# Protocol Brief

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# Comparative Efficacy of Interventions for Aggressive and Agitated Behaviors in Dementia: A Systematic Review and Network Meta-Analysis

## Rationale

Many persons with dementia receive pharmacologic interventions as treatment for neuropsychiatric symptoms such as aggression and agitation. However, the comparative effectiveness of pharmacologic and nonpharmacologic interventions for neuropsychiatric symptoms remains unclear.

## Implications

Currently, there is a gap in research that looks at the comparative efficacy of pharmacologic and nonpharmacologic interventions for treating neuropsychiatric symptoms in dementia. This study will look at the effects of both types of interventions to equip dementia care partners with the knowledge of which interventions to use when patients with dementia are experiencing neuropsychiatric symptoms.

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## Background

- The comparative efficacy of pharmacologic and nonpharmacologic interventions for treating neuropsychiatric symptoms in dementia, including aggression and agitation, has been limited by a lack of head-to-head randomized controlled trials.

## Objective

- To determine the comparative efficacy of pharmacologic and nonpharmacologic interventions for treating aggression and agitation in persons with dementia.
- To determine the best interventions for treating neuropsychiatric symptoms such as aggression and agitation in persons with dementia.

## Methodology

- **Eligibility Criteria:** Our eligibility criteria are outlined using the PICOS framework, as follows:

  **Population:** all patients with a diagnosis of dementia.

  **Interventions:** any pharmacologic or non-pharmacological treatment strategy for neuropsychiatric symptoms in dementia.

  **Comparators:** usual care or another pharmacologic or nonpharmacologic treatment strategy for neuropsychiatric symptoms.

  **Outcomes:** primary outcome of treatment efficacy will be aggression. Other possible secondary outcomes of treatment efficacy will include depressive symptoms, neuropsychiatric inventory total score, etc.

  **Study designs:** randomized controlled trials (RCTs).

- **Literature Search:** MEDLINE, EMBASE, CENTRAL, CINAHL, and PsychINFO will be searched for citations published in any language. Grey literature, reference lists of included studies, and related systematic reviews will also be searched.
- **Study Selection/Data Abstraction:** Two reviewers will independently review the title and abstract of articles retrieved from the literature search to determine if a study is eligible for inclusion. The full-text of articles retained from level one screening will then be reviewed to confirm each article's eligibility for inclusion.
- **Synthesis:** Included studies will be summarized descriptively based on study characteristics, study-level patient covariates, interventions and outcomes studied, and our assessment of risk of bias. In our pairwise and network meta-analyses of treatment efficacy and safety, we will pool effect measures across all types of dementia.

## Knowledge Translation Strategy

- We expect that the results of the study will be disseminated to patients and dementia care partners, which will allow them to make informed treatment

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