# Mbabazi Solomon, Pytetska N.

# APPLICATION OF POLYSOMNOGRAPHY IN DIAGNOSIS OF THE SLEEP DISORDERS

**Kharkov National Medical University**

# Polysomnography is derived from Greek and Latin roots: the Greek, polus for "many, much", indicating many channels), the Latin somnus ("sleep"), and the Greek graphein, "to write"). Polysomnography, (PSG) also called a sleep study, is a test used to diagnose sleep disorders. Polysomnography records your brain waves, the oxygen level in your blood, heart rate and breathing, as well as eye and leg movements during the study.

Physiologic sensor leads are placed on the patient in order to record: Brain electrical activity, Eye and jaw muscle movement, Leg muscle movement, Airflow, Respiratory effort (chest and abdominal excursion), EKG, Oxygen saturation.

Information is gathered from all leads and fed into a computer and outputted as a series of waveform tracings which enable the technician to visualize the various waveforms, assign a score for the test, and assist in the diagnostic process.

Relevance in medicine today. Polysomnography is proven method of diagnosis of sleep apnea, a condition where, for a variety of reasons, a person ceases to breathe during sleep. It can be categorized into the following types.

• Central sleep apnea: the failure of the brain to signal the diaphragm and other muscles of ventilation to contract.

• Obstructive sleep apnea: a decrease in airflow although there are continuing respiratory efforts.

• Mixed sleep apnea: a combination of both central and obstructive sleep apneas.