Polymer Membrane Tube Site Dressings* Improve Tracheostomy Site Management While Increasing Patient Comfort

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BACKGROUND

It is estimated that each year more than 7,000 patients receive tracheostomies in Australia and New Zealand. Most patients commence their care within the intensive care unit. In 2009, Princess Alexandra Hospital performed one hundred and sixty-eight tracheostomies. The patient with a tracheostomy is at risk of infection within the pulmonary tree as well as the surgical site. Soiled, moist tracheostomy dressings also shed fibers that can stick to the wound as well as being inhaled.

Following a review by the critical incidence and mortality committee at the Princess Alexandra Hospital, Brisbane, a number of discrepancies in regards to tracheostomy management were highlighted, among those being the inconsistency and functionality of the currently used tracheostomy dressings. Therefore a tracheostomy management team consisting of ENT Registrar and ENT Clinical Nurse Consultant, was created to look at all aspects of tracheostomy management within the facility.

A pre-existing group of clinical professionals within the Princess Alexandra Hospital, the Tracheostomy Education And Management Service (TEAMS) were consulted in regards to the management of tracheostomies and in particular the current dressing protocol. No standard dressing protocol was found, therefore it was decided to perform a product appraisal of currently used tracheostomy dressings, in order to identify a tracheostomy dressing that would improve patient care outcomes.

OBJECTIVE

Tracheostomy care dressings used at Princess Alexandra Hospital (PAH), Brisbane were found inadequate. A project was initiated to identify a tracheostomy dressing that would improve patient care outcomes.

The historical tracheostomy site dressing presented several patient care limitations: 1) when the stoma was heavily exuding, the dressing had inadequate absorbency, which often resulted in excoriation of the surrounding skin; 2) when mucous secretions became dry in the dressing, the secretions would create a glue-like bond between the dressing and the stoma, resulting in trauma to the skin and pain to the patient during dressing removal; 3) too bulky at the stoma site which resulted in discomfort for the patients and difficulty for the staff to change; 4) the dressings failed to relieve the patients' discomfort at the tracheostomy site, and 5) did not adequately support healing at the tracheostomy site.

METHODS

An evaluation of the polymeric membrane tube site dressing was performed as part of a best practice evaluation of tracheostomy dressings. The polymeric membrane tube site dressings were evaluated because they 1) offered superior absorbency of blood and secretions from the tracheostomy stoma compared to the historical dressings; 2) were designed to never stick to the tracheostomy stoma, allowing greater comfort when changing the dressing at the stoma site; 3) were thinner, therefore offering greater patient comfort and ease of change; 4) the unique dressing design is recognized to help relieve pain, oedema, and inflammation in both acute and chronic wounds; and 5) the dressing design is recognized to support healing of wounds.

The multifunctional polymeric membrane tracheostomy tube site dressings are now the preferred standard for managing tracheostomy sites at Princess Alexandra Hospital.

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RESULTS

The multifunctional polymeric membrane dressings improved the tracheostomy care and outcomes in all departments where it has been implemented. The stoma sites were much cleaner when the polymeric membrane tube site dressings were used than when the historical dressings were used. This favorable outcome was because of the continuous cleansing provide by the dressing, along with the greater absorbency of blood and secretions from the tracheostomy stoma.

The dressings' excellent absorbency eliminated the problems with excoriation of the surrounding skin previously experienced.

The dressing changes were much more comfortable and much faster because the dressing did not stick to the stoma site, plus the dressings helped to reduce the erythema, oedema and increased tenderness and pain normally observed at the stoma site.

The dressings were also much thinner which was also very comforting to the patients both while wearing the dressing and during the dressing change process.

The reduction in inflammation at and around the stoma site seen with the polymeric membrane dressing was usually accompanied by reduction in the irritation of the trachea at and around the incision site.

The multifunctional polymeric membrane tracheostomy tube site dressings are easy to cut to shape when the tube is sutured in place.

BIBLIOGRAPHY

*PolyMem wound dressings are made by Ferris Mfg. Corp., Burr Ridge, IL. 60527 U.S.A.