Welcome to the PHASE Learning Community!

May 29, 2019
Webinar Housekeeping


2. Lines are muted. You can **chat in questions** or **unmute your line** by pressing *7 to ask a question (*6 to re-mute).

3. Webinar is being recorded and will be posted on [careinnovations.org/phasesupport](http://careinnovations.org/phasesupport) and a link will be emailed.

4. Please fill out our **feedback survey** at the end of the webinar.
Our Speakers Today

Landis Coghlan, MD
Clinical Lead- CV Risk Reduction, Statin, Aspirin
The Permanente Medical Group

Lisa Gilliam, MD, PhD
Clinical Leader, Kaiser Northern California Diabetes Program
The Permanente Medical Group

Ronald Scott, MD
CVD Co-Lead, Integrated Cardiovascular Health Lead
Southern California Permanente Medical Group
PHASE – highlights and key updates

Landis Coghlan, MD
TPMG Clinical Lead- CV Risk Reduction, Statin, Aspirin

Lisa K. Gilliam, MD, PhD
Clinical Leader, Kaiser Northern California Diabetes Program
The Permanente Medical Group

May 30, 2019
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Agenda

➢ 2018/ 2019 Changes to PHASE on a Page
➢ Elements of Success with PHASE
➢ Operational Workflows to get value from POAP
➢ What’s next? New areas of focus for PHASE
PHASE

• Preventing Heart Attacks and Strokes Everyday
• Identify at risk population
• Algorithm for lifestyle and medication management of cardiovascular risk factors – diabetes, hypertension, statin, aspirin, smoking, exercise, diet
• Clear accountability for this care
• Multiple touch points with patients
PHASE: Prevent Heart Attacks and Strokes Every day
BP Control, Statins, Aspirin, A1c Control + Optimize Lifestyle

Incidence Rate (per 100,000 person-yr)

- Total MI
- Non-STEMI
- STEMI


- ↓ 70%
- ↓ 40%

Did Preventing ASCVD Events Save Lives? YES!

From 2000 to 2015

In Reducing Deaths from Heart Disease and Stroke, KAISER PERMANENTE Outpaces Nation

- U.S. 23.6%
- Kaiser Permanente 48.3%

U.S. 26.0%

Kaiser Permanente 55.8%

DECLINE IN ADULT DEATHS from STROKE

DECLINE IN ADULT DEATHS from HEART DISEASE
PHASE
Changes in 2018/2019
Blood pressure:

- Goal back to <140/ <90 for all
- Speed up escalation of meds in the algorithm
- Aim for point of care med changes (when patient comes in for BP check, and its high, intervention is made at that time)
- AOBP especially for white coat hypertension
PHASE Updates 2018/2019

**Diabetes:**

- Recognition/addition of SGLT2 and GLP1 medications
- Separate DM1/ DM2
- Attention to populations/disparities especially Latino
Trial data supporting SGLT2/GLP-1 use in special populations

Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes
Bernard Zinman, M.D., Christoph Wanner, M.D., John M. Lachin, Sc.D., David Fitchett, M.D., Erich Bluhmki, Ph.D., Stefan Hantel, Ph.D., Michaela Mattheus, Dipl. Biomath., Theresa Devins, Dr.P.H., Odd Erik Johansen, M.D., Ph.D., Hans J. Woerle, M.D., Uli C. Broedl, M.D., and Silvio E. Inzucchi, M.D., for the EMPA-REG OUTCOME Investigators

Canagliflozin and Renal Outcomes in Type 2 Diabetes and Nephropathy
SGLT2 inhibitors

Empagliflozin (Jardiance) NF*, Dapagliflozin (Farxiga) NF, Canagliflozin (Invokana) NF, Ertugliflozin (Steglatro) NF

Blocks renal glucose reabsorption, promotes glucosuria

A1c: ↓ 0.7 - 1.1%

Advantages
- Oral
- Modest weight loss (~2-3 kg)
- Lowers blood pressure
- CV benefit in pts w/ CVD
- Renal and CHF benefit in pts w/ clinical CVD or CVD risk factors

Disadvantages
- High copays / cost
- GU infections (10%)
- UTI / urosepsis, pyelonephritis
- DKA
- Polyuria / hypotension / dizziness
- Fracture risk
- Not effective in pts with renal impairment and contraindicated for GFR<30

* Non-formulary preferred agent

If prescribing Empagliflozin, start with ½ tabs (½ of 25 mg tab = 12.5 mg) to reduce cost from $$$$$ to $$
GLP-1 receptor agonists

Liraglutide (Victoza) NF*

Exenatide ER inj (Bydureon) NF*, Dulaglutide inj (Trulicity) NF, Semaglutide (Ozempic) NF, Lixisenatide (Adlyxin) NF

A1c: ↓ 0.7 - 1.5

Advantages
- Modest weight loss
- Once weekly dosing
- Less hypo risk
- CV benefit in pts w/ CVD (Liraglutide)

Disadvantages
- Injected
- GI SE’s (N/V, diarrhea in 20 - 40%)
- VERY costly
- Contraindicated if FHx of MTC or MEN2 (Boxed warning)
- Acute pancreatitis

* Non-formulary preferred agent
PHASE on a Page DM Updates

CURRENT VERSION

A1c Goals ≤ 7.9% ≥ 65 yrs or clinical factors* ≤ 6.9% < 65 yrs w/o clinical factors

Type 2 DM

A1c ≥ 2% above goal

Start Metformin

500mg tablet bid → 1 tablet bid → 2 tablets bid

Contraindicated: eGFR <30 or HbA1c 7% or LFTs >ULN

Start metformin: eGFR >40

Assessment risk/benefit: NO eGFR

If ≤ 100mg/d, continue every 2 weeks until titrated.

<65 yrs: 70-130; 7.5: 100-160

Add Metformin or NPH Insulin

Add Glipizide

SGLT2 Inhibitor

Add GLP-1 R Agonist

Type 2 DM

A1c ≥ 2% above goal

Start Metformin

500mg tablet bid → 2 tablets bid

Contraindicated: eGFR <30 or HbA1c 7% or LFTs >ULN

Start metformin: eGFR >40

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If ≤ 100mg/d, continue every 2 weeks until titrated.

<65 yrs: 70-130; 7.5: 100-160

Add Metformin

Diabetes Medications

- Oral
- Titans
- Non-formulary: brand copay

SGLT2 Inhibitor

- Oral
- >75 kg: brand copay

GLP-1 R Agonist

- Oral
- >75 kg: brand copay

Thiazolidinediones

- Oral
- >75 kg: brand copay

Add NPH Insulin

Add NPH Insulin or second line agent

≥ 13% above goal?

Established ASCVD, CHF, or CKD

No

Yes

SGLT2 inhibitor

- Oral
- >75 kg: brand copay

GLP-1 R Agonist

- Oral
- >75 kg: brand copay

Thiazolidinediones

- Oral
- >75 kg: brand copay

Add NPH Insulin or second line agent

NEW VERSION

A1c Goals ≤ 7.9% ≥ 65 yrs or clinical factors* ≤ 6.9% < 65 yrs w/o clinical factors

Type 2 DM

A1c ≥ 2% above goal

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500mg tablet bid → 1 tablet bid → 2 tablets bid

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- >75 kg: brand copay

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≥ 13% above goal?

Established ASCVD, CHF, or CKD

No

Yes

SGLT2 inhibitor

- Oral
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GLP-1 R Agonist

- Oral
- >75 kg: brand copay

Thiazolidinediones

- Oral
- >75 kg: brand copay

Add NPH Insulin or second line agent

SGLT2 inhibitor®

- Benefit in ASCVD, CHF, CKD
- Oral
- 0.7-1.1% ↓ A1c
- Wt: Avg 1-3 kg loss
- Risk: Genital yeast infections, DKA
- NF, brand co-pay

GLP-1 R Agonist®

- Benefit in ASCVD
- SQ Injection
- 0.7-1.5% ↓ A1c
- Wt: Avg 1-3 kg loss
- Risk: Nausea / vomiting
- NF, brand co-pay

*Clinical Atherosclerotic Cardiovascular Disease (ASCVD), e.g. CAD, TIA/CVA, Symptomatic PAD

**Individuals ≥ 65 yrs of age with hypoglycemia risk, duration of DM, life expectancy, co-morbidities, vascular complications, member resources and support system.

**Clinical Atherosclerotic Cardiovascular Disease (ASCVD), e.g. CAD, TIA/CVA, Symptomatic PAD

**Individuals ≥ 65 yrs of age with hypoglycemia risk, duration of DM, life expectancy, co-morbidities, vascular complications, member resources and support system.

**Interventions to manage disease release metformin: strongly consider a causal role in disease metformin.

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PHASE Updates 2018/2019

**Cholesterol/ Statins:**

- Reframe as ‘to prevent heart attack and stroke’ (not ‘for cholesterol’)
- NONFASTING lipid tests
- Separate ASCVD and DM populations
PHASE Updates 2018/2019

Aspirin:

- No change if ASCVD
- Primary prevention (including diabetics) - more caution overall about recommending
- Stop/don’t start for patients >70yo
## Cardiovascular Risk Management Medications and Lab Chart Rev. 28 (06/19)

### PHASE POPULATIONS

**CAD**
- Symptomatic PAD

**CVA/TIA**
- Ischemic:
  - ASA: If 10 CV risk > 10%
  - Ages 40-59: Consider ASA;
  - Ages 60-69: No rec. for/against ASA,
  - Age 70+: Stop if don’t start ASA.

### PHASE MEDICATIONS & CAUTIONS

**ACEI**
- Lisinopril
  - 10mg daily
  - CAUTION/NOTE: Verify effective contraception in women of childbearing potential. Use Chlorthalidone or HCTZ.
  - Use CEI with caution: eGFR < 60, K > 55

**ARB**
- Losartan (Cozaar®) F
  - 25, 50mg daily
  - 100mg daily or 30mg BID
  - 10mg daily

**Calcium Channel Blocker**
- Amlodipine (Norvasc®) F
  - 5, 10mg daily

**Potassium Sparng Diuretic**
- Spironolactone (Aldactone®) F
  - 25mg daily

**Beta 1 blocker**
- Bisoprolol (Zebeta®) F
  - 5, 10mg daily

### DM 2 (non-insulin agents)

**Biguanide**
- Metformin (Glucophage®) F
  - 500, 1000mg daily
  - 1000mg BID

**Sulfonylureas**
- Glipizide (Glucotrol®) F
  - 2.5, 5, 10mg daily

**Thiazolidinediones**
- Pioglitazone (Actos®) F
  - 15, 30, 45mg daily

**DPP-4 inhibitor**
- Linagliptin (Trajenta®) NF
  - 5 mg daily

**GLP-1 receptor agonists**
- Exenatide ER inj (Bydureon®) NF
  - 2mg weekly

**Statins**
- Atorvastatin (Lipitor®) F
  - 10, 20mg daily

**F: Formulary**
- *Do not routinely measure CK. Consider baseline CK if inc, risk for adverse muscle events (e.g. personal or family history of statin intolerance or muscle disease, clinical presentation, or concomitant drug therapy that might inc, the risk for myopathy).

<table>
<thead>
<tr>
<th>BP</th>
<th>Preferred Dosage Forms</th>
<th>Max. Rec. Dose</th>
<th>Optimal Titration Interval</th>
<th>Baseline Labs</th>
<th>Titration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACEI Inhibitor - Diuretic</strong></td>
<td>Tab 20/25mg TID</td>
<td>40/50mg daily</td>
<td>2 weeks</td>
<td>K+ and SCR &lt; 6 months (Na+ optional)</td>
<td>K+ and SCR 1 week after initiation or dosage change (Na+ optional)</td>
</tr>
<tr>
<td><strong>Thiazide Diuretics</strong></td>
<td>Tab 25mg</td>
<td>HCTZ 50mg daily</td>
<td>2 weeks</td>
<td>K+ and SCR &lt; 6 months (Na+ optional)</td>
<td>K+ and SCR 1 week after initiation or dosage change (Na+ optional)</td>
</tr>
<tr>
<td><strong>Chlorthalidone (Hygroton®) F</strong></td>
<td>Tab 25mg</td>
<td>25mg daily</td>
<td>2 weeks</td>
<td>K+ and SCR &lt; 6 months (Na+ optional)</td>
<td>K+ and SCR 1 week after initiation or dosage change (Na+ optional)</td>
</tr>
<tr>
<td><strong>ACE Inhibitor</strong></td>
<td>Tab 5, 10, 20mg</td>
<td>40mg daily</td>
<td>1 week</td>
<td>K+ and SCR &lt; 6 months</td>
<td>K+ and SCR 1 week after initiation</td>
</tr>
<tr>
<td><strong>ARB</strong></td>
<td>Tab 25, 50mg</td>
<td>100mg daily or 30mg BID</td>
<td>1 week</td>
<td>K+ and SCR &lt; 6 months</td>
<td>K+ and SCR 1 week after initiation</td>
</tr>
<tr>
<td><strong>Calcium Channel Blocker</strong></td>
<td>Tab 2.5, 5, 10mg</td>
<td>10mg daily</td>
<td>1 week</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>Potassium Sparng Diuretic</strong></td>
<td>Tab 25mg</td>
<td>25mg daily</td>
<td>1 week</td>
<td>K+ and SCR &lt; 1 month</td>
<td>K+ and SCR 1 week after initiation</td>
</tr>
<tr>
<td><strong>Beta 1 blocker</strong></td>
<td>Tab 5, 10mg</td>
<td>10mg daily</td>
<td>1 week</td>
<td>None</td>
<td>Maintain pulse &gt; 60</td>
</tr>
</tbody>
</table>

### DM 2 (non-insulin agents)

**Statins**
- Atorvastatin (Lipitor®) F
  - 10, 20mg daily

**F: Formulary**
- *Do not routinely measure CK. Consider baseline CK if inc, risk for adverse muscle events (e.g. personal or family history of statin intolerance or muscle disease, clinical presentation, or concomitant drug therapy that might inc, the risk for myopathy).
PHASE

Most important aspects for clinical benefit
PHASE: key aspects for benefit

- Identify patients at point of care, limit back sweep work
- Identify and standardize goals and meds across providers (POAP)
- Easy med escalation, usually generics
- Evidence based
- Enables providers at several levels (MA, nurse, PharmD, doctors) to intervene on patient’s behalf
PHASE: Operational workflows

Blood pressure:

- BP measurement excellence
- AOBP
- Same day med escalation
- Identify cohort, get high BPs back in for recheck
- Outreach plan, accountability
- Reports/tracking
PHASE: Operational workflows

Diabetes:

- Identify cohort and their specific needs (updated lab vs medication escalation)
- Someone accountable
- Offer diet, exercise, education to patients
- Clear medication escalation instructions
- Start insulin early, it is not a sign of failure
PHASE: Operational workflows

Cholesterol/ Statins:
- NONFASTING labs
- The doctor voice is powerful
- Reinforce medication adherence and give positive feedback at every encounter
- Myalgia – don’t stop the statin, change to a different statin
- Emphasize lifestyle and diet changes, ongoing
PHASE

What is next area of focus?
PHASE: Next focus areas

BP, Diabetes, Statins, Aspirin- Ongoing efforts:
- new modes of measurement
- keeping up with guideline changes

In addition:
- Disparities – HTN, DM. Identify and close the gap, Culturally inclusive messaging
- Medication adherence – reinforcement across the medical center
- Motivational interviewing – key at all levels
Thank you
PHASE discussion

Ronald Scott, MD
Family Medicine, KP West LA
KPSC CVD Co-Lead
KP National Integrated Cardiovascular Health (ICVH) Clinical Lead
KP National Cholesterol and Cardiovascular Risk Clinical Lead
Elements for Success

• Champion, network of champions.
• Know and try to align evidence, metrics, guideline and protocol.
• Simplified protocols. Minimize complexity and branchpoints.
• Data / feedback preferably unblinded. Sharing of best practices, performance improvement.

Key Operational Workflows:

• Hypertension – KP national to <140/90 end of 2017 (with ICVH consensus statement). Point of Care med changes, AOBP.
• DM – similar to KP Nor Cal.
Key Messages – align with Million Hearts

• Heart attacks and strokes are preventable, yet they remain leading causes of death and disability. Hits many middle age adults (age 50-64 years).

• “Screening, lifestyle, and medicines together can help you live a longer healthier life.”

• KPARE – Kaiser Permanente ASCVD Risk Estimator (ARisk) launch, Dec 2018.

• Statins – Agree with KPNC “to help prevent heart attack and stroke”, “to help keep arteries open” messages.
## Statin Impact, primary prevention

<table>
<thead>
<tr>
<th>Randomized Clinical Trial</th>
<th>ARisk</th>
<th>RRR</th>
<th>NNT</th>
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<tbody>
<tr>
<td><strong>MEGA</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Prava 10-20 mg, LDL -17%</td>
<td>5.1%</td>
<td>24%</td>
<td>82</td>
</tr>
<tr>
<td><strong>AFCAPS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lova 20-40 mg, LDL -27%</td>
<td>6.9%</td>
<td>26%</td>
<td>56</td>
</tr>
<tr>
<td><strong>JUPITER</strong></td>
<td></td>
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</tr>
<tr>
<td>Rosuva 20 mg, LDL -50%</td>
<td>7.6%</td>
<td>44%</td>
<td>25</td>
</tr>
<tr>
<td><strong>ACC Guideline</strong></td>
<td></td>
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</tr>
<tr>
<td>“High Intensity” LDL -50%</td>
<td>10%</td>
<td>45%</td>
<td>22</td>
</tr>
</tbody>
</table>
Preferred LDL lowering options

<table>
<thead>
<tr>
<th>Medicine</th>
<th>% LDL lower</th>
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<th>% LDL lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosuva 40 mg</td>
<td>63</td>
<td>Atorva 80 mg</td>
<td>53</td>
</tr>
<tr>
<td>Rosuva 20 mg</td>
<td>55</td>
<td>Atorva 40 mg</td>
<td>48</td>
</tr>
<tr>
<td>Rosuva 10 mg</td>
<td>47</td>
<td>Atorva 20 mg</td>
<td>41</td>
</tr>
<tr>
<td>Rosuva 5 mg 2x/week (Mon, Thurs) + ezetimibe</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rosuvastatin effective, inexpensive, great safety.
(For GFR <45, use atorvastatin)
Clinical ASCVD (age ≤75)
- Start rosvastatin 20 mg daily (R20), aim for ≥50% reduction in LDL levels.
- If LDL remains ≥70 mg/dL, consider ezetimibe.

LDL ≥190 (age 20-75)
- Start R20, aim for ≥50% reduction in LDL levels.
- If achieve <50% reduction, and/or LDL ≥100 mg/dL, consider ezetimibe.

DM (age 40-75)
- KPAR ≥7.5% and LDL ≥70, R20.
- KPAR <7.5% or LDL <70, R10.

By Risk (age 40-75, LDL 70-189)
- KPAR ≥10%, R20
- 7.5-9.9%, consider R20.
- 5-7.4%, consider discussing R10.

As age to ≥76 years, shift to consider statin. For GFR <45 use atorvastatin.

Over 60% increase in high-intensity statin use 2009 – 2015. Reynolds et al, ACC, March 2017
Learn / improve at multiple levels. Seek out member convenient synergy.

- Individual physician level, Module leader level, Regional level (13 medical centers KPSC), KP National Level – Learn from other KP Regions
- Working outside KP, researchers – share and learn, keep improving care.
- Seek synergy, example: 65+ yo male former smoker AAA screening → No AAA, but find aortic atherosclerosis → promote statin use and adherence.
Questions?
Engaging Patients as Active Partners

Tuesday, June 11
8:30 a.m. – 4 p.m.
Hilton Oakland Airport


Please complete the post-session feedback form!