B. Ventilator Related Definitions and Information

Fraction of Inspired Oxygen (FiO2): The percentage of oxygen delivered in ventilations, measured in a fraction of 1.0 (I.e. 1.0=100% oxygen, 0.5=50% oxygen, 0.21=21% oxygen or room air). The primary purpose of adjusting this would be to correct hypoxia or hyperoxia for post-ROSC care.

Inspiratory Time: The time over which the ventilator delivers a breath, this directly effects the expiratory time as the ventilator allows exhalation during any time where inspiration is not being delivered. A higher respiratory rate necessitates a shorter inspiratory time to allow adequate exhalation.

Inspiratory Trigger: The pressure needed to generate and additional inspiratory breath above the set rate of the ventilator. This is set to –5 cm H2O to avoid triggering inappropriate ventilation during patient movement.

Positive End-Expiratory Pressure (PEEP): Additional positive airway pressure applied at the end of exhalation to assist with alveolar inflation. This will generally need to be higher with a larger FiO2 as the oxygen washes out nitrogen from the alveoli, nitrogen also assists with alveolar inflation.

Predicted Bodyweight: Measurement used to estimate tidal volume as patients' lung size is more closely related to their height and biological sex than total body weight.

Respiratory Rate: The rate that the ventilator delivers respirations to the patient measured in breaths per minute. The primary purpose of adjusting this would be to reduce carbon dioxide buildup in the pulmonary system by increasing the rate or allow more carbon dioxide to build up by reducing the rate.

Tidal Volume: The average amount of air moving in or out of the lungs with each cycle of respirations, in the case of ventilators the targeted amount of gas ventilated into the patient with each respiration.

Volume Assist Control Mode: A ventilator mode where the machine delivers a set volume per breath and a set respiratory rate. The patient can generate other breaths by inhaling on their own and these also receive assistance to reach the set volume of the ventilator.