Guideline Updates: What’s New in the ADA and AACE/ACE Guidelines

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Objectives

• Compare and the ADA Guidelines and the AACE/ACE guidelines and understand how to use them to my practice
• Review 10 updated recommendations for clinical practice in the 2017 ADA guidelines
• Review the latest AACE/ACE lipid management guidelines for patients with diabetes
• Introduce the medical management algorithms in the AACE/ACE guidelines
How To Get the Most From This Presentation (and this conference)

- Foundation vs details
  - Review and repeat
  - Case-based application

  Learning starts with questions
  Answers come from application
Objective #1

• Compare and the ADA Guidelines and the AACE/ACE guidelines and understand how to use them to my practice
ADA Standards of Medical Care in Diabetes 2017

• **Comprehensive focus**, including population health, medical management, and advocacy
• Includes all types of Diabetes (Type 1, Type 2, and other)
• Treatment recommendations
• Pregnancy, Children and Adolescents, Older Adults, Diabetes in Hospital
• Update published yearly
• Position statements published in 2017
  o Diabetic Neuropathy (January 2017)
  o Diabetes and Hypertension (September 2017)
AACE/ACE Comprehensive Type 2 Diabetes Management Algorithm 2017

• **Concise and clinically focused**
• Specialty orientation
• Organized around specific principles of management
• Includes an updated treatment algorithm
Objective # 2

Review 10 updated recommendations for clinical practice in the 2017 ADA guidelines
1. Assess Patient’s Social Context, and Refer to Community Resources

Food insecurity
Housing stability
Financial barriers
  Uninsured
  Under-insured
Language barriers
*Key point: Don’t always assume a patient is just non-compliant by choice
2. Screening for Type 2 DM

Screen individuals of any age who are overweight or obese who have one or more of the following risk factors:

A1c > 5.7%
African American, Latino, Native American, Asian American, Pacific Islander
Women who were diagnosed with GDM
History of CVD
HTN
HDL < 35 or Trig > 250
Women with PCOS
Physically inactive
Conditions associated with metabolic syndrome (acanthosis nigricans, severe obesity

History of baby weighing > 9 lbs
3. Post-partum Screening for Women with GDM

- Recommendation changed from 6-12 weeks postpartum to 4-12 weeks post-partum to allow for testing prior to the traditional 6 week postpartum visit

- Screening in the postpartum period should be with a 2 hour GTT
4. Metformin use

Consider periodic testing of B12 levels in patients on metformin

• No recommendation on when to start screening or optimal screening interval

Metformin may be used safely in patients with a GFR down to 30

• Use should be assessed in patients with GFR between 30-45
• Metformin should generally not be initiated in patients with GFR <45
5. Lifestyle Management

Prolonged sitting should be interrupted with short bouts of activity every 30 minutes
6. Hypertension and Diabetes

For patients without microalbuminuria, the following agents are acceptable treatments for hypertension in whom prevention of CVD is the main goal

- ACE
- ARB
- Thiazide-type diuretics
- Dihydropyridine calcium channel blockers

No evidence for a small preventive ACE dose in patients without CKD
7. Recent Cardiovascular Outcomes Studies

Recent trials have shown improved cardiovascular outcomes. Consider using liraglutide or empagliflozin for patients with CVD.

1. EMPA REG (Empagliflozin)
2. LEADER (Liragultide)
8. Treatment of Neuropathy

• Up to 50% of peripheral neuropathies are asymptomatic. If not recognized and if preventive foot care is not implemented, patients are at risk for injuries to their insensate feet.

• Recognition and treatment of autonomic neuropathy may improve symptoms, reduce sequelae, and improve quality of life.

• For painful peripheral neuropathy, duloxetine and pregabalin are recommended as first line agents.

• Gabapentin and TCAs are also options.
9. Retinopathy

Acceptable screening tests for retinopathy include
• Dilated eye exam by an eye care professional
• Retinal photography with remote reading

Women should be counseled on the increased risk of retinopathy in pregnancy. Eye exams should be done:
• Before pregnancy or in the first trimester
• Each trimester
• For 1 year postpartum
• No added risk with GDM
10. Combination Injection Therapy

For patients not controlled on metformin or another oral agent and basal insulin

• Add rapid acting insulin at the largest meal of the day
• Add a GLP 1 RA
• Try pre-mixed insulin 2 or 3 times a day
Initiate Basal Insulin
Usually with metformin +/- other noninsulin agent

Start: 10 U/day or 0.1-0.2 U/kg/day
Adjust: 10-15% or 2-4 units once or twice weekly to reach FBG target
For hypo: Determine & address cause; if no clear reason for hypo,
↓ dose by 4 units or 10-20%

If A1C not controlled, consider combination injectable therapy

Add 1 rapid-acting insulin injection before largest meal
Start: 4 units, 0.1 U/kg, or 10% basal dose. If A1C <8%, consider↓ basal by same amount
Adjust: ↑ dose by 1-2 units or 10-15% once or twice weekly until SMBG target reached
For hypo: Determine and address cause; if no clear reason for hypo, ↓ corresponding dose by 2-4 units or 10-20%

Add GLP-1 RA
If not tolerated or A1C target not reached, change to 2 injection insulin regimen
If goals not met, consider changing to alternative insulin regimen

Change to premixed insulin twice daily (before breakfast and supper)
Start: Divide current basal dose into ½ AM, ½ PM or ½ AM, ½ PM
Adjust: ↑ dose by 1-2 units or 10-15% once or twice weekly until SMBG target reached
For hypo: Determine and address cause; if no clear reason for hypo, ↓ corresponding dose by 2-4 units or 10-20%
Objective # 3

Introduce the medical management algorithms in the AACE/ACE guidelines
AACE/ACE Initial Treatment Algorithm by A1C

Entry A1C <7.5%

Monotherapy

Metformin
GLP-1 RA
SGLT-2i
DPP-4i
TZD
AGi
SU/GLN
AACE/ACE Initial Treatment Algorithm by A1C

**Entry A1C >7.5%**

**Dual Therapy**

- Metformin or other first line agent +
- GLP-1 RA
- SGLT-2i
- DPP-4i
- TZD
- Basal Insulin
- Colesevelam
- Bromocriptine
- AGi
- SU/GLN
AACE/ACE Initial Treatment Algorithm by A1C

Entry A1C >9%

Dual or Triple Therapy

Insulin if symptomatic

Metformin or other first line agent + second line agent

- GLP-1 RA
- SGLT-2i
- TZD
- Basal Insulin
- DPP4i

- Colesevelam
- Bromocriptine
- AGi
- SU/GLN
Objective # 4

Review the latest AACE/ACE lipid management guidelines for patients with diabetes
### AACE/ACE Lipid Targets for Patients with Diabetes

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Description</th>
<th>Treatment Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LDL-C</td>
</tr>
<tr>
<td>Extreme Risk</td>
<td>Diabetes with known cardiovascular disease</td>
<td>&lt;55</td>
</tr>
<tr>
<td>Very High Risk</td>
<td>Diabetes with 1 or more additional risk factors</td>
<td>&lt;70</td>
</tr>
<tr>
<td>High Risk</td>
<td>Diabetes with no additional risk factors</td>
<td>&lt;100</td>
</tr>
</tbody>
</table>
### ADA Standards Lipid Recommendations

<table>
<thead>
<tr>
<th>Age</th>
<th>Risk Factors</th>
<th>Statin Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>Established CVD</td>
<td>High</td>
</tr>
<tr>
<td>&lt;40</td>
<td>1 or more</td>
<td>Consider statin</td>
</tr>
<tr>
<td>40-75</td>
<td>None</td>
<td>Moderate</td>
</tr>
<tr>
<td>40-75</td>
<td>1 or more</td>
<td>Consider high</td>
</tr>
<tr>
<td>&gt;75</td>
<td>None</td>
<td>Consider moderate</td>
</tr>
<tr>
<td>&gt;75</td>
<td>1 or more</td>
<td>Moderate or high</td>
</tr>
</tbody>
</table>
AACE/ACE Lipid Targets for Patients with Diabetes

- Statins should be first line therapy
- Ezetimibe
- PCSK9 Inhibitors
- Fibrates
- Niacin
- Omega-3 fish oil
- Colesevelam
Thank you