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Philips V60 Plus
Philips AC611

Hospital Respiratory Care
September 2018

innovation you

Objectives

- Review the evidence-based approaches for the treatment of acute respiratory failure
- Introduce Philips V60 Plus & AC611 high flow nasal cannula (HFNC)
- Clinical dilemmas
- Smooth transition NIV – HFT – NIV
- How V60 Plus and AC611 fits in your treatment strategies

Review of evidence-based approaches for the treatment of ARF

Executive summary of the current landscape

Noninvasive clinical scenario	NIV	HFNC
COPD exacerbation (pH 7.25–7.35)		
Community-acquired pneumonia		
Immunocompromised patients		
Hypoxemic respiratory failure		
PaO_2/FiO_2 200-300		
PaO_2/FiO_2 < 200		
Cardiogenic pulmonary edema		
Post-extubation for high-risk patients (immediately post)		
Post-extubation with COPD (early liberation)		
Postoperative patients		

- Highly recommended
- Recommended
- Mixed evidence
- Inferior
- No data
- High risk

Recommendation based on the author's review of the currently available literature, including existing guidelines.

* Mixed evidence exists in this category, without a clear consensus in the literature. Monitor patients closely and consider the presence of other risk factors.

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NIV

- COPD Exacerbation hypercapnic respiratory failure
- Cardiogenic Pulmonary Edema
- Weaning
- Immunosuppressed
- At risk COPD, post-extubation
- Chest trauma, palliative care, post-op

*Enhances ventilation (tidal volume) and oxygenation (alveolar recruitment)

HFT

- COPD exacerbation -hypoxemic respiratory failure
- Pneumonia, Mild ARDS
  - De novo hypoxemic respiratory failure

*Flush deadspace, provides positive end expiratory pressure
*Meet or exceed patient's inspiratory flow demand while delivering the prescribed FiO_2

What is high flow therapy?

- Meets or exceeds inspiratory flow demand
- Requires heating and humidification
- Delivers a wide range of FiO_2
- Provides a small PEEP effect
- Washes out CO_2 from anatomical deadspace

What we know

68%

Clinicians report using NIV & HFT on the same ARF patient. [1]

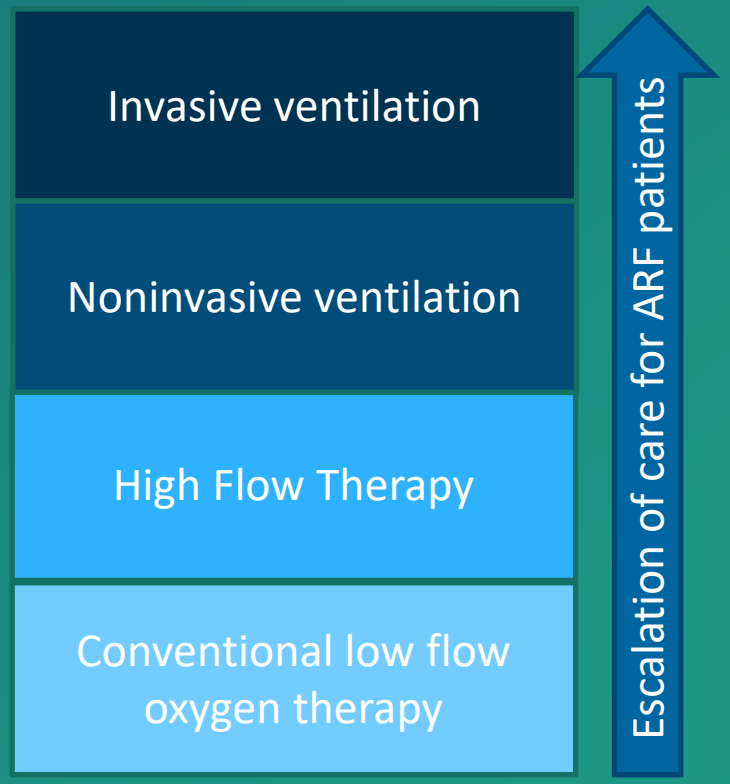
87%

NIPPV prevented intubation in a recent non-inferiority study of patients who failed HFT.[2]

1. Quantitative market research. Report of Findings: High flow Nasal Cannula Oxygen Therapy Research – US & Europe. Junicon, December 31,2014
2. Doshi, Pratik et al. High-Velocity Nasal Insufflation in the Treatment of Respiratory Failure: A Randomized Clinical Trial. Emergency Medicine Journal 2018. DOI: https://doi.org/10.1016/j.annemergmed.2017.12.006.

Need to escalate care

- At initial presentation of the acute respiratory failure patient, the full clinical picture has yet to be painted.
- Provide the least invasive approach to achieve treatment success with patient comfort in mind.
- Rapid care escalation to NIV is critical to success, when HFT does not provide desired effect.
- Improved workflow improves quality of bedside care
- Fleet management and consumable redundancies are costly



V60 Plus and AC611
A comprehensive noninvasive solution

"It is convenient for the patient and staff. Most patients are on/off HFT and BiPAP. It saves time, space and the patient gets the appropriate treatment faster." RCP

The synergistic combination of NIV and HFT in the V60 Plus will enable quick, smooth transitions within the noninvasive respiratory care continuum while improving clinician workflow and streamlining equipment & consumables.

- Facilitates rapid switching between NIV and HFT
- Designed for efficient patient weaning
- Enables quick escalation and intervention for optimal patient care
- Allows more space at the bedside for timely patient care

V60 Plus and AC611
A comprehensive noninvasive respiratory solution

V60

HFT

V60 Plus
with the AC611 HFNC

V60 Plus and the AC611

Clinicians will benefit

- Saving time
- Increased work space
- One gas source
- Improved workflow
- Use of the same circuit

V60 Plus and the AC611

Patients will benefit

- Efficient workflow
- Receive enhanced care experience
- Peace of mind
- Interface rotation to meet skin care strategy

Clinical dilemma

Time to escalation is critical

Escalate

Kang BJ, Koh Y, Lim C-M, et al. Failure of high-flow nasal cannula therapy may delay intubation and increase mortality. Intensive Care Med. 2015;41(4):623–32.

Easily and quickly switch between NIV → HFT → NIV

- A break from NIV to speak to family members, to eat, to take a drink
- Removing therapy may lead to desaturation
- No need to leave the patient bedside with the V60 Plus and the AC611
- Smooth transition NIV→ HFT→ NIV

Wean from NIV to HFT

Wean

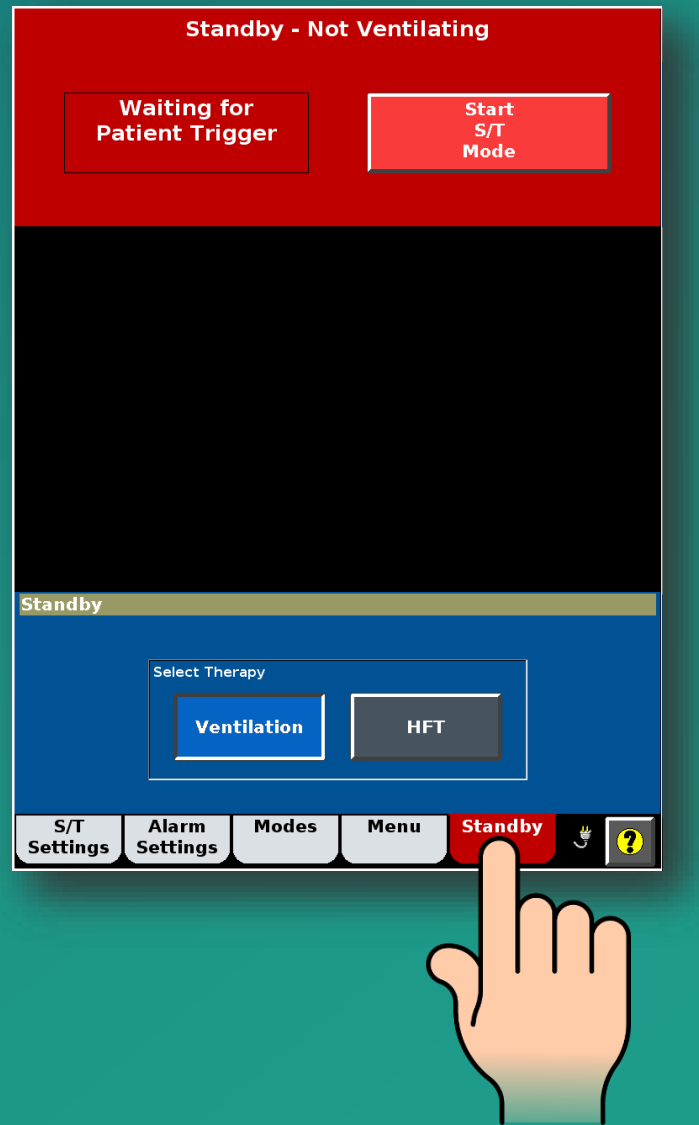
Overview of V60 Plus

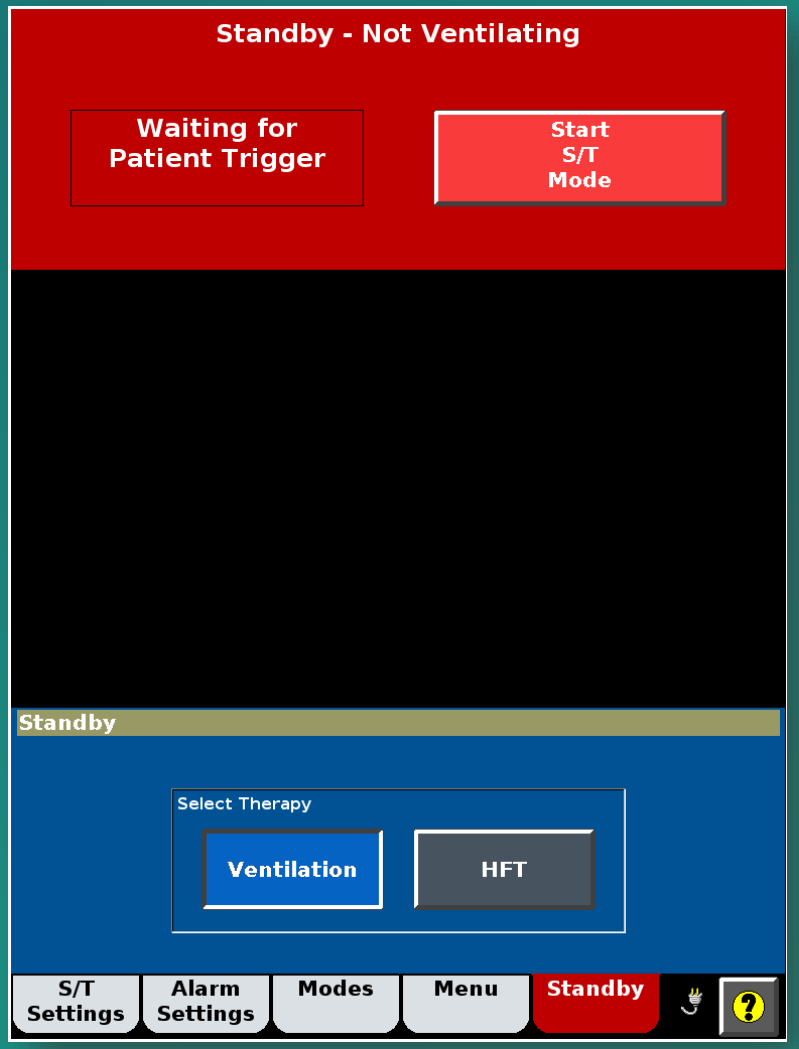
- Intended for spontaneous breathing patients
- Use with Heated Humidification
- Philips AC611
- Flow rates 10-80 Lpm
- O2 concentration 21-100%
- Adults & pediatrics >20 kg

V60 Plus and AC611- NIV to HFT

Transition from NIV to HFT

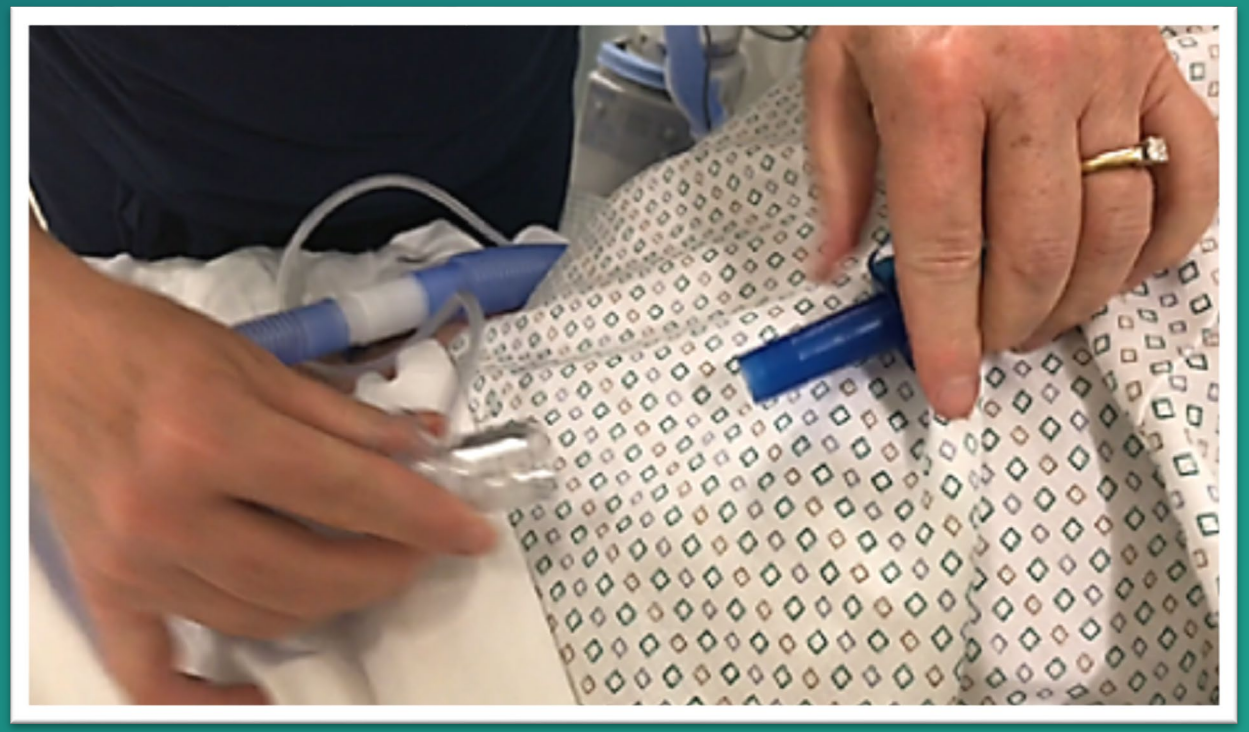
- Select Standby tab
- Remove the NIV mask or ET interface to enter Standby



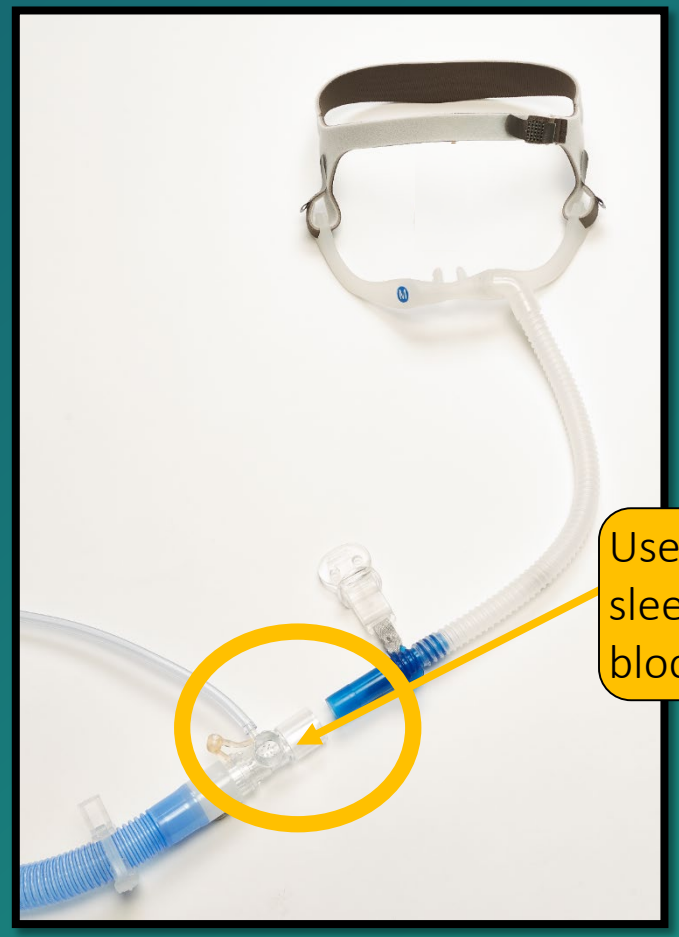

Standby - Not Ventilating
Waiting for Patient Trigger
Start S/T Mode
Standby
Select Therapy
Ventilation
HFT
S/T Settings
Alarm Settings
Modes
Menu
Standby

Transition from NIV to HFT

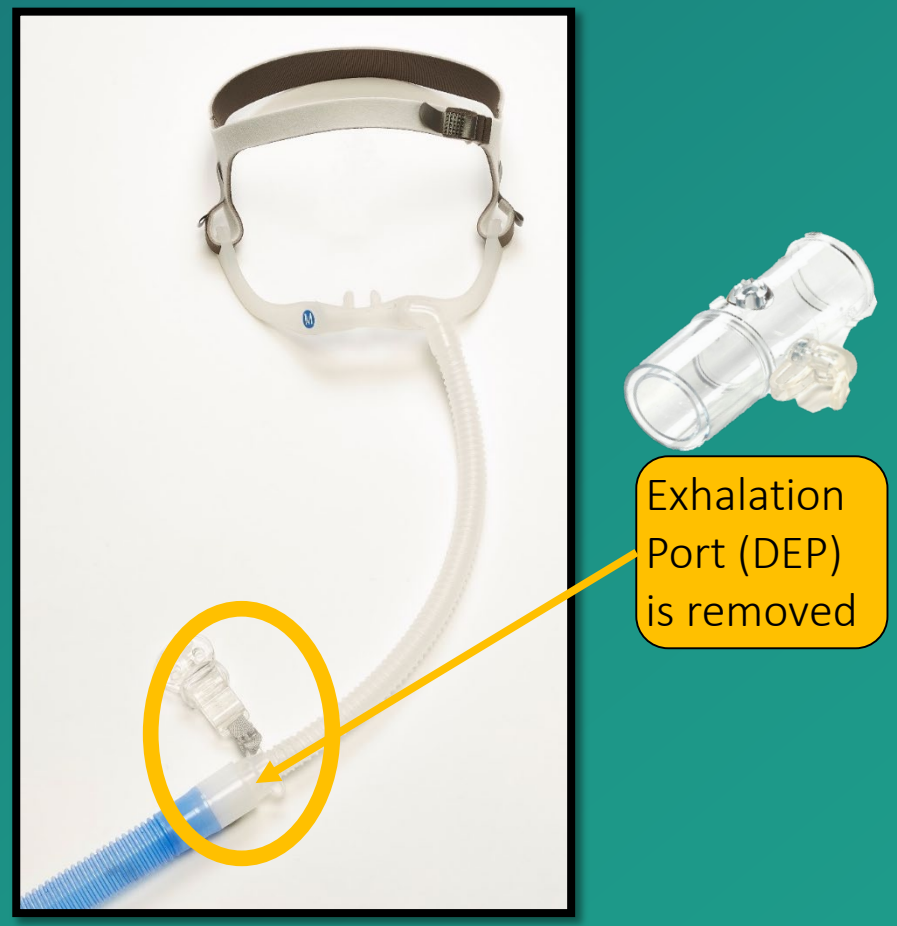
- Insert The Philips AC611 to block the FEP of your single limb NIV circuit
- Fisher & Paykel OPT970 is the Philips approved tracheostomy interface for the V60 Plus



Transition from NIV to HFT
Philips AC611



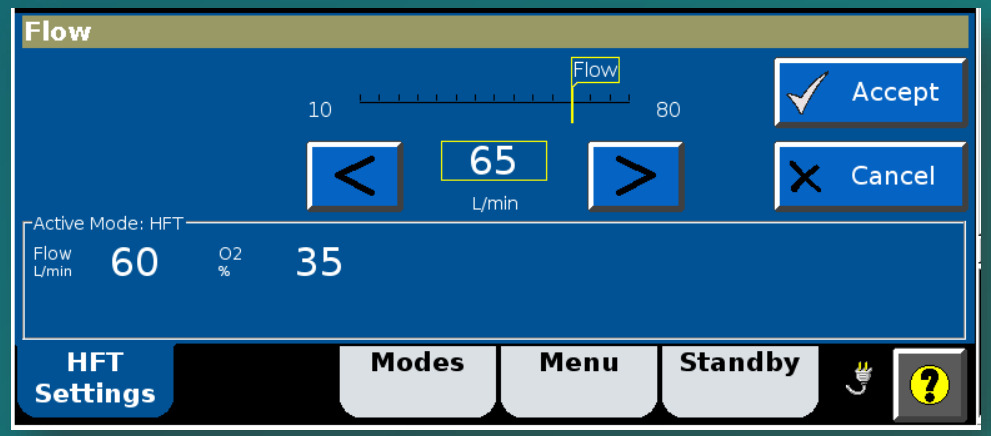
Philips AC611
FEP Connect

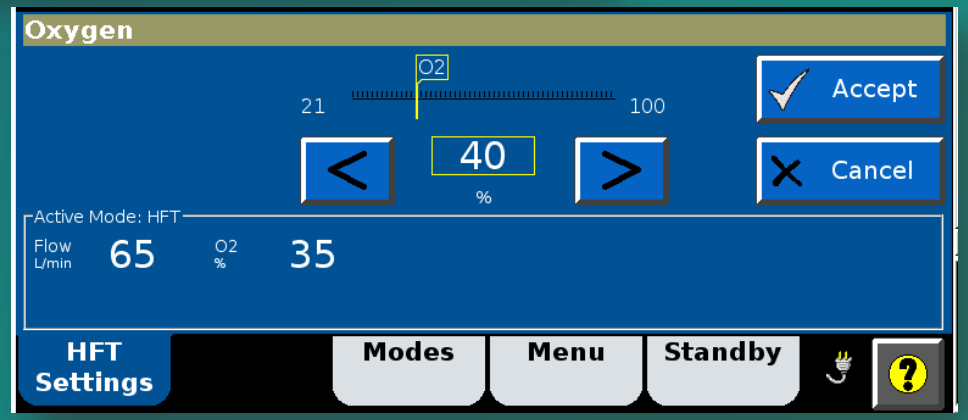


Philips AC611
22 mm adaptor

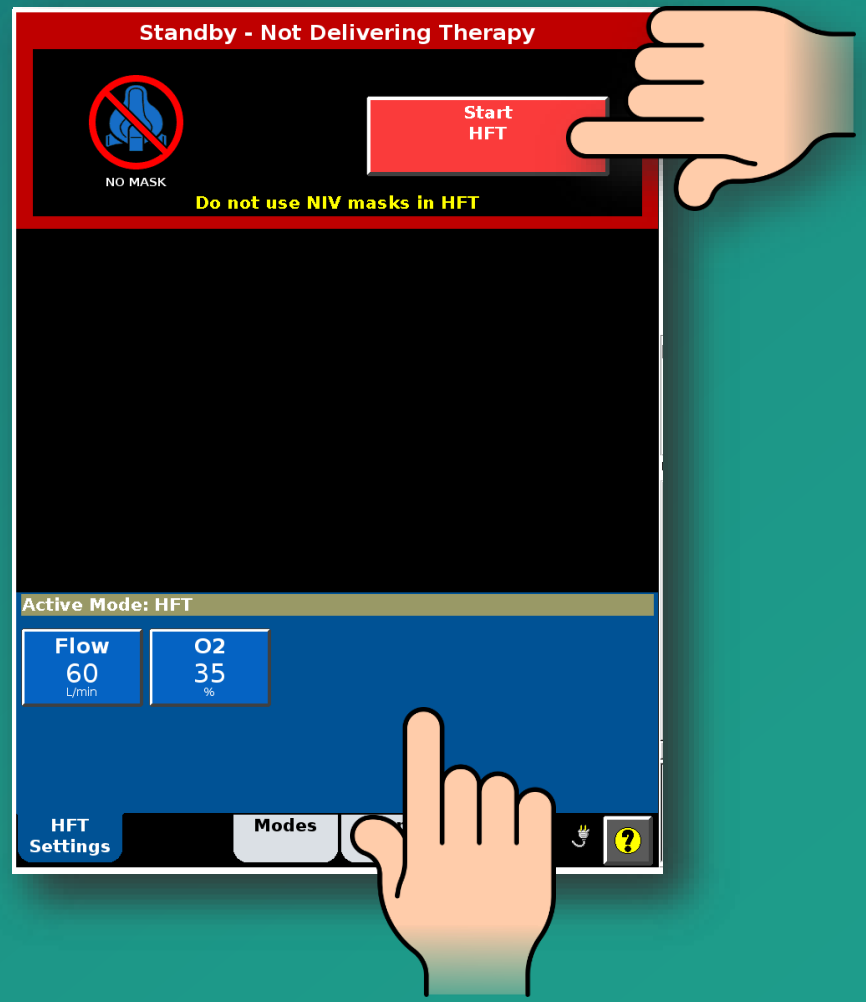
Transition from NIV to HFT

Confirm settings
Flow 10-80 Lpm
O2 21-100%

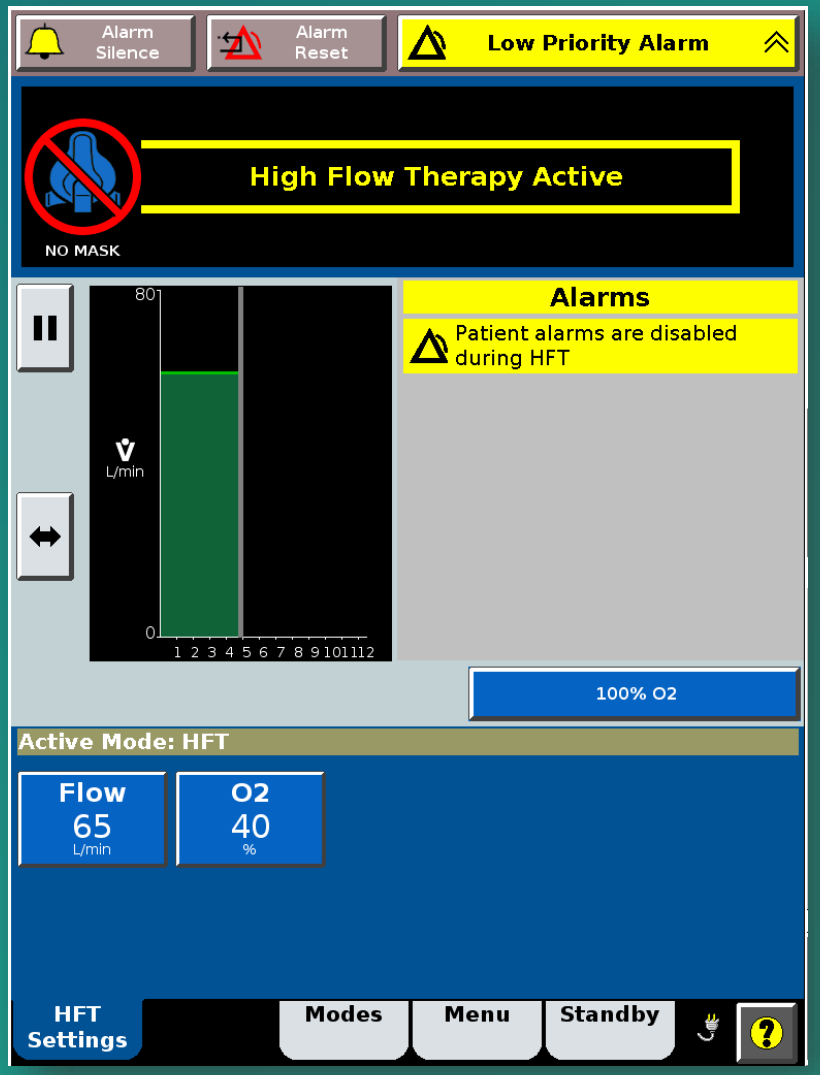




Start HFT



Transition from NIV to HFT



*Use the F&P OPT 970 adaptor when providing HFT to a tracheostomy patient.

V60 Plus high flow therapy notifications and alarms

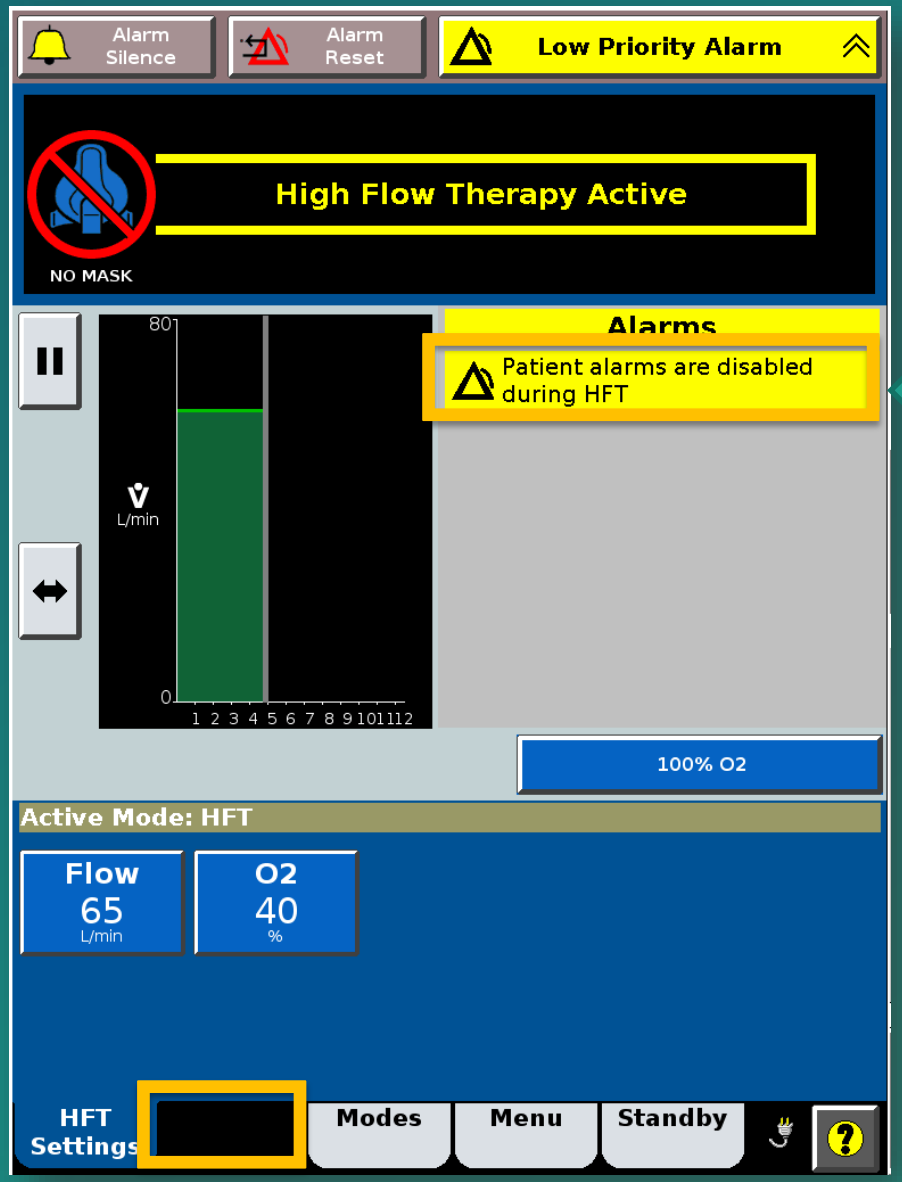
V60 Plus HFT notification and alarms

No Mask icon

High Flow Therapy Active

Low Priority Alarm to alert the clinician that Patient alarms are disabled during HFT.

V60 Plus HFT notification and alarms

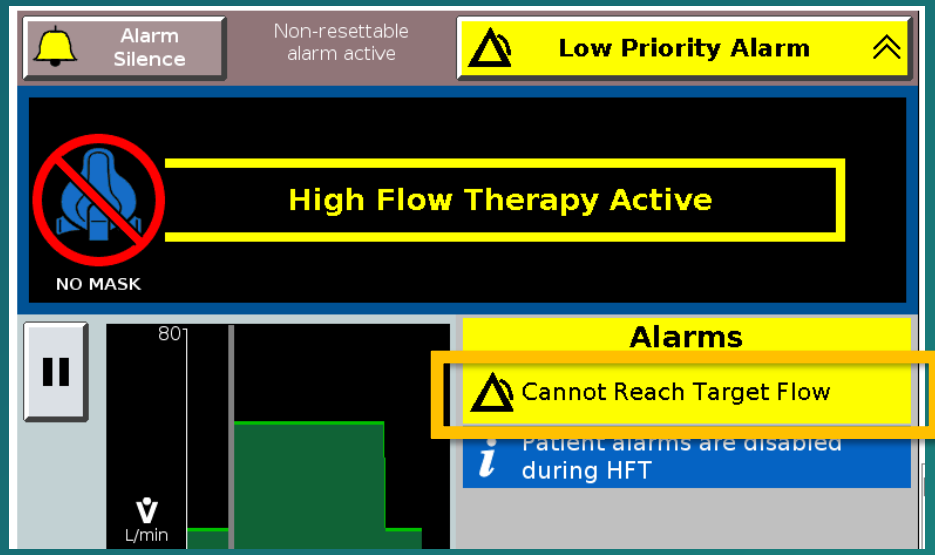


Low Priority Alarm to alert the clinician that Patient alarms are disabled during HFT.

Note the *Alarm Tab* is removed

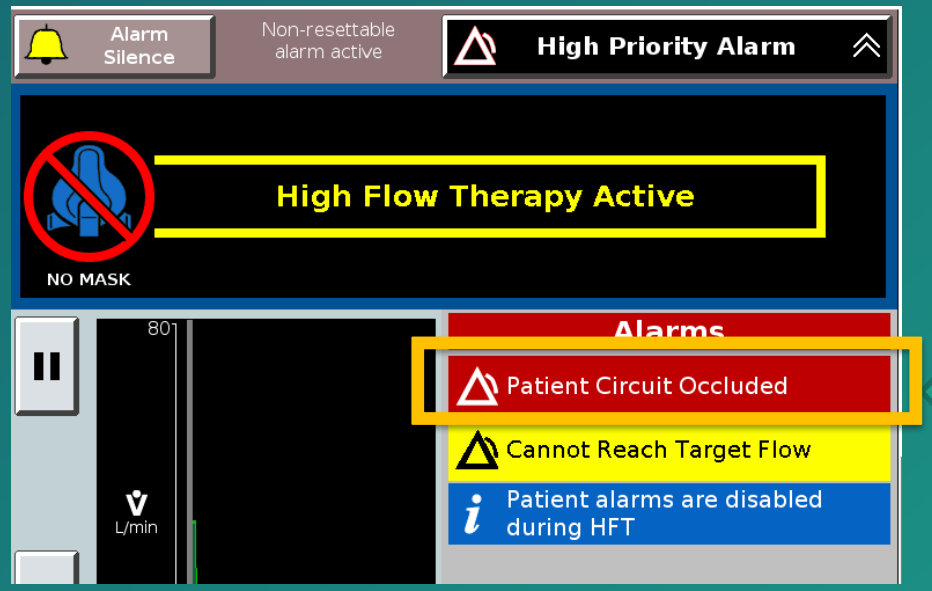
*Clinicians must rely on patient assessment skill and external monitoring to evaluate their response to therapy.

V60 Plus HFT notification and alarms



Cannot Reach Target Flow

This low priority alarm displays when indicating that set flow target is not being achieved.



Patient Circuit Occluded

This high priority alarm displays when gas flow to the patient is obstructed.

Confirm:

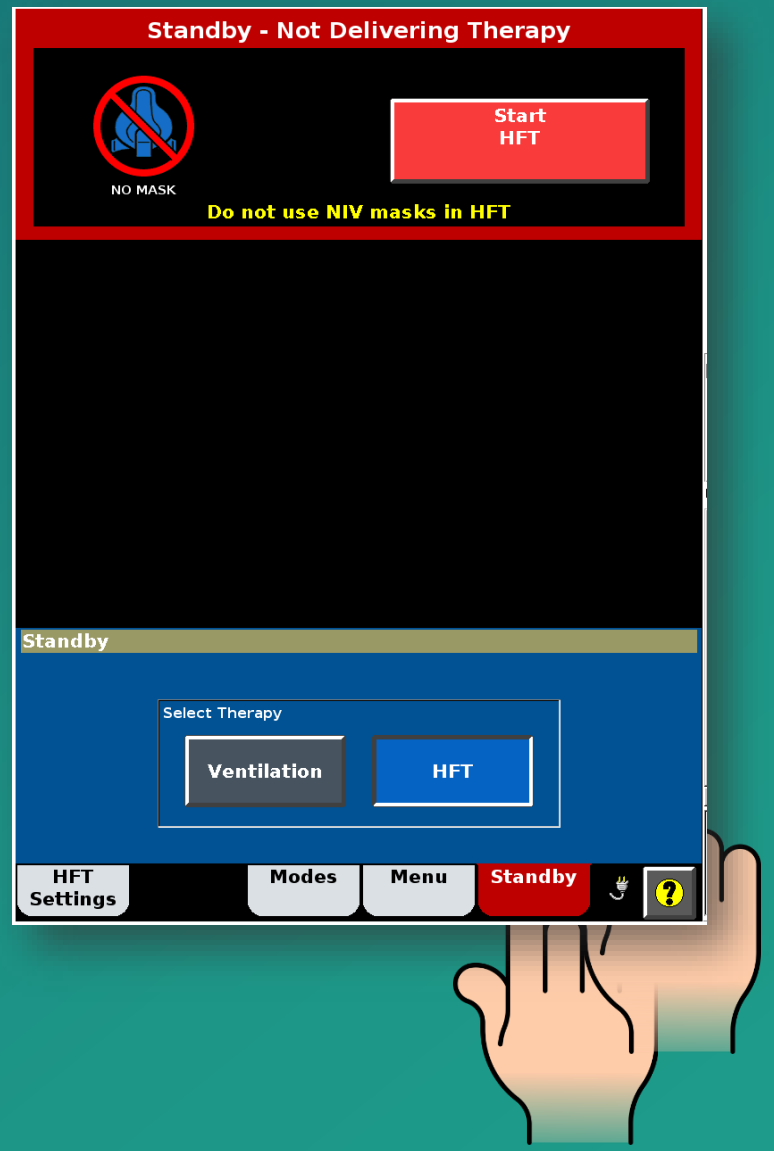
- The interface in use is **NOT** an NIV mask or direct connection to an ET-tube or trach.
- Size of nasal cannula is appropriate for the flow setting.
- The interface is **NOT** occluding inside the nares.
- Patient circuit is not kinked or occluded.

V60 Plus and AC611- HFT to NIV

V60 Plus and AC611 – HFT to NIV

When transitioning from HFT to NIV, first verify that the AC611 is removed from the patient and disconnected from the single limb circuit.

Press Standby to open the Standby window

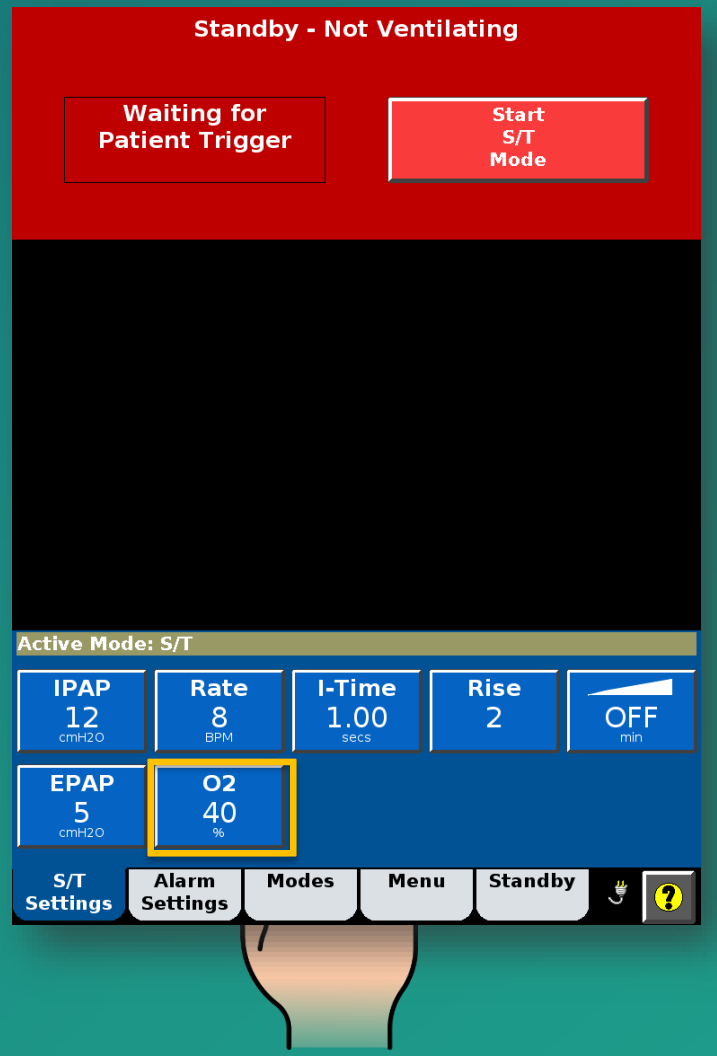


V60 Plus and AC611 – HFT to NIV

Select Ventilation

Previous NIV Setting

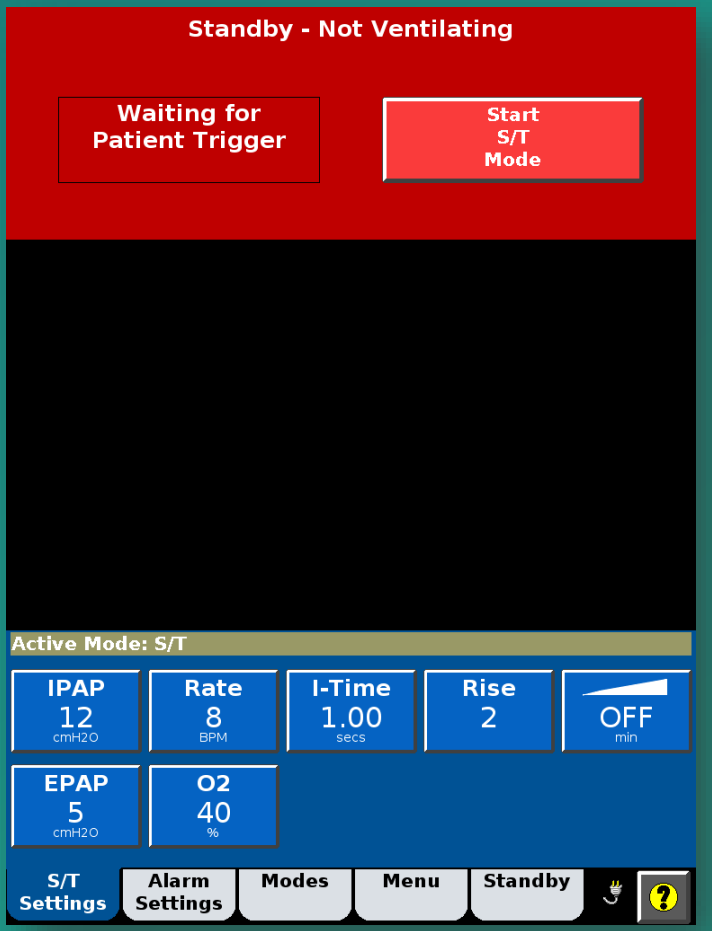
O2 remains consistent from HFT to NIV



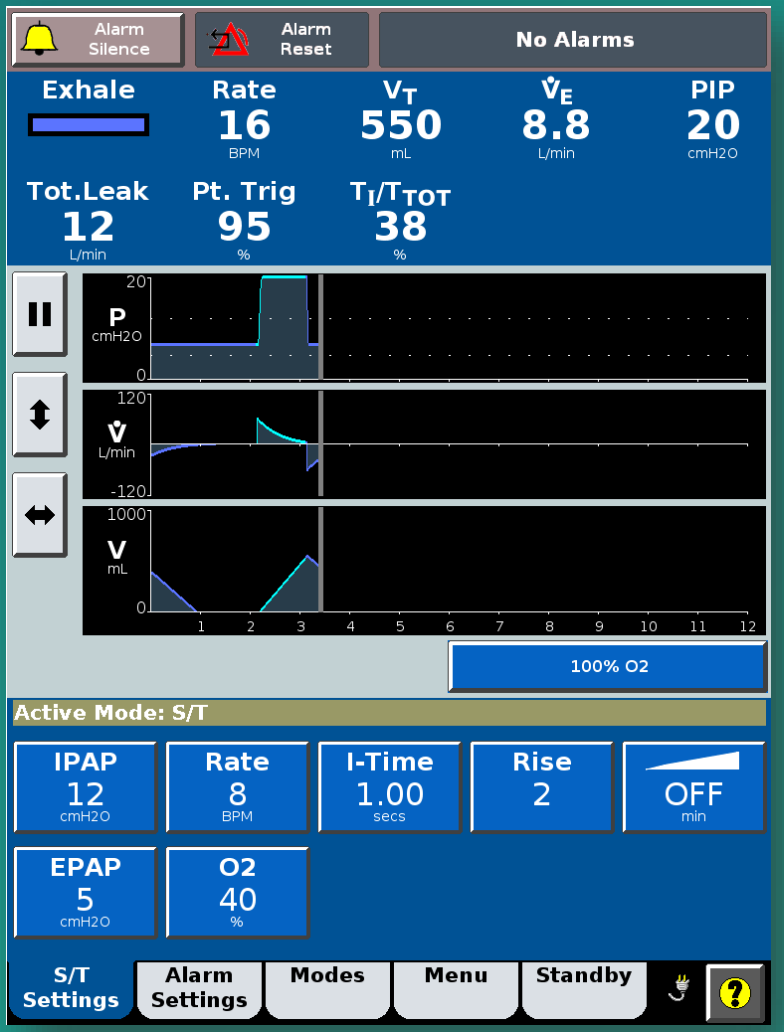
V60 Plus and AC611 – HFT to NIV

Replace the high flow interface with a Philips approved NIV Mask.

Review patient settings and alarms.
Place interface on your patient



V60 Plus and AC611 – HFT to NIV



How to transition from NIV to HFT on the V60 Plus

1. Simply remove the NIV mask from your patient and select the Standby tab
2. Then select HFT and ensure the AC611 hfnc with insertion sleeve completely blocks the FEP.
3. Confirm high flow setting, 10-80 LPM and oxygen concentration, 21% - 100% then Start HFT.
4. Place the AC611 hfnc on the patient and your patient is now receiving high flow therapy on your V60 Plus.

Philips V60 Plus and AC611

- Facilitates rapid switching between NIV and HFT
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Resources

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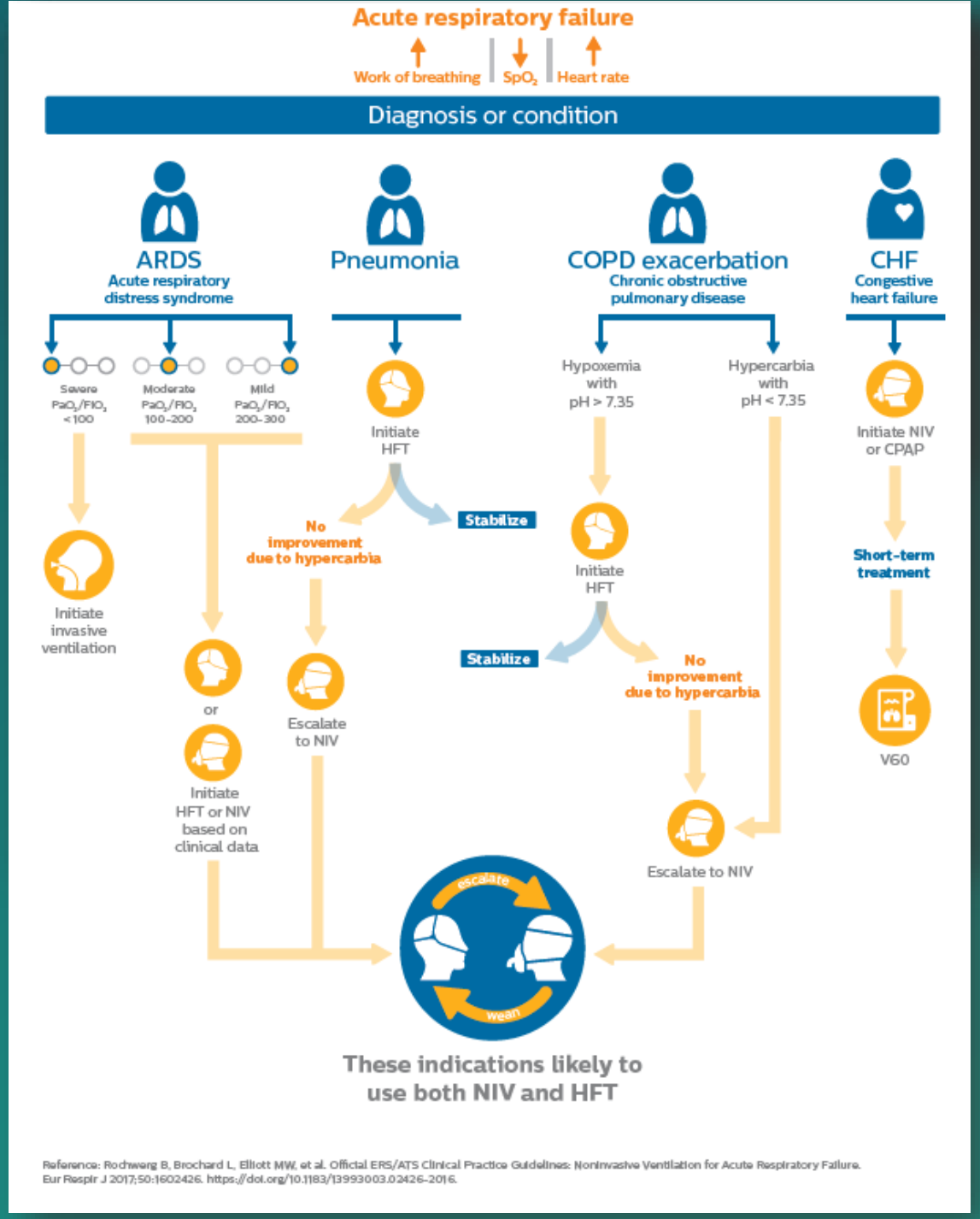
Clinical Pathway



Reference: Rochwerg B, Brochard L, Elliott MW, et al. Official ERS/ATS Clinical Practice Guidelines: Noninvasive Ventilation for Acute Respiratory Failure. Eur Respir J 2017;50:1602426. https://doi.org/10.1183/13993003.02426-2016.

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Hospital respiratory care

Evidence-based pra for noninvasive vent and high flow nasal a summary of the lit

Thomas Piraino, RRT, FCSRT

Topics included

- COPD exacerbation
- Community-acquired pneumonia
- Immunocompromised patients
- Hypoxemic respiratory failure
- Cardiogenic pulmonary edema
- Post-extubation (immediate)
- Postoperative patients

Topics excluded

- Extubation failure
- Do not intubate/re
- Acute asthma
- Pre-intubation ox

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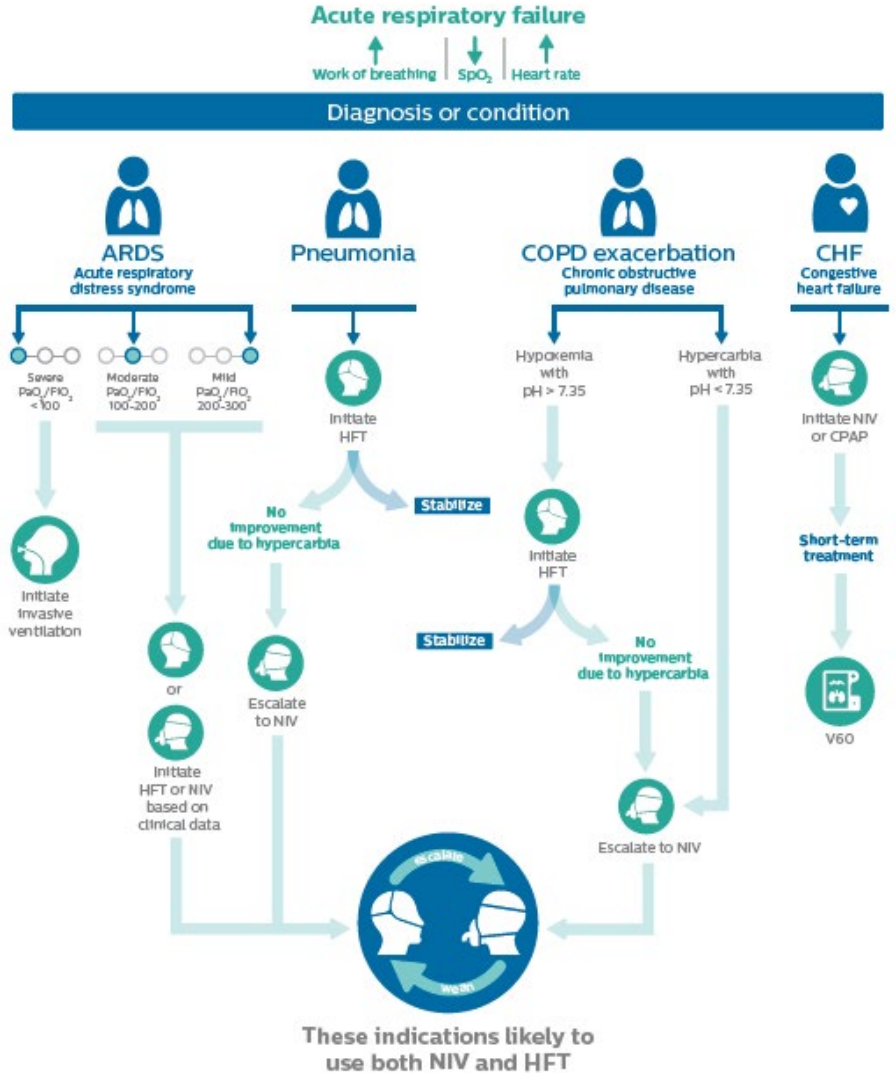

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Providing evidence-based care to patients in need of respiratory support

Thomas Piraino, RRT, FCSRT

ventilation (NIV) in the form of bi-level ay pressure (BiPAP) or continuous ay pressure (CPAP) has long been s a first-line therapy option for many ute respiratory failure.[1] The goals NIV are to minimize the respiratory he patient in respiratory failure, siologic aim of improving ventilation tion.

sal cannula (HFNC) therapy has been patients for a number of years, but has cant popularity after the Clinical Effect ation of Non-invasive Ventilation and sal Oxygen Therapy in Resuscitation ith Acute Lung Injury (FLORALI) study d in 2015 in the New England Journal In the FLORALI trial, HFNC resulted bation rates and mortality in patients respiratory failure with PaO_2/FiO_2 g when compared to conventional py (COT) and NIV. Recently, there has cant amount of research published use of HFNC for a wide range of lations.[3-5]

ill provide an overview of the current NIV and discuss the potential role for on the available data where HFNC mpared to NIV.

Thomas Piraino, RRT, FCSRT

Thomas Piraino is the Clinical Specialist, Mechanical Ventilation for the Centre of Excellence in Mechanical Ventilation at St. Michael's Hospital in Toronto, Ontario, and Lecturer (Adjunct) for the Department of Anesthesia, Division of Critical Care, McMaster University, Hamilton, Ontario.

He has spoken internationally at various respiratory and critical care conferences, and has published research and authored textbook chapters on the subjects of invasive and noninvasive mechanical ventilation and monitoring in the critical care environment.

He is also a member of the editorial boards of the Respiratory Care Journal and the Canadian Journal of Respiratory Therapy.

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