

## Department of Pharmaceutical Services

Date: March 17, 2021  
 To: All UCSF Health Clinicians  
 Re: **Updated COVID-19 Bronchodilator Recommendations**

### Situation

- Shortages of metered dose inhalers (MDIs) related to COVID-19 have stabilized sufficiently to expand MDI usage beyond initial restrictions. Nonetheless, judicious bronchodilator use is still needed to maintain sufficient supply.

### Background

- Administering bronchodilators via MDI is preferable to reduce aerosol-generating procedures (AGPs).
- Mechanically ventilated patients may safely receive nebulized bronchodilators using in-line nebulizers, which are able to maintain a closed system.

### Assessment

- Broadening current MDI use to all non-mechanically ventilated patients will allow us to reduce AGPs.

### Recommendation

- Recommendations for which bronchodilator to use based on patient population is listed below:

Patient Population	Bronchodilator Strategy
<b>Mechanically ventilated patients or Patients unable to tolerate MDI</b>	<ul style="list-style-type: none"> <li>• Preferentially use <b>nebulized bronchodilators</b></li> <li>• Limit bronchodilator use unless clear indication (e.g. asthma, COPD).</li> </ul>
<b>All other patients</b>	<ul style="list-style-type: none"> <li>• Preferentially use <b>metered dose inhalers (MDIs)</b></li> <li>• Limit bronchodilator use unless clear indication (e.g. asthma, COPD).</li> </ul>

These changes have been approved by physician, pharmacy and respiratory care leadership, and these recommendations will also be updated in APeX.