

# **Leadership with Accountability to Ensure Quality Oxygen Therapy to Patients**

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**Be Safe: Maintain Social Distance, Wash Hands Timely and Carefully**



# What is Oxygen Therapy?

## Oxygen Therapy

Oxygen therapy is the administration of oxygen at a concentration or pressure greater than that found in the environment.

Goal of supplemental oxygen therapy is to ensure appropriate oxygen delivery to vital end-organ tissues.

Oxygen therapy is a key treatment in respiratory care / Covid-19 care.

## Purpose

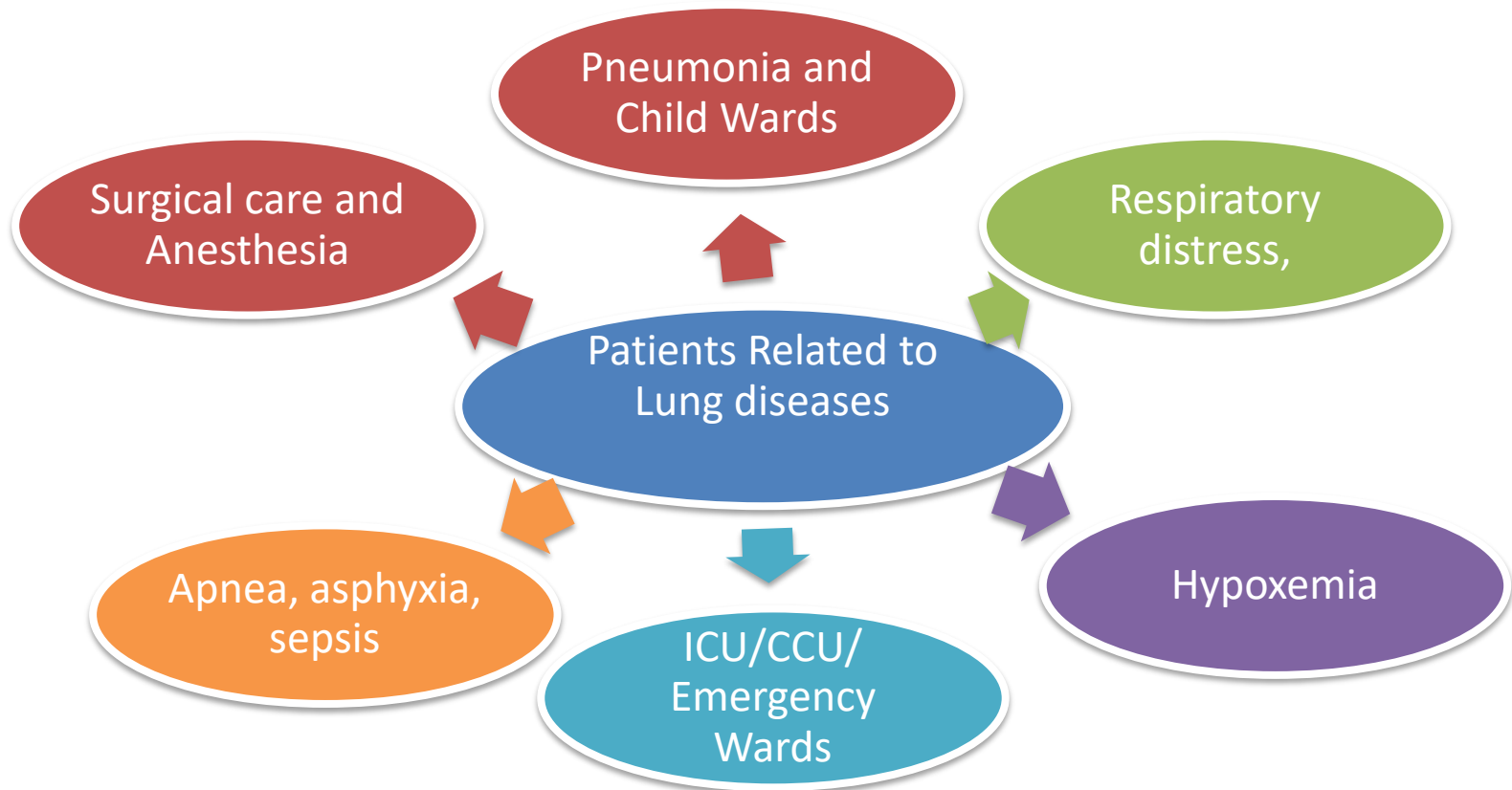
The body is constantly taking in oxygen and releasing carbon dioxide.

If this process is inadequate, oxygen levels in the blood decrease, and the patient may need supplemental oxygen.

The purpose is to increase oxygen saturation in tissues where the saturation levels are too low due to illness or injury.



# Why External Oxygen Needs for Hospital's Inpatients?



**Patients, who are Unable to Take Breaths Normally**



# Leadership with Accountability to Ensure Quality Oxygen Therapy to Patients

## LEADERSHIP:

The development of vision, strategies and alignment of relevant people behind those strategies and empowerment of individuals to make vision happen despite obstacles

## ACCOUNTABILITY:

The obligation of an individual or organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent manner.

## Quality assurance (QA)

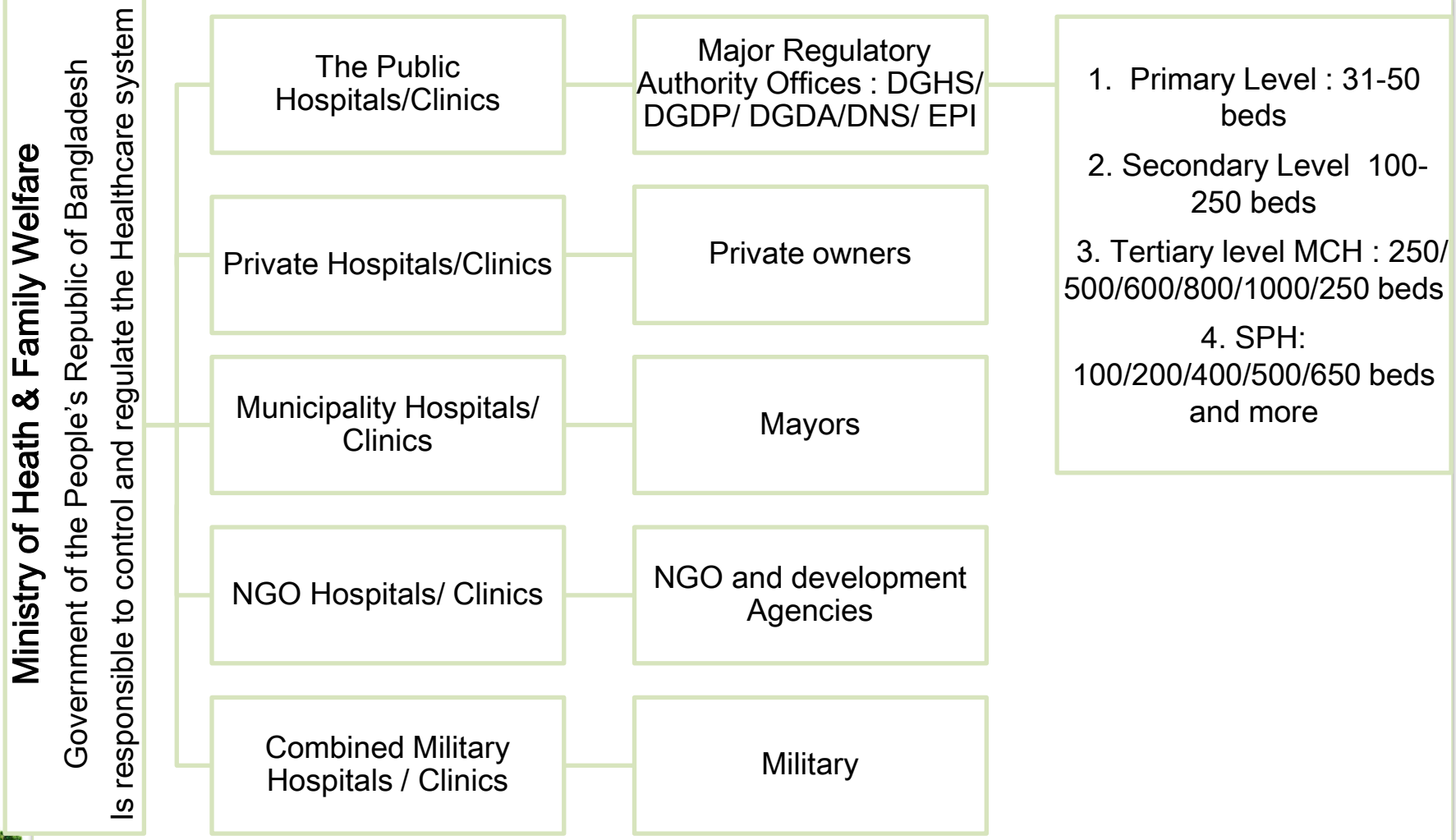
QA is a way of preventing mistakes and defects in manufactured products and avoiding problems when delivering products or services to customers and that ISO 9000 defines as "part of quality management focused on providing confidence that quality requirements will be fulfilled"

## Oxygen therapy:

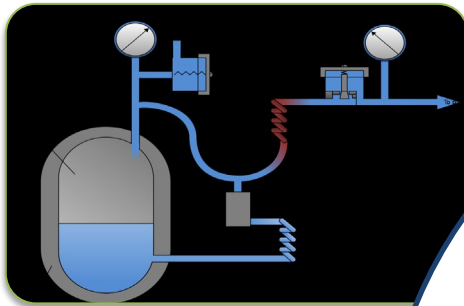
is a treatment that delivers oxygen gas for patients to breathe who are unable take breath normally. But Ventilator's Supporting Oxygen therapy is need for ICU Patients. Today ICU Ventilators Supporting Oxygen therapy has become an indispensable medicine for acute COVID-19 patients in ICU.



# Patient Care Network in Bangladesh



# Oxygen Therapy Supply System in Bangladesh Hospitals



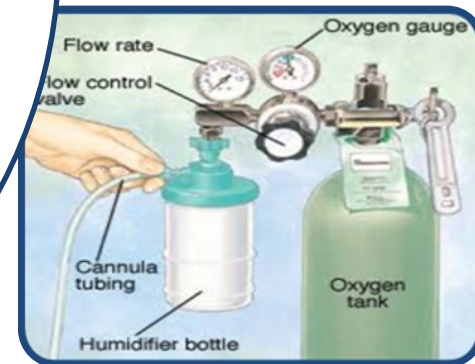
The Vacuum insulated evaporator (VIE) Tank and back ensured by portable Large Cylinder. Bangladesh erstwhile it reputed as BOC MCH, SPH

Oxygen generator plant Spectra, Trade Vision Emergency back up ensured integrated Cyclers



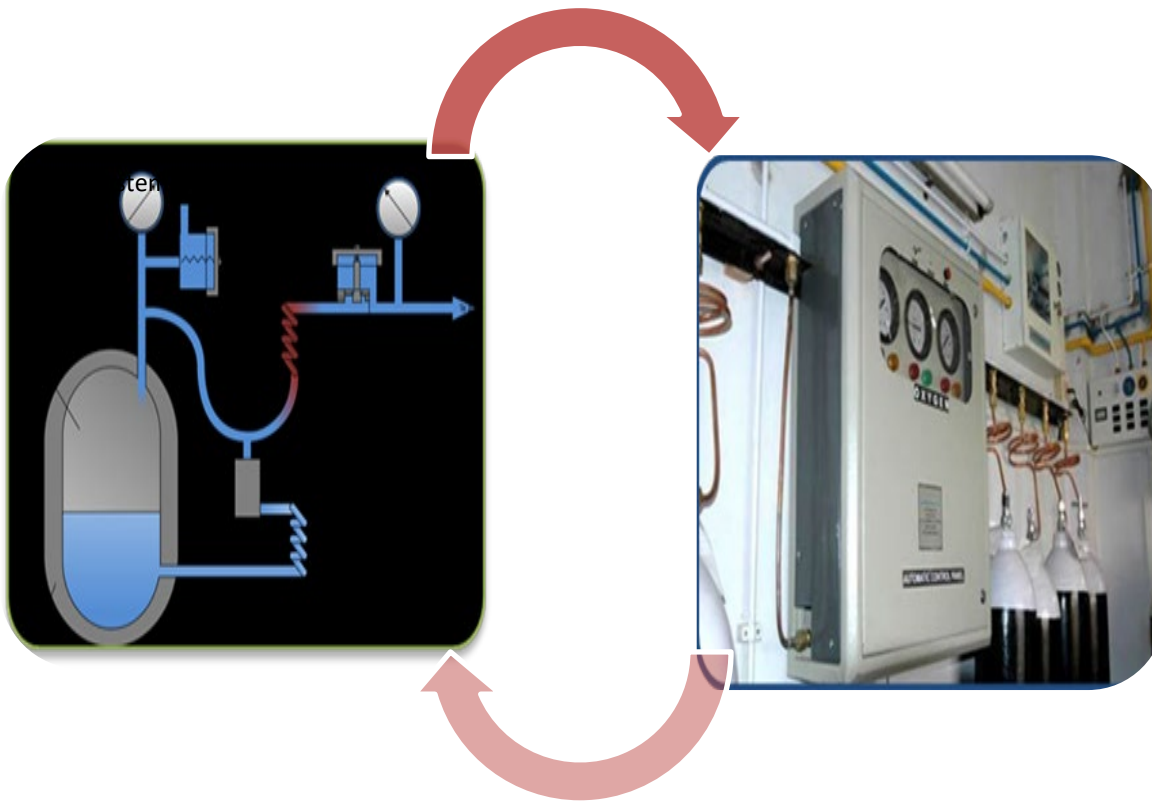
Integrated cylinder with manifold Emergency back up ensured by portable cylinder

Only portable cylinder used in small hospitals



## Backup System of VIE

Back up System for VIE. Alarm System are available to detect lower gas pressure. In some cases automatic system turn on the switch but in some situations, it is operated manually



# Backup System of Oxygen Generating Plant

Back up System for VIE. Alarm System are available to detect lower gas pressure. In some cases automatic system turn on the switch but in some situations, it is operated manually

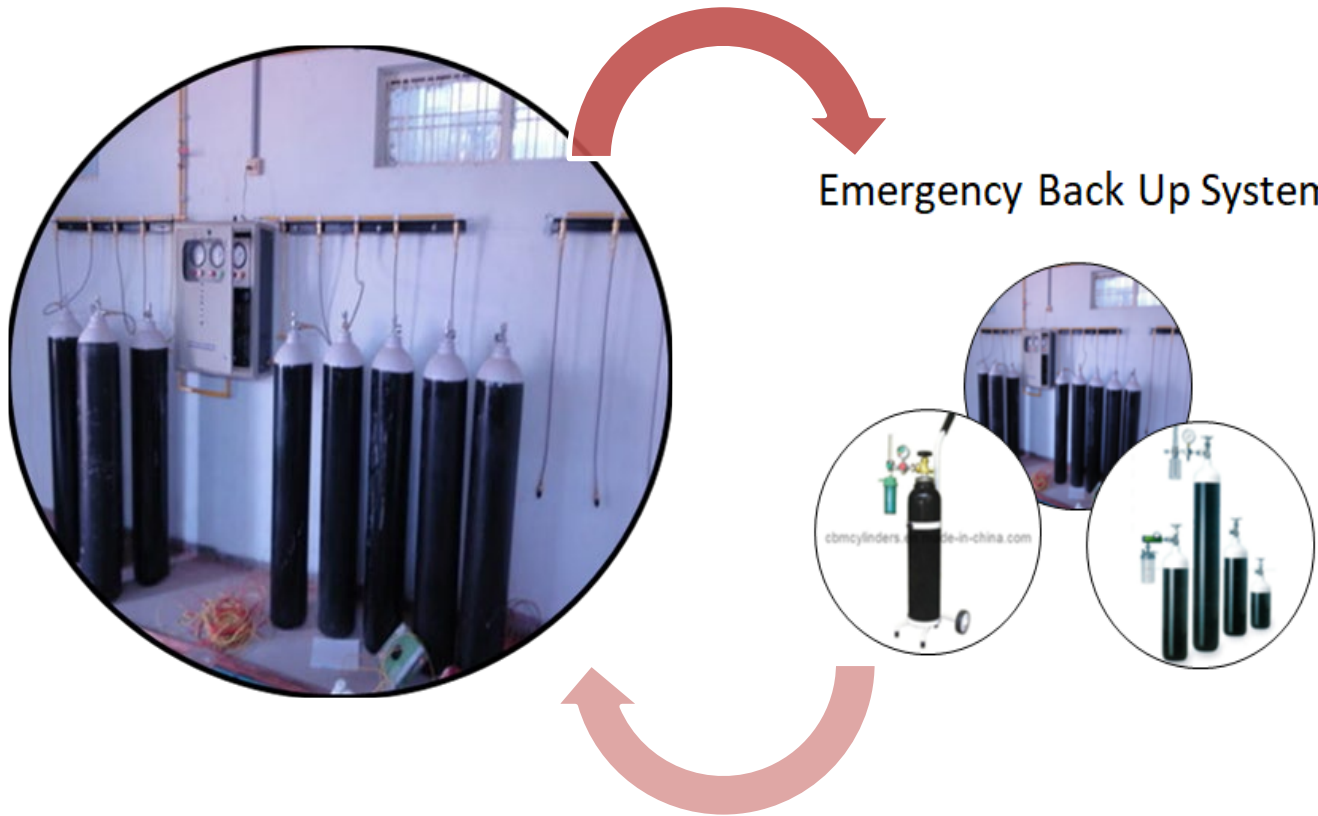




# Emergency Backup System of Oxygen Cylinder

The oxygen cylinder is delivered with a protective cap to prevent accidental force against the cylinder outlet.

To release oxygen safely and at a desirable rate, a regulator is used.



# Regulatory Authority

- ❖ Supplier company ensures supply on call basis. Hospital's ward masters are responsible for this assignment
- ❖ Quality controller body is not yet established due to unwariness.
- ❖ Have not any measurement tools to ensure the pure oxygen and other particles.
- ❖ Hospital is highly dependent on the services of company.
- ❖ Preventive maintenance and reduction of contamination could not possible to due to lack of hospital in house CED concept as well as has not any framework contract.
- ❖ Shortage of Clinical Engineers (CE), Clinical Engineering Technologists (CET), and Biomedical Equipment Technician (BMET) are chronic issues for lower middle-income countries.

