

# **ARE YOU CONNECTED?- REDUCE YOUR RISK!**

Why the **Vent-Tie**® Ventilator Anti-Disconnect Strap may be right for your facility !

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**Therapy** Vol. 9 No. 3 + June-July 2013

**Respiratory**

One of the most frightening moments beyond the actual accident itself, said actor Christopher Reeves, occurred one night when he was alone in his bedroom and the circuitry on his life sustaining ventilator disconnected from his tracheostomy tube. Mr. Reeves, a quadriplegic and ventilator dependent, was unable to move after suffering his catastrophic neck injury while horse-back riding in 1995, could not reconnect the circuitry himself. Mercifully, after 2 ½ agonizing minutes in fear, a caretaker finally came to his aid.

To help reduce the chance of these catastrophic events, Pepper Medical has designed and patented the **VENT-TIE**® - Combination Ventilator Antidisconnect Strap and Trach Tie, which is a cost effective and easy to use product offering a margin of safety to the patient and caregiver. An FDA *Health Care Message* entitled "Accidental Breathing Circuit Disconnections in Critical Care Settings" notes that "Antidisconnect Devices can be effective in reducing the occurrence of accidental disconnections.

Dangerous episodes like what occurred to Mr. Reeves happen far too frequently, not only in home settings, but also in well controlled acute care facilities with the most advanced equipment and well trained clinicians.

In fact, the FDA reports that approximately 200 deaths as well as numerous injuries and liability cases occur each year in hospitals alone due to accidental ventilator disconnections. The reasons for these life-threatening events are numerous and generally involve the 15 mm connector site where the circuitry meets the tracheostomy tube. This male/female connector is subject to significant forces leading to dangerous conditions if not monitored or secured properly. The tubes tapered 15 mm cannula and circuitries connections are constantly bathed in moisture, humidity and secretions that supply a perfect lubricant. The rapidly changing pressure fluctuations and weight of the ventilator circuitry also combine to negatively impact tubing securement. Additionally, the patients tugging movements, rotations in bed and constant handling lead to added conditions of peril.

Beyond brain injury and death, the consequences of frequent ventilator disconnections can widely affect not only the patients well being but also the facility staff and an institutions financial stability and community reputation.

The Center for Disease Control (CDC) has stated that unintentional disconnections of ventilator dependent patients are a potential cause of VAP.<sup>3</sup> The National Institute of Health (NIH) also reports that accidental drainage of condensation into the patient's airway and contamination of caregivers during ventilator disconnections add to the risk of VAP and cross contamination.<sup>2</sup> With recent changes

in Medicare and private insurance coverage, nosocomial infections (i.e. VAP) are no longer reimbursable leading to significant financial burden on institutions. Coupled with extended stays in hospital and intensive care units, reducing disconnections can reduce added costs.

Other consequences from accidental ventilator disconnections are pernicious alarm events. With increasingly high tech equipment in ICU's there is even more opportunity for alarm fatigue to cloud or mask clinicians awareness of a potentially catastrophic event. James P. Keller, MS, Vice President, Health Technology Evaluation and Safety, ECRI Institute states that they "routinely see deaths associated with alarm fatigue problems" and rated Alarm Management as the # 1 most hazardous health technology issue in 2012.<sup>5</sup> FDA is so concerned about Ventilator disconnections and alarm fatigue that they issued an ALERT in the fall of 2011 to caregivers warning that Ventilator Alarms are going unheard. The FDA cautioned that nurses in particular have become dependent on alarms in caring for patients.

These accidental disconnections result in clinical risk to patients and financial risk to Staff and Facilities. For example, one claim settled for more than \$ 22 million against an unnamed Kansas hospital involved a 38 year old female who disconnected from the ventilator resulting in severe brain injury. Her attorney, James Howell of Wichita, KS said various hospital committees had previously discussed the The Joint Commission's recommendations for improving safety but never implemented them.

Pepper Medical's patented VENT-TIE®, combination trach tie and ventilator anti-disconnect strap, is one method to secure the trach tube and the circuitry at the 15 mm connector. The Vent-Tie® standardizes qualify of care throughout your institution is elegant in its simplicity. The integral anti-disconnect strap can be wrapped and secured to any tubing connector interface, T-piece, Elbow or Closed Suction device to offer an added margin of safety . The VENT-TIE® strap allows for clear, easy visualization of the connector site to assure proper monitoring at all times.

The FDA registered VENT-TIE® is a 2-in-1 device compatible with all types of trach tubes and ventilator systems. Commercially available and individually packaged in a convenient bag, it eliminates the use of such unprofessional and improvised devices as rubber bands and strings.

- ECRI Institute, " 2012 -10 Most Hazardous Health Technologies"  
[https://www.ecri.org/Forms/Pages/Alarm\\_Safety\\_Resource.aspx](https://www.ecri.org/Forms/Pages/Alarm_Safety_Resource.aspx)
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