PURPOSE: To outline consensus recommendations on the management of pediatric patients with suspected or confirmed COVID-19 infections admitted to an inpatient floor or the intensive care unit at CHKD.

PATIENT PRESENTATION:
Range from uncomplicated upper respiratory tract viral infection to pneumonia, acute respiratory distress syndrome (ARDS), sepsis, and septic shock (Table 1). No specific data is available establishing risk factors for severe COVID-19 disease in children. A rare but serious inflammatory syndrome in children has been linked to COVID-19. The CDC is calling this condition multisystem inflammatory syndrome in children (MIS-C).

Table 1. Clinical Symptoms Associated with COVID-19:

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncomplicated Illness</td>
<td>Uncomplicated upper respiratory tract viral infection with nonspecific symptoms including:</td>
</tr>
<tr>
<td></td>
<td>• Fever, cough, sore throat, nasal congestion, malaise, headache, muscle pain</td>
</tr>
<tr>
<td></td>
<td>Without signs of dehydration, sepsis, or shortness of breath</td>
</tr>
<tr>
<td>Mild Pneumonia</td>
<td>Non-severe pneumonia presenting with cough or difficulty breathing +tachypnea</td>
</tr>
<tr>
<td></td>
<td>Without signs of severe pneumonia</td>
</tr>
<tr>
<td>Severe Pneumonia</td>
<td>Adolescent: fever or suspected respiratory infection + one of the below:</td>
</tr>
<tr>
<td></td>
<td>• RR &gt; 30 breaths/min</td>
</tr>
<tr>
<td></td>
<td>• Severe respiratory distress</td>
</tr>
<tr>
<td></td>
<td>• SpO₂ &lt; 90% on room air</td>
</tr>
<tr>
<td>ARDS</td>
<td>New or worsening respiratory symptoms within one week of known clinical insult</td>
</tr>
<tr>
<td></td>
<td>Chest imaging consistent with ARDS</td>
</tr>
<tr>
<td>Sepsis/Septic Shock</td>
<td>Diagnosis made clinically</td>
</tr>
</tbody>
</table>

Source: World Health Organization

COVID-19 SPECIFIC THERAPY:

<table>
<thead>
<tr>
<th>Class</th>
<th>Agent</th>
<th>Route</th>
<th>Approval</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiviral*</td>
<td>Remdesivir (Veklury®)</td>
<td>IV</td>
<td>Inpatient</td>
<td>FDA Approved: ≥ 12 years of age and ≥ 40 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EUA: &lt; 12 years &amp; ≥ 3.5 kg or ≥ 12 years &amp; &lt; 40 kg</td>
</tr>
<tr>
<td>JAK-1 Inhibitor*</td>
<td>Baricitinib (Olumiant®)</td>
<td>PO</td>
<td>Inpatient</td>
<td>Not FDA approved for COVID-19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EUA: ≥ 2 years in combo with Remdesivir</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Reserved for patients with a contraindication to corticosteroid treatment</td>
</tr>
<tr>
<td>IgG1 Monoclonal Antibody*</td>
<td>Bamlanivimab</td>
<td>IV</td>
<td>Outpatient</td>
<td>Outpatient use ONLY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EUA: ≥ 12 years &amp; ≥ 40 kg, AND high risk</td>
</tr>
<tr>
<td></td>
<td>Casirivimab + Imdevimab</td>
<td>IV</td>
<td>Outpatient</td>
<td>May be unavailable due to limitations on supply</td>
</tr>
<tr>
<td>Convalescent Plasma</td>
<td>Convalescent Plasma</td>
<td>IV</td>
<td>Inpatient</td>
<td>Use not possible due to lack of availability</td>
</tr>
</tbody>
</table>

*Refer to drug specific guidelines, available on kdnet
COVID-19 SUPPORTIVE & ADJUNCTIVE MANAGEMENT:

<table>
<thead>
<tr>
<th>Management</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supportive Care</strong></td>
<td>Sufficient fluid and calorie intake, and additional oxygen supplementation should be used in the treatment of children infected with COVID-19. The aim is to prevent ARDS, organ failure, and secondary nosocomial infections. If bacterial infection is suspected, broad-spectrum antibiotics may be used.</td>
</tr>
</tbody>
</table>
| **Corticosteroids** | The RECOVERY trial in COVID-19 (+) adults revealed a reduction in 28-day mortality in those receiving invasive mechanical ventilation or oxygen in combination with dexamethasone. The benefit was not observed in patients receiving dexamethasone that did not require respiratory support.  
Dexamethasone should NOT be used in COVID-19 (+) patients who are:  
  a) Otherwise healthy and do not require respiratory support  
Dexamethasone should be utilized in COVID-19 (+) patients with:  
  a) Respiratory support (oxygen or invasive mechanical ventilation)  
  b) An underlying condition requiring chronic steroid treatment, steroids should be continued  
  c) An additional diagnosis where steroid therapy is appropriate |
| **Anticoagulation** | COVID-19 is associated with an increased risk of venous thromboembolism (VTE) in adults. Pharmacologic prophylaxis or therapeutic anticoagulation should be considered unless contraindicated.  
No specific recommendations for pediatric patients with COVID-19.  
Pediatric COVID-19 hospitalized patients should be assessed based on risk factors as outlined below:  
1) Consider Heme/Onc consult for risk assessment and recommendations  
2) Individual VTE risk factors should be evaluated on admission and reassessed every 48-72 hours for the duration of the hospitalization  
3) Enoxaparin prophylaxis is recommended in adult patients with confirmed COVID-19 unless contraindicated  
4) Enoxaparin prophylaxis should be strongly considered in pediatric patients with confirmed COVID-19 unless contraindicated  
5) An assessment of bleeding risks verse benefit should be completed on each patient (Table 2.)  
6) Alternative methods of prophylaxis, such as early ambulation or mechanical prophylaxis should be considered in contraindicated patients and all COVID-19 pediatric patients, if applicable. |

Table 2. Bleeding Risk Factors:  

<table>
<thead>
<tr>
<th>Bleeding Risk Factors</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Not Recommended**   | Intracranial hemorrhage  
Active bleed                                           |
| **Consider with caution** | Intracranial mass  
Lumbar puncture w/in 24 hours  
Coagulopathy  
Neurosurgical procedure w/in 24 hours                     |

MULTISYSTEM INFLAMMATORY SYNDROME-CHILDREN (MIS-C):

Version 3.1 12/15/2020  
Effective Date: 3/20/2020  
Page 2 of 11
**Refer to CHKD MIS-C Guideline on kdnet**

Recent reports describe a rare but serious COVID-19 associated syndrome in children referred to as MIS-C.\textsuperscript{24-25} MIS-C consists of persistent fever, elevated inflammatory markers (including cytokine storm), neutrophilia, lymphopenia, coagulopathy and a variety of clinical manifestations including:

\begin{itemize}
  \item a) Vasodilatory shock with normal or mildly depressed systolic function
  \item b) Cardiogenic shock with $\geq$ moderate systolic dysfunction
  \item c) Kawasaki disease (KD) features (can be complete or incomplete KD)
  \item d) Clinical and laboratory features of cytokine storm
  \item e) Coronary artery dilation and aneurysms (up to 25\% of children and teens with MIS-C\textsuperscript{26})
  \item f) Any combination of the above
\end{itemize}

Not all patients present with respiratory symptoms and/or a (+) COVID-19 test via RT-PCR or serology.\textsuperscript{24-26} The CDC recommends reporting any patient who meets the case definition to local, state, and territorial health departments. Some individuals may fulfill full or partial criteria for KD but should be reported if they meet the case definition for MIS-C.\textsuperscript{24-26} If a patient presents with a classic KD and incidentally found to be COVID-19 (+), treat as standard KD. Patients who present with COVID-19 + HLH, Heme-OnC should be consulted for recommendations. Infectious disease and/or rheumatology should be consulted to assist with management in addition to the specific treatment and management recommendations outlined in (Figure 2.).

**MIS-C Case Definition in Children**\textsuperscript{24}: Patients present with ALL:

\begin{itemize}
  \item a) Age <21 years with:
    \begin{itemize}
      \item Fever: $\geq 38.0^\circ\text{C}$ for $\geq 24$ hours, or report of subjective fever lasting $\geq 24$ hours
      \item Laboratory evidence of inflammation: 1 or more of the following: \textsuperscript{24}
    \end{itemize}
    \begin{table}[h]
      \centering
      \begin{tabular}{|c|c|c|}
        \hline
        \textbf{Increased} & \textbf{Decreased} \\
        CRP & LDH & Procalcitonin & Lymphocytes \\
        D-dimer & IL-6 & VBG w/ Lactate & Platelets \\
        ESR & Neutrophils & BNP & Albumin \\
        Ferritin & & & Serum Na \\
        \hline
      \end{tabular}
    \end{table}

    \item Evidence of clinically severe illness requiring hospitalization with multisystem ($\geq 2$) organ involvement [cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurologic]
  \item b) No alternative plausible diagnoses
  \item c) Positive for current or recent COVID-19 infection or COVID-19 exposure within the 4 weeks prior to the onset of symptoms
\end{itemize}
**Figure 1. Treatment Algorithm:** Dosing per (Table 4) or refer to drug specific guideline on kdnet

**Outpatient**
- COVID-19 (+)

**Inpatient: Mild**
- Otherwise healthy child with suspected COVID19 + clinical symptoms including:
  - Uncomplicated Illness
  - Mild Pneumonia

**Inpatient: Moderate**
- Clinical symptoms including:
  - Mild Pneumonia
  - Severe Pneumonia
- Consider baseline interleukin levels

**Inpatient: Severe (NICU/PICU)**
- Clinical symptoms including:
  - Severe Pneumonia
  - ARDS
  - Sepsis/Shock
- Consider baseline interleukin levels

**Evaluation of Remdesivir Eligibility:**
- Refer to CHKD Remdesivir

**Remdesivir Approved**
- Supportive Care + Steroids + Remdesivir
  - Consider Tocilizumab**

**Remdesivir Exclusion**
- Supportive Care + Steroids + Consider Tocilizumab**

**High Risk**
- Consider: Bamlanivimab OR Casirivimab + Imdevimab

**Low Risk**
- Supportive Care ONLY

**Respiratory support required**
- Supportive Care + Steroids + Contact ID\(^\d\) (Remdesivir)\(^\w\)

**Suspected OR Confirmed COVID-19**
- Severe disease defined as, \(\geq 1\) of the below:
  - a) \(\text{SpO2} \leq 94\%\) on room air
  - b) Requiring supplemental oxygen
  - c) Requiring mechanical ventilation
  - d) Requiring ECMO

**Without Respiratory Support**
- Supportive Care ONLY

Based on Availability: Limited Supply

* High Risk: See drug specific guideline on kdnet
\(^\d\) ID will provide recommendations and/or approval, if indicated
\(^\w\) Consider Baricitinib if steroids are contraindication
\(^\w\) Or other biologic (See Figure 2 or Table 4)
Table 4. Agents Approved & Under Investigation for Treatment of COVID-19 & MIS-C

<table>
<thead>
<tr>
<th>COVID-19 Treatment: Drugs</th>
<th>Dosing &amp; Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remdesivir</strong>*(Veklury®)- (IV only)</td>
<td></td>
<td>FDA approved as of 10/22/20</td>
</tr>
<tr>
<td>Restricted to Infectious Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age / wt (kg)</strong></td>
<td><strong>EUA Needed??</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 12 years* or &lt; 40 kg</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>≥ 12 years* &amp; ≥ 40 kg</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>* must be ≥ 3.5 kg &amp; hospitalized</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corticosteroids** (IV/PO)
- **Dexamethasone-Preferred**
- Alternatives:
  - Breastfeeding/Pregnant: Prednisolone or methylprednisolone
  - Preterm infant: Corrected GA < 40 weeks: Hydrocortisone

Use in patients with:
- a) Respiratory support: oxygen or invasive mechanical ventilation
- b) Continuation for underlying condition requiring chronic steroid treatment
- c) Additional diagnosis where steroid therapy is appropriate

<table>
<thead>
<tr>
<th>Preferred Drug</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dexamethasone</td>
<td>0.15mg/kg once daily (Max: 6 mg)</td>
</tr>
<tr>
<td>Alternative Drugs</td>
<td>Dose</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>1 mg/kg once daily (Max: 40 mg)</td>
</tr>
<tr>
<td>Methylprednisolone</td>
<td>0.8 mg/kg once daily (Max: 32 mg)</td>
</tr>
<tr>
<td>Hydrocortisone</td>
<td>0.5 mg/kg q12h X 7 days</td>
</tr>
<tr>
<td>0.5 mg/kg daily X 3 days</td>
<td></td>
</tr>
</tbody>
</table>

Duration: up to 10 days

EUA: FDA Emergency Use Authorization (EUA), as of 10/22/20, for hospitalized pediatric patients < 12 years who weigh ≥ 3.5 kg or < 40 kg

Adverse events:
- Increased liver enzymes
- Infusion related hypotension
- Drug-drug interactions CYP450
- Avoid use with acetaminophen
- QT prolongation (possible TdP Risk)

**Baricitinib** (Olumiant®)-(PO/NG/GT only)
- Janus kinase (JAK) inhibitor
- Approved for adult RA treatment
- Not FDA approved for COVID-19

At CHKD, Baricitinib is reserved for patients who meet the stated EUA criteria and have a contraindication to corticosteroid treatment

**Corticosteroids should be 1st line and baricitinib used in lieu of steroids**

CBC, CMP: Required at baseline & daily while on therapy, careful attention to LFTs and Scr/BUN

**Restricted to Infectious Disease**
**Monoclonal Antibodies:**

1. **Bamlanivimab**
2. **Casirivimab + Imdevimab**

**Casirivimab + Imdevimab (IV only)**

### EUA Approved Patients:

Confirmed (+) COVID-19 who are:
- a) Outpatients
- b) ≥ 12 years weighing ≥ 40 kg
- c) High risk (see CHKD Tier Levels)

### Excluded Patients:

- a) Hospitalized
- b) Require oxygen therapy
- c) Oxygen dependent with ↑ from baseline oxygen to due to COVID-19

**Restricted to Infectious Disease**

<table>
<thead>
<tr>
<th>Tier</th>
<th>Includes patients who are</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dependent on medical technology</td>
</tr>
<tr>
<td></td>
<td>Solid organ transplant (SOT) patients</td>
</tr>
<tr>
<td></td>
<td>Hematopoietic cell transplant (HCT) patients</td>
</tr>
<tr>
<td></td>
<td>Receiving chemotherapy, cellular therapy, antibody therapy, or immunotherapy</td>
</tr>
<tr>
<td></td>
<td>Receiving Hemodialysis or Peritoneal dialysis</td>
</tr>
<tr>
<td></td>
<td>Receiving Chronic high dose steroids</td>
</tr>
<tr>
<td></td>
<td>Receiving low dose steroids + 2 additional immunosuppressive therapies</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with AIDS</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with known immunosuppressive or immunocompromising disease</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with sickle cell disease +complications</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with severe persistent asthma</td>
</tr>
</tbody>
</table>

Refer to Bamlanivimab guideline on kdnet

**Dose:**

- 700 mg Once
  - As soon as possible
  - Give within 10 days of symptom onset

No known dose adjustments

### Contraindications:

- Avoid in pregnancy
- Breastfeeding

### Caution:

- Avoid live viral vaccines
- Caution converting from tocilizumab to anakinra
- CRP & IL-6 levels not reliable post tocilizumab

### Serious adverse events:

- GI perforation, Anemia, Hepatitis, Infusion reaction
  - Typical response within 48-72 hrs

**Casirivimab + Imdevimab (IV only)**

### OUTPATIENT USE ONLY

**EUA Approved Patients:**

Confirmed (+) COVID-19 who are:
- a) Outpatients
- b) ≥ 12 years weighing ≥ 40 kg
- c) High risk (see CHKD Tier Levels)

### Excluded Patients:

- a) Hospitalized
- b) Require oxygen therapy
- c) Oxygen dependent with ↑ from baseline oxygen to due to COVID-19

**Restricted to Infectious Disease**

<table>
<thead>
<tr>
<th>Tier</th>
<th>Includes patients who are</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dependent on medical technology</td>
</tr>
<tr>
<td></td>
<td>Solid organ transplant (SOT) patients</td>
</tr>
<tr>
<td></td>
<td>Hematopoietic cell transplant (HCT) patients</td>
</tr>
<tr>
<td></td>
<td>Receiving chemotherapy, cellular therapy, antibody therapy, or immunotherapy</td>
</tr>
<tr>
<td></td>
<td>Receiving Hemodialysis or Peritoneal dialysis</td>
</tr>
<tr>
<td></td>
<td>Receiving Chronic high dose steroids</td>
</tr>
<tr>
<td></td>
<td>Receiving low dose steroids + 2 additional immunosuppressive therapies</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with AIDS</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with known immunosuppressive or immunocompromising disease</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with sickle cell disease +complications</td>
</tr>
<tr>
<td></td>
<td>Diagnosed with severe persistent asthma</td>
</tr>
</tbody>
</table>

Refer to Casirivimab/Imdevimab guideline on kdnet

**Dose:**

- Casirivimab 1,200 mg + Imdevimab 1,200 mg = 2,400 mg as a single dose

No known dose adjustments

Must be diluted prior to administration
  - As soon as possible
  - Give within 10 days of symptom onset

### Caution:

- Avoid in pregnancy
- Breastfeeding

### Adverse Events:

No known drug interactions

- Nausea, Diarrhea, Dizziness, Headache Pruritus and Vomiting

**Tocilizumab (IV)**

- IL-6 inhibitor
- Consider adding to antiviral therapy for patients meeting criteria (Figure 1)

**Criteria for risk high-risk of cytokine storm**

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IL-6 ≥3x upper normal limit</td>
</tr>
<tr>
<td></td>
<td>Ferritin &gt;300 ug/L with doubling in 24 hr</td>
</tr>
</tbody>
</table>
| | Ferritin + LDH >600 ug/L at presentation |>
| | D-dimer Elevated |

**OT PATIENT USE ONLY**

**Contraindications:**

- GI perforation, Anemia, Hepatitis, Infusion reaction
  - Typical response within 48-72 hrs

- Avoid live viral vaccines
- Caution converting from tocilizumab to anakinra
- CRP & IL-6 levels not reliable post tocilizumab

- Avoid in pregnancy
- Breastfeeding

- Hypersensitivity
- Infusion Related Reactions

- No known drug interactions

- Limited clinical data available and serious and unexpected adverse events may occur that have not been previously reported
### MIS-C Specific Treatment: Drugs

<table>
<thead>
<tr>
<th>IVIG (IV)</th>
<th><strong>Dosing &amp; Duration</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dosing:</strong></td>
<td>2 g/kg, (max dose 100g)</td>
<td><strong>Adverse events:</strong></td>
</tr>
</tbody>
</table>
| **Comments:** | 26 | - Infusion reactions  
| | | - Anaphylaxis  
| | | - Transaminitis  
| | | - Aseptic meningitis  
| | | - Hemolysis  
| | |  

<table>
<thead>
<tr>
<th>Corticosteroids (IV/PO)</th>
<th><strong>Dosing:</strong></th>
<th>2 mg/kg/day divided q8-q12h</th>
<th><strong>Adverse events:</strong></th>
</tr>
</thead>
</table>
| **Use:** | | | - Hypertension  
| | | - Hyperglycemia  
| | |  

<table>
<thead>
<tr>
<th>Anakinra (SQ/IV)</th>
<th><strong>Dosing:</strong></th>
<th>2-4 mg/kg/dose (Max 100 mg/dose) SubQ/IV BID</th>
<th><strong>Caution:</strong></th>
</tr>
</thead>
</table>
| **Use:** | | | - Avoid live viral vaccines  
| | |  

<table>
<thead>
<tr>
<th>Tocilizumab</th>
<th><strong>ID/Rheumatology Consult Required</strong></th>
<th><strong>Dosing:</strong></th>
<th><strong>Refer to above dosing</strong></th>
</tr>
</thead>
</table>
| **Comments:** | | | - Anaphylaxis, Neutropenia, Eosinophilia, Transaminitis, Immunosuppression  
| | | Short half-life (4-6 hours)  
| | | - MAY convert to tocilizumab without concern  
| | | Clinical improvement expected in 1-3 days  

---

*Pediatric dosing obtained via WHO treatment of pediatric Ebola virus  
TdP: Torsades de pointes  
Do not use: oseltamivir, baloxavir, interferon, ribavirin
Figure 2. MIS-C Treatment: Dosing see (Table 4.)

Refer to CHKD MIS-C Guideline on Kdnet
Presentation (mild, moderate, severe) not well defined and may be subjective see Table 5. for guidance

<table>
<thead>
<tr>
<th>Patient meets MIS-C Case Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider ID or Rheumatology Consult</td>
</tr>
<tr>
<td>Low Dose Aspirin</td>
</tr>
<tr>
<td>Recommended in all MIS-C patients, not on other anticoagulation</td>
</tr>
<tr>
<td>Consider enoxaparin prophylaxis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Dosing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steroids</td>
<td>2 mg/kg/day*</td>
</tr>
<tr>
<td>IVIG</td>
<td>2 g/kg, max dose 100g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Dosing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steroids</td>
<td>Consider pulse dose X 3 days then, 2 mg/kg/day*</td>
</tr>
<tr>
<td>IVIG</td>
<td>2 g/kg, max dose 100g</td>
</tr>
<tr>
<td>Biologics</td>
<td>Consider adding tocilizumab, anakinra, or infliximab</td>
</tr>
</tbody>
</table>

¥ Caution use if overlapping features of HLH due to ↑ clotting risk
* Taper steroids
∞ Guidance on presentation severity see (Table 5.)
Δ Refer to MIS-C steroid section see (Table 4.)

Table 5. Presentation Classification Guidance

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild-Moderate</td>
<td>Requires minimal to no respiratory support</td>
</tr>
<tr>
<td></td>
<td>No vasoactive requirements</td>
</tr>
<tr>
<td></td>
<td>Minimal to no organ injury</td>
</tr>
<tr>
<td></td>
<td>Does not require ICU admission</td>
</tr>
<tr>
<td>Severe</td>
<td>Significant oxygen requirement (HFNC, BiPAP, mechanical ventilation)</td>
</tr>
<tr>
<td></td>
<td>Mild-Severe organ injury and/or ventricular dysfunction (+/-) Vasoactive requirement</td>
</tr>
<tr>
<td></td>
<td>ICU admission</td>
</tr>
</tbody>
</table>

References:


DOI: 10.1016/j.ijantimicag.2020.105949

9. Michael Cohen-Wolkowiez, MD PhD; Anil Maharaj, PhD; Huali Wu, PhD, et al. Pediatric Trials Network (PTN) Hydroxychloroquine Pediatric Dosing Guidelines to Target Treatment of SARS-CoV-2 Virus. 20 March, 2020


11. Chen C, Zhang XR, Ju ZY, et al. Advances in the research of cytokine storm mechanism induced by corona virus disease 2019 and the corresponding Go to www.ebmmedicine.net/COVID-19 for updates to this article, podcasts and videos, and more immunotherapies. Zhonghua Shao Shang Za Zhi 2020;36:E005-E005 (Basic science review)


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27. Royal College of Paediatrics and Child Health Guidance: Paediatric multisystem inflammatory syndrome temporally associated with COVID-19


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38. Bamlanivimab [EUA Fact Sheet]. Copyright © 2020, Eli Lilly and Company. All rights reserved, issued 11/9/2020

39. OWS Therapeutics Pre-EUA Playbook – Monoclonal Antibodies, Outpatient administration playbook, 02 Nov 2020; version 1.0


The recommendations in this guide are meant to serve as treatment guidelines for use at The Children’s Hospital of The King’s Daughters. As a result of ongoing research, practice guidelines may from time to time change. The authors of these guidelines have made all attempts to ensure the accuracy based on current information, however, due to ongoing research, users of these guidelines are strongly encouraged to confirm the information through an independent source.

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Page 11 of 11