

# Risk Factors of Sleep Disordered Breathing in Veterans with Parkinson's Disease

Aliya I. Sarwar, MD

Michael E. DeBakey VA Medical Center, Parkinson's Disease Research, Education, and Clinical Center  
Department of Neurology, Baylor College of Medicine, Houston, Texas, USA



Baylor  
College of  
Medicine

## Objective

To investigate factors associated with the risk of sleep disordered breathing (SDB) in Veterans with Parkinson's disease (PD).

## Background

Sleep disordered breathing is common in Veterans with PD. However, specific clinical or demographic features that may increase this risk in this patient population are not fully defined.

## Methods

One hundred ten consecutive Veterans with PD were evaluated with respect to their risk for SDB using the modified Berlin Questionnaire.

Subjective sleepiness, parkinsonism and depression were also assessed using Epworth Sleepiness Scale (ESS), Unified Parkinson's Disease Rating Scale (UPDRS) and Zung Self Rating Depression Scale (ZDS), respectively.

## Results

Sixty-nine out of 110 Veterans (62.7%) with Parkinson's disease were at a high risk for sleep disordered breathing. Forty-seven of these 69 subjects (68%) reported excessive daytime sleepiness (mean ESS score 15.3), while the remaining 22 (32%) did not (mean ESS score 3.8). (Figure 1)

In the non/low risk for SDB group, 20 (48.7%) reported excessive daytime sleepiness. Ten of the "high SDB risk" subjects (14.5%) were depressed, (ZDS score 50-61, mean 54) and all had ESS score  $\geq 10$  (12-24, mean 16.5). None of "non/low SDB risk" subjects endorsed depression. (Figure 2)

There were no statistically significant differences between motor disease severity and demographic features between those with high or low risk for sleep disordered breathing.

## Conclusions

Veterans with Parkinson's disease are at a high risk for sleep disordered breathing. The risk is higher in the presence of depression and excessive daytime sleepiness.

Demographic features and motor disease severity does not seem to influence the risk for developing sleep disordered breathing in this group of Veterans.

Additional studies are needed to further characterize these observations.

Figure 1. Percentage

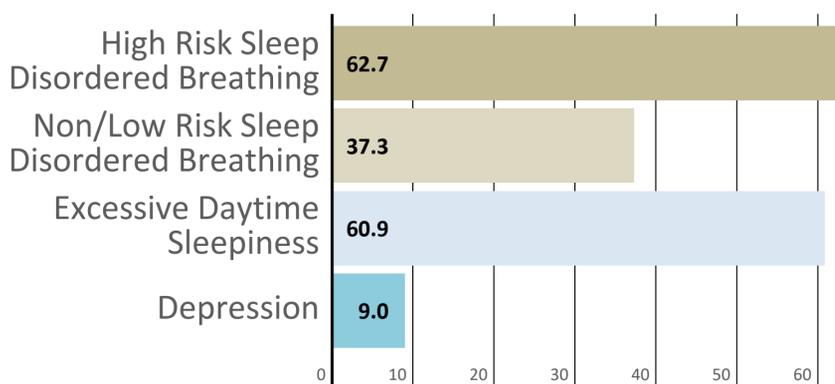
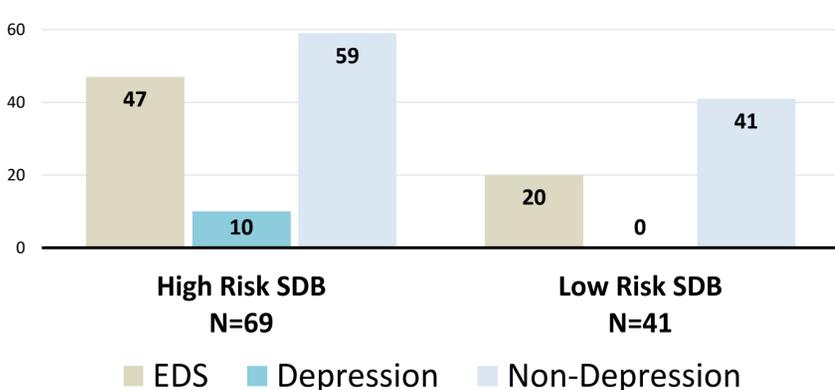


Figure 2. Risk Factors of SDB



VA  
HEALTH  
CARE | Defining  
EXCELLENCE  
in the 21st Century

The author has no disclosures.

