Conclusions regarding medical evidence on CPAP treatment

CPAP versus control treatment: Apnoea-hypopnoea index (AHI) **High GRADE**	CPAP treatment significantly reduces AHI compared to sham CPAP, conservative management or no treatment. Treatment effect seems positively related to higher baseline AHI severity. *Sources (Sharples, 2016; Qaseem, 2013)*
CPAP versus control treatment: Subjective daytime sleepiness (Epworth Sleepiness Scale) **High GRADE**	CPAP treatment significantly reduces subjective daytime sleepiness compared to sham CPAP, conservative management or no treatment. Treatment effect seems positively related to higher baseline AHI or ESS severity. *Sources (Sharples, 2016; Bratton, 2015; Qaseem, 2013; Campos-Rodriguez, 2016)*
CPAP versus control treatment: Oxygen saturation **Low GRADE**	CPAP treatment possibly improves nadir oxygen saturation compared to sham CPAP, conservative management or no treatment. No studies were found on Oxygen Desaturation Index (ODI). *Sources (Qaseem, 2013)*
CPAP versus control treatment: quality of life **Low GRADE**	CPAP treatment possibly improves quality of life to a small extent compared to sham CPAP, conservative management or no treatment. *Sources (Qaseem, 2013; Campos-Rodriguez, 2016)*
CPAP versus control treatment: Cognition **Low GRADE**	CPAP treatment possibly improves cognitive impairment on some domains compared to sham CPAP, conservative management or no treatment. *Sources (Pan, 2015; Kylstra, 2013; Qaseem, 2013)*
AutoCPAP versus fixed CPAP (AHI): **Moderate GRADE**	AutoCPAP and fixed CPAP have similar treatment effects in reducing AHI. *Sources (Qaseem, 2013; Gao, 2012; Ip, 2012)*

AutoCPAP versus fixed CPAP: Sleepiness (Epworth Sleepiness Scale) **Moderate GRADE**	AutoCPAP possibly has a slightly better effect on ESS compared to fixed CPAP. *Sources (Qaseem, Gao, 2012; Cu, 2012; Ip, 2012)*
AutoCPAP versus fixed CPAP: Oxygen(de)saturation **Low GRADE**	Fixed CPAP possibly has a slightly better effect on improving oxygen saturation compared to AutoCPAP. *Sources (Qaseem, 2013; Ip, 2012)*
AutoCPAP versus fixed CPAP: Quality of life **Low GRADE**	AutoCPAP and fixed CPAP have similar treatment effects on qualilty of life. *Sources (Ip, 2012; Qaseem, 2013)*
AutoCPAP versus fixed CPAP: Cognitive functioning **No GRADE**	*No literature data*

Recommendations on CPAP treatment

- Treat patients with OSA and AHI>30 primarily with CPAP to improve AHI and ESS
- Consider treating patients with OSA and AHI <30 with CPAP to improve AHI and ESS.
- Treatment options other than CPAP should be considered for each individual patient, depending, for instance, on the baseline AHI, BMI, symptoms, comorbidity, possible pathophysiological background and the preference of the patient
- Choose between CPAP with fixed pressure and autoCPAP depending on the preference of the patient, the availability and the costs.
- Aim for the best possible therapy compliance by close supervision, especially in the first two to six weeks of starting PAP therapy.
- Use the following terminology:
    - CPAP insufficient compliance: PAP therapy is not applied properly or not enough used hours, despite maximal supervision.
    - CPAP intolerance: PAP therapy is not well tolerated on the basis of side effects and/ or psychological aversion
    - CPAP efficacy failure: PAP therapy has insufficient physiological effect: AHI is insufficiently reduced
    - CPAP symptom failure: PAP therapy has sufficient physiological effect, but insufficient symptomatic effect
- If there is insufficient PAP compliance, good education and solving the problems of side effects and user issues are necessary
- If there is CPAP insufficient compliance, CPAP efficacy failure or CPAP symptom failure, the diagnosis must be reconsidered before proceeding to another treatment option for OSA.