

This is a high quality document with robust evidence research base.

The comments about the place of CPAP in the treatment of obstructive sleep apnoea are entirely appropriate.

Concern about the evidence for mandibular devices as these are a heterogeneous group and I do not think can necessarily be lumped together in terms of looking at outcome. Some devices are over the counter, other devices are produced by orthodontic departments with very careful assessment of a mandibular advancement.

In contrast, although there are different CPAP machines, the end result is the same at delivering air at a given pressure and, hence, comparisons can be made between different machines.

I would suggest in the introduction "the background to obstructive sleep apnoea" that both hypothyroidism and acromegaly be mentioned as these do have other modalities of treatment apart from CPAP. Also bariatric surgery has a significant place in weight reduction loss and there should be further investigation as to the efficacy of this mode of treatment in relation to resolution of the occasional case of morbidly obese individuals.

The term mild sleepiness is confusing evidence to the Epworth score as the score is usually considered within the normal range, however, I quite agree it is imperative that studies be undertaken of those patients with no significant day-time sleepiness who do have physiological disturbances at night in relation to disordered breathing.

In this group it would be possible to look at the long-term cardio-vascular effects of no treatment, however, in view of the accepted efficacy of CPAP in moderate to severe patients I believe it would be unethical to provide a trial in which the placebo arm contain no treatment.

The statement that CPAP treatment for all levels of obstructive sleep apnoea is robust.

Some minor comments about abbreviations that they need to be included in the summary, such as CVE and MAP.

The economic study should include the economics of delay that are present in routine service. The York study takes no account of this. A number of patients can be seen and they will, at the initial assessment, be asked not to drive if they have significant symptoms of obstructive

sleep apnoea. If these are economically active individuals they may not be able to work as driving may be part of their work. This is a significant cost factor in the investigation and treatment of obstructive sleep apnoea.

Again with the economic assessment, the comment related to patients with stroke cannot drive is inappropriate as it depends on the nature of the stroke and the site affected by the stroke. A stroke is not necessarily an absolute contra-indication to driving.

I agree with the general thrust of the reserach comments suggested - I note the comment of limited information on side-effects of CPAP, however, this may be because CPAP is well tolerated, but it does reinforce the need of all future studies to have proper side-effect reporting profiles.

Finally the assumption that the target population is all those patients over 16 years old and, therefore, there is a group of patients missed in the study. This is envitable as the disease is a disease of middle-age. I quite agree that there is limited data available on women and, certainly, no significant data available in old age.

Phil Ebden  
Consultant Chest Physician, BM, BCh, MA, PhD, FRCP