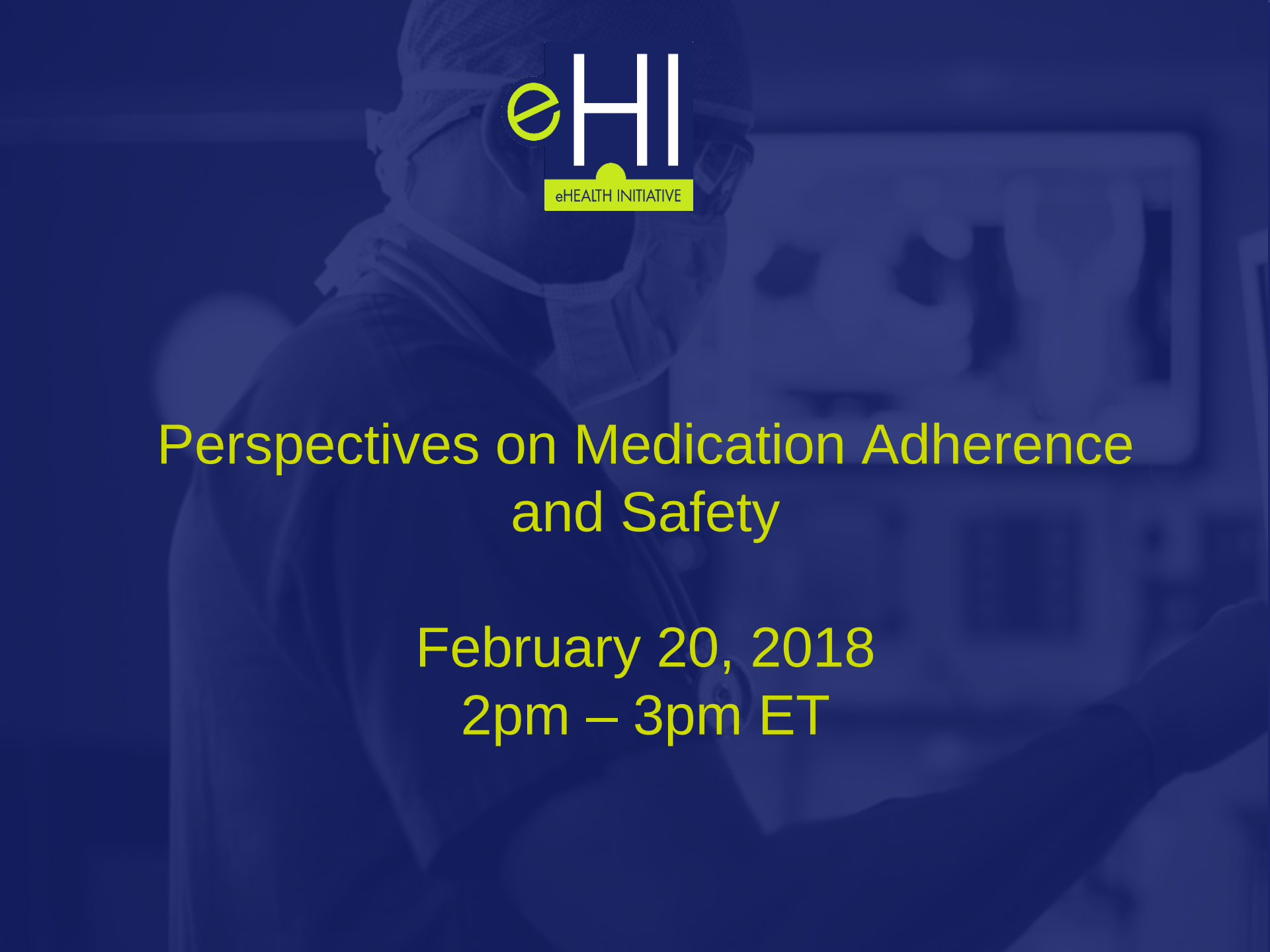


Perspectives on Medication Adherence and Safety

February 20, 2018
2pm – 3pm ET

Agenda

Welcome and Overview of eMAC

- **Jennifer Covich Bordenick**, CEO, eHealth Initiative

Discussion & Comments

- **Rick Ratliff, President and Chief Commercial Officer, ConnectiveRx**
- **Tim Arnold**, Senior Strategist, Advocate Cerner Collaborative, Cerner Corporation
- **Mike Fitzgibbons**, Vice President, Pharmacy STARs, UnitedHealthcare Medicare & Retirement

Q&A

Rick Ratliff
President & Chief Commercial Officer
ConnectiveRX

Mike Fitzgibbons
Vice President, Pharmacy STARS
UnitedHealthcare Medicare & Retirement

Tim Arnold
Senior Strategist, Advocate Cerner Collaborative
Cerner Corporation

Housekeeping Issues

- All participants are muted
  - To ask a question or make a comment, please submit via the Q&A feature and we will address as many as possible after the presentations.
- Technical difficulties:
  - Use the chat box and we will respond as soon as possible
- Questions:
  - Use Q&A feature
- Today's slides will be available for download on eHI's Resource page **www.ehidc.org/resources**

Our Mission

eHealth Initiative's mission is to serve as the industry leader convening executives from multi-stakeholder groups to identify best practices to transform healthcare through use of technology and innovation. eHI conducts, research, education and advocacy activities to support the transformation of healthcare.

Multi-stakeholder Leaders in Every Sector of Healthcare

eHealth Resource Center Available With Best Practices & Findings

Best Practice Committees contribute to the eHealth Resource Center **www.ehidc.org/resources** which provides assistance, education and information to organizations transforming healthcare through the use of information, technology and innovation. The Resource Center is a compilation of reports, presentations, survey results, best practices and case studies from the last 16 years.

Convening Executives To Research & Identify Best Practices

Best Practice Committees Identify & Disseminate Success Stories

VALUE & REIMBURSEMENT

TECHNOLOGY & ANALYTICS

WORKFLOW & PATIENT EXPERIENCE

This webinar was made possible through the generosity and support of Cerner, ConnectiveRX, and UnitedHealthcare!

Electronic Medication Adherence Collaborative (eMAC)

Why eMAC?

- Poor medication adherence costs the healthcare system nearly $300 billion a year and takes the lives of 125,000 Americans annually
- Solving medication adherences issues would have a significant impact on downstream costs and improve outcomes for patients
- Current medication adherence initiatives are siloed and narrowly focused
- Pharmacies, clinicians, payers, pharmaceutical companies and EHR vendors are spending money on adherence programs, but unsure of their effectiveness
- Many of these silo efforts are disjointed and lack a multi-disciplinary approach
- A forum is need to share information about efforts and coordinate across the spectrum of healthcare stakeholders

eMAC Participants

- American College of Physicians
- American Health Information Management Association (AHIMA)
- American Heart Association
- American Public Health Association (APHA)
- Anthem
- Bristol-Myers Squibb
- Care Angel
- Cerner
- Children's Hospital of Philadelphia (CHOP)
- ConnectiveRX
- CRISP
- Eli Lilly and Company
- HIMSS
- Gordon and Betty Moore Foundation
- Health Employer Exchange
- Institute for Genome Sciences and Policy, Duke University
- Johns Hopkins Adherence Research Center (JHARC)
- Johnson & Johnson
- Merck & Co.
- National Alliance Healthcare Purchaser Coalition
- National Coalition on Healthcare
- National Community Pharmacists Association
- National Institute of Mental Health
- Nebraska Health Information Initiative (NeHII)
- Network Pharmacy Programs, Community Care of North Carolina, Inc., Community Care North Carolina
- NIMH Division of AIDS Research
- PatientBond
- Pharmacy HIT Collaborative
- Point-of-Care Partners, LLC
- PremierDNA
- Prescriptions for Healthy America (P4HA)
- PwC
- Rush University Medical Center
- Smart & Connected Health, Directorate for Computers & Information Systems, National Science Foundation
- Surescripts
- United Healthcare
- University of North Carolina Eshelman School of Pharmacy
- University of Pennsylvania
- Walgreens

Launch of eMAC

In 2017 eHI launched a multi-stakeholder Electronic Medication Adherence Collaborative (eMAC) to create a forum for data transparencies to encourage stakeholders to work more closely together, and ensure EHR vendors have systems to ensure the data flows.

eMAC Charter

- Outline the key points of data which are spread across the industry
- Outline actions which could be taken to share this data more effectively between stakeholders
- Share best practice examples from the different analytical and behavioral approaches to educate different stakeholders on the insights available
- Share information on the effectiveness of programs.
- Release consensus based industry and policy recommendations
- Recommendations will be publicly disseminated for general and professional audiences

Approach: Behavioral and Analytical

- Behavioral:
  - Programs focusing on counseling at the pharmacy point, motivational interviewing techniques, or exploring barriers patient face
- Analytic approaches focus on:
  - Access to quality data
  - Permission to share the data
  - Interoperability
  - Provider's ability to make use of the data analytics

Rick Ratliff

President and Chief Commercial Officer,
ConnectiveRx

eMAC September 19, 2017 Roundtable

- High level analysis of barriers to medication adherence
- Review of current tools to track adherence
- Discussion on emerging best practices and studies
- Consensus around a need for a medication adherence vital sign to drive the patient conversation

eMAC December 12, 2017 Roundtable

- Considered adherence as a quality measure – FICO score for adherence
- Continued review of barriers to adherence including social and behavior determinants
- Discussion on driving improved collaboration across points of care and use of technology
- Concluded with revisiting the need for a vital sign for medication adherence

Medication Adherence

Benefits – Barriers – Contributors

Mike Fitzgibbons
Vice President, Pharmacy STARs
UnitedHealthcare Medicare & Retirement

UnitedHealthcare
MEDICARE & RETIREMENT

Medication Adherence Benefits

UnitedHealthcare
MEDICARE & RETIREMENT

Medication Adherence is defined by the World Health Organization as "The degree to which a person's behavior corresponds with the agreed recommendation from a health care provider. Poor adherence can result in serious health consequences"

An estimated third to one-half of all patients in the U.S. do not take their medications as prescribed by their doctors.

New England Healthcare Institute. (2009). Thinking Outside the Pillbox: A System-Wide Approach to Improving Patient Medication Adherence for Chronic Disease.

Reductions in hospitalizations and emergency department visits are key drivers of declining health costs associated with improved medication adherence.

M. Christopher Roebuck, et al.(2011). Medication Adherence Leads to Lower Health Care Use And Costs Despite Increased Drug Spending. Health Affairs 30, No.1, 91-99.

Adherence to prescribed medications is associated with improved clinical outcomes for chronic disease management and reduced mortality from chronic conditions

Vrijens B, De Geest S, Hughes DA, et al.; ABC Project Team. A new taxonomy for describing and defining adherence to medications. Br J Clin Pharmacol 2012;73:691–705. https://doi.org/10.1111/j.1365-2125.2012.04167.x

Common Barriers to Adherence

UnitedHealthcare
MEDICARE & RETIREMENT

Patients exhibit non-adherence for various reasons. Each patient has individual reasons for not taking their medications regularly which include:

- **Forgetfulness (to take medications daily)**
- **Health Literacy**
- **Cost**
- **Tardiness in timely re-filling prescriptions**
- **Side Effects**

Contributors to Improving Adherence

UnitedHealthcare MEDICARE & RETIREMENT

Physicians

Caregivers

Pharmacists

Health Plan Coordination

- Improving adherence is a continual process of changing behavior.
- Medication adherence has to be reinforced regularly to ensure behavior is matching therapy instruction.
- Monitoring and measuring adherence is complex and is reliant on pharmacy claims.
- Creating visibility to non-adherence is key to driving timely, local patient engagement.

Medication Adherence as a Vital Sign

Advocate Cerner Collaborative

Tim Arnold, Manager, Cerner Corporation

Advocate Health Care

Cerner

February 20, 2018

eMAC Webinar

Characteristics of a “Vital Sign”

- Key indicator of health
- Measurable
- Widely understood (consistent definition across settings)
- Easily interpreted
- Actionable

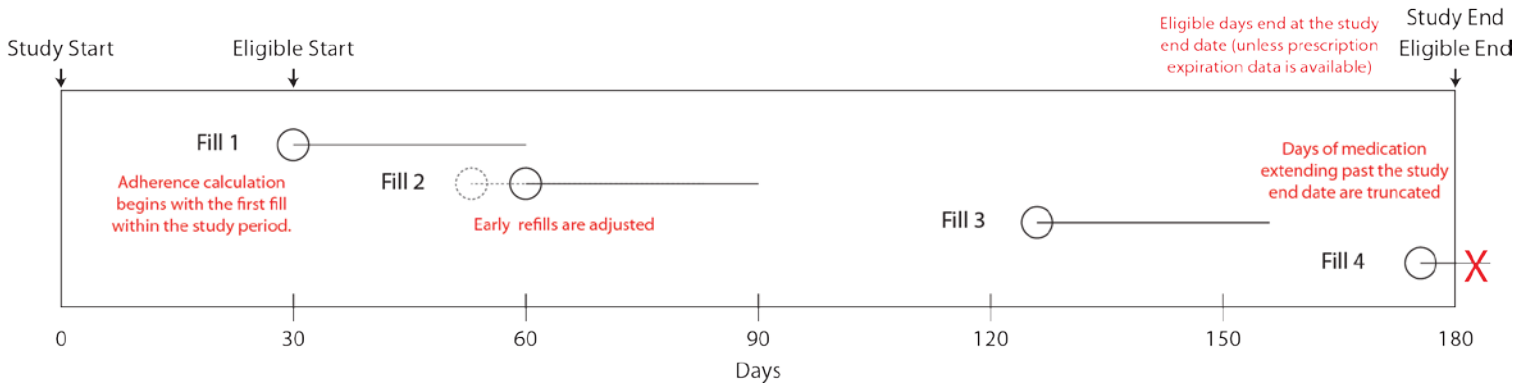
Why make Med Adherence a “Vital Sign”?

- Poor medication adherence is well-documented as a significant factor to poor health outcomes
- It can be measured
- It is actionable

Challenges

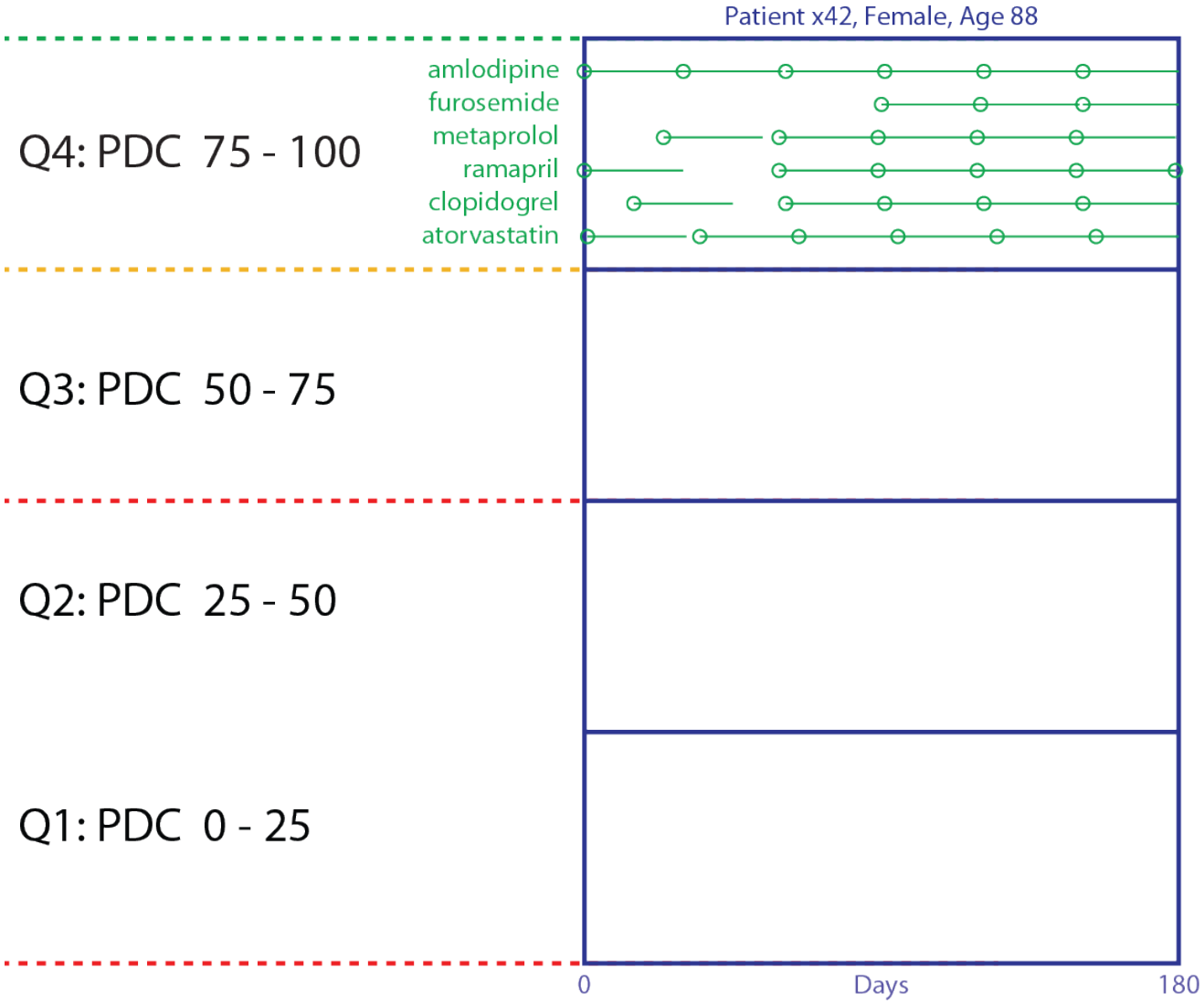
- Not easy to measure
  - Objective data is difficult to collect
  - Self reporting is inconsistent
- Not easily interpreted
- Appropriate actions might not be self-evident

One Approach: Claims-based

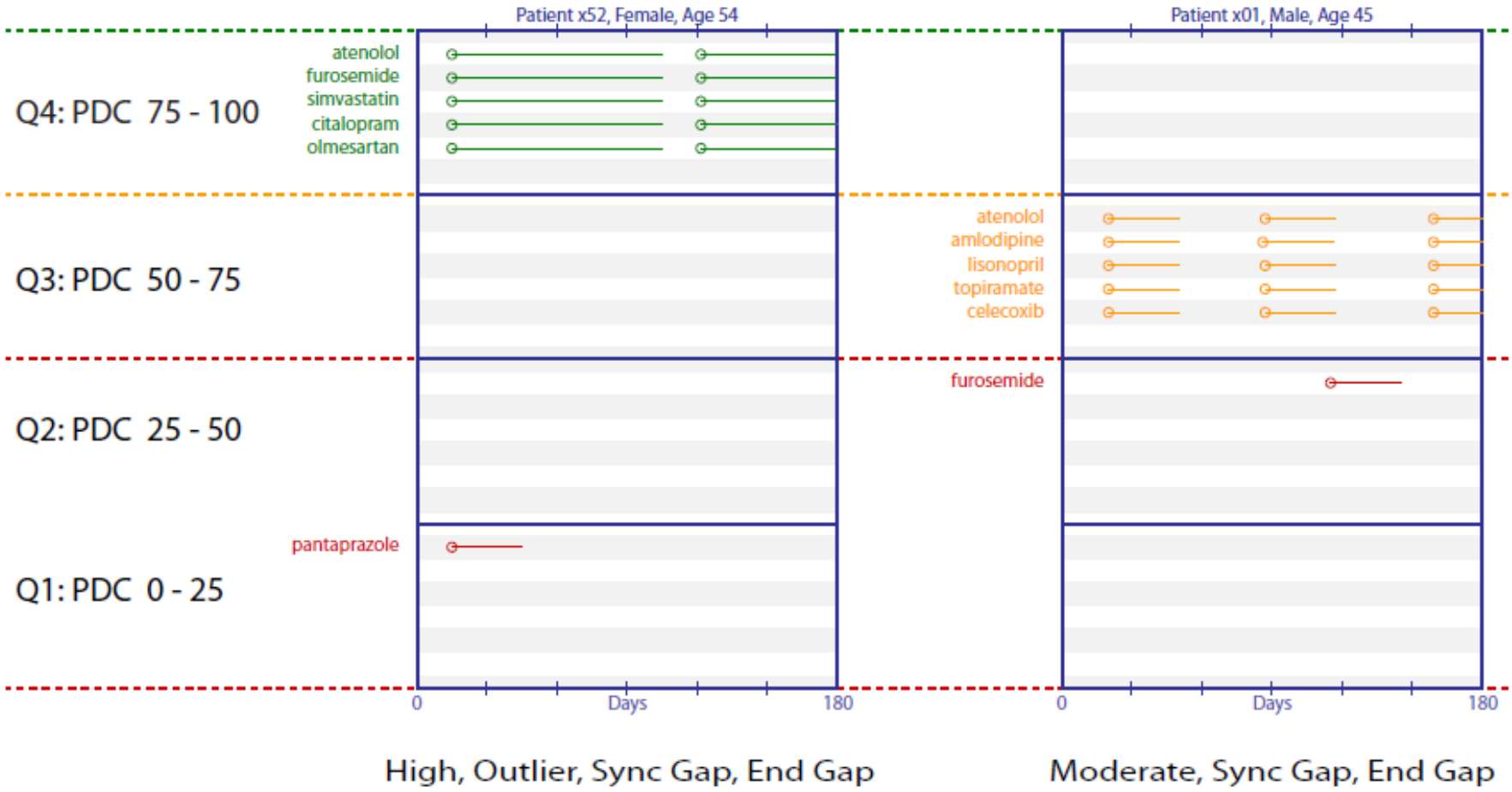


- Claims-based medication adherence measures are based on how often medication was available to the patient during a given period of time
- Percentage of Days Covered (PDC) is the most widely accepted method.
- 80% is widely used as the adherence threshold.

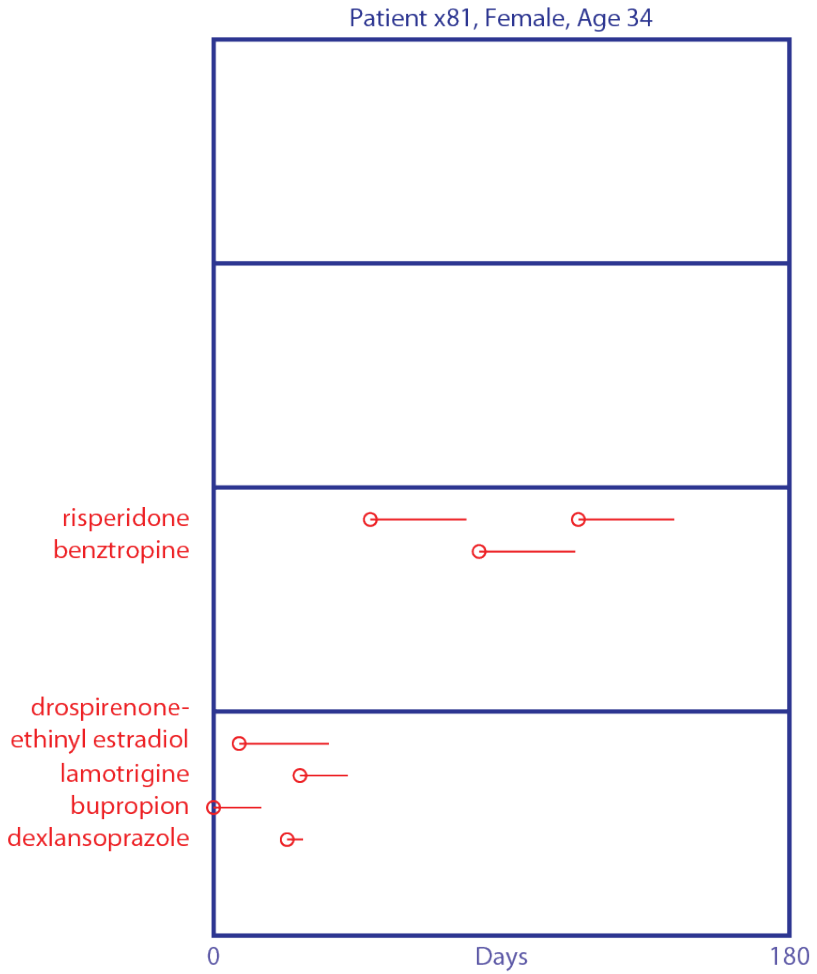
Adherence Pattern Graphics



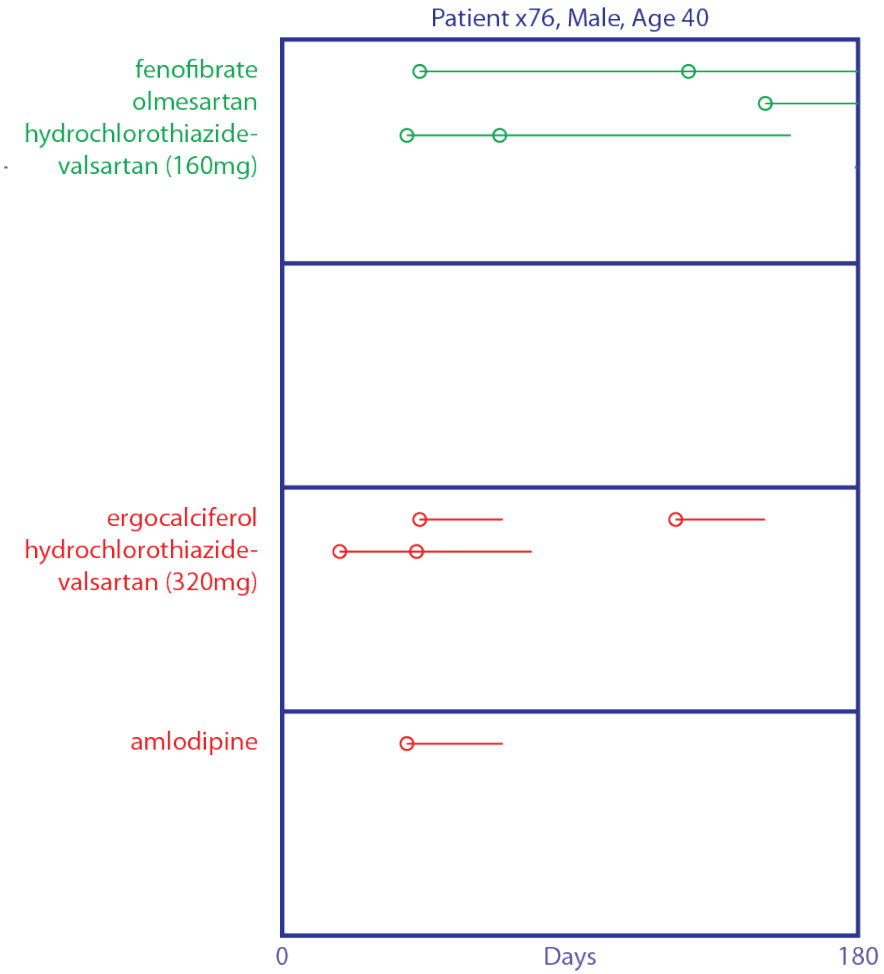
Adherence Pattern Graphics



Adherence Pattern Graphics



Low, End Gap



Mixed, End Gap

Label Distributions

	Total		Outlier		Overpossession		End Gap		Sync Gap	
High	26,373	(53.5)	1,449	(5.5)	951	(3.6)	2,185	(8.3)	765	(2.9)
Moderate	4,384	(8.9)	35	(0.8)	5	(0.1)	1,442	(32.9)	225	(5.1)
Low	5,706	(11.6)	187	(3.3)	0	(0.0)	5,009	(87.8)	58	(1.0)
Mixed	12,843	(26.0)	NA		251	(2.0)	9,851	(76.7)	984	(7.7)
Total	49,306	(100.0)	1,671	(3.4)	1,207	(2.4)	18,487	(37.5)	2,032	(4.1)

- Among patients with average PDC score between 50-75, a mixed pattern is 3 times more likely than consistent moderate adherence
- Moderate pattern is usually due to temporary gaps
- Low pattern is usually due to non-persistence, including the low end of the mixed pattern

Where do we go from here?

- Literature points to using multiple approaches for the best results. Is that feasible?
- Med Adherence is extremely important in some circumstances but less so in others
- Standard definitions and interpretations are critical but are closely connected to the data collection methodology

Q&A

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Thank You!