DEMENTIA Care Aware

Early detection. Better care.

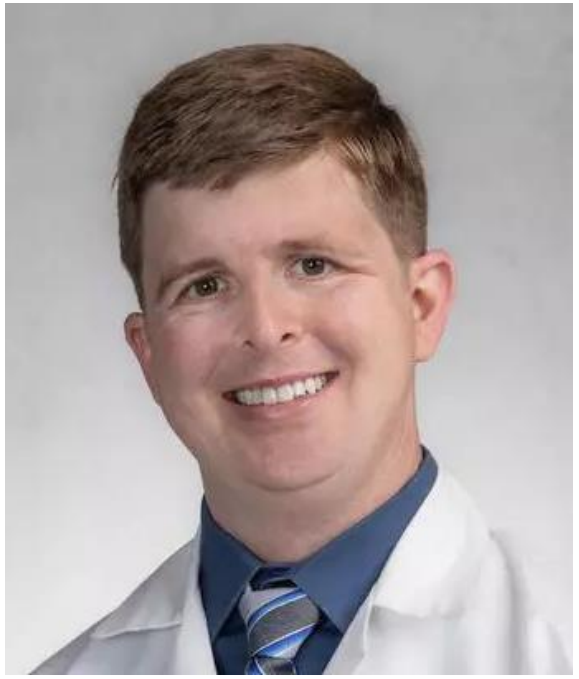
Implementing a Brain Plan: Evidence & Strategies

Presenter: Ian Neel, MD, UC San Diego Health

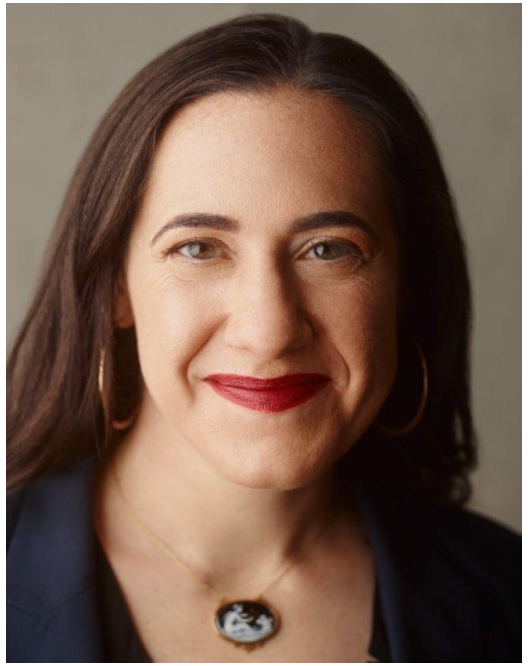
Moderator: Anna Chodos, MD, MPH

DHCS

Introduction



Ian Neel, MD
Geriatrician, Medical Director, Geriatric Medicine Consult Service at Senior Behavioral Health
University of California, San Diego



Anna Chodos, MD, MPH
Primary Care & Geriatrics
Associate Professor, UCSF Department of Medicine
Executive Director, Dementia Care Aware

DEMENTIA Care Aware

DHCS

Financial Disclosures

- All presenters report that they have no financial disclosures.

Dementia Care Aware Program offerings

Warmline:

1-800-933-1789

A provider support and consultation service that connects primary care teams with Dementia Care Aware experts

Trainings:

- Online Trainings
- Live Cognitive Health Assessment (CHA) trainings
- Monthly webinars
- "Dementia Care on Air" Podcasts

Interactive Case Conferences:

UCLA and UCI ECHO conferences

Practice change support:

- UCLA Alzheimer's and Dementia Care program
- Alzheimer's Association Health Systems

Our Training

DEMENTIA Care Aware

DHCS

Screening for Dementia: The CHA

Goal: Screen Patients Over 65 Annually (Who Don't Have a Pre-existing Diagnosis of Dementia)

Part 1	Part 2	Part 3
		
Take a Brief Patient History	**Use Screening Tools**	**Document Care Partner Information**

Allows you to start a brain health plan at the earliest detection of symptoms.

DEMENTIA Care Aware

DHCS

Learning Objectives

1. Describe at least two non-pharmacologic factors that can help delay or slow progression of cognitive decline
2. Identify the most cognitively detrimental medications
3. Formulate an actionable strategy to address a brain health plan during a clinic visit

What is a Brain Health Plan?

- As physicians, we frequently get caught up in dealing with problems pharmacologically.
- Unfortunately, the pharmacologic benefits of drugs for cognitive impairment are minimal.
- While less well studied, evidence suggests non-pharmacologic interventions may have strong benefits for both the prevention of dementia as well as slowing the progression of cognitive impairment.
- A brain health plan is a comprehensive approach to reviewing these interventions with patients.

DEMENTIA Care Aware

DHCS

Overview Of Interventions That Will Be Discussed

- Review and address physical health concerns
- Review medications for polypharmacy and cognitively detrimental side effects
- Increase physical activity
- Increase mental activity
- Increase socialization

DEMENTIA Care Aware

DHCS

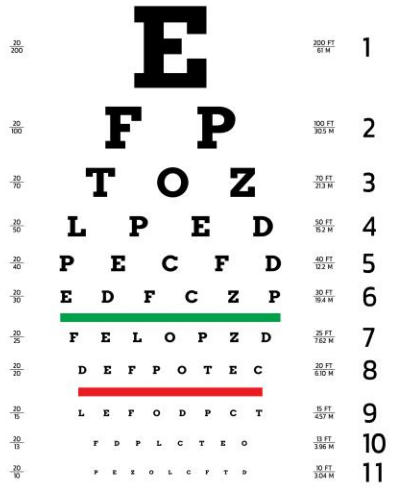
DEMENTIA Care Aware

DHCS

Mind-Body Connection

- With increased physical health problems often comes a reduction in functional abilities, which can be correlated with an increased risk of cognitive problems
- Certain diseases, such as strokes, high cholesterol, hypertension, and even dementia, can harm the blood vessels of our brain, making this blood-brain barrier less effective

Vision

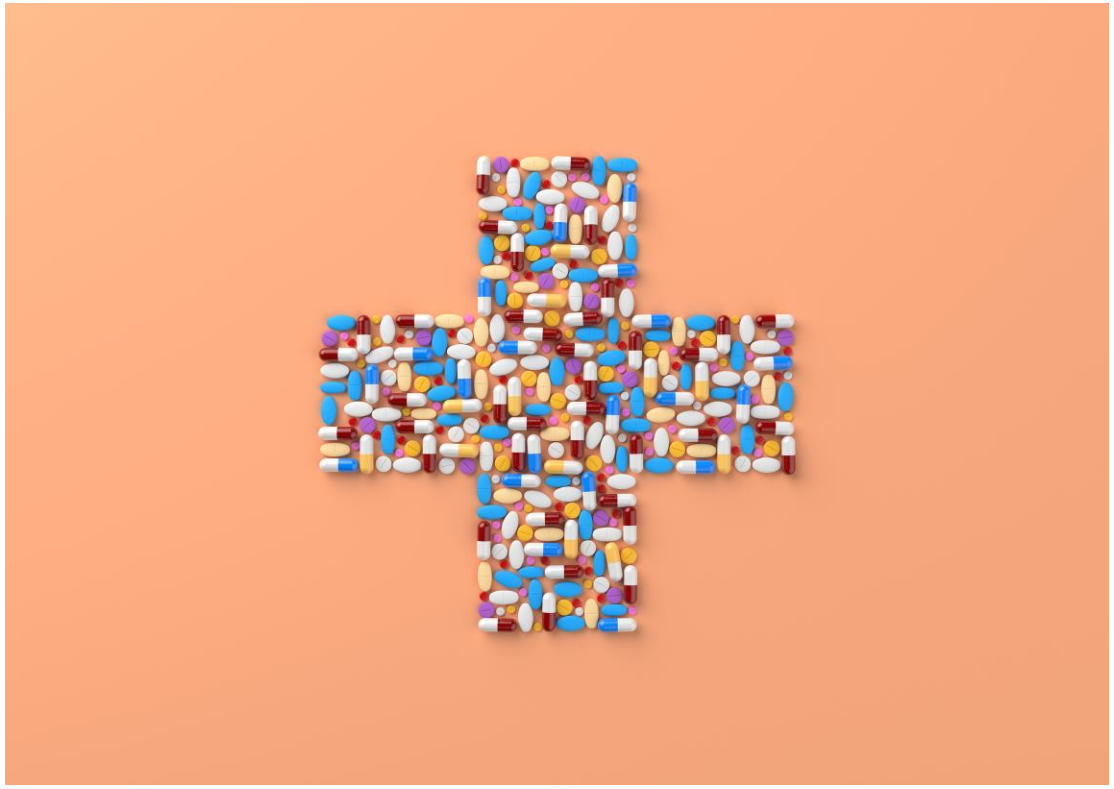


Hearing


PATIENT REGISTRATION
Last Name:
Preferred Name:
Address 2:
Work Phone:
Address 2:
Pager:
Cellular:
Single
Married
Divorced
Drivers Lic:
Spouse
Child

Polypharmacy

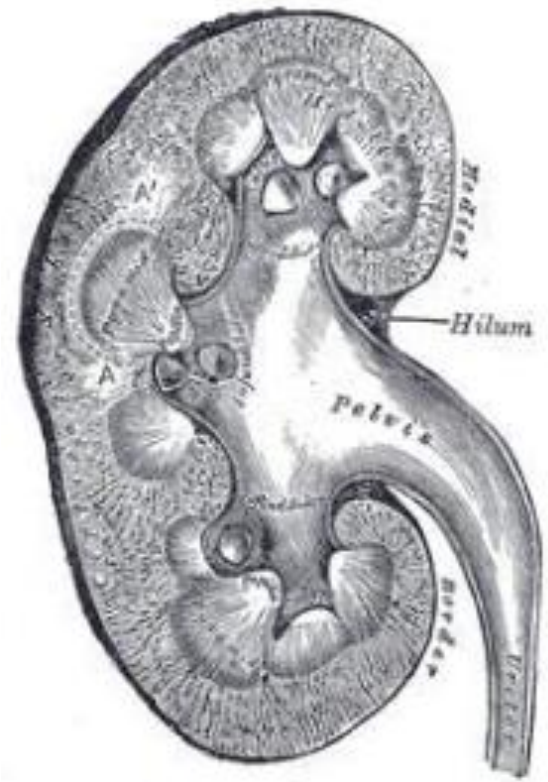
- Subcategory of “Suboptimal Prescribing”
  - Polypharmacy
  - Underutilization
  - Inappropriate prescribing
    - Non-senior-friendly agents
    - Drug-drug interactions
    - Adding medications to treat side effects of others
  - Incorrect dose

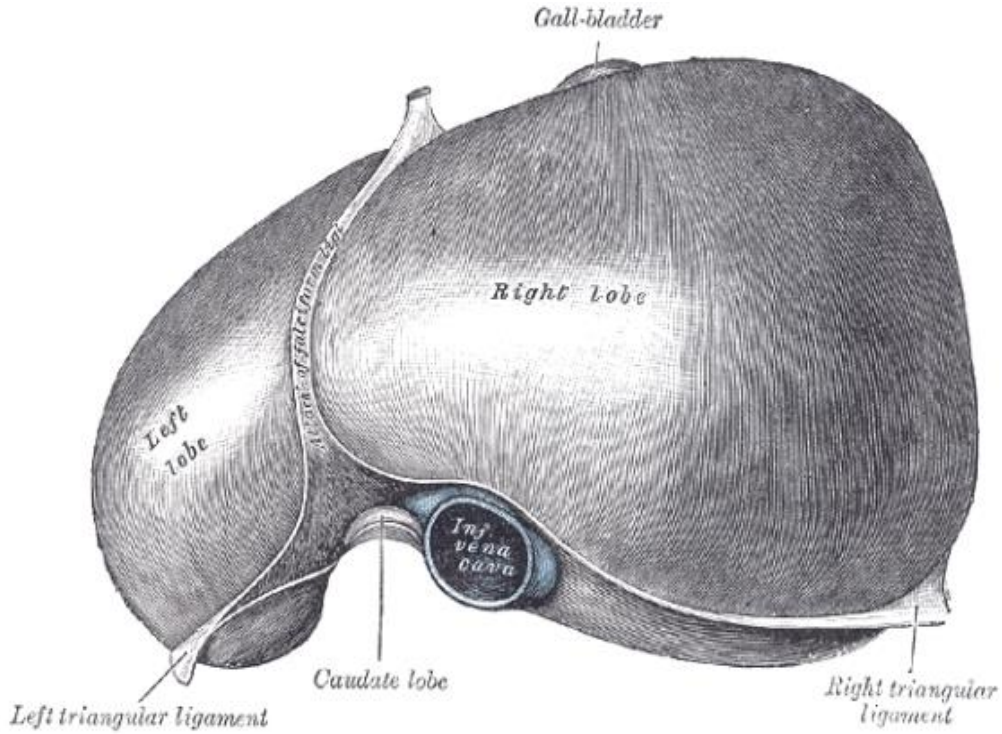


DEMENTIA Care Aware

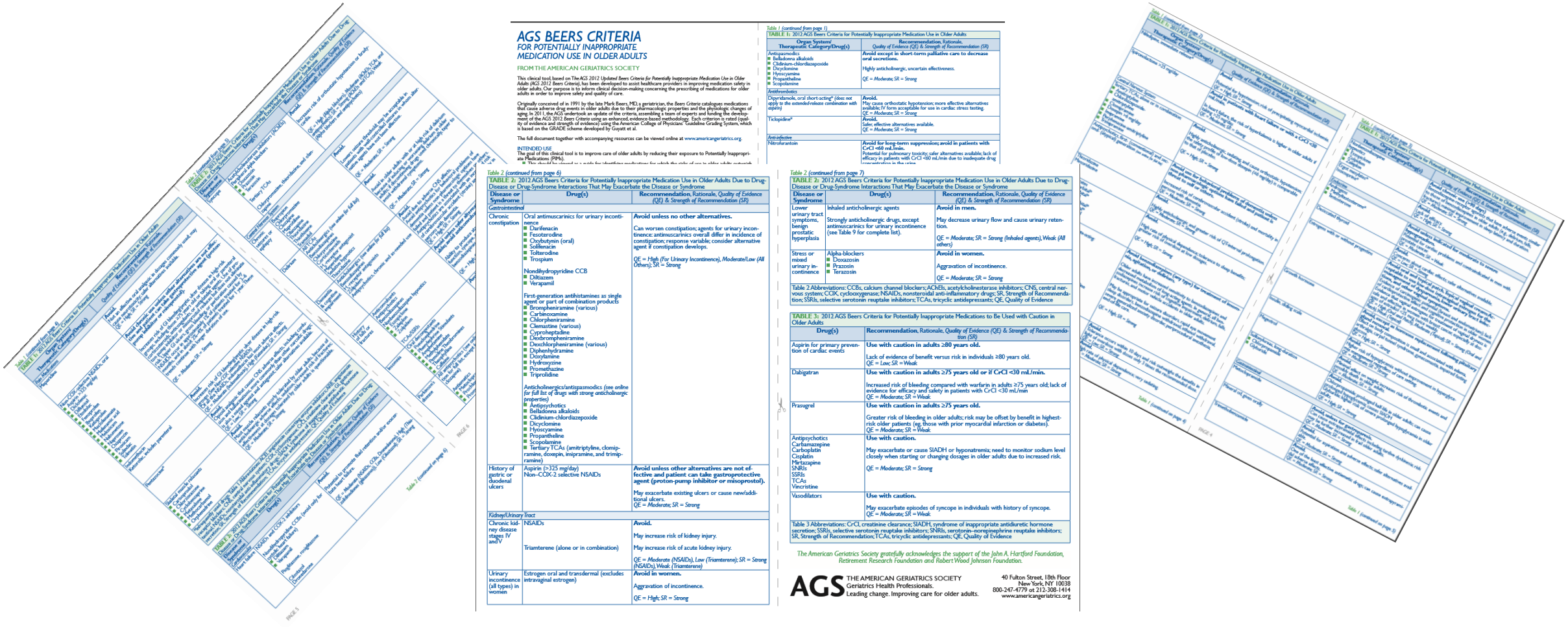
DHCS

“I’ve taken this medication for 20 years and never had a problem!”





The Beers List



AGS BEERS CRITERIA
FOR POTENTIALLY INAPPROPRIATE MEDICATION USE IN OLDER ADULTS

FROM THE AMERICAN GERIATRICS SOCIETY

This clinical tool, based on *The AGS 2012 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (AGS 2012 Beers Criteria)*, has been developed to assist healthcare providers in improving medication safety in older adults. Our purpose is to inform clinical decision-making concerning the prescribing of medications for older adults in order to improve safety and quality of care.

Originally conceived of in 1991 by the late Mark Beers, MD, a geriatrician, the *Beers Criteria* catalogues medications that cause adverse drug events in older adults due to their pharmacologic properties and the physiologic changes of aging. In 2011, the AGS undertook an update of the criteria, assembling a team of experts and funding the development of the AGS 2012 *Beers Criteria* using an enhanced, evidence-based methodology. Each criterion is rated (quality of evidence and strength of evidence) using the American College of Physicians' Guideline Grading System, which is based on the GRADE scheme developed by Guyatt et al.

The full document together with accompanying resources can be viewed online at www.americangeriatrics.org.

INTENDED USE

The goal of this clinical tool is to improve care of older adults by reducing their exposure to Potentially Inappropriate Medications (PIMs).

Table 1 (continued from page 1)

TABLE 1: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, *Quality of Evidence (QE) & Strength of Recommendation (SR)*
Antispasmodics ■ Belladonna alkaloids ■ Clidinium-chlordiazepoxide ■ Dicyclomine ■ Hyoscyamine ■ Propantheline ■ Scopolamine	**Avoid except in short-term palliative care to decrease oral secretions.** Highly anticholinergic, uncertain effectiveness. *QE = Moderate; SR = Strong*
Antithrombotics	
Dipyridamole, oral short-acting* (does not apply to the extended-release combination with aspirin)	**Avoid.** May cause orthostatic hypotension; more effective alternatives available; IV form acceptable for use in cardiac stress testing. *QE = Moderate; SR = Strong*
Ticlopidine*	**Avoid.** Safer, effective alternatives available. *QE = Moderate; SR = Strong*
Anti-infective	
Nitrofurantoin	**Avoid for long-term suppression; avoid in patients with CrCl <60 mL/min.** Potential for pulmonary toxicity; safer alternatives available; lack of efficacy in patients with CrCl <60 mL/min due to inadequate drug concentration in the urine.

Table 2 (continued from page 6)

TABLE 2: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults Due to Drug-Disease or Drug-Syndrome Interactions That May Exacerbate the Disease or Syndrome

Disease or Syndrome	Drug(s)	Recommendation, Rationale, *Quality of Evidence (QE) & Strength of Recommendation (SR)*
Gastrointestinal		
Chronic constipation	Oral antimuscarinics for urinary incontinence ■ Darifenacin ■ Fesoterodine ■ Oxybutynin (oral) ■ Solifenacin ■ Tolterodine ■ Trospium Nondihydropyridine CCB ■ Diltiazem ■ Verapamil First-generation antihistamines as single agent or part of combination products ■ Brompheniramine (various) ■ Carbinoxamine ■ Chlorpheniramine ■ Clemastine (various) ■ Cyproheptadine ■ Dexbrompheniramine ■ Dexchlorpheniramine (various) ■ Diphenhydramine ■ Doxylamine ■ Hydroxyzine ■ Promethazine ■ Triprolidine Anticholinergics/antispasmodics *(see online for full list of drugs with strong anticholinergic properties)* ■ Antipsychotics ■ Belladonna alkaloids ■ Clidinium-chlordiazepoxide ■ Dicyclomine ■ Hyoscyamine ■ Propantheline ■ Scopolamine ■ Tertiary TCAs (amitriptyline, clomipramine, doxepin, imipramine, and trimipramine)	**Avoid unless no other alternatives.** Can worsen constipation; agents for urinary incontinence: antimuscarinics overall differ in incidence of constipation; response variable; consider alternative agent if constipation develops. *QE = High (For Urinary Incontinence), Moderate/Low (All Others); SR = Strong*
History of gastric or duodenal ulcers	Aspirin (>325 mg/day) Non–COX-2 selective NSAIDs	**Avoid unless other alternatives are not effective and patient can take gastroprotective agent (proton-pump inhibitor or misoprostol).** May exacerbate existing ulcers or cause new/additional ulcers. *QE = Moderate; SR = Strong*
Kidney/Urinary Tract		
Chronic kidney disease stages IV and V	NSAIDs Triamterene (alone or in combination)	**Avoid.** May increase risk of kidney injury. May increase risk of acute kidney injury. *QE = Moderate (NSAIDs), Low (Triamterene); SR = Strong (NSAIDs), Weak (Triamterene)*
Urinary incontinence (all types) in women	Estrogen oral and transdermal (excludes intravaginal estrogen)	**Avoid in women.** Aggravation of incontinence. *QE = High; SR = Strong*

Table 2 (continued from page 7)

TABLE 2: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults Due to Drug-Disease or Drug-Syndrome Interactions That May Exacerbate the Disease or Syndrome

Disease or Syndrome	Drug(s)	Recommendation, Rationale, *Quality of Evidence (QE) & Strength of Recommendation (SR)*
Lower urinary tract symptoms, benign prostatic hyperplasia	Inhaled anticholinergic agents Strongly anticholinergic drugs, except antimuscarinics for urinary incontinence (see Table 9 for complete list).	**Avoid in men.** May decrease urinary flow and cause urinary retention. *QE = Moderate; SR = Strong (Inhaled agents), Weak (All others)*
Stress or mixed urinary incontinence	Alpha-blockers ■ Doxazosin ■ Prazosin ■ Terazosin	**Avoid in women.** Aggravation of incontinence. *QE = Moderate; SR = Strong*

Table 2 Abbreviations: CCBs, calcium channel blockers; AChEIs, acetylcholinesterase inhibitors; CNS, central nervous system; COX, cyclooxygenase; NSAIDs, nonsteroidal anti-inflammatory drugs; SR, Strength of Recommendation; SSRIs, selective serotonin reuptake inhibitors; TCAs, tricyclic antidepressants; QE, Quality of Evidence

TABLE 3: 2012 AGS Beers Criteria for Potentially Inappropriate Medications to Be Used with Caution in Older Adults

Drug(s)	Recommendation, Rationale, *Quality of Evidence (QE) & Strength of Recommendation (SR)*
Aspirin for primary prevention of cardiac events	**Use with caution in adults ≥80 years old.** Lack of evidence of benefit versus risk in individuals ≥80 years old. *QE = Low; SR = Weak*
Dabigatran	**Use with caution in adults ≥75 years old or if CrCl <30 mL/min.** Increased risk of bleeding compared with warfarin in adults ≥75 years old; lack of evidence for efficacy and safety in patients with CrCl <30 mL/min *QE = Moderate; SR = Weak*
Prasugrel	**Use with caution in adults ≥75 years old.** Greater risk of bleeding in older adults; risk may be offset by benefit in highest-risk older patients (eg, those with prior myocardial infarction or diabetes). *QE = Moderate; SR = Weak*
Antipsychotics Carbamazepine Carboplatin Cisplatin Mirtazapine SNRIs SSRIs TCAs Vincristine	**Use with caution.** May exacerbate or cause SIADH or hyponatremia; need to monitor sodium level closely when starting or changing dosages in older adults due to increased risk. *QE = Moderate; SR = Strong*
Vasodilators	**Use with caution.** May exacerbate episodes of syncope in individuals with history of syncope. *QE = Moderate; SR = Weak*

Table 3 Abbreviations: CrCl, creatinine clearance; SIADH, syndrome of inappropriate antidiuretic hormone secretion; SSRIs, selective serotonin reuptake inhibitors; SNRIs, serotonin–norepinephrine reuptake inhibitors; SR, Strength of Recommendation; TCAs, tricyclic antidepressants; QE, Quality of Evidence

The American Geriatrics Society gratefully acknowledges the support of the John A. Hartford Foundation, Retirement Research Foundation and Robert Wood Johnson Foundation.

AGS THE AMERICAN GERIATRICS SOCIETY
Geriatrics Health Professionals.
Leading change. Improving care for older adults.

40 Fulton Street, 18th Floor
New York, NY 10038
800-247-4779 or 212-308-1414
www.americangeriatrics.org

DEMENTIA Care Aware

DHCS

A More Streamlined List Of Cognitively Detrimental Medications

Antihistamines

Antacids

Drugs with ACB Score of 1

Generic Name	Brand Name
Alimemazine	Theralen™
Alverine	Spasmonal™
Alprazolam	Xanax™
Aripiprazole	Abilify™
Asenapine	Saphris™
Atenolol	Tenormin™
Bupropion	Wellbutrin™, Zyban™
Captopril	Capoten™
Cetirizine	Zyrtec™
Chlorthalidone	Diuril™, Hygroton™
Cimetidine	Tagamet™
Clidinium	Librax™
Clorazepate	Tranxene™
Codeine	Contin™
Colchicine	Colcrys™
Desloratadine	Clarinex™
Diazepam	Valium™
Digoxin	Lanoxin™
Dipyridamole	Persantine™
Disopyramide	Norpace™
Fentanyl	Duragesic™, Actiq™
Furosemide	Lasix™
Fluvoxamine	Luvox™
Haloperidol	Haldol™
Hydralazine	Apresoline™
Hydrocortisone	Cortef™, Cortaid™
Iloperidone	Fanapt™
Isosorbide	Isordil™, Ismo™
Levocetirizine	Xyzal™
Loperamide	Immodium™, others
Loratadine	Claritin™
Metoprolol	Lopressor™, Toprol™
Morphine	MS Contin™, Avinza™
Nifedipine	Procardia™, Adalat™
Paliperidone	Invega™
Prednisone	Deltasone™, Sterapred™
Quinidine	Quinaglute™
Ranitidine	Zantac™
Risperidone	Risperdal™
Theophylline	Theodur™, Uniphyl™
Trazodone	Desyrel™
Triamterene	Dyrenium™
Venlafaxine	Effexor™
Warfarin	Coumadin™

Drugs with ACB Score of 2

Generic Name	Brand Name
Amantadine	Symmetrel™
Belladonna	Multiple
Carbamazepine	Tegretol™
Cyclobenzaprine	Flexeril™
Cyproheptadine	Periactin™
Loxapine	Loxitane™
Meperidine	Demerol™
Methotrimeprazine	Levoprome™
Molindone	Moban™
Nefopam	Nefogesic™
Oxcarbazepine	Trileptal™
Pimozide	Orap™

Categorical Scoring:
- Possible anticholinergics include those listed with a score of 1; Definite anticholinergics include those listed with a score of 2 or 3

Numerical Scoring:
- Add the score contributed to each selected medication in each scoring category
- Add the number of possible or definite Anticholinergic medications

Notes:
- Each definite anticholinergic may increase the risk of cognitive impairment by 46% over 6 years. [3]
- For each on point increase in the ACB total score, a decline in MMSE score of 0.33 points over 2 years has been suggested. [4]
- Additionally, each one point increase in the ACB total score has been correlated with a 26% increase in the risk of death. [4]

Aging Brain Care

www.agingbraincare.org

Drugs with ACB Score of 3

Generic Name	Brand Name
Amitriptyline	Elavil™
Amoxapine	Asendin™
Atropine	Sal-Tropine™
Benztropine	Cogentin™
Brompheniramine	Dimetapp™
Carbinoxamine	Histex™, Carbihist™
Chlorpheniramine	Chlor-Trimeton™
Chlorpromazine	Thorazine™
Clemastine	Tavist™
Clomipramine	Anafranil™
Clozapine	Clozaril™
Darifenacin	Enablex™
Desipramine	Norpramin™
Dicyclomine	Bentyl™
Dimenhydrinate	Dramamine™, others
Diphenhydramine	Benadryl™, others
Doxepin	Sinequan™
Doxylamine	Unisom™, others
Fesoterodine	Toviaz™
Flavoxate	Urispas™
Hydroxyzine	Atarax™, Vistaril™
Hyoscyamine	Anaspaz™, Levsin™
Imipramine	Tofranil™
Meclizine	Antivert™
Methocarbamol	Robaxin™
Nortriptyline	Pamelor™
Olanzapine	Zyprexa™
Orphenadrine	Norflex™
Oxybutynin	Ditropan™
Paroxetine	Paxil™
Perphenazine	Trilafon™
Promethazine	Phenergan™
Propantheline	Pro-Banthine™
Propiverine	Detrunorm™
Quetiapine	Seroquel™
Scopolamine	Transderm Scop™
Solifenacin	Vesicare™
Thioridazine	Mellaril™
Tolterodine	Detrol™
Trifluoperazine	Stelazine™
Trihexyphenidyl	Artane™
Trimipramine	Surmontil™
Trospium	Sanctura™

Incontinence Meds

Diuretics

DEMENTIA Care Aware

DHCS

Supplements

It is important to remember that supplements and herbal remedies are included in over-the-counter medications.

Supplements are commonly used in older adults despite limited evidence of benefit. One recent study found that 4 out of 5 adults over the age of 50 in America use at least one supplement.

Supplements

Natural remedies, herbal supplements, and vitamins can have many side effects and medication interactions, so they must be used with caution as we age, especially from the perspective of memory.

Hypericum perforatum (St. John's Wort)

Example of Deprescribing Approach

- An 85-year-old male with a history of hyperlipidemia, asthma, and ABPA presented to the clinic for evaluation of memory. Resides in assisted living and receives medication management assistance as he has been having difficulty managing his numerous pills by himself. Also, has significant amnestic symptoms typical of late-onset Alzheimer's, lots of iADL deficiencies, and recently lost his license after crashing his car in a parking lot and failing the DMV written test.

DEMENTIA Care Aware

DHCS

Example (Continued)

Medications per his list he provided to staff:

- Ascorbic acid 500 mg daily
- Aspirin 81 mg daily
- Beta carotene 7500 mcg daily
- Artificial tears PRN
- Cetirizine 10 mg daily
- Coenzyme Q10 300 mg daily
- Cyanocobalamin 1000 mcg daily
- Diclofenac gel 1% four times daily
- Ezetimibe 10 mg daily
- Finasteride 5 mg daily
- Flonase 50 mcg daily
- Fluticasone-umeclidinium-vilanterol 1 puff daily
- Folic acid 800 mcg daily
- Ginkgo Biloba 120 mg daily
- glucosamine-chondroitin-vitamin C-manganese 1500 mg daily
- Hydrocortisone 1% cream BID
- Hydroxyzine 25 mg TID PRN itching
- Ipratropium-albuterol 3 mL nebulizer PRN
- Latanoprostene 0.024% 1 drop in both eyes nightly
- Loteprednol 1 drop in both eyes nightly
- Montelukast 10 mg every evening
- Multivitamin-minerals daily
- Omega-3 fatty acids daily
- Pyridoxine 100 mg daily
- Focus Factor Vitamin daily
- Tamsulosin 0.4 mg daily
- Vitamin E 400 units daily

Example (Continued)

Medications per his list he provided to staff:

- ~~Ascorbic acid 500 mg daily~~ -> no benefit
- ~~Aspirin 81 mg daily~~ -> ASPREE trial results (NEJM 2018; 379:1509-1518), bleed risk
- ~~Beta carotene 7500 mcg daily~~ -> no benefit
- Artificial tears PRN
- ~~Cetirizine 10 mg daily~~ -> anticholinergic
- ~~Coenzyme Q10 300 mg daily~~ -> no benefit
- ~~Cyanocobalamin 1000 mcg daily~~ -> not B12 deficient (his level was 1213)
- Diclofenac gel 1% four times daily
- ~~Ezetimibe 10 mg daily~~ -> no benefit for primary prevention at his age, risk of myopathy
- Finasteride 5 mg daily
- Flonase 50 mcg daily
- Fluticasone-umeclidinium-vilanterol 1 puff daily
- ~~Folic acid 800 mcg daily~~ -> no benefit
- ~~Ginkgo Biloba 120 mg daily~~ -> no benefit, increases bleeding risk
- ~~glucosamine chondroitin vitamin C manganese 1500 mg daily~~ -> no benefit
- ~~Hydrocortisone 1% cream BID~~ -> no rash, advise using moisturizing cream instead
- ~~Hydroxyzine 25 mg TID PRN itching~~ -> highly anticholinergic
- Ipratropium-albuterol 3 mL nebulizer PRN
- Latanoprostene 0.024% 1 drop in both eyes nightly
- Loteprednol 1 drop in both eyes nightly
- Montelukast 10 mg every evening
- ~~Multivitamin-minerals daily~~ -> no benefit, constipating
- ~~Omega-3 fatty acids daily~~ -> no significant harm but adds to pill burden
- ~~Pyridoxine 100 mg daily~~ -> no benefit
- ~~Focus Factor Vitamin daily~~ -> no benefit, costly, FTC sued them in 2004 for false claims of benefit
- Tamsulosin 0.4 mg daily
- ~~Vitamin E 400 units daily~~ -> no benefit, increases bleeding risk

DEMENTIA Care Aware

DHCS

Example (Concluded)

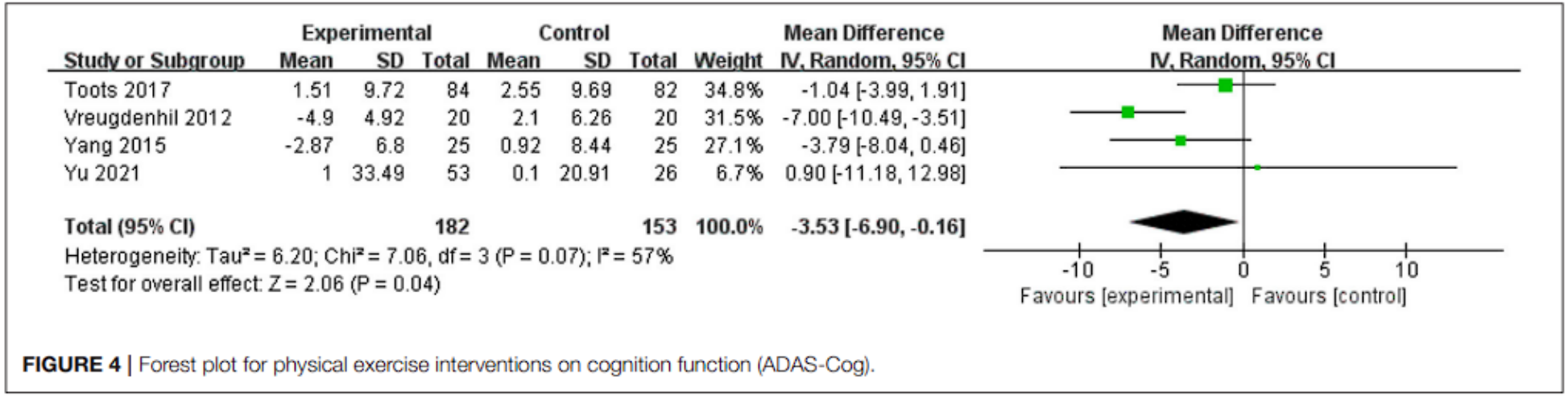
Medications by visit end:

- Artificial tears PRN
- Diclofenac gel 1% four times daily
- Finasteride 5 mg daily
- Flonase 50 mcg daily
- Fluticasone-umeclidinium-vilanterol 1 puff daily
- Ipratropium-albuterol 3 mL nebulizer PRN
- Latanoprostene 0.024% 1 drop in both eyes nightly
- Loteprednol 1 drop in both eyes nightly
- Montelukast 10 mg every evening
- Tamsulosin 0.4 mg daily

DEMENTIA Care Aware

DHCS

Physical Exercise



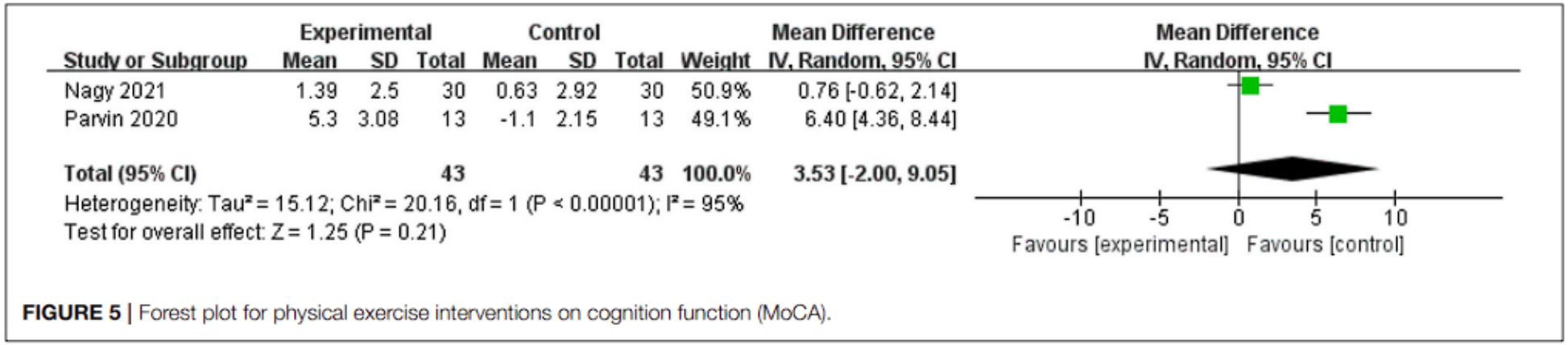
Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Toots 2017	1.51	9.72	84	2.55	9.69	82	34.8%	-1.04 [-3.99, 1.91]
Vreugdenhil 2012	-4.9	4.92	20	2.1	6.26	20	31.5%	-7.00 [-10.49, -3.51]
Yang 2015	-2.87	6.8	25	0.92	8.44	25	27.1%	-3.79 [-8.04, 0.46]
Yu 2021	1	33.49	53	0.1	20.91	26	6.7%	0.90 [-11.18, 12.98]
Total (95% CI)			**182**			**153**	**100.0%**	**-3.53 [-6.90, -0.16]**

Heterogeneity: Tau² = 6.20; Chi² = 7.06, df = 3 (P = 0.07); I² = 57%
Test for overall effect: Z = 2.06 (P = 0.04)

Mean Difference
IV, Random, 95% CI

-10 -5 0 5 10
Favours [experimental] Favours [control]

FIGURE 4 | Forest plot for physical exercise interventions on cognition function (ADAS-Cog).



Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Nagy 2021	1.39	2.5	30	0.63	2.92	30	50.9%	0.76 [-0.62, 2.14]
Parvin 2020	5.3	3.08	13	-1.1	2.15	13	49.1%	6.40 [4.36, 8.44]
Total (95% CI)			**43**			**43**	**100.0%**	**3.53 [-2.00, 9.05]**

Heterogeneity: Tau² = 15.12; Chi² = 20.16, df = 1 (P < 0.00001); I² = 95%
Test for overall effect: Z = 1.25 (P = 0.21)

Mean Difference
IV, Random, 95% CI

-10 -5 0 5 10
Favours [experimental] Favours [control]

FIGURE 5 | Forest plot for physical exercise interventions on cognition function (MoCA).

DEMENTIA Care Aware

DHCS

Groot C, Hooghiemstra AM, Raijmakers PG, et al. The Effect of Physical Activity on Cognitive Function in Patients with Dementia: A Meta-Analysis of Randomized Control Trials. *Ageing Res Rev.* 2016 Jan;25:13-23. DOI: 10.1016/j.arr.2015.11.005

Aerobic Exercise

- Aerobic exercise is key to maintaining brain and heart health.
- Aerobic exercise recommendations consist of 150 minutes per week of moderate-to-high intensity exercise, such as brisk walking for thirty minutes five times a week.
- In addition to aerobic exercise, it is recommended to add several other modes of exercise to one's regimen, such as muscle strengthening and balance training.

DEMENTIA Care Aware

DHCS

Muscle and Balance Training

- Muscle strengthening is advised to be performed two or more days a week for 20-30 minutes a time. This can consist of weights (resistance training), exercises like crunches or climbing stairs, or pool exercises against water resistance.
- Balance training is recommended to be performed at least once a week, optimally greater than three times a week. The best studied balance training exercises are Tai Chi and yoga.

DEMENTIA Care Aware

DHCS

Mental Exercise

- Certain factors have been associated in the literature with later onset and slower progression of cognitive decline:
  - Higher formal education levels
  - Later time of retirement
  - Higher levels of cognitive activity

Retirement reference: Does postponing retirement affect cognitive function? A counterfactual experiment to disentangle life course risk factors
Cognitive activity reference: Wilson RS, Wang T, Yu L, Grodstein F, Bennett DA, Boyle PA. Cognitive Activity and Onset Age of Incident Alzheimer Disease Dementia. Neurology. 2021 Aug 31;97(9):e922-e929.

DEMENTIA Care Aware

DHCS

“Wait, so I can’t retire?”

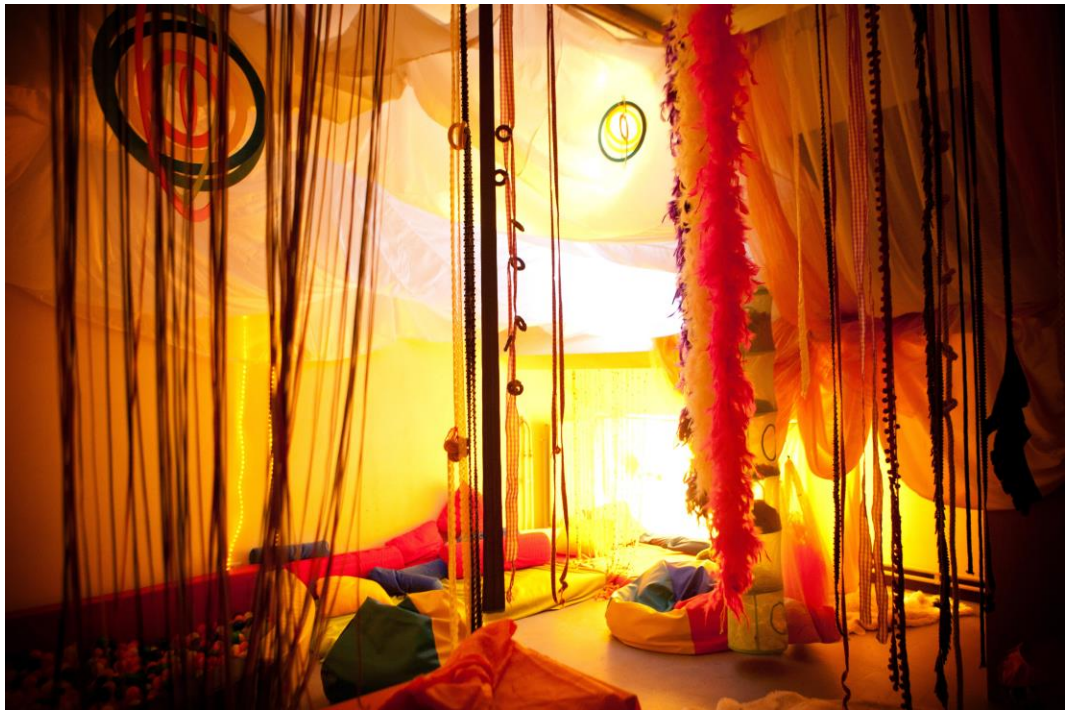
It is unlikely that retirement itself is leading to an increased incidence of cognitive decline, but rather a post-retirement lifestyle.

DEMENTIA Care Aware

DHCS

What counts as mental exercise?

- Anything that gets the mind actively thinking and problem solving
- Commonly used methods:
  - Reminiscence Therapy
  - Cognitive Stimulation Therapy
  - Music Therapy
  - Relaxation Therapy
  - Snoezelen Therapy
  - Creative activities



DEMENTIA Care Aware

DHCS

The more complex the better

- Brain games are unlikely to be of benefit. Frequently see news like this:

FEDERAL TRADE COMMISSION
PROTECTING AMERICA'S CONSUMERS

Contact | Stay Connected | Privacy Policy | FTC en español

Search

ABOUT THE FTC | NEWS & EVENTS | ENFORCEMENT | POLICY | TIPS & ADVICE | I WOULD LIKE TO...

Home » News & Events » Press Releases » Lumosity to Pay $2 Million to Settle FTC Deceptive Advertising Charges for Its "Brain Training" Program

Lumosity to Pay $2 Million to Settle FTC Deceptive Advertising Charges for Its "Brain Training" Program

Company Claimed Program Would Sharpen Performance in Everyday Life and Protect Against Cognitive Decline

FOR RELEASE

January 5, 2016

TAGS: Bureau of Consumer Protection | Consumer Protection | Advertising and Marketing | Health Claims | Online Advertising and Marketing

EVENTS CALENDAR

Related Cases

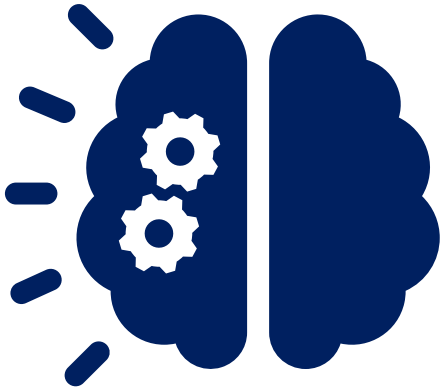
Lumos Labs, Inc. (Lumosity Mobile and Online Cognitive Game)

DEMENTIA Care Aware

DHCS

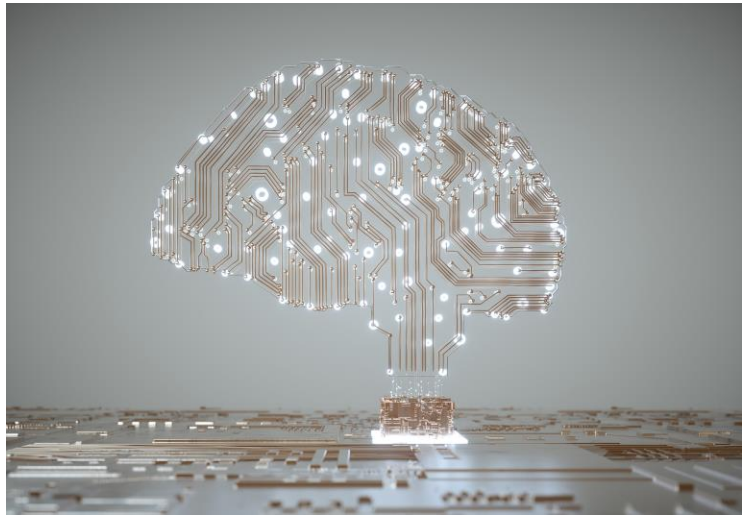
Evidence for and against memory training

- ACTIVE study group: Largest independent study to date of effects of cognitive training:
  - Excluded cognitive impairment
  - Randomized to undergo memory training, reasoning training, speed of processing training, or a control group
  - Major finding: cognitive training resulted in an improvement in the ability to perform the task that was being trained in the exercises when compared with the control group



Evidence for and against memory training

- Several dementia-specific studies of memory training have been performed, but have small sample sizes and confounders, such as concurrent treatment with dementia pharmacotherapy that make results difficult to interpret.
- Cochrane review 2007 of 32 trials showed no effects attributable to cognitive training



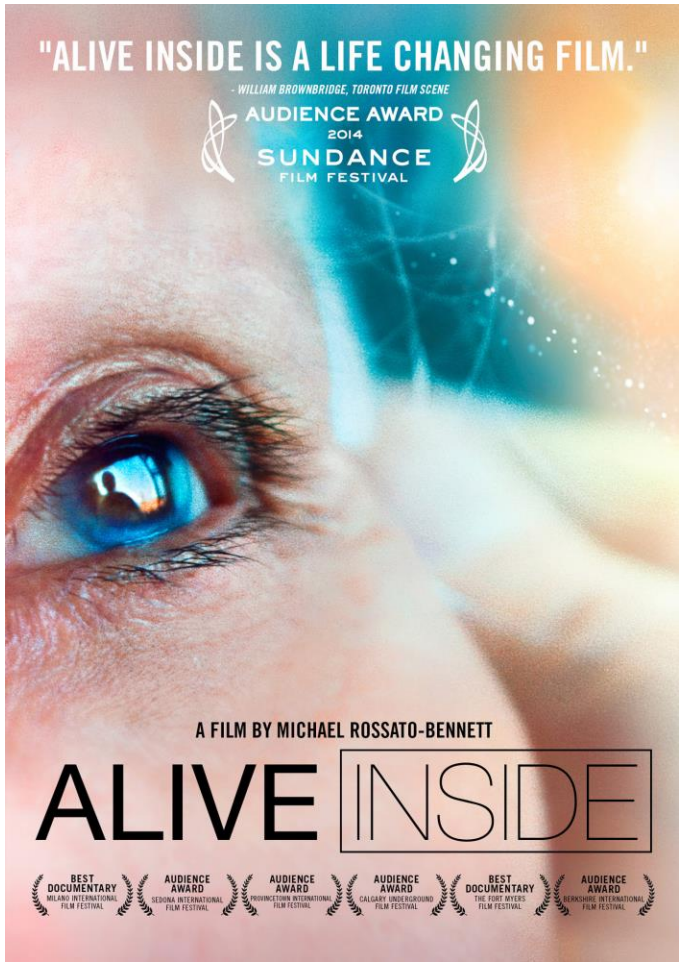
DEMENTIA Care Aware

DHCS

Evidence for and against memory training

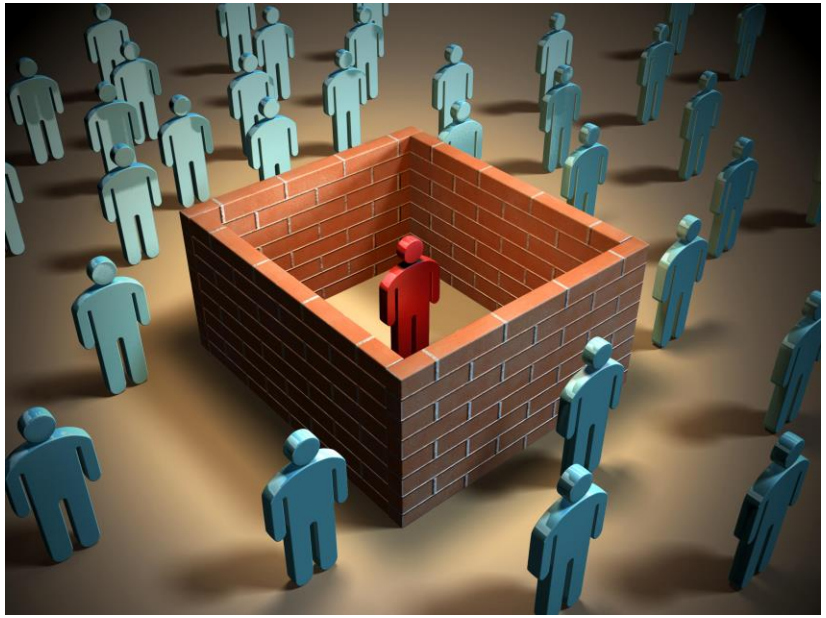
- A systematic review of ten studies of cognitive training in mild cognitive impairment was published in BMC Geriatrics in 2011, which highlighted the sparse evidence in the literature, although it showed some consistency in outcomes regarding improved cognitive outcomes:
  - Only five studies were randomized control trials
  - Lack of standardization of interventions tested
  - Small sample sizes in studies analyzed
  - Wide variability in outcomes

Music and Memory



Pandemic Impact

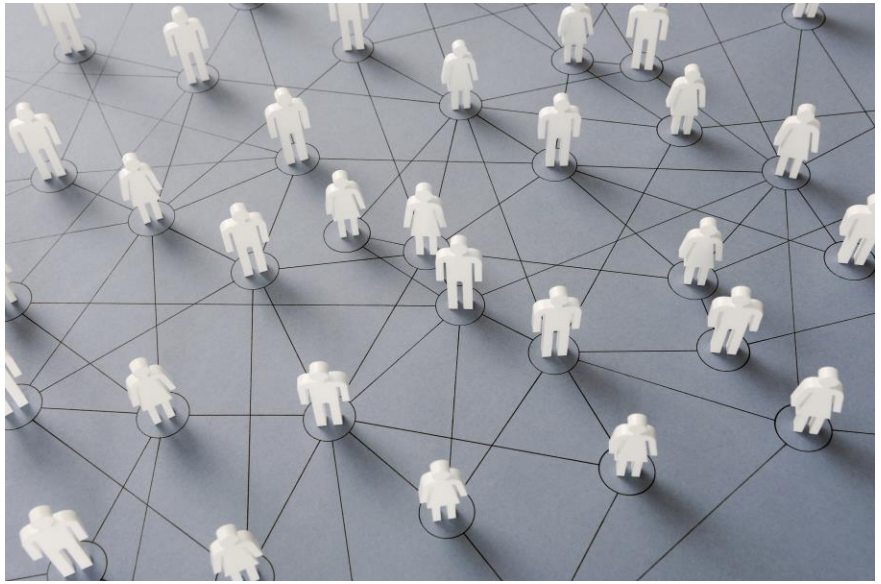
- Many articles exist looking into COVID-19 effects on cognitive health
- Significant increase in behavioral disturbance as well as in onset of concerns about cognitive health as a result of pandemic
- Multi-factorial in causation, but the social isolation resulting from the pandemic quarantine likely contributed



DEMENTIA Care Aware

DHCS

What can be done for socialization?

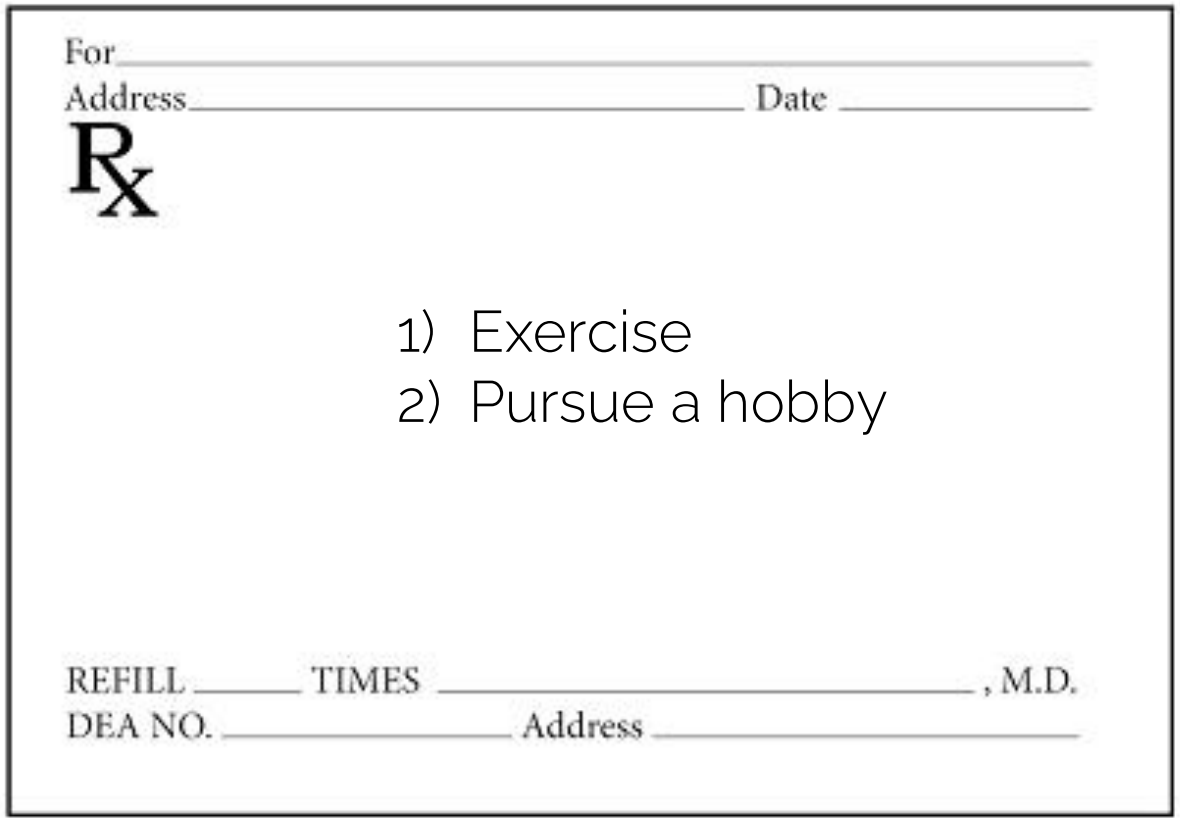


- Group activities
- Adult day care services
- Multigenerational households
- Many local resources exist to help with socialization, can look into local chapters of Alzheimer's Association, Southern Caregiver Resource Center, community centers, and more to help.

DEMENTIA Care Aware

DHCS

What to practically advise in clinic?



Brain Health Plan Summary

- Establish and prescribe an exercise regimen
- Thorough review of medications including supplements, deprescribing where able
- Encourage mental activity tailored to patient's capabilities and interests
- Educate on importance of socialization, provide resources for community opportunities in this regard
- Ensure a review of physical health problems has been performed through avenues, such as the annual wellness visit, including screening for depression, vision, and hearing.

Alzheimer's Project San Diego Healthy-Body Healthy-Brain Flyer

YOUR HEALTH IS UP TO YOU! MAKE IT FUN!

EATING HEALTHY IS EASY & COLORFUL!

- Try adding a new fruit or vegetable to your meals each month
- Pick foods of all different colors for your plate
- Olive and avocado oils are healthy fats to use instead of animal fats
- Have fresh fruit easily available for your family instead of candy and pastries
- Choose whole wheat and whole grains instead of white flour for breads
- Read package nutrition information and look for products with at least 5 grams of fiber
- Avoid fad diets that are hard to maintain and tend to promote weight gain after their use

HAVE FUN INCREASING YOUR ACTIVITY

- Pick one or two activities you really enjoy, and can do comfortably
- If you are getting started with activity, start slow and build up over a few weeks
- Try to get moderate exercise 30 minutes a day, three or four days a week
- Brisk walking, dancing, hiking can improve the health of your heart, lungs and circulatory system
- Make it a family activity! Get the kids out with you to improve their health as well.
- Gardening is a great strengthening activity for the whole family
- Try a new activity, like cycling, flying a kite with children, or exploring a new area of the community
- Be sure to stretch your muscles when you are done with your activity to keep muscles from aching

SOCIAL CONNECTION KEEPS YOU HAPPY

- Stay in touch with family and friends, even if it is on the telephone
- Plan and enjoy meals with friends and other families
- Your faith community can be an important social connection
- Take a class for social connection and testing your brain
- Find group activities you like, such as singing in a choir, joining a walking group or bowling league

TEST YOUR BRAIN

- Learn a new subject by reading or watching videos
- Sing songs from your childhood as well as new ones
- Try your hand at jigsaw puzzles or word games
- Tell your children and grandchildren stories about your life experiences
- Take a cooking class

KNOW YOUR HEALTH NUMBERS

- 0 smoking, vaping, or chewing tobacco
- 7 - 9 hours sleep nightly
- Know your blood pressure, weight, cholesterol, and blood sugar (A1c) and keep them in check
- 100% - Take all your medications as prescribed

CHAMPIONS for HEALTH
This flyer is supported by the California Department of Public Health Alzheimer's Disease Program. Funding is provided by the 2019 California Budget Act one-time General Fund expenditure authority over three State Fiscal Years from 2019 to 2022.
COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY
LIVE WELL
LIVEWELLSD.ORG

DEMENTIA Care Aware

DHCS

https://championsforhealth.org/alzheimer's

DEMENTIA Care Aware

DHCS

Have more questions? Get answers through our Warmline @ **1-800-933–1789** or our support page.

Here are some examples.

What do I prioritize after a positive CHA?

Is the CHA covered for patients over age 65 who have Medicare, but not Medi-Cal?

Can I use the CHA for a patient with limited literacy?

Open your phone camera and scan the QR code to submit questions:

Or visit: www.dementiacareaware.org

DEMENTIA Care Aware

DHCS

How to claim Continuing Medical Education (CME) credit

Step 1. Please complete our evaluation survey using the link provided in the chat and a follow-up email after the webinar. For this activity, we provide CME and California Association of Marriage and Family Therapists (CAMFT) credits. Please select the correct link based on the credit type you are claiming.

Step 2. Upon completing the evaluation survey, please scan a QR code or link to claim credit:

- Use your phone camera to scan a QR code and tap the notification to open the link associated with the CME portal.
- Enter you first name, last name, profession, and claim **1 CE credit** for the webinar.

DEMENTIA Care Aware

DHCS