Medical Air

Protecting Vulnerable Lives

Air Liquide HEALTHCARE

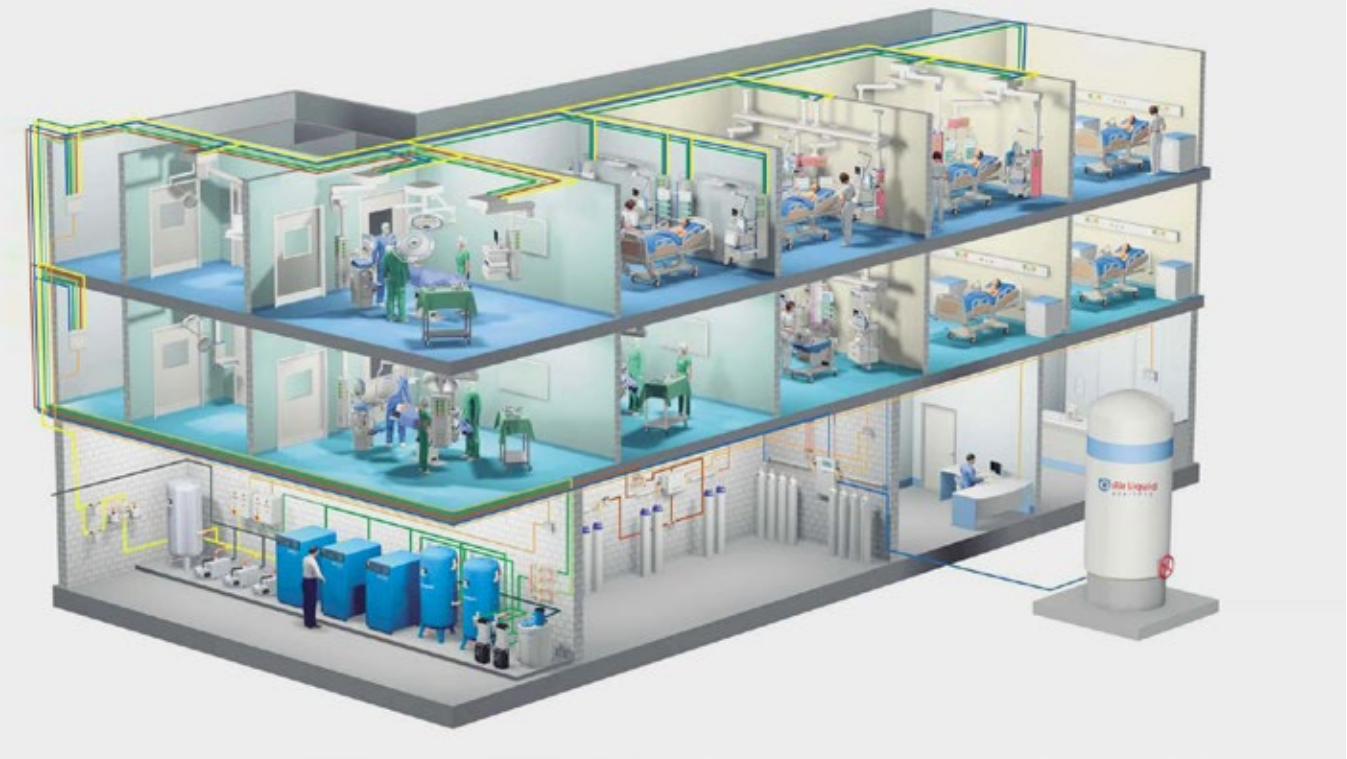
Medical Air

Medical Air is a therapeutic product used throughout the hospital. At most facilities, you will find it is made on site for economic reasons.

The quality of Medical Air produced is directly linked to the quality of the raw material, outdoor air.

Quality control is essential to ensuring patient safety.

- General anaesthesia
- Patient ventilators
- Infant resuscitation
- Hyperbaric therapy
- Isolette environmental control
- Aerosol drug delivery
- Mixed with O_2 for neonates
- High flow therapy



How To Comply With The CSA Standard for Medical Gas Pipelines?

CSA Z7396.1-17 is Canada's standard for medical gas pipelines, and the 2017 edition references a NEW requirement for healthcare facilities producing Medical Air; they must now conduct a **Quality Risk Assessment**, and where deemed in the best interests of patient safety, employ continuous quality monitoring with means to prevent off-spec product from entering the pipeline.

Questions each facility should review as part of a Medical Air quality risk assessment:

1. What can go wrong?
2. What are the chances that something will go wrong?
3. What is the impact, if something does go wrong?
4. Are the therapies involving Medical Air at this site typically of long (> 2hrs) or short (<2hrs)?
5. Do the typical medical devices involved monitor the U.S.P. chemical elements within the Medical Air prior to patient inhalation, and alarm in the event of an off-spec condition?
6. Will the patient typically be able to voice concern if they sense a problem during treatment?

Site specific potential for harmful exposure

Therapy	Typical duration		Potential for harmful exposure	
	Short	Long	Low	High
Aerosol drug delivery	✓		✓	
High flow therapy		✓	✓	✓
Mechanical ventilation		✓		✓
Neonatal isolette environment control		✓		✓
Infant resuscitation	✓		✓	
General anaesthesia		✓		✓
Hyperbaric therapy*	✓			✓

Quality control service

Over **60,000,000** data points

Our specialized staff will work with you to conduct a Risk Assessment at your facility!

Our quality control service with over 60,000,000 data points has taught us:

Outdoor air quality affects medical air quality, and quality breaches have occurred at every site we monitor, with carbon dioxide levels >500ppm being the most common breach. In our assessment, the determining risk factor is the potential for harmful exposure, and where the potential is high, then we recommend continuous chemical analysis and automatic means for off-spec prevention.

Medical Air Manufactured On-Site Ensuring Quality

When made on site, the National Building Code of Canada mandates CAN/CSA Z7396.1: "The owner of the healthcare facility shall ensure that the product delivered by a compressor system used as a source of medical air meets the specifications for Air USP"

Air Liquide Healthcare's **aerALin**™* offer is Canada's first parametric batch release quality control system designed for hospitals producing medical air or oxygen on-site.

aerALin™

This onsite quality control service includes:

- A sensor array to validate against critical USP specifications
- Actuated valves to prevent off spec product entering the pipeline and purge impurities from the source
- Continuous traceability through recording of monitored parameters
- Quality compliance reporting
- Remote monitoring and alarm notification
- Optional CO_2 mitigation through our Patient Protect Purge Control (P3C) Dryer Control System
- LAN & BacNet connectivity
- Remote access and management through Smartphone, Tablet, and conventional computers
- Flow monitoring and totalization
- VOC (Volatile Organic Compounds) filtration

* Registered Patents: US 9,694,151 B2; US 9,682,210 B2; CA 2,829,060; CA 2,863,543

Air Liquide Healthcare proudly represents medical air systems manufactured by Busch Vacuum Technics. With over 25 years of collaboration we deliver an unparalleled level of experience to our Canadian clientele.

#1

Measured Breach of USP Parameters is Carbon Dioxide...
the root cause is Desiccant Dryers!

When the objective is maintaining USP compliance **and** economizing purge air loss the solution is P3C | Patient Protect Purge Control

P3C Dryer

Dual setting purge control, with dryer purge activation based on achieving either a specific moisture or carbon dioxide trigger level*.

The result is guaranteed USP acceptable levels for moisture and carbon dioxide and optimal purge economization.

* Patents pending

Air Liquide HEALTHCARE

Managing Medical Air Quality To Protect Vulnerable Lives

Our Capabilities:

- Complete Medical Air Systems
- Specialized Medical Dryers
- Quality Control with Patient Protect Purge Control
- Health Canada Licensed Calibration Gases
- Health Canada Approved Reserve Cylinders
- Complete System Service

To arrange for a medical air quality risk assessment
Please contact your local Air Liquide Healthcare Sales Representative.
Call **1-888-629-0202** or email **cs.vitalaire@airliquide.com**

www.airliquidehealthcare.ca

The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3 million customers and patients.