pathogens, as necessary
8. Multiplex Respiratory or Gastrointestinal panel tests, as necessary

F. On Severity Levels of Respiratory Illness due to SARS-CoV-2

1. Mild COVID-19 WITHOUT evidence of viral pneumonia or hypoxia.

   a. Mild COVID-19 case is categorized as symptomatic patients meeting the case definition for COVID-19 without evidence of viral pneumonia or hypoxia.

   b. A patient with mild COVID-19 symptoms with co-morbidities/known risk factors for progression can be admitted for inpatient care and should be closely monitored for deterioration.

2. Moderate COVID-19 with pneumonia

   a. A child with clinical signs of non-severe pneumonia may present with the following:

      a.1. Fever
      a.2. Cough or difficulty of breathing
      a.3. SpO2 ≥95% at room air
      a.4. Fast breathing and/or chest indrawing:

3–12 months old:	≥ 50 bpm
1–5 years old:	≥ 40 bpm
5-12 years old:	≥ 30 bpm
≥12 years old:	≥ 20 bpm

   b. A child who tested positive for SARS-CoV2 but presented with non-severe pneumonia may be admitted for close observation and monitoring for progression.

3. Severe COVID-19 with pneumonia

Child with clinical signs of pneumonia (cough or difficulty in breathing) with at least ONE of the following:

a. Central cyanosis or SpO2 <95% at room air;
b. Severe respiratory distress (e.g. fast breathing, grunting, very severe chest indrawing);

c. General danger signs: inability to breastfeed or drink, lethargy or unconsciousness, or convulsions; and
d. Fast breathing (breaths per minute):

3–12 months old:	≥ 50 bpm
1–5 years old:	≥ 40 bpm
5-12 years old:	≥ 30 bpm
≥12 years old:	≥ 20 bpm

4. Critical COVID-19

a. Patients manifesting with Pediatric Acute Respiratory Distress Syndrome (PARDS), sepsis and/or septic shock.
b. PARDS is the central pathophysiologic mechanism of COVID-19 progression to critical disease among children and may require invasive mechanical ventilation
c. Sepsis/Septic shock:

c.1. Sepsis is an acute life-threatening organ dysfunction caused by a dysregulated host response to suspected or proven infection. It is a syndromic response to infection, and if not recognized early and managed promptly, can lead to septic shock, organ failure and death.

c.2. Sepsis in children is a suspected or proven infection and ≥2 age-based systemic inflammatory response syndrome criteria, of which one must be abnormal temperature or white blood cell count.

c.3. Septic shock is a subset of sepsis in which underlying circulatory and cellular metabolism abnormalities are profound enough to substantially increase mortality. In adolescents, it is a persistent hypotension despite volume resuscitation, requiring vasopressors to maintain MAP ≥65 mmHg and serum lactate level >2mmol/L. In children, septic shock is any hypotension below normal range for age or at least two of the following: altered mental status; bradycardia or tachycardia based on normal age range; prolonged capillary refill or weak pulse; fast breathing; mottled or cool skin or petechial or purpuric rash; high lactate; reduced urine output; hypothermia or hyperthermia.

d. Acute thrombosis related to COVID-19 may manifest as any of the following conditions:

d.1. Acute venous thromboembolism (i.e. pulmonary embolism);
d.2. Acute coronary syndrome; and
d.3. Acute stroke

e. Severely hypoxemic patients should be monitored closely in a pediatric ICU setting/set-up for clinical deterioration and progression to PARDS.

5. For patients (or parents/guardians) who refuse intubation should be properly documented in the patient chart by the attending physician or any authorized physician.

G. On Multisystem Inflammatory Syndrome in Children (MIS-C)

The World Health Organization (WHO) preliminary definition of MISC-C, is a condition affecting children and adolescents within 0-19 age group having fever ≥3 days **AND**

1. **TWO** of the following signs and symptoms:

   a. Rash or bilateral non-purulent conjunctivitis or muco-cutaneous inflammation signs (oral, hands, or feet);
   b. Hypotension or shock;
   c. Features of myocardial dysfunction, pericarditis, valvulitis or coronary abnormalities;
   d. Evidence of coagulopathy; or
   e. Acute Gastrointestinal problem.

2. **AND** presence of elevated inflammatory markers;

3. **AND** there is no obvious microbial cause of inflammation, including bacterial sepsis, staphylococcal or streptococcal shock syndromes;

4. **AND** laboratory evidence of COVID-19 infection either thru RT-PCR, antigen test, or other serology tests or likely contact with confirmed COVID-19 persons.

H. On Hospital Admission and Referral

1. All patients with moderate, severe or critical symptoms should be admitted for close observation/monitoring.

2. Any health facility that is not equipped to handle COVID-19 patients should coordinate with a COVID-19 referral center to ensure proper care of a sick child.

I. On Management

1. Supportive therapy

   There are currently no medicines approved to specifically treat human coronaviruses. Thus, treatment remains focused on providing best supportive care, management of co-existing conditions and treatment of possible bacterial co-infections.

2. Use of antibiotics

   a. Routine empiric antibiotics is NOT recommended for suspected or confirmed **mild** COVID-19 disease.
   b. A suspected or confirmed **moderate** COVID-19, antibiotics should NOT be prescribed unless there is clinical suspicion of a bacterial infection.

3. Use of Antiviral

   In the absence of sufficient data on the treatment of children with COVID-19, recommendations on the use of antivirals are mainly based on research outcomes and safety evidence for adults. The use of experimental drugs should then be carefully

discussed with the child's parents or legal guardian, explaining the potential clinical benefits and adverse reactions, with signed informed consent form to be obtained. Treatment of mild and moderate COVID-19 is mainly supportive, and antivirals are mostly suggested for those in severe and critical category.

4. Use of corticosteroids

   a. Intravenous corticosteroids are recommended to be given for severe and critical COVID-19 in children.
   b. Corticosteroids are NOT recommended for asymptomatic and non-severe COVID-19 in children.

5. Use of intravenous immunoglobulin

   Intravenous immunoglobulin (IVIg) should NOT be routinely given for children with COVID-19 but indicated for patients presenting with a multisystem inflammatory syndrome, especially those with a Kawasaki disease-like presentation.

6. Use of zinc sulfate and vitamin D

   Zinc and vitamin D may be given as nutritional support for pediatric COVID-19 patients.

7. Supplemental oxygen

   Children with suspected or confirmed severe COVID-19 will need supplemental oxygen to achieve target SpO2 >94%.

8. Arterial Blood Gas (ABG) or pulse oximetry

   Assessing the severity of hypoxemia in patients with pneumonia may be obtained through ABG analysis or performing pulse oximetry.

9. Use of Mechanical Ventilation

   Mechanical ventilation should be instituted early in patients with increased work of breathing or hypoxemia that persists despite high-flow oxygen therapy, when feasible.

J. On Aerosol-Generating Procedures

Precautions in the limited use of nebulization during the COVID-19 pandemic should be observed. However, if nebulization cannot be avoided it should be done under controlled conditions ensuring efforts to reduce risks of medical aerosol leaks, aerosol dispersion, and contamination of nearby surfaces from the procedure.

K. On Hospital Discharge

1. Based on the latest guidelines from WHO COVID-19 Clinical Living Guidelines and DOH, symptomatic patients with confirmed or probable COVID-19 can be discharged from isolation once the following criteria are fulfilled:

a. For symptomatic patients with mild symptoms: 10 days after symptom onset, inclusive of 3 days of being clinically recovered and asymptomatic.
b. For symptomatic patients with moderate, severe, or critical symptoms: 21 days from the onset of illness, inclusive of 3 days of being clinically recovered and asymptomatic.
c. Clinically recovered.
d. Cleared from a licensed physician.

2. A repeat negative RT-PCR test is no longer needed for discharge of immunocompetent patients with probable or confirmed COVID-19 regardless of severity, because in most cases, it results in prolonged isolation of patients who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious.

L. Monitoring and Evaluation

The health care provider shall be bound by the provisions of the Performance Commitment and subject to the rules on monitoring and evaluation of performance as provided in PhilHealth Circular No. 2018-0019 Health Care Provider Performance Assessment System (HCP-PAS) Rev. 2.

Standards of care issued by authorized agencies or organizations shall be regularly monitored. As deemed necessary, a revision of the policy statements shall be made. Any updates, as a result of the review, shall be disseminated in another circular.

VI. DATE OF EFFECTIVITY

This PhilHealth Circular shall take effect fifteen days after publication in the Official Gazette or in any newspaper of general circulation. It shall be forwarded thereafter to the Office of the National Administrative Register at the University of the Philippines Law Center.

MASTER COPY DC: mys Date: 12/14/22

EMMANUEL R. LEDESMA, JR.
Acting President and Chief Executive Officer

Date signed: 12/14/22