Sleep-related breathing disorders

Respiratory function tests in children and adolescents during rehabilitation period in Szklarska Poręba, Poland

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Introduction: As spirometry is the basic and non-invasive diagnostic method commonly used in pneumology, diagnosticians should aim at caring carry out studies in younger and younger patients.

Objective: The authors of this paper examined the ability of pediatric patients to meet the American Thoracic Society (ATS) and European Resiratory Society (ERS) goals for spirometry quality. They tried to find out the major factor for improving the rate of success of spiromety test in this age group.

Material and Methods: The study was performed on a group of 154 children undergoing a rehabilitation period in Szklarska Poręba in July 2015. Forced expiratory vital capacity or flow-volume curve was performed in children aged 7-15. The subjects were tested several times and the two best results in each subject were selected. All criteria for quality control were suggested by ATS/ERS guidelines.

Results: No child was able to meet criteria for FET which should be ≥3 s in children aged <10 yrs and for ≥6 s in subjects aged >10 yrs. Nonetheless, only 4 subjects did not meet the criteria for TPEF <300 ms.

Conclusions: The indended FET values in pediatric patients' diagnosis are very difficult to obtain. New motivational system should be created.