Best Practices for eMeasure Implementation

Breakout Session #2:
Implementation in Office-Based Practice Settings

Track Leaders:
Kendra Hanley
John Maese, MD
Michael Mirro, MD

April 26, 2012

NATIONAL QUALITY FORUM

eMeasure Learning Collaborative: What Are We All About?

- Public initiative convened by the NQF to bring together diverse stakeholders from across the quality enterprise.
- Promote shared learning across key eMeasure stakeholders including understanding of major drivers and barriers.
- Advance knowledge and best practices related to the development and implementation of eMeasures.
- Project consisting of interactive webinars and in-person meetings – spearheaded by Collaborative members and focused on array of relevant topics, tools, and resources.

eMeasure Collaborative Deliverables

1. Identification of current best practices (repeatable models)
2. Identification of gap areas
3. Development of recommendations for the future (to expand use of best practices and to address gap areas)

April 26th In-Person Collaborative Meeting
Best Practices for eMeasure Implementation

Four Questions for the Collaborative to Answer

1. ***What are best practices examples*** related to the development and implementation of eMeasures?

2. ***What are the mechanisms to enhance data and workflow capability?***

3. ***What are the recommendations*** for future use of health IT and standards to enable performance measurement?

4. ***How can we "rethink"*** **what we are looking for?**

Breakout Session Objectives

- Share vignettes and current experience on how office-based practice settings are managing eMeasurement today
- Recognize current methods, challenges and opportunities for eMeasure implementation in the office-based practice setting
- Identify best practices for eMeasure implementation in office-based settings
- Develop recommendations to drive eMeasure implementation forward

Breakout Session Agenda
10:45am – 2:00pm with working lunch

- 10:45 – 11:15am
- 11:15 – 11:35am
- 11:35 – 11:55am
- 11:55am – 12:15pm
- 12:15 to 2:00pm
- 2:00pm
- 2:00 – 2:30pm
- 2:30pm

- Presentation of use example(s) or vignette(s)
- Group discussion of presentation(s)
- Begin response to vignette questions
- **Break: Lunch distributed, restrooms, phone calls**
- Working lunch, continue group discussion, vignette questions
- Summarize key points for report out
- Breakout session ends
- **Break**
- Large group re-convenes

Use Examples for eMeasure Implementation in Office-Based Practices

- Lehigh Valley Physician Group
  Allentown, Pennsylvania

- Parkview Physicians Group – Cardiology
  Fort Wayne, Indiana

Lehigh Valley Physician Group
Allentown, PA

Implementation in a Small Practice

MaryAnne K. Peifer, MD, MSIS

Associate Medical Director, Clinical Informatics

Lehigh Valley Physician Group (LVPG)

- Lehigh Valley Physician Group (LVPG) is an integral part of Lehigh Valley Health Network (LVHN), a large academic community health system in Allentown Pa, dedicated to patient care, research and education whose mission is to heal, comfort and care for members of its community.

- LVPG is comprised of 750 physician and mid-level providers in 39 specialties.

What We Did

- Quality and Operational Metrics Distributed Routinely
  - Consistent data acquisition - EHRS/GUI - and reports
  - Up-to-date information readily available
  - Standard permissions/access- practice manager
- CMS Certified Registry
- Group/Practice Dashboards Available to All
  - Transparent
  - Broaden the conversation
  - Use consistent information routinely

What We Learned

- Data Naturally Collected in the Context of Care is Easiest
  - Data in, data out
  - Challenges: exclusions, documenting negatives, operational measures – access
- Choose Measures People Care About and Care About the People Using the Information
  - Enable detailed review- the best QA
  - Encourage and respond to feedback
  - Quality measures based upon populations defined by governing bodies
    - » Registries including entire population
    - » Add important operational information- last visit, next visit…
  - Group measures based upon consensus
    - » Acknowledge and enable differences
- Payment Follows Practice Initiatives
- Transparency and Consistency Are Key

Parkview Physicians Group Cardiology
Fort Wayne, IN

Monitoring Performance in Atrial Fibrillation Management Using PINNACLE Registry

Michael J. Mirro, MD, FACC

Medical Director Parkview Research Center

Electrophysiologist, Parkview Physicians Group Cardiology

Parkview Health and Parkview Physicians Group (PPG)

- **Parkview Health**
  Parkview Health is a not-for-profit health system and is northeast Indiana's largest healthcare provider, serving a population of more than 820,000. Parkview is also one of the region's largest employers, with more than 7,500 employees. Parkview Health is comprised of eight hospitals, including its newest, the Parkview Regional Medical Center, which is a nine-story hospital that includes a 446-bed and multiple specialty centers, including heart, cancer, women's and children's health, and orthopedics.

- **Parkview Physicians Group (PPG)**
  Parkview Physicians Group is a multi-disciplinary group of primary care providers and physician specialists that was formed to expand access to healthcare in northeast Indiana and northwest Ohio. PPG is a physician-led and physician-governed division of Parkview Health. Since 2009, PPG has been aligning with physicians who have similar expertise and goals, allowing PPG to provide enhanced and more cost-effective quality care through the shared efficiencies of a larger practice. PPG has grown to include more than 70 locations and has over 300 providers.

PARKVIEW PHYSICIANS GROUP CARDIOLOGY

PARKVIEW RESEARCH CENTER

Michael Mirro, MD : Disclosures

- Past-Chair : ACC Informatics Committee
- Member : ACC-NCDR Management Board
- Chair : HRS Informatics Work Group
- Member : HRS Health Policy and Quality Committee
- Co-Chair : CCHIT Advanced Quality Work Group
- National Quality Forum : Member HIT Expert Panel
- Indiana Health Informatics Corp : Board Member
- Consultant : McKesson
- Consultant : ZOLL
- Consultant : St Jude Medical
- Advisory Board : iRhythm
- Speaker Panel : Sanofi
- MIE : past Board Member

NCDR Platform: Extensive Quality Data for Hospital-Based Cardiovascular Procedures (PCI, Action, ICD, Care)

PINNACLE : Quality Data for outpatient management of:

1) CAD
2) Hypertension
3) Atrial fibrillation
4) CHF

Why should PPG Cardiology participate in PINNACLE registry?

1. Measure and document quality of care for ourselves, patients, referring doctors, employer/health system and payers
2. PPG Cardiology Incentive Plan
    a) Participation in PINNACLE demonstrates a commitment to quality
    b) Achieve uniform care consistent with guidelines
3. Identify areas for improvement
4. Provide a clinical decision support tool

Parkview Physicians Group - Cardiology

Established in 1979 as Fort Wayne Cardiology

- 23 Board-Certified Cardiologists
- 5 Board-Certified Electrophysiologists
- 10 Interventional Cardiologists
- 3 Nurse Practitioners
- 1 Internist
- Electronic Health Record in 1999

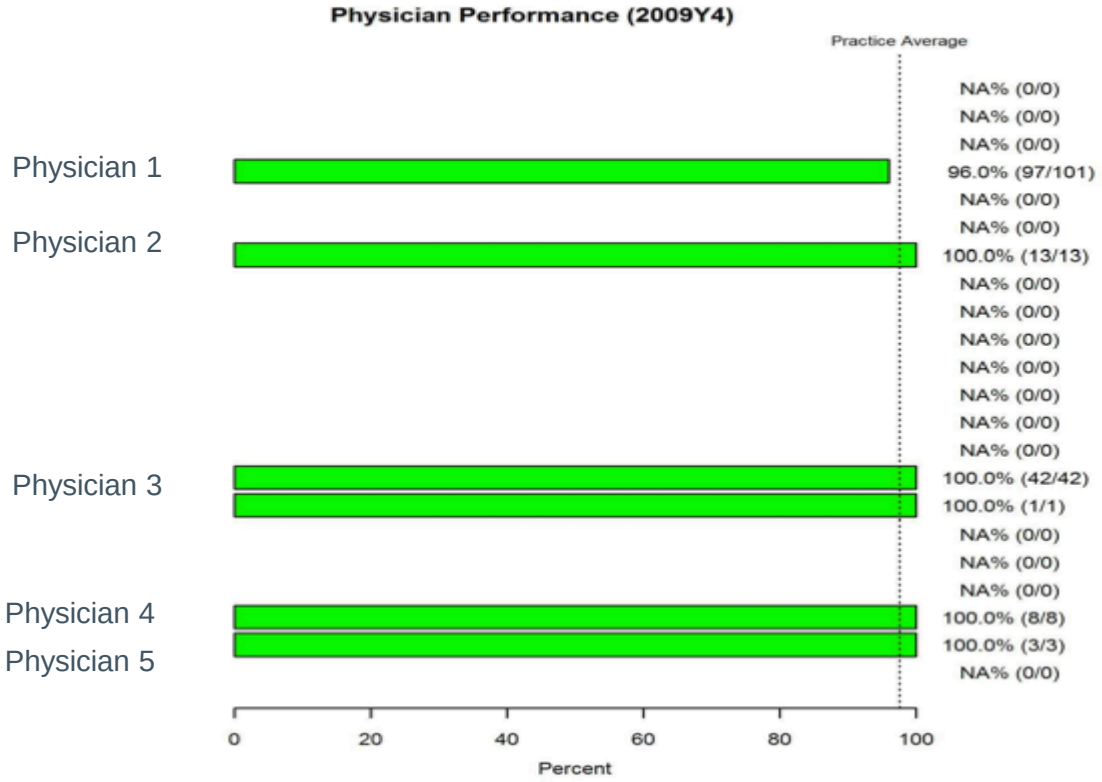

PARKVIEW | HEART INSTITUTE
10

- Pilot group 5 physicians (PPG Cardiology Quality Committee)
- 1st enrolled patient 2nd quarter 2009
- Rollout to all PPG Cardiology physicians 2011 (limited to patients in Allen County, exclude outlying clinics)

PINNACLE Registry™
Practice-Level Executive Summary Report
Fort Wayne Cardiology (592981)
2009Q4

PINN-54: Chronic Anticoagulation Therapy (ACC/AHA)

Prescription of warfarin for all patients with nonvalvular AF or atrial flutter at high risk for thromboembolism, according to risk stratification and 2006 guideline recommendations



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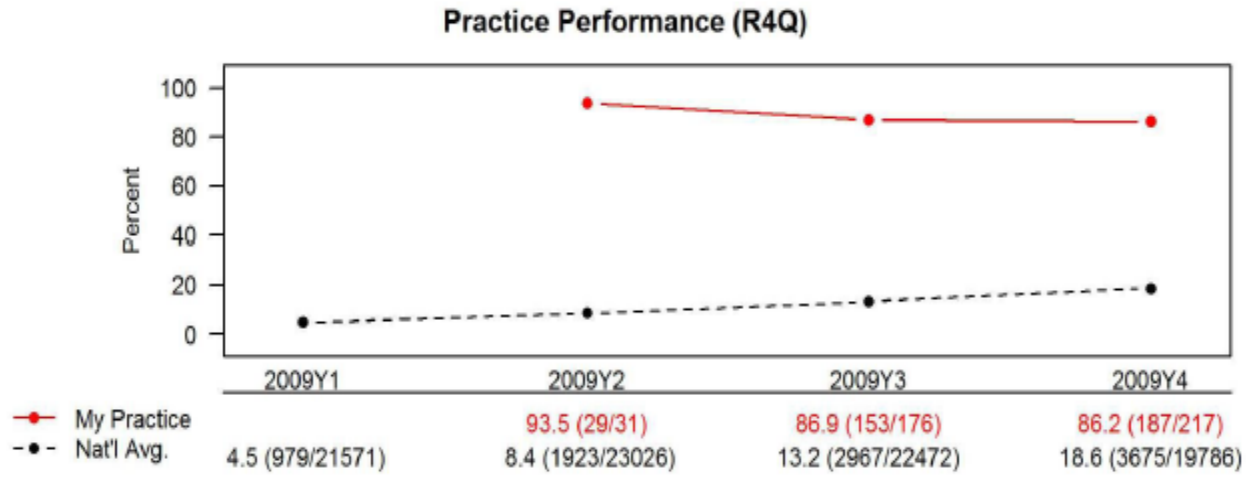
Patients with nonvalvular AF or atrial flutter in whom assessment of thromboembolic risk factors has been documented



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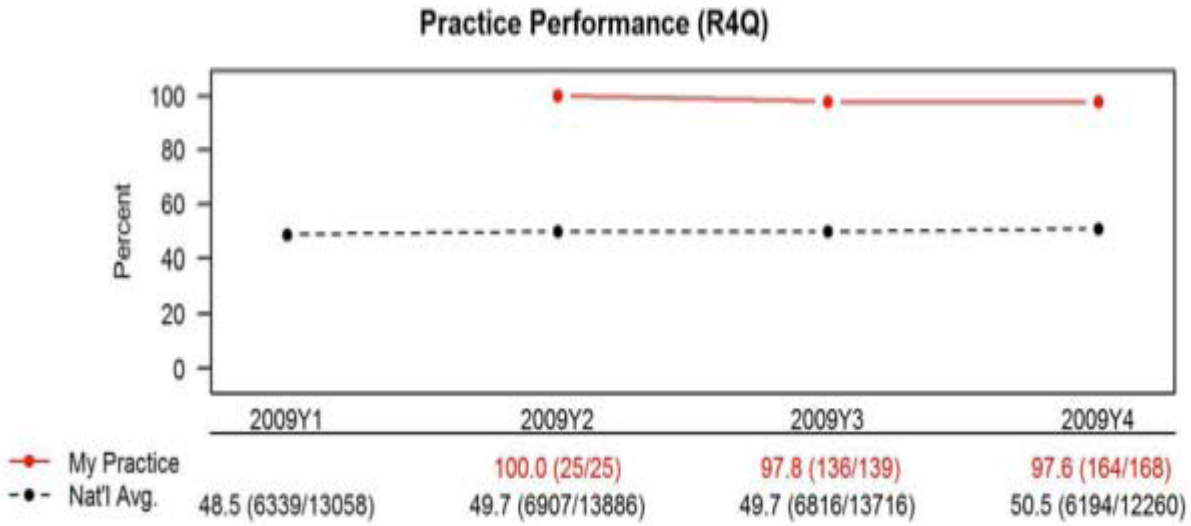
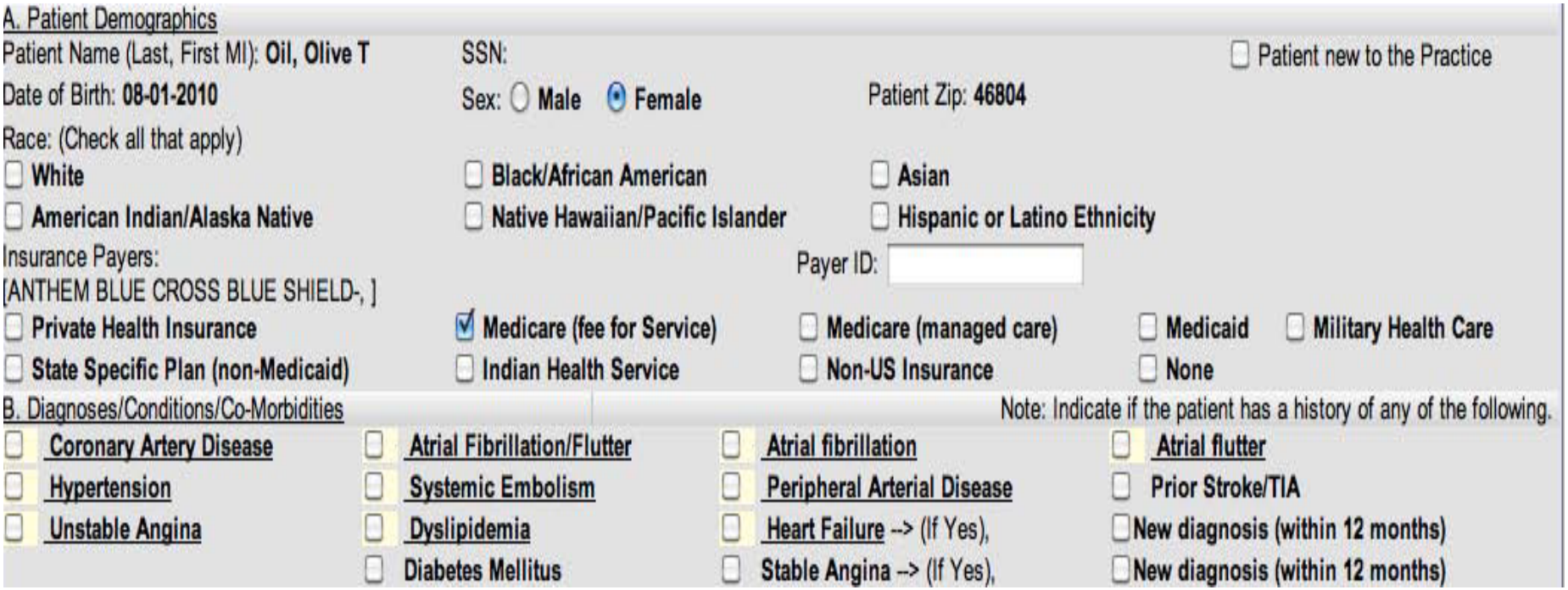




A. Patient Demographics

Patient Name (Last, First MI): **Oil, Olive T** SSN: ☐ Patient new to the Practice

Date of Birth: **08-01-2010** Sex: ○ **Male** ◉ **Female** Patient Zip: **46804**

Race: (Check all that apply)

☐ **White** ☐ **Black/African American** ☐ **Asian**

☐ **American Indian/Alaska Native** ☐ **Native Hawaiian/Pacific Islander** ☐ **Hispanic or Latino Ethnicity**

Insurance Payers: Payer ID:

[ANTHEM BLUE CROSS BLUE SHIELD-,]

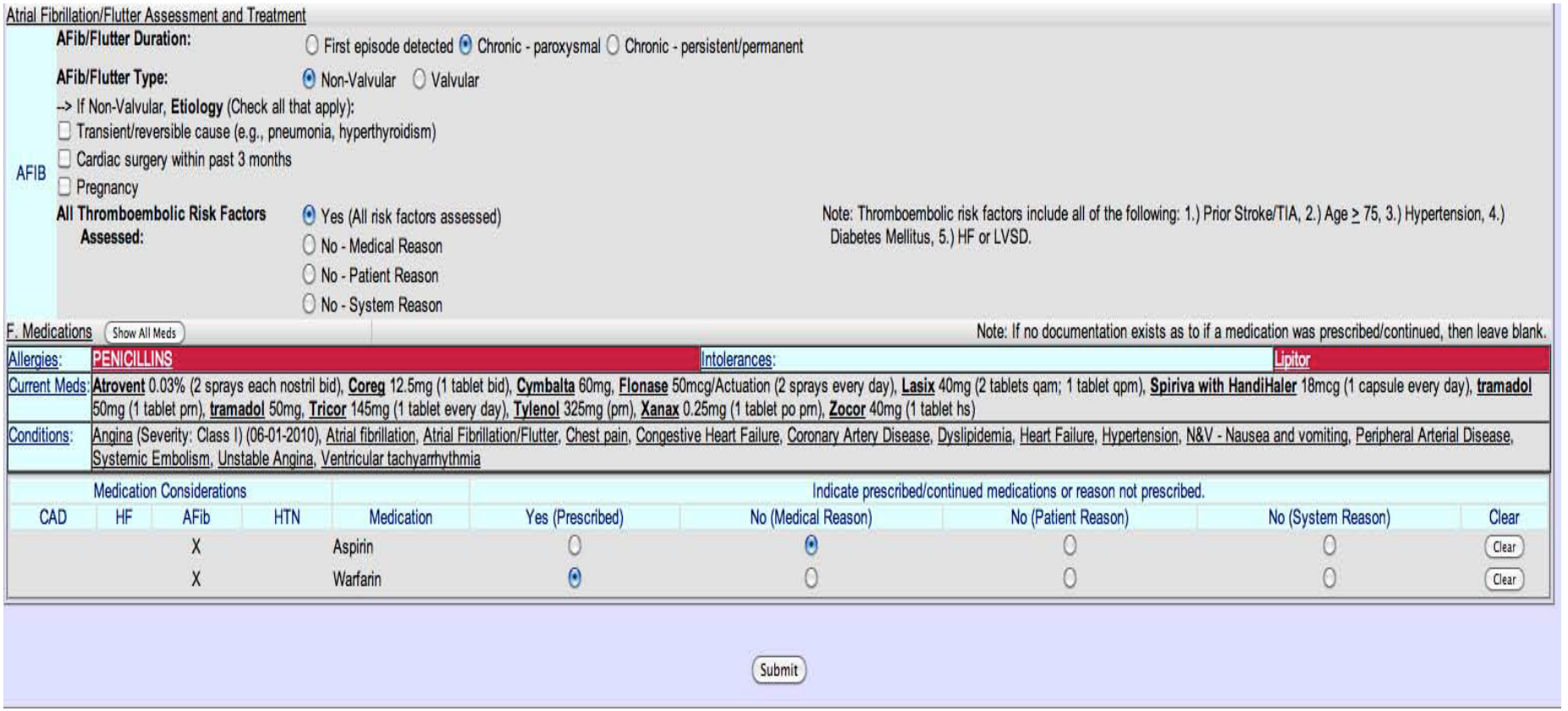
☐ **Private Health Insurance** ☑ **Medicare (fee for Service)** ☐ **Medicare (managed care)** ☐ **Medicaid** ☐ **Military Health Care**

☐ **State Specific Plan (non-Medicaid)** ☐ **Indian Health Service** ☐ **Non-US Insurance** ☐ **None**

B. Diagnoses/Conditions/Co-Morbidities

Note: Indicate if the patient has a history of any of the following.

☐ Coronary Artery Disease	☐ Atrial Fibrillation/Flutter	☐ Atrial fibrillation	☐ Atrial flutter
☐ Hypertension	☐ Systemic Embolism	☐ Peripheral Arterial Disease	☐ Prior Stroke/TIA
☐ Unstable Angina	☐ Dyslipidemia	☐ Heart Failure --> (If Yes),	☐ New diagnosis (within 12 months)
	☐ Diabetes Mellitus	☐ Stable Angina --> (If Yes),	☐ New diagnosis (within 12 months)



Atrial Fibrillation/Flutter Assessment and Treatment

AFIB

AFib/Flutter Duration: ○ First episode detected ◉ Chronic - paroxysmal ○ Chronic - persistent/permanent

AFib/Flutter Type: ◉ Non-Valvular ○ Valvular

--> If Non-Valvular, **Etiology** (Check all that apply):

☐ Transient/reversible cause (e.g., pneumonia, hyperthyroidism)

☐ Cardiac surgery within past 3 months

☐ Pregnancy

All Thromboembolic Risk Factors Assessed: ◉ Yes (All risk factors assessed) ○ No - Medical Reason ○ No - Patient Reason ○ No - System Reason

Note: Thromboembolic risk factors include all of the following: 1.) Prior Stroke/TIA, 2.) Age ≥ 75, 3.) Hypertension, 4.) Diabetes Mellitus, 5.) HF or LVSD.

F. Medications [Show All Meds]

Note: If no documentation exists as to if a medication was prescribed/continued, then leave blank.

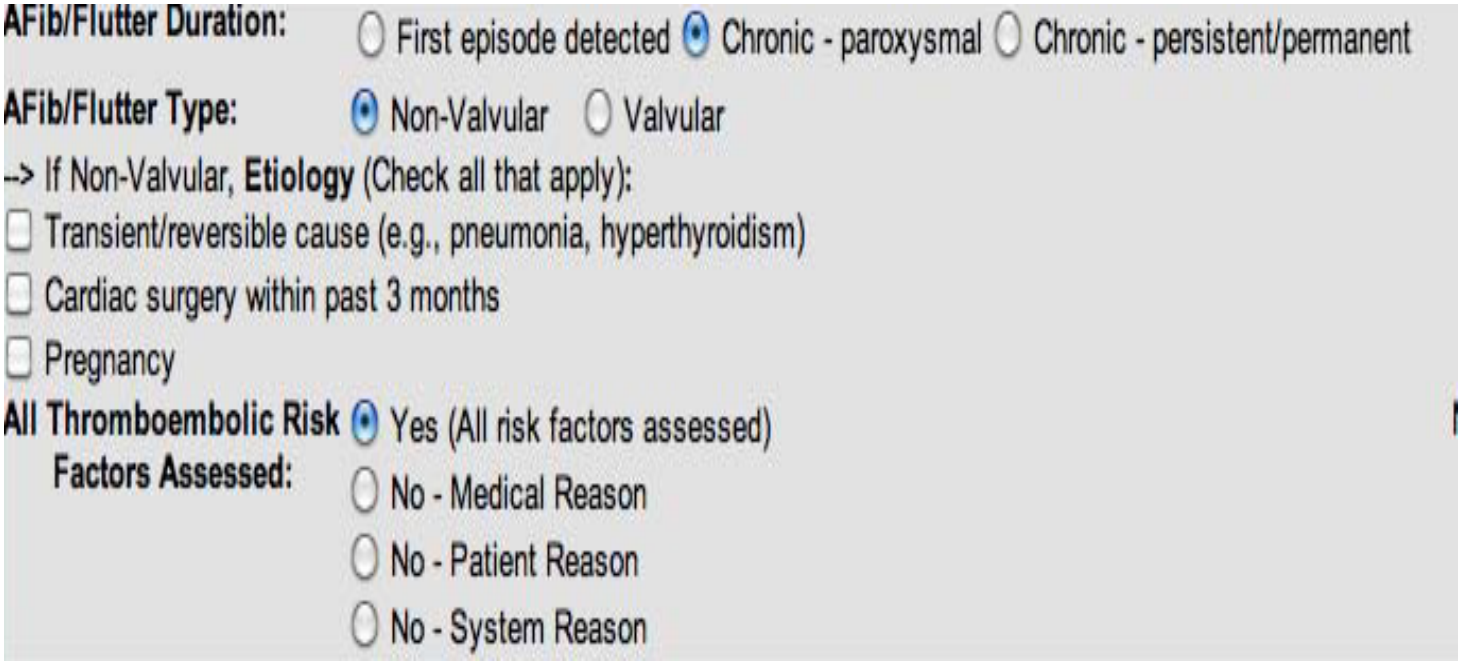
Allergies:	PENICILLINS	Intolerances:	Lipitor

Current Meds: **Atrovent** 0.03% (2 sprays each nostril bid), **Coreg** 12.5mg (1 tablet bid), **Cymbalta** 60mg, **Flonase** 50mcg/Actuation (2 sprays every day), **Lasix** 40mg (2 tablets qam; 1 tablet qpm), **Spiriva with HandiHaler** 18mcg (1 capsule every day), **tramadol** 50mg (1 tablet prn), **tramadol** 50mg, **Tricor** 145mg (1 tablet every day), **Tylenol** 325mg (prn), **Xanax** 0.25mg (1 tablet po prn), **Zocor** 40mg (1 tablet hs)

Conditions: Angina (Severity: Class I) (06-01-2010), Atrial fibrillation, Atrial Fibrillation/Flutter, Chest pain, Congestive Heart Failure, Coronary Artery Disease, Dyslipidemia, Heart Failure, Hypertension, N&V - Nausea and vomiting, Peripheral Arterial Disease, Systemic Embolism, Unstable Angina, Ventricular tachyarrhythmia

Medication Considerations					Indicate prescribed/continued medications or reason not prescribed.				
CAD	HF	AFib	HTN	Medication	Yes (Prescribed)	No (Medical Reason)	No (Patient Reason)	No (System Reason)	Clear
		X		Aspirin	○	◉	○	○	Clear
		X		Warfarin	◉	○	○	○	Clear

Submit


AFib/Flutter Duration:
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Chronic - paroxysmal
Chronic - persistent/permanent
AFib/Flutter Type:
Non-Valvular
Valvular
--> If Non-Valvular, Etiology (Check all that apply):
Transient/reversible cause (e.g., pneumonia, hyperthyroidism)
Cardiac surgery within past 3 months
Pregnancy
All Thromboembolic Risk Factors Assessed:
Yes (All risk factors assessed)
No - Medical Reason
No - Patient Reason
No - System Reason

Note: Thromboembolic risk factors include all of the following: 1.) Prior Stroke/TIA, 2.) Age ≥ 75, 3.) Hypertension, 4.) Diabetes Mellitus, 5.) HF or LVSD.

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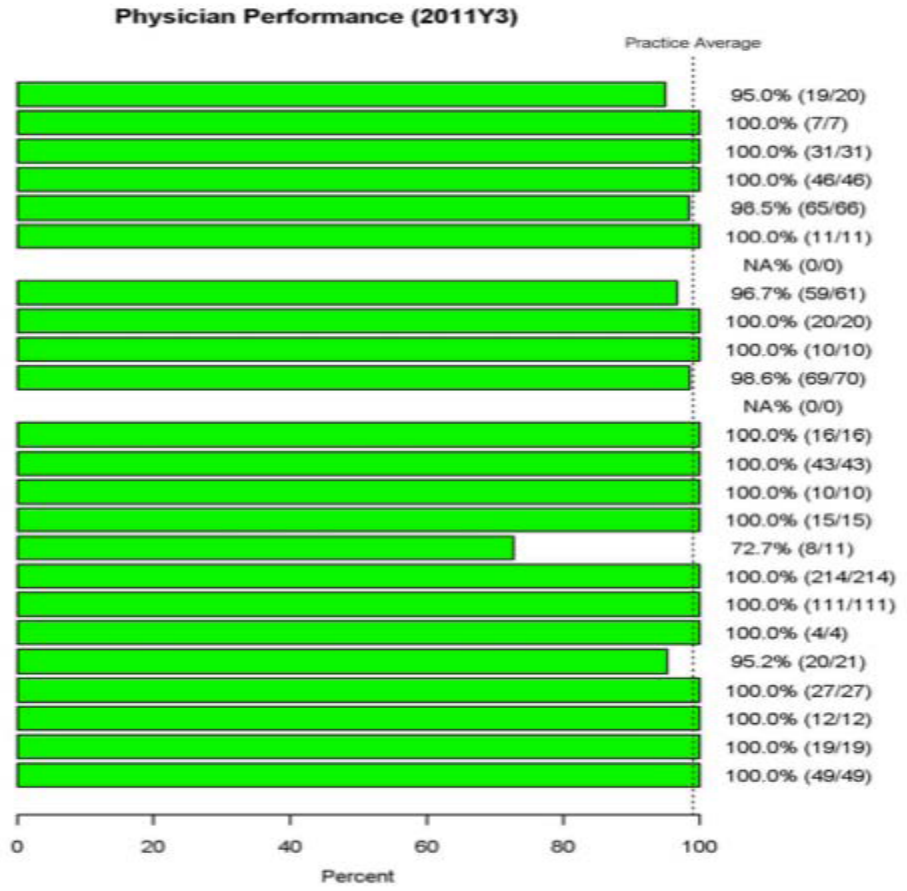

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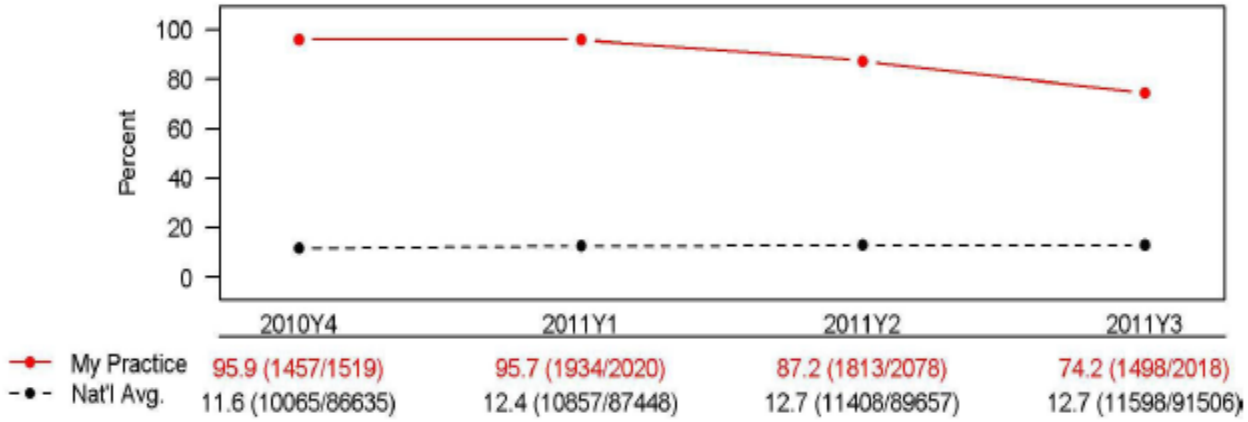
Practice Performance (R4Q)



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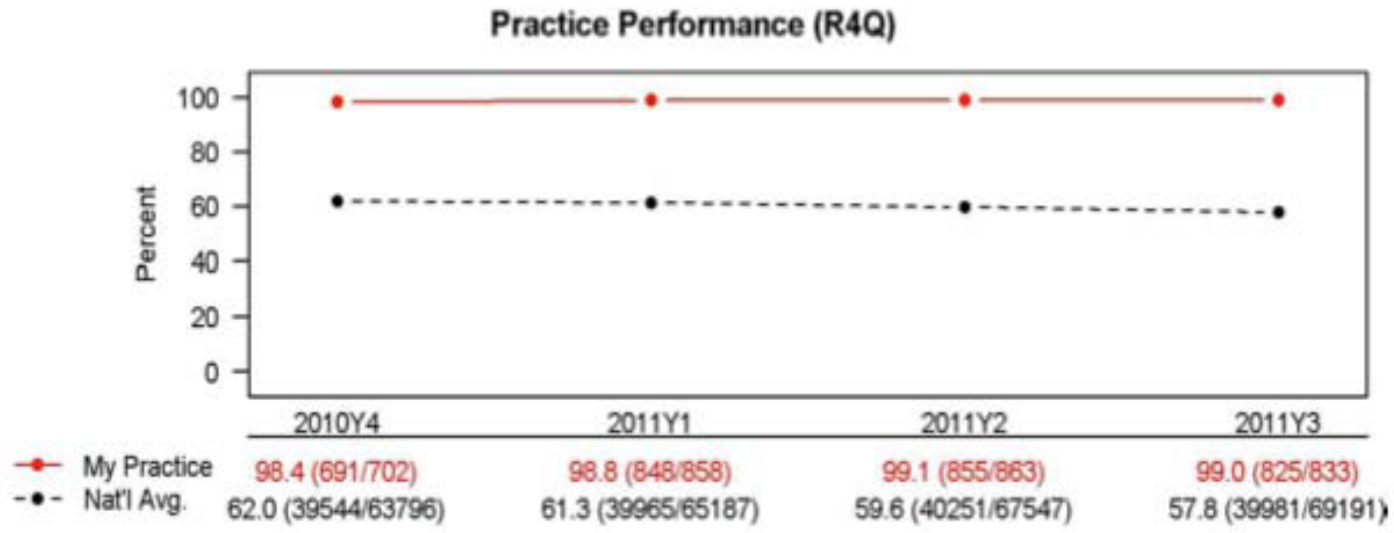


Patients with non-valvular atrial fibrillation receiving anticoagulation

	Patients eligible to receive anticoagulation	
4/01/2009 to 12/31/2009	97/101	97%
01/01/2010 to 12/31/2010	91/92	98.9%
01/01/2011 to 09/30/2011	65/66	98.5%

Practice-Level Variation in *Warfarin* Use Among Outpatients With Atrial Fibrillation (from the NCDR PINNACLE Program)

Paul S. Chan, MD[a,b,*], Thomas M. Maddox, MD[c], Fengming Tang, MS[a], Sarah Spinler, PhD[d], and John A. Spertus, MD[a,b]

Warfarin is a complex but highly effective treatment for decreasing thromboembolic risk in atrial fibrillation (AF). We examined contemporary warfarin treatment rates in AF before the expected introduction of newer anticoagulants and extent of practice-level variation in warfarin use. Within the National Cardiovascular Data Registry Practice Innovation and Clinical Excellence program from July 2008 through December 2009, we identified 9,113 outpatients with AF from 20 sites who were at moderate to high risk for stroke (congestive heart failure, hypertension, age, diabetes, stroke score >1) and would be optimally treated with warfarin. Using hierarchical models, the extent of site-level variation was quantified with the median rate ratio, which can be interpreted as the likelihood that 2 random practices would differ in treating "identical" patients with warfarin. Overall rate of warfarin treatment was only 55.1% (5,018 of 9,913). Untreated patients and treated patients had mean congestive heart failure, hypertension, age, diabetes, stroke scores of 2.5 ($p = 0.38$) and similar rates of heart failure, hypertension, diabetes mellitus, and previous stroke, suggesting an almost "random" pattern of treatment. At the practice level, however, there was substantial variation in treatment ranging from 25% to 80% (interquartile range for practices 50 to 65), with a median rate ratio of 1.31 (1.22 to 1.55, $p < 0.001$). In conclusion, within the Practice Innovation and Clinical Excellence registry, we found that warfarin treatment in AF was suboptimal, with large variations in treatment observed across practices. Our findings suggest important opportunities for practice-level improvement in stroke prevention for outpatients with AF and define a benchmark treatment rate before the introduction of newer anticoagulant agents. (Am J Cardiol 2011;108:1136–1140)

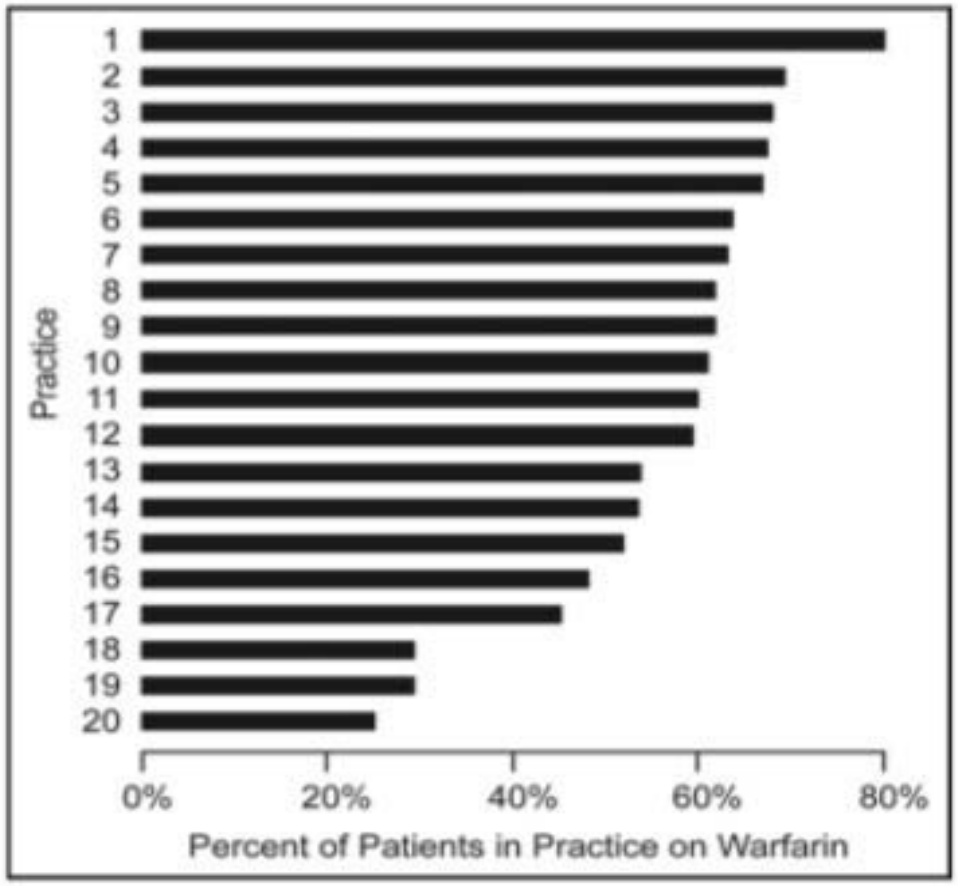


Figure 1. Variation in treatment rates with warfarin across practices showed a median practice treatment rate with warfarin of 61% (range 25 to 80, interquartile range 50 to 65).

IMPROVE HF℠

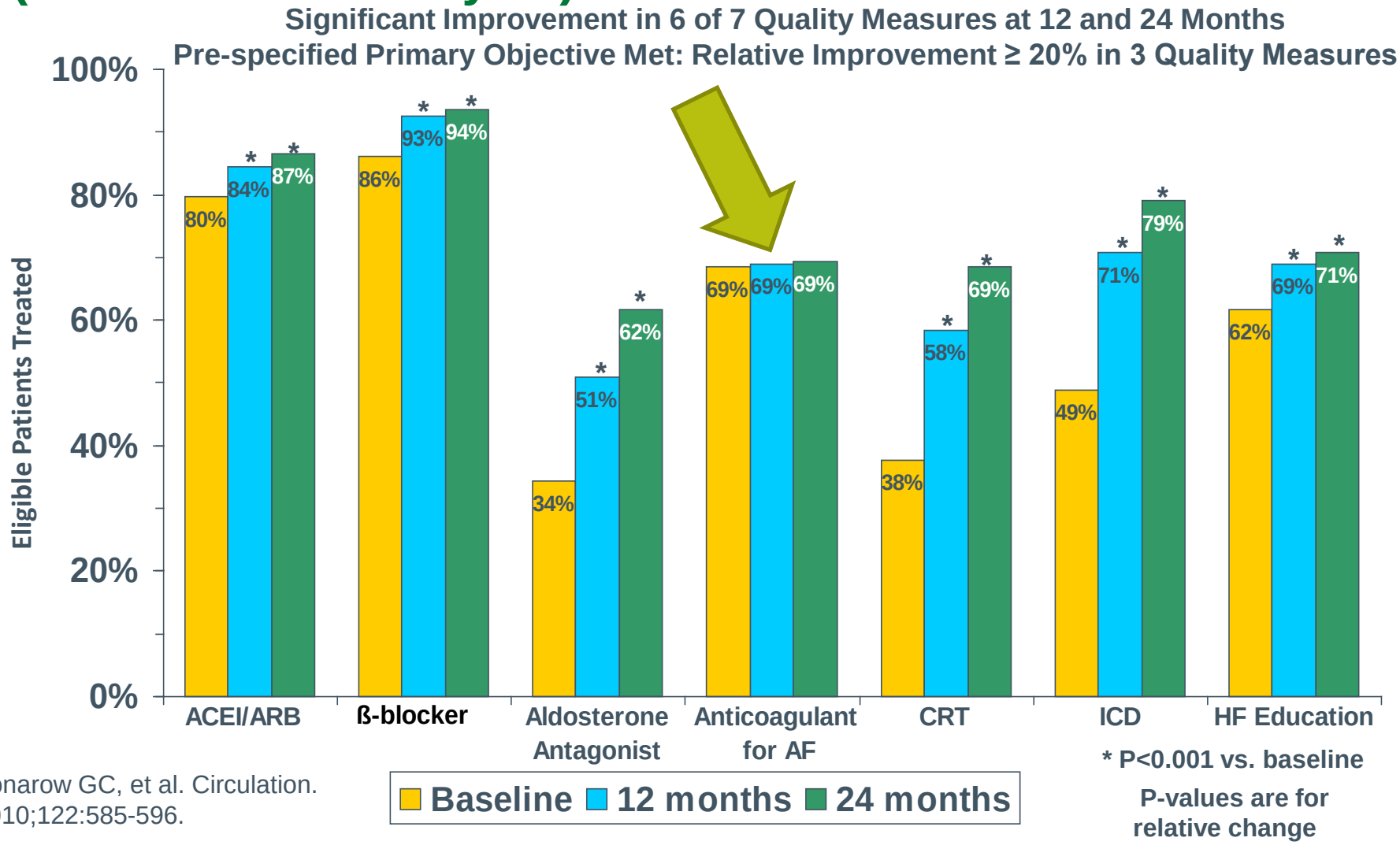
Optimizing Quality Care

Associations Between Outpatient Heart Failure Process of Care Measures and Mortality

Gregg C. Fonarow, Nancy M. Albert, Anne B. Curtis, Mihai Gheorghiade, J. Thomas Heywood, Mark L. McBride, Patches Johnson Inge, Mandeep R. Mehra, Christopher M. O'Connor, Dwight Reynolds, Mary N. Walsh, Clyde W. Yancy

Fonarow GC, et al. *Circulation*. 2011;123(15):1601-1610.

Results: Improvement in Quality Measures at 24 Months (Patient Level Analysis)



Fonarow GC, et al. Circulation. 2010;122:585-596.

Why is PPG Cardiology performance in atrial fibrillation management above national average?

- Active versus passive data extraction
- Focus on atrial fibrillation management
- Infrastructure

Active versus passive data extraction

- Point of care data entry
- Physician identifies contraindications to anticoagulation therapy
- Point of care allows for clinical decision support (why isn't this patient on anticoagulant?)

Focus on atrial fibrillation management at PPG Cardiology

- 2002: COE project (early clinical decision support tool)
- Manual audit of atrial fibrillation management (ParkviewResearch/ Student Summer Research Fellowship Program)
- PPG cardiology quality committee

Infrastructure

- Anticoagulation therapy clinics
- Anticoagulation protocols
- Coumadin nurses
- Nurse practitioner

Questions ?

- MICHAELMIRRO@GMAIL.COM

April 26th In-Person Collaborative Meeting
Best Practices for eMeasure Implementation

Questions for the Collaborative to Answer

1. ***What are best practices examples*** related to the development and implementation of eMeasures?
   - Processes / Workflow with Existing Products
   - Code Systems (structured data)
   - Culture

Questions for the Collaborative to Answer

2. ***What are the mechanisms to enhance data and workflow capability?***

Workflow

- How can understanding the data workflow enhance standards and define expectations for EHRs and other clinical applications?
- What clinical workflow challenges exist with existing products (hospital and/or ambulatory)? What are the recommendations ?
- Are there workflow or staffing issues that constrain implementation?

Questions for the Collaborative to Answer

2. ***What are the mechanisms to enhance data and workflow capability?***

Data

- What are the challenges in using current code systems to express information required by eMeasures? What are the recommendations?
- What techniques are used to address unstructured data?

Questions for the Collaborative to Answer

3. ***What are the recommendations*** for future use of health IT and standards to enable performance measurement?

- What concepts are needed to address requirements for future measurement and how do they align with other secondary use data analysis needs?
- What innovative techniques are needed to capture structured data (or map unstructured data) and manage clinical workflow to enable performance reporting as a byproduct of care delivery?

Vignette Discussion

- What tools and strategies were utilized to support eMeasure implementation?
- What structured data sources were utilized to develop (represent) an eMeasure?
- What data sources and health IT technologies are available for implementation of an eMeasure?
- How were data capture and clinical workflows addressed?
- Is a best practice demonstrated in this case?

What challenges to eMeasure implementation exist in today's office-based practice environment?

- What data sources are not available in structured format for reporting and why?
- What are the challenges in expressing and interpreting eMeasures?
- What techniques are used to address unstructured data?
- Are there workflow or staffing issues that constraint implementation?
- What role does organizational culture play in successful implementations?

What opportunities come out of our present state of eMeasure readiness?

What recommendations would you make for future use of health IT and standards to enable performance measurement?

- What concepts are needed to address requirements for future measurement?
- What innovative techniques are needed to capture structured data and manage clinical workflow to enable performance reporting as a byproduct of care delivery?
- What are the methods for MU Stage 2?

How can we rethink what we are looking for?

- What are some innovative ideas for the future?

Summary of key discussion points

Best Practices

- Capture data at point of care; work with vendors to enhance data capture
- Auto-populate registries from EHR data
    - Feedback to clinicians at POC
- Coding systems: structured data capture, Standardized nomenclature, continued refinement
- Transparency at individual MD, practice and community level
- Manage the culture: use measures important to clinicians; start with a small committed group
- Educate on importance, meaning and methods before measurement
- Sharing data to refine data collection
- Use of Structured data fields

Summary of key discussion points

Recommendations

- Harmonization of measure specifications, measures, terminology, use of measures and output for reporting
- For small specialty practices select small number relevant measures and standardize data capture for those
- Identify mechanisms to capture, validate, use and incorporate external data such as outside care, patient reported data, deaths
- Explore use of new technologies such as NLP; improve reliability of same
- Emphasize eye on prize; goals; buy in; why