The FHIR® Advantage for Development and Implementations

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QUICK BACKGROUND

Jamie Kurtz, VP of Engineering at Diagnotes

• Among other things... Services architectures, security
• Authored a couple books on REST services
• Industries: financial, pharma, manufacturing, consulting
• Relatively new to healthcare
a clinical communication & collaboration platform
PATIENT CARE REQUIRES EFFECTIVE COMMUNICATION

the problem:
established barriers separate providers, care teams, patients and office staff
COMMUNICATION PROBLEMS
IMPACT COST & QUALITY

“If miscommunication were considered a cause of death, it would be the fifth leading cause of death in hospitals.”
Dr. Nate Gross, Clinton Foundation Health Summit, 2016

Healthcare providers waste 91 minutes per day with inefficient communication and workflows, costing hospitals $1,750,000 annually. $900,000 could be saved with secure texting.
Ponemon Institute, The Economic Impact of Inefficient Communications in Healthcare, 2014

49% of discharged patients experienced a medical error from a breakdown in communications and were 6.2 times more likely to be rehospitalized.
Kripalani, et al. Journal of Hospital Medicine, 2007

Only 5% of charts with calls had telephone notes, which leads to medical errors.
Killip, et al. Family Medicine, 2007

The primary root cause of over 70% of treatment delays and sentinel events was a breakdown in communications.
Joint Commission, Sentinel Event Data Root Causes by Event Type, 2004-2013
the solution:

our HIPAA-compliant communication platform breaks down communication barriers, leading to improved care and lower cost.
Providers and staff can participate in discussions via secure text, voice and video.

Providers can engage with patients via secure text, voice and video.

Discussion participants can be selected based on provider schedules, specialty, role and location.

Discussions can be documented, with summaries added to patient records for care continuity & billing.

Key data from patient medical records can be accessed & shared by discussion participants in real-time.

NOT JUST SECURE TEXTING – END-TO-END WORKFLOW SUPPORT
DIAGNOTES IS EASY TO LEARN & EFFECTIVE TO USE

SECURE TEXT

PATIENT RECORDS

NOTIFICATIONS

DISCUSSIONS

VIDEO CALLS
REAL-TIME PATIENT DATA IS KEY

• Positive patient identification
• Informed clinical discussions
• Continuity of care
• EHR integration is core to the Diagnotes value proposition
THE FHIR TECHNOLOGY ADVANTAGE

- Real-time, query-able, patient-centric interface to EHR Resources
- Fast implementation, near-zero burden on EHR vendors and clients
- HTTP/REST greatly strengthens interoperability: extensive industry, platform, infrastructure, tooling, and talent support
- End-user security context (OAuth) improves security
- Foundational commitment to openness
- Heavy reliance on community involvement
curl -H "Accept: application/json" "https://open-ic.epic.com/FHIR/api/FHIR/DSTU2/Patient/Tbt3KuCY0B5PsTvCu2j-dPlK.aiHsu2xUjUM8bWpetXoB"

```ruby
token = SmartOAuth::TokenValidation.validate_token!(@session)
options[:headers].merge!( {:Authorization => "Bearer #{token}" })
result = HTTParty.send(method, endpoint, options)
```
Turn on FHIR, and we’re connected!

- FHIR spec provides all the data we need
- Much faster implementation, little/no client burden
- Secure direct query real-time access to patient data
- Zero to integrated with Epic FHIR Sandbox in less than a day
- Can integrate with any FHIR quickly and securely
- So far... No certification needed... similar to using Twitter API
DEVELOPER AND PROJECT HAPPINESS

- Able to use existing modern libraries
- Developers already understand HTTP/REST
- Community onboard with HTTP/REST
- OAuth just worked (with Epic sandbox)
- Easy to code, easy to test
- Real-time access means fast code/test cycles
- No custom interface means fewer/no project dependencies!!
- Epic sandbox is available to all... don’t need custom interface to start
IN SHORT

With FHIR...

- Modern code libraries, architecture, and talent
- Fewer project dependencies
- Public interfaces available for testing
THANK YOU!