

Flexitouch® Advanced Pneumatic Compression Device Improves Clinical Outcomes and Reduces Healthcare Costs in Lymphedema Patients

Original Article: The Cutaneous, Net Clinical, and Health Economic Benefits of Advanced Pneumatic Compression Devices in Patients with Lymphedema
Journal: *Journal of American Medical Association – Dermatology*
Publication Date: October 2015
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OBJECTIVE

The objective of this study was to examine the impact of the Flexitouch advanced pneumatic compression device (APCD) on 12 month clinical outcomes and healthcare costs in a privately insured population of lymphedema patients.

METHODS

- Investigators conducted a retrospective analysis of a de-identified health claims database of 34 million people to identify patients meeting the following criteria:
 - Diagnosis of lymphedema
 - Prescribed and received a Flexitouch system for home use
 - Continuous insurance coverage 12 months prior to and 12 months following the receipt of the Flexitouch system
- 718 patients met these criteria. The study included 374 patients with cancer-related lymphedema and 344 with non-cancer-related lymphedema.
- Clinical outcomes and healthcare costs were analyzed for the 12 months prior to receipt of the Flexitouch APCD compared to outcomes and costs in the 12 months post receipt of the APCD.

RESULTS

In the 12 months following the receipt of the Flexitouch APCD:

Cancer-related lymphedema patients demonstrated a:

- 79% reduction in the rate of cellulitis (Fig. 1)
- 29% reduction in the rate of outpatient hospital visits (Fig. 3)
- 30% reduction in rate of physical therapy
- 37% reduction in lymphedema-related costs* (Fig. 2)

*Excludes APCD costs

Non-cancer related lymphedema patients demonstrated a:

- 75% reduction in the rate of cellulitis (Fig. 1)
- 40% reduction in the rate of outpatient hospital visits (Fig. 3)
- 34% reduction in rate of physical therapy visits
- 36% reduction in lymphedema-related costs* (Fig. 2)

*Excludes APCD costs

Fig. 1: Rates of Cellulitis 12 Months Pre- and Post-Flexitouch Use

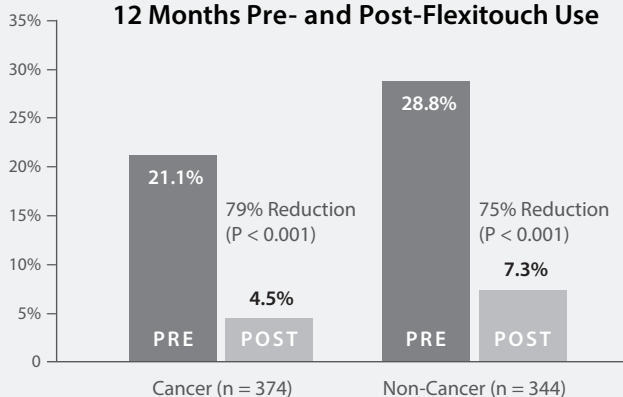
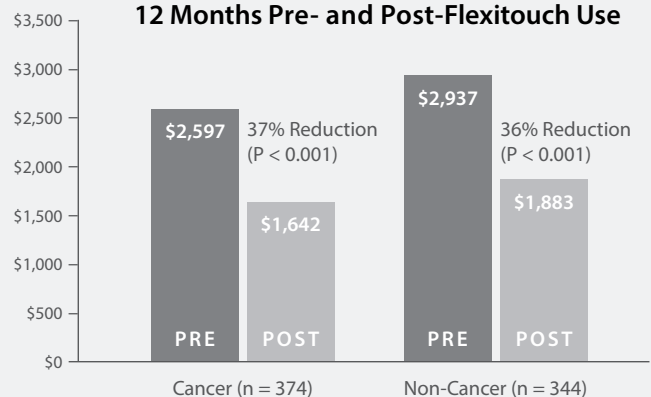


Fig. 2: Lymphedema Related Health Costs 12 Months Pre- and Post-Flexitouch Use



DISCUSSION

- Flexitouch use significantly reduces the incidence of cellulitis in lymphedema patients:
 - Cellulitis is a potentially serious infection of the dermis and soft tissue which may require hospitalization
 - Cellulitis is a common co-morbidity of lymphedema; the incidence was reported in 21–29% of patients in this study prior to Flexitouch therapy
 - Acute cellulitis results in setbacks and postponement of lymphedema treatment
 - Lymphedema is a strong predictor of cellulitis, increasing risk 9-fold⁵
- Flexitouch use helped to reduce outpatient hospital and physical therapy visits in lymphedema patients.
- The economic benefits associated with the Flexitouch system are substantial and may go beyond what was measured in the study:
 - Patients in the study recognized significant reductions in lymphedema-related health costs in the 12-month period following receipt of the Flexitouch system
 - The study did not account for additional monetary and non-monetary benefits from improved physical function, productivity, quality of life, and lower caretaker costs

KEY POINTS

- This is the largest clinical study ever to measure health outcomes and economic benefits of a specific therapy (the Flexitouch system) used for the treatment of lymphedema.
- This landmark study demonstrates that the Flexitouch system improves patient health and reduces lymphedema treatment costs:
 - Rates of cellulitis, outpatient visits and physical therapy reduced significantly with the use of the Flexitouch system
 - Lymphedema-related treatment costs decreased significantly with use of the Flexitouch system
- 37% reduction in costs for cancer-related lymphedema patients.
- 36% reduction in costs for non-cancer-related lymphedema patients.

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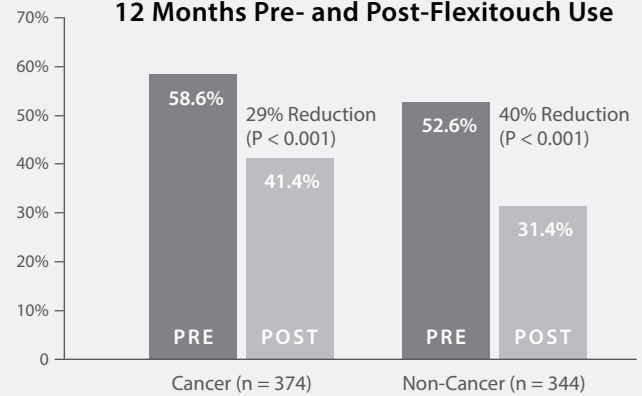
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This analysis was supported by funding from Tactile Medical.

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**Fig. 3: Outpatient Hospitalization
12 Months Pre- and Post-Flexitouch Use**



- Avoiding a single episode of cellulitis could save patients more than 4 days of hospitalization⁶ and costs in excess of \$16,000⁷:
 - The Flexitouch system demonstrated a 79% reduction in the rate of cellulitis in cancer-related lymphedema patients, and a 75% reduction in the rate of cellulitis in non-cancer-related lymphedema patients
- Clinical and economic benefits of therapy with the Flexitouch system will likely extend beyond 1 year:
 - Lymphedema is a chronic, life-long condition without a cure
 - This study examined patient health and cost outcomes for 1 year following the receipt of the Flexitouch system
 - It is reasonable to assume that patients would receive ongoing positive health benefits with continued use of this beneficial at-home therapy

CONCLUSION

Lymphedema is a chronic disease associated with increased rates of cellulitis and adverse clinical events. The Flexitouch system is the only pneumatic compression device clinically proven to reduce the incidence of cellulitis, stimulate the lymphatic system,⁸ and help to reduce healthcare costs in lymphedema patients.

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