

Anesthesiology
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A Simple Method for Warming Intravenous Fluid in Infants

To the Editor:—Temperature homeostasis is a challenge in the anesthetic management of the infant undergoing major abdominal surgery. Many methods have been employed in these patients to maintain body temperature, including warming the ambient temperature, heated humidifiers, heating blankets, radiant lights, wrapping of limbs and warming of intravenous fluids. A simple method for the warming of fluids is described.

A 9-week-old male infant weighing 5.8 kg who had biliary atresia was scheduled for a Kasai procedure. Measures employed to prevent heat loss included radiant lights, room temperature increased to 25° C, heated humidifier maintaining temperature at airway 39° C, heated water mattress at a temperature of 38° C, cap to cover head, and blanket over head and upper extremities. Temperature was measured with an esophageal probe. Despite these precautions patient temperature began to decline at the time of skin incision. After 90 min, the temperature had decreased 0.9° C to 35.5° C. At this time a system was devised to warm the intravenous fluids in an attempt to retard further heat loss (see fig. 1). A 24-inch segment of intravenous tubing was gathered into three 8-inch loops and held in contact with the warm anesthesia circuit by means of an insulating wrap (Webril®). Fluid temperature was measured on both sides of the fluid warmer. The inflow temperature remained constant at 24.5° C. The effluent fluid reached an equilibrium temperature of 31.0° C after 30 min. During this initial 30-min period, the patient experienced no further decrease in temperature. The patient's temperature then began to increase at a rate of 0.1° C every 15 min. The total increase in temperature was 1.4° C over 3.5 h.

We found this to be a simple, effective, inexpensive means of warming intravenous fluid in this infant. We also observed a coinciding beneficial increase in the patient's temperature.

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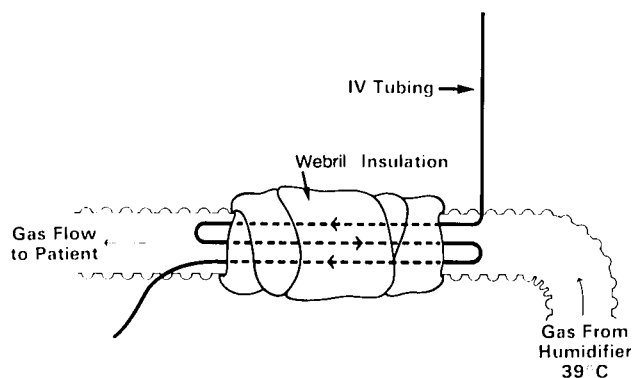


FIG. 1. Set-up for warming in fluid.

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Dyscosmesis Delays Disappearance

To the Editor:—The article by Meranze and Wollman¹ is a welcomed and valuable collection of experience and facts. For a decade the Robert D. Dripps' library has been supplying pertinent and current reading materials that supplement initial and continuing education in anesthesiology.

Their communication clearly clothes literary science in the garb of the scientific method—collection of facts, organization, description of common behavior, *etc.* Humbly, I would like to suggest still another list of texts (largely a subset of theirs) serving a distinct purpose, at-