

A Novel Tracheostomy Dressing: Extension of a Hydroconductive Wound Dressing

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Tracheostomies, which may be acute or chronic, are indicated for different conditions such as chronic obstructive pulmonary disease (COPD); bacterial, viral, or fungal pneumonia; smoke inhalation; and head injury,¹ to name a few. The secretions exiting or being suctioned from the tracheostomy site associated with each of these conditions have unique characteristics²; the exudate can be copious, watery bronchorrhea; bloody; viscous; and/or contain varying amounts of exudate, debris, bacteria, and chemicals depending on the etiology of the tracheostomy. A tracheostomy to relieve thick secretions in a case of severe bacterial pneumonia will have exudate heavily laden with bacteria.³ A tracheostomy performed for COPD may have injurious cytokines and proteases in the exudate removed from it.⁴ A tracheostomy performed to aid in the treatment of smoke inhalation will yield debris such as carbon particles and inflammatory cytokines.⁵

Historically, passive absorptive dressings such as gauzes, hydrofibers, foams, and alginates have been used to absorb the exudate coming from the tracheostomy. Silver has been added to some dressings to function as an antimicrobial to prevent infection from the surrounding skin. Recently, a new tracheostomy dressing, Drawtex Tracheostomy Dressing (SteadMed Medical LLC, Fort Worth, TX) was developed using the same LevaFiber technology of the Drawtex wound dressing that has been demonstrated to draw the exudate, debris, bacteria, and cytokines into the dressing while preventing maceration to surrounding skin.⁶⁻⁸ The dressing is designed specifically for tracheostomy care. It has a hole with radial cuts to allow a snug fit around all varieties of tracheostomy tubes, whether plastic, silicone, or metal. The dressing can be used with single-lumen, double-lumen, cuffed, and uncuffed tubes. To facilitate placement, the interlocking cuts are



Figure 1. When the dressing is placed snugly around the tracheostomy tube, the interdigitated teeth will remain open until fitted together.



Figure 2. The dressing then can be completely fitted, and the teeth in the dressing interlock to obtain closure.



Figure 3. The tracheostomy dressing fits both chronic tracheostomy sites, as seen in Figures 1 and 2, and acute silastic tracheostomy tubes as pictured here.



Figure 4. It is easy to cover the dressing with plastic for showering without having to change the dressing.

spread and the dressing snugly placed around the tracheostomy tube (see Figure 1). Once in place, the interlocking cuts are refitted to hold the dressing in place. This dressing works well with a chronic metal tracheostomy tube (see Figure 2), as well as with a Silastic tracheostomy tube in the acute tracheostomy situation (see Figure 3).

The new hydroconductive tracheostomy dressing was evaluated in two different clinical scenarios: one in the hospital setting to evaluate acute tracheostomies and one in the home setting to evaluate the chronic mature tracheostomy. The dressing proved effective in both acute and chronic tracheostomy cases. It drew in the exudate, debris, bacteria, and chemicals and prevented peristomal maceration. In the home scenario, it was easy to use while showering (see Figure 4). The interlocking configuration provides a snug dressing fit around all types of tracheostomy tubes. ■

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