



# FLIGHT 60

## State-of-the-Art Portable Ventilation

### Flight 60 Case Study

#### COPD PATIENT

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**Background** - A 74 years old patient, diagnosed with COPD (Chronic Obstructive Pulmonary Disease) has been ventilated for over 4 years, at his home. The tracheostomy intubated patient, at a critical and terminal stage of the disease, was ventilated 24x7 using the following parameters: SIMV, Pressure Control, PIP 23, PS 16, RR 23, PEEP 8, Ti 1.0, P<sub>trig</sub> 1.5 cmH<sub>2</sub>O.

**Case Presentation** – For the past two months, the patient has suffered from recurring acute obstruction episodes and lung air trapping, resulting in losing respiratory synchronization. The pathology manifested itself with a tendency to retain volume, as in a case of dynamic hyperinflation or auto PEEP. The lung air trapping had severe clinical consequences and impaired the patient’s quality of life. The previous ventilator failed to comply with the high respiratory demands of the patient.



**Discussion** – The patient was switched to Flight 60 and set to Flow Trigger. The patient was stabilized using Flight 60’s real time monitoring capabilities of actual inhaled and exhaled volumes, as well as all vital breathing parameters. The graphical display of loops and curves helped in optimizing the settings of the breathing parameters. Air trapping in the lungs, which caused most of the complications, was significantly reduced by adjusting to a steeper rise profile (#2) and PSV Flow Termination (35%). This further enabled the reduction of mandatory ventilation rate to 18 breaths per minute and the oxygen enrichment to 30%.

**Conclusion** - The upgrade to Flight 60 resolved the air trapping condition and diminished the metabolic and physio-pathological effects, providing a better quality of life and peace of mind.

#### Flight 60 settings

##### Main control parameters

Mode	%O <sub>2</sub>	PC/VC settings	Ti/Flow	PEEP
SIMV PCV	35%	23 cmH <sub>2</sub> O	1.0 sec	8 cmH <sub>2</sub> O
PSV Level	Trigger (F/P + level)	Rate	Rise Profile	PSV Flow Term
16 cmH <sub>2</sub> O	Flow = 4 L/min	18 b/min	2	35%

##### Main monitoring parameters

MV	Actual Rate	PIP	V <sub>ti</sub>	V <sub>te</sub>	FiO <sub>2</sub> %
10 L/min	24 b/min	30 cmH <sub>2</sub> O	430 ml	425 ml	30%