EHR Data Integration and Seamless Exchange of Clinical Information to Enable Next-Generation Pharmacy Services

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Objectives

1. Explain strategies that pharmacists can use to leverage information available through electronic health record (EHR) systems to improve the quality and efficiency of pharmacy-based patient care services

2. Illustrate how EHR data integration and the exchange of clinical data advancements affect electronic prior authorizations (ePA) and streamlining benefits checks coverage determination

3. Discuss aspects of the importance of improvements needed to the ePA process related to clinical data exchange
PHIT Overview

**Founding Organizations**
- 9 Professional Pharmacy Associations
- Represents over 250K members in all practice setting

**Members**
- AACP-ACCP-ACPE-AMCP-APhA-ASCP-ASHP-NASPA-NCPA

**Associate Members**
- Surescripts – NCPDP – Amgen – Pfizer - Cardinal Health/Fuse - Updox
PHIT Key Value Points

+ Improve patient health and medication outcomes through integration of pharmacist patient care services documented in EHRs and shared through health information exchanges.

+ Ensures that the pharmacy profession is at the appropriate health IT tables.

+ Influence the policy development aspects of the Office of the National Coordinator for Health IT (ONC) through the active participation of the Collaborative.

+ Identification and development of standard clinical terminology codes (e.g. SNOMED CT) assisting pharmacists in the documentation of their patient care services into EHRs.
PHIT Website

www.pharmacyhit.org
PHIT Volunteer Work

+ Over 70 volunteers
  + WG1 – Professional Service Claims and Codes
  + WG2 – Professional Service Documentation and Coding
  + WG3 – Communication Standards
  + WG4 – Pharmacist EHR

+ www.pharmacyhit.org

Guidance Documents
The figure depicts a proposed standardized pharmacist patient-centered collaborative care process for pharmacists providing medication therapy management (MTM) services. The pharmacists’ patient care process described in this illustration was developed by examining a number of key source documents on pharmaceutical care and MTM. Patient care process components in each of these resources were catalogued and compared to create the following process that encompasses a contemporary and comprehensive approach to patient-centered care that is delivered in collaboration with other members of the health care team.

Sharing Patient Process of Care

Pharmacists’ Patient Care Process Structure Documents

- Collect
- Assess
- Plan
- Implement
- Collaborate
- Communicate

Adapted from Pharmacists’ Patient Care Process, May 29, 2014.
Pharmacy Health Information Technology Collaborative

Pharmacy HIT Collaborative project

Medication Therapy Management (MTM) value set
  - Search under SNOMED browser
  - Topic: Medication Therapy
  - More than 450 MTM clinical terms

Other types of pharmacy value sets being considered by Pharmacy HIT Collaborative

Pharmacist eCare Plan project
Clinical Documentation

Purpose – not billing!

- Tracking productivity
- Linking care to outcomes
- Communicate care plans
- Pass-off to colleagues

Limited by capabilities of software systems

Quality Measurement

Interoperability
Value Sets

- Set of codes appropriate for documenting within a specific data field
- Guides vendors and implementers how to build documentation codes within solutions
Value Sets

- Implementation of SNOMED CT codes
- Data structure for Health IT in U.S.
  1. Calculation of electronic clinical quality measures (eCQMs)
  2. Interoperability across health information exchange (HIE) networks

**eCQM Reporting**
Quality Measures  
Value-Based Payment

**Value Sets**

**Interoperability**
Data Sharing  
Health Info Exchange
Clinical Document Architecture (C-CDA)
- Standard developed by Health Level 7 (HL7)
- Provides a common framework for development of *electronic clinical documents*
- Capture, store, access, display, and transmit clinical data elements

http://www.healthit.gov/policy-researchers-implementers/consolidated-cda-overview
Pharmacist eCare Plan

Description
This is a joint project between NCPDP and HL7 http://dms.ncpdp.org/index.php/ncpdp-work-groups?view=category&id=64 and is linked to this project is linked to the ONC HIP project https://www.healthit.gov/techlab/ipg/node/4/submission/1726. The goal of this project is to develop an electronic care plan with enhanced medication management content based on the templates in the HL7 Implementation Guide for C-CDA Release 2: Consolidated CDA for Clinical Notes. This care plan called "Pharmacist eCare Plan" will serve as a standardized, interoperable document for exchange of consensus-driven prioritized medication-related activities, plans and goals for an individual needing care. Pharmacists work in multiple environments (community, hospital, long term care, clinics, etc.) and increasingly participate in patient-centered care teams providing essential clinically oriented patient care services such as medication therapy management, clinical reconciliation (medication, allergies and problems), patient immunization management, disease state monitoring, and therapy adherence programs. The Pharmacist eCare Plan will be a dynamic plan that contains information on the patient, pharmacist and care team's concerns and goals related to medication optimization. The care plan may also contain information related to individual health and social risks that may impact care, planned interventions, expected outcomes, and referrals to other providers or for additional services e.g., nutrition consultation or diagnostic laboratory studies. Four (4) organizations have agreed to implement the Pharmacist eCare Plan. Community Care of NC (CCNC) Indian Health Services (IHS), QS1, PioneerRX, Rx30, Computer-RX, Creative Pharmacist and VIP. The FHIR resources will be used for this project.

- http://www.hl7.org/Special/committees/structure/projects.cfm?action=edit&ProjectNumber=1232

Start Date 12/21/2015       Projected End Date 09/30/2020

https://www.healthit.gov/techlab/ipg/node/4/submission/1376
HL7 Proof of Concept

https://youtu.be/F4e8EzLxQAs

HL7 C-CDA Care Plan Document DSTU
Proof of Concept Project

“Clear and specific refinements of many clinical standards are needed and will, no doubt, come about because of careful, reality-based evaluations.”


Narration by:
Tom Williams, Healthwise
Lenel James, HL7 Attachments WG
Nancy Bucceri, ZeOmega
Gregg Prothero, Edifecs

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ONC High Impact Pilot

Phase 1
Sept 2016 – Feb 2017
Project Launch
Standards Development
Training

Phase 2
Dec – Apr 2017
Initial Implementation
Refinement
Testing

Phase 3
Mar – Aug 2017
Controlled Roll Out
Full Implementation
Data Collection

Phase 4
Aug – Sept 2017
Data Analysis
Reporting

hl7.org/special/committees/projman/searchableprojectindex.cfm?action=edit&ProjectNumber=1232
C-CDA Pharmacist eCare Plan

1. **Goals**

2. **Health Concerns**
   - Problem List
   - Allergies, Intolerances
   - Medication Therapy Problems

3. **Interventions**
   - Medications
   - Medication Therapy Interventions (e.g. dose change, med rec, monitoring)
   - Referrals
   - Patient Instructions

4. **Health Status & Outcomes**
   - Adherence, Adherence Barriers
   - Cognitive Ability (to understand)
   - Functional Ability (to walk, swallow)
   - Status of Medication Therapy Intervention

5. **Payers**
   
   hl7.org/special/committees/projman/searchableprojectindex.cfm?action=edit&ProjectNumber=1232
Medication Activity (PhCP)

- MoodCode=INT
- Prescription Number
- Prescription Status (ActStatus Value Set)
- SNOMED Code = Prescription
- Prescriber Information
- Medication Dosage/Sig
- Link to “Indication”

Dispensed Medication (PhCP)

- Fill Status (Complete/Abort)
- Fill Information/Fill ID
- Pharmacy Information
Interventions with Med List

**INTERVENTIONS SECTION**
- 1. Referral to Primary Care Provider for Constipation management
- 2. Referral to a Substance Abuse Rehabilitation Center
- 3. Recommend alternative pain management options
- 4. Provide patient education on impacts of chronic use of opioids

**Prescription List**

<table>
<thead>
<tr>
<th>Medication Name</th>
<th>Dosage</th>
<th>Fill Date</th>
<th>Refill Number</th>
<th>Indication</th>
<th>Pharmacy</th>
<th>Prescription Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxycodone Hydrochloride 10 mg</td>
<td>2 tablets</td>
<td>2-10-2016</td>
<td>0</td>
<td>Back Pain</td>
<td>Community Pharmacy</td>
<td>Active</td>
</tr>
<tr>
<td>Oxycodone Hydrochloride 10 mg</td>
<td>2 tablets</td>
<td>2-10-2016</td>
<td>0</td>
<td>Back Pain</td>
<td>Regional Pharmacy</td>
<td>Aborted</td>
</tr>
<tr>
<td>Lisinopril 10 mg</td>
<td>2 tablets</td>
<td>2-10-2016</td>
<td>1</td>
<td>Hypertension</td>
<td>Community Pharmacy</td>
<td>Active</td>
</tr>
<tr>
<td>Lisinopril 10 mg</td>
<td>2 tablets</td>
<td>2-10-2016</td>
<td>2</td>
<td>Hypertension</td>
<td>Community Pharmacy</td>
<td>Active</td>
</tr>
<tr>
<td>Lisinopril 10 mg</td>
<td>2 tablets</td>
<td>2-10-2016</td>
<td>3</td>
<td>Hypertension</td>
<td>Community Pharmacy</td>
<td>Active</td>
</tr>
</tbody>
</table>

hl7.org/special/committees/projman/searchableprojectindex.cfm?action=edit&ProjectNumber=1232
Pass the Lego Blocks

- Standardize the block size
- Detail the blocks into a structure
- Reuse the blocks
CPESN-USA Pharmacist eCare Plans

- Pharmacist eCare Plans are essential to quality assurance, quality improvement and Clinically Integrated Networks status
- 12 vendors are now certifying, with more planned
Paradigm Shifts

CLAIMS - TRANSACTIONS

CLINICAL DATA – API – C-CDA

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Next Generation of Formulary and Benefits (F&B) Check

+ Interim solutions
  + Users obtain F&B information from web-based portal
  + Providers query payers F&B data from ePrescribing module
  + Systems integrate F&B standard into ePrescribing workflow

+ Futuristic solutions
  + Provider systems prior to patient encounter, query payers pharmacy level F&B data and integrate data into providers’ workflow
Next Generation of ePA

+ Interim solutions
  + Users populate ePAs with text based clinical data
  + Systems populate ePAs with texted based clinical data
  + Users or systems populate ePAs with codified clinical data

+ Futuristic solutions
  + Payers pull codified clinical data needed for ePA from electronic structured documents (e.g. C-CDA)
  + Payers obtain codified clinical data needed for ePA through open source API with real-time feedback/approval to providers and pharmacies
Pharmacists’ clinical services are a critical component of our nation’s health care system and can effectively contribute to the meaningful use of EHR.
Discussion Topics/Questions

1. Rate of adoption of standardized electronic structured documents with providers and payers

2. Benefits and roadblocks to standardizing clinical data exchange

3. Barriers and driving factors for providers to adopt newer ePA and F&B technology solutions