Anesthesiology 49:61-62, 1978

Inaccuracy of Oxygen Electrodes at High Blood Oxygen Tensions

To the Editor:—In the interesting article by Dueck et al. a progressive disparity between the Pa_{02} values predicted from the derived $\dot{V}_{\rm A}/\dot{Q}$ distributions and the measured values was found at Pa_{02} values above 100 torr. Radiometer blood-gas electrodes were used for the measurements. It was stated that the disparity could be explained in part by the inaccuracy of blood-gas electrodes at high blood oxygen tensions.

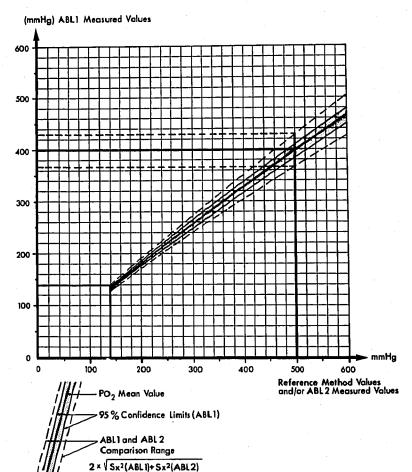
Concerning this inaccuracy of blood-gas electrodes, we should like to draw attention to the P₀₁ nomogram (fig. 1) now available for use with the oxygen electrode

of the ABL 1 Acid-Base Laboratory (Radiometer, Copenhagen). This electrode is automatically calibrated at electric zero and at a level defined by the oxygen concentration of atmospheric air. The nomogram is based on a reference method using tonometry of blood. This correction is built into the ABL 2 model. Pa_{0_2} values measured on the ABL 1 differ only a few torr from the reference values in the calibration interval, making correction in this interval unnecessary. At Pa_{0_2} values above 150 torr it is recommended to use the P_{0_2} nomogram as a correction chart.

PO_2 Nomogram

140 -600 mmHg

For Correlation of ABL1 and ABL2 Measurements or ABL1 Measurements and Reference Method



95% Confidence Limits

Fig. 1. The $P_{\rm Or}$ nomogram for the ABL 1 oxygen electrode, showing the measured values in relation to the reference method values.

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POUL K. ANDERSEN, M.D. MORTEN M. BRINKLØV, M.D. DAG B. STOKKE, M.D. PETER HOLE, M.D. TAGE ROSENDAL, M.D. Department of Anaesthesia Odense University Hospital DK-5000, Odense C, Denmark

 Dueck R, Wagner PD, West JB: Effects of positive endexpiratory pressure on gas exchange in dogs with normal and edematous lungs. Anesthesiology 47:359–366, 1977

(Accepted for publication February 17, 1978.)

Anesthesiology 49:62, 1978

Collapse of an Operating Room Table

To the Editor:—Beware of Kifa® tables! The enclosed photograph shows a Kifa® operating room table that collapsed following open-heart surgery on a 97-pound woman. The collapse occurred just as the patient was about to be transferred to the intensive care unit stretcher. Fortunately, four people were holding the patient at the time of the collapse and they were able to ease the fall. She was then transferred to the intensive care unit, where her recovery was uneventful.

On later inspection the table top was found to be placed on the pedestal in the reverse position. Since many operating room personnel are unfamiliar with this table, it seems to us that the use of placarding or colored arrows to designate proper alignment of the pedestal and top are mandatory. One shudders to think of the consequences had this accident occurred during cardiopulmonary bypass.

ALEXANDER A. BIRCH, JR., M.D.
Associate Professor
Bowman Gray School of Medicine
Wake Forest University
Winston-Salem, North Carolina 27103
(Accepted for publication February 27, 1978.)

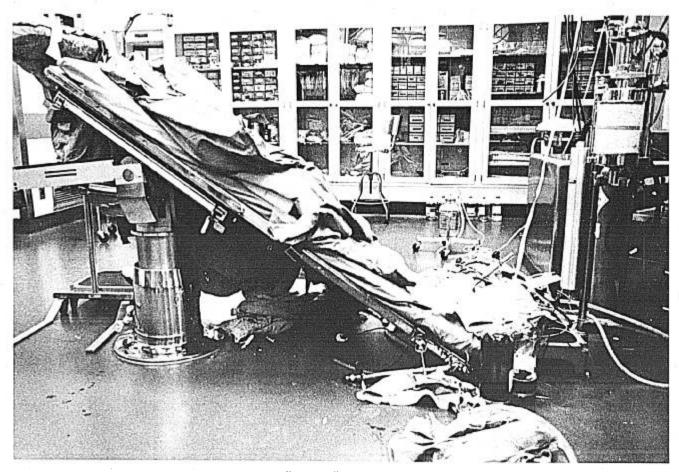


Fig. 1. Collapsed table.