

# LETTERS

## Prevention of Kinked Anesthesia Gas Sampling Line With an Open Coiled Spring

**To the Editor:** Patients for dental procedures and other head and neck operations under general anesthesia are intubated with either an endotracheal or nasotracheal tube. The endotracheal tube or nasotracheal tube is connected to an elbow with a gas sampling port and to a Y-piece with 2 (40-inch) breathing tubes. The breathing tubes are connected to an anesthesia machine that provides oxygen and anesthetic gases to the patient.

The gas concentration for the patient is determined by the sampled gas taken from the gas sampling elbow through the disposable gas sampling line. The gas sampling line easily kinks and occludes the lumen at the point where its flexible tubing is connected to the rigid leuc lock tip (Table and Figure 1). This kinking causes false readings of gas concentrations and carbon dioxide readouts. The false readings create tense moments for the anesthesia provider (while the source of the problem is investigated) and, in this case, the kinked tubing is straightened. This maneuver works for a short time; however, the tubing may kink again.

A simple solution to the problem was found with the use of an open-coiled spring (the inner diameter of the spring is equal to the outer diameter of the gas sampling tube)

### Problem

Kinked anesthesia gas sampling line

### Solution

Support the proximal portion of the gas sampling line, where it connects to the angle of the elbow, with an open-coiled spring wrapped around the outside of the line.

### Equipment

1. Endotracheal or nasotracheal tube
2. Gas sampling elbow
3. Gas sampling line (10 ft)
4. Open-coiled spring<sup>a</sup>
5. Y-piece
6. Corrugated breathing tubes (2-40 in)

**Table.** Solution and Equipment for Prevention of a Kinked Anesthesia Gas Sampling Line

<sup>a</sup> This item was part of a kit that was intended for use as a decorative plate hanger. It was purchased at a home improvement center, but it can be found at various hardware stores.



**Figure 1.** Sampling line (before spring is added) is shown being compressed (kinked) against the surgeon's scrub top.



**Figure 2.** Sampling line is shown with spring applied.

wrapped around the gas sampling line (Figure 2 and Figure 3). The spring supports the line immediately adjacent to the leuc lock, thus preventing the sampling line from kinking.

The spring is easily applied by placing the tube between the turns of the spring and then rotating the spring to “thread” it onto the line. Since the addition of open-coiled springs to our systems, we have not experienced the problem.

#### **ACKNOWLEDGMENT**

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**Figure 3.** Sampling line with spring applied; it bends but does not kink.

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## **The Varying Nature of the Professional Educational Preparation Among Clinical Anesthesia Providers Who Practice Unsafe Injection Practices**

**To the Editor:** In her Guest Editorial, Wanda O. Wilson, CRNA, PhD, MSN, provides a brief, but up-to-date, overview of the nature of some of the unsafe injection practices that persist among healthcare practitioners, particularly those among our professional anesthesia colleagues.<sup>1</sup> Dr Wilson correctly suggests that professional healthcare organizations and clinical providers

must work together in a unified effort to develop, implement, and enforce universally accepted infection control techniques and guidelines for the use of needles, syringes, and medication vials.

I would like to point out that Scott Young, the Las Vegas, Nevada, anesthesiologist who was observed by local health inspectors in early 2008 to be reusing syringes and potentially contaminated vials of propofol on multiple patients is a licensed doctor of osteopathy and not a licensed doctor of medicine, as stated in Dr Wilson’s Guest Editorial. This correction is significant in that it further illustrates the

implication in the editorial that the practice of syringe and single-use vial reuse is seen among practitioners of various backgrounds and professional educational preparations, and no single group of clinical anesthesia providers is universally free from these grossly unacceptable practices.

#### **REFERENCE**

1. Infection Control Issue: Understanding and addressing the prevalence of unsafe injection practices in healthcare. *AANA J.* 2008;76(4):251-253.

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