2018 Diabetes Update

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Disclosures

Dr. Cornell serves on an advisory board and speakers bureau for Novo Nordisk.

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The American Pharmacists Association is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.
Learning Objectives

1. Summarize important recent changes to the American Diabetes Association Standards of Medical Care in Diabetes and other authoritative guidelines.

2. Describe evidence regarding new and emerging trends in the management of patients with diabetes.

3. Identify noteworthy findings from recent clinical trials that have the potential to influence diabetes care.

4. Discuss the application of emerging trends in the care of patients with diabetes.
1. Assessment Question

Patient with T2DM and albuminuria in need of further BP control. Current regimen includes ACE-I, thiazide, and calcium channel blocker. Based on ADA guidelines, the next recommended agent would be:

A. losartan
B. hydralazine
C. spironolactone
D. carvedilol
2. Assessment Question

45 yo female with T2DM and obesity. Which is the recommended treatment for primary CV protection?

A. Atorvastatin 40 mg
B. Rosuvastatin 10 mg
C. Simvastatin 10 mg
D. Ezetimibe 10 mg
3. **Assessment Question**

Which agent is recommend in pregnant patients with diabetes to prevent preeclampsia?

A. aspirin  
B. folic acid  
C. calcium  
D. metformin
4. Assessment Question

Which of the following medications is not recommended for use in pre-diabetes?

A. Acarbose  
B. Dulaglutide  
C. Linagliptin  
D. Pioglitazone
New Year, New Recommendations

1. American Diabetes Association (ADA) Standards of Medical Care in Diabetes – 2018

2. Consensus Statement By the American Association of Clinical Endocrinologists and American College of Endocrinology on the Comprehensive Type 2 Diabetes Management Algorithm – 2018 Executive Summary
Clara

58 years of age

PMH: T2DM, HTN, stroke (Jan 2017)

Current diabetes regimen: metformin 1000 mg BID & walking 3x/week

A1C 7.8%; Scr 1.0; eGFR >60; BP 142/90; weight 162 lbs; TC 207; HDL 32; TG 136; LDL 164
Pharmacologic Treatment of T2DM

Metformin

ASCVD

GLP-1 RA
(liraglutide, semaglutide)

SGLT2-I
(empagliflozin, canagliflozin)

No ASCVD

SGLT2-I, GLP-1 RA, TZD, SU, DPP4-I, basal insulin

ASCVD: Atherosclerotic cardiovascular disease
Clara

58 years of age

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Current diabetes regimen: metformin 1000 mg BID & walking 3x/week

A1C 7.8%; Scr 1.0; eGFR >60; BP 142/90; weight 162 lbs; TC 207; HDL 32; TG 136; LDL 164
## Considerations for CV Risk Reduction

<table>
<thead>
<tr>
<th>Study</th>
<th>Drug</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEADER: liraglutide</td>
<td>22% ↓ risk of new or worsening nephropathy</td>
<td></td>
</tr>
<tr>
<td>SUSTAIN-6: semaglutide</td>
<td>36% ↓ risk of new or worsening nephropathy</td>
<td></td>
</tr>
<tr>
<td>EMPA-REG OUTCOME: empagliflozin</td>
<td>39% ↓ risk of new or worsening nephropathy; 44% ↓ in doubling of Scr and eGFR ≤45</td>
<td></td>
</tr>
<tr>
<td>CANVAS: canagliflozin</td>
<td>27% ↓ risk of progression of albuminuria; 40% ↓ risk of reduction of eGFR, ESRD, or death from ESRD</td>
<td></td>
</tr>
</tbody>
</table>

## Considerations for Renal Effects

<table>
<thead>
<tr>
<th>Study</th>
<th>Medication</th>
<th>Effect on Risk of New or Worsening Nephropathy</th>
<th>Effect on Progression of Albuminuria</th>
<th>Effect on Reduction of eGFR, ESRD, or Death from ESRD</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

ADA. *Diabetes Care.* 2018;41(Suppl. 1):S105–118.
Lipid Management

- **<40 years (+) ASCVD risk factors**
  - Consider moderate intensity statin

- **40 – 75 years without ASCVD**
  - Moderate intensity statin

- **> 75 years without ASCVD**
  - Moderate intensity statin

- **Any age with ASCVD**
  - High intensity statin
  - LDL still >70? Consider ezetimibe or PCSK9-Inhib

Statin Intensity

+++ Atorvastatin 40-80 mg; Rosuvastatin 20-40 mg

++ Atorvastatin 10-20 mg; Simvastatin 20-40 mg; Rosuvastatin 5-10 mg; Pravastatin 40-80 mg; Lovastatin 40 mg; Fluvastatin XL 80 mg; Pitavastatin 2-4 mg

+ Simvastatin 10 mg; Pravastatin 10-20 mg; Lovastatin 20 mg; Pitavastatin 1 mg

## Lipid Management

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>LDL-C (mg/dL)</th>
<th>Non-HDL-C (mg/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Risk</strong></td>
<td>&lt;100</td>
<td>&lt;130</td>
</tr>
<tr>
<td>DM but no other risk and/or age &lt;40</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Very High Risk</strong></td>
<td>&lt;70</td>
<td>&lt;100</td>
</tr>
<tr>
<td>DM (+) major ASCVD risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Extreme Risk</strong></td>
<td>&lt;55</td>
<td>&lt;80</td>
</tr>
<tr>
<td>DM (+) established clinical CVD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clara

58 years of age

PMH: T2DM, HTN, stroke (Jan 2017)

Current diabetes regimen: metformin 1000 mg BID & walking 3x/week

A1C 7.8%; Scr 1.0; eGFR >60; BP 142/90; weight 162 lbs;
TC 207; HDL 32; TG 136; LDL 164
Blood Pressure Recommendations

BP between 140/90 & 160/100
- Albuminuria: ACE-I or ARB
- No albuminuria: ACE-I, ARB, CCB*, or thiazide

BP ≥160/100
- Albuminuria: ACE-I or ARB AND CCB* or thiazide
- No albuminuria: Chose 2 of 3: ACE-I, ARB, CCB*, thiazide

*: Dihydropyridine calcium channel blocker

AACE/ACE T2D – BP Recommendations

Goal <130/80 mmHg

Initial BP > goal, but ≤150/100
- ACEI or ARB

Initial BP >150/100
- ACEI or ARB (+)
- CCB, β-blocker, or thiazide

2017 ACC/AHA High Blood Pressure Guidelines: Diabetes

- Goal blood pressure: <130/80
- Initiate treatment >130/80: Consider ACE-I, ARB, CCB, or diuretics
  - Albuminuria: consider ACE-I or ARB
  - African-American: consider CCB or thiazide as initial agent (unless CKD or HF)

Clara

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A1C 7.8%; Scr 1.0; eGFR >60; BP 142/90; weight 162 lbs; TC 207; HDL 32; TG 136; LDL 164

Urine microalbumin: 13
Josh
5,000 new cases per year

Screening for Pediatric T2DM

Overweight (+) one or more additional risk factors:

- Maternal history of diabetes or GDM during child’s gestation
- Family history of T2DM in 1\textsuperscript{st} or 2\textsuperscript{nd} degree relative
- Native American, African American, Latino, Asian American, or Pacific Islander
- Signs of insulin resistance or conditions associated with insulin resistance

Pediatric T2DM

- Insulin resistance
- Insufficient insulin production
- Aggressive & early complications

Pediatric T2DM

**FDA Approved:**
- Metformin
- Basal insulin

**Regulatory Process:**
- Stand-alone pharmacokinetics/pharmacodynamics study
- Phase III efficacy and safety study

Long-term Outcomes for Youth-Onset:

- Dyslipidemia
- CV Dysfunction
- NAFLD
- Hypertension
- Kidney disease

Posttransplantation Diabetes Mellitus (PTDM)

- Presence of diabetes in posttransplant setting regardless of DM onset
  - Stress-induced
  - Steroid-induced
  - Immunosuppressive therapy

- Hospital setting: insulin

- At home:
  - Metformin: renal transplant
  - Thiazolidinediones: liver and kidney transplant
  - DPP-4 inhibitors: renal transplant

Diabetes in Pregnancy

- Associated with an increased risk of preeclampsia

- Low-dose aspirin
  - end of the first trimester (after 12 weeks) until birth
  - reduce the risk of preeclampsia

ADA. *Diabetes Care*. 2018;41(Suppl. 1):S137-143.
Clarence

62 years of age – interstate truck driver – refuses insulin

PMH: T2DM, HTN, CKD, COPD, CAD (MI s/p PCI 2007)

Current diabetes medications:
glipizide 20 mg BID, metformin 1000 mg BID, saxagliptin 5 mg daily
Labs & Vitals

- A1C: 8.0%
- TC: 200; HDL: 38; TG: 152; LDL: 126
- Scr: 1.6; eGFR: 40
- AST: 13; ALT: 14
- Weight: 220 lbs
- Blood Pressure: 132/78

Questions:

1. Next pharmacologic choice?
2. Addition or replacement?
3. Monitoring?
LEADER TRIAL

- 9340 patients with T2DM (A1C ≥ 7.0%) and high CV risk
  - 50 years of age (+) CV condition or 60 years of age (+) CV risk factor
  - Drug naive for diabetes – OR – oral agents and/or basal/pre-mixed insulin
- Median follow-up: 3.8 years
- Time-to-event analysis of primary composite outcome: death from CV causes, nonfatal MI, or nonfatal stroke

LEADER Trial

9340 patients – stratified based on eGFR

4668 liraglutide

4529 completed

4672 placebo

4513 completed

<table>
<thead>
<tr>
<th>Event</th>
<th>Liraglutide</th>
<th>Placebo</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary composite</td>
<td>608 (13%)</td>
<td>694 (14.9%)</td>
<td>0.01</td>
</tr>
<tr>
<td>Death from CV cause</td>
<td>219 (4.7%)</td>
<td>278 (6%)</td>
<td>0.007</td>
</tr>
<tr>
<td>Nonfatal MI</td>
<td>281 (6%)</td>
<td>317 (6.8%)</td>
<td>0.11</td>
</tr>
<tr>
<td>Nonfatal stroke</td>
<td>159 (3.4%)</td>
<td>177 (3.8%)</td>
<td>0.30</td>
</tr>
</tbody>
</table>

1. Assessment Question

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B. folic acid
C. calcium
D. metformin
Emerging Trends Influencing Diabetes Management and Care
How is diabetes management currently being monitored?

How effective is this strategy?

What are the barriers in monitoring a patient’s diabetes therapy plan?
The Challenge of Glycemic Control

A1c Levels (2007-2010 population with diagnosed diabetes)

- 53% "Under Control"
- 25% 7% > A1c < 7.9%
- 22% A1c > 8%

Data derived from National Health and Nutrition Examination Survey (NHANES), includes type 1 and type 2 diabetes

Monotherapy

Lifestyle Management + Metformin

Initiate metformin therapy if no contraindications* (See Table 8.1)

A1C at target after 3 months of monotherapy?

Yes:  - Monitor A1C every 3–6 months

No:   - Assess medication-taking behavior
      - Consider Dual Therapy
Clinical Inertia Leaves Patients Unnecessarily Exposed to Hyperglycemia

Median Time to Addition of Another OAD or Insulin

<table>
<thead>
<tr>
<th>Patients taking 1 OAD</th>
<th>2.2 y; mean A_1c: 8.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients taking 2 OADs</td>
<td>&gt; 7.2 y*; mean HbA_1c: 9.1%</td>
</tr>
<tr>
<td>Patients taking 3 OADs</td>
<td>&gt; 7.1 y*; mean HbA_1c: 9.7%</td>
</tr>
</tbody>
</table>

*Indicates that < 50% of subjects have intensified treatment. Mean time between HbA_1c measurements was 6.2 to 7 months. Khunti K, et al. Diabetes Care. 2013;36:3411-3417.

OAD = oral antidiabetes drug
What is the best way to “monitor” blood glucose?

• Self-monitoring blood glucose (SMBG)
  ▪ One point in time

• A1c
  ▪ Average of 3 months (?)
    ▪ Maybe less

• Continuous Glucose Monitor (GCM)
  ▪ Reading every 5-10 minutes
A1c considerations

- When using A1c to diagnose or assess glycemic control
  - A1c is indirect measure of average blood glucose level

- 50% of weighted effect is due to BG levels over last 30 days

A1C and Mean Glucose levels

<table>
<thead>
<tr>
<th>A1C (%)</th>
<th>Mean plasma glucose</th>
<th>Mean fasting glucose</th>
<th>Mean post-prandial glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>126</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5-6.49</td>
<td></td>
<td>122</td>
<td>144</td>
</tr>
<tr>
<td>6.5-6.99</td>
<td></td>
<td>142</td>
<td>164</td>
</tr>
<tr>
<td>7</td>
<td>154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.0-7.49</td>
<td></td>
<td>152</td>
<td>176</td>
</tr>
<tr>
<td>7.5-7.99</td>
<td></td>
<td>167</td>
<td>189</td>
</tr>
<tr>
<td>8</td>
<td>183</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.0-8.49</td>
<td></td>
<td>178</td>
<td>205</td>
</tr>
<tr>
<td>9</td>
<td>212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>298</td>
<td></td>
<td>ADA. <em>Diabetes Care</em>. 2018; 41(suppl 1):S73-S95.</td>
</tr>
</tbody>
</table>
A1c considerations

• Potential limitations in A1c measurements
  ▪ Hemoglobin variants
  ▪ Assay interference
  ▪ Conditions with red blood cell turnover
    ▪ e.g. pregnancy, sickle cell disease, blood loss/transfusion, etc

• Factors may impact hemoglobin glycation
  ▪ Age
    ▪ Adults
  ▪ Race/ethnicity
  ▪ Anemia
  ▪ Hemoglobinopathies

ADA. *Diabetes Care*. 2018; 41(suppl 1):S73-S95.
Patient with A1c 7.0%.
What do you think of this patient’s glucose control?
We need to start thinking about “Time in Range”
CGM use

• CGM measures interstitial glucose
  ▪ Correlates with plasma glucose

• Some require calibration with an SMBG meter
  ▪ Newer devices may not

• Registry study of 17,317 participants
  ▪ CGM use is associated with lower A1c

• Other CGM studies show:
  ▪ Fewer missed days work/school
  ▪ Reduce hypoglycemia episodes
  ▪ Maintaining A1c <7%
# Personal Continuous Glucose Monitoring

<table>
<thead>
<tr>
<th>CGM</th>
<th>Wear Time</th>
<th>Required Calibrations</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dexcom G5</td>
<td>7 days</td>
<td>2 per day</td>
<td>Glucose readings can go directly to a smart phone, compatible with Tandem T: Slim X2</td>
</tr>
<tr>
<td>Medtronic Enlite</td>
<td>6 days</td>
<td>3-4 per day</td>
<td>Only use with Medtronic 530G or 630G pump</td>
</tr>
<tr>
<td>Medtronic Guardian</td>
<td>7 days</td>
<td>2 per day</td>
<td>Only use with Medtronic 670 G pump</td>
</tr>
<tr>
<td>Freestyle Libre</td>
<td>10 days</td>
<td>0</td>
<td>Must be scanned to see blood glucose readings, no alarms for high and low alerts</td>
</tr>
</tbody>
</table>
Time for a Digestion Break

Let’s take 3 minutes and 18 seconds
to write down 1-2 points that you found interesting.

Then discuss with your “neighbor” how this can impact patient care.
Prevention or Delay of Type 2 Diabetes

• What do you know about the Diabetes Prevention Program

• Which pharmacotherapy agents are recommended for pre-diabetes
People with Diabetes

People with Prediabetes

Centers for Disease Control and Prevention
Type 2 Diabetes with Severe Insulin Resistance Due to Obesity and Physical Inactivity

Obesity

- Age-adjusted percent
  - 0 - 19.4
  - 19.5 - 23.8
  - 23.9 - 27.0
  - 27.1 - 30.7
  - ≥ 30.8

Diagnosed with Diabetes

- Age-adjusted percent
  - 0 - 6.3
  - 6.4 - 7.5
  - 7.6 - 8.8
  - 8.9 - 10.5
  - ≥ 10.6

Physically Inactive

- Percent
  - 0 - 20.0
  - 20.1 - 24.4
  - 24.5 - 28.2
  - 28.3 - 32.7
  - ≥ 32.8
Risk Factors for Pre-Diabetes

- Age 45 or older (♀)
- Overweight
- Sedentary lifestyle
- First degree relative with diabetes
- Excess abdominal fat
- High risk race/ethnicity (Latino, African American, Asian, American Indian, Pacific Islander)
- Hypertension (≥140/90 mmHg or on therapy)
- HDL (<35 mg/dL)
- Triglyceride (≥250 mg/dL)
- Acanthosis Nigricans
- Polycystic ovary syndrome (PCOS)
- History of gestational diabetes or large baby (>9 lbs.)

ADA. Diabetes Care. 2018; 41(suppl 1):S73-S95.
DPP Research Study Findings

Lifestyle intervention reduced the chances of developing T2D by 58% and 71% for aged 60+ Metformin group reduced the risk, but not as much as the lifestyle intervention group (31%)

New England Journal of Medicine, 2002
DPP

• The program focuses on:
  ▪ Nutrition
  ▪ Physical Activity
  ▪ Technology Assistance
  ▪ Pharmacologic interventions
  ▪ Prevention of cardiovascular disease
  ▪ Diabetes self-management education and support (DMSE/S)

ADA. *Diabetes Care*. 2018; 41(suppl 1):S73-S95.
Which agents target insulin resistance?

What pharmacotherapy agents are being used for Pre-diabetes?
<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Targets Insulin Resistance</th>
<th>Used in Pre-diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGIs</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Amylinomimetic</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bile acid sequestrant</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Biguanides</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>DPP-4 inhibitors (gliptins)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dopamine agonist</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GLP-1 agonists</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Insulin</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Secretagogues sulfonylureas &amp; glinides</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>SGLT-2 inhibitors</td>
<td>Maybe</td>
<td>No</td>
</tr>
<tr>
<td>TZDs (glitazones)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Pharmacologic Interventions for pre-diabetes

• Although NOT FDA approved in pre-diabetes, ADA & AACE recognize:
  • Metformin
    ▪ BMI > 35 kg/m2
    ▪ Age < 60
    ▪ Women with history of GDM
  • Alpha glucosidase inhibitors
  • GLP-1 agonists
  • TZD’s

ADA. Diabetes Care. 2018; 41(suppl 1):S73-S95.
CVOT Comparison
## Cardiovascular Disease Comparison

<table>
<thead>
<tr>
<th></th>
<th>Benefit</th>
<th>Potential Benefit</th>
<th>Neutral</th>
<th>Potential Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASCVD</strong></td>
<td>GLP-1 agonists (liraglutide*, semaglutide)</td>
<td>Metformin Pioglitazone</td>
<td>GLP-1 agonists (lixisenatide exenatide)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SGLT-2i (empagliflozin*, canagliflozin)</td>
<td></td>
<td>DPP-4i SU Insulin</td>
<td></td>
</tr>
<tr>
<td><strong>Heart Failure</strong></td>
<td>SGLT-2i</td>
<td>GLP-1 agonists Metformin SU</td>
<td>DPP-4i (saxagliptin, alogliptin)</td>
<td>Pioglitazone</td>
</tr>
</tbody>
</table>

ASCVD = atherosclerotic cardiovascular disease  
* Has FDA indication

## Cardiovascular Disease – Clinical Trials

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Drug</th>
<th>Impact on CVD</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLP-1 agonist</td>
<td>Exenatide</td>
<td><em>Ongoing trial</em></td>
<td>EXSCEL</td>
</tr>
<tr>
<td></td>
<td>Liraglutide*</td>
<td>↓ Risk of CV death and total death</td>
<td>LEADER</td>
</tr>
<tr>
<td></td>
<td>Dulaglutide</td>
<td><em>Ongoing trial</em></td>
<td>REWIND</td>
</tr>
<tr>
<td></td>
<td>Albiglutide</td>
<td>No ↑ CV Risk</td>
<td>HARMONY program meta-analysis</td>
</tr>
<tr>
<td></td>
<td>Lixisenatide</td>
<td>No ↑ CV Risk</td>
<td>ELIXA</td>
</tr>
<tr>
<td></td>
<td>Semaglutide</td>
<td>↓ Risk of non-fatal stroke and non-fatal MI</td>
<td>SUSTAIN</td>
</tr>
</tbody>
</table>

* Has FDA indication

ADA. *Diabetes Care*. 2018; 41(suppl 1):S73-S95.
Adapted from: Handelsman Y. *Endocrine Today*. 2016
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<th>Study</th>
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<tbody>
<tr>
<td>SGLT2 inhibitors</td>
<td>Canagliflozin</td>
<td>↓ Risk of CV death</td>
<td>CANVAS</td>
</tr>
<tr>
<td></td>
<td>Dapagliflozin</td>
<td><em>Ongoing trial</em></td>
<td>DECLARE-TIMI</td>
</tr>
<tr>
<td></td>
<td>Empagliflozin*</td>
<td>↓ Risk of CV death</td>
<td>EMPA-REG</td>
</tr>
</tbody>
</table>

* Has FDA indication

ADA. *Diabetes Care*. 2018; 41(suppl 1):S73-S95.
Adapted from: Handelsman Y. Endocrine Today. 2016
## Cardiovascular Disease – Clinical Trials

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Drug</th>
<th>Impact on CVD</th>
<th>Study</th>
</tr>
</thead>
</table>
| DPP-4 inhibitors | Sitagliptin | No ↑ CV Risk  
No ↑ HF hospitalization | TECOS            |
|                  | Saxagliptin  | No ↑ CV Risk  
↑ HF hospitalization | SAVOR-TIMI       |
|                  | Alogliptin    | No ↑ CV Risk                                         | EXAMINE          |
|                  | Linagliptin   | Ongoing trials                                       | CAROLINA*  
CARMELINA |

Adapted from: Handelsman Y. Endocrine Today. 2016
ADA. *Diabetes Care*. 2018; 41(suppl 1):S73-S95.
Insulin Variability

What do you know about insulin variability?

What is the reason insulin variability may be important in diabetes management and care?
Pharmacodynamic Variability with Insulin Degludec vs Insulin Glargine

Day to Day Variability in Glucose Lowering Effects Over 24 Hours (at steady state)

Degludec U-100 vs. Glargine U-300

Time for a Digestion Break

Let’s take 4 minutes and 12 seconds
to write down 1-2 points that you found interesting.

Then discuss with your “neighbor” how this can impact patient care
Take Home Message

• The 2018 ADA recommendations for pharmacotherapy management of T2D focus on individualization and ASCVD benefits
  ▪ Need to consider A1c, BP and lipids, at minimum
  ▪ Need to improve insulin sensitivity
• Prediabetes is a growing concern
  ▪ Early intervention and prevention are key
• Clinical inertia delays quality care and increases complications
  ▪ Pharmacists can identify and help patients with suboptimal therapy
• Use of CGM technology can provide better data on glucose “time in range”