

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## Targeted Temperature Management for In-Hospital Cardiac Arrest: a meta-analysis

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**Review question / Objective:** To investigate the effectiveness and safety of targeted temperature management (TTM) in spaitients after in-hospital CA (IHCA).

**Eligibility criteria:** We included published studies if they met the following criteria: (1) RCT or any two-group comparison studies; (2) Studies focused on IHCA survivors, without restrictions of initial rhythm, the timing of TTM or cooling methods; (3) Included patients were supported with or without TTM; (4) Studies should report the outcome of survival.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 06 November 2021 and was last updated on 06 November 2021 (registration number INPLASY2021110021).

### INTRODUCTION

**Review question / Objective:** To investigate the effectiveness and safety of targeted temperature management (TTM) in spaitients after in-hospital CA (IHCA).

**Condition being studied:** In-Hospital Cardiac Arrest. Our team members come from a tertiary hospital in China and all the

members have extensive experience in patients with CA. Moreover, our team members have published several meta-analyses, which can guarantee the completion of the current study.

### METHODS

**Participant or population:** In-hospita cardiac arrest (IHCA) adult patients.

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**Intervention:** Managed with targeted temperature management

**Comparator:** CA patients managed without targeted temperature management.

**Study designs to be included:** Studies were included if they reported data on predefined outcomes in adult IHCA survivors managed with TTM.

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**Information sources:** PubMed, Cochrane Controlled Trials Register, and Embase databases.

**Main outcome(s):** The primary outcome and secondary outcome was mortality rate and good neurological outcome at the longest followed-up available, respectively.

**Quality assessment / Risk of bias analysis:** Included studies were appraised for their risk of bias using the Cochrane Collaboration tool to assess the risk of bias in RCTs and the Newcastle-Ottawa scale for assessing the risk of bias in observational studies.

**Strategy of data synthesis:** To obtain more robust results, we used random-effects models as pooling method for all the measuring.

**Subgroup analysis:** We further conducted subgroup analyses to test the robustness of the outcomes basing on the important clinical features (i.e., country, sample size, design, and study start time).

**Sensitivity analysis:** Sensitivity analyses were performed by excluding trials that potentially biased the results.

**Country(ies) involved:** China.

**Keywords:** in-hospital cardiac arrest; cardiac arrest; targeted temperature management; neurological outcome; meta-analysis.

**Contributions of each author:**

Author 1 - Yan Yao.

Author 2 - Jing-Yi Duan.

Author 3 - Jun-Ping Qin.

Author 4 - Hui-Bin Huang.