

How Is Driving Affected Among Persons With Amyotrophic Lateral Sclerosis & Other Neurodegenerative Diseases? A Scoping Review

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ALS is a fatal neurodegenerative disease with a prevalence of 1/100k (Zarei et al., 2015). Literature is present regarding driving with HD, MS, and PD, but there is notably less research on driving implications among PALS. The purpose of this scoping review study is to synthesize available literature regarding driving with neurodegenerative diseases and to address the gap on how driving is impacted among PALS. A scoping review was conducted using the public recommendations of PRISMA-SR from 50 articles based on 10 content areas (Tricco, 2018). Information sources included PubMed and CINAHL. Based on inclusion criteria, 967 articles were screened and a total of 50 articles were included for the full-text review. Data extraction including driving assessments utilized and implications of driving will be extracted, and a complete synthesis of results is in progress. Research is ongoing, but preliminary findings suggest 2% of included articles explores how driving is impacted among PALS compared to 98% that explores driving and the other specified neurodegenerative diagnoses, HD, MS, and PD. Prevailing factors among the diagnoses that affect driving within the included articles are deficits in cognition, motor planning, and reaction time. Driving falls into the realm of OT as an IADL and adds value in daily function (Cornelis et al., 2017). It is critical to promote IADL activities among all populations of patients with neurodegenerative diseases, including ALS. Research shows a prominent gap in literature regarding driving implications among PALS. More research is required to understand how driving is impacted among PALS and other neurodegenerative diseases.

References

- Cornelis, E., Gorus, E., Beyer, I., Bautmans, I., & De Vriendt, P. (2017). Early diagnosis of mild cognitive impairment and mild dementia through basic and instrumental activities of daily living: Development of a new evaluation tool. *PLoS Medicine*, *14*(3), e1002250. <https://doi.org/10.1371/journal.pmed.1002250>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., et al. (2018). PRISMA extension for scoping reviews (PRISMA ScR): Checklist and explanation. *Annals of Internal Medicine*, *169*, 467–473. <https://doi.org/10.7326/M18-0850>
- Zarei, S., Carr, K., Reiley, L., Diaz, K., Guerra, O., Altamirano, P. F., Pagani, W., Lodin, D., Orozco, G., & Chinae, A. (2015). A comprehensive review of amyotrophic lateral sclerosis. *Surgical Neurology International*, *6*(171), 1-23. <https://doi.org/10.4103/2152-7806.169561>