CLINICAL REMINDERS
OVERVIEW
PRESENTERS

- Patrick Redington – Primary developer for Clinical Reminders in VA
- Alan Montgomery – Primary support for Clinical Reminders in VA
CLINICAL REMINDER PACKAGE

USES

- Point of care decision support
  - Clinical reminders and dialogs
  - Order checks
- Patient surveillance
  - ADE, suicide, infection control
  - Patient contact and follow-up
- Performance measures
  - Compliance and tracking
  - Provider and facility report cards
- Reporting
  - Gatifloxacin, county health reports
- Patient reminders (My HealtheVET)
- Research
Reminder evaluation
- Based on reminder index
- Has plug-in capability

Dialogs
Reports
Patient lists
Extracts
Reminder exchange
All content is data
WHAT ARE CLINICAL REMINDERS

- Electronic reminders based on diagnoses or other VISTA patient data
- Set to return at a given frequency
- Based on Boolean logic
- Can be made to apply or be satisfied by patient data recorded as a data element
WHAT DO CLINICAL REMINDERS DO FOR THE CLINICIAN

• Inform clinicians when a patient is due to receive clinical activity
• Target the location/provider that best manages the resolution clinical activity
• Identify patients a reminder “applies” to, based on VISTA patient data – COHORT
• Identify what clinical activities “resolve or satisfy” the reminder – RESOLUTION
• Summarize pertinent patient information to aid the clinician in deciding follow-up
COHORT

• A group of people to be evaluated
  – All diabetic patients
  – Diabetic patients on the drug gatifloxacin

• See Diagram
A reminder is considered RESOLVED (or SATISFIED) if the conditions defined by the reminder have been met.
WHAT MAKES ALL THIS WORK

• Findings
  • Taxonomy Lab Test
  • Radiology procedure Health Factor
  • Education Topic Computed Finding
  • Drug Drug Class
  • Drug Generics Reminder Term
  • Orderable Item Mental Health Test
  • Immunization Exam
  • Skin Test Vitals measurement
  • Location list

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# BOOLEAN OPERATORS

<table>
<thead>
<tr>
<th>Boolean Operator</th>
<th>Symbol</th>
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<tbody>
<tr>
<td>AND</td>
<td>&amp;</td>
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<tr>
<td>OR</td>
<td>!</td>
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<tr>
<td>NOT</td>
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<tr>
<td>AND NOT</td>
<td>&amp;’</td>
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<tr>
<td>OR NOT</td>
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FUNCTION FINDINGS

- Perform a computation on the result of regular findings (Count, MRD, Max or Min Date, Duration, String of findings, Date Difference, Value)
- Are named with a number: 1, 2, etc.
- Can be used in cohort logic, resolution logic or as informational findings
- Allow shorter custom logic statements
  - Custom logic statements easier to write and read
- Use ONE of the following operators:
  - & ! ' > < =
FUNCTION FINDINGS

• Types of Function Findings
  – FI - makes for shorter evaluation logic
  – MRD – useful in comparing dates of findings
  – COUNT – useful in counting the instances of findings
  – DIFF_DATE – useful in calculating days between findings
  – DURATION – useful in calculating how “old” a finding is
  – VALUE – useful in comparing values of different or same finding. Mostly used in LAB and VITALS
  – NUMERIC – useful in changing values in comments to computable data
  – MIN_DATE – useful in comparing the oldest date of findings
DIALOGS

• Enable providers to interact with reminders via a GUI environment

• Allow information to be given to providers about specifics for a given patient

• Branching Logic allows dialogs to make decisions on what to show providers based on results of other findings

• Allow clinical reminders to be resolved by providers by inserting information into PCE

• Provide proper progress note documentation
DATA EXTRACTION

- **Reminder Reports**
  - Very useful at sites for site data reporting

- **Extracts**
  - Useful in automating data extraction
  - Allows for better control of dates of findings
QUESTIONS
WHAT IS COMING

- Polytrauma Marker (PXRM*2*17 released June 1, 2010)
  - 12 Reminder Exchange entries
  - New computed findings:
    - VA-ASU USER CLASS
    - VA-WAS INPATIENT
    - VA-ACTIVE PATIENT RECORD FLAGS
  - Bug fixes
FUTURE WORK

- Reminder Order Checks
- Mental Health High Risk for Suicide
  - Generate alerts
- ICD-10 Conversion
  - ICD-10 Codes in taxonomies
  - Possible use of SNOMED CT codes
FUTURE WORK ??

- Reminder Extracts and Patient Lists
  - Templates for demographic report
  - Make setting up automated extract runs easier to do
- Reminder Definitions
  - New functions for function findings