

Annex B: Description of Case Severity Classification of COVID-19 for adult and pediatric patients

Table 1. Description of Case Severity Classification of COVID-19 for adult and pediatric patients

Case type/severity	Description of case type	
	Adult	Pediatric
Pedia: Mild disease with risk factors		Symptomatic patients with confirmed COVID-19 without evidence of viral pneumonia or hypoxia but with risk factors for progression/co-morbidities
Adult: Moderate with risk factors, without pneumonia	Without pneumonia but with risk factors for progression: elderly (aged 60 and above) and/or with co-morbidities	
Moderate COVID-19 with pneumonia	With pneumonia ¹ BUT no difficulty of breathing or shortness of breath, RR < 30 breaths/min, oxygen saturation SpO ₂ ≥ 94% at room air	With clinical signs of non-severe pneumonia ¹ (cough or difficulty of breathing + fast breathing and/or chest indrawing) and no signs of severe pneumonia ¹ , including SpO ₂ ≥ 95% on room air Tachypnea in breaths per minute: <ul style="list-style-type: none"> ❖ 3 months old to 12 months old: ≥50 breaths per minute ❖ 1 year old to 5 years old: ≥40 breaths per minute ❖ 5-12 years: ≥30 breaths per minute ❖ ≥12 years: ≥20 breaths per minute

Case type/severity	Description of case type	
	Adult	Pediatric
Severe	<p>With pneumonia¹ and ANY one of the following:</p> <ul style="list-style-type: none"> • Signs of respiratory distress • Oxygen saturation SpO₂ < 94% at room air • Respiratory rate of ≥30 breaths/minute • Requiring oxygen supplementation 	<p>With clinical signs of pneumonia¹ (cough or difficulty in breathing) and</p> <p>At least one of the following:</p> <ul style="list-style-type: none"> • Central cyanosis or SpO₂ < 95%; severe respiratory distress (e.g., fast breathing, grunting, very severe chest indrawing); general danger sign: inability to breastfeed or drink, lethargy or unconsciousness, or convulsions • Tachypnea (in breaths/min): <ul style="list-style-type: none"> ❖ 3 months old to 12 months old: ≥50 breaths per minute ❖ 1 year old to 5 years old: ≥40 breaths per minute ❖ 5-12 years: ≥30 breaths per minute ❖ ≥12 years: ≥20 breaths per minute
Critical	<p>With pneumonia¹ and ANY one of the following:</p> <ul style="list-style-type: none"> • Impending respiratory failure requiring high flow oxygen, non-invasive or invasive ventilation • Acute respiratory distress syndrome • Sepsis or shock 	<p>Acute respiratory distress syndrome (ARDS)</p> <p>Onset: within 1 week of a known clinical insult (i.e., pneumonia¹) or new or worsening respiratory symptoms.</p> <p>Chest imaging: (radiograph, CT scan, or lung ultrasound): bilateral opacities, not fully explained by volume overload,</p>

Case type/severity	Description of case type	
	Adult	Pediatric
	<ul style="list-style-type: none"> • Deteriorating sensorium • Multi-organ failure • Thrombosis 	<p>lobar or lung collapse, or nodules.</p> <p>Origin of pulmonary infiltrates: respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g., ECG) to exclude hydrostatic cause of infiltrates / edema if no risk factor is present.</p> <p>Oxygenation impairment in adolescents: PaO₂/FiO₂ ≤ 300 mm Hg is already mild ARDS</p> <p>In children, when Oxygen Index (OI) or Oxygen Saturation Index (OSI) is used³:</p> <ul style="list-style-type: none"> • Bilevel (NIV or CPAP) ≥ 5 cmH₂O via full face mask: PaO₂/FiO₂ ≤ 300 mmHg or SpO₂/FiO₂ ≤ 264 • Mild ARDS (invasively ventilated): 4 ≤ OI < 8 or 5 ≤ OSI < 7.5 • Moderate ARDS (invasively ventilated): 8 ≤ OI < 16 or 7.5 ≤ OSI < 12.3 • Severe ARDS (invasively ventilated): OI ≥ 16 or OSI ≥ 12.3
		<p>Sepsis</p> <p>Adolescents: acute life-threatening organ dysfunction caused by a dysregulated host</p>



Case type/severity	Description of case type	
	Adult	Pediatric
		<p>response to suspected or proven infection.</p> <p>Signs of organ dysfunction include: altered mental status, difficult or fast breathing, low oxygen saturation, reduced urine output, fast heart rate, weak pulse, cold extremities or low blood pressure, skin mottling, laboratory evidence of coagulopathy, thrombocytopenia, acidosis, high lactate, or hyperbilirubinemia.</p> <p>In children, suspected or proven infection and ≥ 2 age-based systemic inflammatory response syndrome (SIRS⁴) criteria, of which one must be abnormal temperature or white blood cell count.</p>
		<p>Septic shock</p> <p>Adolescents: persistent hypotension despite volume resuscitation, requiring vasopressors to maintain MAP ≥ 65 mmHg and serum lactate level > 2 mmol/L.</p> <p>Children: any hypotension (SBP < 5th centile or > 2 SD below normal for age) or two or three of the following: altered mental status; bradycardia or tachycardia (HR < 90 bpm or > 160 bpm in infants and heart rate < 70 bpm</p>

Case type/severity	Description of case type	
	Adult	Pediatric
		or > 150 bpm in children); prolonged capillary refill (> 2 sec) or weak pulse; fast breathing; mottled or cool skin or petechial or purpuric rash; high lactate; reduced urine output; hyperthermia or hypothermia
		Acute thrombosis Acute venous thromboembolism (i.e., pulmonary embolism), acute coronary syndrome, acute stroke
		Multisystem Inflammatory Disease in Children (MIS-C) Preliminary case definition: children and adolescents with fever > 3 years AND two of the following: <ul style="list-style-type: none"> • Rash or bilateral non-purulent conjunctivitis or muco-cutaneous inflammation signs (oral, hands or feet) • Hypotension or shock • Features of myocardial dysfunction, pericarditis, valvulitis, or coronary abnormalities; • Evidence of coagulopathy, • acute gastrointestinal problems (diarrhea, vomiting, or abdominal pain)



Case type/severity	Description of case type	
	Adult	Pediatric
		<p>AND Elevated marker of inflammation</p> <p>AND No other obvious microbial cause of inflammation including sepsis, staphylococcal or streptococcal shock syndrome</p> <p>AND Evidence of COVID-19 (RT-PCR, Antigen or serology positive), or likely contact with patients with COVID-19</p>

Notes:

1. For purposes of PhilHealth claims, diagnosis of pneumonia should be supported by findings in chest imaging studies.
2. COVID- 19 symptoms include fever, cough, coryza, sore throat, diarrhea, anorexia/nausea/vomiting, loss of sense of smell or taste, generalized weakness/body malaise/fatigue, headache, myalgia.
3. Risk factors associated with severe disease include: age more than 60 years (increasing with age); underlying non-communicable diseases such as diabetes, hypertension, chronic lung disease, cerebrovascular disease, dementia, mental disorders, chronic kidney disease, and cancer; immunosuppression; HIV; obesity; pregnancy especially with increasing maternal age, high BMI, non-white ethnicity, chronic conditions and pregnancy related conditions such as GDM and pre-eclampsia. In children, the following conditions were identified in one systematic review: immunosuppression, cardiovascular condition, complex congenital malformations, hematologic conditions neurologic conditions, obesity, prematurity, endocrine/metabolic disorders, renal conditions, and gastrointestinal conditions.
4. Oxygenation index (OI) is an invasive measurement of hypoxemic respiratory failure and may be used to predict outcomes in pediatric patients. Oxygen saturation index (OSI) is a non-invasive measurement and has shown to be a reliable surrogate marker of OI in children and adults with respiratory failure.
5. Systemic Inflammatory Response Syndrome (SIRS) criteria: abnormal temperature (>38.5 Cor < 36C); tachycardia for age or bradycardia for age if < 1 year; tachypnea for age or need for mechanical ventilation, abnormal white blood cell count for age or > 10% bands.

References:

Department of Health Department Circular 2022-0002 Advisory for COVID-19 Protocols for Quarantine and Isolations.



Hoang A, et al., COVID-19 in 7780 pediatric patients: A systematic review, EClinicalMedicine (2020), accessed thru [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(20\)30177-2/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30177-2/fulltext).

Philippine Pediatric Society and Pediatric Infectious Disease Society of the Philippines Interim Guidelines on the Screening, Classification, and Management of Pediatric Patients with Suspected or Confirmed COVID 19 Version 5 as of January 8, 2022, accessed thru <http://www.pidsphil.org/home/wp-content/uploads/2022/01/1641793296797384.pdf>.

Philippine Pediatric Society and Pediatric Infectious Disease Society of the Philippines Interim Guidelines on the Screening, Assessment, and Clinical Management of Pediatric Patients with Suspected or Confirmed COVID-19 Version 4, 06 February 2021 accessed on February 4, 2022 thru [1613518307591635.pdf \(pidsphil.org\)](http://www.pidsphil.org/home/wp-content/uploads/2021/02/1613518307591635.pdf).

Philippine Society for Microbiology and Infectious Diseases Philippines, COVID-19 Living Recommendations as of January 10, 2022 accessed thru <https://www.psmid.org/philippine-covid-19-living-recommendations/>.

World Health Organization, Living guidance for clinical management of COVID-19. Living Guidance 23 November 2021 accessed on February 4, 2022 thru [Guideline Clinical management of COVID-19 patients: living guideline, 18 November 2021 \(who.int\)](https://www.who.int/publications/m/item/guideline-clinical-management-of-covid-19-patients-living-guideline-18-november-2021).