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Title: Home telemonitoring of CPAP: A feasability study

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Body: Background: The most commonly used treatment for sleep apnea syndrome (SAS) is the application of constant positive airway pressure (CPAP) during sleep. Compliance is an essential element of the CPAP efficiency, which is based on the quality of the coverage care and on the information of the patients. With the telemedicine emergence, telemonitoring of the CPAP makes its appearance, in France. Methods: This study was observational and multi-centers. The main aim of this study was to evaluate the feasibility of CPAP telemonitoring in SAS patients. During the installation of equipment, patients had for instruction to connect the CPAP SD card to a connecting box Twitoo®, every week during 2 months. Actual numbers and frequency of remote-monitoring box connexions had been quantified. The data transmission had been made through the study coordinator, the home care provider named SADIR, by the way of a telemedicine platform H2AD, located in France. Results: 90% of patients (n=100) connected SD card to Twitoo®. An average of 6.2 connexions was entered during 2 months, with a frequency of 7.6 days. Conclusion: This study demonstrated the good adhesion of the patients to this new tool of data transmission, by telemonitoring, of their CPAP treatment. Its efficiency on compliance has to be evaluated in a larger group using a randomized procedure.