Title: Medical hypnosis as a tool to acclimatize children to non-invasive positive pressure ventilation: A pilot study

Mr. Vincent 10519 Delord delord.vincent@gmail.com, Dr. Sonia 10520 Khirani sonia_khirani@yahoo.fr, Mrs. Adriana 10521 Ramirez a.ramirez@adepassistance.fr, Mr. Erick 10522 Louis Joseph erick.louisjoseph@gmail.com, Mrs. Clotilde 10524 Gambier clotilde.gambier@gmail.com, Mrs. Maryse 10527 Belson maryse.belson@trs.aphp.fr, Dr. Francis 10529 Gajan francis.gajan@wanadoo.fr MD, and Prof. Brigitte 10530 Fauroux brigitte.fauroux@trs.aphp.fr MD. 1 Pediatric Pulmonary Department, AP-HP, Hôpital Armand Trousseau, Paris, France; 2 S2A Santé, Ivry-sur-Seine, France; 3 ADEP Assistance, Suresnes, France; 4 Pain and Otorhinolaryngology Department, CHU Rouen, Rouen, France; 5 Université Pierre et Marie Curie-Paris 6, Paris, France and 6 U 955, INSERM, Créteil, France.

Body: Introduction: Patient cooperation is crucial for success of non-invasive positive pressure ventilation (NPPV). Objectives: This study evaluated the efficacy of medical hypnosis to reduce the anticipatory anxiety and the acclimatization time in children candidates for long-term NPPV. Methods: Medical hypnosis was performed by a trained nurse. The acclimatization time and long-term compliance with NPPV were evaluated. Results: Hypnosis was performed in 9 children, aged 2 to 15 years old; 7 children with a high level of anticipatory anxiety because of a tracheotomy since birth (2 patients), a history of maxillofacial surgery (2 patients), severe dyspnea due to lung disease (2 patients), morbid obesity and depression (1 patient), and 2 children with obstructive sleep apnea who failed standard NPPV initiation. The hypnosis techniques were based on distraction in the youngest patient and indirect or direct hypnotic suggestions in the older children, in order to obtain a progressive psycho-corporal relaxation. All the patients accepted the interface and the NPPV after the first hypnosis session. A median of three sessions was needed for overnight (> 6 hours) NPPV acceptance. The 6-months compliance with NPPV was excellent with a median use of 7.5 hours/night. Conclusion: Medical hypnosis is a very effective, safe, non-invasive, and cheap tool for reducing the anticipatory distress and acclimatizing time for NPPV. This therapy is particularly useful in children with traumatic experiences such as a tracheotomy or facial surgical procedures.