To the Editor:

As an EMS physician and educator in a rural state, I initially was very pleased to see that the pharyngeo-tracheal lumen (PTL) airway is being critically evaluated in the prehospital setting. However, after carefully scrutinizing the paper by McMahan, et al in the January-March 1992 issue of *Prehospital and Disaster Medicine*,[1] I have some concerns. Clearly, a more effective and safer alternative for airway management is needed at the basic life support (BLS) level. Experience and some research have shown that the bag-valve-mask and the esophageal obturator airway (EOA) are poor alternatives to endotracheal intubation.[2,3] Many of us have hoped that the PTL airway would provide a reasonable alternative for BLS personnel. Unfortunately, McMahan et al have failed to provide convincing evidence that the PTL is a safe and effective device.

The first item which caught my eye in this paper was the extraordinarily high number of patients included in the study. The 1,647 patients mentioned in the abstract was apparently an unfortunate typographical error. The real study population of 167 patients, however, does represent a fairly significant number of patients given the difficulties in collecting this kind of prehospital data.

Perhaps the most glaring flaw in this study is the fact that the authors compared the subjective impressions of BLS personnel inserting the PTL airway with those of advanced life support (ALS) personnel inserting either the PTL or an endotracheal tube. While subjective impressions are useful information, it is quite possible that the more highly trained ALS personnel would be more critical of the PTL airway. This is further complicated by the fact that, in this system, endotracheal intubation was considered the best initial airway for ALS personnel. It is possible that ALS personnel used the PTL only on patients in whom endotracheal intubation was likely to be unsuccessful. The fact that ALS personnel were significantly less likely to successfully insert the PTL ($p<.001$) would tend to support such a selection bias. Unfortunately the actual success rates are not noted in the paper.

It also is interesting to note that there appears to be a difference in the subjective assessment of adequate ventilation between BLS and ALS for the PTL airway (94% for BLS, 78% for ALS; $p<.04$). Again, the issue of training level must be raised. Is it true that the PTL airways inserted by paramedics were used on patients that were inherently more difficult to ventilate? Or, was it true that paramedics are better able to determine what constitutes inadequate ventilation? The authors note that qualitative assessments of ventilation were used because of the unreliability and variability of arterial blood gases. They do not however, address the potential unreliability and variability of field assessments by EMTs of various training levels. Clearly, arterial blood gases or at least the subjective impression of the receiving emergency physician would have been preferable.

Finally, a careful look at Table 5 reveals further problems. Although not reflected in the text, the table reports a 16% incidence of unrecognized misplacement of the PTL airway. This may be another of the many typographical errors in the paper. If true, however, this is an alarming statistic which might tend to confirm the previous study by Hunt et al[4] in a mannequin model. Although most of my concerns were either acknowledged by the authors or by Dr. Birnbaum in the accompanying editorial comment, I would urge that we continue to critically evaluate this and other new airway devices before wholeheartedly embracing them.

In our zeal to find better alternatives to currently available BLS airway management techniques, the PTL airway is gaining widespread acceptance. Unfortunately good literature to support its use is sparse. This study by McMahan, et al contributes little to our knowledge of a device that may be no better than the EOA.

David R. Johnson, MD
Assistant Professor
Dept. of Emergency Medicine
University of New Mexico
Medical Director, New Mexico EMS Academy

References

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ERRATA

In the article, "Multi-Agency, Prehospital Evaluation and the Pharyngeo-Tracheal Lumen (PTL) Airway," by McMahan, Ornato, Racht, and Cameron, on pages 13–16, in January–March 1992 issue of *Prehosptal and Disaster Medicine*, there was a typographical error regarding the number of patients in the study population. On page 13, the Methods section of the Abstract incorrectly states that 1,647 adult patients participated in the study. The actual study population was 167 patients. We regret the error.