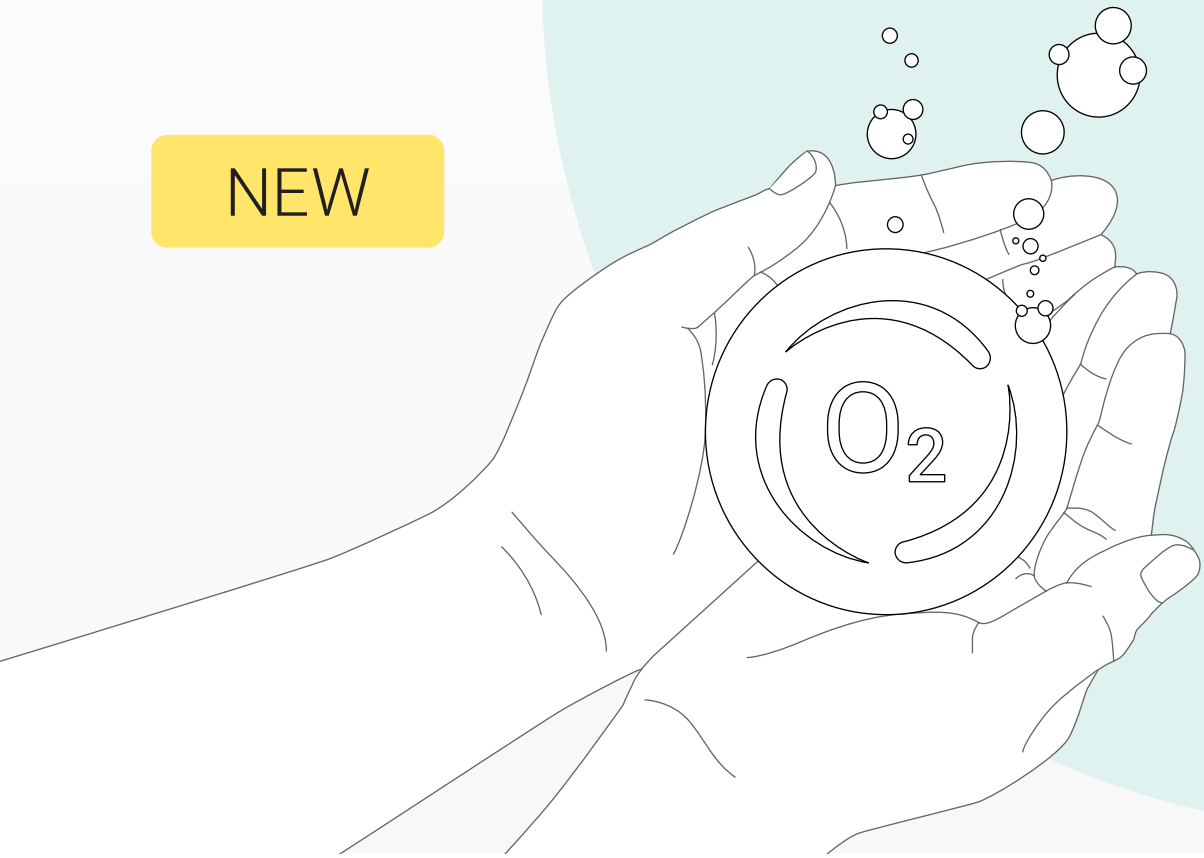
NEW



O2 assist

Your precision-care assistant

O2 assist is an advanced oxygen management technology that acts as your precision-care assistant at the bedside. By continuously adjusting the oxygen supply, it maintains the patient's SpO2 levels within the individually set target ranges. This ensures less knob-turning for you [1, 2] and helps lower the risk of hyperoxemia and hypoxemia for your patients.[4, 7]

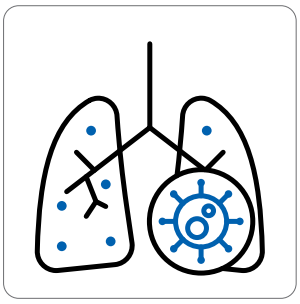
With its clear and intuitive concept, O2 assist is designed for trained healthcare professionals with different levels of experience. Its efficiency in SpO2 management makes it a valuable tool in your daily practice.

- ✓ Compatible with all invasive and noninvasive ventilation modes, and high flow oxygen therapy [3]
- ✓ Available on our HAMILTON-C6/C1/T1 and HAMILTON-HF90
- ✓ Designed for use in adults, pediatric patients, and neonates with a gestational age of 37 weeks or more

HAMILTON MEDICAL

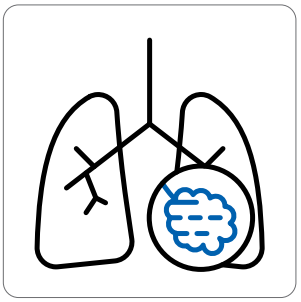
For your patients

O2 assist continuously adjusts the delivered oxygen concentration, serving as a useful tool for managing oxygen therapy in patients with various respiratory conditions, including those in critical care settings. It is particularly beneficial for patient conditions that cause oxygen requirements to fluctuate.[1, 2, 4]



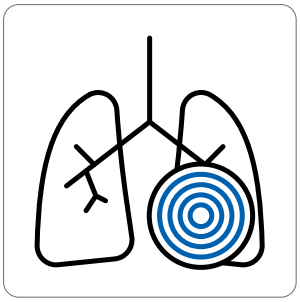
Acute Hypoxemic Respiratory Failure (AHRF)

Patients with AHRF experience fluctuating oxygen requirements due to impaired gas exchange. O2 assist can dynamically adjust oxygen delivery in response to these changes, keeping patients in the optimal oxygen saturation range.[1, 2, 4]



Acute Respiratory Distress Syndrome (ARDS)

Patients with ARDS often experience rapid changes in lung function, necessitating frequent adjustments to the ventilator's oxygen setting to maintain adequate oxygenation. In combination with adequate PEEP management, O2 assist can respond promptly to these changes and ensure the patient remains within the optimal SpO2 range.[5]



Severe bronchiolitis

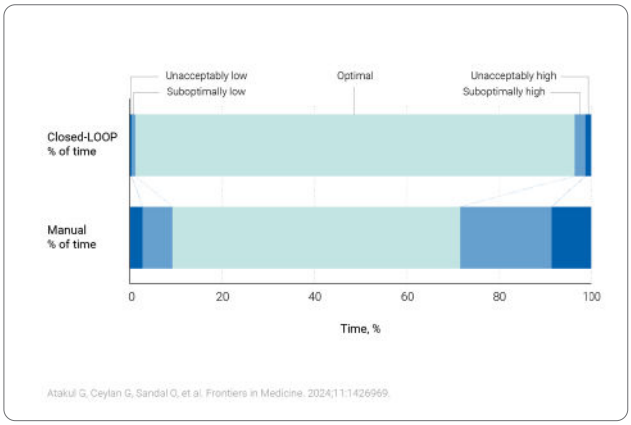
In patients with bronchiolitis, airway inflammation and mucus production may cause hypoxemia.[8] This means therapy is largely dependent on the interaction between FiO2 and PEEP, leading to constantly changing SpO2 values.[1, 2, 4, 5]
By adjusting the delivered oxygen according to the patient's real-time needs, O2 assist helps maintain SpO2 within the desired target range.[1, 2, 4, 5]

A look at the evidence

O2 assist offers significant advantages for healthcare professionals by helping them adhere to their goals and protocols for oxygen therapy. Studies have shown that continuous oxygen management has the potential to:

Improve oxygen control

Oxygen management with O2 assist results in more time spent within the SpO2 target range than manual adjustments.[1, 4, 6, 7] This helps you to better align the therapy with your protocols and guidelines.



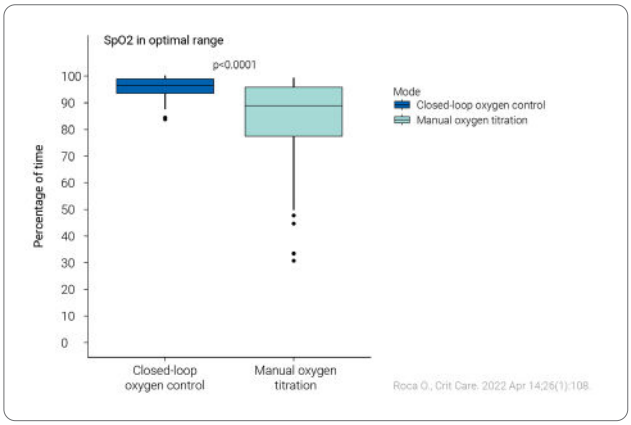
Atakul G, Ceylan G, Sandal O, et al. Frontiers in Medicine. 2024;11:1426969.

Enhance patient safety

Studies have shown that more time spent in the SpO2 target range reduces the risk of hypoxemia and hyperoxemia, potentially leading to better patient outcomes.[1, 2, 4, 7] By maintaining constant oxygen levels, O2 assist can help lower the incidence of these and associated complications.[1, 4, 6]

Reduce manual adjustments

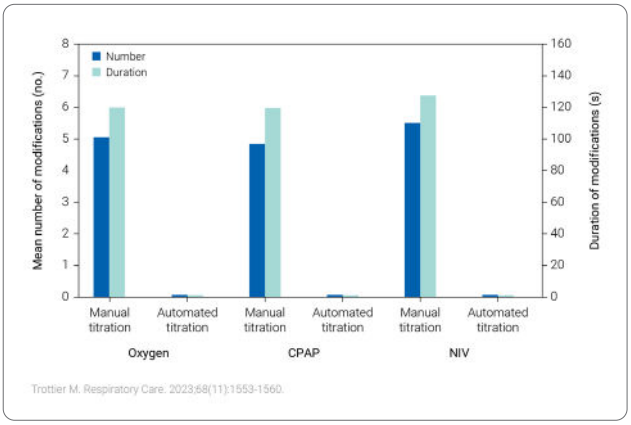
Continuous oxygen management maintains target oxygen saturation levels more effectively than manual oxygen titration and requires fewer adjustments by healthcare staff.[2, 7]



Roca O., Crit Care. 2022 Apr 14;26(1):108.

Save valuable resources

Optimized oxygen management minimizes oxygen wastage by delivering just enough to satisfy the patient's real-time needs, making it both cost effective and environmentally sustainable.[2, 7] As O2 assist does not require extensive training, it also helps to save personnel resources.



Trottier M. Respiratory Care. 2023;68(11):1553-1560.

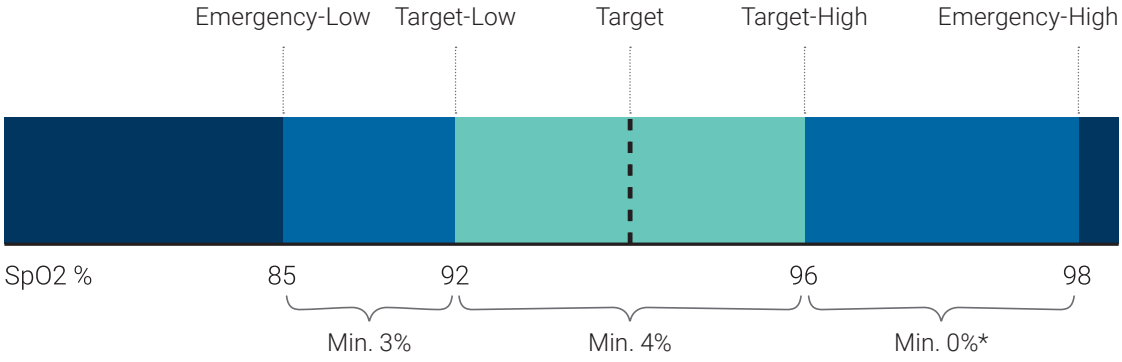
1 Roca O. Crit Care. 2022 Apr 14;26(1):108.
2 Atakul G. Frontiers in Medicine. 2024;11:1426969.
3 Except INTELLiVENT-ASV and CPR feature
4 Sandal O. Front Med (Lausanne). 2022 Nov 16:9:1046902.
5 Soydan E. Front Med (Lausanne). 2022 Aug 25;9:969218.
6 Mol C. PLoS One. 2024 Jun 12;19(6):e0304745.
7 Trottier M. Respiratory Care. 2023;68(11):1553-1560.
8 Erickson E. Treasure Island (FL). 2025 Jan.

For control and transparancy

Customizable to your needs

O2 assist operates with predefined values for the SpO2 target range and emergency limits. You can switch to the Custom window to adapt these predefined values according to the individual patient's condition and your protocols.

An Oxygen alert notifies you when your patient's oxygen needs reach a user-set threshold, enabling early therapeutic interventions such as optimizing PEEP levels, patient positioning, sedation, or medication.

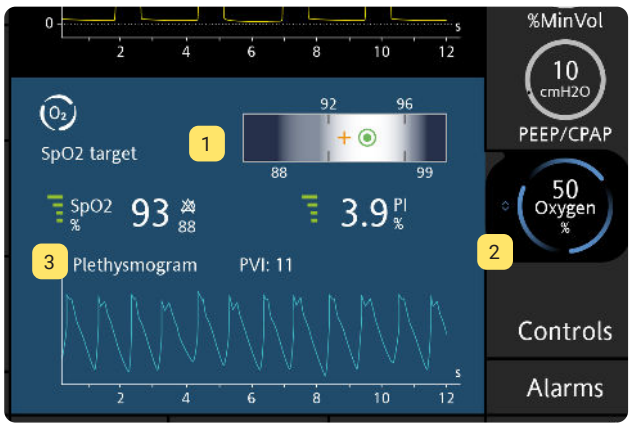


Important information at a glance

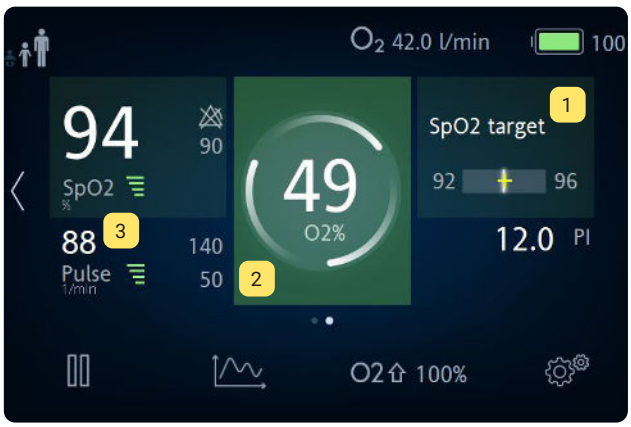
1 **SpO2 bar:** Shows the patient's real-time SpO2 value, as well as the target range and emergency limits.

2 **Oxygen control:** Shows the current O2 setting. Faster-rotating comets indicate an adjustment is in progress. The counter to the left of the Oxygen control shows the time until the setting is changed.

3 **Patient SpO2 status**: Shows current measurement, signal quality, and plethysmogram.



Example for ventilator GUI, available on HAMILTON-C1/T1/C6



HAMILTON-HF90

ELO20240702N.02

The products shown here are not available for purchase by the general public. The information provided here is intended for healthcare professionals only. Always read the labels and follow the product's instructions for use. Specifications are subject to change without notice. Some features are options. Not all features are available in all markets. All images are used for illustrative purposes only and may not accurately represent the product or its use. For all proprietary trademarks (®) and third-party trademarks used by Hamilton Medical AG see **www.hamilton-medical.com/trademarks**.
©2026 Hamilton Medical AG. All rights reserved.