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:

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Bronchodilator Strategy</th>
</tr>
</thead>
</table>
| Mechanically ventilated patients or Patients unable to tolerate MDI | ● Preferentially use nebulized bronchodilators  
  ● Limit bronchodilator use unless clear indication (e.g. asthma, COPD). |
| All other patients                                | ● Preferentially use metered dose inhalers (MDIs)  
  ● Limit bronchodilator use unless clear indication (e.g. asthma, COPD). |

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