Patient-Ventilator Asynchrony Monitor

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ABSTRACT

Researchers at the University of California, Davis have developed technology that provides an advanced system for monitoring and supporting patient resuscitation and mechanical ventilation, enhancing clinical decision-making.

FULL DESCRIPTION

The resuscitation and ventilation monitoring system receives user inputs such as patient height, weight, gender, age, and mode of ventilation and utilizes measurements from sensors (such as airflow pressure, oxygen, and carbon dioxide) to monitor and support ventilation. The system identifies problems such as off-target ventilation and suggests corrective actions, improving patient care during mechanical ventilation.

APPLICATIONS

- Hospitals and intensive care units for patient ventilation management.
- Emergency medical services for on-field resuscitation support.
- Telemedicine platforms for remote monitoring and support.
- Development of clinical decision support tools for ventilation management.

FEATURES/BENEFITS

- Automates monitoring of ventilation parameters and patient-ventilator interaction.
- Identifies and filters clinical artifacts to ensure accurate monitoring.
- Customizes user inputs for tailored clinical decision support.
- Provides corrective actions for identified patient-ventilator asynchronies.
- Compatibility with various external systems for comprehensive patient monitoring.
- Enhances decision-making support for clinicians.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	11,839,585	12/12/2023	2016-983
United States Of America	Issued Patent	11,464,703	10/11/2022	2016-983
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OTHER INFORMATION

KEYWORDS

acute respiratory failure, ARDS, clinical decision support, mechanical ventilation, patient resuscitation, real-time monitoring, telemedicine, ventilation monitoring system, ventilator-induced lung injury,

waveform analysis

CATEGORIZED AS

- **Medical**
  - Devices
  - Therapeutics
- **Sensors & Instrumentation**
  - Medical

RELATED CASES

2016-983-0

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