



Obstructive Sleep Apnea: under-diagnosed and over-treated?

Approximately 25% of the Canadian population (9.2 million) are at risk of obstructive sleep apnea (OSA), but less than 5% have been diagnosed. Its prevalence is estimated to be around 7% among adult males and 5% among adult females

Obstructive sleep apnea often results in a wide range of comorbid conditions including but not limited to resistant hypertension, obesity, type II diabetes, metabolic syndrome and atrial fibrillation.

The “gold standard” for the diagnosis of OSA is full polysomnography (L1 lab), which provides detailed information on sleep state and respiratory and gas exchange abnormalities, in addition to a range of other variables including body position, heart rate and rhythm, and muscle tone and contraction.

Over the past few years, as awareness and education among clinicians has increased, a greater number of patients were evaluated for OSA and the waiting list in the various L1 labs significantly increased. Because of this long waiting list, the focus on home-based sleep studies grew. With home-based studies becoming readily available and service levels varying across providers many sleep specialists recognized the need for broad recommendations.

In 2010, the Canadian Sleep Society/Canadian Thoracic Society released a position paper on the use of portable monitoring (PM) for the diagnosis of obstructive sleep apnea/hypopnea in adults. (Can Respir J. 2010 Sep-Oct; 17(5): 229–232.)

The guiding principles from this were:

1. A physician prescription is required to order PM testing
2. The PM set-up is performed by a qualified individual
3. All tests require review of raw data and scoring by appropriately trained staff and must be interpreted by a qualified physician
4. The results are acted on by the ordering physician or designate, who understands the investigation's results and limitations.
5. The recommendations in the present Canadian Sleep Society/Canadian Thoracic Society position paper should be implemented according to the practical needs and regulations of the local community. Ideally, however, any modification of the recommendations should be made in consultation with the local or regional sleep medicine specialists.

This shift from lab-based sleep studies to home-based studies has helped to relieve the burden on the sleep lab and a subsequent reduction in waiting time for lab-based studies. However, it should be noted that currently in Nova Scotia, portable, privately-run sleep testing has no regulatory control in place to ensure quality control and accuracy of results.

A potential outcome of this lack of regulation could potentially be an over treatment of mild OSA and an impact on long term patient compliance.

Unfortunately, in Nova Scotia no public funding is currently available for the treatment of OSA and this therapy tends to be expensive, and as a result, not always accessible to patients without financial means.

Sleep Apnea Refurbishment Program

The Lung Association of Nova Scotia's Sleep Apnea Refurbishment Program was created to provide assistance to low-income patients who suffer from sleep apnea but are unable to afford treatment. The program relies on the donations of previously owned CPAP and BiPAP machines, and through partnerships with Dalhousie University and the Lions Clubs of Nova Scotia, these life-altering machines are refurbished and distributed to Nova Scotians in need.

Over 500 people have received a refurbished CPAP or BiPAP machine from the Lung Association of Nova Scotia since the program started in 2015, however over 400 people are still on the waiting list to receive one.

Patient Impact

Basil Casey was admitted to the ER four times in one year, being released with no official diagnosis. On his fourth trip, blood tests revealed his oxygen levels were dangerously low, and he was finally admitted to hospital and diagnosed with severe OSA. However, while he finally

had a diagnosis, he did not have the financial means to secure a CPAP machine to treat this disorder.

Basil reached out to the Lung Association of Nova Scotia, and was provided with a CPAP machine and mask. He says he now wakes up each morning with a new lease on life. He says he thanks the Lung Association every day for changing his life.

If you have a patient who has been diagnosed with sleep apnea but cannot afford treatment, please contact the Lung Association of Nova Scotia at 902-443-8141 or visit ns.lung.ca for more information on this innovative program.