



# Ethical Arguments Concerning the Use of Alzheimer's Disease Biomarkers in Individuals with No or Mild Cognitive Impairment: A Systematic Review and Framework for Discussion

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**BACKGROUND:** The shift to defining Alzheimer's disease (AD) as a biological continuum, which is characterized by the presence of biomarkers instead of clinical symptoms, has sparked a widespread debate. Insight into the given arguments and their underlying moral values is crucial to ensure well-considered and appropriate AD biomarker testing in the future.

**OBJECTIVE:** To critically review the arguments in favor of or against AD biomarker testing in people with no or mild cognitive impairment and to explicate their underlying moral values.

**METHODS:** Seven databases were systematically searched for publications mentioning arguments of interest. Arguments are identified using qualitative data-analysis and evaluated within an ethical framework.

**RESULTS:** Our search yielded 3,657 articles of which 34 met the inclusion criteria. We discuss the clusters of arguments separate from their evaluation and the assessment of the debate as a whole. The right to know, which derives from the moral value of respect for autonomy, is a central argument in favor of biomarker testing. On the other hand, fear of the disease and lack of a disease-modifying treatment may result in a negative balance of good over inflicted harms, which argues against its use.

**CONCLUSION:** Critical evaluation and weighing of the given arguments in a specific context, within an ethical framework, demonstrates the necessity to differentiate between what we hope or expect from research and where we currently stand. While AD biomarkers may have an indispensable value for research, the current advantage for clinical practice appears limited.

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