INPLASY

Efficacy and Safety of Temozolomide for the Treatment of Advanced or Recurrent Ependymoma: A Meta-Analysis

INPLASY202590049

doi: 10.37766/inplasy2025.9.0049

Received: 13 September 2025

Published: 13 September 2025

Zhang, R; Liu, BY; Li, WB.

Corresponding author:
Rong Zhang

zhangrong_zr2021@163.com

Author Affiliation:
Department of Neuro-Oncology, Cancer Center, Beijing Tiantan Hospital, Capital Medical University, Beijing, China.

ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

INPLASY registration number: INPLASY202590049

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 September 2025 and was last updated on 13 September 2025.

INTRODUCTION

Review question / Objective Efficacy and Safety of Temozolomide for the Treatment of Advanced or Recurrent Ependymoma.

Condition being studied Ependymoma is a primary central nervous system (CNS) tumor originating from the ventricular system or the central canal of the spinal cord.

METHODS

Participant or population Patients were diagnosed with temozolomide.

Intervention Patients were treated with ependymoma.

Comparator CR, PR, SD, PD, progression-free survival (PFS), overall survival (OS), and adverse events (AEs).

Study designs to be included RCT.

Eligibility criteria None.

Information sources PubMed and Embase.

Main outcome(s) PFS OS.

Quality assessment / Risk of bias analysis Sensitivity analyses, Newcastle–Ottawa Scale (NOS).

Strategy of data synthesis Stata.

Subgroup analysis Subgroup analysis revealed that the pooled CR in patients who received

temozolomide as first-line chemotherapy was 0.119 (95% CI: 0.049-0.211). Otherwise, the CR of patients in temozolomide monotherapy was 0.0 (95% CI: 0.0-0.02).

Sensitivity analysis As indicated by the results of the analysis, all of the pooled results with 95% CIs were not remarkably influenced by any individual study.

Country(ies) involved China - Department of Neuro-Oncology, Cancer Center, Beijing Tiantan Hospital, Capital Medical University, Beijing, China.

Keywords Ependymoma, Temozolomide, Meta-analysis, Efficacy, Safety.

Contributions of each author
Author 1 - Rong Zhang.
Author 2 - Binyan Liu.
Author 3 - Wenbin Li.