

anion gap). The derivations and limitations of the *in-vitro* indices are poorly and incompletely presented, necessitating rote application of nomograms or graphs with little or no real understanding. The pity of it all is that acid-base chemistry as it actually happens *in vivo* is not an unduly complicated subject and would be easier to learn without all of the encumbrances of the past.

The author touches only lightly on therapy in the volume, but such concepts as the use of vasopressors in the treatment of hypovolemic hypotension, the limiting of crystalloid infusions in such instances to not more than one liter over the first one to two hours for fear of cerebral or pulmonary edema, the immediate replacement of all blood loss at operation with blood, and the routine use of calcium with transfusions all seem at variance with current surgical thought.

Anesthesiologists who read the text will be surprised to see that general anesthesia is listed as an etiologic cause of metabolic acidosis, and that acute respiratory acidosis should be suspected when signs of shock occur during an operation. They should be even more surprised to find emergency tracheotomy as the first-listed therapy for suspected respiratory acidosis in the surgical patient.

There are a large number of factual errors in the text. For example, in a brief summary of muscle physiology the author states that depolarization is caused by movement of potassium out of the cell. Hyperpolarization of the cell is said to be caused by increased intracellular potassium and hypopolarization by decreased intracellular potassium. Just the opposite is true. The explanation of the alkalinizing action of sodium lactate is chemically unsound. As the total protein in the blood decreases, a larger percentage of the serum calcium is ionized, not a smaller percentage as stated by the author. Hyperosmotic concentrations of mannitol are said to draw fluid from the extracellular fluid compartment into the blood. Mannitol actually diffuses rapidly throughout the entire extracellular fluid compartment and draws fluid into that compartment from the intracellular water. The author cautions against the too-rapid administration of hypertonic glucose solutions because of the risk of hemolysis. Hemolysis, of course, is caused by hypotonic and not hypertonic solutions. The sites and mechanism of action of the common diuretics are not totally in accord with recent investigations.

There are numerous other more minor errors that good editing should have prevented. For example, the symbol for alveolar oxygen tension ($P_{A_{O_2}}$) is used throughout the text when arterial oxygen tension ($P_{a_{O_2}}$) is obviously intended, oxygen content is given in mm Hg, as is bicarbonate concentration, and oxygen flow rates are given in percentage units. The laboratory values of an acid-base disorder used as an example (p. 216) are mathematically impossible.

This text provides interesting but superficial sketches of many water, electrolyte and acid-base syndromes and may prove helpful for nursing

and other paramedical personnel who are not directly responsible for patient care decisions in this area. But I cannot recommend the book for the medical practitioner or the serious student.

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Bulletin de physiopathologie respiratoire. Volume 11, numero 2. Paris, Editions Du Centre National De La Recherche Scientifique, 1975. Pages: 149. Price: \$45.00.

This bilingual journal (articles in French and English abstracts in both languages) is published six times a year.

The articles pertain predominantly to physiologic mechanisms and abnormalities in normal and disease states. The issue reviewed had a very large proportion of articles in French (six of nine). However, for those like the present reviewer whose knowledge of French stopped with *la plume de ma tante* (and they don't even call it *plume* these days), there is an abstract of each article in English. The topics of the articles are diverse, including CSF acid-base equilibrium, oxygen transport, a new bronchodilator drug, exercise tests, pulmonary mechanics in interstitial fibrosis, and purely technical reports. In general, the articles are well written, well referenced, and concise.

In addition, proceedings of national respiration-oriented meetings held in Europe are presented. These are in the form of fair-sized abstracts with good references—usually all the papers pertaining to one special area of interest. The present issue has a 40-page section on neurologic aspects of breathing and a 30-page section on regional lung function and the use of isotopes. Both of these are well worth reading for those interested in the areas.

The annual subscription rate is \$45, a relatively modest price considering the amount of information presented. In summary, a journal well worth looking at regularly for those interested in the clinical and investigational aspects of respiration.

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Fluids for Anesthesia and Surgery in the Newborn and the Infant. By E. J. BENNETT, Springfield, Ill., Charles C Thomas, 1975. Pages: 232. Price: \$18.50.

At the present time, there is no comprehensive book on fluids for the neonate and infant during anesthesia and operation. This book is an attempt to fill this void. Its object is to enable the practicing anesthesiologist to understand the patho-