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Case Study:
POSTOPERATIVE – HSIEH

A COMPARISON OF POSITIVE PRESSURE MODALITIES

in a respiratory-therapist driven protocol for patients post-lung resection

OVERVIEW

98 ALR patients were prospectively randomized to a standard respiratory therapist-driven protocol to compare different modalities of positive pressure therapies.

- Positive airway pressure (PAP) and positive expiratory pressure (PEP) therapy were administered based on vital capacity (VC) and ambulatory status.
- 61 patients received PAP/PEP devices.
- 37 received a combination of continuous PEP and high-frequency oscillation (CPEP-CHFO).
- Both groups received a median of 8 treatments.
- Outcome measures included VC, length of stay and device cost.

98 anatomic lung resection patients (ALRs)

OUTCOMES

The use of CPEP-CHFO resulted in a significant improvement in VC over time compared to standard positive pressure devices in clinically similar ALR patients.

In all patients, the post-op VC had dropped an average of 56% of pre-op values.

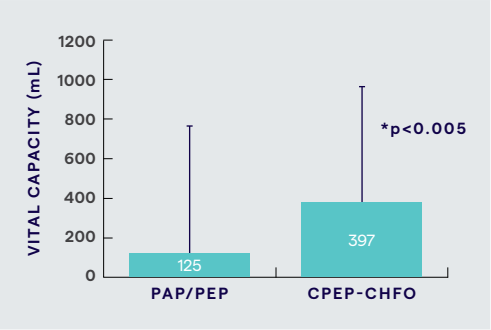
302% absolute change in VC at discharge compared to first postoperative measure increased significantly in the CPEP-CHFO group: (408±594 vs. 135±632, $p<0.05$).

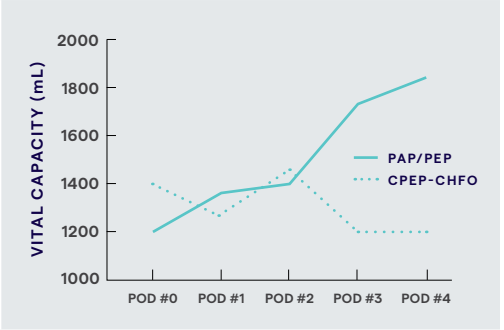
Cost savings were identified with CPEP-CHFO.

EVIDENCE

Absolute Change in VC and Daily Bedside VC Overtime

Uncomplicated ALR patients receiving combination CPEP-CHFO had significantly increased VC compared to those receiving standard PAP/PEP therapy postoperatively.





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

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References

[1] Hsieh J, Prickett M, DeCamp M, et al. A comparison of positive pressure modalities in a respiratory therapist driven protocol for patients post lung resection. Northwestern Memorial Hospital. 2014.