The Future of Healthcare Information Technology

John D. Halamka MD
A Brief History of Time

- The US Experience good and bad
- Interoperability
- Patient/Family Engagement
- Big Data Analytics
- Cloud/Mobile
Assessing Our Progress

- EHR - 80% adoption of EHRs but with 453 clicks to admit a patient, 140 structured data elements per encounter to support clinical quality measures, 40% of clinicians feel burned out (C+)

- Interoperability - we’ve made reasonable gains with pushing payloads from place to place, but have not built the enabling infrastructure to support pull (C+)

- Patient/family engagement - we’re making reasonable progress with portals but we need an app that enables true patient stewardship of data (B)

- Big Data analytics - many products compiled in Powerpoint (B)

- Cloud/mobile - we need to accept that risk can never be zero (B)
We Can Do Better

- EHR - my wife’s recent experience and the need for Facebook/wikipedia
- Interoperability - my mother’s recent experience with a hip fracture
- Patient/Family engagement - my recent experience with hypertension
- Big Data Analytics - my wife’s cancer experience
- Cloud/Mobile - my current journey with multiple vendors
Mobile Applications Currently Available

Clinician Apps
- Dragon Medical Recorder
- LitImage Mobile

Inpatient Med Lists
- eyeRad

PatientSite
- MyICU
- PatientSite.org

Patient Questionnaires
Patient Generated Healthcare Data

- PatientSite
- Questionnaire Service (example ePROs)
- webOMR
- BIDMC Internet of Things (IoT) Server

- Supports
- View Measures

- Launch
- View
- Get Questionnaires

- CareKit
- Upload Subjective Measures
- Upload Objective Measures

- Email Messaging
- Appointment Requests
- Prescription Renewal
- Referrals Request
- BIDMC @Home Permissions
- BIDMC @Home Readings
- Patient Record Access*
- Open Notes Access*
- Registration Info Update*
- Appointment Cancellation*

- Current connectivity
- Future connectivity

* WebOMR Integrated
* Integration Planned

BIDMC @Home App
Population Health and Care Management

Data Sources

- BIDMC Clinical Data
- BIDCO Claims Data
- Joslin Clinical Data
- Additional Data Sources (Including Patient Generated Health Data (PGHD))

Shared Database

- BIDMC PopHealth List Manager
- WebOMR
- CCC Appointment Scheduling - Scheduled Visit Reports
- PatientSite

Performance Manager

Alerts & Reminders

- Referral Management
- Post Discharge Follow-up
- Home IV Follow-up
- Alerts & Reminders
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CCC Appointment Scheduling - Scheduled Visit Reports
Security Concerns

- Risk Management
- Identity Management
- Logging and Monitoring
- Policies, Procedures, and Governance
- Logging and Monitoring
- Managed Security Services
- Data Classification
- Physical Security
- Configuration Management
- Third Party Auditing
Next Steps

• Now is the time to innovate with social, mobile, analytics, and cloud approaches

• We must move to a quality and outcomes focus and not government specified functionality

• We need supportive infrastructure and policies

• We must reduce clinician burden

• IHTSDO and SNOMED-CT have an unprecedented opportunity
Questions?

- jhalamka@bidmc.harvard.edu
- http://geekdoctor.blogspot.com