

NO is an established therapeutic option for patients suffering from Pulmonary Hypertension worldwide

Pulmonary Hypertension Overview

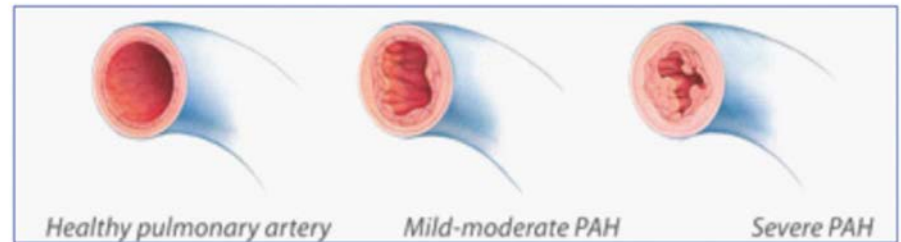
- Life-threatening condition from increased pulmonary vascular resistance resulting in decreased pulmonary blood flow
- Generally not diagnosed until multi-organ system function is affected
- NO is the de facto standard of care for PH in the hospital setting

Benefits of NO in Treatment of PH⁽²⁾

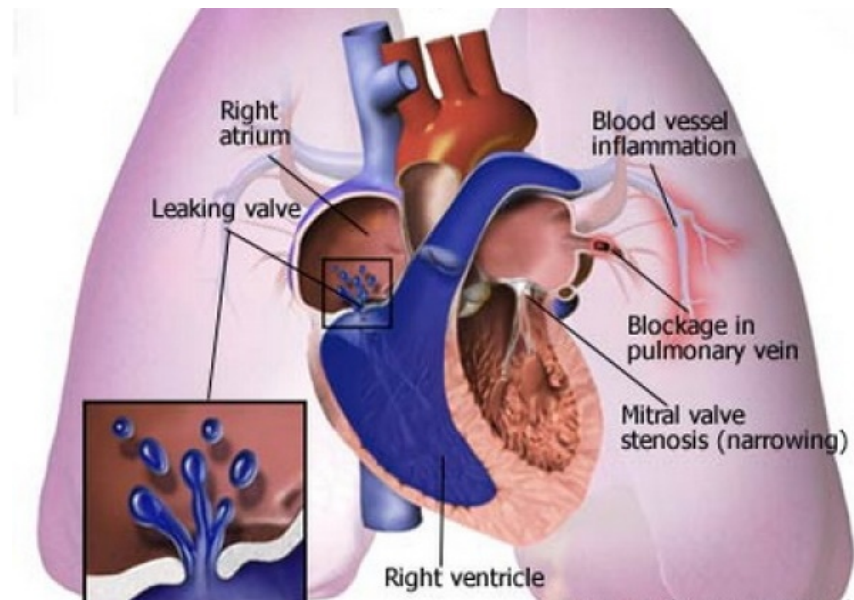
- NO has been used as a long-term therapeutic option for patients with pulmonary hypertension
 - Approved in the U.S. by the FDA in 1999 for PPHN⁽³⁾
 - Approved in the EU in 2001 for PPHN⁽³⁾ and cardiac surgery
- Inhaled NO causes increase in the concentration level of intracellular Cyclic Guanosine Monophosphate (cGMP) and an activation of the soluble guanylate cyclase
 - Causes smooth muscle relaxation, which increases blood flow to the lungs and decreases the workload on the right ventricle.

Effects of Pulmonary Hypertension⁽¹⁾

Narrowing of the Pulmonary Arteries



Failure of Right Ventricle

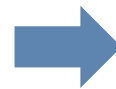


(1) "Pediatric Pulmonary Hypertension" – Guidelines from the American heart Association and American Thoracic Society
(2) Pulmonary Hypertension News – "Pulmonary Hypertension and Nitric Oxide"
(3) Persistent Pulmonary Hypertension of the Newborn

Nitic Oxide US market



- ❖ Approved indication: persistent pulmonary hypertension of the newborn (PPHN)
- ❖ LTM September 2019 Mallinckrodt reported INOmax sales >\$500m¹
- ❖ Praxair expected to enter the market 1H19
 - Praxair system is cylinder based, like INOmax
 - Anticipate rational price decline
- ❖ AIT will expand the market
 - ~800 hospitals have NO today¹ – AirNOvent will allow access to hospitals that do not have NO today due to cylinder system
 - > 1,000 NICUs in the US today²
 - Increase use with a lower cost and ease of use vs. cylinder systems
 - Volume expansion with AirNOvent expected to offset price decline
- ❖ The Bottom Line is that all the problems associated with NO cylinders disappear



TYPICAL NO CYLINDER PROFILE IN THE US:

Height 45", Diameter 7.5", **Weight ~20 kg** (Weight for 2 cylinders on cart w/delivery system is **~75 kg**)

GENERATOR PROFILE:

Height 8", Width 12", Depth 14", **Weight ~7 kg** (Weight on cart with back-up system is **~20 kg**)

(1) MNK Company Reports

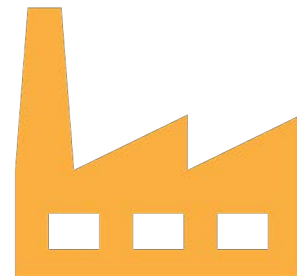
(2) American Academy of Pediatrics, American Hospital Association

Losing the High-Pressure Cylinder is a Significant Gain

Hospitals will have significant cost & logistics Advantages

-  – Improved operating economics for the hospital
-  – No significant capital investment required for hospitals new to NO
-  – No burdensome inventory and storage requirements
-  – NO supplied as a non-hypoxic gas mixture
-  – No purging procedures or additional safety measures due to NO₂ buildup
-  – NO now available to hospitals unable to use NO cylinder systems today
-  – Reduced training burden
-  – Pregnant staff members not impacted

Our device will have significant cost Advantages



AIT does not have any expenses associated with a **manufacturing facility** for nitric oxide



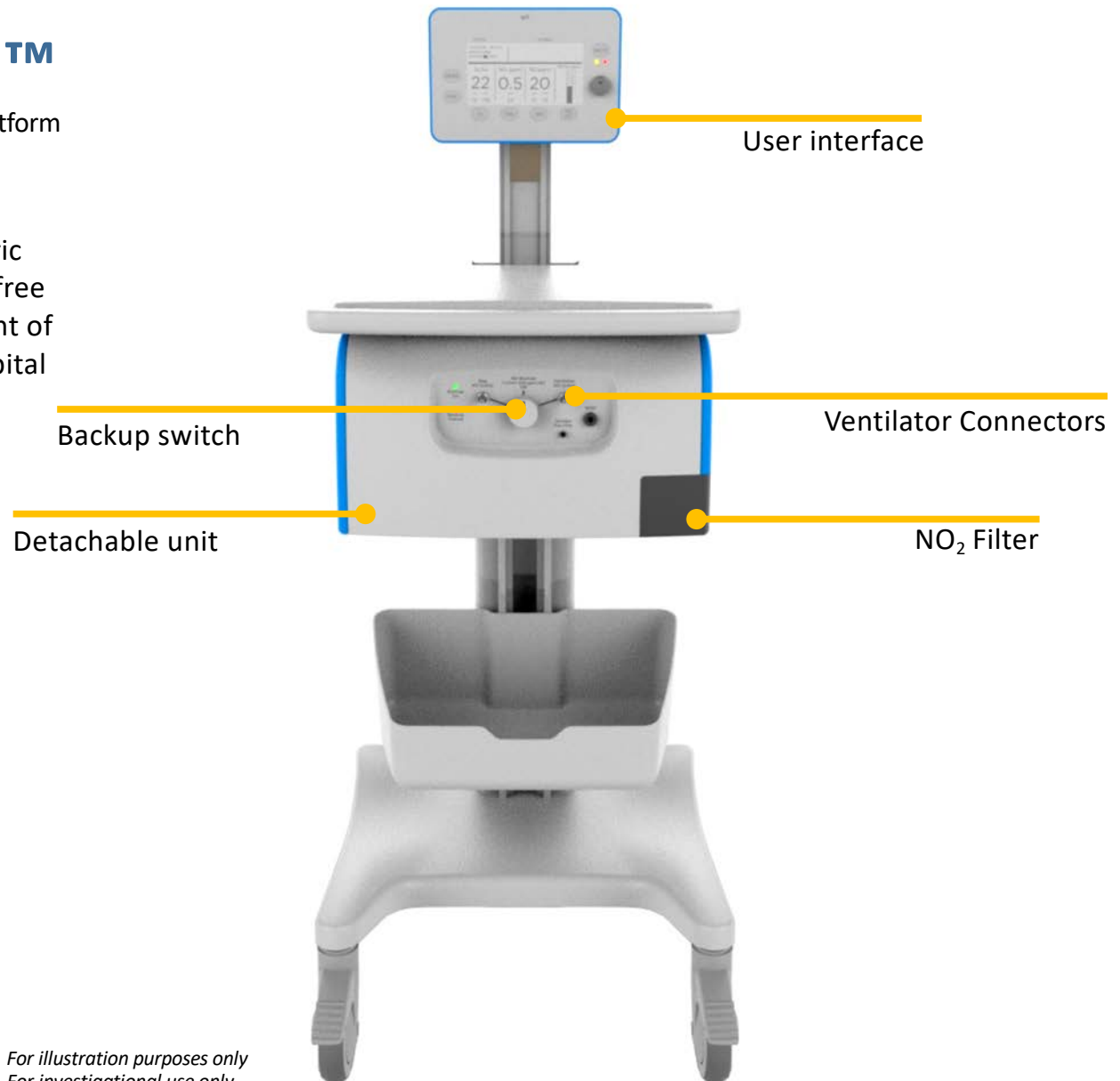
AIT does not have any expenses associated with **logistics** related to nitric oxide cylinders

AirNOvent™

Cylinder Free Nitric Oxide Therapeutic Platform

The next generation phasic flow nitric oxide delivery system. The cylinder free system will be used for the treatment of pulmonary hypertension in the hospital setting.*

* For investigational use only.

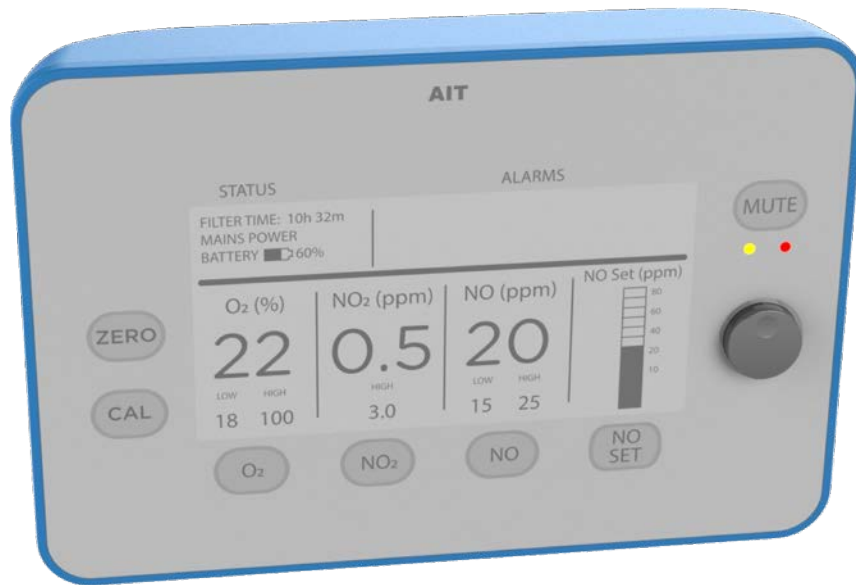


Width: ~0.7 meters
Height: ~1.6 meters
Weight: ~20 kg

*For illustration purposes only
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AirNOvent™

Cylinder Free Nitric Oxide Therapeutic Platform



User Interface

Detachable Unit



*For illustration purposes only
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* AirNOvent may not be the final commercial product name

Circassia: world-class specialty biopharma company, backed by Astra Zeneca



Snapshot

Circassia Pharmaceuticals plc

Status: Public company traded on LON: CIR | Stock Price (01/23/2019): GBP .50

About: Specialty pharmaceutical company founded in 2006. Focused on respiratory diseases based out of the UK.

IPO date: Mar 2014.

Market Cap (01/23/2019): GBP 178.6 M | **Sales (1H 2018):** GBP 28.4 M

Loss (1H 2018): GBP 23.5 M | **Cash in Hand (1H 2018):** GBP 50.8 M

Commercial Team: US = ~200 | **Total Employees:** ~400

Major Shareholders Invesco Asset mgmt., Woodford Investment mgmt., AstraZeneca own about 67%

Direct Sales Force in United States, China and certain European Countries.

| Area of Expertise | Strategic Fit with AirNOvent |
|--|---|
| Respiratory | <ul style="list-style-type: none"> ❖ NIOX <ul style="list-style-type: none"> ○ Used for asthma management ❖ Tudorza <ul style="list-style-type: none"> ○ indicated for the long-term, maintenance treatment of bronchospasm associated with COPD, including chronic bronchitis and emphysema ❖ Duaklir (March 31 PDUFA) <ul style="list-style-type: none"> ○ Acidinium bromide & formoterol fumarate for treating COPD |
| Nitric Oxide | <ul style="list-style-type: none"> ❖ NIOX is a nitric oxide measurement system for monitoring airway inflammation |
| AirNOvent will be a meaningful product | <ul style="list-style-type: none"> ❖ 2018 Circassia company revenues expected to be \$62m - \$67m ❖ Two currently marketed products with a third expected later in 2019 ❖ Currently a small hospital presence ❖ Just rolling out commercial infrastructure in China |
| Exposure to US hospitals | <ul style="list-style-type: none"> ❖ NIOX is detailed in the hospital and there is significant overlap in the US with top hospitals that use NO today |

Key Terms

- ❖ \$32.55 million in Total Milestones and 15-20% Royalty

 - ❖ Royalties to AIT on Gross Profit
 - 5% on the first \$50 million in the US (one time)
 - 5% on the first \$20 million in China (one time)
 - 15% up to \$100m annually (US & China combined)
 - 20% above \$100m annually (US and China combined)
 - Gross profit defined as net sales less only the cost of AirNOvent and NO₂ filters

 - ❖ PMA filing with FDA is anticipated in the Second Quarter 2019

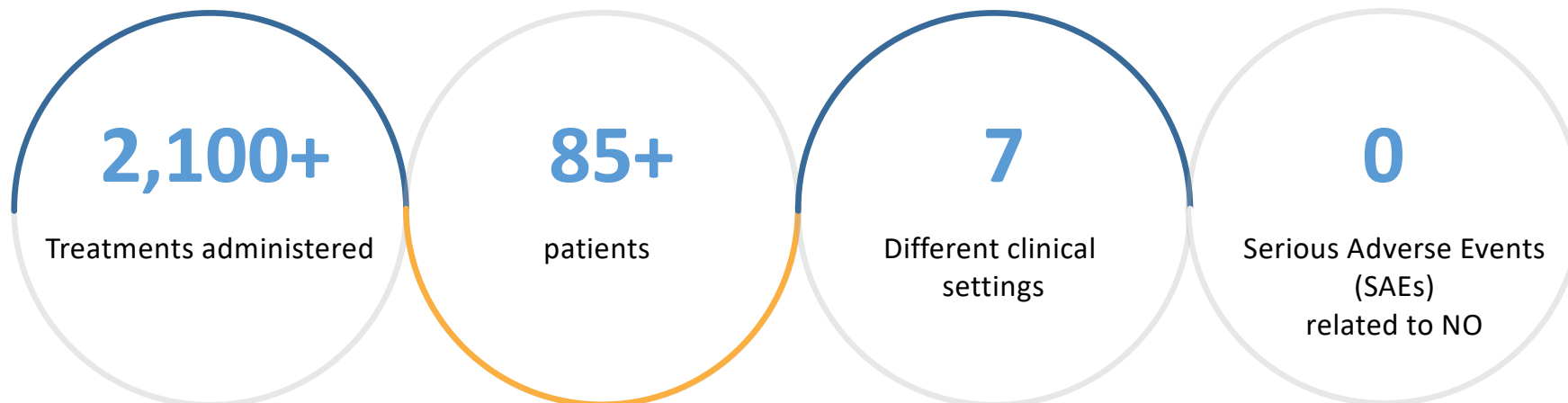
 - ❖ US commercial launch planned First Half 2020
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High Concentration NO Delivery Opportunities

- Bronchiolitis
- Non Tuberculous Mycobacteria (NTM)

Our Nitric Oxide Delivery System Has a Demonstrated Safety Record at a concentration of 160 ppm NO



| Date | Study | Indication | Primary | Results |
|-------------|---|---------------------------------|-------------------|---|
| 2011 | Phase 1 Safety (n=10) | All comers | Safety | <ul style="list-style-type: none"> • No SAEs |
| 2013 – 2014 | Phase 2 double blind randomized (n=43) | Bronchiolitis (all causes) | Safety & Efficacy | <ul style="list-style-type: none"> • No SAEs • Hospital length of stay reduced by 24 hours in hospitalized infants |
| 2013 - 2014 | Phase 2 open label (n=9) | Cystic Fibrosis (CF) | Safety & Efficacy | <ul style="list-style-type: none"> • No SAEs • Lowered bacterial load |
| 2016 | Compassionate use Israel (n=2) | NTM in CF patients | Efficacy | <ul style="list-style-type: none"> • No SAEs • Improvements in clinical & surrogate endpoints |
| 2017 | Compassionate use National Institute of Health (n=1) | NTM in CF patient | Efficacy | <ul style="list-style-type: none"> • No SAEs • Improvements in clinical endpoints |
| 2017 | Pilot open label (N=9) | Refractory NTM <i>abscessus</i> | Safety | <ul style="list-style-type: none"> • No SAEs • Improvements in clinical & surrogate endpoints |
| 2018 | Pilot study: double blind randomized (n=67) | Bronchiolitis (all causes) | Efficacy | <ul style="list-style-type: none"> • No SAEs • 23 hour reduction in hospital length of stay |