Getting Time Back in Your Day!

Implementing a Multi-Faceted Approach to Optimizing Epic in the Ambulatory Setting

Presenters:
Dr. Jeff Tokazewski
Carole Rosen
Shane Thomas
Getting Time back in Your Day!
Speaker Disclosure

- The following speaker(s) have no relevant financial relationships to disclose:
  - Jeffrey Tokazewski, MD
  - Carole Rosen
  - Shane Thomas
Goals & Objectives

- **Goal is to demonstrate how Penn Medicine**
  - Implements a sustainable infrastructure to optimize provider and clinical support staff use of Epic
  - Identifies opportunities to decrease EHR documentation burnout
  - Impacts provider satisfaction through EHR education optimization

- **Learning objectives for participants:**
  - Ability to create an EHR optimization strategy for their respective institutions
  - Receive detailed guidance about how to identify optimization opportunities through data and observations, developing an assessment and recommendations, creating education materials, and implementing an optimization plan
  - Identify key players needed for the implementation of an optimization plan, methods to educate end users, and how to measure success
Penn Medicine

University Pennsylvania Health System
6 Hospitals, 2 Physician Group | 135,000+ Patient Admits per Year | 3,000,000+ Ambulatory Visits per Year

Hospital of the University Pennsylvania
791 Beds, 2,008 Physicians
34,531 ADULT ADMISSIONS

Penn Presbyterian Medical Center
375 Beds, 1,205 Physicians
17,405 ADULT ADMISSIONS

Pennsylvania Hospital
796 Beds, 833 Physicians
19,207 ADULT ADMISSIONS

Chester County Hospital
256 Beds, 555 Physicians
14,095 ADULT ADMISSIONS

Lancaster General Health
604 Beds, 954 Physicians
33,329 ADULT ADMISSIONS

Princeton Health
355 Beds, 1,263 Physicians
17,326 ADULT ADMISSIONS

School of Medicine
Founded 1765
#2 in Grant Funding
769 MD Students
820 MD / PhD Students
731 Postdoctoral Fellows
1,331 House Staff

Clinical Practices of the University Pennsylvania

Clinical Care Associates

Penn Medicine at Rittenhouse

Penn Homecare and Hospice Services

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History at Penn Medicine

1998
EpicCare Ambulatory EMR

2008
MyChart Patient Portal

2009
Beacon Oncology

2011
APM Prelude Cadence Resolute PB

2013
OpTime Anesthesia

2015
ED Radiology Transplant

2016/2017
Inpatient Clinicals Revenue Cycle Homecare

2018
Cardiology Cupid

Welcome To EpicCare

Radiology Icon

Transplant Icon

Revenue Cycle Icon

Homecare Icon

Cardiology Icon

Heart Icon
EHR Transformation Overview
EHR Transformation Key Focus Areas

- End User Optimization
- Advanced Clinical Education
- Enterprise Scheduling
- Access

EHR Transformation
Transformation Partners

PennChart IS
*What can we do?*

- Technical capabilities within systems
- Penn specific system configuration
- EPIC/vendor best practices
- Reliability/resiliency

Clinical Informatics
*CMIO & Nursing Informatics What should we do?

- Establish Clinical Standards
- Clinical process Improvement
- Improve outcomes through technology

EHR Transformation
*How do we use it best?

- Optimize operational workflows through advanced education and technology
- Enterprise Program Strategy & Adoption
- Access, Quality Incentives, Scheduling
The EHR Optimization Campaign

Empowering Providers to Make Change

Launch the Big Idea Innovation Tournament

In Collaboration with the Office of the CMIO, IS, Innovation Center, and EHR Transformation team...

Continuous engagement through optimization

... 1:1 Personalization Sessions for providers

... INNOVATE with EHR extensions

...pilot Specialty Sprints

Empowering Providers to Make Change
CCA Overview
CCA (Clinical Care Associates)

- Large primary care network across SE Pennsylvania and southern NJ.
- 32 primary care practices, 33 specialty departments (single- and multi-specialty).
- Practice size range: Solo physician to 180,000 sq ft clinic.
- 343 providers:
  - 70% physicians
  - 20% nurse practitioners
  - 5% physician assistants
  - 5% midwives
- 829,000 ambulatory visits in 2018.
Evolution of CCA Optimization

2011: CCA Governance formed
2012:
2013: New provider training
2014: Established provider education
2015: CCA PennChart Champions
2016: Partner with EHR Transformation Phase I
2017: Develop binders, tip sheets
2018: Improving EHR for Providers
2019: Optimization Phase II
PEP data use
Optimization – The Approach

Govern and Prioritize
- Establish governance
- Identify operational leadership accountabilities
- Develop strategic priorities
- Identify success metrics

Shadow and Analyze
- Identify roles to be shadowed, pathways and communication structures
- EHR education consultants shadow on units / in departments
- Identify Opportunities
  - Workflow and process
  - Build / technical optimization
  - Education optimization

Recommend and Plan
- EHR Education consultants consolidate all observations
- Develop recommendations:
  - Build requests (submit tickets)
  - Changes in operational workflow
  - Education and optimization efforts
  - Present to governance / operational approval
  - Develop curriculum

Educate and Optimize
- EHR Transformation / Operational leadership develop timeline for education optimization
  - **Tools:**
    - Workshops / Lunch and learns
    - Shoulder-to-shoulder 1:1 sessions
    - Tip sheets / Micro learnings
    - Smart Bars
  - Measure Success

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Establish Governance - Set Strategic Priority - Shadow and Analyze - Educate and Optimize
Guide to Optimization

♦ Discovery
  • Step 1: Identifying the Need
  • Step 2: Creating an Infrastructure
  • Step 3: Developing an Assessment

♦ Execution
  • Step 4: Providing a Recommendation and Obtaining Approval
  • Step 5: Implementing the Plan

♦ Sustainment
  • Step 6: Evaluating Success
  • Step 7: Ongoing Efforts/Phase 2, 3, etc.
Step 1: Identifying a Need
The Modern Physician?
How do we identify the need for optimization?

- Literature on provider burnout

**JAMA Internal Medicine**

- Association Between Physician Burnout and Patient Safety, Professionalism, and Patient Satisfaction

**Health Affairs**

- Physician Burnout Is A Public Health Crisis – A Messages To Our Fellow Health Care CEOs

*Understanding that provider well being impacts patient satisfaction, time allocation for preventative health practices, medical error rates, patient outcomes, work/life balance, and tenure at their institution*

*EHR Contribution to Burnout – inefficient usability, shifts in documentation workload, increased regulatory documentation, impact on interpersonal interactions*
How do we identify the need for optimization?

- **CCA senior administration focus:** Quality, safety, and prevention of provider burnout

- **Metrics**
  - Closing office visit encounters within 72 hours
  - Reviewing and addressing In Basket Results messages
  - Total time providers are spending in Epic
Step 2: Creating an Infrastructure
Creating or Leverage an Infrastructure

- **Evaluate current state**
  - How are Epic optimization requests addressed in the department today?
  - Existing governance structure or need to develop one?

- **Existing governance**
  - Add EHR optimization representative to committee who will facilitate optimization education, workflow redesign, Epic build enhancements, and connect department to resources required to complete requests

- **New governance**
  - Create a charter and define goals
  - Identify members (clinical chair, IT representation, facilitator, clinical and operational representatives from department)
  - Determine meeting logistics (dates/times, equipment, location)
Governance Responsibilities

Requirements:

- Dedicated clinical and IT chair(s)
- Endorsement from leadership to communicate and champion changes
- Participation of clinical, operational, IT, and optimization representatives

Responsibilities:

- Review, prioritize, and approve/deny Epic optimization and enhancement requests/projects
- Communicate Epic changes and optimization implementations across to colleagues within the department
- Promote adoption of new enhancements/implementations and engagement within the committee
Governance Organization Structure

- **Epic Service Line/Department Governance Committee**
  - Clinicians, EHR Transformation, I.S., Operations, Billing, Quality

- **EHR Transformation**
  - VP
  - Director
  - Optimization Lead

- **Epic Service Line/Department Oversight**
  - Dept. Leadership, Governance Chair, EHR Transformation, I.S. Director

- **Service Line/Department**
  - Physician Chair

- **I.S.**
  - Manager Analyst

- **Department/Division/Entity**
  - Physician Representative

This diagram represents the organizational structure of Penn Medicine's governance system, highlighting the key roles and responsibilities involved in EHR optimization and service line oversight.
Step 3: Developing an Assessment
Optimization wins!

% Closed Office Visits Same Day

<table>
<thead>
<tr>
<th></th>
<th>February 2018</th>
<th>June 2018</th>
<th>September 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>48.8%</td>
<td>77.9%</td>
<td>79.6%</td>
</tr>
</tbody>
</table>

Total Number of Speed Buttons

<table>
<thead>
<tr>
<th></th>
<th>February 2018</th>
<th>June 2018</th>
<th>September 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>312</td>
<td>604</td>
<td>647</td>
</tr>
</tbody>
</table>

% Results Messages Reviewed Quickly

<table>
<thead>
<tr>
<th></th>
<th>February 2018</th>
<th>June 2018</th>
<th>September 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>20%</td>
<td>53%</td>
<td>49%</td>
</tr>
</tbody>
</table>

% Orders Placed from Preference List or SmartSets

<table>
<thead>
<tr>
<th></th>
<th>February 2018</th>
<th>June 2018</th>
<th>September 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>54.3%</td>
<td>87.4%</td>
<td>87.2%</td>
</tr>
</tbody>
</table>
Discovery: Assessment Process

- Shadowing and observations
  - Logistics – we shadowed in 14 ambulatory practices over a 3 week period spending 1-3 days in each practice. 8 educators shadowed for a total of 256 hours.
  - Provider Efficiency Profile data - we looked at department wide PEP (Signal) data and identified opportunities for improvement
  - CCA identified priorities as well:
    - Closing office visit encounters within 72 hours
    - Reviewing and addressing In Basket Results messages
    - Total time providers are spending in Epic
  - Developed the assessment
# Summary of CCA Shadowing Observations

<table>
<thead>
<tr>
<th>Clinician Knowledge of EPIC</th>
<th>CCA Workflows</th>
<th>Technical/Build Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Notes: Use of Smart tools</td>
<td>• Scope of Practice: MA’s and RN’s, Workflow redesign.</td>
<td>• Request for tap and go</td>
</tr>
<tr>
<td>• Activities/Navigator: customization, speed buttons, filters, routing</td>
<td>• Training residents in EPIC each year</td>
<td>• Dragon</td>
</tr>
<tr>
<td>• Communication Management:</td>
<td>• Entering employee flu shots in EPIC</td>
<td>• Room configurations</td>
</tr>
<tr>
<td>• Orders: creating and use of preference lists</td>
<td>• Medication Reconciliation</td>
<td>• Update smart sets</td>
</tr>
<tr>
<td>• In Basket: Folder Management, Quick actions</td>
<td>• Provider documentation in patient rooms</td>
<td>• Communication management templates</td>
</tr>
</tbody>
</table>
# EPIC Overview

<table>
<thead>
<tr>
<th>Epic Tool</th>
<th>Observation</th>
<th>Recommended Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Review Tools</strong>&lt;br&gt;Chart Review Filters, Routing, Care everywhere/reconciler</td>
<td>• Limited filters or quick buttons&lt;br&gt;• Many unaware of routing&lt;br&gt;• Limited knowledge of Care Everywhere/Reconciler</td>
<td>• Create Chart Review filters&lt;br&gt;• Routing&lt;br&gt;• Care Everywhere Overview</td>
</tr>
<tr>
<td><strong>Enhanced Procedure Documentation</strong>&lt;br&gt;<strong>SmartTools</strong>&lt;br&gt;Note Writer, Smart Phrases, SmartLinks &amp; Smart Lists</td>
<td>• Frequent free texting observed&lt;br&gt;• Many providers are not aware of how to create or edit their own Smartphrases&lt;br&gt;• Many do not know how to use SmartLinks or SmartLists in their documentation.&lt;br&gt;• Many lacking macros for note writer&lt;br&gt;• Unaware of pinning note to side bar&lt;br&gt;• Documentation from the problem list</td>
<td>• Creating a SmartPhrase&lt;br&gt;• Creating a Custom SmartLink&lt;br&gt;• Saving SmartSets as a favorite&lt;br&gt;• Use of Note Writer w/macro’s&lt;br&gt;• Quick buttons for progress notes&lt;br&gt;• Pinning note to side bar&lt;br&gt;• Problem based documentation</td>
</tr>
<tr>
<td><strong>Communication Management and In Basket</strong></td>
<td>• Many providers struggling to manage their folders in In Basket&lt;br&gt;• Many providers are not aware of Quick Actions&lt;br&gt;• Continued use of Letters Activity vs Communication Management&lt;br&gt;• Lacking templates for communication management</td>
<td>• In Basket Folder management&lt;br&gt;• In Basket Quick Notes and quick actions&lt;br&gt;• Customize Communication Management- obtain templates, quick buttons</td>
</tr>
<tr>
<td><strong>Personalizing Penn Chart Workspace</strong></td>
<td>• Widescreen&lt;br&gt;• Speed Buttons&lt;br&gt;• Reports available in schedule&lt;br&gt;• Use of Med view vs chart review</td>
<td>• Customize Activity Buttons&lt;br&gt;• Customize Visit Navigator&lt;br&gt;• Customize Multi Provider Schedule</td>
</tr>
<tr>
<td><strong>Orders Preference Lists/Medication Reconciliation</strong></td>
<td>• Providers do not know how to create or edit existing preference lists&lt;br&gt;• Order entry vs meds and orders</td>
<td>• Order Preference Favorites&lt;br&gt;• Best medication reconciliation workflow&lt;br&gt;• Use of meds and orders</td>
</tr>
<tr>
<td><strong>Dragon</strong></td>
<td>• Many providers would benefit from Dragon&lt;br&gt;• Provider not aware they have the ability to create Dragon commands and program the Dragon mic functionality to manual corrections rather than &quot;training&quot; Dragon</td>
<td>• Establish work flow to obtain Dragon&lt;br&gt;• Creating Dragon Commands to insert notes&lt;br&gt;• Programing Dragon Mic with commands (F2, etc)&lt;br&gt;• Training Dragon to recognize difficult words, medical terminology etc.</td>
</tr>
<tr>
<td><strong>Haiku/Canto</strong></td>
<td>• General Education on Haiku/Canto</td>
<td>• Handout will be available in Workshop&lt;br&gt;• Assistance during STS sessions</td>
</tr>
</tbody>
</table>
Step 4: Providing a Recommendation and Obtaining Approval
Leadership Presentation

❖ **Included**
  • Observations
  • Recommendations
  • Plan
  • Leadership feedback
  • Established forums for communication to keep leadership informed of progress

❖ **Presented a mock workshop**
Step 5: Implementing the Plan
Implementing the Plan

- We have developed a systematic process for preparing and customizing educational content for training, engaging with practices, and executing training

**Pre-Education**
- Review provider pre-surveys
- Assess user analytics
- Schedule education sessions
- Create division based curriculum with divisional leads

**On-Site Education**
- Workshops
- Shoulder to Shoulder sessions
- Rounding
- Drop-in Workshops

**Post - Education**
- Post Training Surveys
- Provide feedback to department from training
- Review of the issues formally recorded
Implementing the Plan

• We reached over 500 end users to enhance EHR efficiency for both providers and clinical support staff.

• Led over 80 one hour workshops to providers and clinical support staff

• Conducted over 180 one on one shoulder to shoulder sessions with providers
Step 6: Evaluating Success
How do we measure success?

- Workshop surveys
- PEP (Signal) data
- Debrief Meeting
Measuring success: Survey says......

- The topics presented in the Optimization Workshop were useful and will be helpful moving forward.
- The Optimization Workshop provided value for the time spent.
- The educator was knowledgeable on the optimization topics.
- Overall, the Optimization Workshop was effective.
Measured Success - CCA Requests

% Office Visits Closed Same Day

- February 2018: 49%
- May 2018: 79%
- August 2018: 79%
- November 2018: 79%
- February 2019: 79%

% Results Reviewed Quickly

- February 2018: 15%
- May 2018: 52%
- August 2018: 54%
- November 2018: 42%
- February 2019: 42%
Measured Success - CCA Requests

Clinical Care Associates Average Time Per Appointment (minutes)

- February 2018: 18.1 minutes
- May 2018: 25.8 minutes
- August 2018: 28.2 minutes
- November 2018: 28.2 minutes
- February 2019: 28.5 minutes

% Time Spent on Weekends

- % Time spent in system on weekends:
  - February 2018: 2.07%
  - May 2018: 3.02%
  - August 2018: 2.89%
  - November 2018: 3.05%
  - February 2019: 3.62%

- Saturday:
  - February 2018: 2.07%
  - May 2018: 3.02%
  - August 2018: 2.89%
  - November 2018: 3.05%
  - February 2019: 3.62%

- Sunday:
  - February 2018: 2.07%
  - May 2018: 3.02%
  - August 2018: 2.89%
  - November 2018: 3.05%
  - February 2019: 3.62%
Additional Wins

% Orders Placed from Preference List or Smart Sets

February 2018: 54%
May 2018: 88%
August 2018: 87%
November 2018: 88%
February 2019: 87%

Average LOS Speed Buttons

February 2018: 46%
May 2018: 61%
August 2018: 66%
November 2018: 69%
February 2019: 70%
Additional Wins

### Average Quick Actions Created

- February 2018: 719
- May 2018: 951
- August 2018: 1045
- November 2018: 1144
- February 2019: 1192

### Total # Note Speed Buttons

- February 2018: 312
- May 2018: 513
- August 2018: 624
- November 2018: 709
- February 2019: 720
For an organization, the cost of physician burnout can range from $500,000 to more than $1 million per doctor.

What did people say...

It was very valuable to have one on one training especially after having used Epic for 4+ years... Appreciate the opportunity to be able to ask additional questions via email.

It was a phenomenal session... It was important to learn about PennChart capabilities that I never knew existed.

Fantastic personalization session - felt like it covered the general ways to be more efficient in Epic while also focusing on my questions/needs within Epic. Will plan on recommending to all my colleagues!

Your time, knowledge, patience and kindness are much appreciated. I hope that you hear often how the work you do is invaluable to providers... and this positive impact on providers has a very broad and positive impact on patient care and patients’ experience of the care they receive.

The team had some more advanced suggestions for people already doing many of the optimization techniques.

He identified ways in which I could be faster. The time with him felt personalized.

I really liked learning about increasing my efficiency and taking some of the challenges out of charting so I can spend more time talking with the patient vs clicking on the screen.

I had reached the point of deciding that I could no longer be an effective physician in large part due to a heavy burden of the EMR in spite of my best efforts to use it according to what I thought were the most efficient workflows. I had no idea that the system could be optimized the way Carole taught me. Frankly I probably would have left medicine had it not been for Carole’s teaching. Thank you so much for this essential resource for the physicians of CCA.

The EHR team are truly an outstanding resource and well worth the investment that UPHS has made. For sure, the implementation and education of doctors/providers on EPIC has come a long way, in a positive way, since I started EPIC back in April 2010.

The IT specialist spent the first 10-15 minutes just watching your workflow. Often times, you don’t even realize there’s a problem unless someone points it out.
Step 7: Ongoing Efforts/Phase 2, 3, etc.
Sustainment: CCA Next Steps

- CCA Penn Chart Academy: Quarterly evening meetings for providers covering EMR and billing compliance
- Binders/tip sheets provided for each practice
- Governance and optimization workgroup
- Provider trainers: Assisted in training 2 Providers to become EPIC Power users for ongoing new provider onboarding.
- PEP sessions: One on One shoulder to shoulder sessions offered as needed to providers throughout the organization
- Focused workgroups: identifying new opportunities
Optimization Initiatives

♦ Ongoing
  • Medication Refill Protocols
  • Sprints
  • PEP sessions

♦ Future
  • Note optimization
  • In Basket optimization
For more information

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