Learning Material - Spot Diagnosis in Critical Care - Ventilator Waveforms Interpretation

Atikun Limsukon

Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, Thailand

**Background:** Goals of mechanical ventilation in critically-ill patients need to be balance between adequate gas exchange and decrease work of breathing with minimized complications. One of the most common complications of mechanical ventilation is patient-ventilator dyssynchrony, which not only causes discomfort but also leads to ineffective ventilation, as well as seems harmful to patients. Current ICU ventilators possess advanced microprocessors and user interface technologies. Many patient-ventilator interactions are easily assessed by the critical evaluation of waveforms and other ventilator outputs. With ventilator waveform analysis, physicians should be able to detect common dyssynchronies which occurs during mechanical ventilation and adjust the ventilator inputs to abolish or minimize those dyssynchronies.

**Process:** This session will be lecture-based presented by the speaker.

**Intended outcomes:** As above-mentioned, the audiences should be able to interpret common ventilator waveforms as well as detect common dyssynchronies and troubleshoot those problems with confidence.

**Keywords:** Mechanical ventilation, Ventilator waveform, Ventilator dyssynchrony