

blood loss necessitated the initiation of resuscitative measures. While the attention of the anesthesiologist was focused on the securing of the central venous access, the back of the anesthesia chair bumped the knob, resulting in the sudden loss of gas and power supply, totally disabling the anesthesia machine. Fortunately, the brief alarm sound was noticed promptly, and the switch was turned on again. The consequences of missing this single alarm sound could have been fatal because no other alarms would follow.

This safety hazard can be eliminated either by placing a protective guard around the current switch or by replacing it with the corrugated knob.

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Anesthesiology
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In Reply:—The safety of patients and operators is of utmost importance to Ohmeda. The switch referred to in this report has been used in Excel machines since mid-1989. Pomykala and Schechter's report is the first of its kind received by Ohmeda.

Ohmeda has conducted laboratory testing and has been able to duplicate the event described but with some degree of difficulty. When the event was duplicated, a machine alarm activated, as expected. This alarm condition is documented in the Excel's Operation and Maintenance Manual.

Given these facts, Ohmeda does not perceive the existence of a safety problem that would warrant modifying the switch. If other users have experienced similar events associated with the switch, Ohmeda

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A Simple Alternate Technique for the Application of the Pulse Oximeter Probe to Infants

To the Editor:—Because of the difficulty in applying adhesive-backed oximeter probes to the extremities of small infants, we were interested in learning whether adult clip-on probes worked accurately in these patients. The clip-on probe for adults is placed on either part of the infant's hand, including some fingers, or part of the foot, including some toes (fig. 1). We concurrently applied two identical pulse oximeters, one using the adhesive infant probe and one using the clip-on adult probe, to the finger, hand, or foot of 12 infants undergoing ophthalmologic surgery. In each infant, we observed that the adult probe gave hemoglobin oxygen saturation readings that were within 1% of those obtained by the concurrent conventional procedure. We have successfully used this procedure in more than 100 infants and small children. Almost all of the procedures were completed within 1 h and without any complication. However, for long-duration anesthesia, caution should be exercised to prevent probe-induced complications (*i.e.*, pressure marks, burn, erosion, or necrosis). Further studies are therefore required to extrapolate this technique to neonates, whose skin is more delicate, and in lengthy cases during which burn or erosion may occur.

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REFERENCE

1. Cooper JB, Newbower RS, Kitz RJ: An analysis of major errors and equipment failures in anesthesia management: Considerations for prevention and detection. *ANESTHESIOLOGY* 60:34-42, 1984

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would be interested in hearing from them. They can contact the Product Complaint Specialist at 1-800-521-0086.

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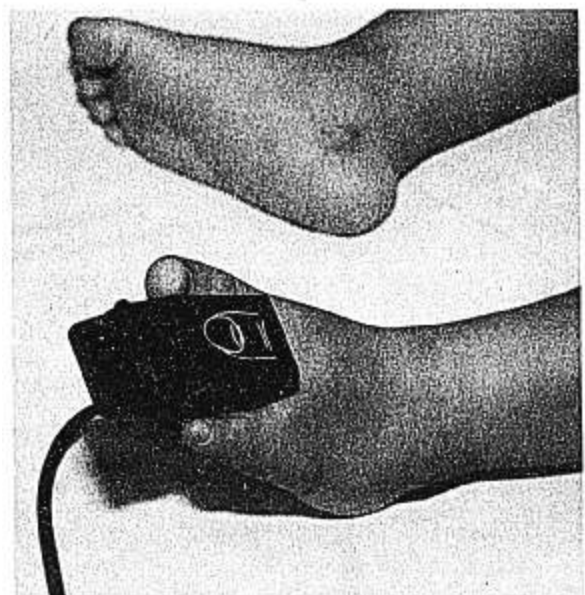


FIG. 1. Fixation of adult clip-on probe (Cardiocap[®], Datex, Finland) in a 10-month-old infant undergoing ophthalmologic surgery. This procedure can be applied to pulse oximeters from several companies (*e.g.*, Ohmeda and Nellcor).