Improving Patient Portal Use

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- Devices not yet on the market (not identified by name or manufacturer) to provide biometrics and medication adherence information to clinicians.

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For the past 15 years, Dr. Manard has been active as a teacher of medical students and residents in academic and community settings. In addition to being a board-certified family physician, he is board certified in clinical informatics by the American Board of Preventive Medicine (ABPM). His particular areas of interest are promoting patient engagement to improve individual and population health, and developing research in this area. Engaging patients—who are increasingly "connected" at all times—gives family physicians an excellent opportunity to directly impact patients’ health. Dr. Manard believes family physicians need to consider the best way to use patient-provided information to provide optimal care for their patients, as well as determining how to engage allies (e.g., staff, non-physician providers, information architects) to avoid being overwhelmed by a potential deluge of information.

Learning Objectives

1. Determine feasible opportunities to utilize and optimize existing technology to enhance access, patient self-management, quality and coordination of care, etc.
2. Identify new technologies on the horizon that may resolve current challenges in delivering quality, cost effective care.
3. Evaluate existing workflows to determine practice ability to optimize new and existing technologies.

Audience Engagement System

Step 1

Step 2

Step 3

FMX
Patient Portals

• Generally defined, a method of electronic access to a physician practice for patients

• Methods of integrating this within practice vary

AES POLL QUESTION

Using the definition provided, does your practice currently use a patient portal?

1. Yes
2. No, planning to implement
3. No, not planning to implement

Methods of Integration

• Integrated
  – Information provided enters within EHR directly
  – Patient can access prior medical information at the same time as providing new information
  – Generally part of an existing EHR solution

• External or “bolt-on”
  – Information provided by patient may either remain external or provided by interface
  – Useful for practices not currently using an EHR or without an integrated product

AES POLL QUESTION

For those using a patient portal, which product type do you currently use?

1. Integrated
2. External
3. Other/don’t know

Current Use Cases

• Patient portals can be used for multiple purposes
  – Improve access
  – Facilitating patient self-management
  – Coordinating care

• Methods of implementing each of these vary by practice

Access

• How do patients “access” our practices?
• Is all access face-to-face?
  – Does it have to be?
• How can we best use this technology to serve our patients (while maintaining our practices’ viability)?
Physical Access
• Portals can be used to offer appointments
• Direct access to schedules is possible
  – Patient convenience
• Indirect access to schedules may be even better
  – Allows triage/evaluation prior to scheduling
• Blended option may be best

Patient Messaging
• Lowest technical barrier
• Allows patients to provide free-text information to practice in asynchronous fashion
• May allow for treatment of limited conditions or facilitate management of chronic conditions

AES POLL QUESTION
Do you currently use patient messaging to assist in management of chronic conditions?
1. Yes
2. No

Management of Chronic Conditions
• Hypertension
• Diabetes
• Depression
• Asthma
• Others

Example - Hypertension
• At office visit, start amlodipine 5 mg
• Patient reports orthostatic symptoms
• Reduce dose and return for visit in 2 weeks
• Simple example – not much different than telephone contact, but generally less time consuming

Discrete Data
• Patient-reported data are the “next level” of patient portal engagement
• Self-reporting of blood pressure or blood sugar data simplest information with which to start
Example - Diabetes

- Start insulin glargine 10 units nightly at office visit
- Patient reports morning blood sugars of 200s for next 2 weeks
- Increase insulin as appropriate prior to next visit

E-visits

- Similar to messaging, but more real-time data exchange
- More frequently used for self-limited conditions
- May consist of a base set of questions followed by a response

AES POLL QUESTION

Does your practice currently utilize e-visits and do you bill for them?

1. Yes, bill patient/insurer
2. Yes, no cost to patient/insurer
3. No

Example - Dysuria

- Patient enters portal and chooses complaint
- Answers brief set of questions via system-generated template
- Information provided to practice
- Treatment/recommendations sent back to patient

Video Visits

- More helpful for those conditions requiring face-to-face evaluation
  - Mental health
  - Skin conditions (with appropriate video equipment)
- Allows for more immediate interaction between provider/staff and patient

AES POLL QUESTION

Does your practice currently utilize video visits and do you bill for them?

1. Yes, bill patient/insurer
2. Yes, no cost to patient/insurer
3. No
**Example – Depression**
- Start escitalopram 10 mg at office visit
- Schedule office visit for 4 weeks
- Schedule video visit with staff for 2 weeks
- Use video visit for brief symptom check-in and determining whether return visit sooner is warranted

**Care Coordination**
- Not all care is provided in our offices or hospitals
- Patients will generally have information prior to being received from provider (if ever received)
- Messaging from a patient may be our first notification of external care

**Example – ED visit**
- Patient visits ED for cellulitis while on vacation and started on levofloxacin
- Sends message to ask about interaction with other medications (including warfarin)
- Via message, make temporary adjustment to warfarin with follow-up INR scheduled

**Patient Portals - Today**
- Many opportunities to improve care when not physically in the office
- Also provides opportunity to get patients into office when needed
- Workflows need to be established to facilitate care (and manage reimbursement)

**Patient Portals - Tomorrow**
- New technologies continuously emerging to facilitate engagement and improve care
- Information provided here is simply a brief view of what is coming and how we can use these technologies to better care for our patients

**Health Information Exchanges**
- Allow information to be sent across EHR platforms throughout a region, health system, or other entity (including governmental exchange)
- Participation in one or more networks can allow information to be received by a physician more promptly than by other methods
Health Information Exchanges

- Directed exchange – sent from one provider to another to coordinate care
- Query-based exchange – providers requesting information on patients
- Consumer mediated exchange – patients aggregate and distribute information

Health Information Exchange

- Although existing technology, not well deployed across the care continuum
- Although not directly patient reported, can be helpful in care via a portal

AES POLL QUESTION

Does your practice participate in a health information exchange (HIE)?

1. Yes
2. No, but planning to join
3. No, and no plans to join

HIE - Example

- Patient receives care in remote system
- Your office has participated in a HIE including that system
- You (or, ideally, your staff) receive information about said care
- You are then able to engage patient preemptively

HIE - Barriers

- Limited engagement of systems and providers
- Limits on authority to release information based on privacy concerns

Device Integration

- Previously discussed option to have patient-entered data
- Many home monitoring devices can send information either to a cloud-based service or export information directly
Devices

- Scales
  - Multiple manufacturers
  - Information sent to cloud-based service
  - Information integrated into EHR via application programming interface (API)
  - Information can be digested by EHR or manually interpreted

- Blood pressure monitoring
  - Multiple manufacturers
  - Information generally sent to cloud-based service (although direct file export exists)
  - API integration
  - EHR processing or directly interpreted

- Cardiac rhythm/device monitoring
  - Can replace traditional pacemaker checks
  - Information can be sent via Bluetooth from implanted device
  - Information can then be manually interpreted or submitted for system evaluation

- Insulin pump/blood glucose monitoring
  - Both discrete and continuous BGM
  - Pump delivery data can be provided via API from cloud-based service
  - BGM data can be processed by EHR and presented in usable format for provider

- Peak flow monitoring
  - Home devices on market currently
  - Advanced experimental device for automated reporting to providers
  - Can potentially identify poor control of asthma prior to hospitalization or emergency visit

- Activity monitors
  - Can indicate whether physical activity prescribed is occurring
  - Generally available via API from cloud-based service
  - Current data generally not helpful
  - In future, could be used for post-operative monitoring or exercise prescription evaluation

Devices – Medication Monitoring

- Devices to evaluate use of medication
  - Medication bottle caps
  - Medication dispensing machines
  - Metered-dose inhaler attachments

- Can help evaluate medication adherence prior to consequences of poor adherence

"Future" Technology

- More ways to obtain patient-reported information become available everyday
- Caution must be taken to avoid information overload
- Opportunities for payment for these services exist

Workflow

- Already too much information as physicians
- How to manage all of the incoming data?
- How do we get paid for the additional work?
Information Overload
• Office visits
• Phone calls
• Consultant reports
• Lab reports
• Imaging reports

Do I need this information?
• First, not all tools are appropriate for all patients
• Only offer appropriate tools to those for whom there’s a benefit
• Discontinue use of tools when appropriate as well

At the Front Lines…
• The physician should not be the primary portal of data entry
• Engagement of other team members (at appropriate licensure/ability level) can improve workflow
• Ensure that only that information on which the physician needs to act reaches the physician (as an ideal)

Workflows
• Scheduling requests
  – Should never reach provider
  – Schedule per existing scheduling protocols

Workflows
• External entity data
  – Initial point of contact should not be physician
  – Use discharge summaries to prompt TCM workflows
  – Reconciliation of external data should be performed whenever possible by non-physician staff

Workflows
• Patient reported data (BP, BG, etc.)
  – Use software tools to digest data prior to presentation to user
  – Information requiring prompt action should be presented to non-physician staff for initial action
  – Only that information that requires clinical action should be presented outside of face-to-face visits
  – Revenue opportunity for CCM
Brief Case Study

• 2000 patient panel
• 100 eligible for CCM
  – Two or more chronic conditions (95)
    • CPT 99480 = ~$44/month for 20 min staff time
  – Requiring 60+ minutes/month (5)
    • CPT 99487 = ~$88/month

Brief Case Study

• 100 discharges per year
  – CPT 99495/99496 - ~$111-161/visit

• Total additional annual revenue opportunity = $66,540
  – $55,440 from CCM for ~37 hours staff time/month
  - ~$125 per hour of staff time

Workflows

• Some additional work up front to design appropriate workflow and staffing
• Improved access for patients after initial work
• Improved revenue in long-term once patients enrolled appropriately

Summary

• Many existing opportunities to provide patients greater access to practice data and to provide data to practices
• More technologies on the horizon
• Attention to workflow must be maintained to prevent overloading physicians (further) and maximize revenue opportunities

Practice Recommendations

• Physicians should identify methods by which patients can access and report clinical information to their practice, including messaging and provision of discrete information
• Practices should identify the proper persons to respond to and integrate this information, allowing staff to work at the top of licensure and ability
• Practices should look to identify the best way to apply patient-provided information to patient care, both during visits and between visits

Questions
Contact Information

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Supplemental Information

- Connecticut Institute for Primary Care Innovation – www.cipci.org