Correspondence

Non-conductive Operating Rooms

To the Editor:—In view of current trends in anesthesia research toward more potent and nonflammable inhalation anesthetics and a surge of interest in new intravenous agents which are also nonflammable, we are considering the banning of *all* flammable agents in our operating rooms. We have already discontinued use of cyclopropane and ether. All other flammable agents, whether for anesthesia or skin preparation, will also be removed from the operating suite.

It is apparent that we should be able to effect considerable savings in our hospital budget by having *non-conductive operating rooms.* All high-cost conductive pieces of equipment can be replaced with lower-cost standard, non-conductive items as replacement becomes necessary.

I would like to solicit the opinions of your readers with regard to this proposal.

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Water Content of Inhaled Mists

To the Editor:—Perhaps you could help clarify two items of information which have appeared in recent issues of ANESTHESIOLOGY, which seem to conflict with each other. In the November–December 1968 issue, on page 1085, Dr. Leonard S. Bushnell stated that "For humidification of dry gas, a water content of 53 mg/liter at 37 C is required for full saturation."

In the February 1969 issue, on page 203, Drs. Graff and Benson stated that "Air distal to the carina normally holds 44 gm of H_2O/meter^3 of air, all in the vapor phase." I assume this is 100 per cent saturated air in the respiratory tract. Are these authors in conflict over how much moisture it takes to saturate fully one liter or meter^3 of gas at 37 C?

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To the Editor:—I can well appreciate Mr. Sinopoli's confusion on reading the figures used by Dr. Bushnell and ourselves referring to water content of saturated air at body temperature. In actuality the two figures do not represent a conflict but rather a lack of clarity in units of measurement used by the authors. Dr. Bushnell refers to water content per liter of dry air, while Dr. Benson and I relate water content to total gas volume (*i.e.*, air plus water vapor). Dr. Bushnell, in essence, states that a liter of dry air at 37 C is able to hold 53 mg of water vapor when it is fully saturated. The actual volume that he ends up with will obviously be in excess of 1 liter (about 1.2 liters), since it now includes gaseous water. On the other hand, Dr. Benson and I state that a liter (or m^3) of air taken from the lung (at 37 C fully saturated with water vapor) will contain 44 mg (or grams) of water.

I apologize to Mr. Sinopoli for the confusion and congratulate him on the thoroughness with which he reads ANESTHESIOLOGY.

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