Optima Prone

Reducing prone position ventilation workflow complexity and pressure injury risks.

75% of COVID-19 ICU patients require intensive treatments and mechanical ventilation support for acute respiratory distress syndrome (ARDS).[1] With its high mortality rate of 74%,[2] ARDS accelerates the shortage of global healthcare resources and imposes complexity and burden on intensive care units and prone position therapy management.

Proning increases the risk of pressure injuries (PI) and can add 3 hospital days to treat PI-related complications on top of the 5 hospital days for proning,[3,4] significantly reducing the nurse-to-patient ratio.[5]

Optima Prone is a specialized pressure-reducing support surface solution designed to effectively prevent pressure injuries, optimize ICU/RICU workflow, reduce clinical workload, and improve patient outcome in prone position ventilation.

Simplify head repositioning
Mechanically supporting shoulder lifts while creating space below the patient's chin decreases the caregiver's workload and risk of obstructing airway tubing, allowing the single-caregiver to perform head repositioning safely and efficiently.

Prevent pressure injury risks
Combining a unique headrest (facial pillow, sculpted ear pocket, and alternation pressure), a personalized pressure care system (individual air cell deflation), and cell airflow tracking prevents pressure injury risks, improving patient outcomes.

Manage airway & fluid tubing
Deflating individual air cells to guide proper airway and fluid tubing organization prevents potential obstructions or displacements to hemodialysis flow and catheters, reducing the burden on the caregiver's workflow.

Access to controls via interface
Visual interface with LCD enables quick access to controls such as alternating and zone pressure settings, therapy timer, shoulder lift apparatus, and alarm system settings, simplifying patient care for caregiver across all experience levels.

Clinical Benefits

Benefits of prone position ventilation for ARDS treatment include improving oxygenation through uniform distribution of blood flow/airflow, secretion drainage in the dorsal lung to ventral trachea drainage vector, and preventing patients undergoing noninvasive ventilation (HFNC or Nasal CPAP) from further complications, intubation, or potential injuries caused by mechanical ventilation.[6-8]

Prone positioning significantly lowers the mortality rate within 28 days and persists past 90 days, risk of ARDS-related complications and driving pressure, and the need for intubation with HFNC or NIV.[9-11]
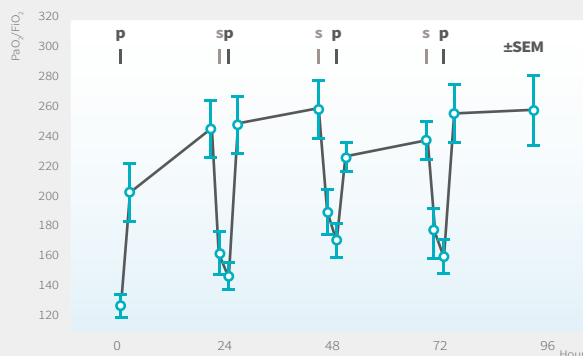
An increase in PaO_2/fraction of inspired oxygen (FiO_2) level was observed during cycles of prone (p) 20 hours and supine (s) 4 hours.[12]

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Specifications		Optima Prone	
Pump		Dimension	34.1 x 16.5 x 26.0 cm ; 13.4 x 6.5 x 10.2 in
		Weight	4.5 kg / 9.9 lbs
		Case Material	Fire Retardant ABS
		Supply Voltage	220 – 240 V / 50 Hz ; 110 – 120 V / 60 Hz
		Operating Cycle	10 / 15 / 20 / 25 minutes
Mattress		Mattress Type	20 cm / 8 in replacement
		Dimension	200 x 80 / 85 / 90 x 20 cm ; 78.7 x 31.5 / 33.4 / 35.4 x 8 in
		Cell Height	21 x 20 cm / 8 in cells
		Weight	14 kg / 30.8 lbs
		Top Cover Material	4-way stretch PU, polyester cover with welded seams
		Cell Material	TPU
		Maximum Patient Weight	250 kg / 550 lbs

Pump: water resistant standards (IP21); Mattress: flame retardent standards (EN597-1, EN597-2), RoHS, WEEE

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