

Electronic Prescribing in the Outpatient Setting Planning, Requirements Analysis, System Selection, Implementation and Workflow Redesign

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Abstract

The advantages of electronic prescribing include increased safety, error reduction and convenience. These advantages are widely known, yet the adoption rate is still low. Although much is written on the value of using such systems, there is not much in the "how to" category. This tutorial designed to fill that gap. It is aimed at those considering moving forward with electronic prescribing. The tutorial includes information and materials to support all phases of such a project; Initial Planning and Project Management, Requirements Analysis, System Selection and Contracting, Implementation and Workflow Redesign. In addition, the tutorial instructors will provide quantitative estimates of time and/or effort required for these activities as well as a suggested sequential task list to assist attendees in their planning and implementation efforts.

Dr. Samuels is Director of the Outpatient Service at PGHC's Internal Medicine teaching practice, and has been project manager for the entire electronic prescribing project, which is now near completion. Dr. Zama is a resident in the program, and served as primary trainer and coordinator for the initial data entry.

Content of the Tutorial

The tutorial will consist of five parts covering each of the following topics:

- Initial Planning and Project Management
- Requirements Analysis
- System Selection and Contracting

- Implementation
- Workflow Redesign

For each section, the first half of the time will consist of formal presentation. The second half of each period will be dedicated to review of hand-out materials and attendee questions.

Hand-out materials pertinent to each section will consist of templates and checklists for attendees to use for each major task, as well as a suggested sequential task list (timeline) for the entire project.

Outline of Topics Covered

[* Indicates template, checklist or other supportive handout to be supplied]

A. Initial Planning and Project Management

1. Executive Direction

- a. Lowest effective level for budget and policy requirements
- b. Steering group (based on target clinical process, information management resources and change management process in your organization)*

2. Budget*

- a. High Estimate (software and hardware costs based on ideal configuration)
- b. Low Estimate (software and hardware costs based on minimal configuration)
- c. Human Resources

- d. Materials
- 3. Project Management
 - a. Simplified (preferred)*
 - b. Standard
 - c. Timeline*
- B. Requirements Analysis
 - 1. Functional Requirements* [complete checklist provided including the following]
 - a. Medication list maintenance functions
 - b. Drug-drug interactions
 - c. Allergy checking
 - d. Formulary support
 - e. Faxing capabilities
 - f. Continuity and cross-coverage
 - g. Security
 - h. Reporting
 - i. Interfaces
 - 2. Business Requirements*
 - 3. Technical Requirements
- C. System Selection and Contracting
 - 1. Requirements-based
 - 2. Approval process
 - 3. Contracting*
- D. Implementation*
 - 1. System build, install
 - a. Hardware, software
 - b. Interfaces
 - c. Data (Rx, patients)
 - d. Security, users
 - 2. Training and Go-live
 - a. Physicians
 - b. Clinical Staff
 - c. Administrative Staff
 - 3. Communication
 - a. Executive, steering
 - b. Users, all classifications
 - c. Patients
 - 4. Support and Maintenance
 - a. Staffing of support
 - b. Meetings
 - c. Errors, trouble-shooting, upgrade requests
- E. Workflow Redesign*
 - 1. Outline pre-implementation medication processes
 - 2. Documentation review
 - a. Medical Records components [organizational policies may need revision, documents approved]
 - b. Operational documents
 - 3. Design ideal process with e-prescribing application (participants, functions, tools, outputs)
 - 4. Policy and procedure review, update
 - 5. Implement, review, revise

Educational Goals

Attendees will understand what is needed for a successful e-prescribing project, and have tools to accomplish each phase.

Who Should Attend

All interested in undertaking an electronic prescribing project

Level of Content

Basic

Prerequisites

None

Previous AMIA Tutorial

11/2000

Medical Informatics Positions in Health Care Organizations; Creating the Opportunity, Meeting the Challenge
Caroline Samuels MD, Richard Gibson MD and Betsy Hersher

Instructors

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Dr. Samuels divides her time between an academic medicine practice (Internal Medicine and Rheumatology) and consulting in Medical Informatics. She is the developer and owner of the EHR Selection Toolkit which is licensed to HIMSS, and is part of the HIMSS Solutions Toolkit.

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