

Utilizing Clinical Practice Guidelines in the On-Demand Age

Brian Cryder, PharmD BCACP CACP

Midwestern University, Chicago College of Pharmacy

Advocate Medical Group

Daniel Majerczyk, PharmD BCPS BC-ADM CACP

Roosevelt University College of Pharmacy

Loyola Medicine at MacNeal Hospital



The speakers have no actual or potential conflict of interest in relation to this activity



Learning Objectives for Pharmacists

1. Describe the role and evolution of clinical practice guidelines in health care.
2. Identify and develop methods that pharmacists can use to stay up to date with changing clinical practice guidelines
3. Apply strategies integrating timely updates of clinical information to the American Diabetes Association Standards of Medical Care.



History of Clinical Practice Guidelines

- Evolution of CPG development
 - Consensus groups
 - Living guidelines
 - “rapid recommendations” BMJ
- Role of CPG in contemporary practice
- The ADA example
- Institutional and individual best practices for keeping current



What Kind of Guideline Reader are You?

High Tech Tessa



Old School Ollie



What Is a Guideline Wayne



Don't Have Time Dave



Passive Pam



How do you stay up to date with new medical information?



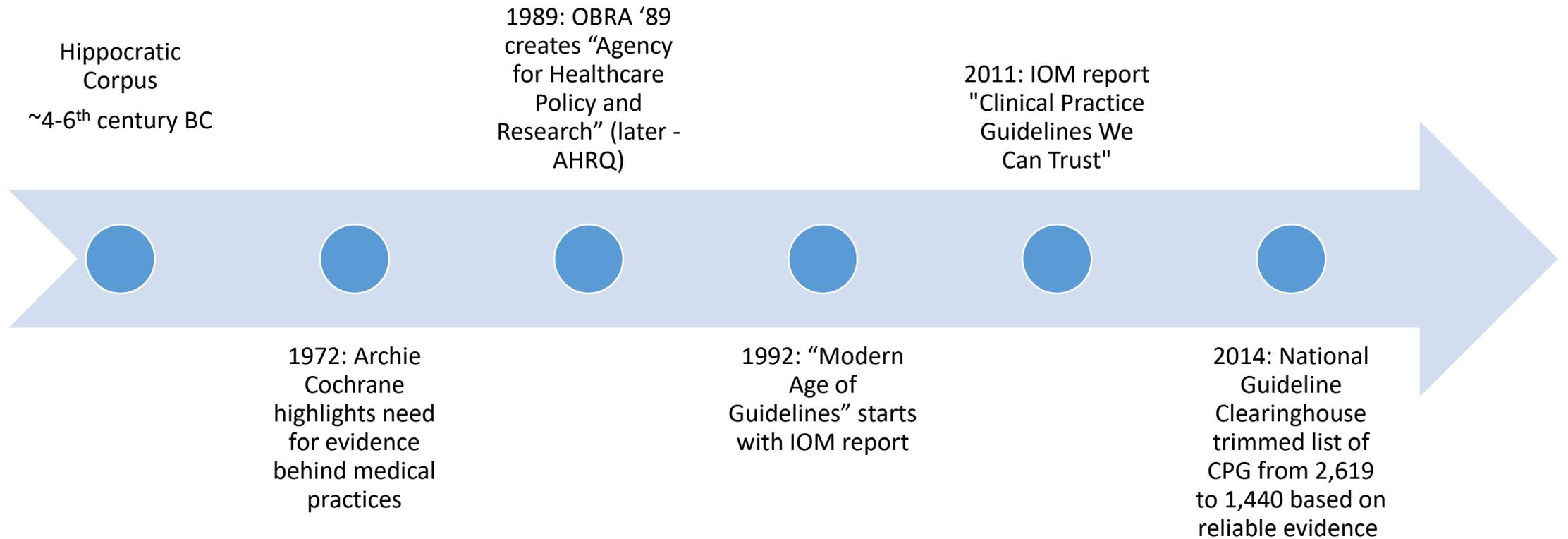
“Seat belts clearly save lives — *but only if you buckle them....* Like seat belts {clinical practice guidelines} can greatly improve patient safety, clinical outcomes, and the cost of care — *but only if the physicians access them.*”

-Peter Edelstein MD

<https://www.elsevier.com/connect/why-arent-all-physicians-using-clinical-practice-guidelines>



History of Guidelines



1992 Institute of Medicine Report

- Defined guidelines as:
 - “systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances”
- Encouraged shift in decision making rationale
 - Traditionally: “intuition, unsystematic clinical experience”
 - New endorsement: “scientific, clinically relevant research”
- Embraced by many organizations and practitioners
 - Main criticism: “research does not represent real life”
- 1996: Sackett, et al. proposed “evidence based clinical decision making”
 - Model that combines both clinical expertise and research evidence



2011: Clinical Guidelines We Can Trust

- Acknowledged the rapidly growing body of medical knowledge
- Endorsed clinical practice guidelines as the best way to empower clinicians with updated information in medical decision making
- Established standards for "Trustworthy" clinical guidelines
- Separated clinical practice guidelines from:
 - Expert advise
 - Consensus statements
 - Appropriate use criteria



2011: Clinical Guidelines We Can Trust

- To be trustworthy, guidelines should:
 - be based on a systematic review of the existing evidence
 - be developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups
 - consider important patient subgroups and patient preferences, as appropriate
 - be based on an explicit and transparent process that minimizes distortions, biases, and conflicts of interest
 - provide a clear explanation of the logical relationships between alternative care options and health outcomes, and provide ratings of both the quality of evidence and the strength of the recommendations
 - be reconsidered and revised as appropriate when important new evidence warrants modifications of recommendations



How Clinical Practice Guidelines are Made

Image removed due to copyright. Refer to citation: Anderson JL. Evolution of the ACC/AHA Clinical Practice Guidelines in perspective. JACC 2015; 65 (25): 2735-8.

<http://www.onlinejacc.org/content/accj/65/25/2735.full.pdf>



Traditional Guideline Creation Process

Strengths

- Comprehensive in scope
- Utilizes a qualified team of experts in the field
- Widely disseminated by sponsoring organization

Weaknesses

- 50% of guidelines are out of date in less than 6 years
- Time and resource intensive to create

Shekelle, PG, Ortiz, E, Rhodes, S. Validity of the Agency for Healthcare Research and Quality clinical practice guidelines: how quickly do guidelines become outdated? JAMA. 2001;286:1461-1467.



Living Guidelines



- Utilizes "base guideline" as starting point
- Adds timely, targeted updates when new, relevant evidence becomes available
- ADA example:
 - 2018 Standards of Care Professional Practice Committee finished guideline development early December 2017
 - Semaglutide approved in type 2 diabetes 12/5/17
 - Consensus report on clinically meaningful outcome measures in type 1 diabetes published in December *Diabetes Care*
 - Both items too late for guideline review and guideline inclusion, but could be "living updates"



Living Standards of Medical Care in Diabetes

Please scroll to the bottom of this screen for information on viewing the Living Standards of Care annotations

Updates to the *Standards of Medical Care in Diabetes*

[Jump to:](#)

[July 31, 2019 Updates](#) (Liraglutide labeling change, Tamborlane et al., REWIND, Battelino et al.)

[June 3, 2019 Updates](#) (CREDENCE and CANVAS Trials)

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updates

Base Guideline



BMJ: Rapid Recommendation Project

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<https://www.bmj.com/rapid-recommendations>



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- A collaborative network of clinicians, patients, researchers and methodologists have demonstrated how new potentially practice-changing evidence can be synthesized into globally published systematic reviews, trustworthy guidelines, evidence summaries and decision aids with a 90 day target, also for new health technologies.
- “Together we created infographics with links to evidence summaries, recommendations, and consultation decision aids”.



How Do Clinicians Use Clinical Practice Guidelines

- General Principles:

1. Data shows that many clinicians across all disciplines practice largely based on recommendations that they learned from school
2. The more complex the guideline the lower the utilization
 - Fact sheets and executive summaries aid utilization
3. Clinicians tend to focus almost exclusively on guidelines within a specialty
 - May create a conflict in care with patients treated for multiple comorbidities
4. Clinical Practice Guidelines and Insurance Based Quality Measures may or may not align



Barriers to Integrating New Guidelines in Practice

- Size and scope of guidelines
- "unlearning" outdated practices
- Conflicting information in guidelines from different organizations
 - In same medical condition or multiple comorbidities
- Guidelines not intended to be "one size fits all"
 - Best practice versus treatment algorithm
- Distrust of "expert" opinions
- Greater priority of personal experience over consensus guideline
- Lack of incentives to stay up to date with recommendations



What is your experience with CPG?

- Among the group of people around you
 - What are the most important guidelines to your practice?
 - How do you find current clinical practice guidelines?
 - What barriers get in the way of your ability to implement guidelines in your practice?



ADA 2019 Standards of Medical Care in Diabetes

The ADA develops and disseminates diabetes care standards, guidelines, and related documents for > 25 years

Updated annually;
each January

Incorporate new data
with significant impact
on patient health,
care, and outcomes



ADA 2019 Standards of Medical Care in Diabetes

The recommendations emerge from evidence-based research on the diagnosis and treatment of children and adults with:

- [Type 1 diabetes](#)
- [Type 2 diabetes](#)
- [Gestational diabetes](#)

Includes strategies to prevent or delay type 2 diabetes, and therapeutic approaches for reducing type 2 diabetes related complications



ADA 2019 Standards of Medical Care in Diabetes

Standards of Care

- Intended to provide:
 - Clinicians
 - Patients
 - Researchers
 - Payers
 - Other interested individuals
- With the components of diabetes care, general treatment goals, and tools to evaluate the quality of care



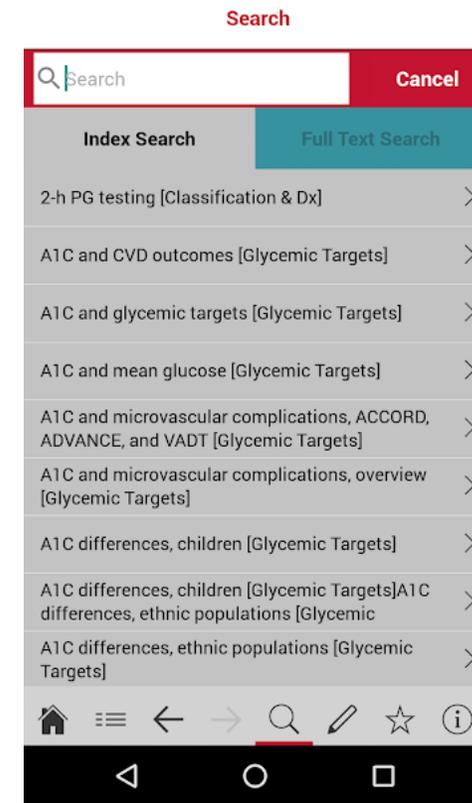
ADA 2019 Standards of Medical Care in Diabetes

To improve access

- Standards of Care is available through ADA's new interactive app
 - Tools
 - Calculators
 - To download the app, please visit:
 - <https://professional.diabetes.org/content-page/standards-care-app-1>
- Readers who wish to comment on the 2019 Standards of Care are invited to do so at professional.diabetes.org/SOC



ADA 2019 Standards of Medical Care in Diabetes



ADA 2019 Standards of Medical Care in Diabetes

An online version of the Standards of Care

- Called the "Living" Standards of Care
 - Continues to be updated in real time throughout 2019 in light of any new evidence or regulatory changes that merit immediate incorporation



When and How are These Updates Made?

Updates are made in response to important events:

- Approval of new treatments (medications or devices) with the potential to impact patient care
- Publication of new findings that support a change to a recommendation and/or evidence level of a recommendation
- Publication of a consensus document endorsed by ADA that necessitates an update of the Standards to align content of the documents



When and How are These Updated Made?

The updating process allows the online version (and downloadable PDF) to be updated and revised throughout the year

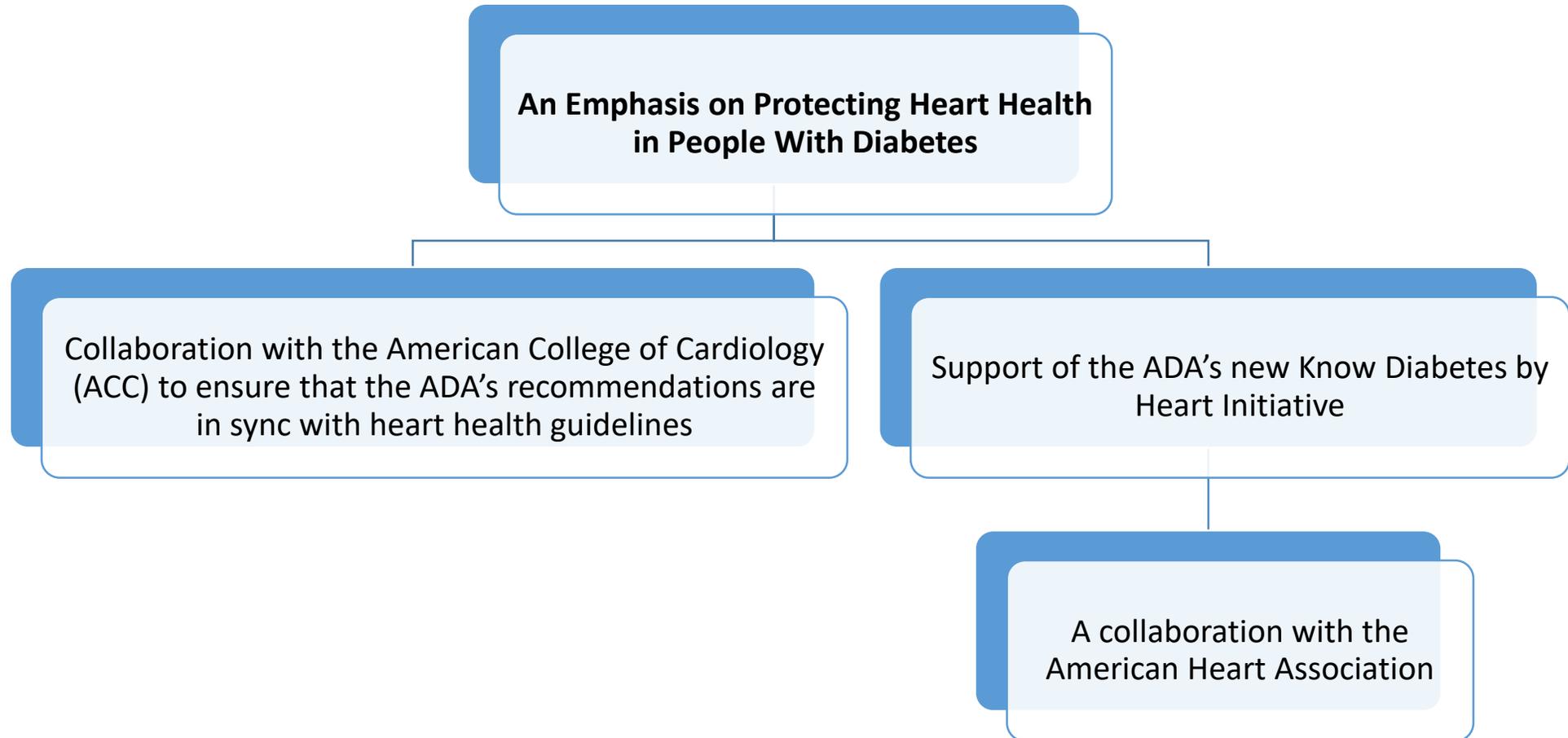
- How?
 - By adding annotations to the Standards of Care
 - For each “living” Standards update
 - ADA notifies providers and stakeholders through various communication channels (emails, websites, social media, etc.)
 - Revises all materials to be consistent with living Standards of Care updates



What Updates from the 2019 ADA Guidelines do you Remember?



An Overview of the Main Update of the 2019 ADA Standards of Care



An Overview of the Main Update of the 2019 ADA Standards of Care

These efforts are meant to reduce
deaths from cardiovascular disease

- Leading cause of death for people living with diabetes
- People with type 2 diabetes are twice as likely to die of heart disease as people without the disease



An Overview of the Main Update of the 2019 ADA Standards of Care

The guidelines update the recommendations on which drugs most benefit people who have both diabetes and cardiovascular disease

Sodium-glucose cotransporter 2 (SGLT-2) inhibitors

Glucagon-like peptide 1 (GLP-1) receptor agonists



An Overview of the Main Update of the 2019 ADA Standards of Care

Section 9. Pharmacologic Approaches to Glycemic Treatment

- Significant changes includes consideration of key patient factors:
 - ***Important comorbidities such as ASCVD***
 - ***Chronic kidney disease***
 - ***Heart failure***

Patients who need the greater efficacy of an injectable medication

- A glucagon-like peptide 1 receptor agonist should be the first choice, ahead of insulin



An Overview of the Main Update of the 2019 ADA Standards of Care



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The Standards of Medical Care in Diabetes has been updated—July 31, 2019



An Overview of the Main Update of the 2019 ADA Standards of Care

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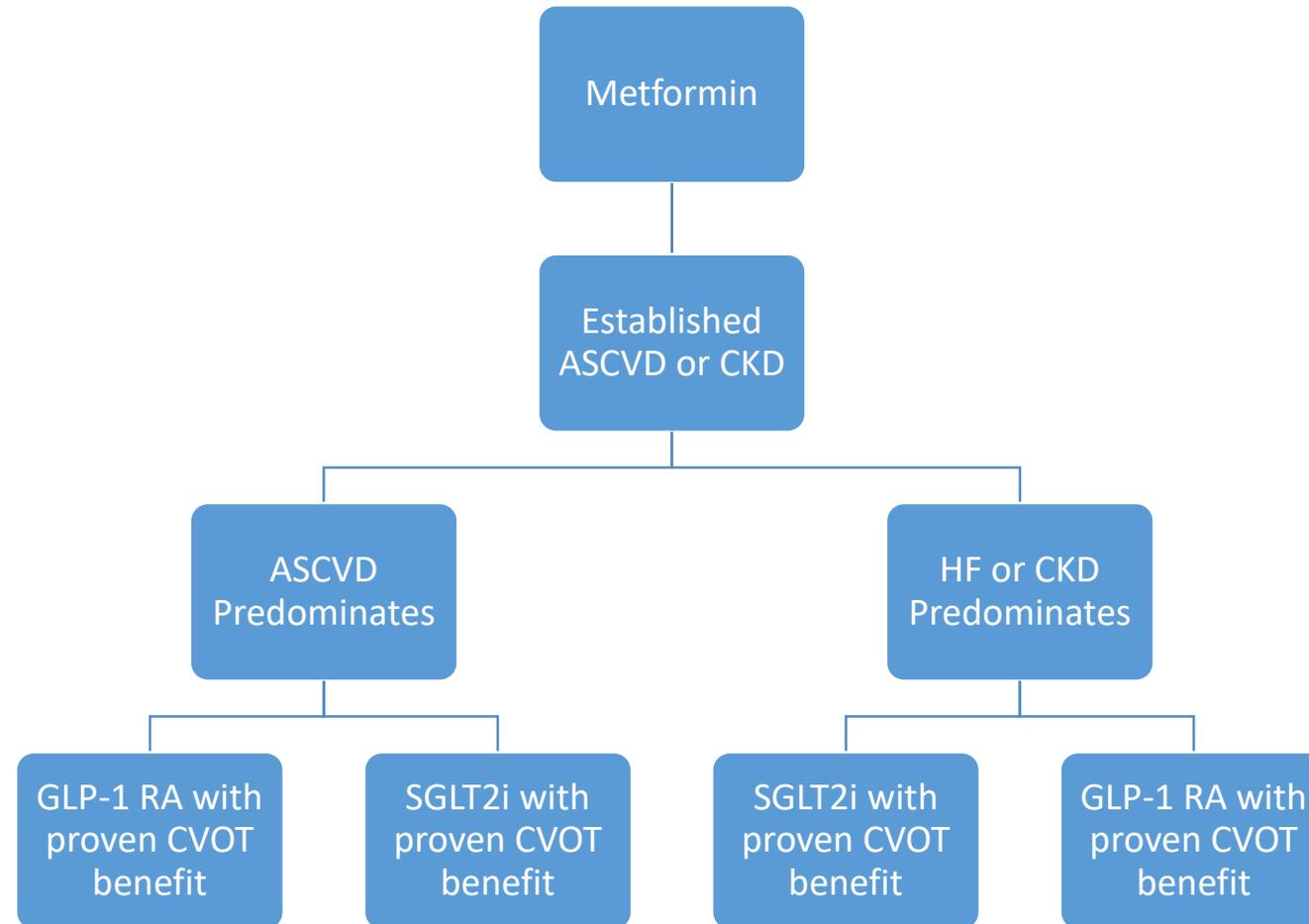


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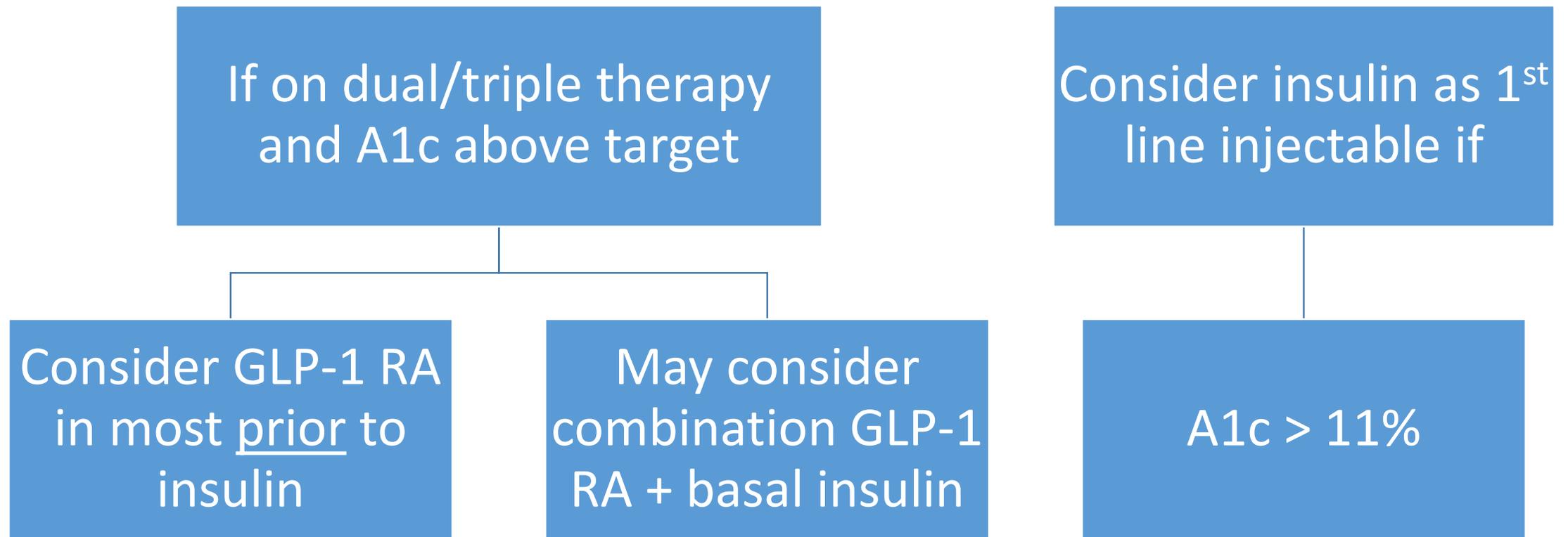
The screenshot displays the American Diabetes Association's website. At the top, there is a navigation bar with 'More from ADA' and 'AmerDiabetesAssn'. The main header features the ADA logo and the text 'Diabetes Care'. Below this is a navigation menu with 'Home', 'Current' (highlighted with a red triangle), 'Browse', 'Info', 'Reprints/Reuse', and 'Advertising'. A 'Submit' button is also visible. The main content area is titled 'Table of Contents' and includes a 'Previous' link and the text 'January 01 2019; volume 42 issue Supplement 1'. The 'Introduction' section is highlighted. On the right side, there is an 'Annotations' sidebar with two entries from 'AmerDiabetesAssn'. The first entry, dated 'Apr 22', contains the text: 'This supplement contains updated information as of July 31, 2019. The ADA updates and revises the online version of the Standards of Care throughout the year, making necessary additions and annotations as new evidence and regulatory changes merit immediate incorporation. The annotated Standards of Medical Care are referred to as the "living" Standards. Read more about the living Standards of Care. Read about the methodology behind the living Standards.' The second entry, dated 'Apr 18', is partially visible with the text '5 Lifestyle Management: Standards of Medical Care in'.



An Overview of the Main Update of the 2019 ADA Standards of Care



An Overview of the Main Update of the 2019 ADA Standards of Care



2018 Updates (2018 updates incorporated into the 2019 Standards of Care)

Empagliflozin Cardiovascular Outcome Event Trial in Type 2 Diabetes Mellitus Patients – (EMPA-REG OUTCOME) Trial

- empagliflozin treatment showed:
 - Reduction major adverse cardiovascular events (MACE)



2018 Updates (2018 updates incorporated into the 2019 Standards of Care)

Liraglutide and Cardiovascular Outcomes in Type 2 Diabetes (LEADER) Trial

- liraglutide treatment showed:
 - Reduction major adverse cardiovascular events (MACE)

Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes (SUSTAIN 6) Trial

- semaglutide treatment showed:
 - Reduction major adverse cardiovascular events (MACE)

Effects of Once-Weekly Exenatide on Cardiovascular Outcomes in Type 2 Diabetes (EXSCEL) Trial

- exenatide treatment showed:
 - Non-inferior to placebo



March 27, 2019 Update (DECLARE-TIMI 5)

Dapagliflozin Effect on Cardiovascular Events- Thrombosis in Myocardial Infarction 58 (DECLARE-TIMI 58) Trial

- dapagliflozin treatment showed:
 - Reduction major adverse cardiovascular events (MACE)
 - Reduction in progression of chronic kidney disease (CKD)



June 3, 2019 Update (CREDESCENCE and CANVAS Trials)

Canagliflozin and Renal Outcomes in Type 2 Diabetes and Nephropathy (CREDESCENCE) Trial

- canagliflozin treatment showed:
 - Reduction major adverse cardiovascular events (MACE)
 - Reduction in progression of chronic kidney disease (CKD)



July 31, 2019 Update (Liraglutide labeling change,
Tamborlane et al., REWIND, Battelino et al.

If glycemic targets are no longer met
with metformin ± basal insulin

- liraglutide therapy should be considered in children 10 years or older
- If no history or family history of medullary thyroid carcinoma or MEN2



Strategies to Stay Up to Date

- How do you plan to keep up to date with clinical practice guidelines?



Possible Solutions - System

- Scheduled training
 - Monthly guideline update review
- Incentives
 - Connections with CE
 - Financial/Billing
- Create clinical decision support algorithms
 - Integration into EHR
 - Coordinated with P&T committee roles
- Utilizing students and/or residents
- Subscribe to services disseminating updates
 - Many in electronic formats



Possible Solutions - Personal

- Subscribe to technology generated updates
 - TOC from journals of interest
 - Apps such as Guideline Central and Medpage Today
 - Be selective in how many you choose to avoid overload
- Utilize resources from your professional organizations
 - Webinars such as Champions Programming
 - Live programming from local affiliates or annual meeting
- Utilize your colleagues from other specialties or disciplines



Tips from NEJM for Guideline Review

- “Keep up with guideline changes and where to focus”
 - Digest in smaller chunks frequently rather than massive amounts less often for better ongoing learning
 - Start with executive summary to guide where to focus more in-depth review
 - Prioritize sections with higher evidence ratings and greater degree of benefit over lower quality evidence and less potential benefit

<https://knowledgeplus.nejm.org/blog/abim-boards-keep-up-with-guidelines/>



Application

- Among the group of people around you:
 - Based on your current practice setting – what systematic methods would be helpful to enhance what is already in place?
 - Based on your current personal habits – what other tools or methods could be utilized to help keep up to date?



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Self-Assessment

Learning objective 1: Describe the role and evolution of clinical practice guidelines in health care.

1. The traditional procedure of creating clinical practice guidelines:
 - a. Is a highly efficient and rapid process
 - b. Involves a comprehensive review of the available literature
 - c. Produces a document that remains up to date for >6 years in most cases
 - d. Is currently endorsed by all medical specialty organizations

2. Which of the following is TRUE about current clinician use of clinical practice guidelines?
 - a. Complexity of the information does not impact clinician guideline utilization
 - b. Organizations (such as the ADA and AACE) ensure agreement of their recommendations across guidelines to prevent conflicting information for clinicians
 - c. Clinicians tend to focus on guidelines within their specialty rather than staying up to date across a broad range of topics
 - d. The Institute of Medicine monitors clinician utilization of clinical practice guidelines

Learning objective 2: Identify and develop methods that pharmacists can use to stay up to date with changing clinical practice guidelines.

3. When developing methods to stay up to date with clinical practice guidelines
 - a. Pharmacists benefit from both individual and systematic methods of staying current
 - b. Pharmacists should look to their managers to develop programs to avoid need for individual methods of staying current
 - c. Pharmacists learn best from comprehensive annual updates rather than systematic ongoing updates
 - d. Pharmacists learn very differently from other health care providers so we cannot use similar methods of staying current

Learning objective 3: Apply strategies integrating timely updates of clinical information to the American Diabetes Association Standards of Medical Care.

4. The ADA 2019 Standards of Medical Care in Diabetes are referred to as the "Living" Standards of Care; this implies that
 - a. They are updated in real time in light of any new evidence or regulatory changes that merit immediate incorporation
 - b. They are to be updated only annually in light of any new evidence or regulatory changes that merit immediate incorporation
 - c. They are to be updated semi-annually in light of any new evidence or regulatory changes that merit immediate incorporation
 - d. They are to be updated every two years in light of any new evidence or regulatory changes that merit immediate incorporation

Answer Key: 1. B; 2. C; 3. A; 4. A