The manuscript titled "Impact of magnesium supplementation on blood pressure: an umbrella meta-analysis of randomized controlled trials" presents an umbrella meta-analysis aiming to elucidate the effect of magnesium supplementation on blood pressure. While the manuscript demonstrates good organization and methodological rigor, several improvements are suggested:

Introduce research gaps in the introduction along with relevant literature reviews to provide context and establish the novelty of the study.

Incorporate recent publications from high-impact journals related to the study topic to ensure the study's alignment with current literature.

Reconsider the presentation of overall sensitivity and specificity, as these estimates may be misleading without addressing subpopulations of interest.

Evaluate the feasibility of replicating the interventions used in the trials within routine care settings, considering resource requirements.

Clarify whether the 50% sensitivity is based on WHO thresholds and provide justification for the chosen cut-off, especially regarding the expectation of higher sensitivity with a 10% cut-off.

Address the high heterogeneity observed, particularly the I2 result of 93%, by exploring potential reasons for heterogeneity and employing strategies such as omitting outliers, using a random effects analysis, or considering alternatives to meta-analysis.

Enhance the clarity and readability of the manuscript by improving writing and grammar. Consider seeking assistance from a writing coach or copy editor to refine the text's flow and coherence.