Faculty Disclosure

Faculty: Kim Connelly, MBBS, PhD, FRACP
Associate Professor of Medicine, University of Toronto
Cardiologist, St. Michael’s Hospital

Relationships with financial sponsors:
Grant / Research Support: Janssen, Merck, Novartis, AstraZeneca, Servier, Novo Nordisk, Lilly
Other Financial/Material Support: Hold a patent with BI for Linagliptin for heart failure

Potential for conflict(s) of interest:
Janssen, Merck, Novartis, AstraZeneca, Servier, Novo Nordisk, Lilly and BI develops and benefits from the sale of products that might be discussed in this program.
Mitigating Potential Bias

All the recommendations involving clinical medicine are based on evidence that is accepted within the profession. All scientific research referred to, reported, or used is in the support or justification of patient care. Recommendations conform to the generally accepted standards. Independent content validation.

The presentation will mitigate potential bias by ensuring that data and recommendations are presented in a fair and balanced way. Potential bias will be mitigated by presenting a full range of products that can be used in this therapeutic area. Information of the history, development, funding, and the sponsoring organizations of the disclosure presented will be discussed.
Vascular protection in diabetes

Dr Kim A Connelly MBBS PhD FRACP
St Michaels Hospital
Sunnybrook Health Sciences centre
President Canadian Society of CMR
Section Head: Macrovascular complications Diabetes Canada CPG
Associate Professor of Medicine
University of Toronto
Learning Objectives

Upon completion of this session, participants will be equipped to:

1. Describe the vascular complications of Type II diabetes
2. Assess the impact of therapies to reduce diabetes vascular complications
3. To develop management plans to address diabetes vascular complications with the use of pharmacological therapy and healthy lifestyle interventions
In Canada, People with Diabetes Account For...

- 1/3 of all heart attacks & strokes
- 2/5 of all heart failure admissions
- 2/3 of all non-traumatic amputations
- 1/2 of all patients starting dialysis

1. All individuals with diabetes should follow a comprehensive, multifaceted approach to reduce CV risk, including:

   - **A1C ≤7.0% implemented early in the course of diabetes** [Grade C, Level 3]
   - **Systolic BP of <130 mmHg** [Grade C, Level 3] **and diastolic BP of <80 mmHg** [Grade B, Level 1] (see Hypertension chapter)
   - **Additional vascular protective medications in the majority of adult people with diabetes (see recommendations below)** [Grade A, Level 1 for those with type 2 diabetes age >40 years with albuminuria; Grade D, Consensus for those with type 1 diabetes]
   - **Achievement and maintenance of healthy weight goals** [Grade D, Consensus]
   - **Healthy eating** (see Nutrition Therapy Chapter for specific dietary recommendations)
   - **Regular physical activity** [Grade D, Consensus]
   - **Smoking cessation** [Grade C, Level 3]
ABCDES$^3$ of Diabetes Care

✓ A • A1C – optimal glycemic control (usually ≤7%)
✓ B • BP – optimal blood pressure control (<130/80)
✓ C • Cholesterol – LDL <2.0 mmol/L or >50% reduction
✓ D • Drugs to protect the heart
  A – ACEi or ARB | S – Statin | A – ASA if indicated | SGLT2i/GLP-1 RA with demonstrated CV benefit if type 2 DM with CVD and A1C not at target
✓ E • Exercise / Healthy Eating
✓ S • Screening for complications
✓ S • Smoking cessation
✓ S • Self-management, stress and other barriers
AT DIAGNOSIS OF TYPE 2 DIABETES

Start healthy behaviour interventions (nutritional therapy, weight management, physical activity) +/- metformin

<table>
<thead>
<tr>
<th>A1C &lt;1.5% above target</th>
<th>A1C ≥1.5% above target</th>
<th>Symptomatic hyperglycemia and/or metabolic decompensation</th>
</tr>
</thead>
</table>

If not at glycemic target within 3 months, start/increase metformin

Immediately

Consider a second concurrent antihyperglycemic agent

Initiate insulin +/- metformin

If not at glycemic target

Clinical CVD?

YES

Start antihyperglycemic agent with demonstrated CV benefit:
- empagliflozin (Grade A, Level 1A)
- liraglutide (Grade A, Level 1A)
- canagliflozin* (Grade C, Level 2)

If not at glycemic target

NO

See next page

* Avoid in people with prior lower extremity amputation
## A1C Targets

<table>
<thead>
<tr>
<th>≤6.5</th>
<th>Adults with type 2 diabetes to reduce the risk of CKD and retinopathy <strong>if at low risk of hypoglycemia</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>≤7.0</td>
<td>MOST ADULTS WITH TYPE 1 OR TYPE 2 DIABETES</td>
</tr>
</tbody>
</table>
| 7.1  | 7.1-8.0%: Functionally dependent*<br>7.1-8.5%:<br>  
• Recurrent severe hypoglycemia and/or hypoglycemia unawareness  
• Limited life expectancy  
• Frail elderly and/or with dementia** |
| 8.5  | Avoid higher A1C to minimize risk of symptomatic hyperglycemia and acute and chronic complications |
|      | A1C measurement not recommended. Avoid symptomatic hyperglycemia and any hypoglycemia               |

* Based on class of antihyperglycemic medication(s) utilized and person’s characteristics

** see Diabetes in Older People chapter
# Cardiovascular Considerations for Antihyperglycemic Agents

<table>
<thead>
<tr>
<th>CV considerations</th>
<th>Class</th>
<th>Agents</th>
<th>Relative A1C lowering</th>
<th>Risk of hypoglycemia</th>
<th>Heart failure</th>
<th>BP effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV superiority demonstrated as primary endpoint in RCT by ≥1 agent in class</td>
<td>GLP-1 receptor agonist</td>
<td>liraglutide, semaglutide, lixisenatide, dulaglutide, exenatide</td>
<td>↓↓↓↓</td>
<td>Rare</td>
<td>Neutral</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>SGLT-2 inhibitor</td>
<td>empagliflozin, canagliflozin* dapagliflozin</td>
<td>↓↓↓↓</td>
<td>Rare</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>CV safety demonstrated as primary endpoint in RCT by ≥1 agents in class</td>
<td>DPP-4 inhibitor</td>
<td>alogliptin, sitagliptin, saxagliptin, linagliptin</td>
<td>↓↓</td>
<td>Rare</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Thiazolidinedione</td>
<td>pioglitazone, rosiglitazone</td>
<td>↓↓</td>
<td>Rare</td>
<td>↑</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Insulin</td>
<td>glargine 100 u/mL, degludec, other basal/bolus/premixed</td>
<td>↓↓↓</td>
<td>Yes**</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td>CV safety unknown or RCT results not yet available</td>
<td>Weight loss agent</td>
<td>orlistat</td>
<td>↓</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>α-glucosidase inhibitor</td>
<td>acarbose</td>
<td>↓</td>
<td>Rare</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meglitinide</td>
<td>nateglinide, repaglinide</td>
<td>↓↓</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sulfonylurea</td>
<td>gliclazide, glimepiride, glyburide</td>
<td>↓↓</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Increased lower extremity amputations. **Lower hypoglycemia risk.
8. In adults with type 2 diabetes with clinical CVD in whom glycemic targets are not achieved with existing antihyperglycemic medication, an antihyperglycemic agent with demonstrated CV outcome benefit should be added to reduce the risk of major CV events [Grade A, Level 1A for empagliflozin; Grade A, Level 1A for liraglutide, Grade C, Level 2 for canagliflozin]
B: Making the Diagnosis of Hypertension in Patients with Diabetes

BP \geq 130/80 \text{ mm Hg}

Confirmed on a second occasion in either the office, home or by appropriate ambulatory measurement.
**Blood pressure**

1. Persons with diabetes mellitus should be treated to attain systolic BP of <130 mm Hg [Grade C, Level 3] and diastolic BP of <80 mm Hg [Grade B, Level 1] (these target BP levels are the same as BP treatment thresholds)

2. For persons with CVD or CKD, including albuminuria, or with CV risk factors in addition to diabetes and hypertension, an ACE inhibitor or an ARB is recommended as initial therapy [Grade A, Level 1A]

3. If target BP levels are not achieved with standard-dose monotherapy, additional antihypertensive therapy should be used. For persons in whom combination therapy with an ACE inhibitor is being considered, a dihydropyridine CCB is preferable to a thiazide/thiazide-like diuretic (Grade A).
Hypertension in Diabetes (UKPDS)

- Less tight control (mean BP 154/87 mmHg)
- Tight control (mean BP 144/82 mmHg)

Tight BP control: 24% reduction of events (95% CI 8-38)

Threshold equal or over 130/80 mmHg and Target below 130/80 mmHg

With Nephropathy, CVD or CV risk factors
- ACE Inhibitor or ARB

Without the above
1. ACE Inhibitor or ARB or
2. Thiazide diuretic or DHP-CCB

> 2-drug combinations

Monitor serum potassium and creatinine carefully in patients with CKD prescribed an ACEI or ARB

Combinations of an ACEI with an ARB are specifically not recommended in the absence of proteinuria

More than 3 drugs may be needed to reach target values

If Creatinine over 150 µmol/L or creatinine clearance below 30 ml/min (0.5 ml/sec), a loop diuretic should be substituted for a thiazide diuretic if control of volume is desired
ACE Inhibitor + CCB or Diuretic (ACCOMPLISH Study)
Composite Morbidity / Mortality Endpoint

21% reduction in MACE diabetes subgroup - 6946 persons
- p=0.003

2. Statin therapy should be used to reduce CV risk in adults with type 1 or type 2 diabetes with any of the following features:

- **Clinical CVD** [Grade A, Level 1]
- **Age ≥40 years** [Grade A, Level 1 for type 2 diabetes; Grade D, Consensus for type 1 diabetes]
- **Age <40 years and 1 of the following:**
  - **Diabetes duration >15 years and age >30 years** [Grade D, Consensus]
  - **Microvascular complications** [Grade D, Consensus]
- **Warrants therapy based on the presence of other risk factors according to the 2016 Canadian Cardiovascular Society Guidelines for the Diagnosis and Treatment of Dyslipidemia** [Grade D, Consensus]
CARDS: Statins Reduced CVD in Patients with DM

<table>
<thead>
<tr>
<th>Event</th>
<th>Placebo</th>
<th>Atorvastatin 10 mg</th>
<th>Hazard ratio (95% CI)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary endpoint</strong></td>
<td>127 (9.0%)</td>
<td>83 (5.8%)</td>
<td>0.63 (0.48–0.83)</td>
<td>0.001</td>
</tr>
<tr>
<td>Acute coronary events</td>
<td>77 (5.5%)</td>
<td>51 (3.6%)</td>
<td>0.64 (0.45–0.91)</td>
<td></td>
</tr>
<tr>
<td>Coronary revascularisation</td>
<td>34 (2.4%)</td>
<td>24 (1.7%)</td>
<td>0.69 (0.41–1.16)</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>39 (2.8%)</td>
<td>21 (1.5%)</td>
<td>0.52 (0.31–0.89)</td>
<td></td>
</tr>
<tr>
<td><strong>Secondary endpoint</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death from any cause</td>
<td>82 (5.8%)</td>
<td>61 (4.3%)</td>
<td>0.73 (0.52–1.01)</td>
<td>0.059</td>
</tr>
<tr>
<td>Any acute cardiovascular disease event</td>
<td>189 (13.4%)</td>
<td>134 (9.4%)</td>
<td>0.68 (0.55–0.85)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**IMPROVE IT**

- **IMPROVE-IT**: First large trial evaluating clinical efficacy of combination EZ/Simva vs. simvastatin (i.e., the addition of ezetimibe to statin therapy):
  - Does lowering LDL-C with the non-statin agent ezetimibe reduce cardiac events?
  - “Is (Even) Lower (Even) Better?” (estimated mean LDL-C ~50 vs. 65mg/dL)
  - Safety of ezetimibe
CV Death, Non-fatal MI, or Non-fatal Stroke

- Simva — 22.2%
  - 1704 events
  - HR 0.90 CI (0.84, 0.97)
  - p=0.003
  - NNT= 56

- EZ/Simva — 20.4%
  - 1544 events

7-year event rates
Major Pre-specified Subgroups

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Simva †</th>
<th>EZ/Simva †</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>34.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Female</td>
<td>34.0</td>
<td>31.0</td>
</tr>
<tr>
<td>Age &lt; 65 years</td>
<td>30.8</td>
<td>29.9</td>
</tr>
<tr>
<td>Age ≥ 65 years</td>
<td>39.9</td>
<td>36.4</td>
</tr>
<tr>
<td>No diabetes</td>
<td>30.8</td>
<td>30.2</td>
</tr>
<tr>
<td>Diabetes</td>
<td>45.5</td>
<td>40.0</td>
</tr>
<tr>
<td>Prior LLT</td>
<td>43.4</td>
<td>40.7</td>
</tr>
<tr>
<td>No prior LLT</td>
<td>30.0</td>
<td>28.6</td>
</tr>
<tr>
<td>LDL-C &gt; 95 mg/dl</td>
<td>31.2</td>
<td>29.6</td>
</tr>
<tr>
<td>LDL-C ≤ 95 mg/dl</td>
<td>38.4</td>
<td>36.0</td>
</tr>
</tbody>
</table>

*p-interaction = 0.023, otherwise > 0.05

† 7-year event rates
Trials Design

27,564 high-risk, stable patients with established CV disease (prior MI, prior stroke, or symptomatic PAD)

Screening, Lipid Stabilization, and Placebo Run-in
High or moderate intensity statin therapy (± ezetimibe)

LDL-C ≥70 mg/dL (1.8 mmol/L) or non-HDL-C ≥100 mg/dL (2.6 mmol/L)

Randomized Double Blind
Evolocumab SC
140 mg Q2W or 420 mg QM

Placebo SC
Q2W or QM

Follow-up Q 12 weeks
Median f/up 2.2 yrs

Effect of Evolocumab on Primary Endpoint

**Patients w/ Diabetes at Baseline**
- Hazard Ratio: 0.83
  - (95% CI: 0.75-0.93)
  - P = 0.0008
- Placebo: 14.4%
- Evolocumab: 17.1%
- Δ: 2.7%
- NNT: 37

**Patients w/o Diabetes at Baseline**
- Hazard Ratio: 0.87
  - (95% CI: 0.79-0.96)
  - P = 0.0052
- Placebo: 11.4%
- Evolocumab: 13.0%
- Δ: 1.6%
- NNT: 62

P_{interaction} = 0.60
Recommendation

4. ACE inhibitor or ARB, at doses that have demonstrated vascular protection, should be used to reduce CV risk in adults with type 1 or type 2 diabetes with any of the following:

- Clinical CVD [Grade A, Level 1]
- Age >55 years with an additional CV risk factor or end organ damage (albuminuria, retinopathy, left ventricular hypertrophy) [Grade A, Level 1]
- Microvascular complications [Grade D, Consensus].

Note: Among women with childbearing potential, ACE inhibitors, ARBs or statins should only be used if there is reliable contraception.

At doses that have shown vascular protection [perindopril 8 mg daily (EUROPA), ramipril 10 mg daily (HOPE), telmisartan 80 mg daily (ONTARGET)]
Micro-HOPE (ACEi): CV Benefits

Primary Outcome (NNT 22)

RR = 0.75 (0.64-0.88)  
$p = 0.0004$

All Mortality (NNT 31)

RR = 0.76 (0.63-0.92)  
$p = 0.004$

MI (NNT 37)

RR = 0.78 (0.64-0.94)  
$p = 0.01$

Stroke (NNT 53)

RR = 0.67 (0.5-0.9)  
$p = 0.0074$

CV Death (NNT 29)

RR = 0.63 (0.49-0.79)  
$p = 0.001$

Duration of follow-up (days)

Kaplan-Meier rates

HOPE study investigators.  
Unclear if RAS blockers superior to other agents in absence of HT or CV risk factors

Fig 1 | Outcomes of death with renin angiotensin system (RAS) blockers compared with other antihypertensives in people with diabetes

BMJ 2016;352:i438 | doi: 10.1136/bmj.i438
What About ASA for 1° Prevention of CVD?

Included: Six studies, n = 10,117 participants

ASA for 1\(^{\text{st}}\) Prevention in Diabetes

Meta analysis of 6 studies
(n = 10,117)

No overall benefit for:
- Major CV events
- MI
- Stroke
- CV mortality
- All-cause mortality

<table>
<thead>
<tr>
<th>No. of events/No. in group</th>
<th>ASA</th>
<th>Control/placebo</th>
<th>RR (95% CI)</th>
<th>RR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major CV events</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>JPAD</td>
<td>68/1262</td>
<td>86/1277</td>
<td>0.80 (0.59-1.09)</td>
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</tr>
<tr>
<td>POPADAD</td>
<td>105/638</td>
<td>108/638</td>
<td>0.97 (0.76-1.24)</td>
<td></td>
</tr>
<tr>
<td>WHS</td>
<td>58/514</td>
<td>62/513</td>
<td>0.90 (0.63-1.29)</td>
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<tr>
<td>PPP</td>
<td>20/519</td>
<td>22/512</td>
<td>0.90 (0.50-1.62)</td>
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<tr>
<td>ETDRS</td>
<td>350/1856</td>
<td>379/1855</td>
<td>0.90 (0.78-1.04)</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>601/4789</td>
<td>657/4795</td>
<td>0.90 (0.81-1.00)</td>
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<tr>
<td><strong>Myocardial infarction</strong></td>
<td></td>
<td></td>
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<tr>
<td>JPAD</td>
<td>28/1262</td>
<td>14/1277</td>
<td>0.87 (0.40-1.87)</td>
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<tr>
<td>POPADAD</td>
<td>90/638</td>
<td>82/638</td>
<td>1.10 (0.83-1.45)</td>
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<tr>
<td>WHS</td>
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<td>24/513</td>
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<tr>
<td>PPP</td>
<td>5/519</td>
<td>10/512</td>
<td>0.49 (0.17-1.43)</td>
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<tr>
<td>ETDRS</td>
<td>241/1856</td>
<td>283/1855</td>
<td>0.82 (0.69-0.98)</td>
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<tr>
<td>PHS</td>
<td>11/275</td>
<td>26/258</td>
<td>0.40 (0.20-0.79)</td>
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<tr>
<td><strong>Total</strong></td>
<td>395/5064</td>
<td>439/5053</td>
<td>0.86 (0.61-1.21)</td>
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<tr>
<td><strong>Stroke</strong></td>
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<td></td>
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<tr>
<td>JPAD</td>
<td>12/1262</td>
<td>32/1277</td>
<td>0.89 (0.54-1.46)</td>
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<tr>
<td>POPADAD</td>
<td>37/638</td>
<td>50/638</td>
<td>0.74 (0.49-1.12)</td>
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<tr>
<td>WHS</td>
<td>15/514</td>
<td>31/513</td>
<td>0.46 (0.25-0.85)</td>
<td></td>
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<tr>
<td>PPP</td>
<td>9/519</td>
<td>10/512</td>
<td>0.89 (0.36-2.17)</td>
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<tr>
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<td>78/1855</td>
<td>1.17 (0.87-1.58)</td>
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<tr>
<td><strong>Total</strong></td>
<td>181/4789</td>
<td>201/4795</td>
<td>0.83 (0.60-1.14)</td>
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<tr>
<td><strong>Death from CV causes</strong></td>
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<td></td>
<td></td>
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<tr>
<td>JPAD</td>
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<td>10/1277</td>
<td>0.10 (0.01-0.79)</td>
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<tr>
<td>POPADAD</td>
<td>43/638</td>
<td>35/638</td>
<td>1.23 (0.80-1.89)</td>
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<td>10/519</td>
<td>8/512</td>
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<td>275/1855</td>
<td>0.87 (0.73-1.04)</td>
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<tr>
<td><strong>Total</strong></td>
<td>298/4275</td>
<td>328/4282</td>
<td>0.94 (0.72-1.23)</td>
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<tr>
<td><strong>All-cause mortality</strong></td>
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<tr>
<td>JPAD</td>
<td>34/1262</td>
<td>38/1277</td>
<td>0.90 (0.57-1.14)</td>
<td></td>
</tr>
<tr>
<td>POPADAD</td>
<td>94/638</td>
<td>101/638</td>
<td>0.93 (0.72-1.21)</td>
<td></td>
</tr>
<tr>
<td>PPP</td>
<td>25/519</td>
<td>20/512</td>
<td>1.23 (0.69-2.19)</td>
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<tr>
<td>ETDRS</td>
<td>340/1856</td>
<td>366/1855</td>
<td>0.91 (0.78-1.06)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>493/4275</td>
<td>525/4282</td>
<td>0.93 (0.82-1.05)</td>
<td></td>
</tr>
</tbody>
</table>

5. In people with established CVD, low-dose ASA therapy (81-162 mg) should be used to prevent CV events [Grade B, Level 2].

6. ASA should not be used routinely for the primary prevention of CVD in people with diabetes [Grade A, Level 1A]. ASA may be used in the presence of additional CV risk factors [Grade D, Consensus].
PEGASUS TIMI 53: Background & Purpose

• Randomized, Double-Blind, placebo-controlled clinical trial

• Purpose:
  – To test whether long-term therapy with ticagrelor added to low-dose aspirin reduces the risk of major CV events among stable patients with a history of MI.

21,162 patients with MI 1-3 years prior and treated with low-dose aspirin

Primary Endpoint: MACE

- Ticagrelor 90 mg
  - HR 0.85 (95% CI 0.75 – 0.96)
  - P=0.008
- Ticagrelor 60 mg
  - HR 0.84 (95% CI 0.74 – 0.95)
  - P=0.004

Bonaca MP et al. and Sabatine MS. *NEJM* 2015;372:1791-800
PEGASUS TIMI 54: Diabetes analysis (~6800 of 21000)

**FIGURE 1** Rates of MACE in the Pooled Ticagrelor Versus Placebo Arms For Patients With and Without Diabetes

- **Primary Endpoint - MACE**
  - Ticagrelor (doses pooled)
  - Placebo

- **Ticagrelor in Diabetic Patients**
  - HR 0.84 (95% CI 0.72 - 0.99)
  - ARR 1.5%; P=0.03
  - 11.6%

- **Ticagrelor in Non-Diabetic Patients**
  - HR 0.84 (95% CI 0.74 - 0.96)
  - ARR 1.1%; P=0.01
  - 7.8%

**Benefit in Diabetic vs. Non-Diabetic Patients:**
- Interaction P=0.99

**CV Death, MI, Stroke (%)**

**Days from Randomization**

ARR = absolute risk reduction; CI = confidence interval; CV = cardiovascular; HR = hazard ratio; ITT = intention to treat; MACE = major adverse cardiovascular events; MI = myocardial infarction.

*Bhatt et al. Diabetes, Ticagrelor, and Ischemic Events*  
JACC Vol. 67, No. 23, 2016  
June 14, 2016: 2732-40
Ask your doctor about the ABCDEs to reduce your risk of heart attack and stroke:

• **A** = A1C – Blood glucose control. The target is usually 7% or less

• **B** = BP – Blood pressure control (less than 130/80 mm Hg)

• **C** = Cholesterol – LDL-cholesterol less than 2.0 mmol/L. Your physician or nurse practitioner may advise you to start cholesterol lowering medication

• **D** = Drugs to protect your heart: These include blood pressure pills (“ACE inhibitors or ARBs), cholesterol lowering medication (“statins”), and in people with existing cardiovascular disease, certain blood glucose lowering medications. These blood glucose lowering medications can protect your heart even if your blood pressure and/or LDL-cholesterol are already at target

• **E** = Exercise /Eating – Regular physical activity which includes healthy eating, and achievement and maintenance of a healthy body weight

• **S** = Stop smoking and manage stress
Questions?
"Nurse, get on the internet, go to SURGERY.COM, scroll down and click on the 'Are you totally lost?' icon."