



# Agitation Associated With Alzheimer's Dementia (AAD) in the Long-Term Care (LTC) Setting

An Introduction to the Agitation in Alzheimer's Screener for Caregivers  
(AASCTM)

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# Objectives

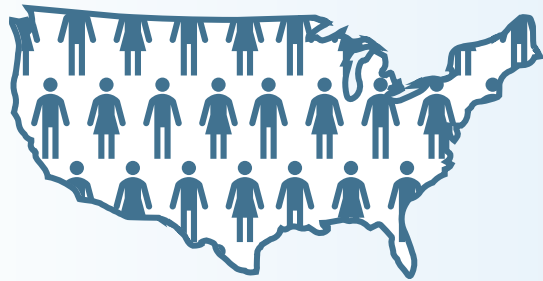
Describe how agitation associated with Alzheimer's dementia (AAD) can manifest within the long-term care (LTC) setting and the burden that AAD can pose to both residents and caregivers.

Review current approaches to recognizing and documenting AAD in the LTC setting, as well as potential challenges faced by nursing home caregivers.

Discuss the Agitation in Alzheimer's Screener for Caregivers (AASC™) and how it may be used to identify and document AAD.

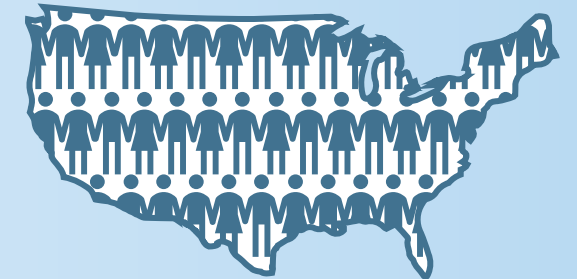
# Alzheimer's Dementia Is a Highly Prevalent Neurodegenerative Disorder<sup>1</sup>

Estimated number of US adults aged  $\geq 65$  years living with Alzheimer's dementia:



**2023**  
**~6.7**  
**MILLION**

**2050**  
**~12.7**  
**MILLION**



In 2023, ~65% of people with Alzheimer's or other forms of dementia lived in the community, receiving more care from family members and other unpaid caregivers as their disease progressed

US, United States.

1. Alzheimer's Association 2023. *Alzheimers Dement.* 2023;19(4):1598-1695.

# Disease State Overview of Agitation Associated With Alzheimer's Dementia (AAD)

**Agitation is one of the most common neuropsychiatric symptoms of Alzheimer's dementia<sup>1</sup>**

- Manifestations of Alzheimer's dementia are not limited to cognitive decline and functional impairment, and include a range of neuropsychiatric symptoms, such as anxiety, irritability, and agitation<sup>2-5</sup>
- Symptoms of agitation manifest as both non-aggressive and aggressive behaviors, such as<sup>6,7</sup>:

## **EXCESSIVE MOTOR ACTIVITY:**

Pacing, restlessness, repetitiveness, and hoarding



## **PHYSICAL AGGRESSION:**

Hitting, kicking, punching, biting, and throwing things



## **VERBAL AGGRESSION:**

Screaming, using profanity, and asking repetitive questions



AAD is a common cause of placement in Long-Term Care (LTC)<sup>8</sup>



AAD, agitation associated with Alzheimer's dementia. LTC, long-term care.

1. Halpern R, et al. Int J Geriatr Psychiatry. 2019;34(3):420-431.
2. Alzheimer's Association 2023. Alzheimers Dement. 2023;19(4):1598-1695.
3. Antonsdottir IM, et al. Expert Opin Pharmacother. 2015;16(11):1649-1656.
4. Anatchkova M, et al. Int Psychogeriatr. 2019;31(9):1305-1318.

5. Kales HC, et al. BMJ. 2015;350:h369.
6. Sano M, et al. Int Psychogeriatr. 2023;1-13.
7. Rabinowitz J, et al. Am J Geriatr Psychiatry. 2005;13(11):991-998.
8. Cloutier M, et al. Alzheimers Dement (NY). 2019;5:851-861.

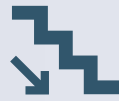
# AAD Worsens the Impact of an Already Devastating and Burdensome Disease for Patients<sup>1,2</sup>

Agitation\* in patients with Alzheimer's dementia been associated with:

Overall<sup>1-7</sup>



Accelerated disease progression



Functional decline



Decreased quality of life



Greater comorbidities



Increased use of concomitant therapies



Earlier death



Increased risk of hospitalization/institutionalization

In LTC<sup>1</sup>



Falls



Fractures



Infections



Higher medication use



Other NPS<sup>a</sup>

\*Versus no agitation.

<sup>a</sup>Includes depression, anxiety, delusion, and hallucinations.

AAD, agitation associated with Alzheimer's dementia. LTC, long-term care. NPS, neuropsychiatric symptoms.

1. Fillit H, et al. *Int J Geriatr Psychiatry*. 2021;36(12):1959-1969.
2. Jones E, et al. *J Alzheimers Dis*. 2021;83(1):89-101.

3. Halpern R, et al. *Int J Geriatr Psychiatry*. 2019;34(3):420-431.

4. Koenig AM, et al. *Curr Psychiatry Rep*. 2016;18(1):3.

5. Peters ME, et al. *Am J Psychiatry*. 2015;172(5):460-465.

6. Scarmeas N, et al. *Arch Neurol*. 2007;64(12):1755-1761.

7. Banerjee S, et al. *J Neurol Neurosurg Psychiatry*. 2006;77(2):146-148.

# Agitation in Patients With Alzheimer's Dementia Has Been Associated With High Caregiver Burden Which Increases With Severity<sup>1</sup>

**AAD is a risk factor for burnout, reduced workability, and generally weaker health among caregivers<sup>2</sup>**

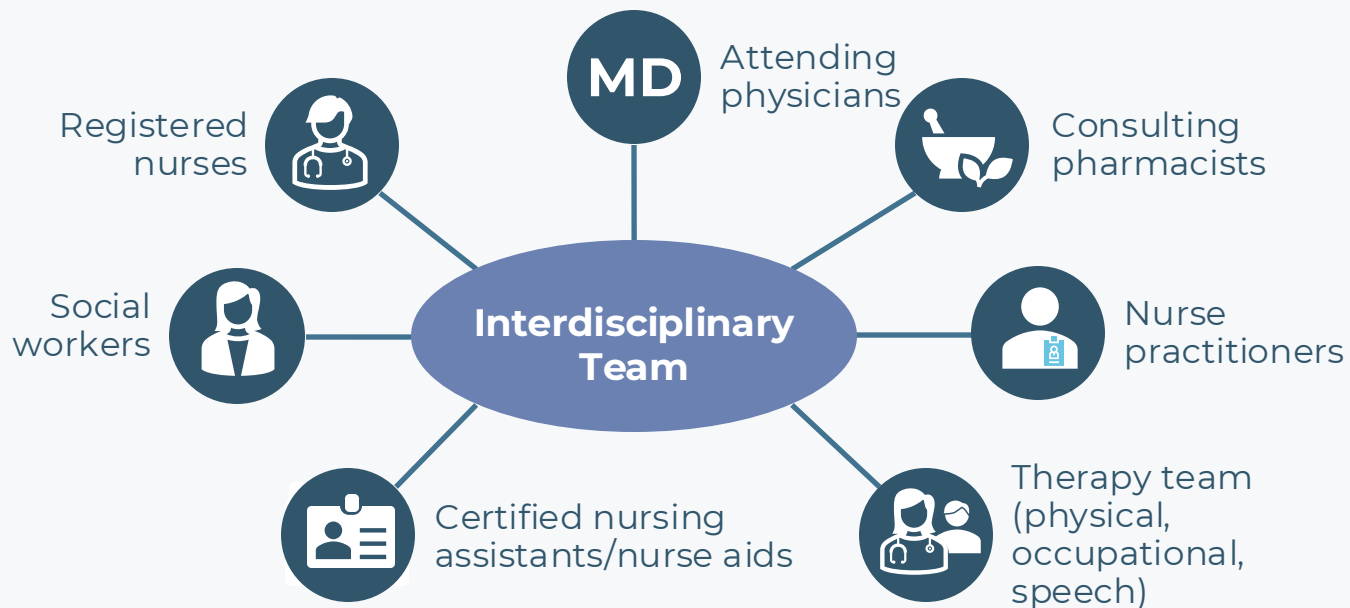


AAD, agitation associated with Alzheimer's dementia.

1. Schein J, et al. *J Alzheimers Dis.* 2022;88(2):663-677.
2. Palm R, et al. *J Alzheimers Dis.* 2018;66(4):1463-1470.
3. McCarty EF and Drebing C. *J Nurses Staff Dev.* 2002;18(5):250-257.
4. Kales HC, et al. *BMJ.* 2015;350:h369.
5. Mohamed S, et al. *Am J Geriatr Psychiatry.* 2010;18(10):917-927.
6. Isik AT, et al. *Int J Geriatr Psychiatry.* 2019;34(9):1326-1334.
7. Brodaty H and Hadzi-Pavlovic D. *Aust N Z J Psychiatry.* 1990;24(3):351-361.
8. Thomas P, et al. *Int J Geriatr Psychiatry.* 2006;21(1):50-56.
9. Patrick KS, et al. *Psychogeriatrics.* 2022;22(5):688-698.
10. Cohen-Mansfield J. *J Psychiatr Res.* 2008;43(1):64-69.

# The Goal of the Interdisciplinary Team Is to Provide Patient-Centered Care<sup>1</sup>

The interdisciplinary team varies by setting and facility, but can be comprised of the following care providers<sup>2,3</sup>:



The interdisciplinary team assesses, coordinates, and manages comprehensive health care for each resident's varying needs<sup>a</sup>:



<sup>a</sup>In accordance with federal/state regulations (eg, 42 CFR 483.5, 42 CFR 483.10 through 483.75; CMS State Operations Manual Appendix PP)<sup>4,5</sup>

CMS, Center for Medicare & Medicaid Services. LTC, long-term care.

1. NEJM. NEJM Catalyst. "What Is Patient-Centered Care?" 2017. Available at: <https://catalyst.nejm.org/doi/full/10.1056/CAT.17.0559>.
2. Philip AM and Soper MH. Interdisciplinary Care Teams for Medicare-Medicaid Enrollees: Considerations for States. 2016. Available at: <https://www.chcs.org/resource/interdisciplinary-care-teams-for-medicare-medicare-enrollees-considerations-for-states/>

3. State Operations Manual Appendix PP – Guidance to Surveyors for Long Term Care. Centers for Medicare & Medicaid Services (CMS). Rev. 211. Available at: <https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf>.
4. Stefanacci RG and Cusak CL. Ann Longterm Care. 2016;24(4):17-20.
5. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Committee on the Quality of Care in Nursing Homes. The National Imperative to Improve Nursing Home Quality: Honoring Our Commitment to Residents, Families, and Staff. Washington (DC): National Academies Press (US); April 6, 2022.



# Current Approaches and Unmet Needs in Recognition of AAD

Caregivers are often first to experience and manage agitation behaviors and thus play a critical role in recognizing, assessing, and communicating agitation symptoms to HCPs<sup>1-4</sup>

**Agitation behaviors are under-recognized, despite being among the earliest and most common NPS in Alzheimer's Dementia<sup>5</sup>**



Rating scales that measure agitation are available, but they<sup>3,6-10</sup>:

- Were not designed to screen for agitation or AAD
- Are often scored differently by caregivers and HCPs
- Are not widely or easily used in clinical practice

Examples include:

- CMAI (Cohen-Mansfield Agitation Inventory)<sup>7</sup>
- NPI (Neuropsychiatric Inventory)<sup>8</sup>
- IPA (International Psychogeriatric Association) definition of agitation in cognitive disorders<sup>6</sup>

**Tailored tools that help caregivers better understand symptoms of AAD can help reassure caregivers and may also improve patient outcomes and reduce caregiver burden<sup>6,11,12</sup>**

AAD, association associated with Alzheimer's dementia. HCP, healthcare provider. NPS, neuropsychiatric symptoms.

1. Kales HC, et al. *BMJ*. 2015;350:h369.

2. Lindeza P, et al. *BMJ Support Palliat Care*. 2020;bmjspcare-2020-002242.

3. Stella F, et al. *Int J Geriatr Psychiatry*. 2015;30(12):1230-1237.

4. Alzheimer's Association 2023. *Alzheimers Dement*. 2023;19(4):1598-1695.

5. Lanctôt KL, et al. *Alzheimers Dement (N Y)*. 2017;3(3):440-449.

6. Sano M, et al. *Int Psychogeriatr*. 2023;1-13.

7. Cohen-Mansfield J. *Instruction Manual for the Cohen-Mansfield Agitation Inventory (CMAI)*. The Research Institute of the Hebrew Home of Greater Washington; Rockville, Maryland: 1991.

8. Cummings JL. *J Neurol*. 1997;48(5 Suppl 6):S10-6.

9. Rabinowitz J, et al. *Am J Geriatr Psychiatry*. 2005;13(11):991-998.

10. Sano M, et al. *J Prev Alzheimers Dis*. 2018;5(2):98-102.

11. Hoe J, et al. *BJPsych Open*. 2017;3(1):34-40.

12. Rodriguez K, et al. *J Alzheimers Dis Rep*. 2021;5(1):433-442.

# The International Psychogeriatric Association (IPA) Definition of Agitation

## IPA Criteria Offer a Solid Foundation for Recognition of Agitation in Cognitive Disorders<sup>1</sup>

### The IPA definition of agitation in cognitive disorders includes four criteria:

1. The patient meets the criteria for cognitive impairment or dementia syndrome
2. The patient exhibit  $\geq 1$  agitation behavior(s) with emotional duress that is persistent or frequently recurrent for  $\geq 2$  weeks or the behavior represents a dramatic change from the patient's usual behavior\*
3. The behaviors are severe and associated with excess distress or produce disability beyond that due to cognitive impairment
4. The behaviors cannot be attributed to another psychiatric disorder, medical condition, including delirium, suboptimal care conditions, or the physiological effects of a substance

#### Agitation behaviors include:



#### EXCESSIVE MOTOR ACTIVITY BEHAVIORS:

- Pacing
- Rocking
- Gesturing
- Pointing fingers
- Restlessness
- Performing repetitious mannerisms



#### VERBAL AGGRESSION BEHAVIORS:

- Yelling
- Speaking in an excessively loud voice
- Using profanity
- Screaming
- Shouting



#### PHYSICAL AGGRESSION BEHAVIORS:

- Grabbing
- Shoving
- Pushing
- Resisting
- Hitting others
- Kicking objects or people
- Scratching
- Biting
- Throwing objects
- Hitting self
- Slamming doors
- Tearing things
- Destroying property

\*In special circumstances, the ability to document the behaviors over 2 weeks may not be possible and other terms of persistence and severity may be needed to capture the syndrome beyond a single episode. AASC™, Agitation in Alzheimer's Screener for Caregivers. IPA, International Psychogeriatric Association.

1. Sano M, et al. *Int Psychogeriatr.* 2023;1-13.

# Documenting Behavioral Symptoms in the Minimum Data Set (MDS)<sup>1</sup>

MDS 3.0 Item	MDS 3.0 Resident Assessment and Care Screening
<p><b>E0200</b> Behavioral Symptom - Presence &amp; Frequency</p>	<p>Note presence of symptoms and their frequency</p> <ul style="list-style-type: none"> <li>A. Physical behavioral symptoms directed toward others (e.g., hitting, kicking, pushing, scratching, grabbing, abusing others sexually).</li> <li>B. Verbal behavioral symptoms directed toward others (e.g., threatening others, screaming at others, cursing at others).</li> <li>C. Other behavioral symptoms not directed toward others (e.g., physical symptoms such as hitting or scratching self, pacing, rummaging, public sexual acts, disrobing in public, throwing or smearing food or bodily wastes, or verbal/vocal symptoms like screaming, disruptive sounds).</li> </ul>
<p><b>E0500</b> Impact on Resident</p>	<p>Did any of the identified symptoms(s):</p> <ul style="list-style-type: none"> <li>A. Put the resident at significant risk for physical illness or injury?</li> <li>B. Significantly interfere with the residents care?</li> <li>C. Significantly interfere with the resident's participation in activities or social interactions?</li> </ul>
<p><b>E0600</b> Impact on Others</p>	<p>Did any of the identified symptoms(s):</p> <ul style="list-style-type: none"> <li>A. Put others at significant risk for physical injury?</li> <li>B. Significantly intrude on the privacy or activity of others?</li> <li>C. Significantly disrupt care or living environment?</li> </ul>
<p><b>E0800</b> Rejection of Care – Presence &amp; Frequency</p>	<p>Did the resident reject evaluation or care (e.g., bloodwork, taking medications, ADL assistance) that is necessary to achieve the resident's goals for health and well-being?</p>

MDS 3.0, Minimum Data Set – Version 3.0.

1. Centers for Medicare and Medicaid Services. MINIMUM DATA SET (MDS) - Version 3.0 Resident Assessment and Care Screening Nursing Home Comprehensive (NC) Item Set. Web. Accessed Feb 01, 2024. <https://www.cms.gov/medicare/quality/nursing-home-improvement/resident-assessment-instrument-manual>

# Agitation in Alzheimer's Screener for Caregivers (AASC™): Goals and Development <sup>1</sup>

## Goals

1

Foster caregiver knowledge and allow for early recognition

2

Facilitate caregiver discussion of agitation symptoms with HCPs

3

Assist clinicians in making a potential diagnosis of AAD

Initial development

- Guided by the IPA definition of agitation in cognitive disorders
- Included items with simplified concepts, questions, and response options
- Allowed for easy and quick completion by caregivers

Expert Feedback

- Provided by clinical and patient representative experts
- Used to inform early modifications to screener items

Caregiver feedback

- Provided by patient caregivers during two rounds of semi-structured interviews with cognitive debriefing
- Used to inform additional modifications to screener items

AASC™ tool

AAD, agitation associated with Alzheimer's dementia. AASC™, Agitation in Alzheimer's Screener for Caregivers. CMAI, Cohen-Mansfield Agitation Inventory. IPA, International Psychogeriatric Association.

1. Clevenger C, et al. One Minute to Recognition: The Agitation in Alzheimer's Screener for Caregivers (AASC™). The Gerontological Society of America Annual Scientific Meeting; November 8-12, 2023; Tampa, FL

# AASC™ Screening Tool Items<sup>1</sup>

1. Are you noticing any of the following that represent a change from the individual's usual or past behavior?

a. Repeating motions or behaviors (e.g., rocking, raising fist, pointing finger)

b. Pacing or restlessness (cannot be still)

c. Cursing/using profanity or lashing out verbally

d. Raising voice or yelling or screaming

e. Resisting assistance or care

f. Throwing or hitting or breaking things

g. Trying to hurt self or others (e.g., grabbing, kicking, hitting, biting)

2. Do any of these behaviors negatively affect the individual's relationships, activities, or willingness to receive care?

## AASC™ Agitation in Alzheimer's Screener for Caregivers

A person with Alzheimer's dementia may become easily upset, frustrated, or angry. These feelings may be associated with agitation, a common symptom of Alzheimer's.

The following questions ask about behaviors associated with agitation that you may have observed in the individual for whom you provide care.

Your answers to these questions can help you talk with your person's healthcare professional. Please select one response for each question.

Patient Name \_\_\_\_\_ Date \_\_\_\_\_

1. Are you noticing any of the following that represent a change from the individual's usual or past behavior?

	Yes	No
a. Repeating motions or behaviors (e.g., rocking, raising fist, pointing finger)	<input type="checkbox"/>	<input type="checkbox"/>
b. Pacing or restlessness (cannot be still)	<input type="checkbox"/>	<input type="checkbox"/>
c. Cursing/using profanity or lashing out verbally	<input type="checkbox"/>	<input type="checkbox"/>
d. Raising voice or yelling or screaming	<input type="checkbox"/>	<input type="checkbox"/>
e. Resisting assistance or care	<input type="checkbox"/>	<input type="checkbox"/>
f. Throwing or hitting or breaking things	<input type="checkbox"/>	<input type="checkbox"/>
g. Trying to hurt self or others (e.g., grabbing, kicking, hitting, biting)	<input type="checkbox"/>	<input type="checkbox"/>

2. Do any of these behaviors negatively affect the individual's relationships, activities, or willingness to receive care?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Disclaimer: Otsuka Pharmaceutical Development & Commercialization funded and contributed to the development of this screening tool. The AASC™ is a screening tool and is not a diagnostic tool.


Agitation criteria based on the International Psychogeriatric Association (IPA) definition (Sano et al., 2023).  
References: 1. Clevenger C, et al. One Minute to Recognition: The Agitation in Alzheimer's Screener for Caregivers (AASC™). The Gerontological Society of America Annual Scientific Meeting; November 8-12, 2023; Tampa, FL. 2. Sano M, Cummings J, Auer S, et al. *Int Psychogeriatr*. 2023;1-13.

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The AASC™ is available for download at: <http://www.theaasc.com>  
AASC™, Agitation in Alzheimer's Screener for Caregivers.

1. Clevenger C, et al. One Minute to Recognition: The Agitation in Alzheimer's Screener for Caregivers (AASC™). The Gerontological Society of America Annual Scientific Meeting; November 8-12, 2023; Tampa, FL



## How can a tool like the AASC™ best be utilized in the long-term care setting?

# Summary



Agitation is one of the most common neuropsychiatric symptoms of Alzheimer's dementia, and is a common cause of placement in a long-term care facility<sup>1,2</sup>



AAD is associated with substantial burden and long-term consequences, for both residents and caregivers<sup>3</sup>



Despite being among the earliest and most common symptoms of Alzheimer's dementia, agitation behaviors are largely unrecognized, worsening the negative impact on residents and caregivers<sup>4,5</sup>



In general, HCPs and caregivers do not discuss agitation behaviors until symptoms become untenable for the caregiver<sup>6,7</sup>



A new screening tool for AAD may facilitate early detection of agitation by caregivers and improve overall management of agitation in patients with Alzheimer's dementia<sup>8</sup>

AAD, agitation associated with Alzheimer's dementia HCP, healthcare provider

1. Halpern R, et al. *Int J Geriatr Psychiatry*. 2019;34(3):420-431.
2. Cloutier M, et al. *Alzheimers Dement (NY)*. 2019;5:851-861.
3. Fillit H, et al. *Int J Geriatr Psychiatry*. 2021;36(12):1959-1969
4. Lanctôt KL, et al. *Alzheimers Dement (N Y)*. 2017;3(3):440-449.

5. Michael M. *Alzheimers Dement*. 2022;18(Suppl 11):e060656
6. Richler LG, et al. *Harv Rev Psychiatry*. 2023;31(1):22-27.
7. Kales HC, et al. *J Am Geriatr Soc*. 2014;62(4):762-769.
8. Clevenger C, et al. One Minute to Recognition: The Agitation in Alzheimer's Screener for Caregivers (AASC™). The Gerontological Society of America Annual Scientific Meeting; November 8-12, 2023; Tampa, FL.

# Closing





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