

INPLASY

The effect of Oxygen Therapy on Critically Ill Adult Patients: A Systematic Review and Meta-Analysis

INPLASY202450034

doi: 10.37766/inplasy2024.5.0034

Received: 08 May 2024

Published: 08 May 2024

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202450034

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 08 May 2024 and was last updated on 08 May 2024.

INTRODUCTION

Review question / Objective We research the effect of oxygen on critically ill adult patients' prognosis.

Condition being studied Critically ill, Sepsis, Respiratory Distress Syndrome, Septic Shock.

METHODS

Participant or population Critically ill patients.

Intervention Hyperoxia.

Comparator Hypoxia.

Study designs to be included RCTs, Observational study.

Eligibility criteria Study Reports Outcomes Associated with Adult Critical Care Patients Using Hyperoxia or Hypoxia or Other Oxygen Interventions.

Information sources Pubmed, Web of science and Cochrane central.

Main outcome(s) 28-day mortality, 90-day mortality, 30-day mortality, ICU mortality, Hospital mortality, ICU length of stay, Hospital length of stay.

Quality assessment / Risk of bias analysis we performed risk assessment using the Cochrane Collaboration risk of bias tool.

Strategy of data synthesis Dichotomous and continuous data uses the Mean and HR, RR, OR, respectively.

Subgroup analysis the subgroup analysis performed would based on our study aims.

Sensitivity analysis Sensitivity analyses were conducted for the primary out- come by excluding trials that reported ICU mortality or in-hospital mortality to replace 28-day mortality, using the adjusted odds ratios, RRs, and hazard ratios with the generic inverse variance method.

Country(ies) involved China.

Keywords Hyperoxia , Hypoxia , Oxygen Target ,Critically ill, Sepsis,Respiratory Distress Syndrome, Septic Shock.

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