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Abstract Title:	**Airway Pressure Release Ventilation In The Burn ICU – A New Trick For An Old Dog!**
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Objective:	1) Understand the critical/key concepts associated with this mode of ventilation. 2) Identify key graphics components necessary to successfully apply APRV in the ICU setting.
Abstract:	**Introduction/Background:** Ventilation of the Burn patient can be difficult at best. Multiple factors enter into the equation - such as extent of thermal injury, inhalational involvement, external thoracic involvement, and fluid resuscitation requirements. Support of Oxygenation while allowing for adequate carbon dioxide clearance while maintaining a lung protective strategy presents a daily challenge. Repeated trips to the operating theater over the course of the ICU stay confound these issues. Clinicians are faced with questions of how much PEEP is too much, what Fi02 is too high, what Pa02 is acceptable, what is the best mode of ventilation, and the like. To add to the degree of complexity, not all Burn surgeons are Intensivists, and not all Intensivists are Burn Surgeons. Regardless of these issues, Burn patients present a unique subset of the ICU because of the nature of their injuries. Our ICU has received a number of patients who began to fail Conventional Ventilation and were not viable ECMO candidates. **Methods/Design:** A change in clinical practice in the mechanical ventilation of Burn ICU patient by early adoption of Airway Pressure Release Ventilation (APRV) with particular attention being paid to percentage of "trap" of the Peak Expiratory Flow (PEFR). This has been largely based on recent literature that uses a hypothesis of APRV being a true lung protective strategy when percentage PEFR is targeted. **Results/Findings:** We have noted success, both in overall outcomes and liberation from mechanical ventilation. A value of 50% of the PEFR is targeted, and then tracked over time. This emphasizes adjustment to the Time Low (Tlow) as the primary focal point to successful application. Since the PEFR is most attributed to pulmonary compliance, using Tlow as the assessment tool becomes logical. **Conclusions/Implications:** APRV remains controversial, regardless of patient population. It has been shown to improve Oxygenation, but

	outcomes studies have shown no clear advantages. There is still controversy among APRV users as to how best to determine release time, but there appears to be reliable consensus among users as to the potential protective qualities of this mode. Adjustment of parameters by utilizing release time provides the bedside clinician an easily identifiable parameter. Further study is warranted in this area.