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Medication Therapy Management: Data Exchange

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Disclosure



Mike Case Haub is an employee of OutcomesMTM. The conflict of interest was resolved by peer review of the slide content. He declares no other conflicts of interest or financial interest in any product or service mentioned in this program, including grants, employment, gifts, stock holdings, and honoraria.

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Learning Objectives



Following this presentation, attendees should be able to:

- 1 Describe the progression of MTM services and the changing health care arena.
- 2 Explain the need to ensure that pharmacy is involved in meaningful use incentives.
- 3 Describe the future of interoperability and how pharmacy would be part of that interoperability

HIT VOCABULARY



ACO	Accountable care organization
ADEs	Adverse drug events
ARRA	American Recovery and Reinvestment Act
CAH	Critical access hospital
CCD	Continuity-of-care document
CDS	Clinical decision support
CMR	Comprehensive medication review
CMS	Center for Medicare and Medicaid Services
CPOE	Computerized provider order entry
CPT	Current procedural terminology
DEA	Drug Enforcement Agency
EHR	Electronic health record
EMR	Electronic medical record
EPCS	Electronic prescribing for controlled substances
ePHR	Electronic personal health record
HHS	U.S. Department of Health & Human Services
HIPAA	Health Insurance Portability and Accountability Act
HITECH	Health Information Technology for Economic Clinical Health
HIE	Health information exchange
HIT	Health information technology
HL7	Health Level Seven
LTC	Long-term care
MTM	Medical therapy management
ONC	Office of the National Coordinator
PCP	Primary care physician (or provider)
PHR	Personal health record
PMS	Pharmacy management system
PP-EHR	Pharmacy/pharmacist provider electronic health record

VOCABULARY STANDARDS FOR ELECTRONIC HEALTH INFORMATION (CODE SETS)

Codes sets are used for encoding data elements, such as medical concepts, diagnoses, or procedures. (Nonmedical code sets, also known as administrative code sets, encode nonmedical data, including ZIP code, state abbreviations.)

- » *Clinical terms.* Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)
- » *Diagnosis codes:* ICD-10 (coding for all providers covered by the Health Insurance Portability and Accountability Act (HIPAA))
- » *Laboratory test results.* Logical Observation Identifiers Names and Codes (LOINC)
- » *Medications.* RxNorm, a standardized nomenclature for clinical drugs and drug delivery devices, is produced by the National Library of Medicine.
- » *Immunizations.* Code set for vaccines administered (CVX)

Source: Ref 7

HIT BACKGROUND



- American Recovery & Reinvestment Act of 2009
 - Set goals for healthcare integration and improving national HIT
 - Protection/privacy of information
 - Improve patient care by reducing medical errors
 - Reduce costs by removing administration barriers (duplicate claims/services)
 - Improve coordination of care among healthcare providers

HIT BACKGROUND



- How do we achieve these goals?
 - Provide incentives for EHRs
 - Meaningful use
 - \$19 billion designated to develop regional health information exchange (HIE) networks
 - \$17 billion designated for EHR development
 - \$2 billion for HIT infrastructure
 - Expected to reduce spending by tens of billions in next decade
 - Nationwide EHR by 2014
 - Integration Estimate by 2019
 - 70% hospitals
 - 90% physicians
 - Very Ambitious

MEANINGFUL USE



PROFESSIONAL CORE OBJECTIVES REQUIRED FOR MEDICARE AND MEDICAID INCENTIVES

1. Use CPOE
2. Implement drug-drug and drug-allergy interaction checks
3. Maintain an up-to-date problem list of current and active diagnoses
4. Generate and transmit permissible prescriptions electronically
5. Maintain an active medications list
6. Maintain an active medications allergy list
7. Record demographics (preferred language, gender, race, ethnicity, date of birth)
8. Record vital signs and chart changes (height, weight, blood pressure, BMI, growth charts for children aged 2 to 20 years)
9. Record smoking status for patients aged 13 years or older
10. Report ambulatory clinical quality measures
11. Implement clinical decision support rule as determined by the eligible professional
12. Provide patients with an electronic copy of their health information
13. Provide clinical summaries for patients for each office visit
14. Capability to exchange key clinical information electronically (eg, problem list, medication list, diagnostic test results) among care providers and patient-authorized entities
15. Protect electronic health information by use of certified technology

Abbreviations: BMI, body mass index; CPOE, computerized provider order entry.
Source: Ref 7

BENEFITS OF MEANINGFUL USE OF EHRs

By adopting EHRs in a meaningful way, healthcare providers can:

- » **Know more about their patients.** Information in EHRs can be used to coordinate and improve the quality of patient care.
- » **Make better decisions.** With more comprehensive information readily and securely available, healthcare providers will have the information they need about treatments and conditions – even best practices for patient populations – when making treatment decisions.
- » **Save money.** EHRs require an initial investment of time and money, but healthcare providers who have implemented them have reported reductions in the amount of time spent locating paper files, transcribing, and spending time on the phone with labs or pharmacies; more accurate coding; and reductions in reporting burden.

Abbreviations: EHR, electronic health record.
Source: Ref 11

PHARMACY INCENTIVES



- Pharmacists
 - Not recognized by CMS as eligible for meaningful use
 - No direct incentives to adopt
- Pharmacy Schools
 - May receive grants to incorporate HIT into clinical education
- Eligible Providers
 - Medicare (\$44,000) over 5 years
 - Medicaid (\$63,750) over 6 years
 - Physicians not utilizing certified EHRs by 2015 could be penalized

PHARMACY INTEGRATION



10 GOALS FOR PHARMACY INTEGRATION IN HEALTHCARE SYSTEM

1. Ensure HIT supports pharmacists in healthcare service delivery
2. Achieve integration of clinical data with electronic prescription (e-prescribing) information
3. Advocate pharmacist recognition in existing programs and policies
4. Ensure HIT infrastructure includes and supports MTM services
5. Integrate pharmacist-delivered immunizations into the EHR
6. Achieve recognition of pharmacists as meaningful users of EHR quality measures
7. Advance system vendor EHR certification
8. Promote pharmacist adoption and use of HIT and EHRs
9. Achieve integration of pharmacies and pharmacists into health information exchanges
10. Establish the value and effective use of HIT solutions by pharmacists

Abbreviations: EHR, electronic health record; HIT, health information technology; MTM, medication therapy management.

Source: Ref 18

E-PRESCRIBING



- Pharmacy has been early adopter of technology
 - Electronic records for decades
 - Regardless of incentives
 - E-prescribing network paid for by pharmacy
- 788 million e-scripts in 2012
 - 44% of all RXs
 - Increase from 38% in 2011
 - 489,000 (69%) prescribers
 - Increase from 390,000 in 2011

EHR IN PHARMACY



- Integration of Pharmacy in HIT
 - Pharmacy e-HIT
 - Roadmap for Pharmacy Health Information Technology Integration in U.S. Health Care
 - Promotes pharmacists as recognized providers of CMS HIT strategy
 - Collaborative states:
 - Pharmacists provide critical roles
 - » Optimizing therapeutic outcomes
 - » Patient safety
 - » Cost effective medication use

MTM CORE ELEMENTS



- Medication Therapy Management
 - Pharmacists key providers
 - Medication reconciliation
 - Care transitions
 - Medication adherence
 - Medication safety
 - Evaluation of medication errors

MTM CORE ELEMENTS



- **MTM Core Elements**
 - Comprehensive Medication Review
 - Personal Medication List
 - Medication Action Plan
 - Intervention/Referral
 - Documentation
- **Sharing MTM components**
 - Utilization of continuity-of-care document (CCD) by pharmacists
 - Shows value of meaningful use of EHR
 - MTM core element model
 - Pharmacists interface with patient care process

MTM CORE ELEMENTS



THE MEDICATION THERAPY MANAGEMENT CORE ELEMENTS SERVICE MODEL

The diagram depicts how the MTM Core Elements (❖) interface with the patient care process to create an MTM Service Model.

❖ MEDICATION THERAPY REVIEW ❖ INTERVENTION AND/OR REFERRAL



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MTM CORE ELEMENTS



- Patient care transitions
 - More than 50% of medication errors
 - Proposed stage 2 meaningful use
 - Medication reconciliation conducted with 65% of these patients by receiving provider
 - Minimum recommendation
 - Electronic communication to pharmacists
 - Medication list
 - Medical condition
 - Allergies
 - Optimal: CCD (full content)
 - » Lab values, prescriber data, medication history

MTM CORE ELEMENTS



- Medication Adherence
 - Costs \$300 Billion Annually in U.S.
 - Basic component of MTM
 - Access to electronic health information in CCD
 - Pharmacists and other providers
 - » Assess medication adherence outcomes
 - underuse/overuse/inappropriate use
 - primary/secondary non-adherence
 - polypharmacy and polyprescriber
 - » Assess medication related problems
 - drug-drug interactions
 - drug-allergy interactions
 - drug-condition interactions
 - therapy duplication
 - gaps in care

EHR CHALLENGES



- Pharmacies largest EHR challenge
 - Recognition as eligible provider
 - Medicare/Medicaid
 - Accountable care organizations (ACOs)
 - Meaningful users and contributors to EHT
 - Recommendations
 - E-prescribing adopted by all practices
 - Bidirectional exchange of clinical information
 - Pharmacy system support/collaboration
 - Surescripts clinical interoperability network
 - » Immunization Notification/Registry

EXPANSION OF MTM



- Increased Focus on Quality of Care
 - MTM services are continuing to expand
 - Barriers to delivery of services
 - Lack of standardization for documentation
 - Lack of standardization for billing of services
 - Lack of integration with pharmacy systems
 - MTM vendors with different requirements and covered services
 - Identification of eligible patients
 - Identification of MTM opportunities
 - Prescriber and patient education
 - Perceived time to provide services

CMS 2014 CALL LETTER



Plan sponsors are encouraged to adopt standardized health information technology (HIT) for documentation of MTM services. Structured, universal codes are available for clinical coding of MTM services delivered to beneficiaries, such as findings, recommendations, and outcomes. The use of standardized coding systems improves the efficiency of documentation by the MTM provider, supports consistent clinical record keeping, facilitates the transfer of information between health care providers and beneficiaries, and will allow better collection and analysis of the impact of MTM services on beneficiaries' care. CMS is considering the expansion of the MTM reporting requirements to collect the findings and recommendations that were discussed during CMRs and listed in the beneficiary's medication action plan. Combining standardized coding systems (e.g., SNOMED) and industry-supported templates (e.g., NCPDP/HL7 MTM Templated CDA, see <http://www.hl7.org/special/Committees/projman/searchableProjectIndex.cfm?action=edit&ProjectNumber=842>) will also enable sponsors to update and print summaries of CMRs in a standardized format based on standard elements in databases and EHRs rather than manipulating free-form text documents.

STANDARDIZED CODING



- Why should MTM be standardized?
 - Ensure MTM documentation integrated into electronic health record (EHR)
 - Structured coding formats aren't new
 - “Output” classification
 - Not designed to document clinical care but as external reporting requirements (billing)
 - International Classification of Disease
 - » ICD-9 transitioning to ICD-10
 - Classification of Procedural Terminology (CPT)

STANDARDIZED CODING



- SNOMED CT
 - Systematized Nomenclature of Medicine Clinical Terms
 - Clinical coding system for U.S. for electronic exchange of health information
 - Required standard for interoperability specifications as defined by U.S. HIT Panel
 - Considered “input” coding system for documentation of care by providers
 - MTM will have SNOMED CT available

STANDARDIZED CODING



- **SNOMED CT**

- History

- Developed in 1965 by College of American Pathologists
 - Currently used in more than 50 countries
 - National Library of Medicine (NLM)
 - Ability to create own codes/management
 - Years of development has created a strong universal coding system for EHR
 - Has ability to easily be updated

STANDARDIZED CODING



- **SNOMED CT**

- **Advantages**

- Covers broad range of health topics using scientifically validated information
 - Patient's medical history
 - Details of a procedure
 - Provider's impression of a condition
 - Ability for user (provider) to code clinical situation at appropriate level of detail
 - » Code can be very specific or less specific
 - » Specialties can be added
 - Medication Management is a new category

STANDARDIZED CODING



SNOMED CT MTM Examples

CONCEPT ID	FULLY SPECIFIED NAME
448058003	Duration of medication therapy is too short (finding)
448174006	Duration of medication therapy too long (finding)
448177004	Adverse drug interaction (finding)
4741000124102	Over-the counter medication discontinued (situation)
6041000124105	Medication regimen review (procedure)
428701000124107	Medication reconciliation by pharmacist (procedure)
428981000124101	Additional medication therapy needed (finding)
432701000124107	Medication therapy changed (situation)
432751000124106	Change medication dose (procedure)
432771000124101	Decrease medication dose (procedure)
432801000124104	Increase medication dosing interval (procedure)
432841000124102	Change medication dosage form (procedure)
432911000124108	Change medication to therapeutic equivalent on formulary (procedure)
182838006	Change medication (procedure)
274512008	Medication discontinued
406644009	Adverse drug event (disorder)
408374000	Medication changed to cost-effective alternative
410122002	Medication adherence assessment (procedure)
413312003	Patient refusal of service

STANDARDIZED CODING



- **SNOMED CT**

- Provider ease of use

- Coding appears to be very complex with numerous coding possibilities
 - Use of these codes by providers is quite easy
 - Actual SNOMED CT code representing clinical element is not visible to provider
 - Clinician will see descriptions of clinical content to be able to select and use

STANDARDIZED CODING



- SNOMED CT
 - Unique patient benefit
 - Improve recording of EHR information
 - Strong foundation for clinical coding
 - Consistent, reliable, comprehensive
 - Patient's medical history
 - Medication history
 - Illness
 - Lab values
 - Improve communication between health care providers and continuity of care through interoperability and universal coding language

STANDARDIZED CODING



- SNOMED CT

- Greater health care benefits

- Used to facilitate decision support, statistical reporting, outcomes reporting, health research, cost analysis
 - Foundation for development of treatment guidelines, quality of care measurements
 - Potential mapping to other health coding structures such as ICD-9/10
 - Many EHRs currently contain clinical information in this structure and this legacy information could be translated to SNOMED CT

STANDARDIZED CODING



- SNOMED CT for MTM
 - Allow pharmacists to document care
 - Currently two categories exist
 - Intervention based coding
 - » Document drug therapy problems identified during medication regimen assessment
 - » Seven drug therapy problem categories are available for use with SNOMED CT
 - » Providers will use this type of coding several times to document for patients on multiple medications
 - » Used to document care plan or medication action plan
 - Encounter based coding
 - » Required to be entered only once for MTM encounter
 - » Reasons or indications for MTM visit and description of services provided

STANDARDIZED CODING



- **SNOMED CT for MTM**
 - Encounter based coding examples
 - Reasons for MTM services (general heading)
 - Referral to MTM service
 - Complication for medication therapy
 - MTM services provided (general heading)
 - Comprehensive medication therapy review
 - Targeted medication therapy review
 - Personal medication record preparation
 - Personal medical record provision to patient
 - Medication related action plan preparation
 - Medication related action plan provision to patient
 - Pharmacist consultation with health care provider
 - Patient education

STANDARDIZED CODING



- SNOMED CT for MTM
 - Important for pharmacists, patients and all of health care
 - Establishing standard MTM electronic documentation using same clinical coding foundation will:
 - Help ensure integration of MTM documentation into meaningful use of the EHR
 - Also ensure integration into national HIT interoperable framework

NEXT STEPS



- What is actionable now?
 - Pharmacy management systems or electronic medical record vendors
 - Ask if SNOMED CT new Release Format 2 (RF2) is available for use
 - If not available request that it be made available to your entity
 - RF2 contains MTM specific SNOMED codes
 - Utilization of these codes to document services will assist organizations in defining the value of pharmacists' services

NEXT STEPS



- MTM Vendors

- Transitioning current documentation into electronic formats (CCD)
- Involvement with system integration with pharmacy systems/EHRs and HIEs/HINs
- Accepting/cross-walking SNOMED codes for documentation/billing
- Bidirectional “real time” communication with providers on MTM opportunities and clinical documentation

CONCLUSIONS



- ALL healthcare providers will be utilizing electronic standards of data exchange
 - Pharmacy has been a leader utilizing standards of reimbursement (NCPDP) but not clinical documentation
 - MTM standards are being finalized
 - Documentation/billing will become universal
 - Pharmacy organizations need to be actively involved with these conversations
 - Pharmacy organizations must be in support of standards (development/implementation) to ensure they are part of the entire health care infrastructure and not just an after thought!