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**NATIONAL STANDARD OF THE
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**Lung ventilators and related equipment - Vocabulary and
semantics**

呼吸机和相关设备 术语和定义

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document identically adopts ISO 19223:2019 "Ventilators and related equipment - Terms and definitions".

Introduction

The characteristics of current automatic lung ventilator ventilation modes are generally not well understood. The terminology used to describe them is based on the early the terminology used has evolved over time with the development of ventilators and, in recent years, with the development of ventilation modes.

In the absence of internationally coordinated action, this inevitably leads to increasingly inconsistent use of accepted terms and their derivatives.

Some ventilator manufacturers have coined new terminology to describe alternative methods of ventilating patients, while others have the difficulty of understanding these complexities is further exacerbated by the use of existing terms with different meanings in different contexts.

It can also lead to patient safety risks, for example, clinical commands (settings) for one lung ventilator may produce the same results as commands for another ventilator.

Completely different.

After recognizing these problems, ISO/TC121 asked its subcommittee SC4 to conduct a comprehensive review of the terminology and language used in patient ventilation.

The main purpose is to use current terminology as much as possible and to describe the meaning of Only when there is no alternative word or the existing word is widely misused, New terms are introduced to name new concepts only when the terminology becomes meaningless or unacceptably ambiguous. The point is that the vocabulary will convey the chosen design.

A clear mental model of how the patient's position will determine the interaction between the patient and the ventilator should be developed.

In order to make the vocabulary coherent, consistent and applicable to multiple areas such as patient care, research, data collection and event reporting, other standards are developed this document was prepared with the participation, cooperation and assistance of members of the organization and major international ventilator manufacturers.

Applications include lung ventilators and Facilitate healthcare data systems, interoperability,

event reporting, and equipment maintenance for clinical care and research.

The subcommittee's early work in determining how to create a standardized vocabulary gradually led to the conclusion that it was necessary to return to first principles.

Recognize that much of the current terminology originates from the early days of automated ventilation, when the focus was inevitably on rescuing patients who were unable to breathe on their own.

The best way to save the patient's life is to make only basic provisions for the patient's own breathing activities.

The interactions are increasing and their use now needs to be considered from the perspective of the ventilator-patient system, as it is no longer possible to be sure predict in advance how this interaction will occur.

This document defines and uses terminology in a manner that clearly aids in setting up the ventilator and in describing the ongoing ventilation at specific points.

and methods for recording relevant ventilator-patient interactions. This includes the complex interactions that occur during the inflation cycle to ensure additional breaths the results, for example, during APRV (Airway Pressure Release Ventilation).

This document is intended to provide a consistent perspective and lay the foundation for consistent language for describing ventilator function.

The basic concepts of ventilation practice have matured, and the boundaries between the existing ventilation mode concepts and the methods of artificial ventilation of the patient's lungs can be reviewed and formulated.

In particular, the scope of multiple concepts for earlier technologies and practices cannot cover new developments and Therefore, more restrictive definitions are used to reject, replace or limit certain specified terms, making it difficult to this will avoid reintroducing some older, less commonly used terms and creating some new terms.

The overall goal is to encourage more standardized use of ventilator vocabulary so that operators with minimal training using this document can easily adapt it to the current ventilator vocabulary.

Although it is not expected that changes will occur immediately, it is estimated that the original this will be incorporated into scientific publications, textbooks and training, so that over time a standardized basis for artificial ventilation will be established internationally.

This language.

The figures in Annexes C and F illustrate examples of the application of this document but are not intended to indicate requirements or to define the design of artificial ventilation equipment.

Make any restrictions.

Many terms include entry notes that provide supplementary information, including an explanation of the semantics of the term and its classification scheme.

The information contained in the appendix is not only a requirement of ISO 704 but also ensures that it remains relevant when viewed on the freely accessible ISO online browsing platform.

Terminology related.

Some terms in this document are primarily used in technical documentation, informatics, and related applications and may not be commonly used in ventilator labeling and use illustrate.

An asterisk (*) used as the first character of a title or at the beginning of a paragraph or table title indicates that there is a guide or basic information in Appendix A that is related to that item.

this principle.

Most of the figures in Appendices B, C, and F of this document are color-coded to help distinguish specific features shown.

The codes used in each figure or group of figures are given in the form of their own specific abbreviations or in the introductory text of each appendix, if any.

Note: The following figures have been reproduced with permission from reference [34].

--- Figure B.1, Figure C.1 to Figure C.35 and Figure F.1 to Figure F.7;

--- Tables D.1 to D.3, Table E.1 and Table E.2.

Ventilator and Related Equipment Terms and Definitions

1 Scope

This document defines the terminology and semantic vocabulary created for all areas of respiratory care involving mechanical ventilation, e.g., intensive care ventilation, Anesthesia ventilation, emergency and transport ventilation, and home care ventilation (including sleep apnea therapy equipment).

This document applies to.

--- Standards for lung ventilators and respiratory therapy equipment;

--- Health informatics standards;

--- Labeling of medical electrical equipment and medical electrical systems;

--- Instructions for use of medical electrical equipment and medical electrical systems and