Physical Performance Characteristic Comparisons of Calcium Alginate and Other Absorbent Dressings

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**Purpose:**
With the wide variety of alginate and other absorbent products currently offered, it is desirable to provide information to differentiate among the relative performance levels of these dressings.

**Methodology:**
Three separate lots, when available, of both the flat and rope forms of each commercial dressing were tested for absorbency (n=20 per lot). Absorbency was tested using the British Pharmacopoeia test method (a 30-minute soak period in a calcium-sodium solution at 37°C [98.6°F] with the samples returned to the calcium-sodium solution to continue soaking for a 24-hour period before being re-measured). Absorbencies for each time period were recorded as grams of solution absorbed per gram of dressing material and as grams of solution absorbed per dressing sample (flats=2"x2"; ropes=2" length).

Data were analyzed using Minitab. Analysis of variance with the Tukey-Kramer comparison test was used to compare results between dressings for each performance characteristic. All statistical significance was evaluated at the 5% significance level (p < 0.05).

**Conclusion**
Based upon the results of this study, clinicians should continue to be aware that there are significant differences in absorbency performance potential, even within product categories. In addition, clinicians selecting alginate and other absorbent products may wish to use an actual measure of "grams per dressing" absorbency as a more meaningful predictor for meeting clinical needs, rather than "grams per gram of dressing."