



Polypharmacy: Use of Multiple Anticholinergic Medications in Older Adults (POLY-ACH)

The POLY-ACH measure assesses the percentage of patients 65 years of age or older with two or more claims for anticholinergic medications on different dates of service during the measurement year and concurrent use of two or more anticholinergics.

The Centers for Medicare and Medicaid Services (CMS) uses prescription date of service and days' supply to determine concurrent use and defines concurrent use as overlapping days' supply for at least 30 cumulative days during the measurement period (calendar year).

Provider Tips and Best Practices

- **Review** all patient medications — including over-the-counter meds — at every visit, along with review of medical records when patients are taking a medication included on the POLY-ACH measure drug list.
- **Evaluate** medication appropriateness based on current evidence. Consider removal or replacement of anticholinergic medications with safer clinical alternatives.
- **Educate** the patient on risks and potential side effects of using multiple anticholinergic medications, including cognitive decline, blurry vision, urine retention, dry mouth, and increased risk of fall. Provide recommendations on managing side effects.
- **Document** medication risks in the patient's chart and ensure the patient has written documentation of concern about potential harmful effects.
- **Leverage** data to identify prescriptions that meet polypharmacy criteria.



Reminders

- **Patients must use** their Medicare Part D pharmacy benefit, as gap closure is dependent on pharmacy claims.
- **A lower measure rate** indicates better performance.

Exclusion

- **Patients in hospice** during the measurement year

Did you know?

- Older adults are more sensitive to adverse events associated with anticholinergics, including cognitive decline, dementia, and increased risk of fall. 
- Anticholinergic drugs may cause cognitive disorder symptoms that could be mistaken as normal manifestations of aging.
- Long-term use (>60 days) of anticholinergic drugs could lead to brain changes that are associated with neurodegeneration.
- Many over-the-counter medications commonly used by older adults (such as sleep aids and treatments for overactive bladder) can increase the patient's anticholinergic burden (ACB). 



Medications included in the measure			
ACH Medications			Potential Alternatives with low activity (if clinically appropriate)
Antihistamines	<ul style="list-style-type: none"> • brompheniramine • carbinoxamine • chlorpheniramine • clemastine • cyproheptadine • dexbrompheniramine • dexchlorpheniramine 	<ul style="list-style-type: none"> • dimenhydrinate • diphenhydramine (oral) • doxylamine • hydroxyzine • meclizine • pyrilamine • triprolidine 	<ul style="list-style-type: none"> • intranasal normal saline • second-generation antihistamine (e.g., levocetirizine, loratadine) • intranasal steroid
Antiparkinsonian agents	<ul style="list-style-type: none"> • amantadine • benztropine • trihexyphenidyl 		<ul style="list-style-type: none"> • bromocriptine • entacapone • levodopa/carbidopa • selegiline • phenelzine
Skeletal muscle relaxants	<ul style="list-style-type: none"> • baclofen • cyclobenzaprine • methocarbamol 	<ul style="list-style-type: none"> • orphenadrine • orphenadrine • tizanidine 	<ul style="list-style-type: none"> • acetaminophen, ibuprofen, naproxen
Antidepressants	<ul style="list-style-type: none"> • amitriptyline • amoxapine • clomipramine • desipramine • doxepin (>6 mg/day) 	<ul style="list-style-type: none"> • imipramine • nortriptyline • paroxetine • protriptyline • trimipramin 	<ul style="list-style-type: none"> • selective serotonin reuptake inhibitors (SSRIs)* (e.g., sertraline), except paroxetine • serotonin and norepinephrine reuptake inhibitors (SNRIs) (e.g., duloxetine)
Antipsychotics	<ul style="list-style-type: none"> • chlorpromazine • clozapine • loxapine • olanzapine 	<ul style="list-style-type: none"> • perphenazine • thioridazine • trifluoperazine 	<ul style="list-style-type: none"> • low-dose non-anticholinergic antipsychotics (e.g., risperidone, aripiprazole, paliperidone, ziprasidone)
Antiarrhythmic	<ul style="list-style-type: none"> • disopyramid 		<ul style="list-style-type: none"> • diltiazem, verapamil
Antimuscarinics	<ul style="list-style-type: none"> • darifenacin • fesoterodine • flavoxate • oxybutynin 	<ul style="list-style-type: none"> • solifenacin • tolterodine • trospium 	
Antispasmodics	<ul style="list-style-type: none"> • atropine (excludes ophthalmic) • belladonna alkaloids • clidinium-chlordiazepoxide • dicyclomine • homatropine (excludes ophthalmic) 	<ul style="list-style-type: none"> • hyoscyamine • methscopolamine • propantheline • scopolamine (excludes ophthalmic) 	<ul style="list-style-type: none"> • loperamide
Antiemetics	<ul style="list-style-type: none"> • prochlorperazin 	<ul style="list-style-type: none"> • promethazine 	<ul style="list-style-type: none"> • ondansetron

* Selective serotonin reuptake inhibitors can be considered a clinical alternative for patients older than 65 years old, but they should not be considered an alternative or used in patients with a history of falls or dementia. Recommend SSRI alternatives.

Additional Resources and Reading

- **Pharmacy Quality Alliance:** [PQA Quality Measures](#)
- **American Geriatrics Society:** [2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults](#)
- **Pharmacy Times:** [Anticholinergic Medications in Older Adults and Strategies for Safe Deprescribing](#)
- **JAMA Network:** [Association Between Anticholinergic Medication Use and Cognition, Brain Metabolism, and Brain Atrophy in Cognitively Normal Older Adults | Dementia and Cognitive Impairment](#)
- **American Academy of Family Physicians:** [Don't recommend highly anticholinergic medications in older adults without first considering safer alternatives or non-drug measures](#)