BOXES

Box 1. Utilities and main technical features of pulse oximetry.

Areas of application

- Adult and pediatric

- Diagnosis / screening

- Monitoring / treatment

Technical features of commercial recording devices

- Portability

- Battery life

- Sampling frequency (Portable: 1 Hz; In-lab: 10-25 Hz)

- Resolution (normal: 1%; high-resolution: 0.1%)

- Memory storage: instant measures vs. long-term recordings

Settings

- In-hospital (supervised)

- At-home (unsupervised)

Hz: hertzs (samples per second).

Box 2. Output (objective function) of pattern recognition techniques in the framework of OSAS detection.

Binary classification

- OSAS-negative vs. OSAS-positive

- Single severity-class (mild, moderate, or severe)

Multiclass classification

- Severity groups (non-OSAS, mild, moderate, severe)

Regression

- AHI estimation

AHI: apnea-hypopnea index; OSAS: obstructive sleep apnea syndrome.