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Continuous syringe pumps

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Sir: Since the publication of our report describing potential problems with continuous syringe pumps (ICM 1997; 23: 998–1001) we have received numerous appreciative comments from our colleagues for alerting the intensive care community about this problem. However, it has come to our attention that data from this paper have been used for commercial marketing purposes. It should be remembered that the published data are derived from a “worst-case scenario” situation intended to focus on a design problem allowing “internal motion” of the syringe parts when the infusion device is exposed to an elevation manoeuvre. However, the bolus injection volume resulting from such an elevation manoeuvre will not only be influenced by this design problem but can, to a certain extent, be modified by other factors, e. g. syringe type and size. Thus, this issue is multifactorial, and the use of our recently published data for commercial marketing purposes might give a somewhat misleading picture.

To our delight, our communication has provoked activity by certain manufacturers, which will hopefully provide a solution to the elevation problem. In the meanwhile, we hope that readers have become aware of this potential problem and that the most simple solution to this problem from a clinical point of view is to remember to keep the syringe pump at the same level relative to the patient at all times when infusing potent drugs at low infusion rates.

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Peristomal infection after translaryngeal tracheostomy: a risk linked to the colonization of the oropharynx?

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Sir: The article by Fantoni and Ripamonti [1] recently published in *Intensive Care Medicine* presents a new non-surgical tracheostomy technique, the translaryngeal tracheostomy (TLT), which was successfully performed on 109 intensive care patients. With this technique, the use of a single dilator appears to be an important factor to prevent bleeding and contamination of the stoma site. In particular, infections of the stoma site are reported to be absent in this study. In another clinical trial by Vigneri et al. [2], TLT was performed on 77 adult patients (48 males, 29 females, mean age 67.7 ± 14.6 years) admitted to the intensive care unit (ICU) of the Feltre Hospital from October 1994 to December 1996. Even in this sample, no local infections were observed. We performed TLT on 14 patients (12 males, 2 females, mean age 57.3 ± 18.3 years) admitted to the neurosurgical ICU of Treviso Hospital from March to July 1997. The procedure was scheduled when translaryngeal intubation lasting more than 7 days was expected [3]. Furthermore, the risk of elevation of intracranial pressure induced by the extension of the neck and the increase in airways pressure due to the presence of the tracheoscope were evaluated when assessing the time of performing a tracheostomy in brain-injured patients. Unlike the previous series, a severe procedure-related infection developed in 2 patients.

In case 1, a 32-year-old male with multiple injuries, the pre-TLT length of stay

(LOS) in the neurosurgical ICU was 10 days, whereas in case 2, a 57-year-old female with a brain tumor, it was 20 days. Clinical diagnosis was confirmed by computed tomography of the neck, which showed paratracheal effusion in both cases. Appropriate antibiotic therapy was promptly begun and microbiological cultures of specimens from the infected sites were obtained. In both cases, non-methicillin-resistant *Staphylococcus aureus* and *Pseudomonas aeruginosa* were isolated. Additionally, in case 1, surgical drainage of the paratracheal abscess was needed. In both cases, treatment of the infection was successful. We noticed that our mean pre-TLT LOS (9.5 ± 6.6 days) was significantly higher ($p < 0.05$) compared to both the whole Vigneri's sample (5.3 ± 3.8 days) and a subgroup of 16 patients (4 ± 2.7 days) belonging to the same series affected by head injury or stroke as in our cases. Unfortunately, in the article by Fantoni and Ripamonti there is no mention of when they performed TLT.

Based on these observations, we raise the question whether contamination of the oropharynx by aerobic gram-negative bacilli and *S. aureus* in critically ill patients [4] should be considered as a risk factor for post-TLT infection when TLT is performed approximately 1 week after admission to the ICU.

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