Special thanks to the EJC Foundation for their support of Sanford Center Geriatric Specialty Clinic

Sanford Center for Aging
775-784-4744
med.unr.edu/aging
Diabetes Management Series: From Self-management to Assisted Management

Part 1: Getting to Know Your Numbers and Community Resources

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Objectives

1. Identify what an appropriate goal A1c is for an older adult based on comorbidities and functional status.

2. Discuss what is the appropriate frequency of A1c and home blood glucose monitoring based on medications and functional status.

3. Describe the types of person to refer to the Diabetes Self-Management Program and the Diabetes Prevention Program.
Diabetes Mellitus

• One of the most common chronic conditions

• Results in decreased life expectancy, numerous complications and comorbidities, a higher risk of other common geriatric conditions (e.g., polypharmacy, urinary incontinence, falls, cognitive impairment, depression, chronic pain), and disability

• More than 90% of older adults with diabetes have Type 2 DM
Case review: Mrs. J

75 y/o female presented for comprehensive geriatric evaluation, accompanied by her husband and daughter for memory loss.

• Memory screen - Mini COG :0/5,
• Depression screen: PHQ-9:18
• FRAIL score - Frail
• Functional status - dependent in most ADLs, all IADLs
• Significant comorbidities:
  COPD / Diabetes / Hypertension / Hyperlipidemia / Hypothyroidism / Macular degeneration / Depression / Urinary incontinence
Mrs. J’s Medications

Metoprolol, Allopurinol, Levothyroxine, Aspirin, Lovastatin, Clonidine, Fluoxetine, Glipizide, Metformin, Advair

**Glipizide ER 10 mg**: Take 1/2 tablet daily

*if morning blood sugar >90*

**Metformin 500 mg**: Take 1 tablet by mouth daily

*if morning blood sugar > 90*

*(Checks blood sugar in the morning and if it is above 90 or 91, he gives meds. On average, getting meds 2 or 3 times per week. Cutting glipizide ER in half.)*
Medication Compliance

Husband administers medicines, checks blood pressure and blood sugars.

Interventions

Complicated patient instructions, health literacy

Sometimes she resists (is receiving meds 5 times daily!)

Dementia

Pill burden

Potentially inappropriate/side effects: Clonidine/oxybutynin

Caregiver’s stress

Medicines aren't being given as prescribed
CHOOSING WISELY® RECOMMENDATIONS

Avoid using medications other than metformin to achieve hemoglobin A1c<7.5% in most older adults; moderate control is generally better.

There is no evidence that using medications to achieve tight glycemic control in most older adults with type 2 diabetes is beneficial. Tight control has been consistently shown to produce higher rates of hypoglycemia in older adults. Given the long timeframe to achieve theorized microvascular benefits of tight control, glycemic targets should reflect patient goals, health status, and life expectancy.

Reasonable glycemic targets would be 7.0 – 7.5% in healthy older adults with long life expectancy, 7.5 – 8.0% in those with moderate comorbidity and a life expectancy < 10 years, and 8.0 – 9.0% in those with multiple morbidities and shorter life expectancy.
Factors to Consider When Individualizing Glycemic Targets in Older Adults

<table>
<thead>
<tr>
<th>Tight Glycemic Control</th>
<th>Factors to Consider</th>
<th>Less Stringent Glycemic Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long</td>
<td>Life Expectancy</td>
<td>Short</td>
</tr>
<tr>
<td>High Capacity, motivated</td>
<td>Patient Self Care capacity</td>
<td>Low capacity, not motivated</td>
</tr>
<tr>
<td>Readily available</td>
<td>Availability of Good Support system</td>
<td>Minimal support</td>
</tr>
<tr>
<td>Short</td>
<td>Duration of Diabetes</td>
<td>Long</td>
</tr>
<tr>
<td>Low</td>
<td>Risk of Hypoglycemia</td>
<td>High</td>
</tr>
<tr>
<td>None- few</td>
<td>Co-morbidities</td>
<td>Many</td>
</tr>
</tbody>
</table>
### Treatment Goals: Individualized / consistent with patient and caregiver preferences / Health status / Life expectancy

<table>
<thead>
<tr>
<th>Older adults with good health with long life expectancy</th>
<th>Older adults with moderate co-morbidities with life expectancy of &lt;10 years</th>
<th>Older adults with multiple co-morbidities and shorter life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1C:</strong> 7.0 – 7.5%</td>
<td><strong>A1C:</strong> 7.5 – 8.0%</td>
<td><strong>A1C:</strong> 8.0 – 9.0%</td>
</tr>
<tr>
<td><strong>FPG:</strong> 90-130 mg/dL</td>
<td><strong>FPG:</strong> 90-150 mg/dL</td>
<td><strong>FPG:</strong> 100-180 mg/dL</td>
</tr>
<tr>
<td>Bedtime glucose: 90-150 mg/d</td>
<td>Bedtime glucose: 100-180 mg/d</td>
<td>Bedtime glucose: 110-200 mg/d</td>
</tr>
<tr>
<td><strong>BP:</strong> &lt;140/80 mm Hg</td>
<td><strong>BP:</strong> &lt;140/80 mm Hg</td>
<td><strong>BP:</strong> &lt;150/90 mm Hg</td>
</tr>
<tr>
<td>Lipids: statin (unless contraindicated, not tolerated)</td>
<td>Lipids: statin (unless contraindicated, not tolerated</td>
<td>Lipids: Consider potential statin benefit (focus on secondary prevention)</td>
</tr>
<tr>
<td>Very Functional Adults</td>
<td>Treatment burden; vulnerable to hypoglycemia/ falls</td>
<td>Limited life expectancy; benefit uncertain</td>
</tr>
</tbody>
</table>
Self-monitoring of blood glucose (SMBG)

- Frequency of self monitoring of glucose varies depending upon the type of diabetes, use of insulin and medications being used to treat.

- SMBG may not be necessary, or less frequent SMBG may be appropriate, for patients with type 2 diabetes who are not taking medications associated with hypoglycemia.
SMBG - continued

• Type 2 diabetes treated with medications, which can cause hypoglycemia, should be tested once to twice per day during titration of their doses but, after a stable dose and glycemic targets are achieved, it is appropriate to decrease testing frequency.

• Patients treated with insulin require frequent monitoring.
Take Home Points

• Diabetes self-management is an important part of diabetes care.

• For people with impaired glucose tolerance and at high risk of developing Type 2 DM, lifestyle modification that focus on diet, exercise, and weight loss can delay or prevent progression to diabetes.

• Treatment goals for older diabetic patients must be carefully individualized to achieve optimal patient outcomes.
Diabetes Self-Management Program

A. **Target Audience:** People living with diabetes or pre-diabetes.

B. **Duration:** 1x/week for 6 consecutive weeks for 2 ½ hours each session.

C. **Topics Discussed:** Managing A1C, healthy eating, working more effectively with health providers, managing difficult emotions, etc.
Diabetes Self-Management Program Quotes

“Being newly diagnosed, this class was informative and very influential in making the necessary changes to manage my diabetes.”

“Diabetic program was excellent, the book was excellent and the group support was excellent, was good seeing individuals in different stages of diabetes as it opened my eyes. She stated she is doing a lot of her own food prep now compared to before and that her diabetic sugar level was under control. She said that everything was explained in an understandable manner, but that some of the things were hard to hear. She said that she can’t say enough good things about the group.”
Upcoming Classes – Northern Nevada

Reno Workshops

• Wednesdays, March 6 – April 17, 2019 from 9:00 – 11:30 a.m., University of Nevada, Reno, Center for Molecular Medicine

• Wednesdays, May 15 – June 26, 2019 from 9:00 – 11:30 a.m., University of Nevada, Reno, Center for Molecular Medicine

Silver Springs Workshop

• Fridays, March 8 – April 19, 2019 from 9:00 – 11:30 a.m.

Sponsored by Nevada Wellness with support from the Centers for Disease Control and Prevention. Funding provided through the Nevada Aging and Disabilities Services Division by Grant #1NU58DP006538-01-00 from the Centers for Disease Control and Prevention.
Upcoming Classes – Southern Nevada

Las Vegas Workshops

• Wednesdays, February 13 – March 20, 2019 from 11:00 – 1:30pm, Green Valley Women's Care

• Thursdays, April 25 – May 30, 2019 from 10:00 – 12:30 pm, Heritage Park Senior Facility

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Diabetes Prevention Program – part 1

• **What?** CDC recognized lifestyle change program for people with pre-diabetes.

• **How?** 3,234 participants were randomly assigned into three different interventions: intensive lifestyle (achieve 7% weight loss and 150 minutes minimum of physical activity), metformin, and a placebo group (Lancet, 2009).

• **Results?** People with pre-diabetes who participated in the program cut their risk of developing type 2 diabetes by 58% (CDC, 2018). After 10 years, those participants were still 1/3 less likely to develop type 2 diabetes.

• **Format?** Year-long program. During the first 6 months, participants meet about once a week. Participants meet about twice a month for the last 6 months. Incorporates weekly action plans and group sharing and problem solving.
Diabetes Prevention Program – part 2

A. **Background:** 1 in 3 US adults have prediabetes and 90% of those individuals are unaware they have it.

B. **Qualifications:** 18 and up and screening positive for pre-diabetes via CDC pre-diabetes screening (gender, age, history of gestational diabetes, high blood pressure), or having A1C levels between 5.7%- 6.4% tested by a medical professional.

C. **Topics Discussed:** Healthy eating and tracking food intake, physical activity, managing stress, getting enough sleep, coping with triggers
Upcoming DPP Classes: Northern Nevada

February 2019 to February 2020, two workshops will be offered and will cover the same information.

• The first workshop will take place on Mondays at 1:00 p.m.

• The second will take place on Thursdays at 10:00 a.m.

Workshops begin February 25, 2019.

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Upcoming DPP Classes: Southern Nevada

• Workshops began February 5, 2019 in Las Vegas.

• Please check the QTAC website for additional workshops to be scheduled in the future.

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Program Referrals

Northern Nevada
Sanford Center for Aging Community Wellness Programs
University of Nevada, Reno
(775) 784-1583

https://med.unr.edu/aging/outreach/community-wellness

Southern Nevada
Nevada Quality and Technical Assistance Center
Dignity Health
(702) 616-4914

http://nvhealthyliving.org
Diabetes Management Series: From Self-management to Assisted Management

Part 2: Transitioning from Home to Assisted Living

Wednesday, March 20, 2019, 12 pm to 1 pm

Veronica J. Brady, PhD, RN, FNP-BC, BC-ADM, CDE
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