## <u>Title : A PILOT STUDY TO SEE IF THE SOEMAC ACTIVATED OXYGEN THERAPY</u> <u>HAD ANY EFFECT IN QUALITY OF LIFE FOR A SMALL GROUP OF COPD</u> <u>SUFFERES</u>

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**<u>Aim</u>**: To study a group of COPD sufferers, that attend a Breathe Easy group.

Neil approached the Breathe Easy group to offer an opportunity to take part in a small study to evaluate a new complimentary therapy for sleep and breathing disorders – the SoeMac. Chairman Jane Reeve was first to try the machine which she felt helped her to sleep and improved the quality of her sleep. We then introduced this study to the BE group, who were very enthusiastic and 22 voluntarily consented to take part. The group was made up of patients with mainly COPD and pulmonary fibrosis. The patients had moderate or severe disease, and the majority had additional medical problems. All were given a machine to use every night, they had initial FEV1's measured and filled out a QOL questionnaire.

The study lasted for 3 months, with monthly questionnaires. We quickly learnt that trying to measure various criteria such as quality of sleep, or ease of breathing at night, was not an exact science, and we moved away from trying to "score" the measurements, to recording comments from the patients, which gave an overall view, and noted any specific points that they had noticed. A further complication in this process, is that most of the patients are suffering from other medical conditions, which could influence how they were feeling at any particular time. Many of these people are really quite poorly, and have a condition, COPD, that will only get worse over time.

During the first month, 5 patients decided not to carry on for varying reasons, one had a sleep disorder(night terrors) diagnosed as a result of participating he was referred to GP and was put on medication.

The other 17 carried on for the full 3 months with 1 patient who noticed minimal benefit. One had restless leg syndrome and was put on sleep medication which could have masked any benefit.

The following statements were made by the participants, with a note in brackets of the severity of their COPD;

- JR (Moderate) Sleeping better, staying asleep a lot longer, and having a better quality of sleep.
- BP (Moderate) Waking and coughing less during the night.
- MP (Severe) Sleeping longer.
- AB (Moderate) Wakes less at night, quality of sleep is better, and stopped coughing at night.
- LB (Not COPD) Awakens with more energy and sense of wellbeing. Continues to sleep better, and only wakes once each night.
- GW (Moderate) Best sleep ever.
- JR (Moderate) Feels very relaxed at night. Has good energy levels.
- SB (Mild) More relaxed and sleeps deeper. Falls asleep faster, less worried at night, awakens more refreshed. Sometimes sleeps heavier and longer.
- LH (Moderate) My Magic Machine. Sleeping more and is more relaxed. Feels better, and more confident.
- NB (Moderate) Deeper sleep. Breathes better whilst sleeping and snoring has, stopped.
- RO (Severe) Is more relaxed. SoeMac has improved the quality of his sleep.
- CO (Not COPD) Better sleep & same for the cat!
- SS (Moderate) Sleeping well, sleeping deeper, and sleeping right through the night.
- JC (Severe) Easier to fall asleep. Coughs less at night, and wakes up less. Quality of sleep is better.
- GB (Moderate) Coughing less at night. Wife says snoring less.
- JB (Moderate) Better sleep. Falling asleep faster. Awakening with more energy. Sleeps better and more relaxed.
- KB (Moderate) Breathing better steadier and with equal rhythm, and not fighting as hard for each breath.

**Conclusion.** This small study shows that these sufferers of COPD benefitted in some way from the therapeutic effects of breathing activated oxygen from the SoeMac. It could be argued that their quality of life was improved by the fact they were sleeping better.

**Discussion:** We hope to have the SoeMac analysed by Leicester & DeMontfort Universites in the near future, which will indicate why some people benefited in different ways ,whilst some didn't. It is hoped that these results will enable us to progress on to a randomised placebo controlled multicentre trial in conjunction with a suitable medical institute.