

Case Study: SUCCESSFUL VENTILATOR WEANING -LOVINGS

# THE USE OF CONTINUOUS HIGH-FREQUENCY OSCILLATION

## **OVERVIEW**

Report of a 75-year-old man presenting with abdominal pain and undergoing repair surgery for an abdominal aortic aneurism (AAA).



to reverse atelectasis post-abdominal aortic aneurysm repair surgery

## PATIENT TIMELINE

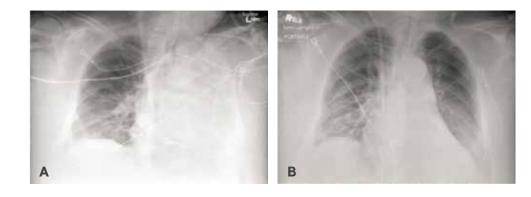
HISTORY	Comorbidities include Type 2 diabetes, obstructive sleep apnea, chronic kidney disease, hypertension and previous AAA repair.
POST-OP DAY 2	Developed acute renal failure.
DAY 6	<ul> <li>Worsening respiratory status with nocturnal desaturation.</li> <li>Chest X-ray (CXR) showed large collapse of left lung and markers consistent with atelectasis secondary to mucous plugging.</li> <li>The MetaNeb<sup>®</sup> 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.</li> </ul>

## **OUTCOMES**

DAY 6	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.
DAY 7	<ul> <li>Ventilator settings were weaned to pressure support mode.</li> <li>Patient was saturating well and hemodynamically stable on Levophed.</li> </ul>

#### **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)



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

### respiratorycare.hill-rom.com

References

<sup>1</sup> Lovings T, Sweet M. The use of continuous high frequency oscillation to revers atelectasis post-abdominal aortic aneurysm repair surgery. Respiratory Therapy. 2016;11@:55.

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