

INTRODUCTION

- CIPN is a debilitating condition characterized by sensory, motor, and pain disturbances after anti-neoplastic agents.¹⁻²
- The prevalence of CIPN varies widely within the literature, and the proportion of patients experiencing chronic painful CIPN remains unclear.
- This study aims to examine the global prevalence of painful CIPN from 2000-2024.

METHODS

- A meta-analysis was performed following PRISMA guidelines.
- Inclusion criteria included any design study (besides case reports or case series with <10 patients), # of painful CIPN patients among the cohort, and the time duration of pain.
- Estimates from individual studies were transformed using double-arcsine transformation, then back-transformed and pooled in a meta-analysis using a random-effects model with 95% confidence intervals.

RESULTS

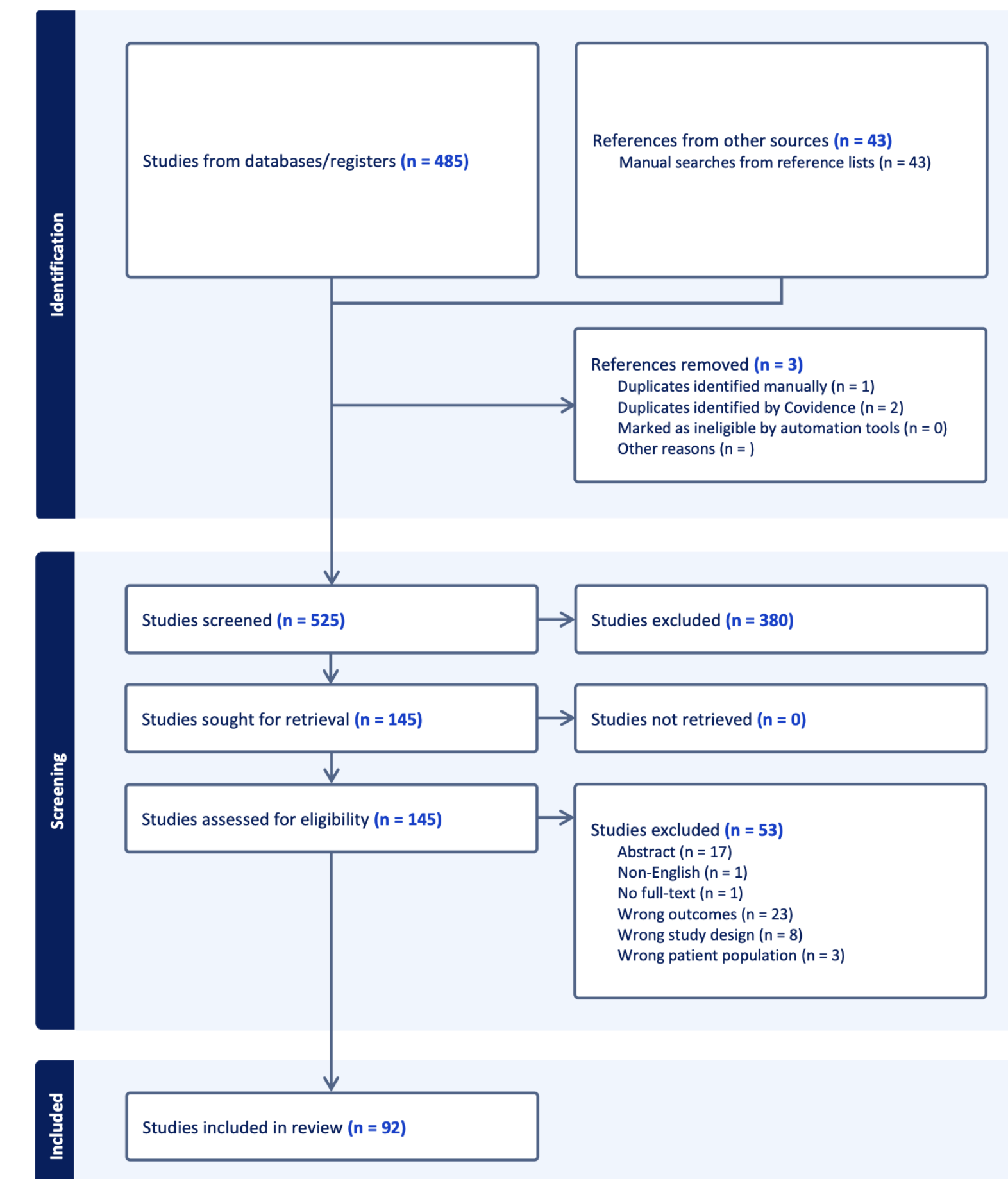


Figure 1: Flowchart demonstrating the study selection process.

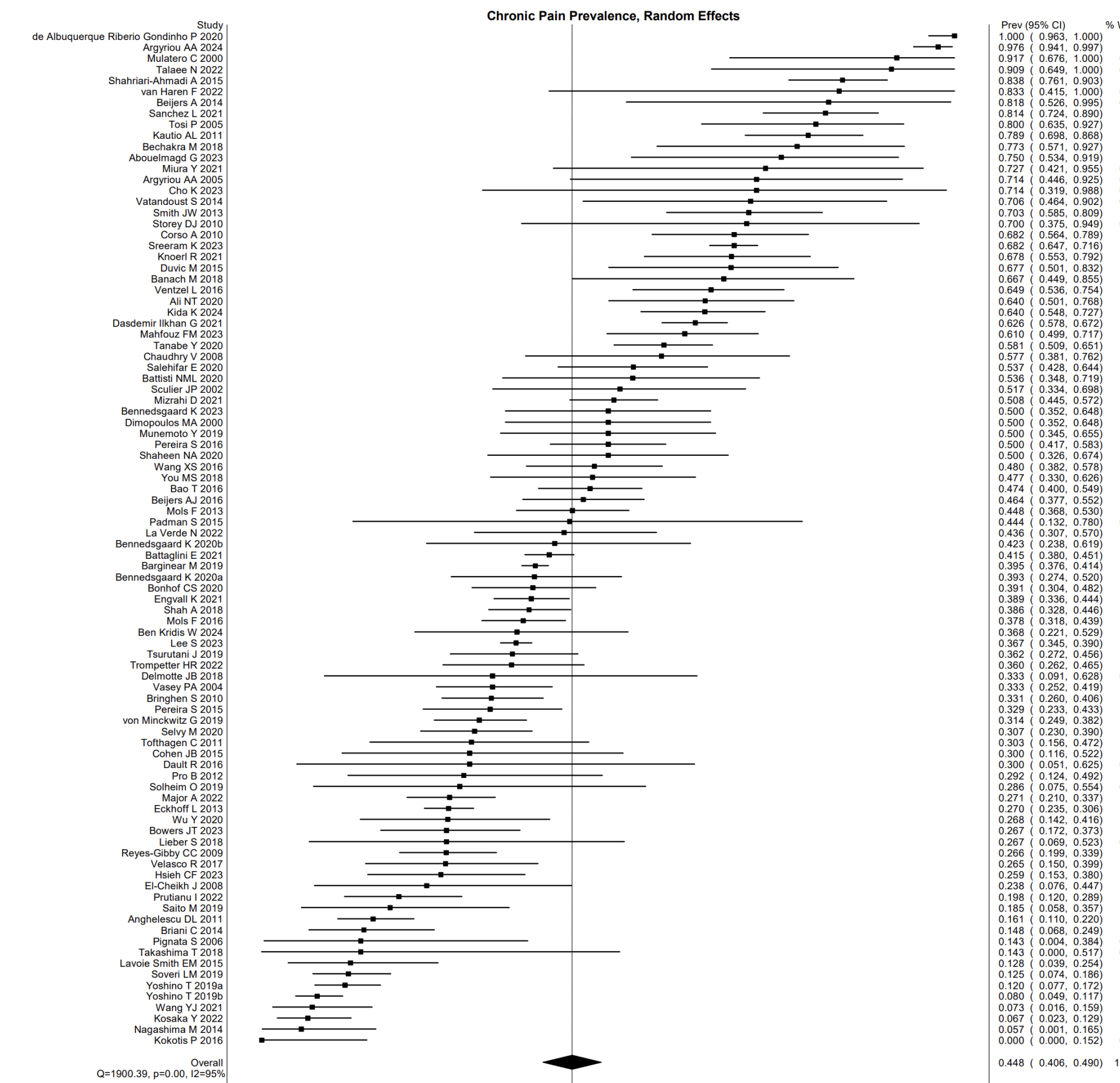


Figure 2: Forest Plot showing prevalence estimates with 95% CIs and the global prevalence of chronic painful CIPN using a random-effects model.

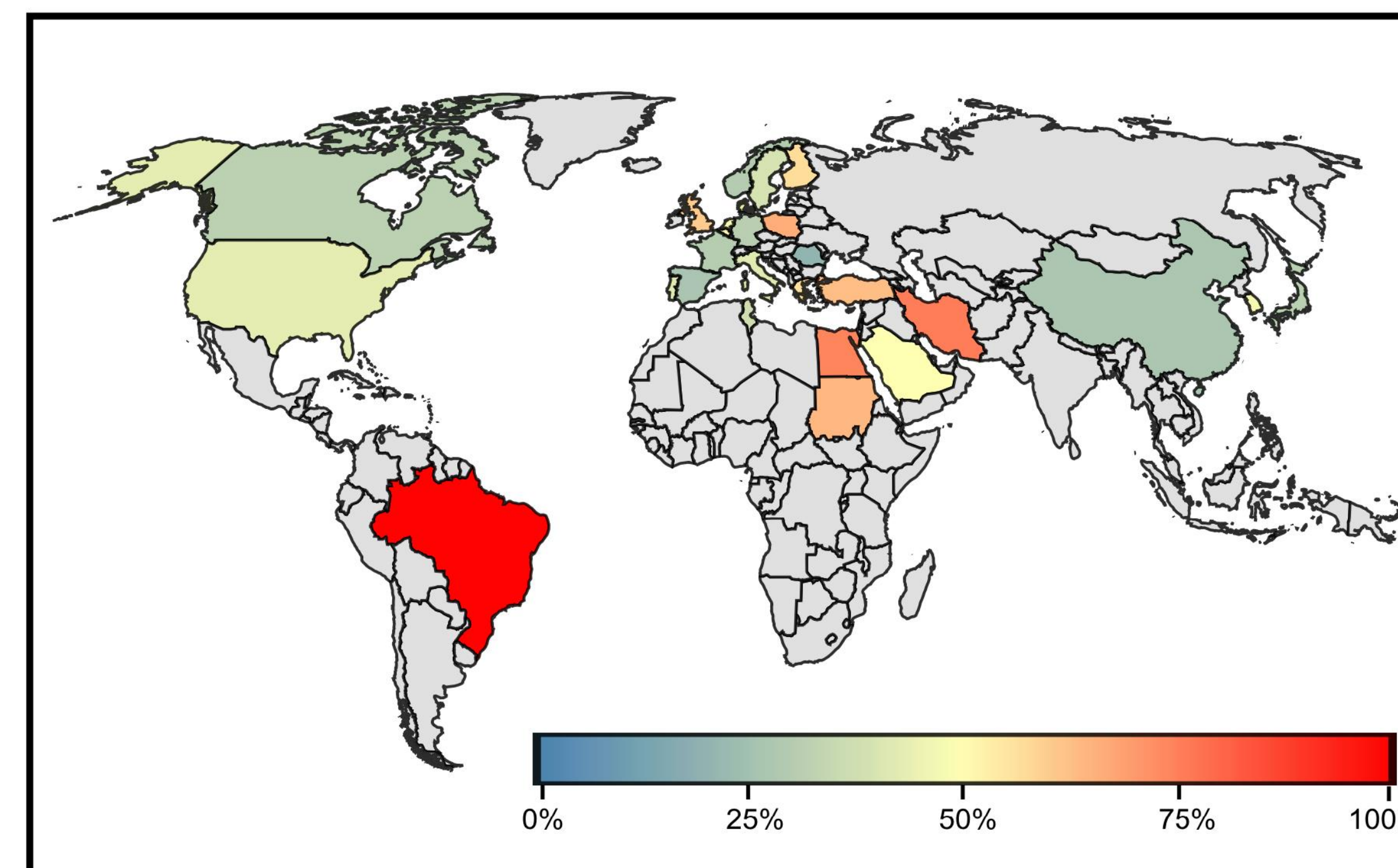


Figure 3: A Robinson projection of the world displaying proportion of chronic painful CIPN among those with CIPN in the figure legend with a corresponding color.

CONCLUSION

- 93 studies from 29 countries (6 continents) consisting of 13,290 total patients with CIPN, of which 5,592 have a diagnosis of chronic pain from the CIPN.
- Crude unadjusted prevalence rate of 42.07%.
- By continent, studies from Africa reported the highest prevalence (57.9%), and Asia reported the lowest prevalence (38.1%).
- Lung cancer patients reported the highest prevalence (62%), and leukemia reported the lowest prevalence (23.8%).
- Further sub-group analysis will aim to break down prevalence rates by types of anti-neoplastic agents, the HDI of countries, methodology (including study design and publication year), and prevalence rates at 3, 6, 9, and 12 months post-chemotherapy.
- This study highlights the significant global burden of chronic painful CIPN. Future studies should focus on identifying underlying mechanisms for these disparities and developing interventions to reduce the burden of chronic painful CIPN.

REFERENCES

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- Zhang S. (2021). Chemotherapy-induced peripheral neuropathy and rehabilitation: A review. *Seminars in oncology*, 48(3), 193–207. <https://doi.org/10.1053/j.seminoncol.2021.09.004>