

**Airgas Therapeutics**  
an Air Liquide company

⋮ **ULSPIRA™ Solution**

# Inspire breath into life with a human-centered solution

Now there's a nitric oxide therapy that  
benefits RTs and patients alike





# ULSPIRA™ Solution

## Take Nitric Oxide Therapy to a New Level

### Every second counts when it comes to breathing

Especially in the NICU, where your smallest and most vulnerable patients may be struggling to take a breath. Newborns diagnosed with hypoxic respiratory failure need therapy fast.

Removing barriers to patient care allows you to focus on what's most important – your patients. The ULSPIRA™ Solution is an easy-to-use nitric oxide (NO) delivery system designed for simplicity and safety with our FDA-approved nitric oxide gas and our customizable program of service and support.

#### ULSPIRA

ULSPIRA is nitric oxide gas for inhalation (iNO). It's FDA-approved and works in conjunction with the ULSPIRA TS™ nitric oxide therapy system.

#### ULSPIRA TS

ULSPIRA TS is a delivery system designed for ease of use and patient safety. Key features including the user-friendly, intuitive touchscreen, quick Pre-Use Check and automatic purging allow you to start therapy in minutes. This system simplifies treatment management to bring inhaled NO therapy to the next level.

#### ULSPIRA Care+™

Our expanded services program provides a complete, human-centered solution. With customized, onsite support to perform time-consuming, routine tasks, it eases your burden of care. We offer a range of clinical and device training, as well as maintenance support services, all so that you can focus on care at the bedside. ULSPIRA Care+ also includes a unique, patient-centered business model that provides data insights on each patient's therapy to eliminate hospital counting and simplify billing.



For full ULSPIRA prescribing information, visit [ulspira.com](http://ulspira.com) or scan the QR code.



ULSPIRA™  
(nitric oxide) gas, for inhalation

ULSPIRA TS™

Bringing inhaled NO to the next level

ULSPIRA Care+™

Services and support you can always count on



Inhaled NO



Fast therapy



Proven technology



Simplified treatment



Patient safety



Clinical support



Customized services



ULSPIRA TS

# ULSPIRA TS™

## Start Therapy Fast

### Minutes, even seconds, are critical in the NICU

When a newborn needs inhaled nitric oxide treatment, you can't afford to waste time setting up and preparing your system. ULSPIRA TS™ allows you to start therapy fast, because it's specifically designed with features that save precious time.

#### Less preparation

- The short Pre-Use Check saves minutes to begin treatment fast.
- Automatic purging eliminates a step in therapy preparation.
- Ready-to-use patient consumable kits connect quickly and easily for various levels of therapy.

#### Intuitive controls

- The large color touchscreen provides clear, well-organized information to help you quickly prepare the device.
- Digital dosing is right at your fingertips for precise and accurate titration.
- Integrated instructions make rapid set-up in emergencies easy and minimize user errors.



## ULSPIRA TS™

### INTENDED USE

The ULSPIRA TS™ Nitric Oxide Therapy System is intended for use by healthcare professionals for the delivery of nitric oxide (NO) and the monitoring of inspired NO, NO<sub>2</sub> and O<sub>2</sub> concentrations for a patient undergoing inhaled Nitric Oxide (iNO) therapy.

ULSPIRA TS must only be used in accordance with the indications, contraindications, warnings and precautions described in the nitric oxide drug packaging inserts and labeling and is indicated for use in term and near-term (>34 weeks gestation) neonates with hypoxic respiratory failure associated with clinical or echocardiographic evidence of pulmonary hypertension. The primary targeted clinical setting is the Neonatal Intensive Care Unit (NICU) and secondary targeted clinical setting is the transport of neonates. Refer to this material prior to use.

In the case of an abrupt stop of inhaled NO gas delivery, withdrawal (rebound pulmonary hypertension) may occur. Possible side effects of the inhaled NO gas therapy are further described in the nitric oxide drug packaging inserts and labeling.

ULSPIRA TS can be used with respiratory devices. Make sure that ULSPIRA TS is validated with the respiratory device you use. Validated respiratory devices are listed in the User's Manual.

### DEVICE WARNINGS

- Persons using ULSPIRA TS must be trained and experienced in its use to ensure effective administration of nitric oxide and to avoid injury to the patient or to others resulting from inhalation of excess NO, NO<sub>2</sub> or other reaction products.
- Always perform a Pre-Use Check before connecting ULSPIRA TS to the patient. Only use the system if the Pre-Use Check is successfully passed.
- If an unintended treatment interruption occurs, use the backup system.
- ULSPIRA TS must not be used in an MRI environment.

# ULSPIRA TS™

## Innovative Features

Internal battery for at least two hours of uninterrupted therapy

Connection for patient consumable kits

Easy-to-use interface with intuitive touchscreen display

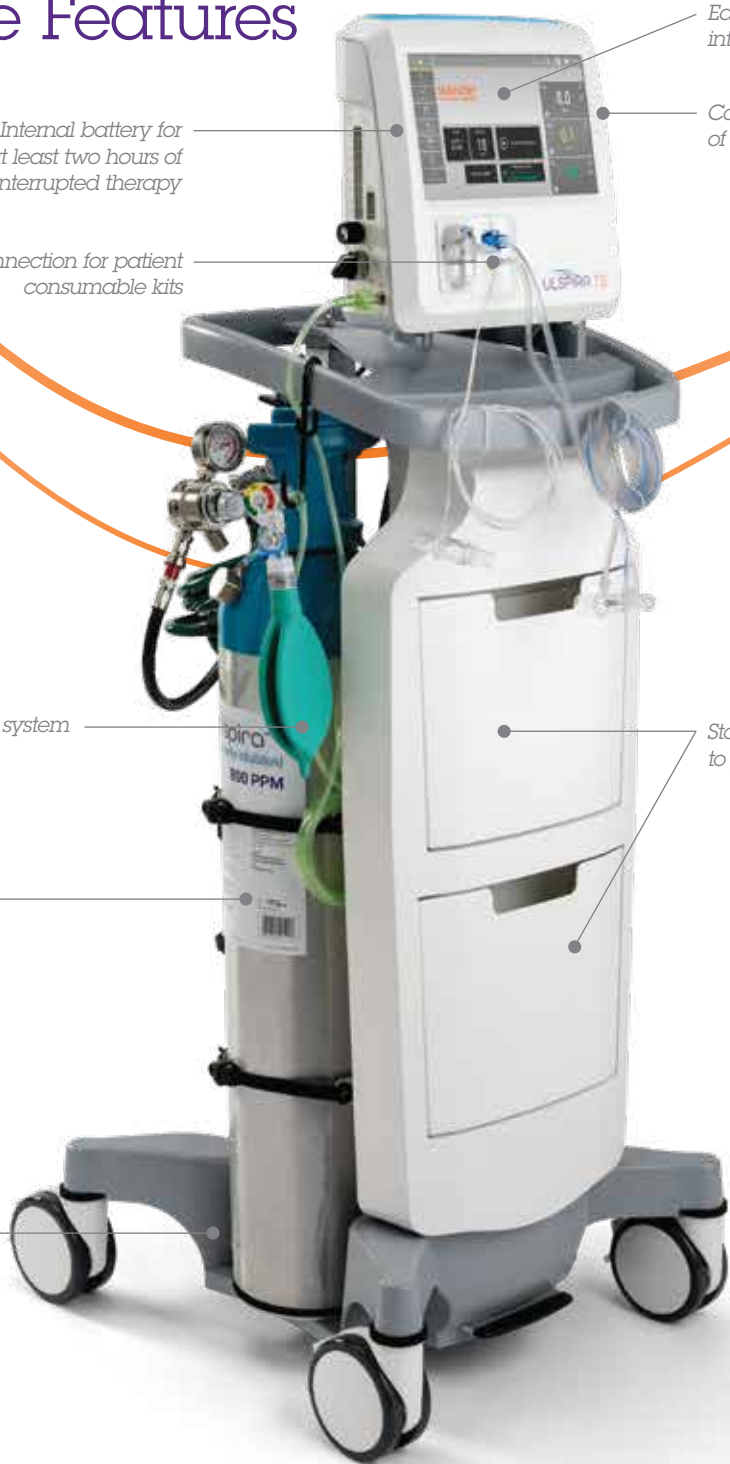
Continuous, integrated monitoring of NO, NO<sub>2</sub> and O<sub>2</sub>

Integrated, pneumatic backup system

Two ULSPIRA (nitric oxide) cylinder connections, 800 ppm concentration

Storage bins for quick and easy access to patient consumable kits

Ergo-friendly cart for easy cylinder replacement



# ULSPIRA TS™

## Simplify Treatment

### Our user-friendly device is designed to make your life easier

The intuitive ULSPIRA TS™ takes the guesswork out of therapy administration to reduce your burden of care in the NICU.

#### Precision features

- Auto Sense and Jet Sense modes track flow measurements from the flow sensor for precise and responsive dosing.
- The low monitoring sample rate minimizes the effect on ventilation.
- A gas-supply calculator allows you to validate how long a cylinder will last, based on ventilatory parameters and the set NO dose.
- An automatic cylinder switch reduces the amount of time needed to monitor and manage drug supply.
- On-screen cylinder status and associated alarms provide drug-supply status.
- The system facilitates weaning with precise dosing in increments of 0.1 ppm under a dose of 10 ppm.

#### Versatile design

- ULSPIRA TS includes an integrated, pneumatic backup for easy access when you need it most.
- Our custom-designed cart holds the full system with easy access to the drug and oxygen supplies.
- A detachable device head mounts either to a bedside cart or bedrail holder, providing uninterrupted treatment during transit situations.
- The system is validated for a wide range of ventilation modes.



#### Helpful capabilities

- Flow waveform and monitoring trend displays provide clear and simple visualizations of essential patient information.
- Two disposable flow sensors are available, for flows ranging from 0.25 - 120 LPM.
- The Pre-Use Check is valid for 12 hours.
- High calibration is performed every three months, or as needed.





# ULSPIRA TS™

## Safeguard Your Patients

### Safety is paramount for fragile newborns

The ULSPIRA TS™ includes critical safety features to ensure your patients receive the right treatment – when they need it.

#### Treatment continuity

- The Emergency Dosing mode delivers a fixed flow of NO targeting 20 ppm to avoid loss of patient therapy in unpredictable situations.
- The automatic cylinder switch ensures drug availability while it reduces the time required to monitor and manage your patient's NO supply.
- Integrated, pneumatic backup provides NO for your patient during hand-bagging, regardless of power loss.
- Independent dosing and monitoring ensure continued, accurate NO dosing, even if you need to interrupt monitoring.

#### Patient protection

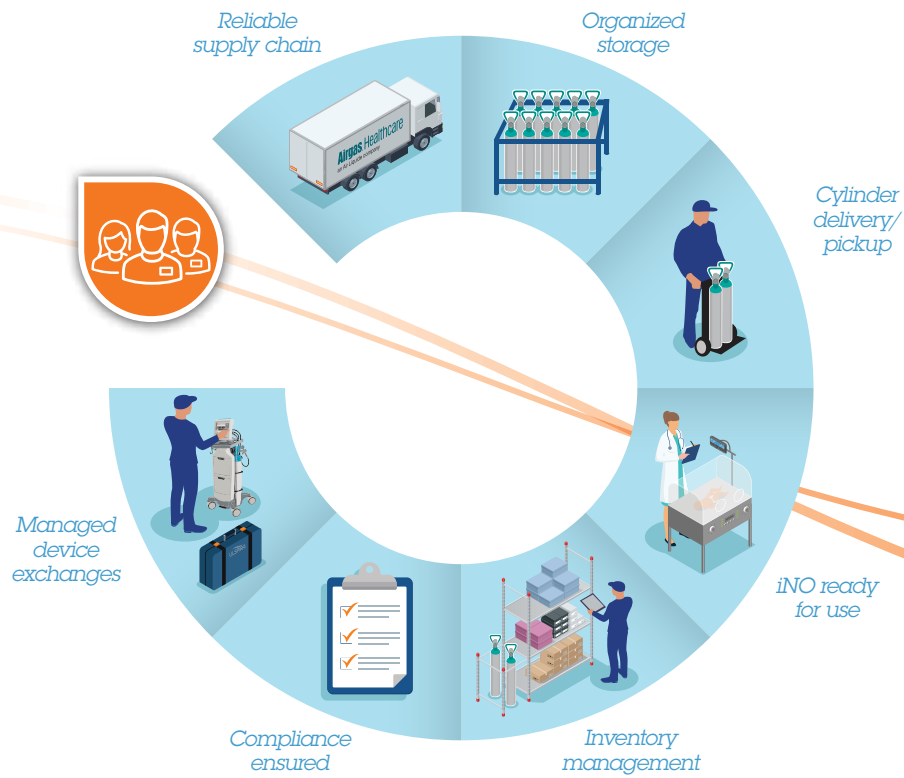
- ULSPIRA TS incorporates a comprehensive alarm system.
- A detailed troubleshooting menu displays for each alarm priority.
- Automatic cylinder purge during the Pre-Use Check and automatic cylinder switching minimize NO<sub>2</sub> exposure to your patient.





# ULSPIRA Care+™

## Customize the Services You Need



### We handle your routine tasks so you can focus on your patients

With ULSPIRA Care+™ you no longer have to worry about checking and maintaining inventory, ensuring devices are ready for treatment or replenishing your gas supply – our team will handle these for you.

### Professional support

ULSPIRA Care+ is an optional program of customizable services designed to reduce your daily workload. Healthcare delivery today is already complex and short-staffed. You have multiple demands on your time and strict requirements to meet regulatory and hospital compliance, all on top of providing patient care. By choosing a highly trained and trusted team to remove your burden of care, there's a lot less to worry about while you treat your patients and focus on their recovery.



Ulspira™  
(nitric oxide for inhalation)  
800 PPM

**Use Only**

For use only in the presence of a healthcare professional. This product is intended for use in the operating room and other areas where the patient is under general anesthesia. It is not intended for use in the home or other non-healthcare settings. The patient must be continuously monitored during the entire procedure. The patient must be placed in the supine position. The patient must be preoxygenated before the start of the procedure. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects.

**WARNING**

This product is a potent vasodilator and may cause hypotension. The patient must be monitored for hypotension during the procedure. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects.

Ulspira™  
(nitric oxide for inhalation)  
800 PPM

**Use Only**

For use only in the presence of a healthcare professional. This product is intended for use in the operating room and other areas where the patient is under general anesthesia. It is not intended for use in the home or other non-healthcare settings. The patient must be continuously monitored during the entire procedure. The patient must be placed in the supine position. The patient must be preoxygenated before the start of the procedure. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects.

**ADVERSE REACTIONS**

Headache, hypotension, hypoxia, and other adverse effects. The patient must be monitored for hypotension, hypoxia, and other adverse effects. The patient must be placed on a ventilator during the procedure. The patient must be monitored for hypotension, hypoxia, and other adverse effects.

**EMPTY**



# ULSPIRA Care+™

## Reduce Your Workload

### Our human solution is the answer to routine tasks

ULSPIRA Care+™ is a unique collection of expanded services to handle necessary but time-consuming administrative work so that you can spend more time with your patients.

Staff shortages, lack of skilled labor and your patient load all take a toll on your entire RT department. Plus, you need to make sure your nitric oxide therapy is always ready to use – which includes cylinder management, device calibration and inventory tracking for all your supplies. But with ULSPIRA Care+, you can utilize Airgas Therapeutics people and resources to save valuable time on these routine tasks.

### Customizable, flexible choices

- Services are custom-designed to meet your department's specific needs.
- Our dedicated onsite resource can perform required high calibration on your ULSPIRA TS™ devices.
- Pre-Use Check performed on device replacements.
- Proactively maintained devices mean no worries about a device being out of service.

### Timely delivery and support

- Inventory administration and management for your iNO drug supply and consumables mean you're always ready to deliver therapy.
- Emergency delivery of devices, parts and cylinders is available.
- In-depth ULSPIRA TS device training is provided by registered RTs.
- 24/7/365 technical support is yours simply by calling 1.833.ULSPIRA.





# ULSPIRA Care+™

## Streamline Treatment Management

### Our unique business model simplifies your administrative tasks

ULSPIRA Care+™ offers a unique patient-tracking model. It eliminates manually counting cylinders, hours and other supplies, to deliver a simplified business model that focuses on per-patient usage. This tracking model also provides data reporting on treatment duration and count, by the device.

#### Patient data tracking

- There's no need for hospital staff to count or track iNO usage.
- Treatment data insights provide a higher visibility of patient care.
- In-depth analysis of patient treatment helps with planning for your RT department's staffing and scheduling.



Inspire breath into life with our user-friendly delivery system and reliable, customizable, onsite service for complete iNO therapy

Always there to help you deliver a higher level of patient care



*Always There*

**Clinical support**

833.ULSPIRA (833.857.7472)

[ulspira.com](http://ulspira.com)

**Customer service**

800.233.4334

**Airgas Therapeutics**

an Air Liquide company

**Rx only**

MCM-ULSBRO 01 © 2024 Airgas, Inc. Printed in the U.S.A.