

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 323

**Publication Number:** P4920

**Abstract Group:** 2.1. Acute Critical Care

**Keyword 1:** Ventilation/NIV **Keyword 2:** Acute respiratory failure **Keyword 3:** Critically ill patients

**Title:** Comparison of serial rapid shallow breathing index to serial CROP index in prediction of weaning outcome in critical care patients

Dr. Angelene 2620 Taleon-Parazo anxsh\_23@yahoo.com MD <sup>1</sup> and Dr. Lucas 2621 Uy lucasuyjr@yahoo.com MD <sup>1</sup>. <sup>1</sup> Division of Pulmonary and Critical Care Medicine, Philippine Heart Center, Quezon City, Philippines, 1106 .

**Body:** Background:Recent data comparing several weaning parameters (RSBI,Cdyn,CStat,Pimax,CROP) concluded that CROP index has the highest predictive power for weaning outcome. It is the purpose of this study to compare serial RSBI with CROP in predicting weaning outcome. Methodology: This is a Prospective Cohort study done in the Philippine Heart Center Critical Care units done from December 2011-November 2012. Patients aged >18yo on mechanical ventilator for >48hours and capable of being weaned.RSBI and serial CROP index was taken 30 minutes, 60minutes and 120minutes pre-extubation. ABG was taken at the of each cycle. Extubation is considered a success if patient is able to sustain spontaneous breathing for >48 hours. Results:There was a total of 56patients, in the study.It was observed that increasing trend of CROP predicted weaning success while increasing RSBI was related to weaning failure. There were 5patients who were bridged with NIV. These patients had low CROPscores. This maybe due to critical illness myopathy. Cut off value for both parameters were determined and revealed a sensitivity 72.1% and specificity 76.9% for CROP $\geq$ 0.1. RSBI value $\geq$  53 had 67.4% sensitivity and 69.2% specificity. AUC yielded 0.6 for RSBI and 0.7 for CROP having a greater value is more predictive. Conclusion: Trends of weaning parameters can detect subtle changes in respiratory endurance. An increasing RSBI was noted in weaning failures. Conversely, an increasing CROP can predict weaning success. In this study, RSBI has 67.4% sensitivity and 69.2% specificity compared to CROP with sensitivity 72.1% and specificity 76.9%. CROP is a better predictor for weaning success.