Title: CPAP compliance according to hospitals in Barcelona health region

Body: The treatment of choice for OSAS is continuous positive pressure airway (CPAP). Most studies agree that a minimum adequate compliance is 4 hours per night even though the recommendation is to use it at least 6 hours. If a patient can't compliance the treatment enough, according to current administration rules (<2hours) the treatment should be withdrawn. We studied the compliance among different hospitals considering the withdrawn rate of patients. We studied patients with current CPAP treatment belonging to the health region of Barcelona and, as administrative division, corresponding to the OX/08 tender of home respiratory therapy in Catalonia. Compliance was studied in 16211 patients according to the inclusion and exclusion criteria. Of these, 3304 (20%) showed <4h compliance and 12907 (80%) showed >4h compliance. In the same population we studied 8266 patients, of these 5386 65% were newly admitted patients and 2880 (34.8%) withdrawn treatments. According to this data hospitals can be grouped as: 4 hospitals with better compliance and lower withdrawn rate than the media 2 hospitals with better compliance and higher withdrawn rate. 4 hospitals with worse compliance and lower withdrawn rate. 8 hospitals with worse compliance and higher withdrawn rate. We found differences among different hospitals in the rate of patients with more than 4 hours of compliance (range 91%- 67%, P<0.05) and in the rate of patient withdrawals (range 45%-24%, P<0.05). The management of OSA patients in our hospital population is very heterogeneous. Since higher withdrawn is not always linked to better compliance other factors should be considered.