

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None.

## Risk factors for pediatric acute liver failure: a systematic review of prognostic studies in recent 10 years

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**Review question / Objective:** We provide a systematic review of the literature on prognostic studies to summarize risk factors for PALF with the aim of better identification of poor outcome.

**Condition being studied:** Pediatric acute liver failure is a rare and complex condition characterized by an abrupt onset of a liver-based coagulopathy and biochemical evidence of hepatocellular injury with high mortality. It is necessary to provide a systematic review of the literature on prognostic studies to summarize risk factors for PALF with the aim of better identification of poor outcome.

**Information sources:** PubMed, Embase, Medline and Cochrane.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 April 2020 and was last updated on 19 April 2020 (registration number INPLASY202040116).

### INTRODUCTION

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## METHODS

**Participant or population:** The included criteria: (1) full English written publications; (2) with a prospective or retrospective cohort study or nested case-control design; (3) identifying prognostic factors for PALF; (5) in a study population of children (0-18 years of age); (6) in a publication date between March 10th 2010- March 10th 2020; (7) the outcome include death with or without LT (liver transplantation) or LT - the excluded criteria: (1) Focusing only on risk factors for complication of PALF or liver transplantation; (2) focusing on the prognosis after liver transplantation; (3) Studies designed to analyze an associative model were excluded.

**Intervention:** Poor outcome.

**Comparator:** Recover with native liver.

**Study designs to be included:** Prospective or retrospective cohort study or nested case-control design.

**Eligibility criteria:** 2006 PALF study group criteria.

**Information sources:** PubMed, Embase, Medline and Cochrane.

**Main outcome(s):** Overall survival (OS) and progression.

**Quality assessment / Risk of bias analysis:** The Quality In Prognosis Studies (QUIPS).

**Strategy of data synthesis:** We extracted data regarding study characteristics (publication characteristics, study design, method of analysis, number of subjects, type and number of prognostic factors, outcomes of interest, duration of follow-up); patient characteristics (age, country, gender); strength of association (relative risks (RR), odds ratios (OR), Mean and standard deviation (SD)).

**Subgroup analysis:** Age (0-90 days); age (90days-18years).

**Sensibility analysis:** Trim and fill method.

**Country(ies) involved:** Germany; India; Turkey; UK; China; Spain; Australia; Italy; Pakistan; The Netherlands;.

**Keywords:** PALF, risk factors, prognosis, epidemiology.