A BALANCED APPROACH TO BPSD

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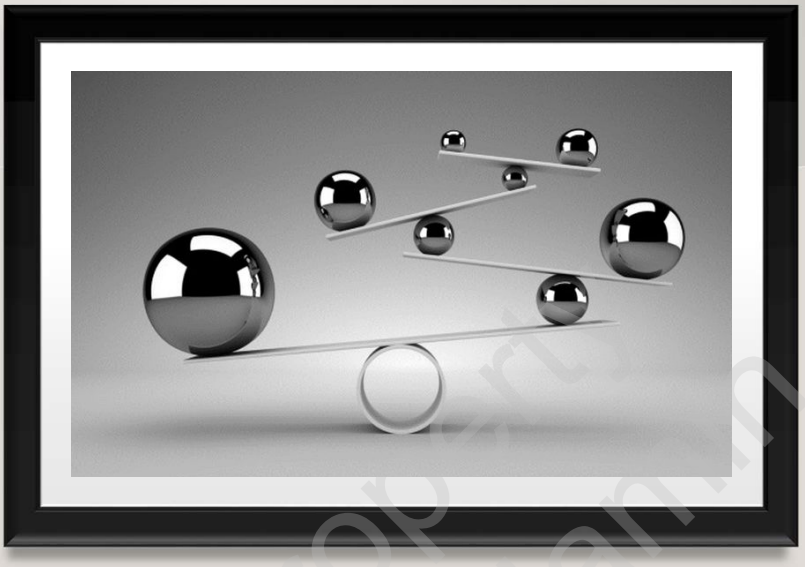
GERIATRIC PSYCHIATRIST



Regional Geriatric Refresher Day- June 16 2021

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FACULTY/PRESENTER DISCLOSURE

- **Relationships with commercial interests: NONE**
  - **Grants/Research Support:** None
  - **Speakers Bureau/Honoraria:** None
  - **Consulting Fees: None**
  - **Other: None**

Relationships with noncommercial interests:

- **Grand River Hospital**
- **McMaster University: Department of Psychiatry and Behavioural Neurosciences**
- **GeriMedRisk: Co-Founder, Co ED**
- **Grants: Centre for Aging + Brain Health Innovation (CABHI), CLRI, Labarge fund**

- **All patient info has been substantially changed and fictionalized.**

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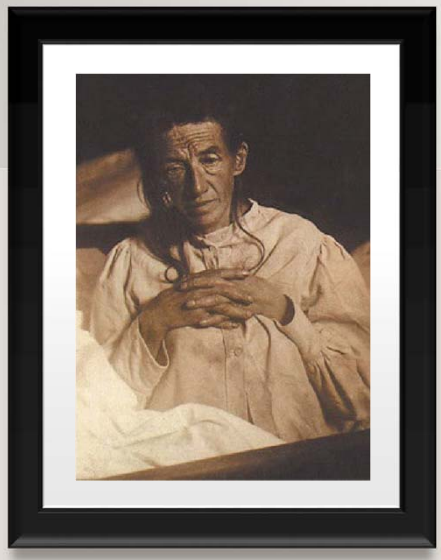

Auguste Deter

FIRST DESCRIPTIONS OF ALZHEIMER'S DISEASE

Alois Alzheimer

"In March 1901 , the husband of the 50-year-old woman had noticed **an untreatable paranoid symptomatology** in his wife and then - in fast progression and with increasing intensity - **sleep disorders, disturbances of memory,aggressiveness, crying, and progressive confusion**. Eventually, the husband was forced to take his wife to the Community Psychiatric Hospital at Frankfurt am Main, lite symptomatology increasingly deteriorated and soAuguste D. remained an inpatient of the hospital up to her death onApril 8, 1906."

Auguste D andAlzheimer's disease Maurer KVolk S Gerbaldo HTHE LANCET 1997 vol:1546
Dialogues Clin Neurosci.2003 Mar;5(1):101–108.

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THE MOST EFFECTIVE TREATMENTS FOR BEHAVIORAL SYMPTOMS IN DEMENTIA ARE…

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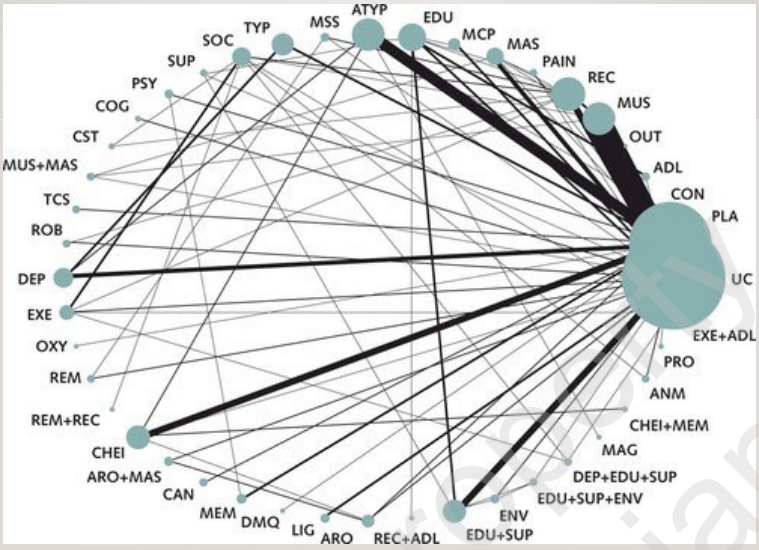
Comparative Efficacy of Interventions for Aggressive and Agitated Behaviors in Dementia [A Systematic Review and Network Meta-analysis]

19 684 article titles and abstracts
3369 full-text articles included
189 articles (25 736 persons with dementia) in systematic review
163 articles (23 143 persons with dementia)



ANM = animal therapy;ARO = aromatherapy;ATYP = atypical antipsychotics; CAN = cannabinoids; CHEI = cholinesterase inhibitor; COG = modification of instrumental activities of daily living; CON = anticonvulsants; CST = cognitive stimulation; DEP = antidepressants; DMQ = dextromethorphan–quinidine; EDU = caregiver education; ENV = environmental modification; EXE = exercise; LIG = light therapy; MAG = magnesium; MAS = massage and touch therapy; MCP = multidisciplinary care plan;MEM = memantine; MSS = multisensory stimulation; MUS = music therapy; OUT = outdoor activities; OXY = oxytocin;PAIN = pain management; PLA = placebo; PRO = propranolol; PSY = antipsychotics; REC = recreation therapy; REM = reminiscence therapy; ROB = robotic pet therapy; SOC = social interaction; SUP = caregiver support;TCS = transcutaneous stimulation;TYP = typical antipsychotics; UC = usual care.

Watt et al. Ann Intern Med. 2019 Nov 5;171(9):633-642.

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ALL INTERVENTIONS WITH SIGNIFICANTLY EFFICACIOUS TREATMENT EFFECTS FOR THE OUTCOMES OF PHYSICAL AGGRESSION, VERBAL AGGRESSION, AND PHYSICAL AGITATION

Intervention	SMD	95% CrI	95% PrI	MD*
Physical Aggression:				
ADL modification vs. caregiver education	-0.6	-1.1 to -0.12	-1.2 to -0.02	-11.26
Massage and touch therapy vs. caregiver education	-0.62	-1.2 to -0.03	-1.27 to -0.06	-4.01
Outdoor activities vs. antipsychotics	-1.68	-3.35 to -0.09	-3.38 to -1.68	-10.87
Outdoor activities vs. caregiver education	-1.34	-2.61 to -0.1	-2.65 to -0.06	-12.68
Verbal Aggression:				
ADL modification vs. caregiver education + support	-0.97	-1.76 to -0.97	-1.79 to -0.17	-5.89
Massage and touch therapy vs. caregiver education + support	-1.21	-2.1 to -0.25	-2.14 to -0.22	-7.34
Massage and touch therapy vs. usual care	-0.53	-0.95 to -0.1	-1.01 to -0.04	-9.29
Physical Agitation:				
Massage and touch therapy vs. caregiver education	-0.65	-1.17 to -0.15	-1.38 to 0.05	-3.91
Massage and touch therapy vs. usual care	-0.62	-0.96 to -0.26	-1.22 to 0.01	-6.49

standardized mean difference (SMD), credible interval (CrI), predictive interval (PrI), activities of daily living (ADLs)
*Re-expressed as mean difference as measured on the Cohen-Mansfield Agitation Inventory (CMAI)

Watt et al. Ann Intern Med. 2019 Nov 5;171(9):633-642.

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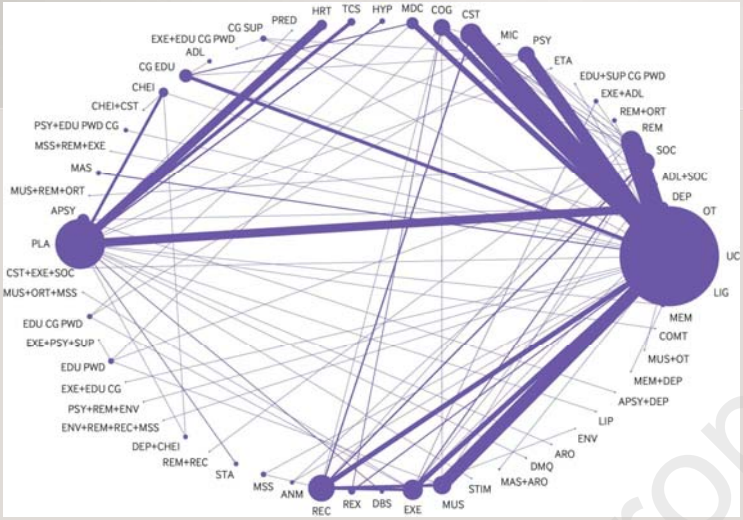
Network diagram for a network of interventions targeted at reducing symptoms of depression in people with dementia without a major depressive disorder.



ANM=animal therapy; APSY=antipsychotics, ARO=aromatherapy, CG SUP=care giver support; CHEI=cholinesterase inhibitor; COG=cognitive rehabilitation; COMT=catechol-O-methyltransferase inhibitor; CST=cognitive stimulation; DBS=deep brain stimulation; DEP=antidepressant; DMQ=dextromethorphan-quinidine; EDU+SUP CG PWD=education and support of person with dementia and care giver; EDU CG=care giver education; EDU CG PWD=education of care giver and person with dementia; EDU PWD=education of person with dementia; ENV=environmental modification; ETA=etanercept; EXE=exercise; HR=hormonal therapy; HYP=antihypertensive; LIG=light therapy; LIP=lipid lowering therapy; MAS=massage therapy; MDC=multidisciplinary care; MEM=memantine; MIC=antimicrobial; MSS=multisensory stimulation; MUS=music therapy; ORT=reality orientation; OT=occupational therapy; PLA=placebo; PRED=prednisone; PSY=psychotherapy; REC=recreation therapy; REX=relaxation therapy; REM=reminiscence therapy; SOC=social interaction; STA=mood stabiliser; STIM=stimulant; TCS=transcutaneous stimulation; UC=usual care

Jennifer A Watt et al. BMJ 2021;372:bmj.n532

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DESCRIPTIONS OF HIGHLY EFFICACIOUS NON-DRUG INTERVENTIONS IN PEOPLE WITH DEMENTIA

Cognitive stimulation
Structures therapy (eg, one or two sessions per week, for a defined number of hours) with sessions aimed at promoting cognitive function (eg, orientation, reminiscence, art therapy, games)

Environmental modification
Any modification to the living environment or place where care is provided

Massage and touch therapy
Any activity involving massage, acupressure, or therapeutic touch

Occupational therapy
Case management or activities to enhance functional independence, delivered by an occupational therapist

Social interaction
Interactions with caregivers or others, beyond the provision of usual care

Exercise
Active engagement in aerobic, resistance, or balance training

Multidisciplinary care
A care plan developed by more than one healthcare provider (eg, doctor, nurse, occupational therapist)

Psychotherapy
Cognitive behavioural therapy, counselling, validation therapy, problem adaptation therapy, supportive therapy, or psychodynamic interpersonal therapy

Reminiscence therapy
Any activity to give reminders of a patient's past or family members

Animal therapy
Any activity involving spending time with animals

Jennifer A Watt et al. BMJ 2021;372:bmj.n532

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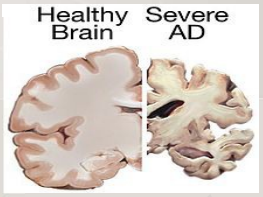
BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA

Pre-existing personality
Aging ,Acute medical problems
Sensory deficits :Hearing, vision



Synaptic or circuit disconnections as a result of degeneration;
Unmet needs: Hunger, thirst, pain

Caregiver stress, depression
Lack of education
Mismatched expectations

Over/ under stimulating,
Unsafe
Lack of activity
Lack of established routine

Adapted from Kales et al BMJ 2015;350:h369

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HELEN KALES' COMMON SENSE APPROACH

There is no one magic bullet for BPSD

Do not reflexively prescribe

Become an expert in non-pharm strategies

- Describe
- Investigate
- Create
- Evaluate

Adapted from Kales et al BMJ 2015;350:h369

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	Patient	Caregiver	Environment
Describe	What was the behavior Patient perception Safety	Level of distress Safety What about behavior is distressing Response during and after	Who When Where What happened before and after
Investigate	Med changes Pain Side effects Sleep Sensory deficits Fear, boredom	Understanding Communication style Expectations Stress, depression Family/cultural context	Over (clutter, noise, people) /Understim (no cues, poor light) Routine Lack of activities
Create			
Evaluate	Was it effective? Unintended consequences?	What interventions were implemented?	What environmental changes have been made?

KALES ET AL BMJ 2015;350:H369

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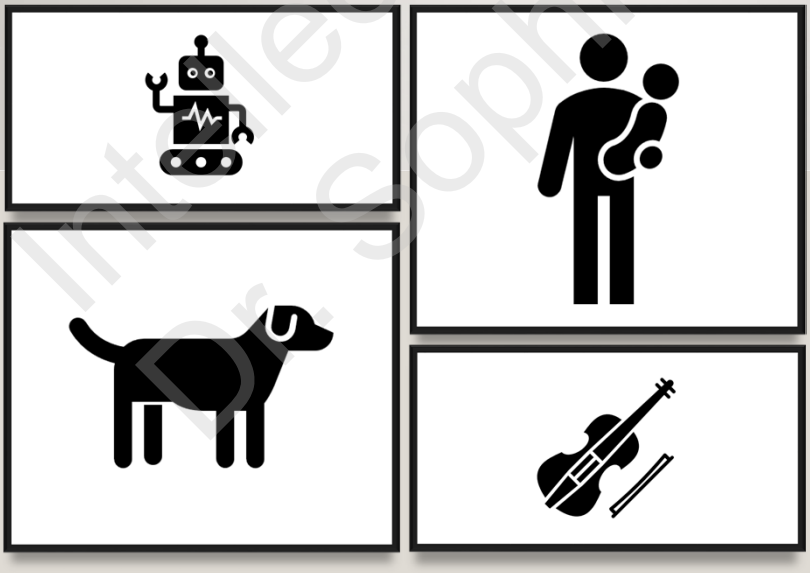

NON-PHARMACOLOGICAL INTERVENTIONS

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GET A THOROUGH DESCRIPTION OF THE BEHAVIOR.

- Patient is agitated during mealtimes. Grabbing peers. Not responding to redirection.
- Mr.Y eats the dessert on his tray first. Once he is done with his dessert, he moves to the next table and attempts to take the cake from the peers tray. When nurse tries to take him back to his tray, he refuses to stay at his table and comes back. When redirected again, he tried to hit the person taking him away from the desert.
  - Intervention: Double deserts, popsicles

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INVESTIGATE THE BEHAVIOR

- 66 yr old lady with vascular dementia. Aphasic from past stroke.
- Behavior: Yelling, angry affect, unpredictable, can become physically responsive.
  - Education about aphasia, bell training, increase freedom

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KNOW THE PERSON BEHIND THE BEHAVIOR

- 82 yr old man with dementia, yells several hours a day. No known trigger.
- 82 yr old man who used to be an acapella singer, loves music by Charlie Pride. He also has dementia and is blind. He yells several hours a day.
  - Charlie Pride songs in room, removed all unnecessary furniture

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FIND THE SWEET SPOT

COGNITIVELY INTACT PERSON DRIVES THE INTERVENTION

- 67 yr old retired builder with vascular dementia. Paces constantly, looking for work.

Ability → Meaning

- Sanding wood blocks, wiping tables
- Set up before agitated

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COGNITIVELY INTACT PERSON DRIVES THE INTERVENTION

- 82 yr old man with dementia loves taking care of baby. Feeds her, coos and sings to her and is calm and relaxed with baby in his arms.
- He does not remember to take baby from room and room. Without baby, he can be fearful and combative.
  - Caregiver educated that he is not leaving baby behind on purpose. Intervention is to return baby everytime.

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MOVEMENT AND SEATING

72 yr old male non-ambulatory, keeps trying to get up from wheelchair, yells "go, go, go" all the time.

Wheelchair modified to allow foot propulsion

Much calmer, happy propelling self. A week later, behavior starts again but now intermittent.

Wheelchair break moved

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THE CAREGIVER IS THE LINK TO THE INTERVENTION

01	02	03	04	05	06
Acknowledge, validate and educate first	Ensure safety	Assess current ability	Formulate a specific intervention	Coach caregiver through the intervention	Praise caregiver and encourage self care

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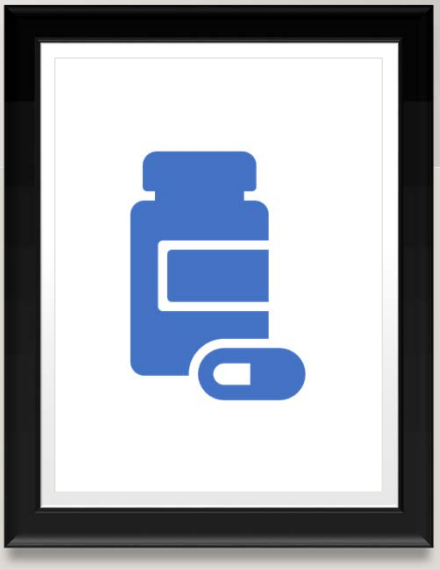
PHARMACOLOGICAL INTERVENTIONS



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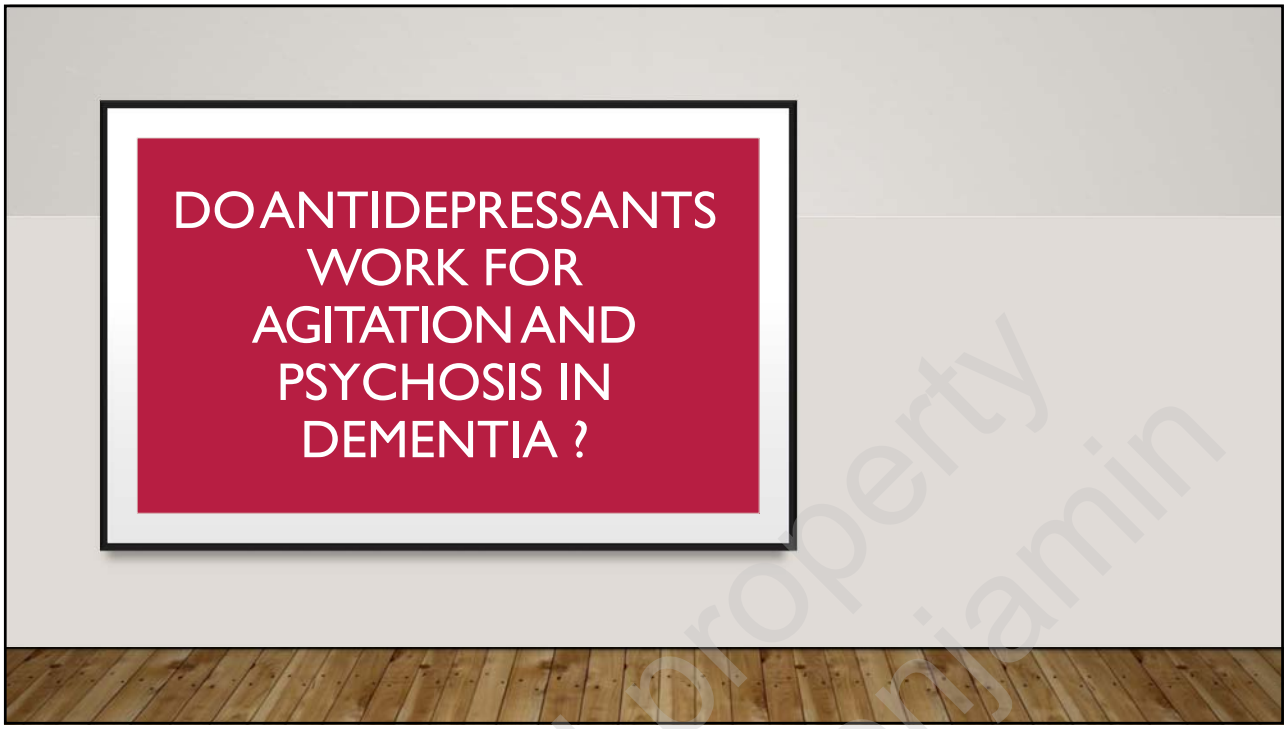

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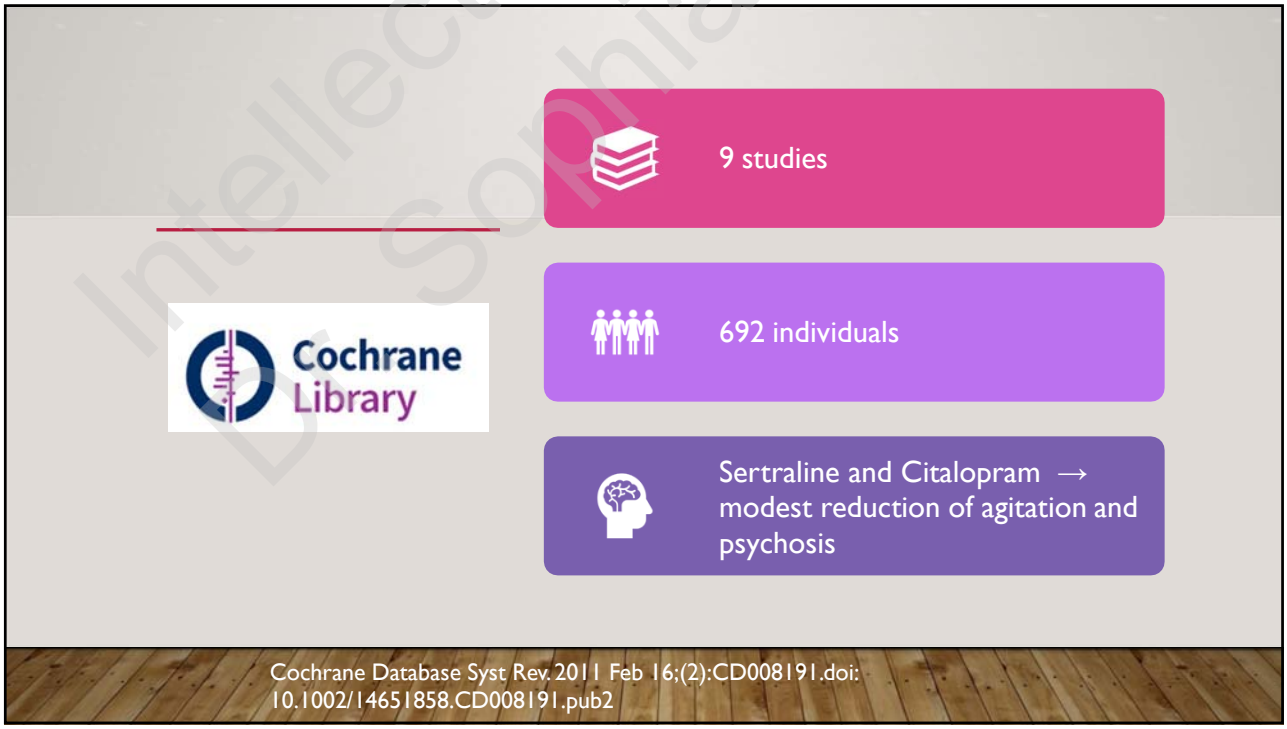

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CITADTRIAL

18-POINT NEUROBEHAVIORAL RATING SCALE AGITATION SUBSCALE (NBRS-A) -0.93 (95% CI,-1.80TO -0.06), P = .04

- 186 patients Citalopram (94) Placebo (92)
- 8 academic centers US and Canada
- Average age 78 – 79
- Exclusion: QTc ≥ 450 ms for men and ≥ 475 ms for women
- Dose: 78% received 30 mg and 15% received 20 mg

Porsteinsson AP, Drye LT, Pollock BG, Devanand DP, Frangakis C, et al. (2014) Effect of Citalopram on Agitation in Alzheimer's Disease – The CitAD Randomized Controlled Trial. JAMA 311: 682–691. doi:10.1001/jama.2014.93

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SUMMARY: ANTIDEPRESSANTS FOR AGITATIONAND PSYCHOSIS IN DEMENTIA

SERTRALINE AND CITALOPRAM EFFECTIVE

CONSIDER CARDIAC RISK WITH CITALORPAM

SERTRALINE MAY BE A GOOD OPTION

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ARE ANTIPSYCHOTICS EFFECTIVE IN BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD)?

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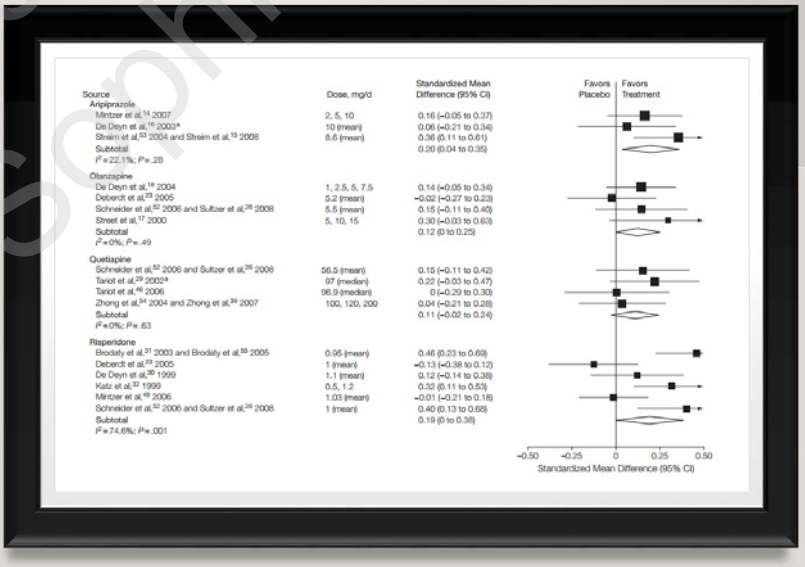
MANY STUDIES- SMALL EFFECT SIZES



Maher et al. JAMA. 2011 Sep 28;306(12):1359-69.

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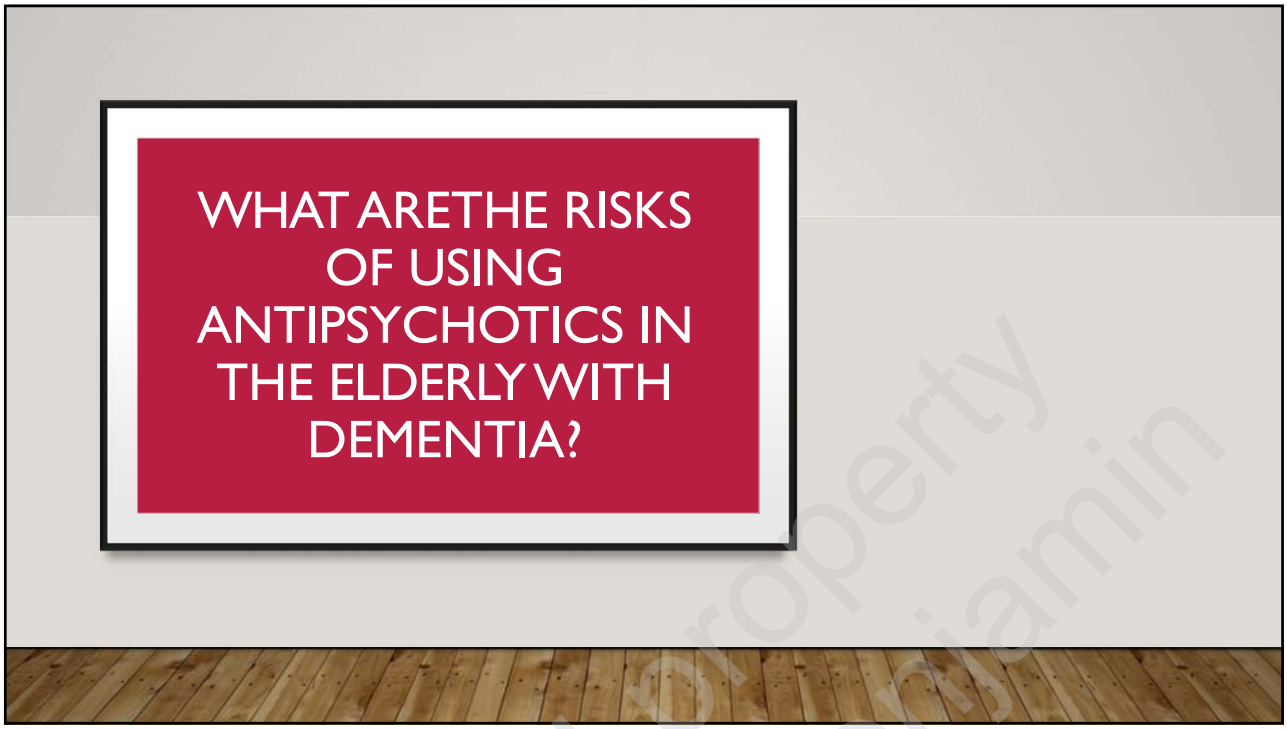

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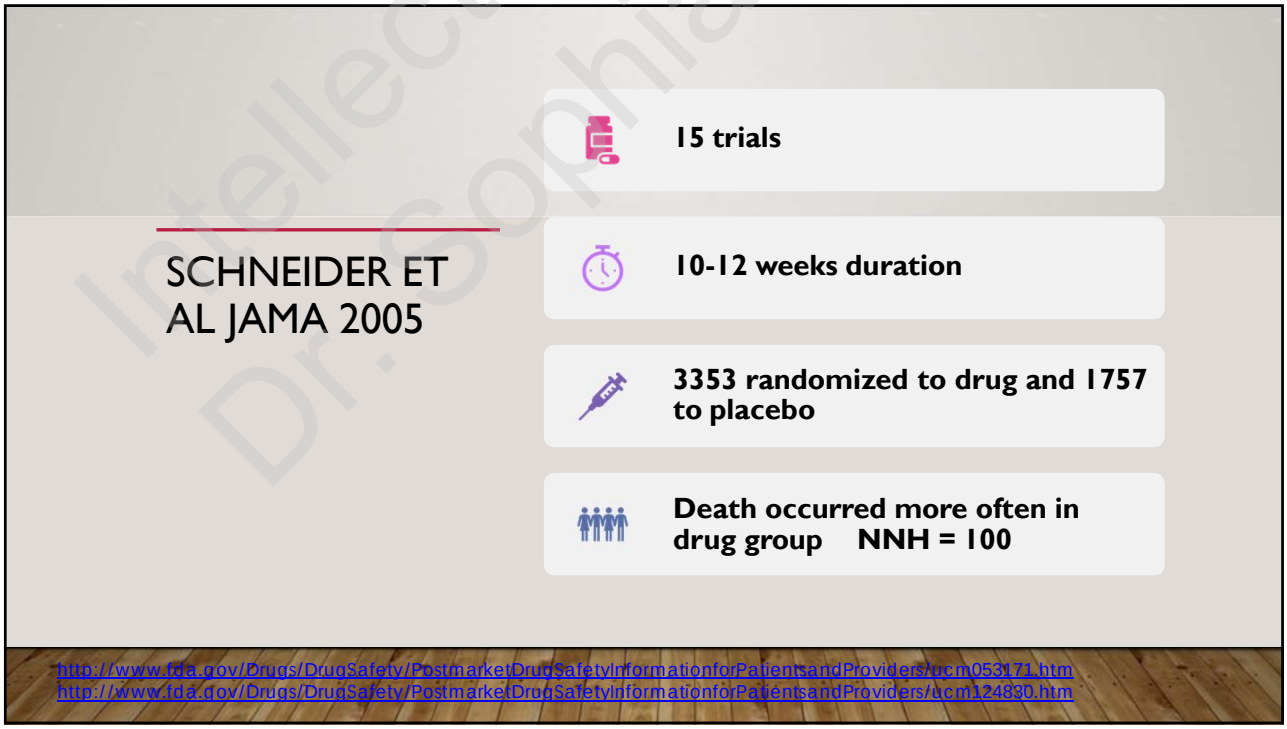

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NO FDA APPROVAL

FDA Black box 2005	**Atypical antipsychotics** **Risk of death: 1.6 to 1.7 more than placebo** **Cause: Heart Failure, sudden death, pneumonia**
FDA Black box 2008	Typical antipsychotics

http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm053171.htm
http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm124830.htm

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HEALTH CANADA

- 2005 : Risperidone is approved for the "short-term symptomatic management of inappropriate behavior due to aggression and/or psychosis in patients with severe dementia"
- 2015: Indication for risperidone in dementia has been restricted to the short-term symptomatic management of aggression or psychotic symptoms in patients with *severe dementia of the Alzheimer type* unresponsive to non-pharmacological approaches and when there is a risk of harm to self or others.The indication no longer includes the treatment of other types of dementia such as vascular and mixed types of dementia.

http://www.healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2005/14307a-eng.php
http://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2015/43797a-eng.php

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VA DATABASE STUDY 2015

90,786 patients

New prescription for (haloperidol, olanzapine, quetiapine, and risperidone), valproic acid and its derivatives, or an antidepressant

Main outcome: NNH (death) over 180 days of follow-up in medication users compared with nonmedication users matched on several risk factors

JAMA Psychiatry. 2015;72(5):438-445. doi:10.1001/jamapsychiatry.2014.3018

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Medication	Risk Difference, % (95% CI)[b]	NNH (95% CI)[b]
Haloperidol	3.8 (1.0 to 6.6)[c]	26 (15 to 99)
Olanzapine	2.5 (0.3 to 4.7)[d]	40 (21 to 312)
Quetiapine	2.0 (0.7 to 3.3)[c]	50 (30 to 150)
Risperidone	3.7 (2.2 to 5.3)[c]	27 (19 to 46)
Valproic acid	4.1 (−1.0 to 9.2)	NA[e]
Antidepressant	0.6 (0.3 to 0.9)[c]	166 (107 to 362)

CRUDE DEATH RATE OVER 180 DAYS WITH NNH

JAMA Psychiatry. 2015;72(5):438-445. doi:10.1001/jamapsychiatry.2014.3018

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	Olanzapine	Risperidone
Cardiovascular/ CVA		53
↑ Appetite, ↑ wt	24	25
Anticholinergic symptoms	6	
EPS	10	20
Urinary tract symptoms	36	21
Sedation	9	10

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SUMMARY: ANTIPSYCHOTICS IN DEMENTIA

- Not a first line option
- Is the behavior profoundly distressing,potentially dangerous ?
- Have other alternatives been tried ?
- Disclose Health Canada/FDA warnings prior to prescribing
- State the numbers as they are
- Mention that this is an off label use
- Document the above

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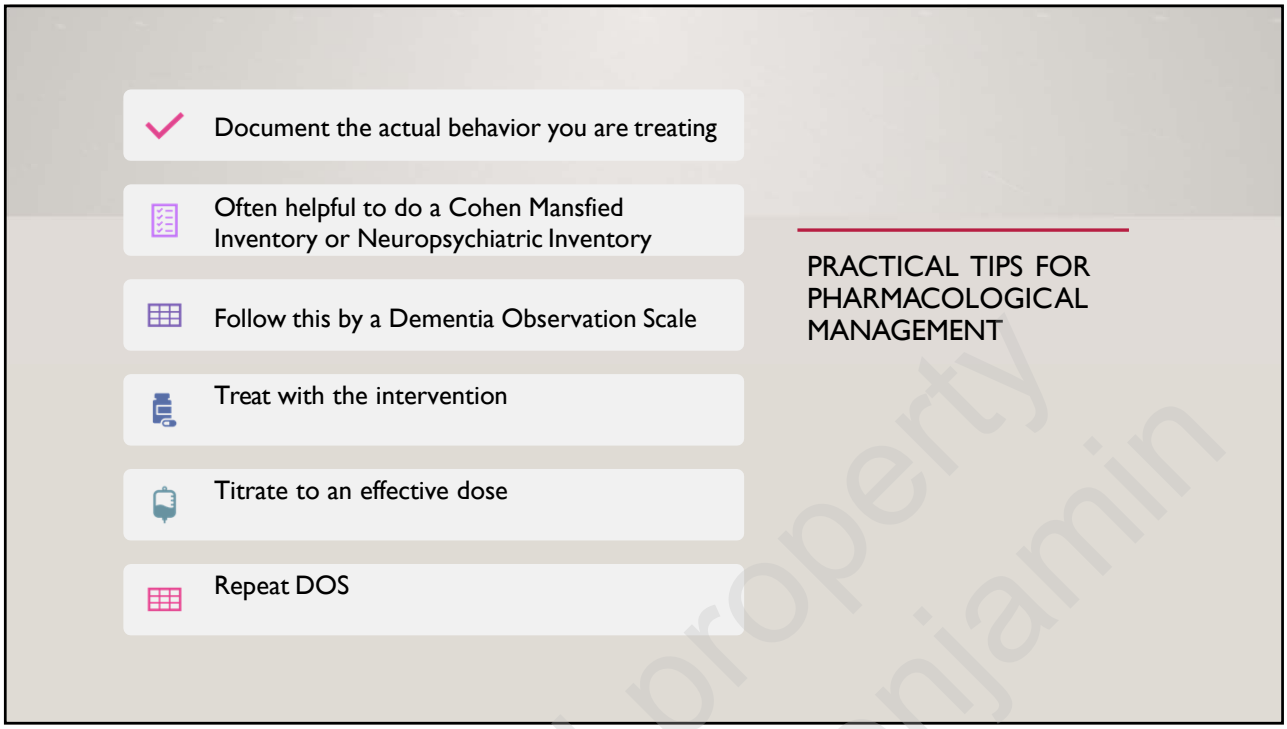

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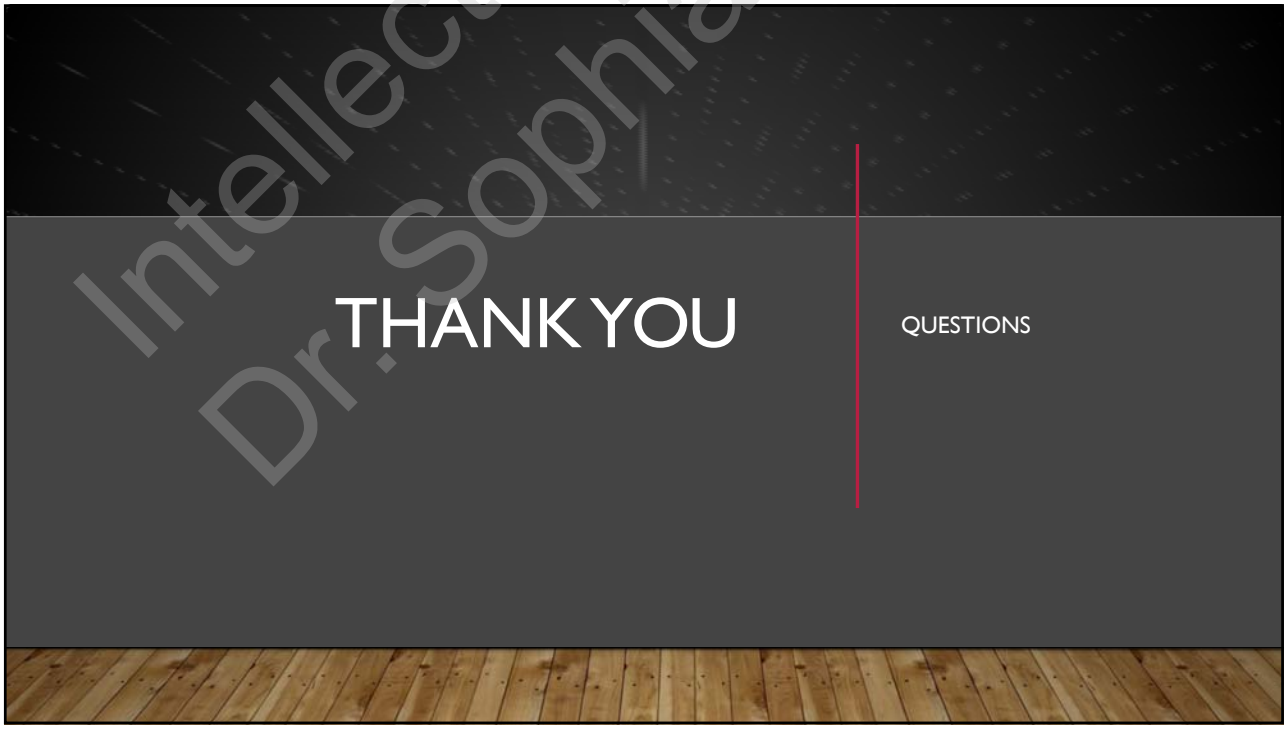

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