# THE USE OF CONTINUOUS HIGH-FREQUENCY OSCILLATION

to reverse atelectasis post-abdominal aortic aneurysm repair surgery

## OVERVIEW

## 75-year-old male with abdominal aortic aneurism

## PATIENT TIMELINE

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>Comorbidities include Type 2 diabetes, obstructive sleep apnea, chronic kidney disease, hypertension and previous AAA repair.</th>
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<tbody>
<tr>
<td>POST-OP DAY 2</td>
<td>Developed acute renal failure.</td>
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</table>
| DAY 6 | ▪ Worsening respiratory status with nocturnal desaturation.  
  ▪ Chest X-ray (CXR) showed large collapse of left lung and markers consistent with atelectasis secondary to mucous plugging.  
  ▪ The MetaNeb® System delivered oscillation and lung expansion (OLE) therapy initiated via in-line ventilator circuit using 0.9% normal saline for 10 minutes 3x daily at 2100, 2200 and 2300. |
OUTCOMES

<table>
<thead>
<tr>
<th>DAY 6</th>
<th>3 hours after initiation of OLE therapy with The MetaNeb System, repeat CXR showed markedly improved aeration of left lung, and complete resolution of collapse.</th>
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</thead>
<tbody>
<tr>
<td>DAY 7</td>
<td>- Ventilator settings were weaned to pressure support mode.</td>
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<td></td>
<td>- Patient was saturating well and hemodynamically stable on Levophed.</td>
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</tbody>
</table>

EVIDENCE

A. Post-op Day 6 CXR at 2030, Pre-MetaNeb® System OLE Therapy
B. Post-op Day 6 CXR at 2345, Post-MetaNeb System OLE Therapy (3 treatments)

For more information, please contact your Hillrom sales representative at 1-800-426-4224.

respiratorycare.hill-rom.com

References


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