

Oxygen high flow in impending respiratory failure

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Outline

- Introduction
- Mechanism of High Flow Nasal Cannula (HFNC)
- Review literature of HFNC
- Complication

Introduction

- Oxygen therapy remains the first line intervention in acute hypoxemic respiratory failure
- Choice of a specific oxygen depend on
 - patient's oxygen requirements
 - flow rate
 - desired oxygen concentration

Introduction

- In patients with hypoxemic respiratory failure
 - High patient's inspiratory flow requirements
 - Need high stable oxygen concentration
- The traditional oxygen therapy devices
 - flow limitation, with flows ≤ 15 L/min
 - sub-optimal-humidity
 - poor tolerance
 - inaccurate and inconsistent FIO_2

High-flow nasal cannula (HFNC)

- Generates **flows up to 60 L/min**
- Using a **nasal cannula** as an interface to the patient
- Optimal conditioning of the breathing gas in terms of **humidification and heating** to 37°C and 44 mg H₂O/L).
 - Improve patient comfort and the patient's adherence to the therapy
- Incorporated air-oxygen blender allows the delivery of **consistent and accurate** oxygen concentrations in the range of 21% to 100%