



**NC State Health Director's Statewide Standing Order  
for Subcutaneous Administration of Casirivimab/Imdevimab (REGEN-COV) Monoclonal Antibodies  
September 13, 2021**

**Purpose:** To meet the goal of administering FDA-Emergency Use Authorization casirivimab/ imdevimab (REGEN-COV) to treat mild to moderate coronavirus disease, or for post-exposure prophylaxis (PEP) of COVID-19, in patients who are high risk for progression to severe COVID-19 and who meet the criteria set-forth by the [Emergency Use Authorization Food and Drug Administration](#).

**Policy:** This standing order authorizes any North Carolina healthcare provider, in accordance with the conditions of their licensure and/or scope of practice to include subcutaneous injections, or pursuant to orders issued under [North Carolina Executive Order 232](#), or as a covered person under the federal PREP Act functioning as monoclonal antibody providers to administer casirivimab/imdevimab (REGEN-COV) authorized by the FDA through an Emergency Use Authorization (EUA) and per conditions of this order.

<b>Casirivimab/Imdevimab (REGEN-COV) Administration</b>		
<b>Condition or Situation</b>	<p>Patients aged 12 years and older, weighing at least 40 kg (88.2 lb.), who present requesting and consent to treatment with monoclonal antibodies (casirivimab/imdevimab or REGEN-COV) for treatment of mild to moderate COVID-19 or for post-exposure prophylaxis to COVID-19, who self-attest to being at high risk for severe COVID-19 disease. Patients should have legal and decisional capacity to consent to treatment with monoclonal antibodies (casirivimab/imdevimab or REGEN-COV), in accordance with <a href="#">NC GS § 90-21.5</a>.</p> <p>Casirivimab/imdevimab (REGEN-COV) can only be administered in settings in which healthcare providers have immediate access to medications to treat a severe infusion/injection or hypersensitivity reaction (such as anaphylaxis), and the ability to activate EMS, as necessary and according to local protocol.</p>	
<b>Assessment Criteria</b>		
<b>Subjective</b>	<b>Treatment of Mild to Moderate COVID-19</b>	<b>Post-Exposure Prophylaxis of COVID-19</b>
	<ol style="list-style-type: none"> <li>1. Patient self-attests to positive results of SARS-CoV-2 viral testing <b>AND</b></li> <li>2. The patient presents within 10 days of <a href="#">symptom onset of COVID-19</a>.</li> </ol>	<ol style="list-style-type: none"> <li>1. The patient self-attests that they are not <a href="#">fully vaccinated</a> against COVID-19 or are not expected to <a href="#">mount an adequate immune response</a> to complete COVID-19 vaccination <b>AND</b></li> <li>2. The patient self-attests that they are a <a href="#">close contact</a> to an individual infected with COVID-19 or are at high risk of exposure to COVID-19 due to higher occurrence of infection in an institutional setting (for example, in nursing homes and correctional settings).</li> </ol> <p><b>Regarding repeat dosing:</b> If the patient has an ongoing exposure to COVID-19 &gt;4</p>



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	<p>weeks and is not fully vaccinated against COVID-19 or is not expected to mount a full immune response against COVID-19 (e.g. an immunocompromised patient), they should continue to receive casirivimab/ imdevimab (REGEN-COV) every 4 weeks for the duration of the exposure.</p> <p>If the patient is presenting for repeat dosing of casirivimab/imdevimab due to an ongoing exposure, the last dose should be at least 4 weeks ago.</p>
	<p>In addition to meeting one of the above criteria, the patient self-attests to having a condition that would put them at high-risk for progression to severe COVID-19. Refer to the CDC's review of <a href="#">People with Certain Medical Conditions</a> for the most recent guidance on medical conditions that place a person at higher risk for severe illness with COVID-19. High risk conditions may include, but not be limited to:</p> <ol style="list-style-type: none"><li>1. Older age (for example, over the age of 65)</li><li>2. Obesity or being overweight (for example, BMI &gt; 25; or if age 12-17, have BMI ≥ 85<sup>th</sup> percentile for their age and gender based on <a href="#">CDC growth charts</a>)</li><li>3. Pregnancy</li><li>4. Chronic kidney disease</li><li>5. Diabetes</li><li>6. Immunosuppressive disease or immunosuppressive treatment</li><li>7. Cardiovascular disease (including congenital heart disease) or hypertension</li><li>8. Chronic lung diseases (for example, chronic obstructive pulmonary disease, moderate-to-severe asthma, interstitial lung disease, cystic fibrosis, and pulmonary hypertension)</li><li>9. Sickle cell disease</li><li>10. Neurodevelopmental disorders (for example, cerebral palsy) or other conditions that confer medical complexity (for example, genetic or metabolic syndromes and severe congenital anomalies)</li><li>11. Having a medical-related technological dependence (for example, tracheostomy, gastrostomy, or positive pressure ventilation unrelated to COVID-19)</li></ol> <p>Patients may self-attest they have another condition or factor that may put them at high risk for progression to severe COVID-19 disease that is not listed above.</p> <p>If the patient presents with another condition or factor that is not listed above and the patient is uncertain if it may put them at high risk for progression to severe COVID-19 disease and therefore cannot self-attest to high risk, consult with the physician or</p>



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	advanced practice provider (APP; nurse practitioner, certified nurse-midwife, or physician assistant) providing clinical supervision of the treatment facility/agency/service.
<b>Objective</b>	<ol style="list-style-type: none"> <li>1. The patient is at least 12 years of age or older.</li> <li>2. The patient weighs at least 40 kg, or 88.2 lb.</li> </ol>
<b>Plan of Care</b>	
<b>Actions</b>	<ol style="list-style-type: none"> <li>1. Review agency protocol for assessment and management of anaphylaxis <b>before</b> initiating treatment. Appropriate medical treatment and clinical staff able to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration reaction according to agency protocol.</li> <li>2. Prior to patients receiving casirivimab/imdevimab (REGEN-COV), provide and review the <a href="#">Fact Sheet for Patients, Parents and Caregivers EUA of REGEN-COV for COVID-19</a>.</li> <li>3. Before administering casirivimab/imdevimab (REGEN-COV) or participating in any patient care activities, don appropriate <a href="#">personal protective equipment (PPE) per CDC guidelines</a> to protect against the transmission of COVID-19.</li> </ol>
<b>Precautions: Patient Monitoring</b>	<p>The patient should be clinically monitored during and after administration of casirivimab/imdevimab (REGEN-COV). After administration is complete, the patient should be monitored for a minimum of 1 hour. During this time, the nurse, EMS personnel, or other individuals who are trained and supervised by clinical staff shall observe for signs and symptoms of a hypersensitivity reaction (anaphylaxis) or infusion/injection related reaction. These may include:</p> <ol style="list-style-type: none"> <li>1. Fever</li> <li>2. Difficulty breathing</li> <li>3. Reduced oxygen saturation</li> <li>4. Chills</li> <li>5. Nausea</li> <li>6. Arrhythmia (such as atrial fibrillation, tachycardia, or bradycardia)</li> <li>7. Chest pain or discomfort</li> <li>8. Weakness</li> <li>9. Altered mental status</li> <li>10. Headache</li> <li>11. Bronchospasm</li> <li>12. Hypotension</li> <li>13. Hypertension</li> <li>14. Angioedema</li> <li>15. Throat irritation</li> <li>16. Rash (urticaria)</li> <li>17. Pruritus</li> <li>18. Myalgia</li> <li>19. Vasovagal reaction</li> </ol>



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	<p>20. Dizziness 21. Fatigue 22. Diaphoresis</p> <p>If the patient is showing signs of anaphylaxis or an infusion/injection related reaction during or after administration; stop treatment, implement medical emergency protocols and immediately notify the physician or APP providing clinical supervision of the treatment facility/agency/service.</p>						
<p><b>Treatment</b></p>	<p><b>Subcutaneous Route-Initial Dose</b></p> <ol style="list-style-type: none"> <li>Prepare 600 mg casirivimab and 600 mg imdevimab according to manufacturer instructions using aseptic technique into FOUR separate syringes. Casirivimab and imdevimab can be supplied as either a co-formulated package (REGEN-COV), or individually packaged. Refer to the <a href="#">Fact Sheet for Health Care Providers EUA of REGEN-COV</a> for the most updated guidance on medication preparation for casirivimab/imdevimab.</li> </ol> <p align="center"><b>Preparation of Casirivimab/Imdevimab for Initial Subcutaneous Injection</b></p> <table border="1" data-bbox="418 1024 1534 1381"> <thead> <tr> <th data-bbox="418 1024 977 1102">Prepare 600 mg of Casirivimab and 600 mg of Imdevimab</th> <th data-bbox="977 1024 1534 1102">Prepare 4 Syringes</th> </tr> </thead> <tbody> <tr> <td data-bbox="418 1102 977 1180">Co-Formulated Vial</td> <td data-bbox="977 1102 1534 1180">Withdraw 2.5 mL solution per syringe into FOUR separate syringes</td> </tr> <tr> <td data-bbox="418 1180 977 1381">Individual Vials</td> <td data-bbox="977 1180 1534 1381"> <p><b>Casirivimab:</b> Withdraw 2.5 mL solution per syringe into TWO separate syringes</p> <p><b>Imdevimab:</b> Withdraw 2.5 mL solution per syringe into TWO separate syringes</p> </td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li>Replace the 21-gauge transfer needle used for medication preparation with a 25-gauge or 27-gauge needle for subcutaneous injection. The recommended needle size for subcutaneous injections is 5/8”.</li> <li>Administer the subcutaneous injections consecutively, each at a different injection site, into the thigh, back of the upper arm, and different quadrants of the abdomen, except for 2 inches (5 cm) around the navel. The waistline should be avoided.             <ol style="list-style-type: none"> <li>When choosing injection sites, avoid skin that is tender, damaged, bruised, or scarred.</li> <li>Follow local protocol for administering a subcutaneous injection.</li> </ol> </li> </ol>	Prepare 600 mg of Casirivimab and 600 mg of Imdevimab	Prepare 4 Syringes	Co-Formulated Vial	Withdraw 2.5 mL solution per syringe into FOUR separate syringes	Individual Vials	<p><b>Casirivimab:</b> Withdraw 2.5 mL solution per syringe into TWO separate syringes</p> <p><b>Imdevimab:</b> Withdraw 2.5 mL solution per syringe into TWO separate syringes</p>
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**Subcutaneous Route-Repeat Dosing**

1. Verify that the patient is presenting for repeat dosing of casirivimab/imdevimab (REGEN-COV) due to ongoing exposure to COVID-19 and that at least 4 weeks has passed since their last treatment.
2. Prepare 300 mg casirivimab and 300 mg imdevimab according to manufacturer instructions using aseptic technique into TWO separate syringes. Casirivimab and imdevimab can be supplied as either a co-formulated package (REGEN-COV), or individually packaged. Refer to the [Fact Sheet for Health Care Providers EUA of REGEN-COV](#) for the most updated guidance on medication preparation for casirivimab/imdevimab.

**Preparation of Casirivimab/Imdevimab for Repeat Subcutaneous Injection**

Prepare 300 mg of Casirivimab and 300 mg of Imdevimab	Prepare 2 Syringes
Co-Formulated Vial	Withdraw 2.5 mL solution per syringe into TWO separate syringes
Individual Vials	<b>Casirivimab:</b> Withdraw 2.5 mL solution per syringe into ONE separate syringe
	<b>Imdevimab:</b> Withdraw 2.5 mL solution per syringe into ONE separate syringe

3. Replace the 21-gauge transfer needle used for medication preparation with a 25-gauge or 27-gauge needle for subcutaneous injection. The recommended needle size for subcutaneous injections is 5/8".
4. Administer the subcutaneous injections consecutively, each at a different injection site, into the thigh, back of the upper arm, or different quadrants of the abdomen, except for 2 inches (5 cm) around the navel. The waistline should be avoided.
  - a. When choosing injection sites, avoid skin that is tender, damaged, bruised, or scarred.
  - b. Follow local protocol for administering a subcutaneous injection.

**Follow-up**

1. Provide the patient with [COVID-19 Antibody Therapy Discharge Instructions](#) and review it with them.
2. For patients who are receiving post-exposure prophylaxis for exposure to COVID-19:
  - a. If the patient will have ongoing exposure to an individual with COVID-19, or is at high risk of exposure to an individual infected with COVID-19 due to high occurrence in an institutional setting (e.g., nursing homes or correctional facilities), advise the patient they should continue to



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Table with 2 columns and 3 rows. Row 1: receive casirivimab/imdevimab (REGEN-COV) every 4 weeks... 3. Patients treated with casirivimab/imdevimab (REGEN-COV) should continue to use infection precautions... 4. Administrators of casirivimab/imdevimab (REGEN-COV) should report all medication errors... Row 2: Contraindications for Use of this Order. Do not administer casirivimab/ imdevimab (REGEN-COV) monoclonal antibody treatment to patients that: 1. Have previous severe hypersensitivity reaction... 2. Are hospitalized due to COVID-19... Row 3: Criteria or Circumstances for Notifying the Physician or Advanced Practice Provider (APP). Notify the physician/APP if: 1. The patient desires treatment or post-exposure prophylaxis with casirivimab/imdevimab (REGEN-COV) but is uncertain if they meet the assessment criteria for use...

Handwritten signature: E. Cuervo Tilson

Approved by: \_\_\_\_\_ Date approved: 9-13-21 Elizabeth Cuervo Tilson, MD, MPH NPI: 1760540421

This order is effective immediately upon signing and may be revised or revoked by the State Health Director according to his/her discretion. Legal Authority: Executive Order Number 232