



Appendix E: Sleep Study Levels

Sleep Study Level	Test Description
I	<p>Polysomnogram (PSG) – Overnight test conducted in a sleep lab. Measures a complete set of biological signals, including airflow, electroencephalography (EEG), electrocardiogram (ECG), electrooculography (EOG), electromyography (EMG), oxygen saturation, thoracic effort, abdominal effort, body position, and limb movement. Often referred to as the gold standard for diagnostic sleep testing as a) EEG is the only way to actually measure sleep; b) PSG test can be used to diagnose all forms of sleep apnea (including OSA) and parasomnias, movement disorders, bruxism, and nocturnal seizures.²</p>
II	<p>Ambulatory polysomnogram – Overnight, unattended test. Currently not a significant factor in diagnostic sleep testing in B.C.</p>
III	<p>Home Sleep Apnea Test (HSAT) – Overnight test conducted by the patient (after instruction) in their home or preferred sleeping location. Used to diagnose only obstructive sleep apnea in patients who present with an increased risk of moderate-to-severe OSA, based on a comprehensive clinical sleep evaluation.^{3,26-28} (See Testing and Referral, page 4).</p> <p>HSAT measures two respiratory variables (thoracic effort and airflow), oxygen saturation, and a cardiac variable (e.g., pulse or electrocardiogram). It is not as sensitive as a PSG because without an EEG, sleep cannot be measured.</p>
IV	<p>Overnight Oximetry – measures oxygen saturation and pulse rate. It is not an appropriate test to diagnose OSA.³³</p>