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Advances in Ventilator Management for Patients with Acute Respiratory Distress Syndrome

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INTRODUCTION

A ventilator is a medical technology that provides mechanical ventilation by moving breathable air into and out of the lungs to provide breath to physically challenge or inadequately ventilated patients [1]. A ventilator is a computer controlled, microprocessor-controlled machine, but the patient can also be ventilated with a simple manual bag valve her mask [2]. Ventilators are primarily used in intensive care, home and emergency care (as a single device) and anesthesiology (as part of an anesthesia machine). A ventilator is sometimes called a "ventilator," a term commonly used in the 1950's (especially "bird ventilators") [3]. However, modern hospital and medical terminology uses the word "respirator" to refer to a face mask that protects the wearer from harmful substances in the air [4]. If a medical condition makes breathing very difficult or makes it difficult to get enough oxygen into the blood, a person may be put on a ventilator, also called a ventilator. This condition is called respiratory failure. A ventilator is a machine that works like a bellows to move air in and out of your lungs [5]. Respiratory therapists and doctors set the ventilator to control how often and how much air is pumped into the lungs. A mask can be fitted to allow air into the lungs from the ventilator.

DESCRIPTION

Alternatively, if breathing problems are more severe, a breathing tube may be required [4]. When you are ready to take off the ventilator, the medical team will "wean" you or reduce ventilator support until you can breathe on your own again [2]. Ventilators are primarily used in hospitals and transport systems such as ambulances and MEDEVAC air transport aircraft. In some cases, it can be used at home if the illness is prolonged, the home caregiver is trained, and there are sufficient care resources at home [1]. Using a ventilator makes you more susceptible to pneumonia, vocal cord damage, and other risks and problems. A ventilator is a machine that helps people breathe (ventilate) during surgery or when they are seriously ill and cannot breathe on their own [3]. The patient is connected to a ventilator by a hollow tube (artificial airway) and sent through the mouth into the main airway or trachea. Keep the ventilator on until you can breathe on your own. A ventilator is used to reduce the work of breathing until the patient improves to the point where it is no longer needed [5]. This machine ensures that your body gets enough oxygen and gets rid of carbon dioxide. This is necessary when certain diseases prevent normal breathing.

CONCLUSION

Since failure can lead to death, ventilator systems are classified as life-threatening systems and precautions must be taken to ensure that they are extremely reliable, including the power supply. Ventilatory insufficiency is the inability to maintain a sufficient CO_2 excretion rate to maintain a stable pH without mechanical support, muscle fatigue, or intolerable dyspnea. Therefore, ventilators are carefully designed to ensure that no single point of failure endangers the patient. It may have a manual backup mechanism (e.g. a ventilator integrated into the anesthesia machine) to allow manual ventilation in the event of a power failure. They may also have a relief valve that opens to atmosphere in the absence of power to act as an anti-asphyxia valve for spontaneous patient breathing.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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