Caring for Elders with Diabetes

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Objectives

• Summarize the differences between elders with diabetes vs. younger patients with the disease.
• Incorporate key concepts of individualizing caring for elders with diabetes into clinical practice.
• Describe why a significant amount of diabetes research is not generalizable for elders with the disease.
• Incorporate into practice, information on the differences in pharmacotherapy in elders with diabetes compared to younger patients.
• Identify one change you can make in your clinical or public health practice.
Sound familiar?

- I gave this talk in 2012- why should you listen again?
- Updates on recommendations on functional categories of older people with diabetes
- This time- more on individualized approach, non-pharmacologic and multidisciplinary management
- Last time- lots on meds, diabetic complications, caregivers
Attention Boomers!!

- According to the Administration on Aging, there were 46.2 million people aged 65 and older in 2014 = 14.5% US population
- By 2060, there will be 98 million = more than twice the number in 2014
- By 2040 they will represent 21.7% of the population
Older AIANs

Population and Projections of Older American Indian and Native Alaskans Aged 65+: 2014 to 2060 (numbers in thousands)

- 2014: 231
- 2020: 308
- 2030: 446
- 2040: 504
- 2050: 544
- 2060: 630
General info- Elders and Diabetes

- Older adults with diabetes have the highest rates of major lower-extremity amputation, myocardial infarction (MI), visual impairment, and end-stage renal disease of any age-group.
- Those aged ≥75 years have higher rates than those aged 65–74 years for most complications.
- Up to 1/3 of elders with diabetes are unaware/undiagnosed.
- Older adults with diabetes have an approximate 10 year reduction in life expectancy, and 2x the mortality rate of those without.
Why does prevalence increase?

- Obesity
- Age-related decline in beta cell function
- Increase visceral fat
- Increase insulin resistance
- Less activity
- Sarcopenia
- Higher likelihood of taking meds that increase glucose concentration
• The excess mortality of those with diabetes occurs even in those over 85 years of age
• *Ischemic heart disease and stroke are leading causes of diabetes-related morbidity*
• *Coronary artery disease is leading cause of death- 40-50%*
Why separate elders?

• Spectrum of aging
• Need for individualized plans/outcomes
• Need for periodic reassessment
• Many facets to care
• Consideration of “frail elders”
• Historically have been lacking in optimal diabetes care
Diabetic elders have higher risks of...

- Cognitive decline
- Depression
- Polypharmacy
- Urinary incontinence
- Falls/physical disability/mobility issues - 2-3 x
- 2x risk of cataracts, 3x risk of glaucoma
- Charcot joints, foot ulcer
- Severe and unusual infections
Spectrum of Aging

- “Young old” to “Old old”
- Different levels of support
- Different levels of function
- How long diseases have been present vs. new diabetes/etc. diagnosis
The data...

- UK Prospective Diabetes Study (UKPDS) glycemic control newly dx DM-excluded those >65 at time of enrollment-microvascular benefits continued post-trial, reduced MI and mortality
The data.....

- Action in Diabetes and Vascular Disease: Preterax and Diamicron MR Controlled Evaluation [ADVANCE]
- Veterans Affairs Diabetes Trial [VADT]
- Action to Control Cardiovascular Risk in Diabetes [ACCORD]
  - These enrolled older patients, more CAD risk (prior event), had DM longer (8-11 years), aimed to reduce glucose levels to near normal (a1c 6-6.5)
Prevention/Screening

- Check elders annually with screen of your choice (I use a1c but you can use OGT, FPG, random)
- Catching that “pre-diabetic” is super-beneficial
- Dementia patients: test randoms q month on anti-psychotics
- End of life care: when on steroids periodically
Prevention/Screening (cont.)

• EVERYBODY NEEDS TO BE EXERCISING

• TAILORED HOME-BASED OR COMMUNITY-BASED EXERCISE OR LIFESTYLE PROGRAM

• If frail, do not include dietary changes that would result in weight loss
Need for individualized plans/outcomes

• Need to consider:
  – life expectancy
  – cognitive status
  – Preferences
  – functional status
  – social support

• Different barriers to care

• Caregivers MUST be considered

• Quality of life
Personalized Care

• http://newoldage.blogs.nytimes.com/2013/04/26/diabetes-advice-for-the-elderly-relax/?_r=0
Need for Periodic Assessment

• Goals and function change over time
• Caregiver situations change over time
• Level of care needed changes over time
Many Facets to Care

• Barriers to care
• Health literacy
• Caregivers
• Community resources
• Pharmacotherapy
• Assessing geriatric syndromes
Functional Categories of Elders

• Functionally Independent
• Functionally Dependent
  – Frail
  – Dementia

• End of Life Care
ADLs/IADLs

- Transferring
- Showering/bathing
- Dressing
- Self-feeding
- Personal hygiene
- Toileting

- Housework
- Medications
- Preparing meals
- Managing money
- Transportation
- Shopping
- Telephone
Functionally Independent

- Live independently
- Need no assistance with ADLs
- Manage medications
- Have co-morbidities that may affect diabetes
Functionally Dependent

- Impairments in ADLs
- Need assistance in the home
  - Frail: fatigue, weight loss, mobility restricted, high fall risk, risk of placement
  - Dementia: unable to provide self-care
Consideration of Frail Elders

Have 3 or more of the following:

- Muscle weakness
- Slow walking speed
- Exhaustion
- Low physical activity levels
- Unintentional weight loss
End of Life Care

• Life expectancy of less than 1 year
• Goals are different than other categories:
  – Likely concentrate more on comfort
  – Withdrawal of treatment
  – Avoid dehydration
  – Pain relief

...but still need to address diabetes care as part of that comfort
Tools

- Functional assessment/Katz Index/SCI-R
- TUG
- SLUMS/MOCA
- PHQ9/GDS
- MNA-SF for Nutrition
- Pain assessment
- Using PCMH multi-disciplinary team if available
Nutrition Assessment 1

• For most diabetic patients, look at obesity and diet

• Some different points here:
  – Make sure med admin times coincide with meal times
  – Look for swallowing difficulties/denture problems
  – Maintain weight
  – Maintain fluid intake, especially in hot weather
Nutrition Assessment 2

– Identify malnutrition and need for supplements, like Glucerna

– Need for higher protein, higher energy foods

– Caregivers need to provide support during mealtimes, especially for dementia patients who may think he/she ate already or get agitated

– Balancing diabetes diet with liver disease diet = so difficult!!
Nutrition Assessment 3

- May need to encourage smaller more frequent meals

- Change textures

- No intentional weight loss: can worsen bone mineral density and nutritional deficits in older people
Exercise

• Muscle mass and strength decline with age

• People who have had diabetes longer or have higher a1c have lower strength per unit of muscle mass than age and BMI matched people without DM and people who have better control and DM of shorter duration

• EVEN LIGHT ACTIVITY=psychosocial well being and higher self-rated health
Tai Chi Class

Tai Chi for Arthritis, Strength, and Fall Prevention

Tai chi is a low-impact form of physical activity that has been proven to decrease pain, maintain strength, and improve balance. It consists of gentle movements and is suitable for people of all ages, mobility, and fitness levels. It has been proven to reduce fall rates in older adults.

BENEFITS INCLUDE
- Improved strength
- Reduced arthritic pain
- Better balance
- Better flexibility
- Reduced stress

CLASS INFORMATION

LOCATION: Cherokee Hospital
Physical Therapy Gym

TIME: Wednesdays, 10:00a – 10:45a
Starting Wednesday January 4, 2017

CONTACT: Eli Schmitmeyer
Physical Therapist
Certified Instructor, Tai Chi for Arthritis
(828) 497-9163 ext. 6274
Eleanor.schmitmeyer@cherokeehospital.org
Medicine Reconciliation

• Do OFTEN
• PLEASE avoid sliding scale
• Try lowest frequency dosing
• Ask about otc/herbal meds
• Assess for renal/liver function
• Look at weight
Education, Self-management, and Monitoring

• What may be different to consider?
  – Attitudes, decision-making process, beliefs
    • But these can be affected by hyper/hypoglycemia, dehydration, cognitive impairment, illness
  • Diabetes may not be a priority
  • May prefer to learn from personal experience or peers
  • May have decline in short-term memory, trouble with complex motor performance, slower reaction time (trouble with info processing)
Education, Self-management, and Monitoring (cont.)

- Everyone should receive education in a learning environment suited to him/her
- Consider individual plan
- Sick day management plan
- If functionally dependent- take into account impairments, comorbidities, social situation
Barriers to Education

• Cognitive issues: Alzheimer’s, vascular AT LEAST twice as common in diabetic patients compared to age-matched non-diabetic
  – May need more repetition, different cues to help with retaining such as analogies/stories, hands-on experience, demonstrations/models, sequenced visits, always speak to the person, involve caregiver
Barriers to Education (cont.)

• Other impairments
  – Vision loss, hearing loss
    • One in five older adults with DM in US reports visual impairment
    • Hearing impairment twice as prevalent

• ASK WHAT THEIR GOALS ARE
GOALS

• When asked about goals:
  – Independence
  – Function
Caregivers

- Average weekly hours of care
  - Elders without diabetes; 6.1 hours
  - Elders with diabetes; no meds 10.5 hours
  - Elders on oral meds for diabetes; 10.1 hours
  - Elders with diabetes and on insulin; 14.4 hours
Targets

• Because everybody wants numbers

• Functionally independent
  – A1c target 7-7.5

• Functionally dependent
  – A1c target 7-8
    • Frail: target up to 8.5
    • Dementia target up to 8.5

End of life = avoid symptomatic hyperglycemia, minimize hypoglycemia. Consider withdrawal of therapy during terminal stage
Perspective is key.....

• “If anyone is deserving of less rigidity in their medical treatment regimens, elders with diabetes, if so inclined, have more than earned the right to greater, rather than more restrictive, quality of life with advancing age and under lifetime supervision. After all, those very elders have done a whole lot right to have lived into their advancing old age. Even non-diabetics don’t always manage to live as long.”

  » Isabel Fawcett
Sources 1

Sources 2


• Veronese, Nicola, et al. Frailty Is Associated with an Increased Risk of Incident Type 2 Diabetes in the Elderly JAMDA 2016; 17:902-7

Thank you!

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