



COMEN

——— Share With The World ———

NF5

High Flow Heated Respiratory Humidifier

International Marketing Dept.
Barry

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Clinical Knowledge of HFNC

What is HFNC

Provide a **certain flow, heated and humidified fresh gas** for treatment, and provide SpO2 monitoring. For patients with **spontaneous breathing**, these patients include patients with humidification therapy, oxygen therapy, tracheal intubation and tracheotomy.

Syndrome

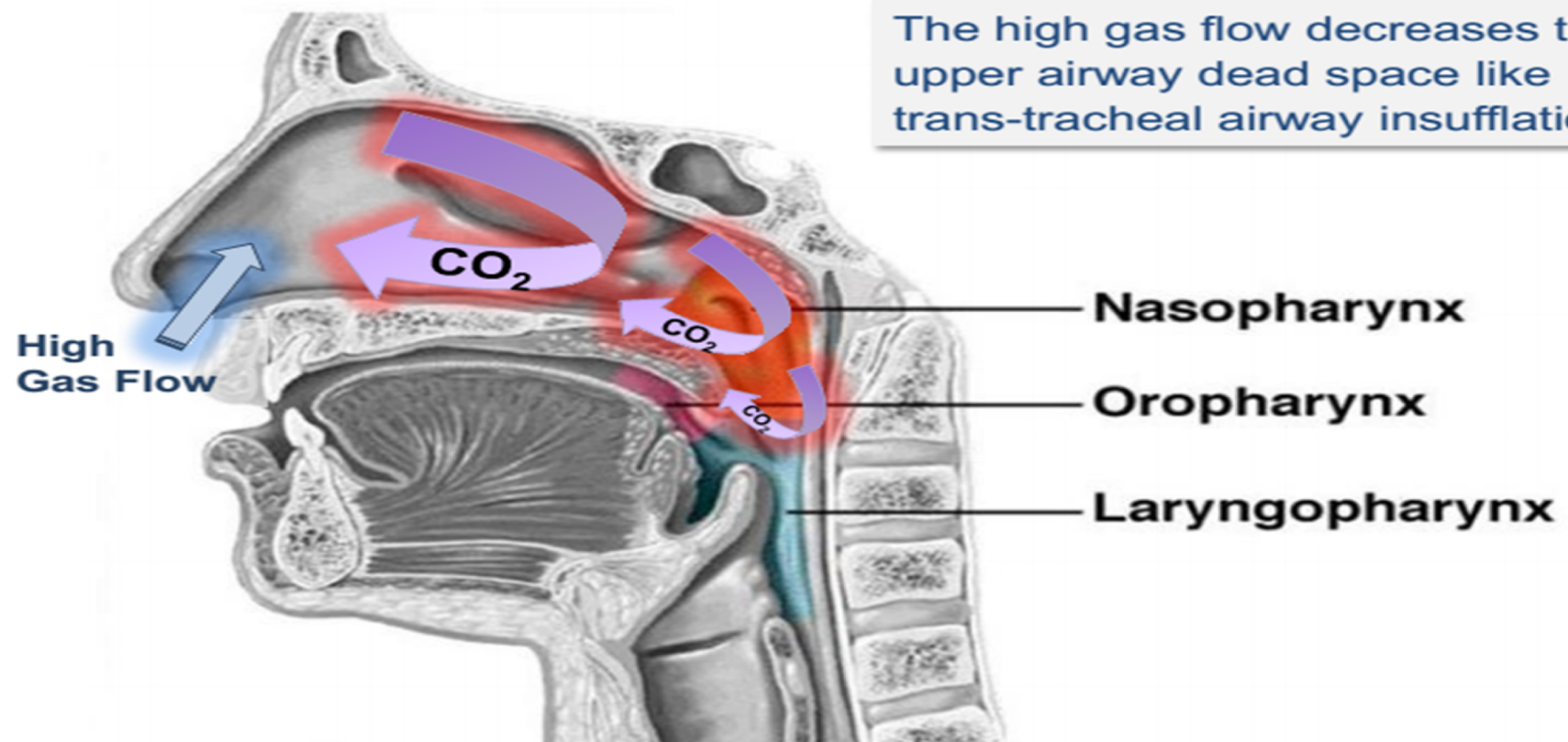
Memory respiratory failure (hypoxic)
During tracheal intubation
Post-extubation stage
Emergency application

Palliative care
Acute heart failure
Auxiliary bronchoscopy
Cardiothoracic surgery



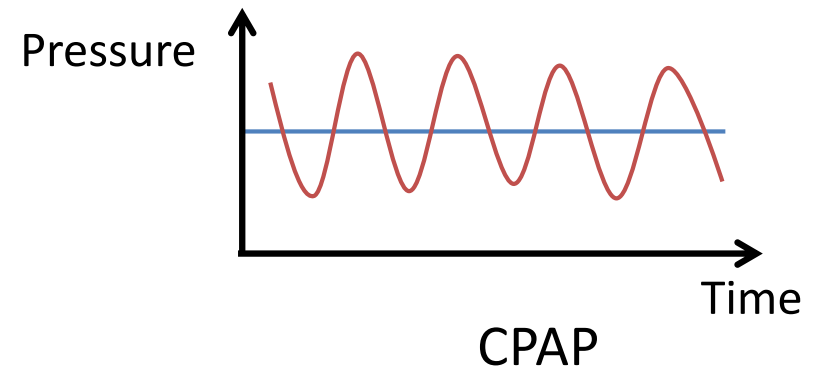
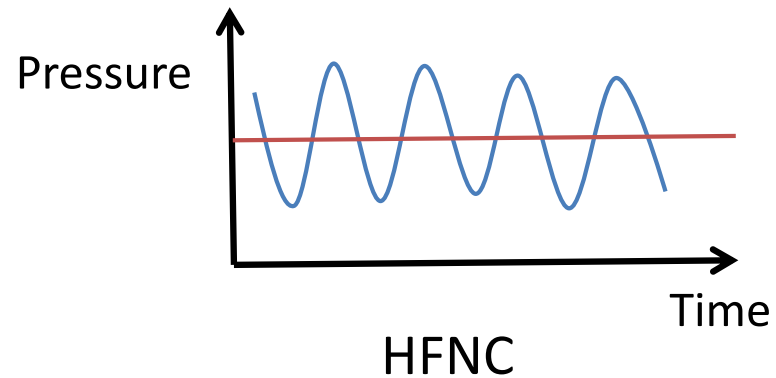
Washout of nasopharyngeal dead space

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HFNC VS CPAP

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— Flow
— Pressure

HFNC generates variable airway pressure through a constant flow rate of fresh gas
CPAP is to generate constant airway pressure by changing the flow rate of fresh gas

Application scenarios

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Respiratory
department



ICU



Emergency



O.R.



Neurology



Neurosurgery



Geriatrics



Cardiology



Pediatrics



Rehabilitation

Applicate in variety of scenarios

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Product introduction

Differences between NF series

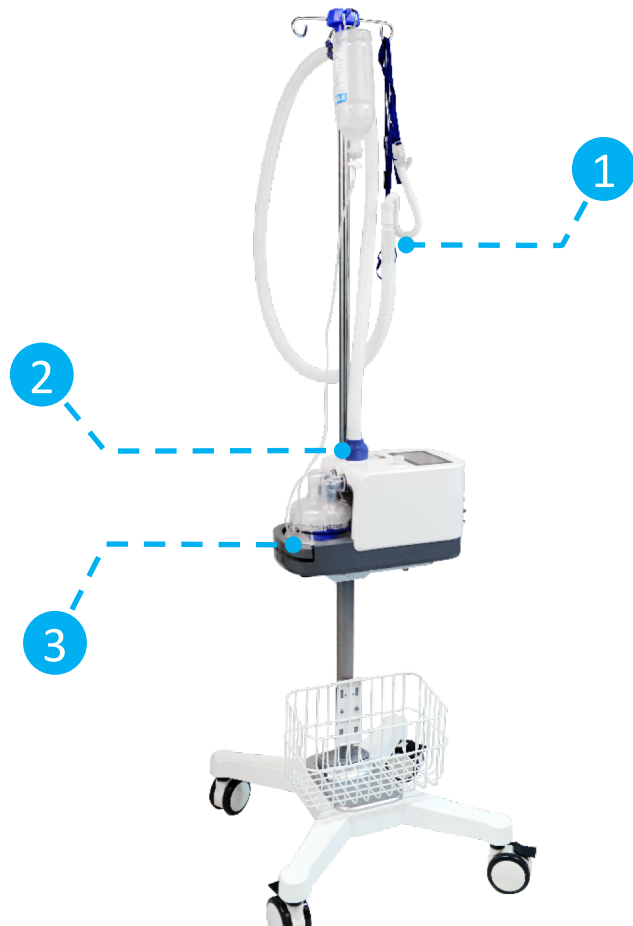
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| Model Item | NF1 | NF2 | NF3 | NF5 |
|----------------------|------------|------------|------------|------------|
| Air-oxygen mixer | mechanical | electronic | electronic | electronic |
| Temperature position | 3 | 3 | 7 | 7 |
| SpO2 | optional | optional | optional | optional |
| Flush oxygen supply | X | √ | √ | √ |
| Built-in battery | optional | optional | X | optional |

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Advanced features

Safety guarantee



Multiple temperature monitoring

NF Series equipped with **three temperature sensors**, real-time temperature monitoring, **synchronous closed-loop feedback**, combined **high temperature alarm**, **intelligent water level management** and over-temperature protection functions to ensure safer heating

More comfortable treatment



High-performance
nasal cannula

Ergonomic design, **soft and comfortable**, no pressure, increase patient comfort, and patient tolerance



Ultra-quiet turbines

The use of **ultra-quiet turbines** greatly reduces noise, provides a quiet oxygen therapy environment, and helps patients reduce irritability

Efficient oxygen supply

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Flush oxygen supply

Rapidly increase oxygen concentration, increase patient oxygen reserve, and facilitate nursing operations such as sputum suction, bronchoscopy, and intubation



High-precision control of oxygen concentration

Adopt high-precision electronic air-oxygen mixing system and precise oxygen concentration monitoring module to realize precise regulation and real-time monitoring of oxygen concentration



31°C~37°C

Intelligent temperature and humidity control

Through intelligent temperature and humidity monitoring and closed-loop feedback mechanism, NF5 provides patients with accurate high-flow oxygen therapy close to the human **core body temperature** (37°C) and **100% relative humidity** (44mg/L), making the mucus cilia cleaning function at its best

SpO2 monitoring

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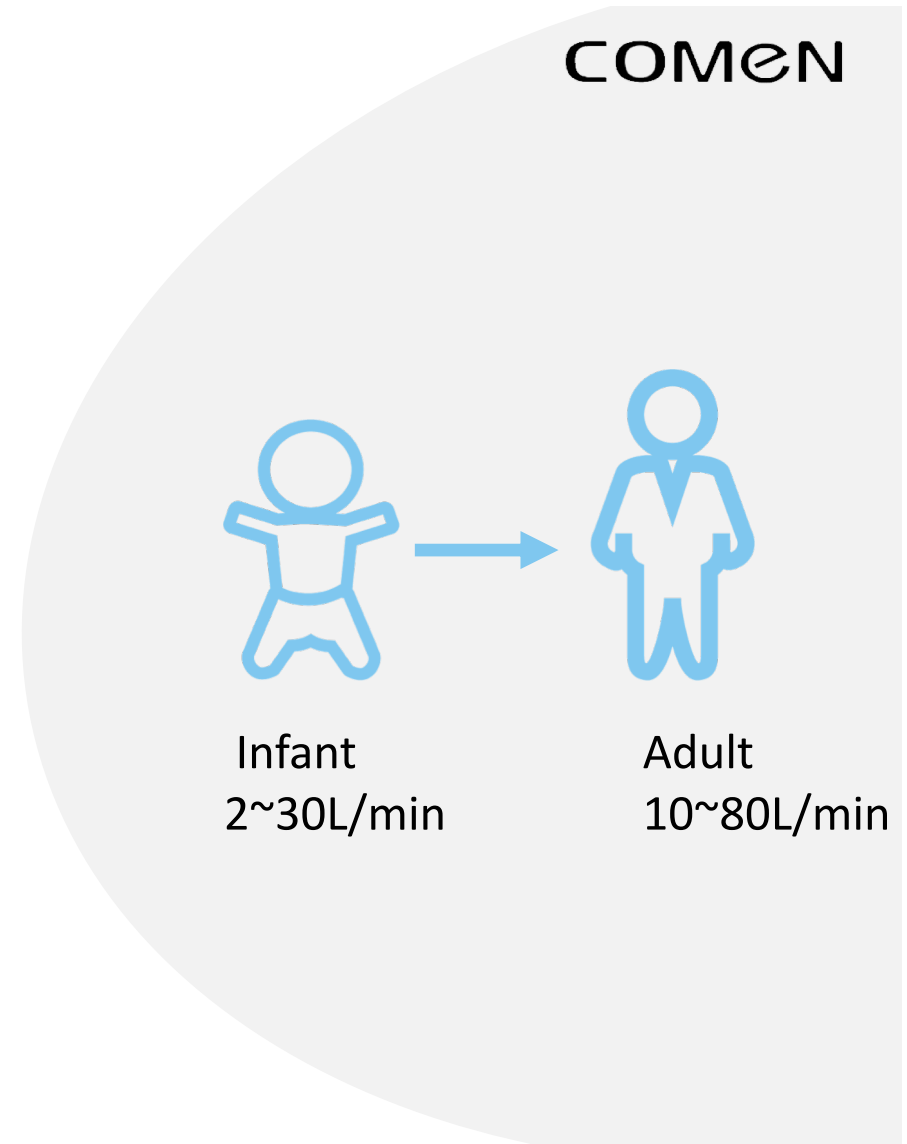
SpO2 monitoring

- Optional: Comen, Masimo or Nellcor SpO2 module
- **Real-time** updates of the patient's blood oxygen concentration, easy to evaluate the therapeutic effect of HFNC, so that doctors can optimize the treatment plan in time

Wide range of patient types

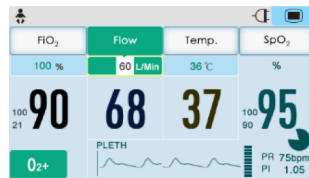
Suitable for treatment from
infant to adult

Wide range flow control of **2-80L/min**, which can effectively flush out the physiological anatomical dead space, prevent carbon dioxide retention, meet the treatment requirements of infant to adult, and is suitable for clinical patients of different ages



Easy of use

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Large touch screen

NF5 adopts a 4.3-inch touch screen, controlled by touch screen or round knob, easy and practical

Electronic mixer

Flow and oxygen concentration setting more convenient, supplying fresh gas on demand

Excellent design

The UI design is simple and intuitive, and the content is lucid, makes clear, able to quickly find what you need

Intra-hospital transportation

COMeN

High performance
turbine, No compressed
air source is required

Medical Trolley,
make Intrahospital
transport easier

Built-in battery,
meet power supply
demand in transport



Mobile solutions

How can HFNC work for the nCOVID-19 mild cases?

“Give supplemental oxygen therapy immediately to patients with SARI and respiratory distress, hypoxemia or shock and target SpO₂ > 94%.”
--Clinical management of *severe acute respiratory infection* (SARI) when COVID-19 disease is suspected Interim guidance, WHO



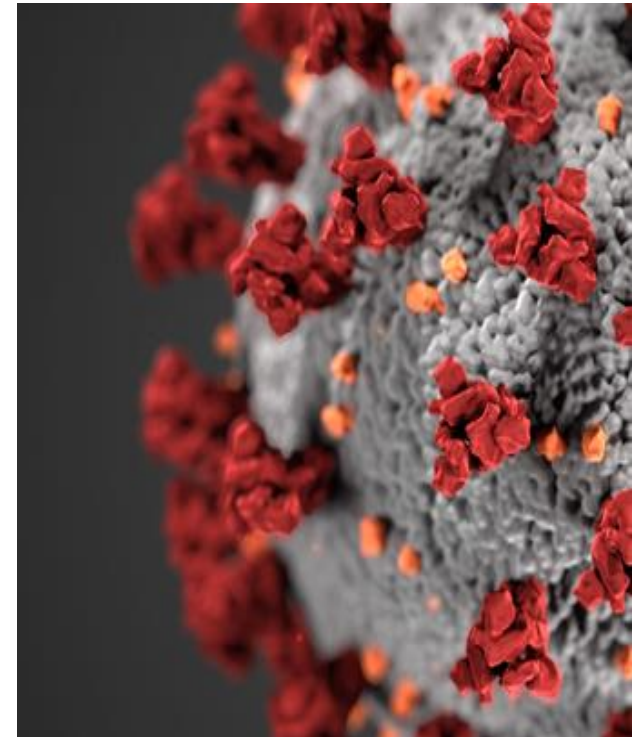
Situation

Severe patients often have hypoxemia and respiratory distress. Notes for usage
A correct respiratory treatment is necessary.



Recommendation

High-flow nasal cannula (HFNC) therapy is highly recommended by Handbook of Covid-19 Prevention and Treatment.



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Competitor analysis





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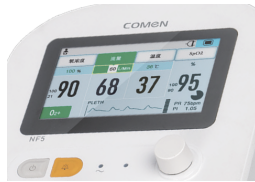
VS



VAPOTHERM

| Specification | NF5 | Precision Flow (Heliox) |
|-------------------|--|---|
| Picture |  |  |
| Screen | 4.3 inch touch screen | Backlit screen |
| Flow rate | 2-80L/m | 1-40L/m |
| Data Export | USB | NO |
| Turbine | YES | NO |
| Temp Adjust Level | 7 | 11 |
| Unique Functions | SpO2, O2 Flush, Trend review, Auxiliary O2 | Heliox Therapy, Hi-VNI Technology |

COMEN VS VAPOTHERM



NF5



Precision flow

Convenience

- NF5 has larger screen with touch function, providing numeric display and waveform display.
- Trend review supporting.



SpO2 monitoring

NF5 provide SpO2 function as optional for monitoring the SpO2 of patient, which will help doctor to optimize the treatment.



NF5

Intra-hospital transportation

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Precision flow

- Turbine Design: no requirement of Air source
- Built-in battery: provide power supply
- Compact and portable trolley: platform of transportation

COMEN VS VAPOTHERM



Solution



- Comprehensive Solution for Intensive Care Unit (ICU) .
- Able to provide a great range of products in ICU including Ventilator, Patient Monitor, Infusion and Syringe Pump, Pendant.

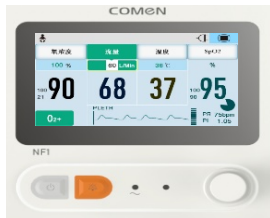
COMEN is the only 4 manufacturers in the world that can provide comprehensive ICU solution

COMEN

vs

Fisher & Paykel
HEALTHCARE

| Specification | NF5 | Airvo 2 TM |
|---------------------|--|---|
| Picture |  |  |
| Screen size | 4.3 inch touch screen | 2" |
| Flow rate | 2-80L/m | 1-60L/m |
| Battery | 30mins | × |
| Temp | 31~37°C(7 levels adjustable) | 31°C, 34°C, 37°C(3 levels) |
| Turbine | YES | NO |
| Accuracy of O2 | ±3% | ±4% |
| SpO2 | COMEN, MASIMO, NELLCOR | × |
| Trend | 7 days (168h) graphical and tabular trend | × |
| Auxiliary O2 supply | √ | × |
| Timer | √ | × |



Convenience

- NF5 has larger screen with touch function, providing numeric display and waveform display.
- Trend review supporting.



Unique function of NF5

- SpO2 monitoring integrated
- 7 days of graphical and tabular trend review
- Auxiliary O2 supply (30L/Min)
- O2 flush

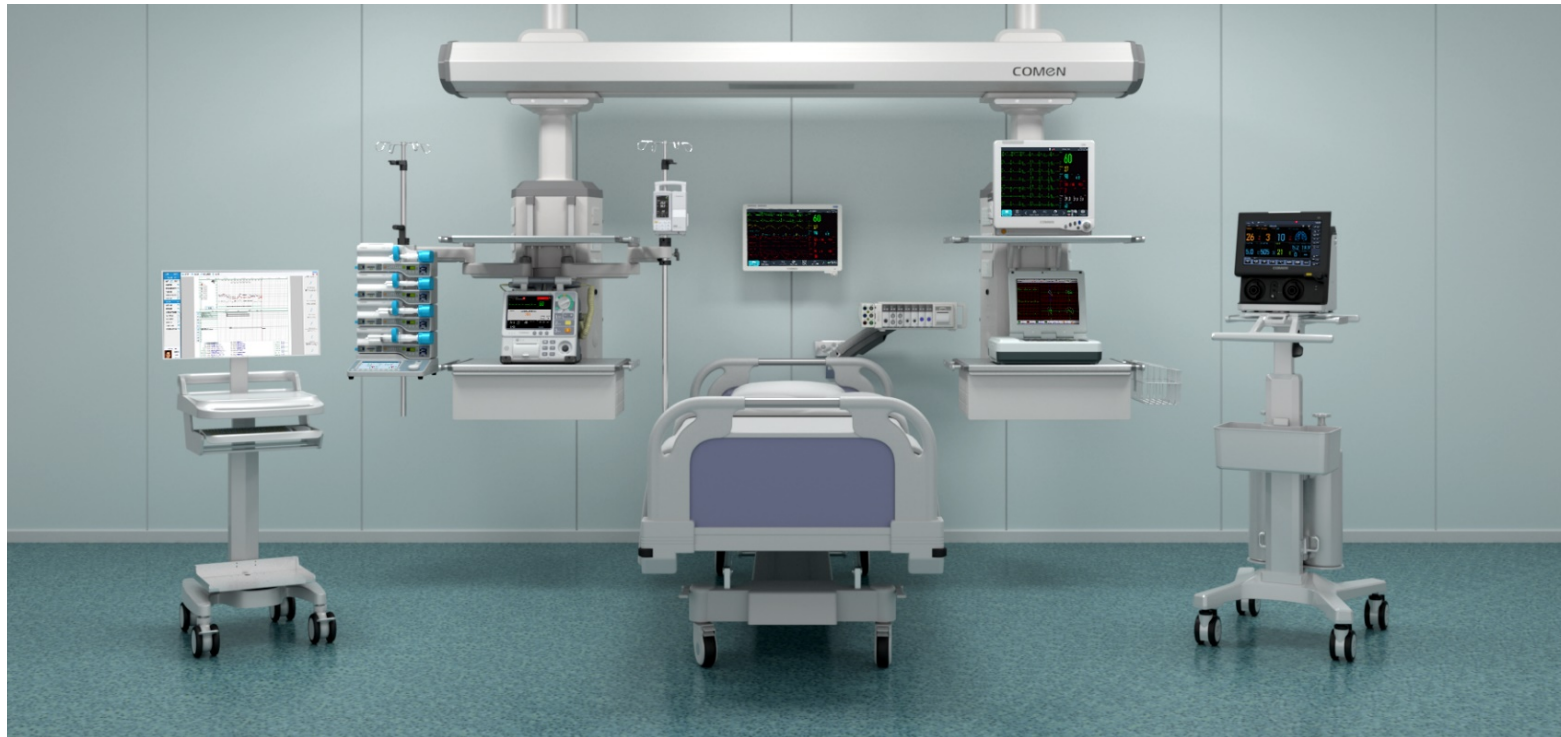
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Intra-hospital transportation

- Turbine Design: no requirement of Air source
- Built-in battery: provide power supply
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COMEN vs Fisher & Paykel HEALTHCARE



Solution

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vs





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VS



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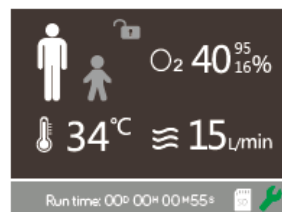
| Specification | NF5 | Vincent Medical O2FLO |
|----------------------------------|--|---|
| Picture |  |  |
| Screen size | 4.3 inch touch screen | 2.8" |
| Flow rate | 2-80L/m | 10-60L/m |
| Battery | 30mins | Yes |
| Temp | 31~37°C(7 levels adjustable) | 31°C~ 37°C |
| O2 Concentration | 21-100%, $\pm 3\%$ | 21-95%, $\pm 5\%$ |
| SpO2 Monitoring | COMEN, MASIMO, NELLCOR | × |
| O2 Flush | √ | × |
| Auxiliary O2 supply (30L/Min) | √ | × |
| External O2 flowmeter | No need | Mechanically adjust the O2 flow rate |

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VS

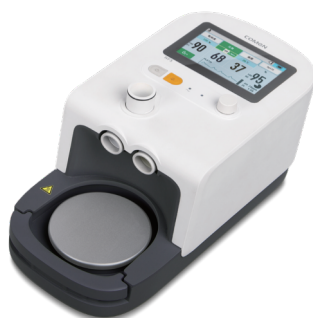


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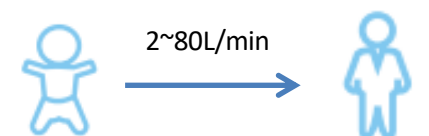
Convenience

- NF5 has larger screen with touch function, providing numeric display and waveform display.
- Trend review supporting with waveform.



Unique function of NF5

- SpO2 monitoring integrated
- Auxiliary O2 supply (30L/Min)
- O2 flush
- ...



Wide range of flow control

- NF5 provides 2~80L/min, which satisfies the requirement of O2 treatment from infant to adult
- According to the "Expert Consensus on the Application of Adult HFNC Clinical Norms" in China, the range of new requirement for O2 therapy is 8~80L/min, which Vincent can't meet it

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VS

inspired
breathing life

Vincent
Medical



Solution

- Comprehensive Solution for Intensive Care Unit (ICU) .
- Able to provide a great range of products in ICU including Ventilator, Patient Monitor, Infusion and Syringe Pump, Pendant.

COMEN is the only 4 manufacturers in the world that can provide comprehensive ICU solution

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VS

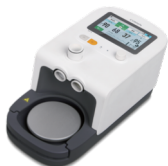



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VS

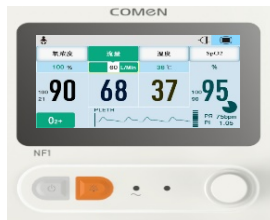


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| Specification | NF5 | Sepray OH-70C |
|----------------------------------|--|---|
| Picture |  |  |
| Screen | touch function with waveform display | numeric display only without touch screen |
| Flow rate | 2-80L/m | 2-70L/m |
| Battery | 30mins | × |
| Temp | 31~37°C(7 levels adjustable) | 31°C~ 37°C |
| O2 Concentration | 21-100%, ±3% | 21-100%, ±5% |
| SpO2 Monitoring | COMEN, MASIMO, NELLCOR | × |
| O2 Flush | √ | × |
| Auxiliary O2 supply (30L/Min) | √ | × |

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VS



Convenience

- NF5 has **touch screen** with **numeric and waveform** display, easy for operation and observation.
- Trend review supporting with waveform.

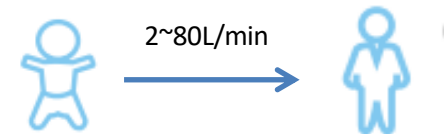


Unique function of NF5

- SpO2 monitoring integrated
- Auxiliary O2 supply (30L/Min)
- O2 flush

...

COMEN

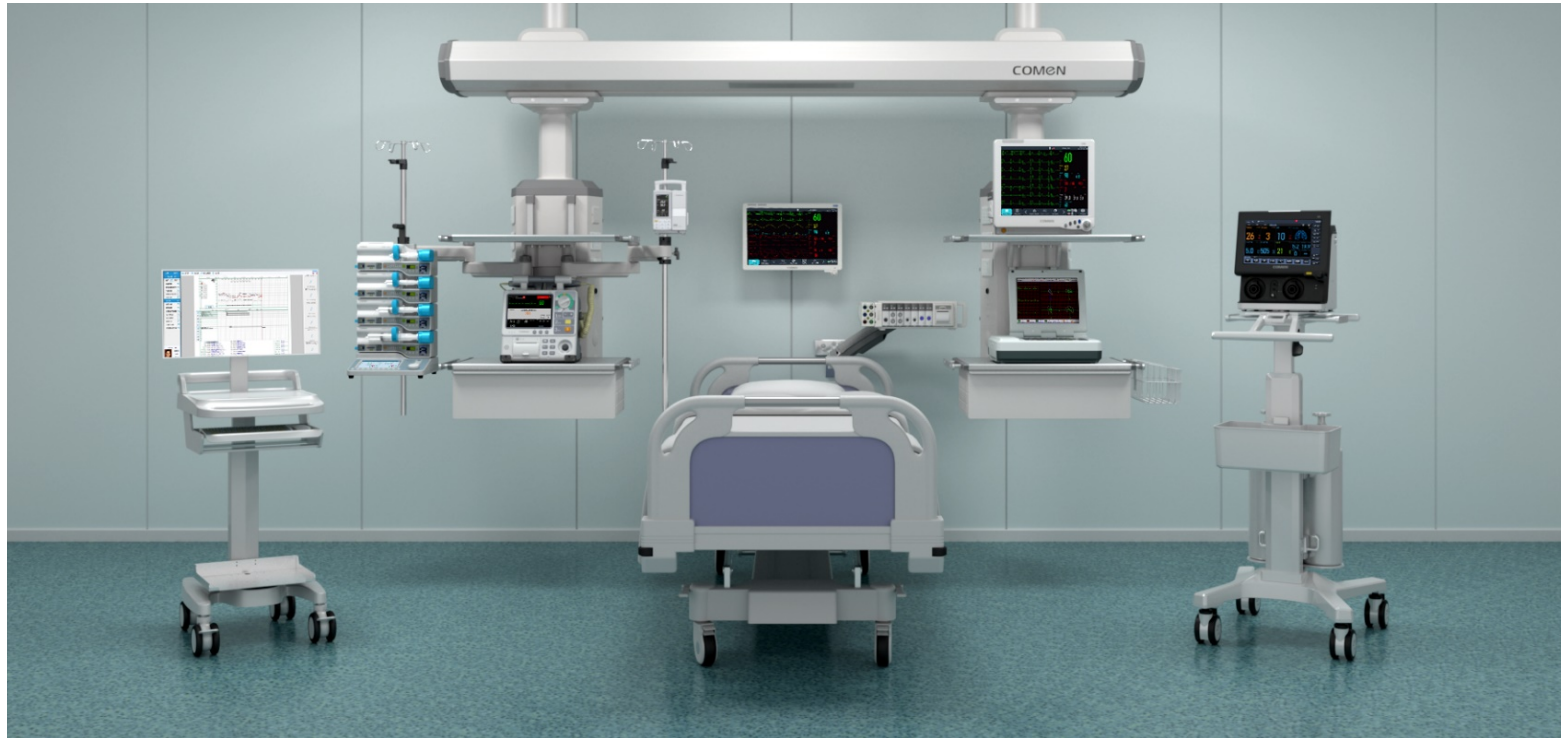


Wide range of flow control

- NF5 provides 2~80L/min, which satisfies the requirement of O2 treatment from infant to adult
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VS



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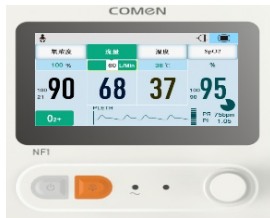
COMEN

vs



| Specification | NF5 | H-80AS |
|---------------------|--|---|
| Picture |  |  |
| Screen size | 4.3 inch touch screen | 3.5" |
| Flow rate | 2-80L/mim | 2-80L/mim |
| Battery | 30mins | -- |
| Temp | 31~37°C(7 levels adjustable) | 29~37°C(9 levels adjustable) |
| Turbine | YES | YES |
| Accuracy of O2 | ±3% | ±5% |
| SpO2 | COMEN, MASIMO, NELLCOR | × |
| Trend | 7 days (168h) graphical and tabular trend | 7 days (168h) graphical and tabular trend |
| Auxiliary O2 supply | √ | × |
| Timer | √ | × |

COMEN vs BMC



Convenience

- NF5 has larger screen with touch function, providing numeric display and waveform display.



Unique function of NF5

- SpO2 monitoring integrated
- Auxiliary O2 supply (30L/Min)
- O2 flush
- ...

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Intra-hospital transportation

- Turbine Design: no requirement of Air source
- Built-in battery: provide power supply
- Compact and portable trolley: platform of transportation



Solution



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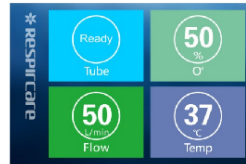
COMEN

VS

 **RESPIRCARE**

| Specification | NF5 | HUMID-BM |
|---------------------|--|---|
| Picture |  |  |
| Screen size | 4.3 inch touch screen | 3.5" no touch screen |
| Flow rate | 2-80L/mim | 2-80L/mim |
| Battery | 30mins | -- |
| Temp | 31~37°C(7 levels adjustable) | 31~37°C(3 levels adjustable) |
| Turbine | YES | YES |
| Accuracy of O2 | ±3% | ±3% |
| SpO2 | COMEN, MASIMO, NELLCOR | × |
| Trend | 7 days (168h) graphical and tabular trend | × |
| Auxiliary O2 supply | √ | × |
| Timer | √ | × |

COMEN vs RESPIRCARE



Convenience

- NF5 has larger screen with touch function, providing numeric display and waveform display.



Unique function of NF5

- SpO2 monitoring integrated
- Auxiliary O2 supply (30L/Min)
- O2 flush
- ...

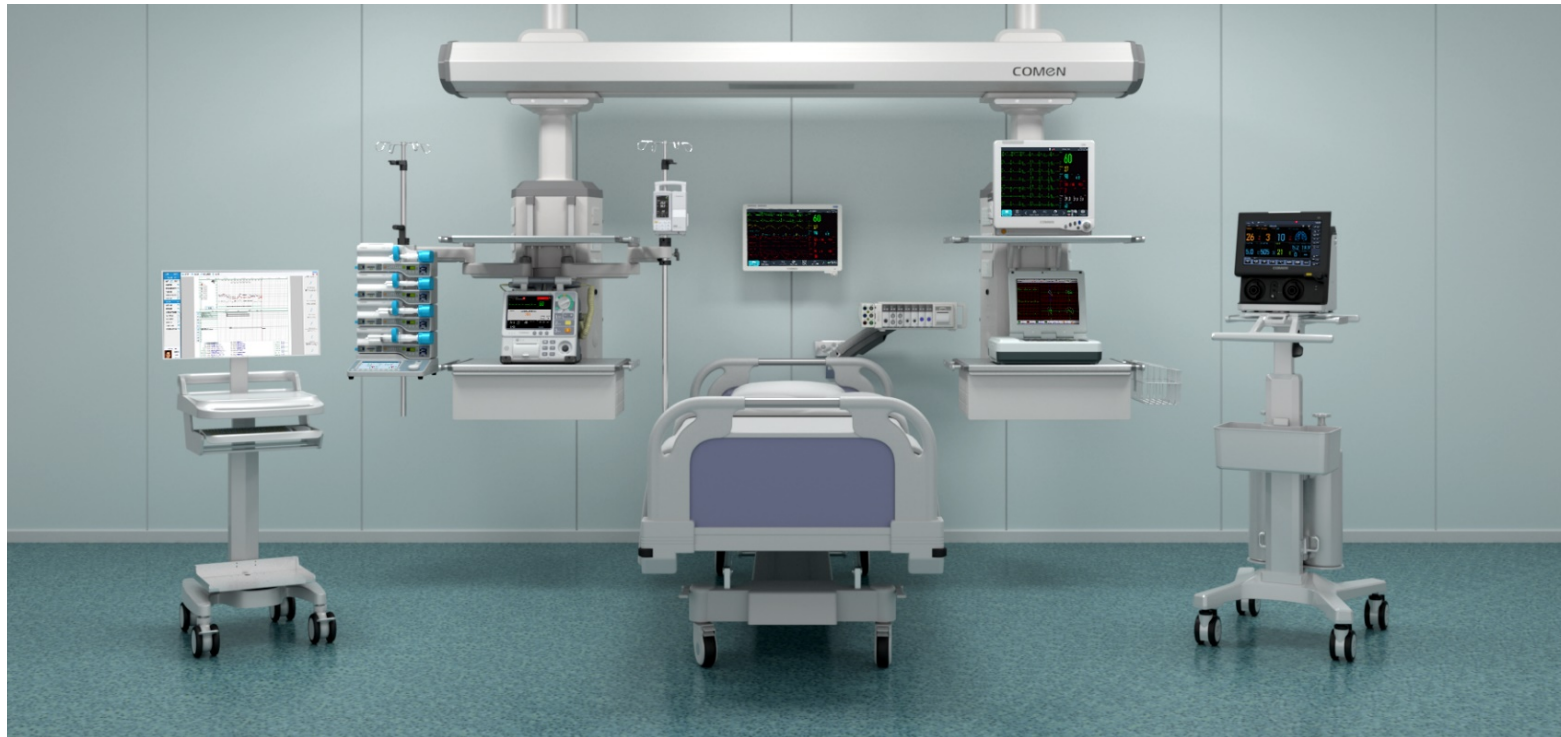
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COMEN vs RESPIRCARE



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COMEN is the only 4 manufacturers in the world that can provide comprehensive ICU solution



COMEN

vs

yuwell 鱼跃

COMEN vs yuwell 鱼跃

COMEN

| Specification | NF5 | HF-75A |
|---------------------|--|---|
| Picture |  |  |
| Screen size | 4.3 inch touch screen | 7 inch touch screen |
| Flow rate | 2-80L/mim | 2-75L/mim |
| Battery | 30mins | -- |
| Temp | 31~37°C(7 levels adjustable) | 31~37°C |
| Turbine | YES | YES |
| Accuracy of O2 | ±3% | -- |
| SpO2 | COMEN, MASIMO, NELLCOR | -- |
| Trend | 7 days (168h) graphical and tabular trend | -- |
| Auxiliary O2 supply | √ | -- |
| Timer | √ | -- |

COMEN vs yuwell 鱼跃



Unique function of NF5

- SpO2 monitoring integrated
- Auxiliary O2 supply (30L/Min)
- O2 flush
- ...

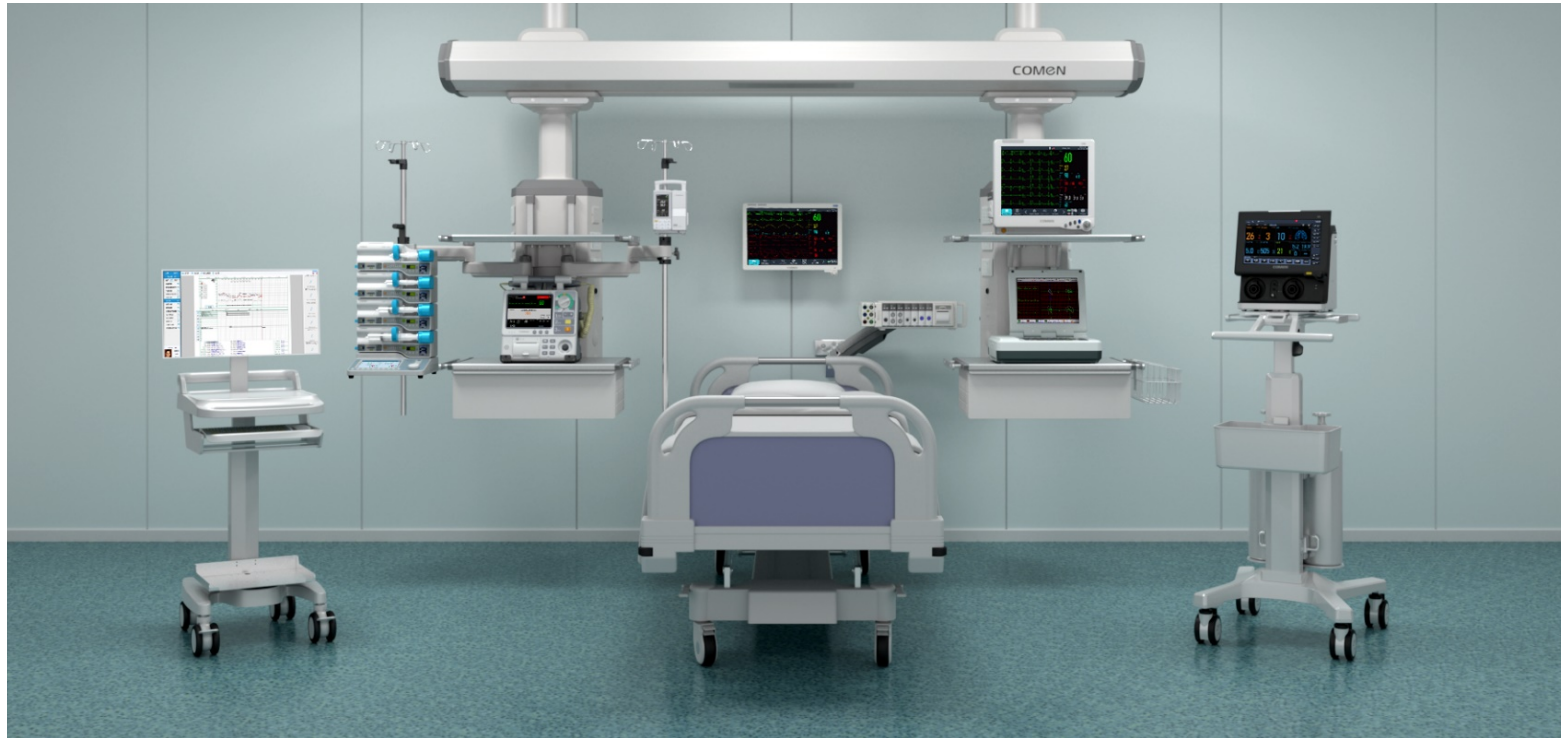
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COMEN vs yuwell 鱼跃



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