

appear but was also told that the article would clearly state that the product was being discontinued and replaced by the new AK-09800 Kit featuring a hemostasis valve/side port adapter (available since December 1981) specifically designed to eliminate the potential for air embolization when a PA catheter is not in place. The failure of your journal to mention this has resulted in some confusion among the users of Arrow's kits. Furthermore, the fact that (for some unknown reason) this article appeared in two consecutive issues without correcting this situation doubled physician exposure to this problem.

Accordingly, I want to state clearly that Arrow International, the leading manufacturer of PA catheter Introducer Kits, has acted responsibly to not only obviate the air embolism problem due to misuse of the product, but also to significantly improve patient care by making the following changes to Product No. AK-09800/09801:

(1) The new hemostasis valve side port adapter, as well as a lock-on obturator (provided in a separate sterile pouch pack), provide a triple factor of safety in preventing air embolism or back-bleeding after removal of a PA catheter, making this the only system designed for safe prolonged sheath and side port utilization.

(2) The introducer is specifically designed to remain in the vessel providing an additional central line through the side port (with 7-Fr PA catheter or obturator in place) equivalent to the flow rate of a 16-gauge catheter.

(3) When the PA catheter is not being used, the lock-

on 7-Fr obturator (6 inches long) acts as a "dummy catheter" to keep the sheath from kinking. Sterility is preserved until use in a sterile pouch pack.

(4) Removable luer-lock design of the side port allows use of a full 8-Fr inside diameter of the sheath for emergency fluid infusion if required.

(5) The PA catheter can be pre-assembled with side port/hemostasis valve adapter and tested for inflation integrity prior to insertion through the sheath.

(6) The catheter contamination shield protects the PA catheter from external contamination after placement, minimizing the risks involved with subsequent manipulation or repositioning. Any questions regarding these product improvements should be directed to: Paul L. Frankhouser, Manager of Marketing and Product Development, Arrow International, Inc., Hill and George Avenues, Reading, Pennsylvania 19610. (800, 523-8446, outside of Pennsylvania).

Thank you in advance for your cooperation in bringing the above points to your readers' attention.

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#### REFERENCE

1. Doblar DD, Hinkle JC, Fay ML, Condon BF: Air embolism associated with pulmonary artery catheter introducer kit. *ANESTHESIOLOGY* 56:307-309, 1982

(Accepted for publication May 25, 1982.)

### Toil and Trouble: People Fail More Often Than Equipment

*To the Editor:*—You have probably achieved one of those famous publishing firsts; at least I don't recall seeing the same article two months in a row in the same journal (Doblar *et al.* "Air Embolism Associated with Pulmonary Artery Catheter Introducer Kit", April and May, 1982<sup>1</sup>).

There are two important points to be made regarding the reported incidents. The first is that the kit referred to is no longer produced, and the one now available from Arrow is self-sealing as indicated in the article. The second point and urgent lesson we must learn is the importance of communication and follow-up whenever we do any procedure and then turn the patient over to another individual. The more complicated our

procedures and care become, the more people are involved, often with differing levels of expertise. Properly used equipment rarely causes problems. It is easy to blame equipment, but a human factor is generally more important, as this article demonstrates.

Accidents, like those reported, are direct results of the fragmentation of care, and we are all unavoidably involved with that fragmentation—our seriously ill patients remain critical for more hours than one person can manage. Each of us must establish procedures designed to assure that detailed information about patients and equipment is passed on to our associates! The authors do us a service if they remind us that continuity of care is a serious responsibility.

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REFERENCE

1. Doblar DD, Hinkle JC, Fay ML, Condon BF: Air embolism associated with pulmonary artery catheter introducer kit. *ANESTHESIOLOGY* 56:307-309, 1982

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*(Editorial Comments)*

I fear we created a bit of a witch's brew when we twice published the Doblar *et al.* article. They did state in the article (both times) that, "The problem . . . may be short-lived since the manufacturer is developing a self-sealing introducer valve." Still, we wish to apologize if the article in any way misrepresented the existing Arrow product.

Regarding the duplicate publication, the reason this can't happen is that it requires sequential failure by ed-

itor, publisher, and author. The editor must forward to the publisher two separate copies of the manuscript a month apart; the publisher must fail to recognize the duplication; and the author must correct, approve, and return to the publisher two separate sets of galleys. Since it can't happen, this indeed may be a publishing first; our goal is to make sure it is the last.

THE EDITOR

Anesthesiology  
57:431, 1982

A Modified Laryngoscope Blade for Rat Intubation

*To the Editor:*—For good visualization of the larynx in rats, we are using a Miller infant blade in the modification presented in figure 1. The spatula of the blade was converted into a two-pronged speculum with narrow tips. This modification allows us to retract both tongue and soft palate so that the larynx is almost always visible, making intubation much simpler. We also found it helpful to affix the rat by his incisors, opening the mouth wider, in a method similar to that described by Medd and Heywood.<sup>1</sup>

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REFERENCE

1. Medd RK, Heywood R: A technique for intubation and repeated short-duration anaesthesia in the rat. *Lab Anim* 4:75-78, 1970

The author thanks Dr. Igor Kissin for support and advice.

*(Accepted for publication May 26, 1982.)*

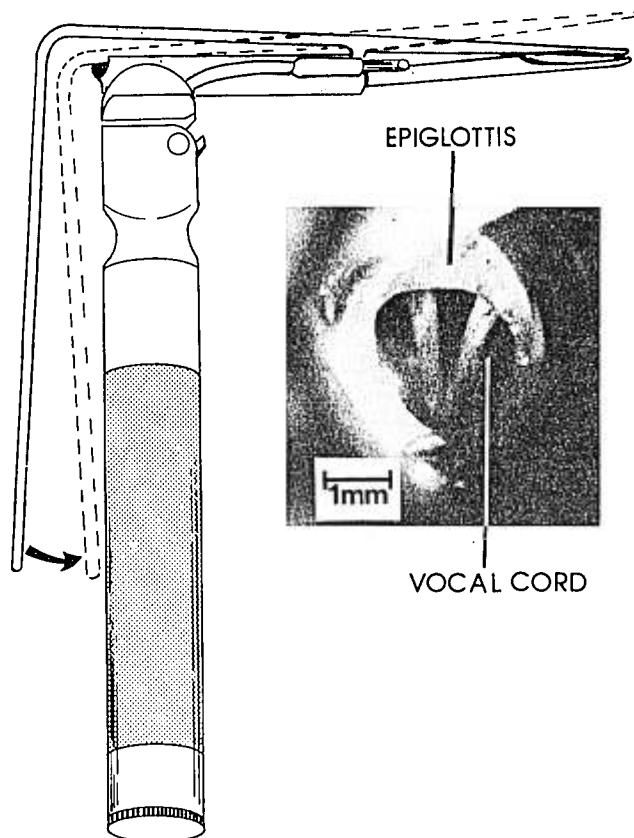


FIG. 1. Modified laryngoscope for rat intubation. Under the laryngoscope—photograph of laryngoscopic view of larynx.