OpenNotes:
Overall Status, Approaches, and Experience:  One Year Later

Session 152, February 22, 2017

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OpenNotes: Overall Status, Approaches, and Experience: One Year Later

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Conflict of Interest

Homer Chin, MD, MS
Has no real or apparent conflicts of interest to report

John Kravitz, MHA, CHCIO
Has no real or apparent conflicts of interest to report
Agenda

• OpenNotes: What it is, and what it isn’t
• Effects of providing patients access to their EHR clinical notes
• Approaches to implementation
• Community Consortium approach
• Overall status of OpenNotes
• The Geisinger experience
• Join the effort!
<table>
<thead>
<tr>
<th>Learning Objectives</th>
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<tr>
<td>List several known benefits that result from providing patients easy and secure access to their EHR notes and describe the impact of implementing OpenNotes on physicians and other healthcare providers.</td>
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<td>Identify the key steps necessary to implement Open Notes in a healthcare organization.</td>
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<td>Describe two key reasons why a community consortium approach can accelerate the implementation of OpenNotes among healthcare organizations in that community.</td>
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<td>Describe how the Geisinger Health System is increasing patient engagement by providing patients access to their providers' EHR notes and list two of their innovations in customer service.</td>
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<tr>
<td>Describe the extent of OpenNotes adoption in the United States.</td>
</tr>
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</table>
Realizing the VALUE

- 99% of patients wanted to continue with OpenNotes
- 85% of patients said availability of open notes would affect their future choice of providers

- 60–78% of those taking medications reported “doing better with taking meds as prescribed”

- OpenNotes enabled by patients’ secure access to their EHR information through a patient portal

- > 75% report feeling more in control, better understanding of their healthcare, and better prepared for visits

- OpenNotes may* improve utilization and decrease litigation (*under evaluation)
What is OpenNotes?

- Patients invited to review their providers’ visit notes through secure patient portals
- “OpenNotes” is an initiative to give patient’s access to their EHR notes via the internet. **Not a specific vendor product or software.**
- Started with a research and demonstration project in 2010, involving more than 100 PCPs and 20,000 patients in Boston (BIDMC), rural Pennsylvania (Geisinger), and the Seattle inner city (Harborview)

*Supported primarily by the Robert Wood Johnson Foundation*
3 Overall Questions

• Does OpenNotes help patients become more engaged in their care?

• Is OpenNotes the straw that breaks the doctor’s back?

• After living with this transparency, do patients and doctors want to continue?
Principal Concerns of 105 Participating PCPs Impact on workflow

<table>
<thead>
<tr>
<th>Expectations (%</th>
<th>Post-intervention (%)</th>
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<tbody>
<tr>
<td>Visits significantly longer</td>
<td>24</td>
</tr>
<tr>
<td>More time addressing patient questions outside of visits</td>
<td>42</td>
</tr>
<tr>
<td>More time writing/editing/dictating notes</td>
<td>39</td>
</tr>
</tbody>
</table>

...and, compared to the year preceding the intervention, the volume of electronic messages from patients did not change

Adapted from a presentation by: Tom Delbanco MD & Jan Walker RN Harvard Medical School and Beth Israel Deaconess Medical Center
Among patients with notes (visits):

• 82% of patients opened at least one of their notes

• 1-8% of patients across the 3 sites reported that the notes caused confusion, worry, or offense

• 20-42% shared notes with others

Adapted from a presentation by: Tom Delbanco MD & Jan Walker RN Harvard Medical School and Beth Israel Deaconess Medical Center
Reports from Patients

- 70-72% “taking better care of themselves”
- 77-85% “better understanding of their medical conditions”
- 76-84% “remembering the plan for their care better”
- 69-80% “better prepared for visits”
- 77-87% “more in control of their care”
- 60-78% “doing better with taking my medications as prescribed.”
- 85% of patients said availability of open notes would affect their future choice of providers.
3 Overall Questions

• Does OpenNotes help patients become more engaged in their care? **YES**

• Is OpenNotes the straw that breaks the doctor’s back? **NO**

• After living with this transparency, do patients and doctors want to continue? **YES, virtually 100%**

Adapted from a presentation by: Tom Delbanco MD & Jan Walker RN
Harvard Medical School and Beth Israel Deaconess Medical Center
The bottom line

- **99%** of patients *wanted to continue* to be able to see their visit notes online.

- **85%** of patients said availability of open notes *would affect* their future choice of providers.

- *Not one doctor asked to stop*.

- All 3 institutions decided to *expand the practice widely*. 

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**HIMSS17**

#HIMSS17
Patient Safety
Patient safety anecdotes

**Delayed diagnosis:** If this had been available years ago I would have had my breast cancer diagnosed earlier. A previous doctor wrote in my chart and marked the exact area but never informed me. — A patient

**Medication error:** When I told her about [the wrong issues] she admitted she confused me with another pt. Also on one occasion she made a statement about increasing the dose on a medication that I never took. — A patient

**Follow up adherence:** Weeks after my visit, I thought, "Wasn't I supposed to look into something?" I went online immediately. Good thing! It was a precancerous skin lesion my doctor wanted removed (I did). — A patient

**Informal caregivers:** “It really is much easier to show my family who are also my caregivers the information in the notes than to try and explain myself. I find the notes more accurate than my recollections, and they allow my family to understand what is actually going on with my health, not just what my memory decides to store.” — A patient

**More eyes on the chart:** I felt like my care was safer, as I knew that patients would be able to update me if I didn't get it right. — A doctor

Bell et al, Joint Comm J Qual Pat Saf 2015
...and 60-78% of those taking medications reported “doing better with taking my medications as prescribed”
Participants Report Notes are Accurate & Easy to Understand

“My notes are accurate”

“I can understand my notes”

% Somewhat/Strongly Agree

National Quality Conference © 2016 Kaiser Foundation Health Plan, Inc.
A New Medicine that brings benefits... and risks

A catalyst for change... and not only in ambulatory care

Patient Safety
Does reading your note change how often you contact your provider?

Answered: 419    Skipped: 275

- I now contact more
- I now contact less
- I contact about the same
How does reading a note affect how worried you are about something?

Answered: 425    Skipped: 269

- Makes me less worried
- Makes me more worried
- No change
Did you think seeing your note helps you take better care of yourself?

Answered: 428  Skipped: 266

Yes

No
How much of what was in the note did you understand?

Answered: 433  Skipped: 261

- All of it: 60%
- Most of it: 30%
- Some of it: 10%
- None of it: 0%
Experiences

Implementation was easy; it has been a non-event for providers

“Honestly, I couldn’t believe how few problems we had when we started OpenNotes.”

“For us, in general, I think it’s been a non-event.”

“Don’t worry about it. Sharing notes is a step in the right direction.”

Patients report great value in reading notes

“Makes me feel like I’m more a part of the care...now I’ve been brought in right away. I’m more connected with what's going on.”

“Having these notes...means everything to me.”

“I have a serious medical condition. Reading my notes, gave me a better understanding of how I was going to get through this.”

Providers continued to provide care “business as usual”

“Don’t change way you write the language; it should always be clear in medical terminology.”

“I was nervous ... but not a single patient contacted me about a note, and I do a lot of clinic work.”

“It's been business as usual... It was one of the most seamless implementations I think we've done in a long time.”

National Quality Conference © 2016 Kaiser Foundation Health Plan, Inc.
NW OpenNotes Consortium (Community-Based Approach)

- September 2013: Agreement to form a consortium of health systems to collaborate together to implement OpenNotes as a community
- “Cooperative-competitive approach”
- Can work when there is good sense of community
NW OpenNotes Consortium

➔ Estimated 1.2M patients in Portland Metro now have OpenNotes (> 50% of population)!
“Best Practices”

- Convince Clinician Leadership to back the effort
- Good communication to providers, staff, patients
- Start with one department, or big-bang with entire organization
- Do not allow individual providers to opt-out without a process review
- OK to provide mechanism to “not share” a specific note, or have a “sensitive note type” that is not shared

→ Most common provider response: “This was a non-event”
Toolkit: www.opennotes.org

Introducing the OpenNotes Toolkit:
Tell us what you think!
OpenNotes Team

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- Brad Crotty, MD, MPH
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- Leonor Fernandez, MD
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- BIDMC PFAC

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**With support from:**
- CRICO/RMF
- Robert Wood Johnson Foundation
- Peterson Center on Healthcare
- Moore Foundation
- Cambia Health
Key Takeaways

- Good evidence for significant benefits
- Impact to physician well-being may actually be positive
  - No additional work
  - Better patient engagement
- EHR/patient portal vendor needs to have functionality to support publishing full clinical notes to the patient portal
  - Epic, Cerner, Allscripts, Meditech (current functionality)
- **Clinician Leaders MUST sponsor the effort (Not an “IT” initiative!)**
- MU/MACRA is an enabler for this; one of the tangible benefits of widespread EHR adoption.
- Momentum is building – don’t be left behind!
Current Status ...

- Starting second year of a $10M three year grant to increase patient access to their EHR clinical notes (support from Cambia, Moore, Peterson, & Robert Wood Johnson)
- Strategic partnership with CHIME, AMDIS and others (AMIA, OHLC)
- Other consortias (e.g., Wisconsin)
- Disseminating learnings and best practices
- Support materials available (at opennotes.org)
- Extending to Mental Health, Inpatient, & OurNotes
- Join the movement.

➤ Become a champion for open notes!
More than 5 million patients have easy access to their clinicians’ notes thanks to OpenNotes.
More than 5 million patients have easy access to their clinicians’ notes thanks to OpenNotes

June 2015
More than 7 million patients have easy access to their clinicians’ notes

OpenNotes is available at all U.S. Department of Veterans Affairs Medical Centers nationwide
More than 10 million patients have easy access to their clinicians’ notes

June 2016
OpenNotes @ Geisinger
John M. Kravitz, MHA, CHCIO
Chief Information Officer
The mobile app provides patients with quick access to their health information and provider messaging while on the go.

- 295,000 users with 89,000 unique logins a month
- Easy access to both inpatient and outpatient health information
- Visit notes shared by 90% of outpatient providers through OpenNotes

Patients prepare for upcoming visits by answering questionnaires, understanding needed care and reviewing care plans.
OpenNotes® - Study and configuration

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<th>Portal</th>
<th>Exclusions</th>
<th>Voluntary</th>
<th>Patient level</th>
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<tr>
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Annals of Internal Medicine

Inviting Patients to Read Their Doctors’ Notes: A Quasi-experimental Study and a Look Ahead

Tom Delbanco, MD*; Jan Walker, RN, MBA*; Sigall K. Bell, MD; Jonathan D. Darer, MD, MPH; Joann G. Elmore, MD, MPH; Nadine Farag, MS; Henry J. Feldman, MD; Roanne Mejilla, MPH; Long Ngo, PhD; James D. Ralston, MD, MPH; Stephen E. Ross, MD; Neha Trivedi, BS; Elisabeth Vodicka, BA; and Suzanne G. Leveille, PhD, RN

Background: Little information exists about what primary care physicians (PCPs) and patients experience if patients are invited to read their doctors' office notes. Of electronic messages from patients did not change. After the intervention, few doctors reported longer visits (0% to 5%) or more time addressing patients’ questions outside of visits (0% to
OpenNotes® - Study Results (Geisinger)

Key points

• Providers more concerned than patient pre-implementation
• Provider concerns mollified post implementation
• Secured email communication remains constant
• High degree of patient participation continued
Key Points

- 620k encounter reviews out of 2M visits/year
- Virtually no complaints from patient/providers
- Total of 277 (<1%) patient excluded by providers
- Continued adoption

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<th>Unique Users Accessing Module</th>
<th>Total Hits/Month</th>
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<td>Aug-15</td>
<td>12,792</td>
<td>50,372</td>
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<td>Nov-15</td>
<td>12,094</td>
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<td>Dec-15</td>
<td>11,856</td>
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<td>Jan-16</td>
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<td>Feb-16</td>
<td>13,431</td>
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<td>Mar-16</td>
<td>14,497</td>
<td>58,501</td>
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<td>Apr-16</td>
<td>13,993</td>
<td>55,729</td>
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<td>May-16</td>
<td>13,265</td>
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<tr>
<td>Jun-16</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>158,946</strong></td>
<td><strong>620,084</strong></td>
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## Pre-Release Data

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<td>May-15</td>
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<td>Jul-15</td>
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## Post Release Data

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<td>Nov – 16</td>
<td>769</td>
<td>2,782</td>
</tr>
<tr>
<td>Dec – 16</td>
<td>1,238</td>
<td>4,632</td>
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</table>
Outcomes papers

Med Adherence
- prescription vs claims
- slightly better for HTN
- no effect on lipids

Proxy Access
- Addressed lack of:
  - health literacy
  - computer skills
OpenNotes® Next - Epic Bedside (inpatient)

Keep patients Engaged, Informed, Connected and Entertained throughout the care process to promote faster recovery, better decision making, and increased patient satisfaction

Infotainment on iPad and Apple TV & MyChart Bedside

Potential Expansions:
- G-CMC: 240
- Holy Spirit: 316
Take-Home iPad Build and Integration

• iPad content:
  ➢ App with reminder schedule pre- and post surgery
  ➢ Educational materials (documents and videos)
  ➢ Informational materials (clinic contacts, directions, maps)
  ➢ Med Rec and 90 day postop N2QOD Lumbar Spine questionnaires
  ➢ Pre and Post Surveys
  ➢ Spine Education Class Videos
  ➢ FaceTime call with provider
  ➢ FitBit 3-axis accelerometer

Metrics:
  ➢ Pre- & Post- qualitative feedback surveys
  ➢ N2QOD Lumbar Spine questionnaire
  ➢ Medication Reconciliation questionnaire
OurNotes® – Proposed workflow

Step I: Pre-Visit agenda setting and data entry

Step II: Agenda setting and data entry in office waiting room

Step III: Patient-provider narrative

Step IV: Post-visit co-signature and opportunity for comments and questions

BIDMC (PI – Delbanco) OurNotes study funded by Commonwealth Fund
OurNotes® - Proof of Concept

- Explored the use of HIT to engage patients and families through co-generation of clinical progress
  - Developed a process of collecting pre-visit documentation by testing multiple technologies
  - Identified barriers and areas of opportunity from the patient and provider perspective
  - Formulated an implementation plan for broader scale
- Two week pilot in Lycoming Clinic
  - Structured and unstructured narratives
- Modalities
  - iPad
  - Stylus
  - Bluetooth keyboard

BIDMC (PI – Delbanco) OurNotes study funded by Commonwealth Fund
OurNotes® - POC results

• Patient Exit Survey and Interviews
  • 64 OurNotes completed (N=7 family caregivers)
  • 77% reported less than 2 minutes to complete
  • 64% reported being ‘very comfortable’ with technology
  • 70% reported that OurNotes made them feel more involved
  • 83% reported that OurNotes allowed for focused time with provider to review health goals

• Provider Interview
  • Patient was able to set their agenda for the visit
  • Kept patient/provider from missing something wanted to discuss
  • Patient provided chief complaint and provider can be ready to discuss prior to appointment
  • Added to efficiency – did not slow down visit

BIDMC (PI – Delbanco) OurNotes study funded by Commonwealth Fund
Geisinger Proven Experience Mobile App
Proven Experience Mobile App

• Tool for patients to express concern about experience
• Patient Experience Team process:
  ➢ Patient Advocate conducts a root cause analysis
  ➢ Work with respective department to rectify the issue
  ➢ “Hard wire” improved process
  ➢ Communicate the resolution with the patient
• Patient can request a refund up to full amount due
• In first year refunds were approximately $500,000
• Primary issues:
  • E.D. wait times, obtaining same day appointments, impolite behavior of staff members
Just a few other “small” things we did

Proven Experience “Refund” for dis-satisfied patients:

- Refunds are now viewed as another form of Service Recovery
- Created an App to give patients another vehicle for feedback
- Refund requests*  
  Approximately 450 requests  
  Approximately $500,000 refunded

* (through November 30, 2016)
Proven Experience - Patient Feedback

Where did your experience go wrong?
You put your trust in us, and we didn't meet your expectations. Let us know what happened so we can make it right.

*Please select all that apply
- I felt like the team did not adequately address my pain. If I had any
- Working with office or support staff
- Working with nurse
- Working with my doctor or physician assistant
- Learning what to expect about my care
- Billing
- Other

We'd like to hear from you.
What would you like to do next?
*Please select all that apply
- Talk to us
- Get a refund of my copay
- Send us a message
- Submit my experience

Your copay was: $1,000
You place your trust in us and we place our trust in you.

How much of your copay would you like back?

$0 $500 $1000

*Please enter the dollar amount of your refund

← Book Next →
Join the movement!

The Power of Knowing

www.opennotes.org
Realizing the VALUE

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• > 75% report feeling more in control, better understanding of their healthcare, and better prepared for visits

• OpenNotes may* improve utilization and decrease litigation (*under evaluation)
Questions?

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Please complete online session evaluation!