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Title **Portable Monitoring Devices for Diagnosis of Obstructive Sleep Apnea at Home: Review of Accuracy, Cost Effectiveness, Guidelines, and Coverage in Canada**

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Aim

To review evidence on the accuracy and cost effectiveness of using portable monitoring devices to diagnose obstructive sleep apnea (OSA) at home and in the laboratory when compared with laboratory polysomnography (PSG).

Results and conclusions

Although laboratory PSG is the standard test used to diagnose OSA, the evidence shows that, among patients with a high pretest probability of moderate-to-severe OSA, portable monitoring devices can be used at home for diagnosis when access to laboratory sleep studies and sleep specialists is limited. Results obtained from using portable monitoring devices at home may be less accurate compared to portable monitoring conducted in a laboratory or with laboratory PSG. Some studies show no difference in short-term compliance and response to continuous positive airway pressure (CPAP) therapy when portable monitoring and CPAP autotitration at home are compared with laboratory-based PSG diagnosis and CPAP titration.

Recommendations

Not applicable.

Methods

The review included current guidelines, information on portable monitoring devices available in Canada, coverage of devices by private and public health plans in Canada, and the level of patient compliance with CPAP treatment when OSA is diagnosed.

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