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**Title:** Automatic respiratory scoring, reality or illusion?

Ms. Cláudia 28462 Pereira claudia.pereira31@gmail.com , Dr. Susana 28463 Moreira susanalmoreira@gmail.com , Ms. Dina 28464 Grencho dinagrencho@gmail.com , Mrs. Dina 28465 Escaleira dinaescaleira@gmail.com , Dr. Richard 28466 Staats richard and Dr. João 28486 Valença joovalena11@gmail.com . <sup>1</sup> Laboratório De Sono - Serviço De Pneumologia, Hospital Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal ; <sup>2</sup> Laboratório De Sono - Serviço De Pneumologia, Hospital De Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal ; <sup>3</sup> Laboratório De Sono - Serviço De Pneumologia, Hospital De Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal ; <sup>4</sup> Laboratório Do Sono - Serviço De Pneumologia, Hospital De Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal ; <sup>5</sup> Laboratório Do Sono - Serviço De Pneumologia, Hospital De Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal and <sup>6</sup> Laboratório Do Sono - Serviço De Pneumologia, Hospital De Santa Maria-Centro Hospitalar Lisboa Norte, Lisboa, Portugal .

**Body:** Introduction:The need to reduce costs associated with sleep studies and its visual staging, as well as variability in intra-and interindividual scoring, has reasoned demand intense algorithms that allow automatic staging credible. Aim:Evaluate the analysis and quantification of automatic respiratory scoring of the Alice5-Philips Respironics compared to conventional manual system,using the rulesAASM 2007.

Methods:We analyzed34studies.Each record was subjected to 4avaliations:Av1-Alice5PSGautomatic Analyze;Av2-Alice5Automatic Analyze without EEG-cardio-respiratory regist(CRR);Av3-CCRmanual scoring;AV4-manual PSG scoring. Statistical analysis was performed using SPSS.Was considered a level of significance of 95%. Results:We found significant differences inAHI between assessmentsAv1-AV4andAV4-Av3,with in the opposite resultAv2-AV4.When comparing the avaluationsAv1-AV4we found significant differences in the number of obstructive/central and mixed and hypopneas without significant changes in the total number of apneas.There are significant differences in the desaturation index when comparing Av1,Av2andAv3 toAV4.As forIDR,there are significant differences when compared the 4avalitations. Conclusions/Discussion:In our analysis it was found that the automatic staging presented numerous flaws, the most significant difference are present at the classification of the apneas type on par with sub-accounting of hypopneas. This difference between automatic and visual staging may affect the decision between treating or not a patient with positive pressure, or even, the choice of ventilation mode.