A New Wound Care Approach Yields Significant Clinical, Economic, Logistical and Training Satisfaction

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BACKGROUND

The amount of wound care dressings in the marketplace is overwhelming for many clinicians, especially since each dressing type is designed to be used only for a specific and limited part of the healing continuum.

Over the last four years a new wound care approach has been introduced in a large number of nursing homes and district nursing zones in Norway. This approach is based on structured implementation of training and protocols around the use of polymeric membrane dressings*, designation of a wound care resource person associated with each department, and on-going follow-up activities.

Polymeric membrane dressings are multifunctional and, due to their unique components, can be used over a much wider range of the healing continuum , while also facilitating healing and pain reduction in a different way than other dressings. The dressings' built-in cleansing ability minimizes the need for additional wound cleansing at dressing changes.

For comparison, and depending on the individual unit, the institutions implementing the polymeric membrane dressing approach had previously been using a variety of advanced wound care products including foams, alginates, silicones, hydrogels, collagens, hydrocolloids, and, to a lesser extent, standard gauze to manage wounds.

In order to evaluate the satisfaction of the comprehensive approach, participating facilities were surveyed regarding their satisfaction with the clinical and economic value; logistics and ease of use; and training for the polymeric approach.

AIM

Evaluate the clinicians' satisfaction with the polymeric membrane dressing comprehensive approach.

METHOD

One-year post implementation, each department, at each institution that had implemented the new care approach, was provided a questionnaire in which their experiences with the polymeric membrane dressings, protocols, training, logistics and economical aspects were graded on a 5-point Likert scale. An independent statistician then performed statistical reporting and verification of data entry and results.

The Likert scale was re-coded to a binary variable by collapsing the top two highest responses (4 = 'agree', 5 ='strongly agree') to create a new variable 'favorable' equal to one. The remaining three categories (1='strongly disagree', 2='disagree', and 3='neutral') were then collapsed for 'not favorable' equal to zero. This re-coding was done in order to facilitate analysis using the binary test of proportions. The binary test of proportions was used in order to increase the rigor of the analysis of the survey data.

A one-sample test of proportions allows us to test whether the proportion of success on a two-level categorical dependent variable significantly differs from a hypothesized value. The null hypothesis tested was that 60% of the respondents scored the metric as favorable. The alternative hypothesis was that more than, or less than, 60% of the responses were favorable. A two-tailed test was used since those answering the survey had the opportunity to choose either a favorable response, or an unfavorable response. The null hypothesized value of .60 (60%) was chosen for this analysis, indicating that more than fifty-percent of the clinical teams had a favorable experience with the new wound approach.

A logistic regression model was fit to the dependent binary variable ('favorable'=1, 'not favorable'=0) and independent 'institution type' to determine if there were any differences between institution type.

Finally, a cumulative logit model was then fit to the ordered Likert categories with the independent variable institution type. This model predicts the probability of being in a higher (more favorable) category by institution type estimated by maximum likelihood methods. Each reported odds ratio is interpreted as the odds for being in a higher category compared to a lower category by institution type.

GRAPHIC OVERVIEW OF SURVEY RESULTS

:FAVORABLE :UNFAVORABLE OR NEUTRAL

The bar graphs depict the facilities' responses across five satisfaction categories, representing 20-specific metrics (questions). The final category and question related to whether clinicians would use the polymeric membrane dressing again 'as first choice for the right type of wound', which 92.1% ($p<0.0001$) responded that they 'strongly agreed' or 'agreed' with this statement.

'Favorable' represents the observed percentage of facilities that chose either 'agree' or 'strongly agree' for the specific metric. **'Unfavorable or Neutral'** represents the observed percentage of facilities that chose either 'strongly disagree', 'disagree', or 'neutral' for the specific metric.

RESULTS

There were 41 (39.8%) district nursing zones and 62 (60.2%) regular nursing home departments included in this analysis. These 103 survey participants represented 37 different areas/institutions. The survey response rate was 75%.

The survey assessed six satisfaction categories and included 21 metrics. The responding facilities consistently and significantly ($p<0.0001$) scored each metric as 'agree' or 'strongly agree' compared to the other categories ('neutral', 'disagree' or 'strongly disagree').

- 81.4% 'strongly agreed' or 'agreed' that the new approach had created more focus on wound care, while 94.1% supported the statement that wound care had become easier.
- 78.4% stated that they 'strongly agreed' or 'agreed' that wounds heal faster with the use of polymeric membrane dressings.
- The responders further reported that the new protocols were simpler (99.0% 'strongly agree' or 'agree'), that dressing changes were faster (99.0% 'strongly agree' or 'agree'), and reduced the need for additional dressing materials (92.9% 'strongly agree' or 'agree').

No differences were detected between the institution types.

CONCLUSION

Based on the experience of the 103 respondents from 37 district nursing zones and nursing homes, the new approach has considerable clinical, financial and logistical satisfaction for the institutions surveyed.

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