inapneic events, the CPAP titration accurate, night to night. Data major points. Their initial approach to CPAP is considerably influenced by the initial exposure to (and success of) this form of treatment. Getting it right the first time not only makes good clinical sense, but it is also cost effective. Abbreviated studies represent, in our view, false economics.

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REFERENCES
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To the Editor:

I am pleased to respond to the letter by Drs. Barnes and Laks. The logic of their argument against split-night continuous positive airway pressure (CPAP) studies lacks cogency and supportive data. I will attempt herein a concise response to what I discern as their major points.

Their initial argument against split-night CPAP studies relates to the fact that the diagnostic portion of the study may not be accurate, and “the assessment of severity may be compromised.” Data from a study by Sanders, et al have clearly shown a nearly linear relationship between the assessment of apnea in the first two hours of a study and the overall determination using data from the entire study. This was true across a broad range of apnea hypopnea indices. If indeed severity were appreciably compromised by using the first few hours of a study as a diagnostic indicator, the correlation with data from the complete study would certainly not be particularly high. Furthermore, even if the correlation were rather poor, if there are sufficient apneic events early in the night to justify the application of CPAP (we require only 10 apneas per hour during the first 3 hours of the study), and the apneic events were indeed more severe in the latter part of the night, the CPAP titration would occur during the time of the more severe apneic events, and presumably a CPAP titration would be achieved, which would be adequate to control these events. Furthermore, the authors state that the long-term commitment to CPAP may be compromised by the underestimation of disease severity. First, there are no data to support this concept; second, I have presented two arguments that suggest that the diagnostic accuracy of the first two hours of a study is quite accurate or in the worst case, the more severe apneas are, in fact, treated with the CPAP titration in the second half of the study.

With regard to the comment concerning the Iber et al (Sleep 1991; 14:383-185) data in which split night studies were deemed to be nearly 80 percent effective, the authors argue that a failure rate of 20 percent is not “insubstantial.” I would argue that it simply doesn’t make sense to do four night-two night studies (at a cost of roughly $1,000 to 2,000 per night) to prevent the reality of repeating one study out of five in which an individual may not have achieved an adequate CPAP titration. The cost of repeating one study would be far less than the four additional unnecessary studies that would need to be done if a routine two-night protocol were adopted for CPAP titration. I fail to see the clinical logic or the economic imperative of this argument.

The cornerstone of the authors’ argument would appear to me to be a recently published study by Sanders et al (Am Rev Respir Dis 1993; 147:1196-74) in which it was found that 45 percent of patients initially titrated using a split night study required some alteration in pressure, and a similar number required some modification of the patient device interface. A citation of this study as evidence that a split-night CPAP titration is less adequate than the more conventional two-night assessment is entirely inappropriate. The Sanders study cited does not include a control group of individuals who actually underwent a two-night titration and subsequent re-evaluation. There are no data to indicate that the latter group would not have had a similar percentage of subsequent modifications that would need to be made.

Lastly, the authors comment in their letter that CPAP compliance is “considerably influenced” by the patient’s initial experience and success, or lack of success, with CPAP treatment. This is simply the authors’ opinion, and they offer no data to support this notion. Furthermore, Sanders et al in the article noted by the authors in support of their argument have commented with regard to two-night CPAP studies as follows, “whether or not such an approach enhances long-term therapeutic compliance or medical outcome compared with a split-night diagnostic/positive pressure trial remains to be determined.”

As I have alluded to in my previous letter to the editor (Chest 1993; 103:652-53), medical decisions, which impact patient care and have a major economic impact, need to be made with insight, compassion, and perhaps most importantly, sound logic based on proper scientific data. Certainly, Drs. Barnes and Laks are making every effort to provide the best possible patient care, and their motives in this regard are pure, but I question their ability to apply good logic to scientific data, and their understanding of “false economies.”

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REFERENCE