

treated animals, was impressive. The relative carbon dioxide retention obscured any salutary effect that the correction of metabolic acidosis might have had on arterial pH values. The role of pulmonary blood flow during bypass, increased intravascular fluid volume, acidosis, and Trimethaphan camphorsulfonate *per se* in the etiology of these ventilation-perfusion aberrations requires further delineation.

### References

1. Nichol, J., Girling, T. F., Jerrard, W., Claxton, E. G., and Burton, A. C.: Fundamental instability of small blood vessels and critical closing pressures in vascular beds, *Amer. J. Physiol.* 164: 330, 1951.
2. Hawk, P. B., Oser, B. L., and Summerson, W. H.: *Practical Physiological Chemistry*, ed. 13. New York, The Blakiston Company, Inc., 1954, p. 613.
3. *Ibid.* p. 675.
4. Hamilton, W. F., and Remington, J. W.: The

- measurement of the stroke volume from the pressure pulse, *Amer. J. Physiol.* 148: 14, 1947.
5. Batson, H. C.: *An Introduction to Statistics in the Medical Sciences*. Minnesota, Burgess Publishing Co., 1961.
  6. Wilks, S. S.: *Elementary Statistical Analysis*. Princeton, New Jersey, Princeton University Press, 1961.
  7. Galletti, P. M., and Brecher, G. A.: *Heart-Lung Bypass*. New York, Grune & Stratton, Inc., 1962, pp. 209 and 220.
  8. Sobal, B. J., Kessler, R. H., Pader, B., and Eichna, L. W.: Cardiac hemodynamic and renal function in congestive heart failure during induced peripheral vasodilatation. Relationship to Starling's law of the heart in man, *J. Clin. Invest.* 38: 557, 1959.
  9. Tuohy, G. E., and Theye, R. A.: Effects of Arfonad during ether anesthesia in man, *Anesth. Analg.* 44: 160, 1965.
  10. Theye, R. A., and Tuohy, G. E.: Effect of trimethaphan on haemodynamics and oxygen consumption during halothane anesthesia in man, *Brit. J. Anaesth.* 37: 144, 1965.

### Anesthesia

**MATERNAL ANESTHETIC DEATH** Of 3,104 maternal deaths occurring in North Carolina from 1946 to 1965, 75 were judged to be primarily due to anesthesia. Grouped in 5-year periods, both the maternal death rate and the anesthesia death rate fell during the 20-year period. There was a 29 per cent reduction in general anesthetic deaths over the second decade, and an 87 per cent reduction in conduction and local anesthetic deaths. It was recommended that since an adequate supply of anesthesia personnel cannot be anticipated, obstetricians should receive thorough training in anesthesia, allowing them to become more skilled in selection of anesthesia, with a resultant elimination of maternal anesthetic deaths. (*Greiss, F. C., and Anderson, S. C.: Elimination of Maternal Deaths from Anesthesia, Obstet. Gynec.* 29: 677 (May) 1967.)

**PREMIXED GASES FOR OBSTETRICS** Premixed nitrous oxide and oxygen in equal proportions v/v in tanks under pressure are used for obstetrical analgesia. Upon cooling tanks to room temperature, partial separation of nitrous oxide and oxygen occurred and on trial runs with gas composition monitored, it was found that markedly reduced oxygen concentrations were sometime obtained. Adequate rearming and agitation restored the original homogeneity of the mixture. (*Crawford, J. S., and others: Effects of Cooling on the Safety of Premixed Gases, Brit. Med. J.* 1: 138 (April) 1967.)