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Summary:

The Use of Smart Homes to Assist Older Adults with Mild Cognitive Impairment Age in Place: A Systematic Review: The primary outcome investigated was aging in place. One survey investigated prominent user needs to age in place and results were falls, safety outdoors, able to orient at night, large buttons, social contact, safety, & autonomy. Most (70.45%) patients wanted to continue use of smart home after study. Two studies found that patients with MCI require prompting from the smart home, but verbal prompts were sufficient in both single & multi-domain MCI. A significant secondary outcome was decreased caregiver stress. There is low to moderate evidence to support smart homes to enhance aging in place in older adults with MCI. Features should include both user input and prior success. Features that were user positive and successful included smoke detector, smart front door, automated lights, reminder/prompt service, outdoor sensor system, memory stimulation (games, family pictures), and caregiver communication with alert system. A major limitation in this area is feasibility of implementing a smart home and lack of consistency large-scale studies. Further research is needed to determine a cost efficient, feasible, system that can be widely implemented. Overall, adults with MCI and caregivers were satisfied with the use of smart homes to support the person's aging in place and increase safety of the person, while reducing stress on the caregiver. Clinicians should be prepared to educate patients on the resources and options available with smart homes to provide optimal aging in place for those with MCI.