Use of the Pharmacist eCare Plan in a Statewide Community Pharmacy Network

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Disclosures

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Objectives

1. Describe an overview of the draft Pharmacist eCare Plan standard
2. Review plans to conduct a large scale test of Pharmacist eCare Plan with the NC Community Pharmacy Enhanced Services Network
3. Highlight early observations and lessons learned from planning and implementation of the eCare Plan test
The Pharmacist eCare Plan
Pharmacist eCare Plan

Goals of the Project:

- Create a new standard for electronic pharmacist care plans called “Pharmacist Care Plan” which is a further constraint on a standard in the Interoperability Standards Advisory

- Integrate the pharmacist care plan into coordination efforts for patient care across the health continuum
eCare Plan Aligns with the Pharmacist’s Patient Care Process
Pharmacist eCare Plans

• Having pharmacists collect, document and share medication-related services with providers, payers, and care givers (as well as the patients themselves) will help validate the pharmacist’s role in patient care.

• Capturing clinical data is a new way payers are using to reimburse providers for value-based payment models for programs like chronic care management.

eCare Plan screen shot courtesy of Creative Pharmacist
Core Components of Pharmacist eCare Plan

- Patient Demographics
- Health Concerns
  - Drug therapy problems, in addition to other health concerns
- Interventions
- Patient-Centered Goals
- Health Status Evaluation and Outcomes
Lantana Consulting Group’s Role

HHS Awards $1.5 million to Improve Information Flow for Patients and Providers

- Lantana Consulting Group: This project will create a new standard for electronic pharmacist care plans (ePhCP), which have not been included in the Interoperability Standards Advisory. The project pilot will use health IT standards to integrate pharmacist care plans into coordination efforts for patient care across the health continuum.

Parallel Paths

- CMMI grant for CCNC
- Pharmacist eCare Plan HL7 development

Gives the ability to document in own native system of record and follow interoperability standards.
Standards Development vs. Software Development

Standards Development
• Defines the ePhCP target syntax for sharing data
• Based on existing standards and processes
• Focuses on what needs to be exchanged, not how it is captured or generated
• The full spec will not be done for several months

Short Term Intersection
• What data elements are optional, required, or repeatable
• What datatypes are used to represent those data elements

ePhCP Software
• Needs to capture the data required by the ePhCP
• Needs to export XML that validates against the spec
Incrementalism

1. Get the data flowing.
2. Incrementally add structure where it is valuable to do so.

Slide courtesy of Lantana Consulting Group
Relevant Standards

C-CDA
- Clinical Document standard required under Meaningful Use
- Commonly exported by many EHRs
- Old HL7 V3 syntax, somewhat idiosyncratic

FHIR
- New HL7 standard
- Free and unencumbered license
- Common web standards (XML, JSON, RESTful APIs)
- Still evolving
- [http://www.hl7.org/fhir](http://www.hl7.org/fhir)
CDA Structure

Header identifies
- Patient
- Author
- Encounter information
- Type of document (e.g., Discharge summary)

Body contains
- Contains the clinical content
- Must contain narrative content
- May contain coded content
- Supports both
  - StructuredXMLBody includes
    - Section(s) – human-readable
    - Entry(s) – discrete clinical statements for machine processing
  - NonXMLBody examples
    - PDF
    - JPEG

Slide courtesy of Lantana Consulting Group
CDA XML Example

Slide courtesy of Lantana Consulting Group
Human Readable CDA (continued)

**Patient:** Isabella Jones  
**Document Type:** Summarization of Episode Note

**ASSESSMENT**
1. Recurrent GI bleed of unknown etiology; hypotension perhaps secondary to this but as likely secondary to polypharmacy.
2. Acute on chronic anemia secondary to #1.
3. Azotemia, acute renal failure with volume loss secondary to #1.
4. Hyperkalemia secondary to #3 and on ACE and K+ supplement.
5. Other chronic diagnoses as noted above, currently stable.

**ENCOUNTERS**
- **Encounter:** Checkup Examination  
  - **Performer:** Performer Name  
  - **Location:** Community Urgent Care Center  
  - **Date:** 2009027130000-6500

**FAMILY HISTORY**
- **Father (deceased):**
  - **Diagnosis:** Myocardial infarction (cause of death)  
    - **Age At Onset:** 57
  - **Diabetes**  
    - **Age At Onset:** 40

**FUNCTIONAL STATUS**
- **Functional or Cognitive Finding:**
  - **Observation:** Independently able  
    - **Observation Date:** March 11, 2009  
    - **Condition Status:** Active
  - **Finding of Functional Performance and Activity:** Dyspnea  
    - **Observation Date:** February 2007  
    - **Condition Status:** Active
  - **Cognitive Function Finding:** Memory impairment  
    - **Observation Date:** April 2007  
    - **Condition Status:** Active

Slide courtesy of Lantana Consulting Group
Consolidated CDA (C-CDA)

C-CDA is a library of reusable document templates:

- Care Plan including Home Health Plan of Care (HHPoC)
- Consultation Note
- Continuity of Care Document (CCD)
- Diagnostic Imaging Reports (DIR)
- Discharge Summary
- History and Physical (H&P)
- Operative Note
- Procedure Note
- Progress Note
- Referral Note
- Transfer Summary
- Unstructured Document
- Patient Generated Document (US Realm Header)
Cooking with Templates

CDA Without Templates

- Like a kitchen full of raw ingredients, but no menu, recipes, cookbooks, or other guidance.
- Very flexible, but hard to work with if you are not an expert cook.
- Only the cook knows what’s going on until the meal has been cooked and delivered to the table.

Templated CDA

- Same kitchen, but...
- Full menu and recipes are provided.
- Food is prepped and ready to be cooked to order according to the provided recipes.
- Less flexible, but much easier for the novice to work with.
- Both the cook and the diner know what to expect.
What can be improved?

Grahame’s Law:
You can hide complexity, or make it worse, but you can’t make it go away.

HL7 V3 was more complex than necessary.
Simple technical problems became road-blocks for many implementers.

CDA was the stable, simpler part of HL7 V3.
But inherited much of the V3 complexity
Never had a viable API complement

FHIR makes many simple problems simple again.
Lets implementers focus on solving the hard problems.
FHIR

F – Fast (to design & to implement)
Relative – No technology can make integration as fast as we’d like

H – Health
Area of focus for HL7

I – Interoperable
Purpose of HL7

R – Resources
Building blocks – more on these to follow
FHIR

FHIR is like Lego™ for Healthcare

Resources = Blocks

Resources are discrete chunks of clinical information

Resources can be assembled into larger constructs

You operate on resources via FHIR’s REST APIs - like programming Lego Mindstorms (™)

Slide courtesy of Lantana Consulting Group
Anatomy of a FHIR Resource

<Patient xmlns="http://hl7.org/fhir">
  <id value="glossy"/>
  <meta>
    <lastUpdated value="2014-11-13T11:41:00+11:00"/>
  </meta>
  <text>
    <status value="generated"/>
    <div xmlns="http://www.w3.org/1999/xhtml">
      <p>Henry Levin the 7th</p>
      <p>MNR: 123456. Male, 24-Sept 1932</p>
    </div>
  </text>
  <extension url="http://example.org/StructureDefinition/trials">
    <valueCode value="renal"/>
  </extension>
  <identifier>
    <use value="usual"/>
    <type>
      <coding>
        <system value="http://hl7.org/fhir/v2/0203"/>
        <code value="MR"/>
      </coding>
      <type>
        <system value="http://www.goodhealth.org/identifiers/mrn"/>
        <value value="123456"/>
      </identifier>
    <name>
      <family value="Levin"/>
      <given value="Henry"/>
      <suffix value="The 7th"/>
    </name>
    <gender value="male"/>
    <birthDate value="1932-09-24"/>
    <careProvider>
      <reference value="Organization/2"/>
      <display value="Good Health Clinic"/>
    </careProvider>
    <active value="true"/>
  </Patient>

Identity & Metadata

Human Readable Summary

Extension with reference to its definition

Standard Data Content:
- MRN
- Name
- Gender
- Date of Birth
- Provider

Slide courtesy of Lantana Consulting Group
Large Scale Test of Pharmacist eCare Plan
The Medical Neighborhood
Community Pharmacy Enhanced Services Networks

Core CPESN Services

- Ability to integrate with and augment Managed Care coordination and care management infrastructures
- Establish an ongoing professional relationship with the patient
- Provide in depth review of patient education regimens to identify opportunities to optimize therapy
- Work with providers and other health care professionals to resolve any concerns with the patient’s medications
- Contribute to development of a patient-centered care plan
- Provide care coordination and additional motoring between provider office visits for patients, especially those who are non-adherent to medications and/or are medically complex
- Engage in clear, clinically-relevant communication with the provider and care team

Core CPESN Services
Provide a minimum set of enhanced services including, but not limited to:

- Medication reconciliation
- Clinical Medication Synchronization
- Adherence Packaging
- Immunizations
- Complete Medication Reviews with Chronic Care Management

CPESN NC Sites

Map showing CPESN sites in North Carolina with different regions highlighted.

Legend:
- AccessCare Network Sites
- Community Care Plan of Eastern Carolina
- Community Care of Western North Carolina
- Community of the Lower Cape Fear
- Partnership for Health Management
- Community Care of Wake and Johnston Counties
- Community Care Partners of Greater Mecklenburg
- Carolina Community Health Partnership
Why eCare Plan?

- Ease documentation burden
- Use of a technology already in pharmacy workflow
- Agnostic to technology vendor
- Standardized data for the purpose of quality assurance
- Designed for data exchange (enables care coordination)
Early Test of Pharmacist eCare Plan with CCNC CPESN℠

Empowering Community Pharmacies to Improve Care Coordination and Health Outcomes with Use of Electronic Care Plans

Community Care of North Carolina (CCNC) partners with pharmacy technology companies to link community pharmacies with Medical Homes to test Pharmacist eCare Plan

Community pharmacists participating in the North Carolina Community Pharmacy Enhanced Services Network (CPESN) will soon develop electronic care plans for high risk patients that are designed to improve outcomes related to medication use and are coordinated with other care team members. This effort uses existing standards adopted by medical providers in electronic medical records to develop an electronic pharmacy care plan (or Pharmacist eCare Plan) – a shared document detailing a patient’s current medication regimen and health concerns, including drug therapy problems and medication support needs, in addition to the pharmacy’s interventions and the patient’s health outcomes over time.

Being able to efficiently and effectively create and share care plans is crucial to both integration with the larger care team and into community pharmacy workflow. The Pharmacist eCare Plan standard allows pharmacists to create care plans within the technology already in use in the pharmacy and utilizes existing standards for data exchange.
Pharmacist eCare Plan Vendors

• Pharmacy eCare Plans are essential to quality assurance, quality improvement and Clinically Integrated Network status

• 12 vendors are now certifying, with more planned

Phase I

- Creative Pharmacist
- Computer Rx
- QS/1
- VIP Pharmacy Systems

Phase II

- Pioneer Rx
- The Pharmacy System
- Assurecare
- BestRx
- McKesson
- PDX
- PrescribeWellness
eCare Plan Implementation within CCNC CPESN Network

**PROCESS**

1. Vendor eCare Plan Certification
2. Pharmacy Willingness to Switch to Value-Based Payment Model
3. Pharmacy eCare Plan Training
4. Pharmacy eCare Plan Certification
5. Pharmacy Go Live on eCare Plan & Alternative (Value-Based) Payment Model

**TIMELINE**

- **June 2017**: 12 pharmacies included in initial go live
- **July 2017**: 50-100 additional pharmacies
- **Aug 2017**: 50-100 additional pharmacies
- **Sept 2017**: 50-100 additional pharmacies
  - *Entire network now on eCare Plan*
National Attention to the eCare Plan Test within CCNC CPESN Network

http://www.pharmacist.com/article/model-will-better-connect-community-pharmacy-systems-ehrs-and-more
Early Observations and Lessons Learned
Early Observations – Program Side

• Implemented June 1, 2017 with 12 pharmacies
• Process/workflow and intervention impacts
• Importance of:
  • Early adopters
  • Regular check-ins
  • Role of incentives
  • Communication
Early Observations – Technology Side

- Implemented June 1, 2017 with 1 vendor
- Most vendors selected FHIR over CDA
- Most need front end/UI development in addition to back end eCare Plan work
- Existing data models may need to be re-mapped
- Medical codes (e.g., SNOMED) are new to most
- User support needed during implementation (new for everyone)
- eCare Plan validation is a slow, steady process with incremental improvements
Self Assessment Question #1

Which of the following is NOT a required element of the Pharmacist eCare Plan standard?

A. Patient-centered goals
B. Health concerns
C. Laboratory data
D. Interventions
E. Outcomes
Self-Assessment Question #2

What advantages of the Pharmacist eCare Plan made it ideal to test within a high-performing, quality-focused community pharmacy network?

A. Ease of data exchange
B. Alignment with pharmacy workflow
C. Standardized documentation
D. Vendor agnostic
E. All of the above
Self-Assessment Question #3

Which of the following were early observations or lessons learned from the eCare Plan test?

A. Pharmacists/pharmacies were by and large looking forward to being able to document patient care activities within the technology applications already in use in the pharmacy

B. Vendors implementing the eCare Plan have a great deal of latitude on how to implement the care plan components within the user interface

C. Standardized care plans allow for easier “apples to apples” comparisons of pharmacy care plan quality

D. Opportunities for free text narrative describing the major discussion points of the patient encounter are limited

E. All of the above
A Big Thank You!
Thank You

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