Virtual Health Care System for Training Health Care Professionals

Prepared for AMIA’s Academic Forum

May 20th, 2014
Re-engineering

- 2009 - Regenstrief began rebuilding its core clinical information system platform
- 2010, work began on the new Gopher to replace Gopher Classic
- Agile development
- Currently deployed throughout the Eskenazi (formerly Wishard) Health system
New Gopher design principles

- Patient safety
- Perceived speed
- Stability
- Ease of use
- Platform independent
- Intuitive interface
New Gopher Requirements

- Functional Requirements
  - Order Entry
  - Note Writing
  - Medication / Problem / Allergy Management
  - Clinical Decision Support
  - SureScripts / Meaningful Use Compliance
  - Integrate with Research Platform
  - Support Existing Gopher Content
Model

Computer Order Entry System

Database

INPC

Gopher

Staging system
Scrubs/misidentifies data
Synchronizes data

Teaching database
10,000+ patients

“Thin” Gopher

Teaching EMR
Teaching EMR

- Branch of the Gopher
  - Will be kept synchronized to the production version
- Patient database – mis-identified patient data from the INPC
  - Also kept in sync through the mis-identification process
Patient “phase-shift”

- Goals
  - use up to date patient data to reflect current practice
  - Be able to pick patients with the appropriate content

- Solution
Great Artists Steal
Embedded teaching tools

- **RAVE (Rule authoring and validation environment)**

Currently in Production

RAVE → CDS engine → Gopher → ALERT!

User, patient context → Rules result(s)

User, patient context → Rules result(s)

tEHR

RAVE → CDS engine → Gopher → Teaching lesson(s) Survey

User, patient context → Rules result(s)
Progress to date

- Infrastructure created in the IU environment
- CPOE has been trimmed and installed
- Patient database table structure will be up in the next 2 weeks
- Patient mis-identification process is almost finished
Graduate Students

- Certificate
- Master’s
- Doctoral
“Under the Hood”

- Introduction to Health Informatics
  - Walk through platform
- Informatics Standards
  - Messages arrive through HL7 pipeline
  - Coded clinical data
  - Data is organized and stored by institution
- Clinical Decision Support
  - RAVE tool creation/authoring
  - Additional “Channels” for support
Questions