NEGATIVE PRESSURE WOUND THERAPY ASSOCIATION WITH REDUCED OCCURRENCE OF DIABETIC FOOT ULCER AMPUTATIONS: A RETROSPECTIVE STUDY OF PAYOR CLAIMS DATA

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**OBJECTIVE:** To evaluate the relative occurrence of amputations for diabetic foot ulcer (DFU) patients treated with negative pressure wound therapy (NPWT), as delivered by Vacuum-Assisted Closure Therapy, compared to patients treated with traditional wound therapies (control group) in two different patient populations.

**METHODS:** A retrospective database analysis using administrative data from two different sources was completed. Data sources included: 1) a commercial payor source including 2002–2003 claims and 2) a random 5% sample of 2003 Medicare claims (CMS). ICD-9-CM diagnosis and procedure codes, CPT-4 and HCPCS codes were used to identify NPWT and control patients. Risk adjustment procedures were employed to account for patient acuity differences between the control and NPWT samples.

**RESULTS:** The commercial dataset yielded over 3500 patients meeting the study criteria while the Medicare dataset included over 12,700 patients. This retrospective analysis demonstrated that the proportion of patients with an amputation was lower following treatment with NPWT when compared to the control group. This finding was consistent for the commercial and Medicare datasets. From the commercial dataset population, NPWT was associated with up to a 34% lower amputation occurrence compared to the control group. (p = 0.09) In the Medicare population, the DFU risk-adjusted amputation percentages were 16.6% for control and 10.8% for NPWT groups (p = 0.007). Additionally, higher severity patients (categorized based on debridement depth) experienced fewer amputations when treated with NPWT vs. control therapies.

**CONCLUSIONS:** This retrospective analysis is the first to assess the relationship of NPWT to DFU amputations using two large datasets. In this analysis, the results from two distinct datasets consistently suggest that diabetic foot ulcer patients treated with NPWT experienced a lower incidence of amputations compared to control patients. NPWT may play an important role in the incidence of diabetic-related amputation events that lead to significant economic and quality of life implications.

**DIABETES—Cost Studies**

**PDB6**

FACTORS ASSOCIATED WITH DIABETES CONTROL IN A LATINO POPULATION USING A HEALTH BEHAVIOR MODEL

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**OBJECTIVES:** To determine the prevalence of diabetes, diabetes control, and risk factors associated with type-2 diabetes control in a sample of adult Latinos. **METHODS:** Data were obtained from the Los Angeles Latino Eye Study (LALES), a large population-based survey of eye disease in Latinos greater than 40 years of age including a clinical evaluation and home survey questionnaire. All participants were stratified by diabetes status and compared with non-diabetics. The participants with diabetes were then stratified by diabetes control per the American Diabetes Association (ADA) guidelines. A multivariate logistic regression analysis was conducted to identify risk factors associated with diabetes control. The univariate and multivariate analyses utilized components of the health behavior model, which included predisposing, enabling and need characteristics.

**RESULTS:** Data for 6980 participants were evaluated. There were 1321 participants identified with diabetes resulting in a prevalence of 19%. Of all participants, 41.9% were males, 27.8% were single and 65.5% had insurance coverage. 3.8% of the participants without a diabetes diagnosis had clinical values (A1C) above the diabetic goal, indicating possible diabetes. Of the diabetics, only 36% were controlled. Diabetics were older (57.8 vs. 53.9; p < 0.0001) and insured (73.9% vs. 64.2%; p < 0.0001). 6.8% of the diabetics were untreated, 72.7% were using oral anti-diabetic medication, 21.3% were using insulin, 57.4% were using diet and 15.3% were using a combination of oral medication and insulin. Logistic regression analysis (Likelihood X^2 = 143.5, p < 0.0001) showed that lack of problems getting healthcare when needed, higher education, lower Body Mass Index (BMI) and advancing age were associated with diabetes control.

**CONCLUSIONS:** Though severity of disease and medication adherence were not assessed, problems getting care and a higher BMI were associated with poor diabetes control in this Latino population. While some diabetics in this population are untreated, many are not meeting ADA goals or remain undiagnosed.