

# INPLASY PROTOCOL

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**Support:** None.

**Review Stage at time of this submission:** The review has not yet started.

**Conflicts of interest:**  
None.

## Efficacy of exercise in patients with acute leukemia: A protocol of Meta-analysis

Chen C<sup>1</sup>.

**Review question / Objective:** Is traditional Chinese medicine therapy beneficial for acute leukemia?

**Condition being studied:** exercise, acute leukemia, Meta-analysis.

**Information sources:** As with the original review, we used the search strategies recommended by the Cochrane Back Review Group for the identification of RCTs. An independent review of the MEDLINE, Embase, Cochrane Library website, Web of Science, Chinese National Knowledge Infrastructure Database(CNKI), wanfang database, China Biology Medicine(CBM) and VIP database was performed from inception to 1 August 2019. There were no limits on study dates or any language, publication type, and status restrictions. Search terms were subjected to the following: "exercise", "acute leukemia", and "randomized controlled trial" with the Boolean logic operator "AND," "NOT," and "OR". References cited in the relevant literature and other articles in the meta-analysis were also reviewed.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 June 2020 and was last updated on 16 June 2020 (registration number INPLASY202060059).

### INTRODUCTION

**Review question / Objective:** Is traditional Chinese medicine therapy beneficial for acute leukemia?

**Condition being studied:** exercise, acute leukemia, Meta-analysis.

### METHODS

**Participant or population:** Patients with acute leukemia.

**Intervention:** Exercise.

**Comparator:** There is no limit, but the control group can not include exercise measures.

**Study designs to be included:** Randomized controlled trials.

**Eligibility criteria:** This study will only include randomized controlled trials(RCTs) of exercise in the patients with acute leukemia.

**Information sources:** As with the original review, we used the search strategies recommended by the Cochrane Back Review Group for the identification of RCTs. An independent review of the MEDLINE, Embase, Cochrane Library website, Web of Science, Chinese National Knowledge Infrastructure Database(CNKI), wanfang database, China Biology Medicine(CBM) and VIP database was performed from inception to 1 August 2019. There were no limits on study dates or any language, publication type, and status restrictions. Search terms were subjected to the following: “exercise”, “acute leukemia”, and “randomized controlled trial” with the Boolean logic operator “AND,” “NOT,” and “OR”. References cited in the relevant literature and other articles in the meta-analysis were also reviewed.

**Main outcome(s):** Cardiorespiratory fitness.

**Additional outcome(s):** Fatigue, anxiety and depression, Muscle strength, SF-36 or SF-12.

**Quality assessment / Risk of bias analysis:**

Two authors will assess the methodological quality of the included studies using the criteria outlined in the Cochrane Handbook for Systematic Reviews of Interventions. Two authors will also compare the results and will discuss any differences, in accordance with the Cochrane criteria, until an agreement is reached. The domains to be assessed will include random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting, and other bias. For

other sources of bias, two aspects have been identified: (1) trials stopped early owing to some data-dependent processes; (2) baselines extreme imbalanced.

**Strategy of data synthesis:** We used RevMan 5.3 to conduct the meta-analysis. The outcomes of interest include continuous variables and dichotomous variables. We used mean difference (MD) to assess the difference in the continuous outcomes between the groups. The risk ratio (RR) and the corresponding 95% confidence interval (CI) were used for the dichotomous outcomes. Study weights were generated using the inverse of the variance. We present results as MD and associated 95% confidence intervals. The  $\chi^2$  test for heterogeneity and the  $I^2$  statistic were used to assess heterogeneity between studies.  $I^2$  values of more than 50% were considered to represent significant heterogeneity, whereby the random-effects model was used; in all other cases, the fixed-effects model was used. In order to evaluate the sensibility of the meta-analysis, we excluded trials at high risk of bias. The effect of publication bias was detected with a contour-enhanced funnel plot and an Egger’s linear regression test ( $P < 0.05$  was considered to be of significance) was used to evaluate the funnel plot asymmetry to reveal any possible publication bias. The significance threshold was a 2-sided  $P < 0.05$ .

**Subgroup analysis:** If the necessary data are available, subgroup analyses will be performed.

**Sensibility analysis:** If the necessary data are available, sensibility analyses will be performed.

**Language:** No limits.

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

**Keywords:** exercise; acute leukemia; Meta-analysis.

**Contributions of each author:**  
Author 1 - Can Chen.