Opioids are used widely in the treatment of pain and dyspnea. Patients on long-term opioid therapy develop tolerance to the medication, which may result in titration to high doses of opioid. Opioids inhibit receptors distributed on respiratory neurons throughout the central and peripheral nervous system. As a result, opioids have the potential of affecting all aspects of respiration.

Several studies have shown a direct relationship between morphine equivalent daily dose of opioids and the development and severity of sleep disordered breathing. Sleep disordered breathing has been associated with higher risks of mortality and adverse cardiovascular events. In fact, sleep apnea may increase the mortality risk by potentially increasing risk of arrhythmias, myocardial ischemia/infarction, and stroke. Furthermore, a recent study showed a greater risk of higher cardiovascular event rate in an older population using opioids. The more frequent presence of sleep apnea and oxygen desaturation, observed in opioid users, could explain the opioid-associated cardiovascular morbidity.

**Improved quality of sleep can result in improved quality of life for your patients!**

Consider a sleep study for any patients using high-dose opioids, who complain of poor sleep quality and/or daytime somnolence, despite spending many hours sleeping, especially when the:

- patient is elderly
- patient has cardiovascular comorbidities
- patient has COPD

**Did you know?**

- The prevalence of sleep disordered breathing (SDB) in all populations receiving long-term opioid therapy is high (42% - 85%).
- In a recent study of patients with advanced cancer, receiving opioid analgesia, there was a high prevalence of SDB, both central and obstructive, and disturbed sleep patterns.
- Addressing SDB has the potential to improve daytime drowsiness and quality of life.

**You can find more information about opioids and SDB in the following resources:**

- Rose, A. et al. (2014). Sleep disordered breathing and chronic respiratory failure in patients with chronic pain on long term opioid therapy. Journal of Clinical Sleep Medicine, 10(8), 847-852.