

UTMB RESPIRATORY CARE SERVICES JOB DESCRIPTION - Regulators and Cylinders	Policy 7.4.14 Page 1 of 2
Regulators and Cylinders Formulated: 11/78	Effective: 11/05/94 Revised: 01/08/18 Reviewed: 08/21/23

Regulators and Cylinders

Purpose To provide an outline for safe use of medical gas cylinders and regulators.

Audience All Respiratory Care Services Employees.

Scope In certain circumstances, Respiratory Care Services supplies medical gas cylinders and related equipment for areas of the hospital and for special services.

Note: In the absence of piped oxygen, O₂ cylinders may be used. Oxygen regulators are used on cylinders of oxygen to reduce the cylinder pressure (up to 220 psi) down to an operable pressure (50 psi to be used with respiratory therapy equipment).

Procedure

Step	Action
1	Secure cylinder in appropriate cylinder cart.
2	Remove cylinder cap.
3	Open then immediately close the cylinder valve. This removes any dirt or debris from the valve.
4	Attach regulator with proper CGA fitting: <ul style="list-style-type: none"> • To "H" cylinder by screwing the nut on the regulator clockwise on the valve. Tighten snugly with a wrench • To "E" cylinder by matching pins on regulator to those on cylinder head, applying a new gasket, and tightening screw on regulator.
5	Use care to take cylinder to patient's room or patient care area.
6	Leave cylinder in stand and stand cart up straight, have wheels down flat.
7	Do not place cylinder close to heat source such as heating system.
8	Turn valve handle on (counter clockwise) slowly with face of pressure gauge pointed away from everyone.

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Procedure Continued

Step	Action
9	Turn valve fully counterclockwise.
10	Turn flow meter on and adjust flow by placing ball at the center of the number of LPM desired.
11	Note pressure in cylinder.
12	When cylinder is not in use, turn cylinder valve fully clockwise, leaving flow control device in an operational mode.
13	Call Respiratory Care Services to have cylinders replaced

Rules for Storage

Rules for storage include:

- Cylinders in storage or staged for use must be grouped by type of gas
- Empty cylinders must be physically separated from full cylinders. Storage racks must be clearly labeled.
- Cylinders on crash carts or placed in patient care areas for ambulation are considered “in use” and must be segregated from unopened cylinders if returned to storage

References

UTMB Institutional Handbook of Operating Procedures Emergency Shut-Off of Oxygen Zone Valves in UTMB Hospitals Policy # 9.13.23
<http://www.utmb.edu/policy/ihop/search/09-13-23.pdf>

UTMB Emergency Procedures Manual: Loss of Medical Gas and/or Medical Air <http://webb.utmb.edu/envcare/epm.htm>

UTMB Institutional Handbook of Operating Procedures: Sentinel Events Policy # 9.13.16, <http://www.utmb.edu/policy/ihop/search/09-13-16.pdf>

JCAHO: Management of the Environment of Care; EC.1.7, Medical Gas Management <http://www.utmb.edu/JCAHO/>