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# Effect of telemonitoring on adherence to continuous positive airway pressure in sleep apnea hypopnea syndrome

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## Abstract

**Background:** Telemonitoring might enhance continuous positive airway pressure (CPAP) adherence and save coaching time at the beginning of CPAP therapy. We assessed telemonitoring (AirView Online System, ResMed) during the habituation phase of the CPAP therapy and after one year treatment in obstructive sleep apnea syndrome (OSAS).

**Method:** 104 of 120 OSAS patients were randomised at the initiation of the treatment. The first visit was physical for the Usual care (UC, N=53) and telemonitoring groups (TM, N=50), while for TM all visits were unphysical, except at the request of the patient.

**Results:** TM and UC groups did not differ in terms of patient characteristics (Age, gender, BMI, HAI, Epworth sleep scale and Pichot (depressive) scale). CPAP treatment did not differ (TM vs. UC) in terms of pressure treatment ( $11.4 \pm 2.4$  vs.  $11.1 \pm 2.3$  cmh<sub>2</sub>o), leaks ( $25.5 \pm 16.1$  vs  $24.1 \pm 12.4$  l/min), quality of sleep (ESS) ( $5.9 \pm 3.6$  vs.  $4.2 \pm 4$ ) and depressive scale (Pichot) ( $2.1 \pm 3.4$  vs.  $2 \pm 3.7$ ).

18 patients stopped treatment in UC and 14 in TM arm with no significant difference  $P=0.51$ , and CPAP adherence was equal in both groups  $p=0.57$ .

Number of minutes coaching required per patient in the TM vs UC groups was not different  $70 \pm 4$ min vs.  $79 \pm 3$ min  $p=0.09$

**Conclusion:** Implementation and follow-up at 1 year of CPAP for OSAS patients by TM do not modify the adherence of patients to treatment.

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