



THE DALE® FAMILY: TRACHEOSTOMY TUBE AND ENDOTRACHEAL TUBE HOLDERS

by Joseph Sorbello RRT, M.Ed.

In this issue of FOCUS Journal I evaluate the well-known line of airway holding/stabilizing devices from Dale Medical Products, Inc. (Plainville, MA). I did anticipate the usual quality products and I was not disappointed. I, along with a few colleagues of mine in both adult and pediatric intensive care units, evaluated these devices on patients in these ICUs with permission from hospital administration and the intensive care unit medical directors.

The criteria used in the evaluation of these devices (the Dale® 240 Blue™, 241 PediStars™ and 242 PediDucks™ Tracheostomy Tube Holders as well as the Adult 270 Stabilock™ Endotracheal Tube Holder and accompanying 273 Dale Stabilock™ Adhesive Base) were simplicity, reliability, ease of use and patient comfort.

The Dale® Stabilock™ Endotracheal Tube Holder, designed to fit ET tube sizes 7.0 - 10.0 mm, was familiar to me and to some of my colleagues in the adult ICUs where we used this device to stabilize the oral endotracheal tubes of 3 adult male patients on continuous mechanical ventilation. The band measures 28 inches, not including the 2 1/2 inch Velcro fasteners at each end. This size can accommodate virtually any adult-size neck. Some of the nursing staff had seen similar devices and were very positively impressed with this device. As stated in the company literature, this holder "secures endotracheal tubes quickly, easily and with maximum stability." Application and securing of the tube is indeed simple and fast. The adhesive base can be applied, as the accompanying literature states and illustrates, in 4 different ways to accommodate individual patient/clinician needs such as:



The Dale® PediPrints™
Tracheostomy Tube Holder

facial hair, presence of adjuncts such as a nasogastric tube, mouth and/or facial sores/lesions, etc. In the 72 hours that the Stabilock™ was used for each patient, there were no problems in the airway remaining stable. Oral care was accomplished with ease (helps to reduce concerns with ventilator

associated pneumonia {VAP}), the tube channel does prevent tube kinking, there was no visible skin breakdown after 72 hours and we were able to re-position the tube easily. In testing the "occludability" of the tube while in the holder, I inserted an 8.0 mm ID endotracheal tube and bit on it as hard as I could. Trying to pass a suction catheter through the endotracheal tube was a bit difficult but the tube did remain patent, which is the intention of the design. The only real way to actual destroy or render the

Stabilock™ unusable is to either cut it incorrectly with scissors or burn it. It's very durable and can't be twisted and mutilated like its "ugly cousin", one inch tape. Yes, medical tape has its uses and does OK in a pinch but security/patency of an endotracheal tube is just too important to be left to the limitations of tape. Dale is right to point out that the Stabilock™ does meet ACLS guidelines for airway stabilization (see: Part 7.1: Adjuncts for Airway Control and Ventilation. Circulation Dec. 13 2005;112:IV-51-IV-57)

We found that the statements on the accompanying one page company insert entitled "Clinical Advantages" were true.

This insert showed a table outlining the features, benefits and clinical advantages of the Stabilock™. Features include: a soft, comfortable band (it is both soft and comfortable); a tube channel; a protective barrier wipe; an adhesive-backed base with velcro strip; comfort and convenience, and the fact that the device is latex-free. The simplicity of its design, apparent reliability, ease of use and patient comfort are obvious. After using this device the thought of using tape, still used by many to secure ET tubes, was an ugly thought. Although we encountered plenty of oral and nasal secretions in the 72 hour period, the Stabilock™ performed as advertised while its ugly cousin – one inch white medical tape – became soaked, often twisted, stained and loose after 24-48 hours on other patients. We felt there was no real comparison between the Stabilock™ and tape. There were, however, contrasts as I've pointed out. Changing airway stabilization tape is a least favorite task among the nurses and respiratory therapists with whom I have worked over the years. This remains true in the colleagues who participated in this evaluation. The overwhelming choice was to use the Dale Stabilock™ and use tape for other purposes. The one question asked of me after the evaluation was completed was: "Can we please have more of these Dale Stabilock™ Tube Holders?". This question speaks for itself and I referred them to their supervisors and department administrators to order them for use. I would recommend the same for the reader.

The Dale Stabilock™ is a notable improvement over tape. Simple and rapid are two words used, especially in emergency



The Dale® Endotracheal
Tube Holder

Equipment Review... *Continued from previous page*


situations, when talking about ET tube stabilization. Using tape is often messy and bothersome. The Stabilock™ provides a built-in bite block/tube channel which this evaluator believes to be a distinct advantage, especially in patients who are not well controlled and who are biting down on the just-inserted ET tube. Even when the device does absorb some moisture, retains its shape and integrity, a major advantage over tape. In the trial period, the stability of the Stabilock™ was very apparent and the main concerns, accidental extubation or tube misplacement (slipping into the right mainstem, for example), are much less likely. Additionally, the biocompatibility of the device with the patient's skin, the ease of moving the tube for oral hygiene, the low cost, patient comfort make this an ideal device for securing the patient's airway.

The evaluation of the Dale® 240 Blue™ was similar to the Stabilock™ but was used on two adult patients due to availability of adult tracheotomized patients. The 240 Blue™ performed as expected and the same remarks and performance were noted and expressed by nurses and respiratory therapists. The trial period remained at 72 hours although we did leave the holder on the patients since neither the patients nor the therapists & nurses wanted them removed! This time, however, the patients were able to let their voices be heard, literally, on the comfort of the 240 Blue™. Their preference for this device was very high mainly because of the softness and comfort provided by the neckband. The therapists and nurses said that they preferred working with the 240 Blue™ mainly because of its simple design. There were no problems with disconnection from the tracheostomy tube, skin irritation or excoriation.

The evaluation of the 241 PediStars™ and 242 Pediducks™ Tracheostomy Tube Holders was similar to that done with the adult patients. We did, however, use all three of these devices on the three patients we found in the pediatric unit. The only difference between these two models is the print on them: ducks vs. stars. I'm partial to ducks myself but stars were also popular with therapists, nurses and parents. These pattern designs are a smart idea since it is, as the Dale literature states, "warm and comforting to patient and caregiver." These models come with a similar "Clinical Advantages" table talking about the features, benefits and clinical advantages of these tracheostomy tube holders. The same 72 hour evaluation period was used and, yes, we again left these holders on the patients at the request of the nurses, therapists and parents. The same question was asked here as in the adult unit: "Can we please have more of these Dale PediStars™ and 242 Pediducks™ Tracheostomy Tube Holders?". The same recommendation was given: talk to your department supervisors and administrators! I again urge the same of the reader. Beyond objective testing, the highest recommendation a medical device can receive, is the positive accolades of the users. When the patient also appreciates the device, it becomes a "must-have" in my opinion. Our evaluation showed both.


Those interested in Dale Medical Products can learn more by contacting the company at 800-343-3980 or by visiting them online at www.dalemed.com.

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CIRCLE READER ACTION CARD # 33

Central Sleep Apnea.. *Continued from page 36*

Malhotra et al also present a brief trouble shooting table listing a number of PAP and non-PAP related issues or problems and recommended solutions. Under "treatment-emergent central apnea" the solution is listed as "wait until it goes away." And even if it doesn't go away by the end of the titration period. Patients who are re-tested on PAP after several weeks to months frequently do show resolution of the problem. For now this seems to be the most often recommended solution. Another would be to make sure the patient is not over-titrated, solved by reducing CPAP levels (but not so low that obstructive events return). And since snoring is the last thing one titrates upward for, one can dial back the pressure if complex sleep apnea occurs. Malhotra et al also conclude: "If we were to limit the definition of complex apnea to treatment-emergent central apneas, the bulk of the evidence would suggest that this 'disease' is transient and inconsequential. The use of expensive new generation devices is currently unproven in such cases." Dr. Gay presents a slightly different set of concluding remarks. On the subject of newer modifications of PAP machines, he rhetorically asks "Does every CompSA patient need a more expensive and complicated PAP device?" Clearly the answer is no, but failure to understand and explore further questions in this regard does a disservice to our patients and can create obstacles to a better understanding of CompSA as a unique disease process.

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