



Evidence Summary

VitalAcuity Titration Tools – Supporting Current Guidelines for Vasopressor and Sedation Management

Introduction

VitalAcuity's vasopressor and sedation titration tools are designed to support **goal-directed, individualized, and conservative adjustments** in line with current evidence-based guidelines. By providing clear MAP and RASS targets, small incremental steps, and safety prompts, the app helps clinicians deliver precise, patient-centered care while minimizing risks associated with oversedation and excessive catecholamine exposure.

Vasopressor Titration

The app promotes MAP-goal directed titration with conservative increments (typically 0.05–0.1 mcg/kg/min steps for norepinephrine) and individualized patient response monitoring.

- Evans et al. (2021) – Surviving Sepsis Campaign guidelines recommend norepinephrine as first-line and individualized titration to target MAP (usually 65 mmHg).
- Lamontagne et al. (2020) – Reduced vasopressor exposure in older critically ill patients showed similar or better outcomes.
- Teboul et al. (2016) – Emphasize goal-directed hemodynamic management rather than fixed high-dose protocols.

Sedation Titration

The app uses RASS-guided titration targeting light sedation levels when clinically appropriate, with small incremental adjustments.

- Devlin et al. (2018) – PADIS guidelines strongly recommend light sedation (RASS 0 to –2) and routine use of validated scales.

- Shehabi et al. (2018) – Early deep sedation was associated with higher 180-day mortality; lighter RASS-guided strategies improve outcomes.
- Barr et al. (2013) – Protocolized, RASS-based sedation reduced duration of mechanical ventilation and ICU stay.

Clinical Rationale

VitalAcuity intentionally supports thoughtful, evidence-based titration rather than rigid protocols. This approach helps clinicians align with major guidelines, document individualized care, and minimize harm.



VitalAcuity

Bedside Clinical Toolkit for RRTs & Critical Care Nurses

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