

UTMB RESPIRATORY CARE SERVICES PROCEDURE - Analyzing FiO₂ on Delivery Systems	Policy 7.3.29 Page 1 of 2
Analyzing FiO ₂ on Delivery Systems Formulated: 01/89	Effective: 02/02/95 Revised: 08/15/23 Reviewed: 08/15/23

Analyzing FiO₂ on Delivery Systems

Purpose To standardize the practice of verification of FIO₂ on delivery systems without an integrated oxygen analyzer.

Scope The Department of Respiratory Care Services verifies the concentration of oxygen delivered to patients by high flow oxygen delivery systems without an integrated oxygen analyzer.

Audience Licensed Respiratory Care Practitioner in the department of Respiratory Care Services.

- Equipment**
- O₂ analyzer which has been calibrated per manufacturers procedure
 - Analyzer adapter
 - 5" flex hose
 - Sensormedics Oscillator 3100A/B

Procedure

Note: The following oxygen delivery systems are to be analyzed continuously when in use: High Frequency Oscillators. The analyzer should be calibrated a minimum of once per day (night shift).

Step	Action
1	Verify patient's FiO ₂ order and patient using two identifiers.
2	Wash hands per hospital policy and follow any isolation procedure indicated.
3	Introduce yourself and identify the patient.
4	Briefly explain the procedure and purpose to the patient.
5	Prior to placing the analyzer inline, perform a 2-point calibration, according to manufacturer's instruction.
6	Place the O ₂ analyzer in the appropriate place within the delivery system. Keep the analyzer probe positioned so that condensation will not collect on it.
7	Reading should be within + 2% of order FIO ₂ . <ul style="list-style-type: none"> • If analyzed FIO₂ is not the same as ordered FIO₂, adjust the device until the proper FIO₂ is reached.

UTMB RESPIRATORY CARE SERVICES PROCEDURE - Analyzing FiO₂ on Delivery Systems	Policy 7.3.29 Page 2 of 2
Analyzing FiO ₂ on Delivery Systems Formulated: 01/89	Effective: 02/02/95 Revised: 08/15/23 Reviewed: 08/15/23

Procedure Continued

Step	Action
7	<ul style="list-style-type: none"> If you are unable to reach the ordered FIO₂ by adjusting the device, remove the analyzer and recalibrate it. Document FiO₂ in Epic as part of the respiratory assessment.
8	Document in EPIC as outlined in RCS Policy # 7.1.1.

Infection Control

Follow procedures outlined in Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services.

<http://www.utmb.edu/policy/hcepidem/search/02-24.pdf>

References

AARC Clinical Practice Guidelines; Oxygen Therapy in the Acute Care Hospital, Respiratory Care; 1991; 38:1410-1413.

O'Connor BS, Vender JS. Oxygen Therapy. Critical Care Clinics. 1995; 11:67-78.

Scanlan CL, Thalken RF; Medical Gas Therapy. In: Scanlan CL, Spearman CB, Sheldon RL, Eds. Egan's Fundamentals of Respiratory Care, Eighth Edition, Mosby; June 2, 2003

Ward JJ; Equipment for Mixed Gas and Oxygen Therapy. In: Barnes TA, Ed. Core Textbook of Respiratory Care Practice. 2nd Edition. St. Louis: Mosby-Year Book; 1994.