Anesthesiology
1998; 88:834

Cost Savings in the Operating Room

To the Editor: — Because of the growing costs of medical care, we have been asked to modify our practices to be more fiscally responsible. In our area, the operating room, we have undergone periodic operations improvement (OI) efforts to reduce unnecessary expenses. Nurses have been replaced with technicians, and physicians have been asked to work "more efficiently."

We have found a simple way to significantly reduce expensive operating room time without jeopardizing patient care. Rather than moving patients on the count of three ("1-2-3" move) as had been our practice, we now count only to two ("1-2" move). Because for every case, each patient is moved to and then from the operating room table we now save 2 s per patient. We have 30 operating rooms, each with an average of 3 operations per day, so our projected savings are 180 s or 3 min per day. Approximately 600 min can be savedover the course of a year by this simple maneuver. Our operating room time costs $20/min. Thus, we can save $12,000 per annum by counting only to two. More importantly, the additional 10 h of operating room time is sufficient for another three to five cases to be performed.

With the acceptance and success of the "move-on-two" maneuver, we have initiated a pilot study of a "move-on-one" maneuver. Initial reports suggest that this can be just as safely and successfully done and will lead to a doubling of efficiency (*i.e.*, saving time and money) over the next fiscal year.

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(Accepted for publication November 7, 1997.)

This letter is featured in "This Month in Anesthesiology." Please see this issue of ANESTHESIOLOGY, page 4A.

Anesthesiology
1998; 88:834-5

Efficacy of Tracheal Gas Insufflation during Expiration in Reducing Pa_{CO_2}

To the Editor: — We read with great interest the article by Kalfon *et al.*,[1] which demonstrated the efficacy of tracheal gas insufflation (TGI) during expiration (expiratory washout) in reducing Pa_{CO_2} without increasing the prescribed tidal volume. The authors presented an effective method of enhancing mechanical ventilation in patients with severe respiratory failure. The use of distal airway pressure monitoring, as used by the authors, is of clinical importance during TGI administration because it provides accurate airway pressure measurement.

There are, however, certain comments we would like to make. Although gas insufflation was synchronized with expiration, it resulted in a significant increase in peak, plateau, and mean airway pressures, signifying an increase in end-expiratory lung volume and possibly in minute ventilation as well. The measurement of respiratory volumes and auto-PEEP during TGI is problematic and, at present, not feasible at bedside. The assessment of tidal volume during TGI is problematic because it is difficult to say whether the gas entering the trachea and the smaller airways adds to the tidal ventilation or participates only in airway flushing during expiration. The measurement of auto-PEEP is problematic because it requires accurate timing of the closure of the inspiratory and the expiratory valves and the cessation of TGI flow. For these reasons, it is difficult to draw conclusions about the efficacy of the ventilatory mode when improvement in ventilation is associated with a significant increase in airway pressure.

To resolve similar problems encountered when trying to compare TGI with two different gases, helium and oxygen, we devised a "coefficient of efficiency" to assess the efficacy of TGI at different flow rates and with different gases[2]: The change in Pa_{CO_2} divided by the change in peak airway pressure. This coefficient, with its easily measured variables (Pa_{CO_2} and peak airway pressure), helped us to compare different strategies of ventilation according to their ability to clear CO_2 with minimal lung distention.

In addition, we would like to suggest that the term *TGI* be used in the future to describe all modes of ventilation in which CO_2 clearance is enhanced by intratracheal gas flow during part or all of the respiratory cycle.