Of Pearls and Parodies: Geriatrics Literature Update and Sing Along

Alex Smith

UCSF Division of Geriatrics

GeriPal Podcast

ePrognosis

JAGS

American Geriatrics Society Literature Updates

- Closing Plenary, ~2,000 people, 2018-2025
- Eric Widera and Ken Covinsky: 10 practice/paradigm changing articles from prior year
- I compose sing along parody songs for about 6-7 articles
- Today I'll give the "best of"
  - Articles w/ enduring impact/lessons
  - Particularly fun song parodies
- We will be singing!

JAMA Internal Medicine | Original Investigation

Older Adults' Views and Communication Preferences About Cancer Screening Cessation

Nancy L. Schoenborn, MD; Kimberley Lee, MD; Craig E. Pollack, MD, MHS; Karen Armacost, RN, MSA; Sydney M. Dy, MD; John F. P. Bridges, PhD; Qian-Li Xue, PhD; Antonio C. Wolff, MD; Cynthia Boyd, MD, MPH

Invited Commentary page 1128

Supplemental content

IMPORTANCE Older adults with limited life expectancy are frequently screened for cancer even though it exposes them to risks of screening with minimal benefit. Patient preferences may be an important contributor to continued screening.

OBJECTIVE To examine older adults' views on the decision to stop cancer screening when life expectancy is limited and to identify older adults' preferences for how clinicians should communicate recommendations to cease cancer screening.

DESIGN, SETTING, AND PARTICIPANTS In this semistructured interview study, we interviewed 40 community-dwelling older adults (≥ 65 years) recruited at 4 clinical programs affiliated with an urban academic medical center.

MAIN OUTCOMES AND MEASURE We transcribed the audio recorded discussions and analyzed the transcripts using standard techniques of qualitative content analysis to identify major themes and subthemes.

RESULTS The participants' average age was 75.7 years. Twenty-three participants (57.5%) were female; 25 (62.5%) were white. Estimated life expectancy was less than 10 years for 19 participants (47.5%). We identified 3 key themes. First, participants were amenable to stopping cancer screening, especially in the context of a trusting relationship with their clinician. Second, although many participants supported using age and health status to individualize the screening decision, they did not often understand the role of life expectancy. All except 2 participants objected to a Choosing Wisely statement about not recommending cancer screening in those with limited life expectancy, often believing that clinicians cannot

Schoenborn. JAMA Intern Med. 2017

How do we stop cancer screening

- Cancer screening saves lives by finding asymptomatic lesions
  - Potential to be lethal many years in the future if allowed to grow
  - For breast and colon cancer about 10 years from screening detection to lethality
  - Harms accrue immediately
  - Benefit/risk ratio strongly related to life expectancy
- Choosing Wisely recommends colon and breast cancer screening only in elders with life expectancy of 10+ years
- But rates of cancer screening remain high in older persons with limited expectancy with likelihood of harm
- Why?

Approach

- Interviews of 40 seniors (mean age 75, half life expectancy <10 years)
- Interview approach
  - Subjects provided overview of risks/benefits of cancer screening
  - Attitudes about stopping screening; reactions to being told to stop screening
  - Role of health status, functional status, life expectancy
  - Reactions to different methods of communicating stop screening recommendation

How to make stop screening recommendation

- Don’t say “You will not live long enough to benefit from this test”
- Do say “This test will not help you live longer”
  - Patients wanted to discuss health care that could help them live longer or better
- “When patients have your conditions and need help for day to day activities, this test can cause more harm than benefit”
  - “It sounds like the doctor has considered my personal issues and decided I should not have the test”

Bottom Line

- Patients open to being told they should not have cancer screening
  - Needs to come from a physician they have a relationship with and trust
- Many patients don't get the relationship between life expectancy and cancer screening benefits
  - But they do seem to understand that poor health and functional status may make screening unwise

Super Happy Fun Time Updates in Geriatrics Sing Along

Now with Science!

To The Tune Of:
Sweet Caroline

Text in White: Alex Sings

Text in Yellow: Everyone Sings

To the tune of Sweet Caroline

[Alex Sings]

When screening began

I must have been about 50

I always thought it would go on

To the tune of Sweet Caroline

[Alex Sings]

Was middle aged

Then I became much older

Who’d have believed that you’d be gone

To the tune of Sweet Caroline

[Alex Sings]

Scope, long long scope

Reaching up, scoping me, scoping you

[Everyone Sings]

Sweet colonoscopy

(Oh oh oh)

Screening never felt so good

(so good, so good, so good)

But I'd be inclined (oh oh oh)

To stop it if I knew it

Did…not…help…me

Intensification of older adults' outpatient blood pressure treatment at hospital discharge: national retrospective cohort study

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Additional material is published online only. To view please visit the journal online.

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http://dx.doi.org/10.1136/bmj.k3503

Accepted: 26 July 2018

ABSTRACT

OBJECTIVES

To assess how often older adults admitted to hospital for common non-cardiac conditions were discharged with intensified antihypertensive treatment, and to identify markers of appropriateness for these intensifications.

DESIGN

Retrospective cohort study.

SETTING

US Veterans Administration Health System.

PARTICIPANTS

Patients aged 65 years or over with hypertension admitted to hospital with non-cardiac conditions between 2011 and 2013.

MAIN OUTCOME MEASURES

Intensification of antihypertensive treatment, defined as receiving a new or higher dose antihypertensive agent at discharge compared with drugs used before admission. Hierarchical logistic regression analyses were used to control for characteristics of patients and hospitals.

RESULTS

Among 14 915 older adults (median age 76, interquartile range 69-84), 9636 (65%) had well controlled outpatient blood pressure before hospital admission. Overall, 2074 (14%) patients were discharged with intensified antihypertensive treatment, more than half of whom (1082) had well controlled blood pressure before admission. After adjustment for potential confounders, elevated inpatient blood pressure was strongly associated with being discharged on intensified antihypertensive regimens. Among patients with previously well controlled outpatient blood pressure, 8% (95% confidence interval 7% to 9%) of patients without elevated inpatient blood pressure, 24% (21% to 26%) of patients with moderately elevated inpatient blood pressure, and 40% (34% to 46%) of patients with severely elevated inpatient blood pressure were discharged with intensified antihypertensive regimens. No differences were seen in rates of intensification among patients least likely to benefit from tight blood pressure control (limited life expectancy, dementia, or metastatic malignancy), nor in those most likely to benefit (history of myocardial infarction, cerebrovascular disease, or renal disease).

CONCLUSIONS

One in seven older adults admitted to hospital for common non-cardiac conditions were discharged with intensified antihypertensive treatment. More than half of intensifications occurred in patients with previously well controlled outpatient blood pressure. More attention is needed to reduce potentially harmful overtreatment of blood pressure as older adults transition from hospital to home.

WHAT IS ALREADY KNOWN ON THIS TOPIC

Introduction

More than half of adults admitted to hospital are discharged with changes to four or more of their

BMJ 2018. http://dx.doi.org/10.1136/bmj.k3503

Hypertension in the Hospital: Treating Numbers, Not Patients

- Hypertension is an outpatient disease
  - BP checked 3 times a day in hospital: Tempting to treat
  - But more likely to do harm than good
- VA hospital data addressed how often this occurred
  - 15,000 persons with htn, over age 65 (mean 76) with non cardiac admissions
  - Primary Outcome: New BP med or a higher dose compared to preadmission regimen

Anderson Tim and Steinman Michael; BMJ 2018. http://dx.doi.org/10.1136/bmj.k3503

Lots of BP Meds

- 14% of patients discharged with more BP meds (That's 1 in 7!)
  - 52% of these patients were well controlled before admission
  - Limited life expectancy, metastatic malignancy, and dementia had no impact of BP intensification
  - One year later, those intensified in the hospital were not more likely to have BP controlled
    - But those intensified did have 23% higher risk of readmission


WELCOME
TO Fabulous
LAS VEGAS
NEVADA

Clinicians would be wise to adopt Sin City's famous tagline, "What happens in Vegas, stays in Vegas;" often the safest approach to inpatient chronic disease management should be to let what happens in hospital stay in hospital.

Nathan Stall & Chaim Bell

Super Happy Fun Time Updates in Geriatrics

Sing Along

To The Tune Of:
Sweet Caroline

Text in White: Alex Sings

Text in Yellow: Everyone Sings

To The Tune Of:
Let it Go

On morning rounds her pressure is high

Systolic 150

Hypertension by some guidelines

The decision rests with me

To The Tune Of:

Let it Go

Don’t let them doubt, don’t let them see

Be the good intern you have to be

Respond, don’t think, don’t let them know

Well, now they know

To The Tune Of:
Let it Go

Let it go, let it go

I’m not treating it anymore,

Let it go, let it go

Turn away and close the door

To The Tune Of:
Let it Go

I don’t care

What outpatient guidelines say

Let the pressure run high

To The Tune Of:

Let it Go

Hypertension never bothered her anyway

Longitudinal Relationship Between Hearing Aid Use and Cognitive Function in Older Americans

Asri Maharani, PhD, Piers Dawes, PhD,† James Nazroo, PhD,‡ Gindo Tampubolon, PhD,‡ Neil Pendleton, PhD,* and on behalf of the SENSE-Cog WP1 group*

OBJECTIVES: To test whether hearing aid use alters cognitive trajectories in older adults.

DESIGN: US population-based longitudinal cohort study

SETTING: Data were drawn from the Health and Retirement Study (HRS), which measured cognitive performance repeatedly every 2 years over 18 years (1996–2014).

PARTICIPANTS: Adults aged 50 and older who who took part in a minimum of 3 waves of the HRS and used hearing aids for the first time between Waves 4 and 11 (N=2,040).

MEASUREMENTS: Cognitive outcomes were based on episodic memory scores determined according to the sum of immediate and delayed recall of 10 words.

RESULTS: Hearing aid use was positively associated with episodic memory scores (β=1.53, p<.001). Decline in episodic memory scores was slower after (β=–0.02, p<.001) than before using hearing aids (β=–0.1, p<.001). These results were robust to adjustment for multiple confounders and to attrition, as accounted for using a joint model.

CONCLUSIONS: Hearing aids may have a mitigating effect on trajectories of cognitive decline in later life. Providing hearing aids or other rehabilitative services for hearing impairment much earlier in the course of hearing impairment may stem the worldwide rise of dementia. J Am Geriatr Soc 66:1130–1136, 2018.

Key words: hearing aid use; cognition; longitudinal analysis

From the *Division of Neuroscience and Experimental Psychology, School of Biological Sciences, Faculty of Biology, Medicine and Health, University of Manchester; †Division of Human Communication, Development and Hearing, University of Manchester; and the ‡Cathie

Neurodegenerative dementias such as Alzheimer's disease are a major health problem in the aging worldwide population. The number of people living with dementia is projected to increase by 57% in the next 2 decades, from 46 million in 2015 to 72 million in 2050.[1,2] This rising global prevalence, combined with the lack of effective curative treatment, has made the prevention of dementia a public health concern.

A recent study showed that intervention on risk factors not including hypertension might prevent 35% of dementia cases[3] and that the strongest midlife risk factor for dementia is hearing impairment. It showed that approximately 9% of dementia cases are attributable to hearing loss in midlife. Our previous study, using 3 longitudinal surveys on aging health, showed that individuals with hearing and visual impairments had lower episodic memory scores and a worse trajectory of decline in memory scores with age than those with no impairment. The relationship between hearing impairment and poorer cognitive ability in later life has also been reported in numerous cross-sectional[4–6] and longitudinal studies.[7–9] Because hearing impairment is prevalent, alleviating it might delay the point that older adults cross the critical threshold of impairment into dementia.

Hearing impairment is not only a greater risk factor for dementia than other individual midlife risks, but is also relevant to many individuals because of its relatively high prevalence in middle and old age. At least 10% of individuals aged 40 to 69 show some degree of measurable hearing impairment,[10] and this proportion increases with age. The prevalence of hearing impairment increases to 30% of individuals aged 65 and older, and between 70% and 90% individuals aged 85 and older experience some

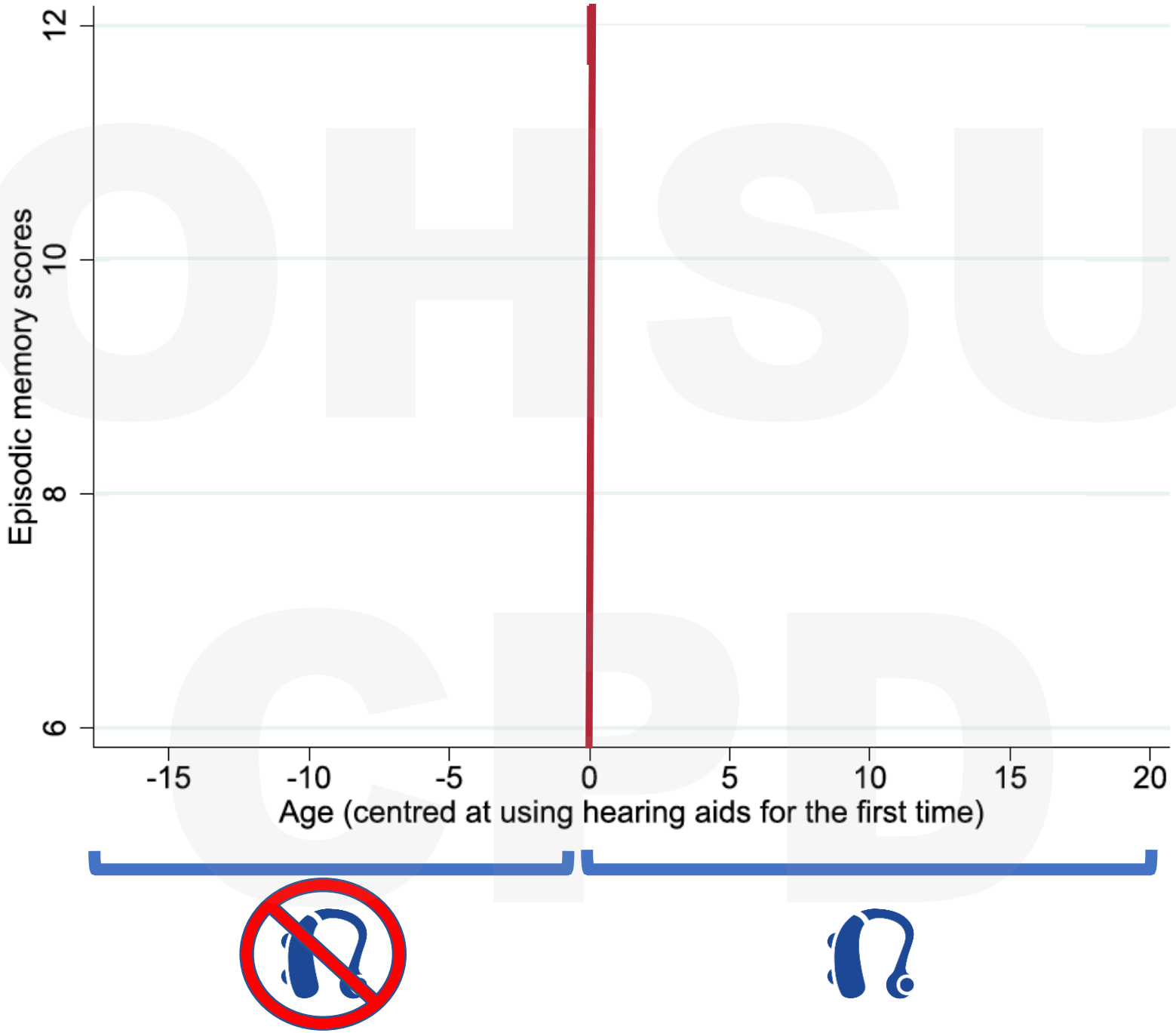
Maharani. JAGS 66:1130–1136, 2018.

Background

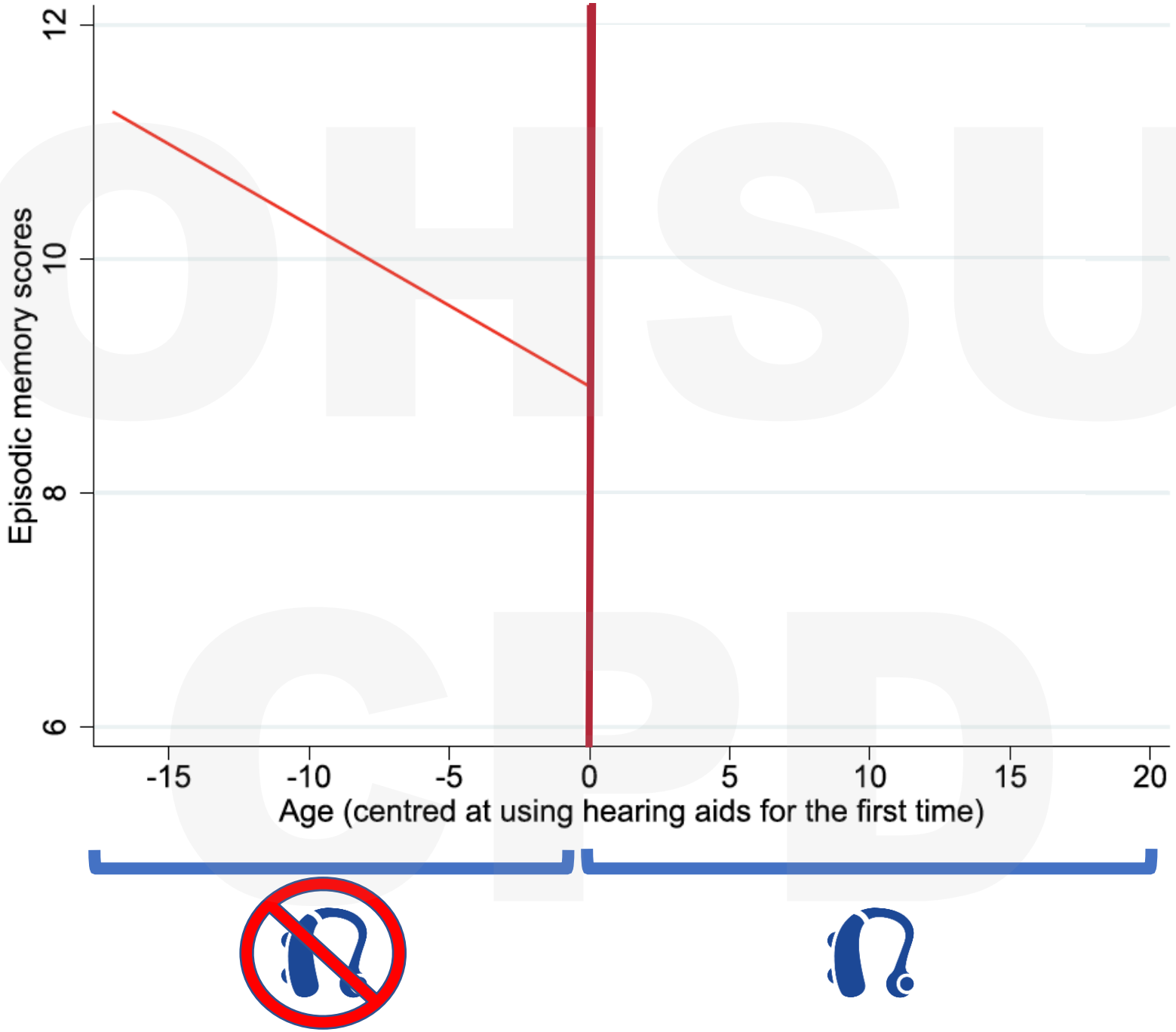
- 3 out of 5 adults 70 years and older have hearing loss
- Hearing loss is also associated with cognitive decline
  - ? due to the AD itself vs sensory deprivation, social isolation
- Can hearing aids alter the negative cognitive outcomes of hearing loss?
- Note: Medicare will cover the cost of cochlear implant surgery ($50-100K) but not hearing aids ($1-6K)

Methods

- Health and Retirement Study Data
  - 2,040 adults aged 50 and older
  - No dementia or hearing aids a baseline
  - Self-Reported use of hearing aids during the study
- Measured cognitive performance repeatedly every 2 years over 18 years (1996–2014).
  - Episodic memory scores: sum of immediate and delayed recall of 10 words (range 0-20)



* Slope adjusted for demographic & socioeconomic characteristics, lifestyle behavior, and health status.



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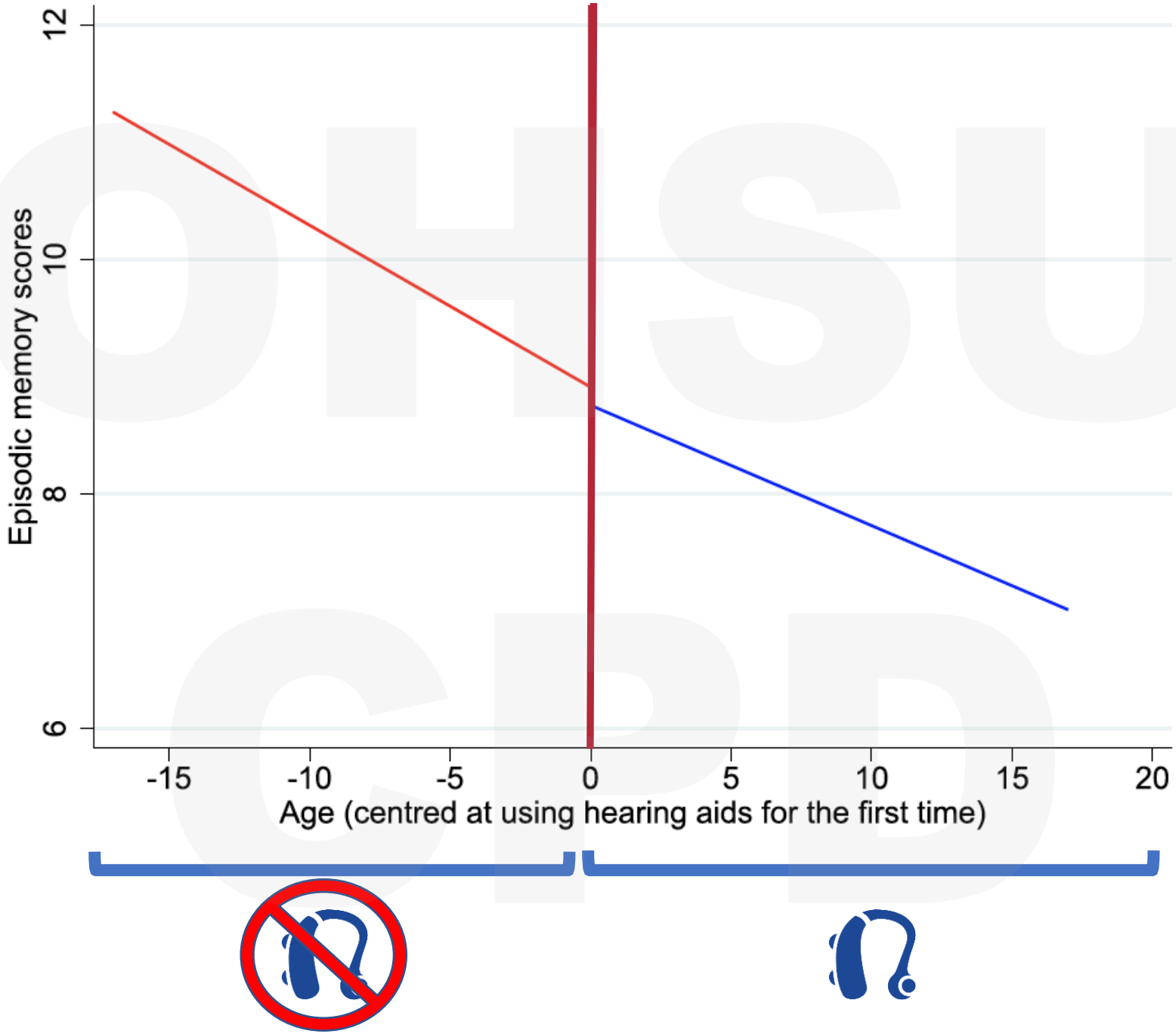


* Slope adjusted for demographic & socioeconomic characteristics, lifestyle behavior, and health status.

The Big Limitation

Episodic memory tests were presented orally

Super Happy Fun Time Updates in Geriatrics

Sing Along

To The Tune Of:
Imagine

Text in White: Alex Sings

Text in Yellow: Everyone Sings

To The Tune Of:
Imagine

Imagine there's no hearing loss

It isn't hard to do

Nothing to miss or lipread

And less dementia too

To The Tune Of:
Imagine

[Everyone Sings]

Imagine older people

Hearing perfectly

To The Tune Of:
Imagine

Imagine Medicare coverage

It isn’t hard to do

Hearing aids for everyone

And no copay too

To The Tune Of:
Imagine

[Everyone Sings]

Imagine older people

Hearing perfectly

You

To The Tune Of:
Imagine

You may say I'm a dreamer

But I'm not the only one

I hope some day you'll join us

And the world will hear as one

Studies since

- Achieve Study - ~1000 older adults
- Hearing intervention (aids+audiology) vs health education
  - Lancet 2023
    - No difference in 3-year cognitive change
    - Was effective in subgroup higher risk for cognitive decline
  - JAMA Network Open 2024
    - No association with quality of life
  - JAGS 2024
    - Improved communication function
- 3 yr RCT in select sample vs 18yr observation study real world sample
- Bottom line: Hearing aids and audiology may alter the trajectory of cognitive decline among those at greatest risk, likely improves communication.

To The Tune Of:

Blowin in the Wind

How many times can we ask 'til we hear,
Before we acknowledge the sound?
How many ears must grow older each year,
Before hearing aids can be found?
Yes, and how many studies will show us the way,
That hearing can turn life around?

To The Tune Of:

Blowin in the Wind

The answer, my friend,
Costs three grand per ear,
The answer costs three grand per ear.

Research

JAMA Internal Medicine | Original Investigation | LESS IS MORE

Evaluation of a Common Prescribing Cascade of Calcium Channel Blockers and Diuretics in Older Adults With Hypertension

Rachel D. Savage, PhD; Jessica D. Visentin, PharmD; Susan E. Bronskill, PhD; Xuesong Wang, MSc; Andrea Gruneir, PhD; Vasily Giannakeas, MPH; Jun Guan, MSc; Kenneth Lam, MD; Miles J. Luke, PharmD; Stephanie H. Read, PhD; Nathan M. Stall, MD; Wei Wu, MSc; Lynn Zhu, PhD; Paula A. Rochon, MD, MPH; Lisa M. McCarthy, PharmD, MSc

Invited Commentary page 651

Supplemental content

IMPORTANCE Calcium channel blockers (CCBs) are commonly prescribed agents for hypertension that can cause peripheral edema. A prescribing cascade occurs when the edema is misinterpreted as a new medical condition and a diuretic is subsequently prescribed to treat the edema. The extent to which this prescribing cascade occurs at a population level is not well understood.

OBJECTIVE To measure the association between being newly dispensed a CCB and subsequent dispensing of a loop diuretic in older adults with hypertension.

DESIGN, SETTING, AND PARTICIPANTS A population-based cohort study was performed using linked health administrative databases of community-dwelling adults 66 years or older with hypertension and new prescription drug claims from September 30, 2011, to September 30, 2016, in Ontario, Canada. The dates of analysis were September 1, 2018, to May 30, 2019.

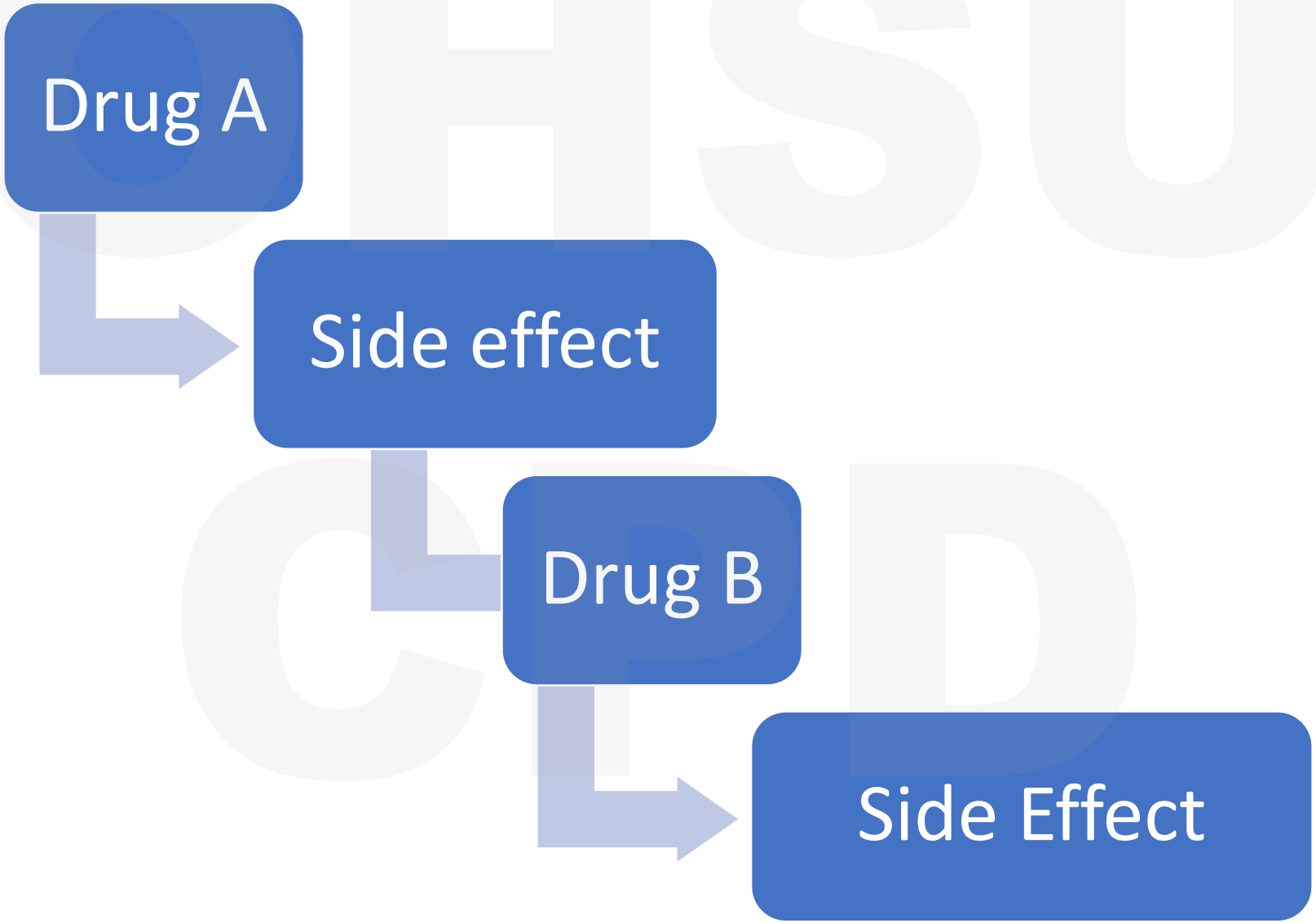
EXPOSURES Individuals who were newly dispensed a CCB were compared with the following 2 groups: (1) individuals who were newly dispensed an angiotensin-converting enzyme inhibitor or angiotensin II receptor blocker and (2) individuals who were newly dispensed an unrelated medication.

MAIN OUTCOMES AND MEASURES Hazard ratios (HRs) with 95% CIs were estimated for individuals who were dispensed a loop diuretic within 90 days of follow-up using Cox proportional hazards regression models.

RESULTS The cohort included 41 086 older adults (≥66 years) with hypertension who were newly dispensed a CCB, 66 494 individuals who were newly dispensed another antihypertensive medication, and 231 439 individuals who were newly dispensed an unrelated medication. At index (ie, the dispensing date), the mean (SD) age was 74.5 (6.9) years, and 191 685 (56.5%) were women. Individuals who were newly dispensed a CCB had a higher cumulative incidence at 90 days of being dispensed a loop diuretic than individuals in both control groups (1.4% vs 0.7% and 0.5%, $P < .001$). After adjustment, individuals who

JAMA Intern Med. 2020;180(5):643-651.

Prescribing cascades

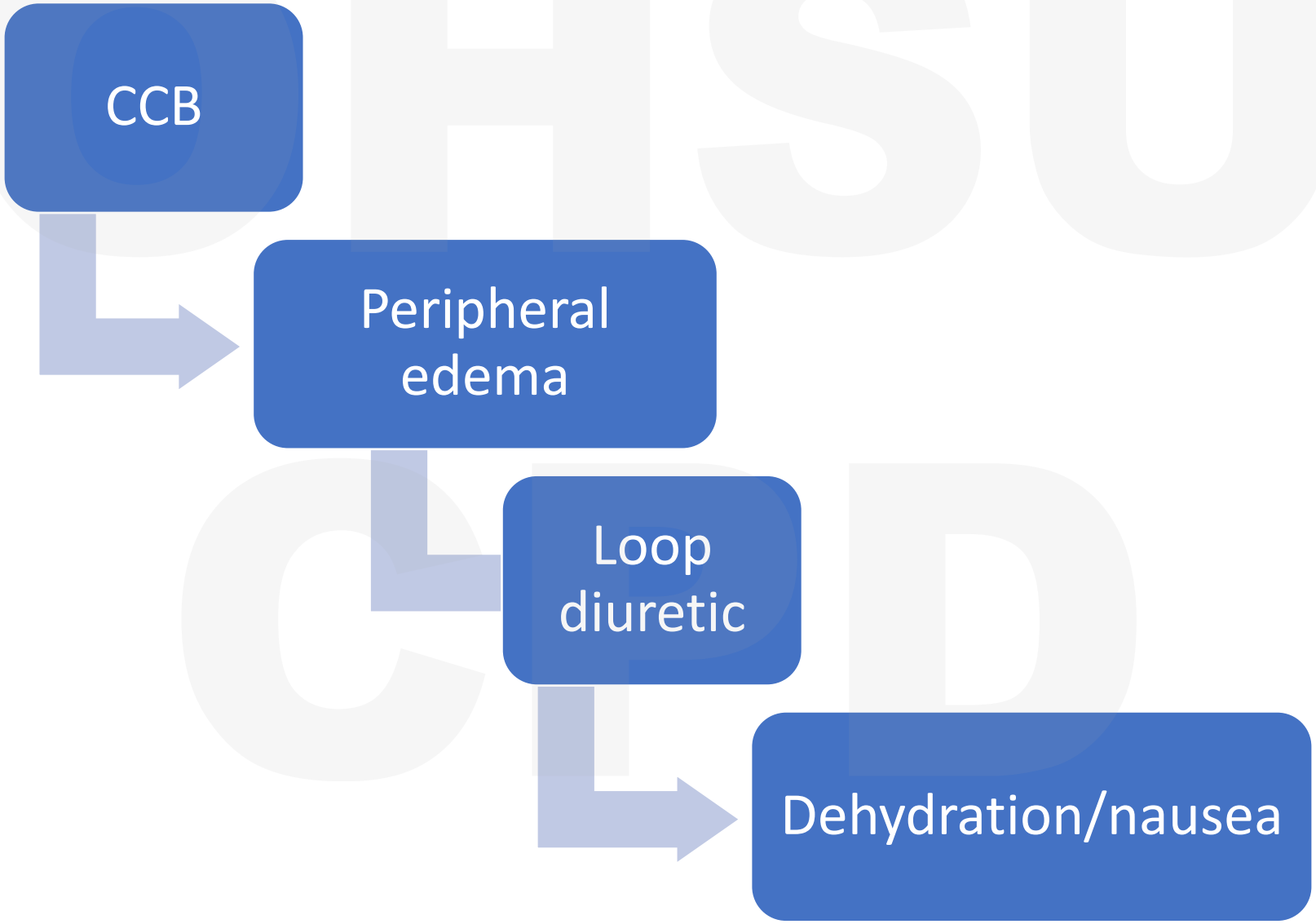


Prescribing Cascades

- One drug is prescribed and a second drug is prescribed to treat side effect of the first drug
- Example: Calcium channel blocker can cause peripheral edema due to capillary leak. It is not CHF! But patients rx'd loop diuretics.
- Population-based retrospective cohort study in Ontario, Canada
  - Community-dwelling adults 66 years or older
  - HTN but not heart failure
    - New prescription drug claim for hypertension
  - Compare subsequent loop diuretic prescriptions among those prescribed CCB vs ACE/ARB

Savage RD; JAMA Intern Med. 2020;180(5):643-651

Prescribing cascades



Excess Diuretics Associated with Calcium Blockers

- Rates of loop diuretics (e.g. furosemide) prescription in year after prescription for:
  - ACE/ARB: 1.8%
  - Ca Blocker: 3.5%
- **Excess: 1.7% - evidence of a prescribing cascade**

Super Happy Fun Time Updates in Geriatrics

Sing Along

To The Tune Of:
When I'm 64

[Alex Sings]

When I get older
Pain in my knees
Many years from now
Then I take some NSAIDS that I don’t mention
Uh oh I’ve got hypertension

To The Tune Of:
When I'm 64

[Alex Sings]

My doctor prescribes me amlodipine
But the leg swelling I abhor

[Everyone Sings]
Overprescribing, please deprescribe me
When I’m 84

To The Tune Of:
When I'm 64

[Alex Sings]

For the edema, you make me pee
Three times every night
For the nausea I get with furosemide
Now I take metoclopramide

To The Tune Of:
When I'm 64

[Alex Sings]

Now I take meds from morning till eve
One med turned to four

[Everyone Sings]
Overprescribing, please deprescribe me
When I’m 84

Take Home Point

- Be as good at deprescribing as in prescribing

- Pearl from Mike Steinman: Any new symptom in an older adult is a medication side effect until proven otherwise.

BMJ 2020;368:m261

But what if there was a drug…

But what if there was a drug…

Aducanumab
2021 Drug of the Year

Aducanumab

- Based on amyloid hypothesis
  - deposition of amyloid plaques in the brain CAUSES the neuronal degeneration seen in Alzheimer's disease
  - amyloid beta (Aβ)-targeted monoclonal antibody
- 2 studies (Engage and Emerge) in patients with MCI or early dementia stopped early due to futility
- Post-hoc analysis showed statistically significant benefit (reduced cognitive decline) of high dose regimen in 1 study – and benefit fell short of clinically meaningful difference
- Harms of treatment include risk of brain edema/bleeding

Where were we in May 2021?

July 2020

- Biogen applied for FDA approval

November 2020

- FDA Advisory Committee: not enough evidence to support approval

Next month - June 2021

- FDA approval???

Super Happy Fun Time Updates in Geriatrics

Sing Along

To The Tune Of:
Supercalifragilisticexpialidocious

[Everyone Sings]

Super aducanumab is not that efficacious
Even though the sound of it is something ostentatious
If you say it loud enough, you'll always sound sagacious
Super aducanumab is not that efficacious
Um diddle diddle diddle um diddle ay X 2

To The Tune Of:
Supercalifragilisticexpialidocious

[Alex Sings]

Dementia is a bad disease
As everybody knows
Lots of people want a cure
But this one kinda blows

To The Tune Of:
Supercalifragilisticexpialidocious

[Alex Sings]

Well it can make your brain swell up
That's just one of its quirks
It's got a fancy name and so
You probably think it works

To The Tune Of:
Supercalifragilisticexpialidocious

[Everyone Sings]

Super aducanumab is not that efficacious
Even though the sound of it is something ostentatious
If you say it loud enough, you'll always sound sagacious
Super aducanumab is not that efficacious

Aducanumab fallout

- Personal Fallout: ICER committee

- FDA granted accelerated approval in June 2021
- 3 members of FDA advisory board resigned (GeriPal podcast Aaron Kesselheim)
- 2022 CMS limited Medicare coverage to clinical trials
- 2023 insurance companies/health systems refused to cover
- 2024 Biogen halted sale of aducanumab

Lecanemab: A Game Changer for Alzheimer's? (NOT!)

- Benefits:
  - Removes about 2/3 of brain amyloid
  - Benefit over 18 months CDR-SB 0.45 points (Minimum clinically important difference = 1.0)
  - Harms: ARIA (brain edema or bleeding)
    - Any: 22%
    - Symptomatic 2.3%
- Cost $26,000 USD /year
- Is there a benefit?

We briefly retired

Huge amount of work, needed break

But attendance wasn’t good at closing plenary 2022

Brought us back for another 3 years (2023, 2024, 2025)

Effect of chair placement on physicians' behavior and patients' satisfaction

CHRISTMAS 2023: MARGINAL GAINS

OPEN ACCESS

Check for updates

Effect of chair placement on physicians' behavior and patients' satisfaction: randomized deception trial

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http://dx.doi.org/10.1136/bmj-2023-076309
Accepted: 11 August 2023

ABSTRACT

OBJECTIVE
To evaluate the effect of chair placement on length of time physicians sit during a bedside consultation and patients' satisfaction.

DESIGN
Single center, double blind, randomized controlled deception trial.

SETTING
County hospital in Texas, USA.

PARTICIPANTS
51 hospitalist physicians providing direct care services, and 125 observed encounters of patients who could answer four orientation questions correctly before study entry, April 2022 to February 2023.

INTERVENTION
Each patient encounter was randomized to either chair placement (≤3 feet (0.9 m) of patient's bedside and facing the bed) or usual chair location (control).

MAIN OUTCOME MEASURES
The primary outcome was the binary decision of the physician to sit or not sit at any point during a patient encounter. Secondary outcomes included patient satisfaction, as assessed with the Tool to Assess Inpatient Satisfaction with Care from Hospitalists (TAISCH) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys, time in the room, and both physicians' and patients' perception of time in the room.

RESULTS
125 patient encounters were randomized (60 to chair placement and 65 to control). 38 of the 60 physicians in the chair placement group sat during the patient encounter compared with five of the 65 physicians in the control group (odds ratio 20.7, 95% confidence interval 7.2 to 59.4; P<0.001). The absolute risk difference between the intervention and control groups was 0.55 (95% confidence interval 0.42 to 0.69). Overall, 1.8 chairs needed to be placed for a physician to sit. Intervention was associated with 3.9% greater TAISCH scores (effect estimate 3.9, 95% confidence interval 0.9 to 7.0; P=0.01) and 5.1 greater odds of complete scores on HCAHPS (95% confidence interval 1.06 to 24.9, P=0.04). Chair placement was not associated with time spent in the room (10.6 minutes *v* control 10.6 minutes) nor perception of time in the room for physicians (9.4 minutes *v* 9.8 minutes) or patients (13.1 minutes *v* 13.5 minutes).

CONCLUSION
Chair placement is a simple, no cost, low tech intervention that increases a physician's likelihood of sitting during a bedside consultation and resulted in higher patients' scores for both satisfaction and communication.

TRIAL REGISTRATION
ClinicalTrials.gov NCT05250778.

Introduction

Etiquette based medicine is a practice that emphasizes good manners and behaviors when communicating with patients, and such practice has been shown to have a beneficial effect on the physician-patient relationship.[1-3] Sitting at the bedside of a patient is one of the etiquette behaviors that has been associated with improved patient-physician communication, patients' satisfaction, and trust.[1 2 4] In the midst of busy rounds, however, it might be a challenge for healthcare professionals to sit with patients on a regular basis, with previous studies finding that hospitalist physicians sit during one in five encounters with patients.[2] Despite the evidence suggesting that sitting with patients is beneficial, identifying ways to change physicians' behavior is complex.

A nudge is defined as an attempt to predictably influence an individual's judgment, choice, or behavior by targeting subconscious routines and biases present in decision making.[5 6] Nudges have been successfully leveraged to modify physicians' behavior and have resulted in, for example, increased flu vaccination rates and more frequent prescribing of statins.[7 8] Choice architecture is a specific nudge strategy that influences the social and physical environment in

WHAT IS ALREADY KNOWN ON THIS TOPIC

BMJ 2023;383:e076309

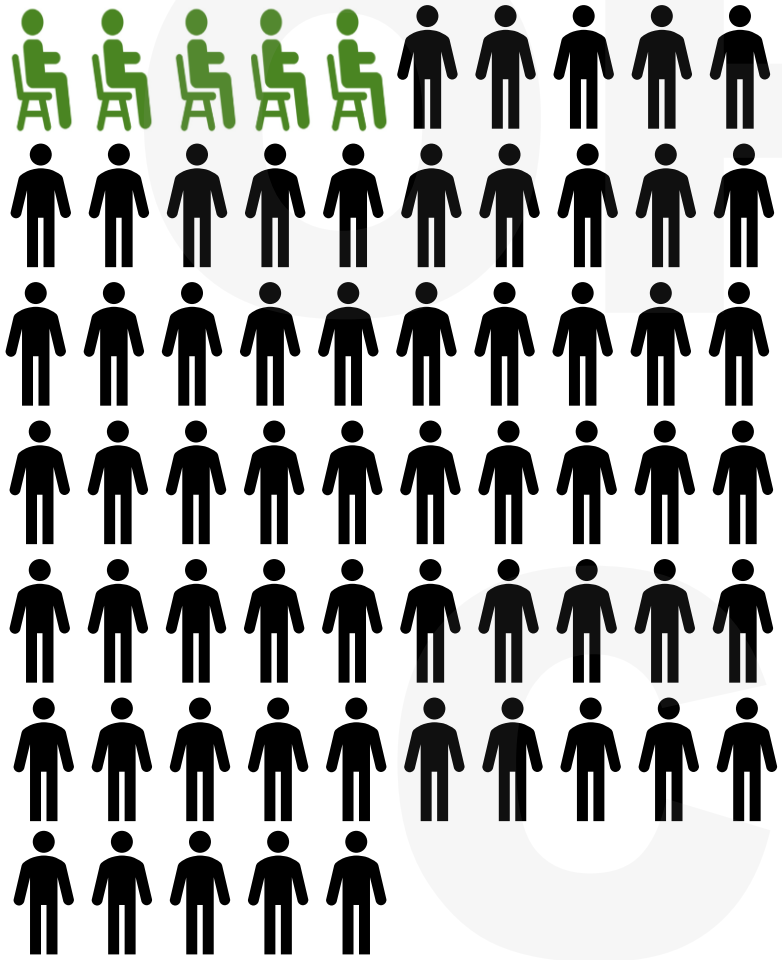
The Study

- Single center, double blind, randomized controlled deception trial
  - County hospital in Texas, USA.
  - 51 hospitalist physicians providing direct care services, and 125 observed encounters of patients
- Intervention
  - Before each patient interaction the encounter was randomized to either moving a chair from the usual chair location vs patient's bedside

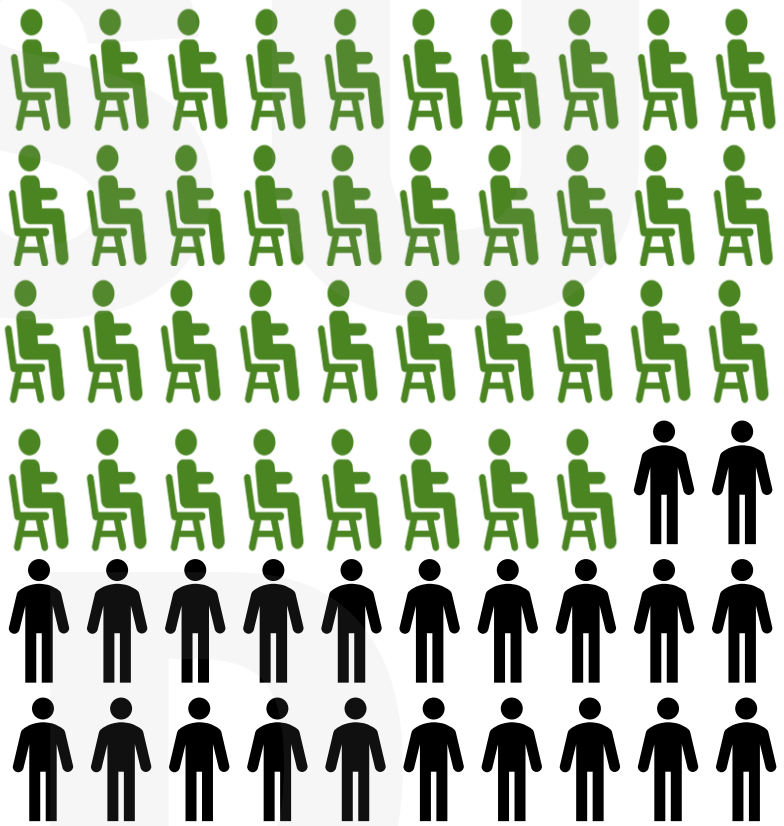
Intervention

Usual Care Placement

Usual Chair Placement Encounters (n=65)



Bedside Chair Placement (n=60)



Odds ratio 20.7, 95% confidence interval 7.2 to 59.4; P<0.001

Secondary Outcomes

Better patient satisfaction with hospitalist care

Better Tool to Assess Inpatient Satisfaction with Care from Hospitalists (TAISCH)

Better patient rated communication

Physician communication questions from HCAHPS surveys

No difference in time in the room


EXIT

Super Happy Fun Time Updates in Geriatrics

Sing Along

To the Tune of:
For What it’s Worth

[Alex Sings]

There's something happening here
But what it is ain't exactly clear
There's a chair by the bed over there
What the heck? I’ll sit in the chair

To the Tune of:
For What it's Worth

[Everyone sings]

It's time we stop
Doctors, what's that sound?
Everybody stop, sit your butt down

To the Tune of:
For What it's Worth

[Alex Sings]

There's battle lines being drawn
Nobody sits unless attendings play along
Into a chair I reclined
Getting so much support, for my behind

To the Tune of:
For What it's Worth

[Everyone sings]

It's time we stop
Doctors, what's that sound?
Everybody stop, sit your butt down

To the Tune of:
For What it's Worth

[Alex Sings]

What a field day for the feet
Every hospital room has a seat
Pragmatic and brand-new guidelines
Say a chair for every backside

To the Tune of:
For What it's Worth

[Everyone sings]

It's time we stop
Doctors, what's that sound?
Everybody stop, sit your butt down

To the Tune of:
For What it's Worth

[Everyone sings]

It's time we stop
Doctors, what's that sound?
Everybody stop, sit your butt down

Reducing Care Overuse in Older Patients Using Professional Norms and Accountability

ORIGINAL RESEARCH

Annals of Internal Medicine

Reducing Care Overuse in Older Patients Using Professional Norms and Accountability

A Cluster Randomized Controlled Trial

Stephen D. Persell, MD, MPH; Lucia C. Petito, PhD; Ji Young Lee, MS; Daniella Meeker, PhD; Jason N. Doctor, PhD; Noah J. Goldstein, PhD; Craig R. Fox, PhD; Theresa A. Rowe, DO, MS; Jeffrey A. Linder, MD, MPH; Ryan Chmiel, MS; Yaw Amofa Peprah, MPH; and Tiffany Brown, MPH

Background: Effective strategies are needed to curtail overuse that may lead to harm.

Objective: To evaluate the effects of clinician decision support redirecting attention to harms and engaging social and reputational concerns on overuse in older primary care patients.

Design: 18-month, single-blind, pragmatic, cluster randomized trial, constrained randomization. (ClinicalTrials.gov: NCT04289753)

Setting: 60 primary care internal medicine, family medicine and geriatrics practices within a health system from 1 September 2020 to 28 February 2022.

Participants: 371 primary care clinicians and their older adult patients from participating practices.

Intervention: Behavioral science–informed, point-of-care, clinical decision support tools plus brief case-based education addressing the 3 primary clinical outcomes (187 clinicians from 30 clinics) were compared with brief case-based education alone (187 clinicians from 30 clinics). Decision support was designed to increase salience of potential harms, convey social norms, and promote accountability.

Measurements: Prostate-specific antigen (PSA) testing in men aged 76 years and older without previous prostate cancer, urine testing for nonspecific reasons in women aged 65 years and older, and overtreatment of diabetes with hypoglycemic agents in patients aged 75 years and older and hemoglobin A_{1c} (HbA_{1c}) less than 7%.

Results: At randomization, mean clinic annual PSA testing, unspecified urine testing, and diabetes overtreatment rates were 24.9, 23.9, and 16.8 per 100 patients, respectively. After 18 months of intervention, the intervention group had lower adjusted difference-in-differences in annual rates of PSA testing (−8.7 [95% CI, −10.2 to −7.1]), unspecified urine testing (−5.5 [CI, −7.0 to −3.6]), and diabetes overtreatment (−1.4 [CI, −2.9 to −0.03]) compared with education only. Safety measures did not show increased emergency care related to urinary tract infections or hyperglycemia. An HbA_{1c} greater than 9.0% was more common with the intervention among previously overtreated diabetes patients (adjusted difference-in-differences, 0.47 per 100 patients [95% CI, 0.04 to 1.20]).

Limitation: A single health system limits generalizability; electronic health data limit ability to differentiate between overtesting and underdocumentation.

Conclusion: Decision support designed to increase clinicians' attention to possible harms, social norms, and reputational concerns reduced unspecified testing compared with offering traditional case-based education alone. Small decreases in diabetes overtreatment may also result in higher rates of uncontrolled diabetes.

Primary Funding Source: National Institute on Aging.

Ann Intern Med. 2024;177:324-334. doi:10.7326/M23-2183 Annals.org
For author, article, and disclosure information, see end of text.
This article was published at Annals.org on 6 February 2024.

Unnecessary laboratory testing may lead to clinical cascades of low clinical value exposing patients to potential harms from downstream clinical actions (1–5). Similarly, overly aggressive treatment of diabetes mellitus where harms outweigh benefits (6) are commonly observed in practice (7–9). The American Geriatrics Society (AGS), participating in the Choosing Wisely campaign of the American Board of Internal Medicine Foundation, provided recommendations on reducing overtesting and overtreatment of older adults (10).

Clinical decision support (CDS) integrated into electronic health records (EHRs) is a potential tool to address overuse but, traditionally, CDS applications have focused on correcting clinicians' knowledge deficits. These approaches implicitly assume that rational clinicians will make correct decisions if they have accurate beliefs. If overuse stems instead from inattention, bad habits, or misaligned incentives, such approaches will be insufficient. Correcting overuse

See also:
Editorial comment 397
Web-Only Supplement

Persell, SD. Annals of Internal Medicine. 2024

Background

- Overscreening and overtreatment of older adults is common
- AGS Choosing Wisely statement focused on overuse
    1. Do not recommend screening for breast, colorectal, prostate, or lung cancer without considering life expectancy and the risks of testing, overdiagnosis, and overtreatment
    2. Do not use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present
    3. Avoid using medications other than metformin to achieve HbA1c less than 7.5% in most older adults

The Study

- 18-month, single-blind, pragmatic, cluster randomized trial
  - 60 primary care internal medicine, family medicine and geriatrics clinics
- Randomized to:
  - Nudges plus brief case-based education
  - Brief case-based education alone

Intervention Nudges

- Pop-up alerts on ordering
  - Potential harms
    - False positives, unnecessary antibiotic treatment and adverse reactions such as rashes, drug interactions, diarrhea and C. diff infection
  - Social norms:
    - “Most PCPs use PSA rarely or not at all in men over 75 who have not already been diagnosed with prostate cancer”
  - Social accountability
    - Prompted to document rationale that would be visible within the chart under a heading titled “Testing Justification”

Results

- Intervention compared to control decreased adjusted difference-in-differences in annual rates by:
  - PSA testing
    - 8.7 per 100 patients [95% CI, 10.2 to 7.1]; P<0.001
  - Non-specific Urine testing
    - 5.5 per 100 patients [CI, 7.0 to 3.6]; P < 0.001
  - Diabetes overtreatment
    - 1.4 per 100 patients [CI, 2.8 to 0.03]; P . 0.005

Bottom Line

- Behavioral nudges that increase attention to harms and draw on social and reputational concerns can reduce overscreening and overtreatment among older patients

Super Happy Fun Time Updates in Geriatrics

Sing Along

To the Tune of:
Don’t Stop Believin’

[Everyone sings]

Just a small-town doc,
Workin’ hard against the clock,
Ordered tests just because,
Not sure they were right…

To the Tune of:
Don’t Stop Believin’

[Everyone sings]

Just a frail old guy,
Feelin’ old and not so spry,
Gets a PSA,
But he’s ninety-five…

To the Tune of:
Don’t Stop Believin’

[Everyone sings]

Clinics overflow,
But the value’s low, nudge
Doctors to do
What’s right…

To the Tune of:
Don't Stop Believin'

[Everyone sings]

Just a lonely man,
Said, "I tinkle when I stand,"
Doc saw something on the urine dip,
And gave him a script

To the Tune of:
Don't Stop Believin'

[Everyone sings]

He took it with his tea,
Now he's on a c. diff spree,
Texted "help" with a frown,
As his pants fell down…

To the Tune of:
Don’t Stop Believin’

[Everyone sings]

Clinics overflow,
But the value’s low, nudge
Doctors to do
What’s right…

To the Tune of:
Don’t Stop Believin’

[Everyone sings]

Don’t keep over-screening
Hold on to good reasoning
Less tests… More care…oh…ah
Don’t keep over-treating
Hold on, stop the leaning
On pills… Not skills…oh…ah

Why parodies?

- Most lectures focus on **transmittal of information**, but other goals:
  - **Entertain**
  - **Inspire**
  - **Challenge**
- Personal: fun, integrates my ”campfire guitarist” self with work self
- Hope: songs bring home the message

Thank you!

Alexander.Smith@ucsf.edu

Research

JAMA Internal Medicine | Original Investigation

Factors Associated With Mortality Among Homeless Older Adults in California
The HOPE HOME Study

Rebecca T. Brown, MD, MPH; Jennifer L. Evans, MS; Karen Valle, MS; David Guzman, MSPH; Yea-Hung Chen, PhD; Margot B. Kushel, MD

Invited Commentary page 1061

Supplemental content

IMPORTANCE The population of homeless older adults is growing and experiences premature mortality. Little is known about factors associated with mortality among homeless older adults.

OBJECTIVE To identify the prevalence and factors associated with mortality in a cohort of homeless adults 50 years and older.

DESIGN, SETTING, AND PARTICIPANTS In this prospective cohort study (Health Outcomes in People Experiencing Homelessness in Older Middle Age [HOPE HOME]), 450 adults 50 years and older who were homeless at baseline were recruited via venue-based sampling in Oakland, California. Enrollment occurred in 2 phases, from July 2013 to June 2014 and from August 2017 to July 2018, and participants were interviewed at 6-month intervals.

EXPOSURES Baseline and time-varying characteristics, including sociodemographic factors, social support, housing status, incarceration history, chronic medical conditions, substance use, and mental health problems.

MAIN OUTCOMES AND MEASURES Mortality through December 31, 2021, based on state and local vital records information from contacts and death certificates. All-cause mortality rates were compared with those in the general population from 2014 to 2019 using age-specific standardized mortality ratios with 95% CIs.

RESULTS Of the 450 included participants, median (IQR) age at baseline was 58.1 (54.5-61.6) years, 107 (24%) were women, and 360 (80%) were Black. Over a median (IQR) follow-up of 55 (38-93) months, 117 (26%) participants died. Median (IQR) age at death was 64.6 (60.3-67.5) years. In multivariable analyses, characteristics associated with mortality included a first episode of homelessness at 50 years and older (adjusted hazard ratio [aHR], 1.62; 95% CI, 1.13-2.32), homelessness (aHR, 1.82; 95% CI, 1.23-2.68) or institutionalization (aHR, 6.36; 95% CI, 3.42-11.82) at any follow-up compared with being housed, fair or poor self-rated health (aHR, 1.64; 95% CI, 1.13-2.40), and diabetes (aHR, 1.55; 95% CI, 1.06-2.26). Demographic characteristics, substance use problems, and mental health problems were not independently associated. All-cause standardized mortality was 3.5 times higher (95% CI,

Brown RT et al. JAMA Intern Med. 2022;182(10):1052–1060

Aging Before Old Age

- Syndromes of aging often detected in people who are not ”old”
- Health Conditions
  - HIV
  - Advanced organ failure (transplant candidates)
- Poverty
- Environmental
  - Incarceration
  - Homelessness
    - One third of homeless persons over age 50

Mortality in Older Homeless Adults

- Enrolled cohort of 450 home persons in Oakland over 50 years old
  - Homeless = lacking a regular nighttime residence
  - Enrolled from shelters, meal programs, recycling center
  - Monthly check-ins, visits every six months, vital status surveillance

Characteristics of Older Homeless Persons

- Average age =58
- 75% men
- 80% African-American
- Incarceration history =66%
- ADL impairment =39%
- Fair/poor self rated health=56%
- Fall in past 6 months=33%
- First episode of homeless over age 50=45%

High Mortality in the homeless

- 26% mortality—average length of follow-up 55 months
- Standardized Mortality Ratio= 3.5 (95% CI 2.5-4.4)

Predictors of Mortality in Homelessness

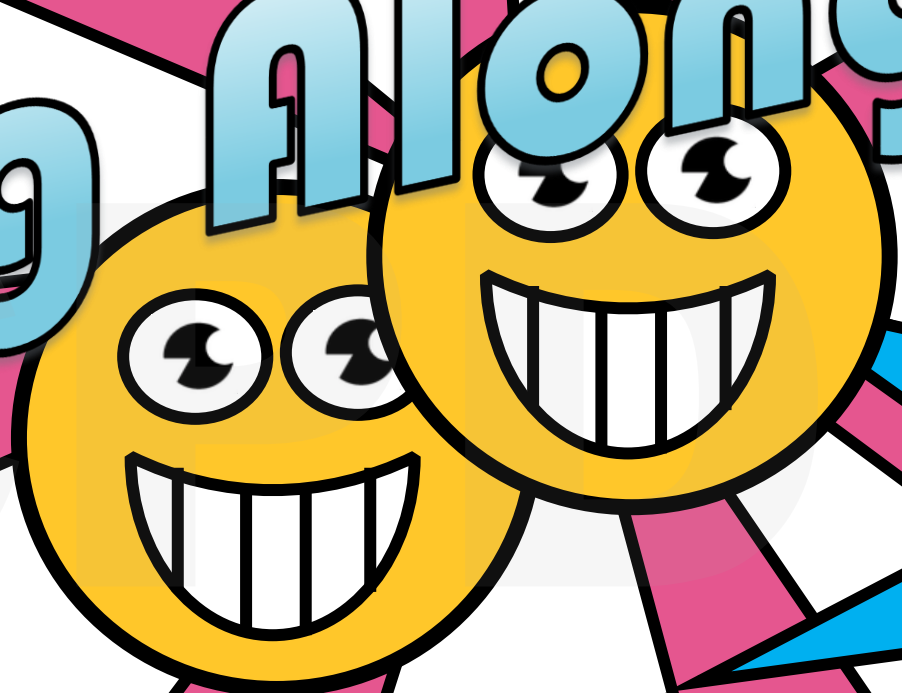
- First episode of homelessness over age 50 =1.62 (95% CI= 1.13-2.32)
- Found housing = 0.57 (95% CI 0.39-0.83)

Summary

- Homelessness is incredibly bad for health in older persons
  - Especially bad in those newly homeless after age 50
  - Finding housing lowers mortality risk
- Value of traditional health care likely marginal compared to providing housing
- Highlights need for supportive housing in older persons who are homeless

Super Happy Fun Time Updates in Geriatrics

Sing Along



[Everyone sings]

All around me are familiar faces

Worn out places, worn out faces

Bright and early for the daily races

Going nowhere, going nowhere

[Everyone sings]

Their tears are filling up their glasses

No expression, no expression

Hide my head, I wanna drown my sorrow

No tomorrow, no tomorrow

[Everyone sings]

And I find it kind of funny

I find it kind of sad

The dreams in which I'm dying

Are the best I've ever had

[Everyone sings]

I find it hard to tell you

I find it hard to take

When people run in circles, it's a very, very

[Everyone sings] [Audience sings]

Mad world

Mad world

Mad world

Mad world

Ageism and Geriatrics

- Geriatricians advocate for older persons cared for in health systems that often does not adequately address their needs
  - Early history: protection from Under Treatment
  - Current history: protection from Over Treatment

Ageism: Failure to Address Individual Needs

- This can be Under or Over Treatment
- Providing treatment when age related conditions make treatment harmful is ageism
  - ”Check-box medicine”
- Many treatments that help older persons are not provided
  - Often “low tech-high touch”
  - Systemic implicit bias against older persons
- Double ageism: Providing harmful treatment, neglecting needed treatment

Is health care for older persons ageist?

- Offers lots of expensive treatments and tests
  - Many not beneficial and harmful
  - Failure to look at the individual
- Fails to offer less expensive care that has clear benefit
  - Failure to focus on whole person needs like function
  - Structure of practice not well equipped for team based models
  - $$ incentives misaligned.

Drugs: Treating Disease, but Not the Patient

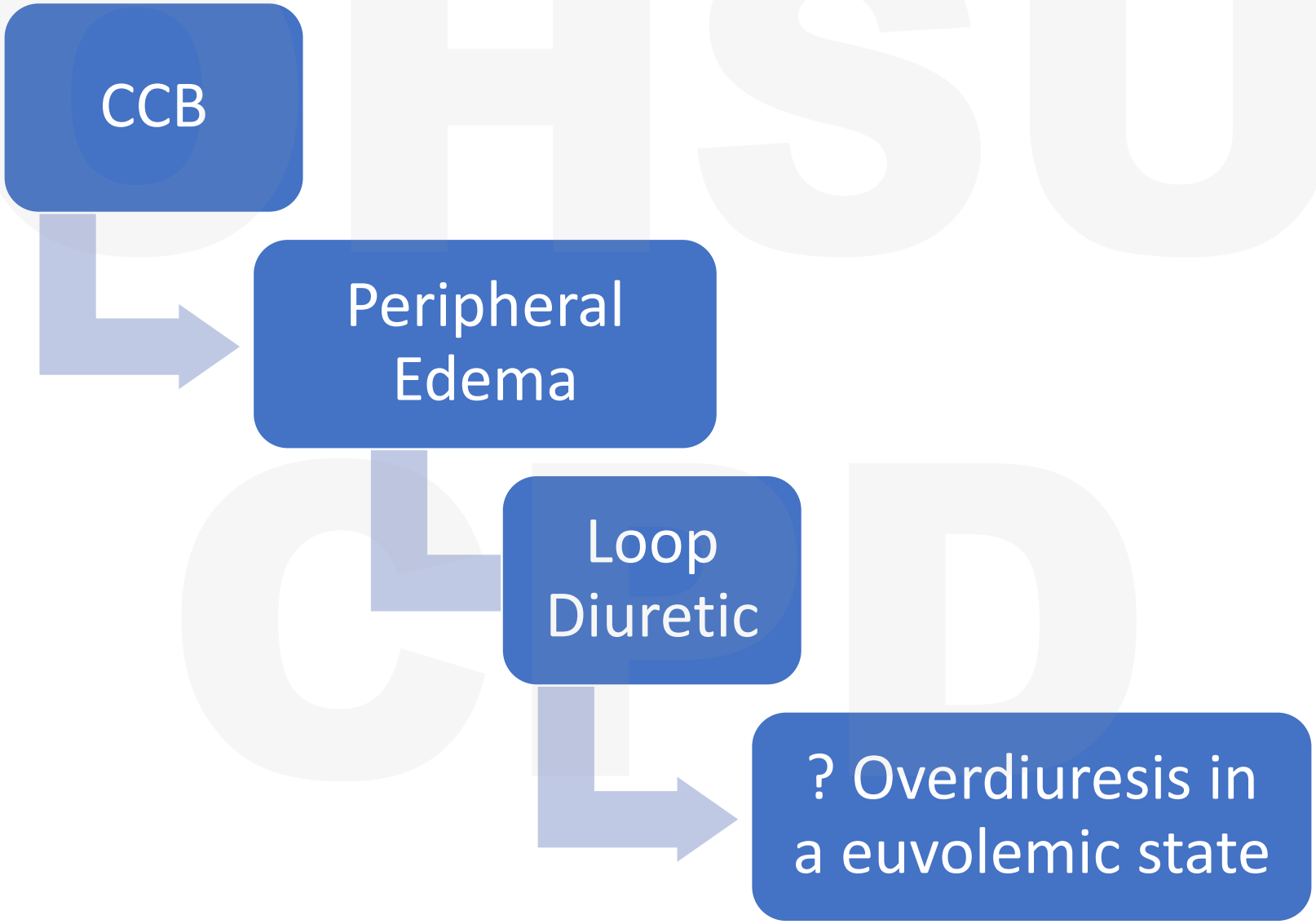
- Patient has dementia, but the drugs keep piling on
- Study of Polypharmacy among patients with dementia seen in outpatient clinics in National Ambulatory Medical Care Survey
  - Mean age =81, 3 comorbid conditions
  - Mean meds =8, 43% > 10
  - Those with dementia more likely to be prescribed more than 10 meds than those without dementia (OR=2.8, 95% CI 2.0-4.2)

Growdon Matthew; Steinman Michael; JAGS 2021:2461

Background

- Calcium channel blockers are one of the most commonly prescribed antihypertensive drug classes
- Peripheral edema occurs in 2-25% of patients and is dose-dependent
  - extravasation of intravascular fluid due to arteriolar dilatation increasing the pressure gradient between arteriolar and venule capillaries
- Question: are older adults who start on a CCB's more likely to be prescribed a loop diuretic than those given another HTN medication?

Prescribing cascades



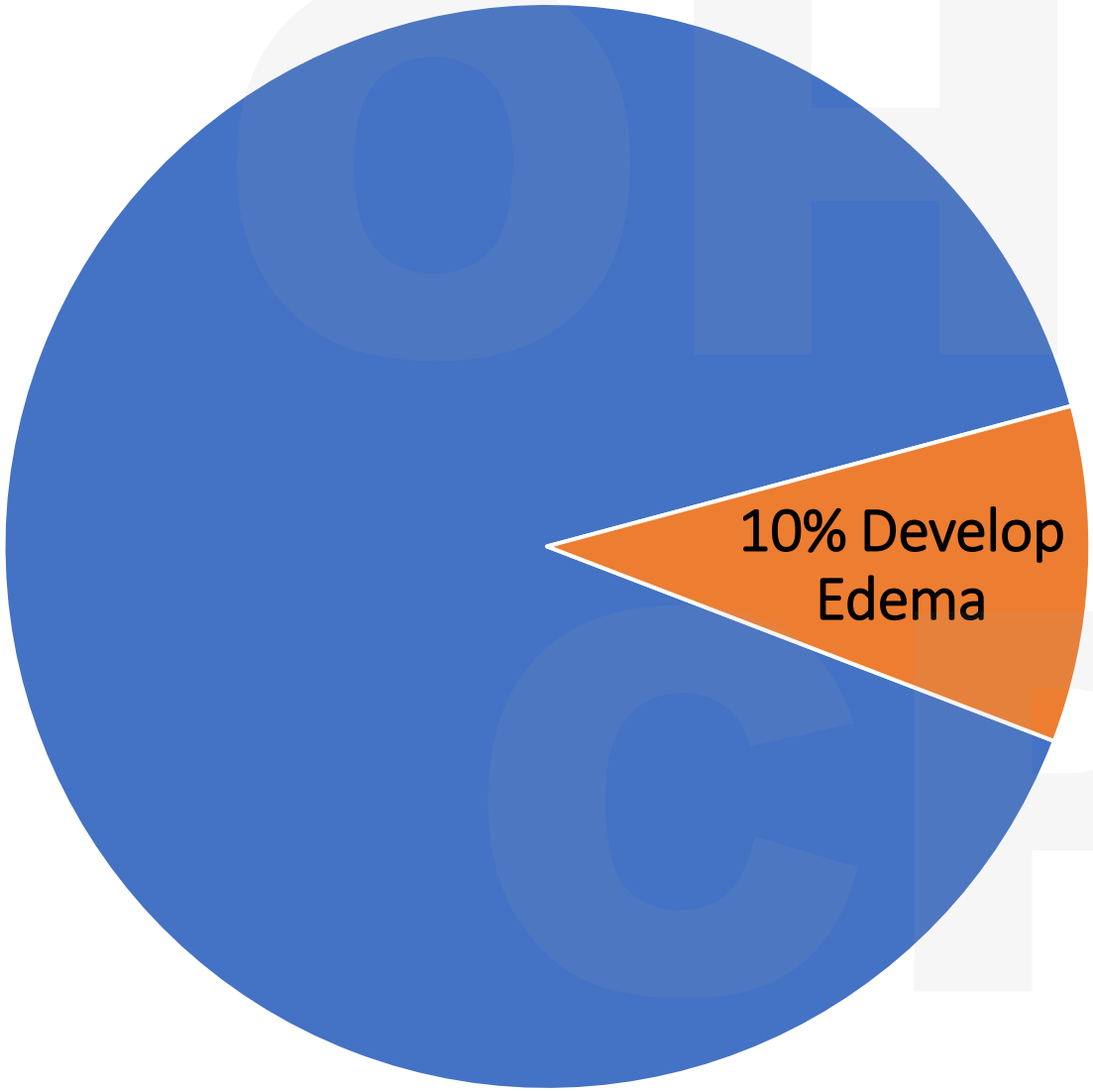
What did they do?

- A population-based retrospective cohort study in Ontario, Canada
  - >40,000 community-dwelling adults 66 years or older
  - HTN but not heart failure
  - New prescription drug claims
- Individuals who were newly dispensed a CCB were compared to:
  - Newly dispensed an ACE-Inhibitor or ARB
  - Newly dispensed an unrelated medication

% Prescribed a Loop Diuretic

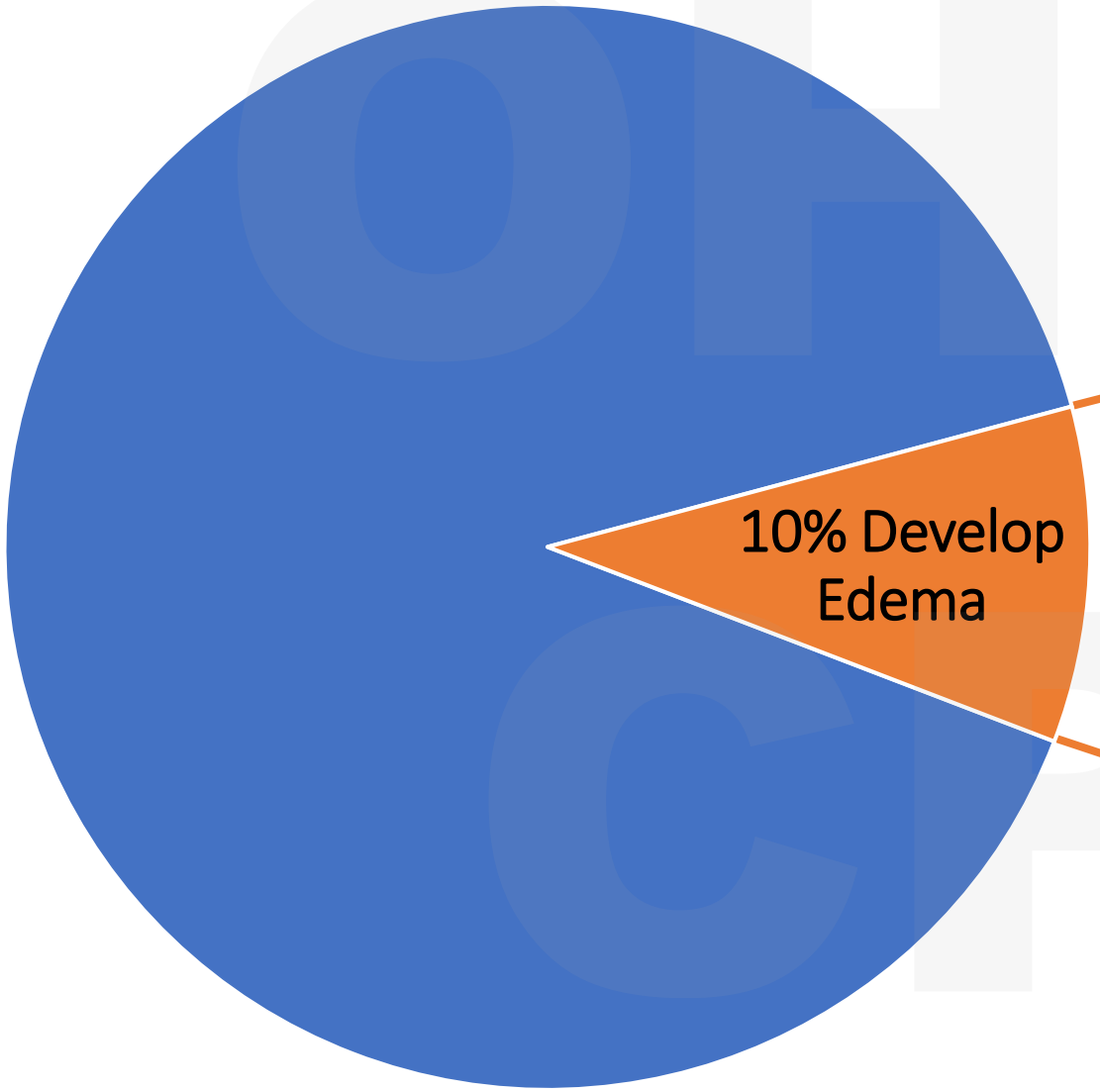
	CCB	Other HTN med	Absolute Risk Difference
90 days	1.4%	0.7%	0.7%
1 year	3.5%	1.8%	1.7%

All Patients Taking CCB

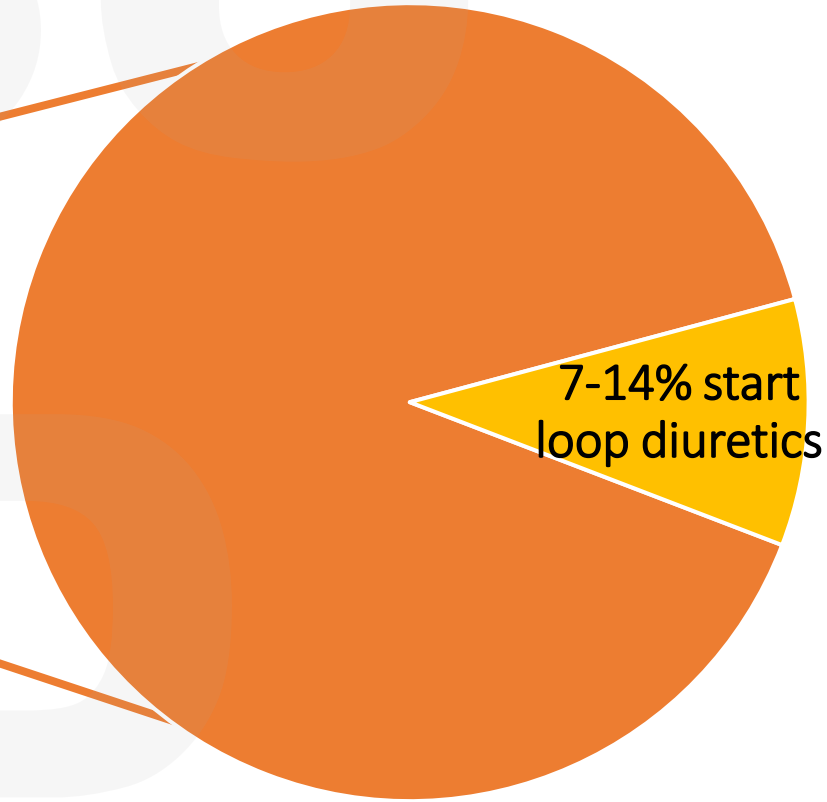


JAMA Intern Med. 2020;180(5):651-652

All Patients Taking CCB



All Patients who develop edema while on CCB



JAMA Intern Med. 2020;180(5):651-652

Dementia Care Management Interventions

- General Characteristics
  - Intensive focus on the caregiver
  - Team-based, coordinated by a care manager
  - Assessment of caregiver needs and priorities
  - Emotional support for caregiver, coaching to enhance problem solving skills
  - Collaboration with community-service agencies
- The effectiveness of care interventions has been demonstrated over many studies spanning several decades
- Number of Care Management Interventions in routine use: 0

Collaborative Care Intervention

- Care Manager (Geriatric Nurse Practitioner) integrated into practice to collaborate with PCP, caregiver, and patient
  - Education protocols focused caregiver communication and coaching skills
  - Protocols focused on management of 8 patient issues
    - Behavior management
    - Sleep
    - Caregiver self-care and depression

Callahan CM; 2006: JAMA:2148

Results of Dementia Collaborative Care Intervention (It worked!)

- RCT 153 patients with AD and caregivers, seen in urban primary care practice
- Outcomes
  - Intervention patients had fewer behavioral symptoms (NPI score 16.1 vs 8.0)
  - Intervention caregivers had less stress and less depression
  - Caregivers more satisfied with care (83% vs 56% rated as very good or excellent)

The Dementia Care Ecosystem

- Telephone and internet-based care delivery system
  - Supportive care team
    - Led by Dementia Care Navigator
    - Advanced practice nurse, social worker, pharmacist
  - Navigator in monthly contact with caregiver; Available by phone/email for on going needs (medical, behavioral, financial, safety)
  - Protocols based on
    - Medication management
    - Caregiver education and support
    - Behavior management
    - Advanced care planning

Possin KL JAMA IM 2019;179(12):1658-1667

Outcomes of the Caregiver Ecosystem (It worked!)

- RCT of 512 patient-caregiver dyads
  - Improvement in Patient Quality of Life (0.53 points; 95% CI 0.25-1.30)
  - Reduced ED visits (NNT =5)
  - Reduced Caregiver Depression
    - NNT = 12
  - Caregivers liked intervention
  - 97% would recommend

- “If these interventions were drugs, it is hard to believe they would not be on the fast-track to approval. The magnitude of the benefit and the quality of the evidence and quality of evidence supporting these interventions considerably exceeds those of currently approved pharmacologic therapies for dementia”

C. Bree Johnston; Annals of Internal Medicine; 2006; 780

Food for Thought

- The effectiveness of these interventions markedly exceeds the benefit of known pharmacologic therapy
  - Why is it so much harder to implement these interventions?
- What does it mean that Medicare pays for MRI and PET scans and marginal drugs?
  - Not just a problem with priorities-Marginalization of a vulnerable older persons

Research

JAMA Internal Medicine | Original Investigation

Effect of a Biobehavioral Environmental Approach on Disability Among Low-Income Older Adults
A Randomized Clinical Trial

Sarah L. Szanton, PhD; Qian-Li Xue, PhD; Bruce Leff, MD; Jack Guralnik, MD, PhD; Jennifer L. Wolff, PhD; Elizabeth K. Tanner, PhD; Cynthia Boyd, MD, MPH; Roland J. Thorpe Jr, PhD; David Bishai, PhD; Laura N. Gitlin, PhD

Invited Commentary page 211
Supplemental content

IMPORTANCE Disability among older adults is a strong predictor of health outcomes, health service use, and health care costs. Few interventions have reduced disability among older adults.

OBJECTIVE To determine whether a 10-session, home-based, multidisciplinary program reduces disability.

DESIGN, SETTING, AND PARTICIPANTS In this randomized clinical trial of 300 low-income community-dwelling adults with a disability in Baltimore, Maryland, between March 18, 2012, and April 29, 2016, 65 years or older, cognitively intact, and with self-reported difficulty with 1 or more activities of daily living (ADLs) or 2 or more instrumental ADLs (IADLs), participants were interviewed in their home at baseline, 5 months (end point), and 12 months (follow-up) by trained research assistants who were masked to the group allocation. Participants were randomized to either the intervention (CAPABLE) group (n = 152) or the attention control group (n = 148) through a computer-based assignment scheme, stratified by sex in randomized blocks. Intention-to-treat analysis was used to assess the intervention. Data were analyzed from September 2017 through August 2018.

INTERVENTIONS The CAPABLE group received up to 10 home visits over 5 months by occupational therapists, registered nurses, and home modifiers to address self-identified functional goals by enhancing individual capacity and the home environment. The control group received 10 social home visits by a research assistant.

MAIN OUTCOMES AND MEASURES Disability with ADLs or IADLs at 5 months. Each ADL and IADL task was self-scored from 0 to 2 according to whether in the previous month the person did not have difficulty and did not need help (0), did not need help but had difficulty (1), or needed help regardless of difficulty (2). The overall score ranged from 0 to 16 points.

RESULTS Of the 300 people randomized to either the CAPABLE group (n = 152) or the control group (n = 148), 133 of the CAPABLE participants (87.5%) were women with a mean (SD) age of 75.7 (7.6) years; 126 (82.9%) self-identified as black. Of the controls, 129 (87.2%) were women with a mean (SD) age of 75.4 (7.4) years; 133 (89.9%) self-identified as black. CAPABLE participation resulted in 30% reduction in ADL disability scores at 5 months (relative risk [RR], 0.70; 95% CI, 0.54-0.93; $P = .01$) vs control participation. CAPABLE participation resulted in a statistically nonsignificant 17% reduction in IADL disability scores (RR, 0.83; 95% CI, 0.65-1.06; $P = .13$) vs control participation. Participants in the CAPABLE group vs those in the control group

Szanton S et al. JAMA Intern Med.

Disability Prevention Program Improves Life-Space and Falls Efficacy: A Randomized Controlled Trial

Minhui Liu, PhD,[*†] *Qian-Li Xue, PhD,*[‡] *Laura N. Gitlin, PhD,*[†§] *Jennifer L. Wolff, PhD,*[¶] *Jack Guralnik, MD, PhD,*[‖] *Bruce Leff, MD,*[‡] *and Sarah L. Szanton, PhD*[†¶]

OBJECTIVES: To evaluate the effects of a home-based disability prevention program on life-space and falls efficacy among low-income older adults.

DESIGN: Single-blind two-arm randomized controlled trial.

SETTING: Participants' homes.

PARTICIPANTS: Participants were low-income cognitively intact older adults (≥65 years old) with restricted daily activities. Our analytic sample for life-space (n = 194) and falls efficacy (n = 233) varied as the life-space measure was introduced 4 months after the trial began.

INTERVENTION: Up to six 1-hour home visits with an occupational therapist; up to four 1-hour home visits with a registered nurse; and up to $1,300 worth of home repairs, modifications, and assistive devices with a handyman, during a course of 4 months.

MEASUREMENTS: Life-space was measured by the Homebound Mobility Assessment; falls efficacy was measured using the 10-item Tinetti Falls Efficacy Scale at baseline and 5 months.

RESULTS: Participants were on average 75 years old, predominantly Black (86%) and female (85%–86%). Compared with participants in the control group, participants receiving the intervention were more likely to have improved versus decreased life-space in areas of bathroom (adjusted odds ratio (OR) = 3.95; 95% confidence interval (CI) = 1.20–12.97), front or back porch, patio, or deck (adjusted OR = 2.67; 95% CI = 1.05–6.79), stairs (adjusted OR = 4.09; 95% CI = 1.34–12.48), leaving the house for any reason other than for health care (adjusted OR = 2.40; 95% CI = 1.01–5.73), and overall life-space (adjusted OR = 2.15; 95% CI = 1.10–4.19). Participants who received the intervention also had an 11% improvement in falls efficacy in performing daily activities (exponentiated coefficient = 1.12; 95% CI = 1.04–1.21).

CONCLUSION: Life-space and falls efficacy were improved through a multicomponent, person-directed, home-based disability prevention intervention. Findings suggest that this intervention should be translated into different settings to promote independent aging. **J Am Geriatr Soc 69:85-90, 2021.**

Keywords: disability; falls efficacy; intervention; life-space; physical independence

From the *Central South University Xiangya School of Nursing, Changsha, China; †Johns Hopkins University School of Nursing, Baltimore, Maryland; ‡Division of Geriatric Medicine and Gerontology, Johns Hopkins University School of Medicine, Baltimore, Maryland; §Drexel University College of Nursing and Health Professions, Philadelphia, Pennsylvania; ¶Department

INTRODUCTION

The ability to move freely and confidently within one's living environment is essential to maintain older adults' physical independence and the ability to engage in meaningful daily activities, while minimizing the need for family caregiving.[1,2] Life-space is a spatial measure of mobility defined by the distance a person routinely travels within a specific time period.[3] Constricted life-space is associated with adverse health outcomes, including frailty, nursing home admission, falls, and death.[4-7] Falls efficacy measures perceived confidence avoiding falls during essential activities of daily living (ADLs).[8] Low falls efficacy

Liu et al. JAGS. 2021

The CAPABLE Study: Targeting the home environment to reduce disability

- Disability is a mismatch between physical ability and environmental demands
  - Bathing/showering disability can be ameliorated by improving balance or mobility
  - Bathing disability can be ameliorated by shower seat and grab bars
- Geriatrics intervention research has largely focused on physical capacity

CAPABLE Study Methods

- RCT comparing CAPABLE with attention control
- Subjects (n=572)
  - Age > 65
  - Difficulty with at least one ADL or at least 2 IADL
  - No Dementia
  - Low Income (Max = 200% poverty line)
  - Mean age =76; 87% women; 83% African-American; 52% live alone
- Key Outcome measures (5 months)
  - ADL and IADL function
  - Life Space

The CAPABLE Intervention

- Nursing Component (4 visits)
  - Assessment of pain, depression, strength, balance
  - Assist patient with goal setting, exercise program, depression
- Occupational Therapy Component (6 visits)
  - Fall risk and home safety assessment
  - Help patient identify key functional goals
  - Prescribe assistive devices and provide training
- Handy Person ($1300 allowance)
  - Home assessment and identify materials for purchase
  - Make structural adaptations (grab bars, widen doors for wheel chairs)
  - Make hope repairs (fix holes in floor, staple down loose carpet)

CAPABLE Outcome

- ADL disability at 5 months
  - 30% reduction in ADL disability score (95% CI 7%-46%)
    - Not sustained at 12 months
  - 17% non-significant reduction in IADL disability score
  - Much more likely to improve in life space (OR =2.2, CI 1.1-4.42)
  - 82% reported the program made their life easier

CAPABLE Bottom Line

- A multidisciplinary program with a major focus on the home environment significantly improved ADL function and life space
  - Sustain long term benefits
  - CAPABLE for cognitive impairment and dementia
- Remarkably inexpensive pragmatic person-centered intervention has major impacts on well being
- The handyman should be part of the multidisciplinary team

Super Happy Fun Time Updates in Geriatrics

Sing Along

To The Tune Of:
My Get Up and Go

[Everyone Sings]

How do I know my youth is all spent?
My get up and go has got up and went
But in spite of it all I'm able to grin
And think of the places my get up has been

To The Tune Of:
My Get Up and Go

[Alex Sings]

As I try to bathe I slip in the tub
Get out to dry off and slip on my rug
My toilet is low so I'm stuck where I sit
My old aching knees they don't help me one bit

To The Tune Of:
My Get Up and Go

[Everyone Sings]

How do I know my youth is all spent?
My get up and go has got up and went
But in spite of it all I'm able to grin
And think of the places my get up has been

To The Tune Of:
My Get Up and Go

[Alex Sings]

They heard what I wanted and helped me to see
That age shouldn’t mean that I lose dignity
Grab bars in my shower, a raised toilet seat
And ways I can stand up on my own two feet

To The Tune Of:
My Get Up and Go

[Everyone Sings]

How do I know my youth is all spent?
My get up and go has got up and went
But in spite of it all I'm able to grin
And think of the places my get up has been

Studies since

- Achieve Study - ~1000 older adults
- Hearing intervention (aids+audiology) vs health education
  - Lancet 2023
    - No difference in 3-year cognitive change
    - Was effective in subgroup higher risk for cognitive decline
  - JAMA Network Open 2024
    - No association with quality of life
  - JAGS 2024
    - Improved communication function
- Bottom line: Hearing aids and audiology may alter the trajectory of cognitive decline among those at greatest risk, likely improves communication.

ENGAGE and EMERGE

- Phase III identically designed RCTs
  - 18-month duration among patients with MCI and early AD with + PET
  - Two doses (High and Low) based on ApoE e4 status
  - Primary Outcome: Clinical Dementia Rating (CDR) Sum of Boxes
    - 3 domains of cognition and 3 domains of function
    - Higher scores indicate greater disease severity

fda.gov https://www.fda.gov/media/143505/download (2020).

What did they find?

March 2019

- Trials stopped early due to pooled futility analysis when both studies reached 50% completion
- No benefit vs placebo at low and high dose, although trend in EMERGE at high dose

fda.gov https://www.fda.gov/media/143505/download (2020).

What did they find?

March 2019

- Trials stopped early due to pooled futility analysis when both studies reached 50% completion
- No benefit vs placebo at low and high dose, although trend in EMERGE at high dose

October 2019

- Further analysis of EMERGE showed significant benefit with a higher dose (not so with ENGAGE)

fda.gov https://www.fda.gov/media/143505/download (2020).

	ENGAGE		EMERGE	
	Week 78 Difference vs Placebo		Week 78 Difference vs Placebo	
	Low Dose	High Dose	Low Dose	High Dose
CDR-SB 18-point scale Lower better	-0.18	0.03	-0.26	-0.39*

** P < 0.05 at interim analysis*

Lecanemab: A Game Changer for Alzheimer's? (NOT!)

- Is there a benefit?
- No rationale system that valued well being of older persons would pay for lecanemab rather than comprehensive dementia care management programs