Study Identification

Author(s):

Year of Publication:

Title:

Journal:

DOI/Reference:

Study Characteristics

Study Design: (e.g., observational, randomized controlled trial, cross-sectional, etc.)

Study Setting: (e.g., ICU, specific hospital type)

Study Population: (e.g., critically ill adults, pediatric patients)

Sample Size:

Inclusion Criteria:

Exclusion Criteria:

Patient Conditions: (e.g., sepsis, trauma, post-surgical, etc.)

Measurement Methods Evaluated:

Indirect calorimetry (IC):

Predictive equations:

Emerging technologies:

Comparator Methods (if any):

Measurement Duration:

Equipment/Technology Used:

Outcomes Evaluated

Practical Challenges

Challenges in Implementation: (e.g., equipment availability, staff training, patient stability requirements)

Bedside Applicability: (e.g., ease of use, time required, interruptions to care)

Accuracy

Validation against Reference Standard:

Bias, Limits of Agreement, or Correlation:

Sources of Error/Uncertainty: (e.g., FiO_2 levels, mechanical ventilation)

Feasibility

Cost of Implementation

Time Requirements:

Equipment and Maintenance Needs:

Staff Training/Expertise Required:

Limitations

Patient-Related Factors: (e.g., movement, sedation, ventilator dependency)

Equipment/Technological Limitations:

Data Collection Issues:

Impact on Nutritional Therapy Strategies and Patient Outcomes

Integration with Nutritional Planning:

Reported Changes in Nutritional Interventions:

Clinical Outcomes Evaluated: (e.g., mortality, infection rates, length of ICU stay,

recovery metrics)

Implications for Practice:

Authors' Conclusions

Summary of Authors' Interpretation:

Study Implications:

Critical Appraisal

Limitations in Study Design:

Indirect Calorimetry
Fraction of Inspired Oxygen
Maximal Oxygen Consumption
Resting Energy Expenditure
Predictive Equations
Continuous Veno-Venous Hemofiltration
Carbon Dioxide Production
Energy Expenditure Calculated with Ventilator-Derived Carbon Dioxide Production
E-sCOVX metabolic monitor
COSMED Quark RMR model