

**COURSE SYLLABUS**

**HIM 6685 Electronic Health Records and Clinical Support Systems**

**GENERAL INFORMATION**

**PROFESSOR INFORMATION**

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<b>Website:</b>	<a href="http://www.imageresearch.com/ehrfiu">www.imageresearch.com/ehrfiu</a>		

**COURSE DESCRIPTION**

This course explores the central role of electronic health record (EHR) systems in today's health care practices. Due to the complex integration of the EHR across so many of the fundamental operations of a provider's practice, the course will cover a wide array of topics and will involve readings from a number of current documents that apply to EHRs. The course is intentionally broad to provide a comprehensive perspective on the integration of EHRs into American health care.

The course will be presented in three general subject areas. The first area will examine the fundamental mechanics of an EHR, how it fits into the provider's practice and how it supports the management and retrieval of clinical information. The second section will take a broader perspective on how the EHR fits into a health care regulatory and technical setting. This section will look at government policies and programs driving EHR adoption, then cover issues of interoperability between EHRs for the coordination of care and the important concerns of privacy and security. The last section will cover the use of clinical data held in the EHR for analytics and for evaluating health outcomes.

The class will start with a functional discussion the EHR, distinguishing the practice management system from the clinical repository and introducing the concepts of EHR usability and user satisfaction. The discussion will then move to implementing EHRs in an ambulatory provider's practice, and will cover EHR implementation planning and change management, changing from a paper to an electronic environment, the assessment of workflow issues and clinical versus administrative training needs. Next on the agenda are the health information management standards embedded in EHRs, which include ICD-9, ICD-10 and CPT4 coding, e-prescribing based on NCPDP standards and standardized vocabularies such as LOINC and SNOMED CT.

The next area to be covered will begin with important Government regulatory policies that drive the adoption of EHRs; this will include the requirements for certification of EHRs, Meaningful Use and the EHR Incentive

Program. The discussion will then cover the important issue of Interoperability of EHRs using health information exchange, direct secure messaging and personal health records. The discussion will also include interoperable data standards such as the continuity of care record (CCR) and the continuity of care document (CCD) and various transmission standards such as HL7 and XML. The course will then introduce privacy and security of EHRs, covering the HIPAA Security Rule, Risk Assessment and the NIST Risk Framework.

The last section of the class will examine the use of clinical data from the EHR for analytical purposes, such as revenue cycle management and population health. It will then discuss health outcomes related to using EHRs such as the reduction of medical errors and ensuring quality health outcomes. At the end of the class, participants should have a comprehensive view of the central role of EHRs in the transformation of health care today.

## **COURSE OBJECTIVES**

After completing this course, students will be able to

- Evaluate the usability and functionality of an EHR and Practice Management system for a physician practice, assess the office workflow and develop a strategic plan for implementing the EHR and training the office staff.
- Assist a physician practice in attesting for Meaningful Use and reporting Clinical Quality Measures under the Physician Quality Reporting System.
- Explain federal government policies and programs that promote and incentivize the adoption of EHRs to a lay person with no knowledge of health care.
- Identify the different requirements for interoperability using health information exchange and the different standards for transmitting documents between EHRs.
- Understand the requirements for maintaining the security and confidentiality of protected health information based on HIPAA regulations and be able to conduct a risk assessment in a physician practice.
- Identify standards for coding diagnoses, procedures and vocabularies for semantic interoperability of EHRs.
- Explain the basics of revenue cycle management to help a physician or office manager understand how the use of an EHR can improve the revenue flow in a physician practice.
- Understand and use the clinical data collected by an EHR for public health reporting and health care analytics to evaluate health outcomes.

## **MAJOR & CURRICULUM OBJECTIVES TARGETED**

Learning Objectives: Upon completion of the course, the student should have an understanding of the central role of electronic health records in modern health care. This will include:

- The anatomy and usability of EHRs and Practice Management Systems.
- Implementation of EHRs including the analysis of workflow issues, change management and training.
- Federal government policies and regulations regarding the certification and adoption of EHRs.
- Interoperability of EHRs via HIE, Direct Secure Messaging and personal health records using interoperable data standards such as the CCR and the CCD and transmission standards such as HL7, XML and continuity of care documentation.
- Privacy and Security requirements based on the HIPAA Security Rule and comprising the NIST Risk Framework and Risk Assessment.
- Health Information Management standards in EHRs such as ICD-9 and ICD-10 coding and standard vocabularies such as LOINC and SNOMED CT.

- Health care analytics including revenue cycle management and population health.
- The use of clinical data to track health outcomes and the reduction of medical errors.

## **TEACHING METHODOLOGY**

HIM 6685 Electronic Health Records and Clinical Support Systems addresses the introduction of electronic health record systems (EHRs) into the health care system and the complex relationships that integrate them with many other aspects of the provider's practice.

The instructor's approach to the course will be to 1) integrate technical lectures that cover information relevant to the discussion of EHRs with 2) in-class discussions and student-based presentations that demonstrate mastery of terminology and concepts and 3) written papers that allow students to explore related forces that impact the integration of EHRs with physician practices, such as Meaningful Use, federal standards and policies, technical advances and the development of health information exchange activities.

The instructor intends to split the class time among lectures, promoting in-class discussion on course-relevant information and concepts and student presentations on assignments and research projects. Students are expected to come to class fully prepared to engage in class discussions, make assigned presentations and assist class members in understanding class content. The instructor's approach will be highly interactive and is intended to promote articulate dialogue on the implications of introducing EHRs into the health care system. The class will draw heavily upon the professional experiences of both the students and the instructor.

It is the intent of the instructor to provide several professional EHR products for students to use for general assessment purposes. In-class presentations will be linked to these EHR applications and will offer students the opportunity to compare the functionality and certification compliance of several EHR applications.

## **ASSURANCE OF LEARNING**

The College of Business cares about the quality of your education. More on the College's commitment to Assurance of Learning can be found at the following link:

[http://businessonline.fiu.edu/course\\_addons/Learning\\_Commitment.pdf](http://businessonline.fiu.edu/course_addons/Learning_Commitment.pdf)

## **POLICIES**

Please review the policies page as it contains essential information regarding guidelines relevant to all courses at FIU and additional information on the standards for acceptable netiquette important for online courses.

## **TECHNICAL REQUIREMENTS/SKILLS**

One of the greatest barriers to taking an online course is a lack of basic computer literacy. By computer literacy we mean being able to manage and organize computer files efficiently, and learning to use your computer's operating system and software quickly and easily. Keep in mind that this is not a computer literacy course; but students enrolled in online courses are expected to have moderate proficiency using a computer. Please go to the "[What's Required](#)" page to find out more information on this subject.

This course utilizes the following Blackboard tools as complements to the in-class discussions:

1. Discussion Forum
2. Content Tool
3. Email and Blackboard Messages

For detailed information about the technical requirements, please [click here](#).

## **ACCESSIBILITY AND ACCOMODATION**

For detailed information about the specific limitations with the technologies used in this course, please visit <http://online.fiu.edu/app/webroot/html/blackboardlearn/mastertemplate/accessibility/>.

For more information about Blackboard's Accessibility Commitment, please visit <http://www.blackboard.com/Platforms/Learn/Resources/Accessibility.aspx>.

For additional assistance please contact our <http://drc.fiu.edu/>.

## **COURSE PREREQUISITES**

There are no course prerequisites for this course.

## **TEXTBOOK**

The texts in this course are gathered from recent documents related to the class discussions available from credible sources such as the *Office of the National Coordinator for Health IT (ONC)*, the *Centers for Medicare and Medicaid Services (CMS)*, the *Health Information Management Systems Society (HIMSS)*, the *American Health Information Management Society (AHIMA)* and other sources.

All course documents will be provided electronically to reduce the cost of purchasing an expensive textbook. A list of course documents for each week of instruction will be provided in Blackboard before the start of class and to each student on the day of class.

An example of the text resources provided to the class is given below:

### **Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records**

Svetlana Z. Lowry, Matthew T. Quinn, Mala Ramaiah, Robert M. Schumacher, Emily S. Patterson, Robert North, Jiajie Zhang, Michael C. Gibbons and Patricia Abbott

National Institute of Standards and Technology

February 2012

[http://www.nist.gov/healthcare/usability/upload/EUP\\_WERB\\_Version\\_2\\_23\\_12-Final-2.pdf](http://www.nist.gov/healthcare/usability/upload/EUP_WERB_Version_2_23_12-Final-2.pdf)

## **EXPECTATIONS OF THIS COURSE**

This is a classroom course with the capability to use Blackboard for online discussion and instruction. Expectations for student performance online are the same as for the classroom days. The online discussion forums allow for an exchange of ideas between students and instructor based on a written dialogue on specific topics. The online Blackboard aspect of the course requires a degree of self-motivation, self-discipline, and technology skills that can make it somewhat more demanding than the in class meetings but rewarding at the same time.

**Students are expected to:**

- Review the how-to-get-started information located in the course content.
- Ensure that your computer is compatible with Blackboard.
- Interact online with instructor/s and peers.
- Log in to the course regularly over the course of the eight weeks.
- Respond to discussion boards, blogs and journal postings within the week.
- Respond to emails within a reasonable timeframe.
- Submit assignments by the corresponding deadline.

**The instructor will:**

- Log in to the course regularly.
- Respond to discussion boards, blogs and journal postings daily.
- Respond to emails within 48 hours.
- Grade assignments within two weeks of the assignment deadline.

**COURSE COMMUNICATION**

Communication in this course will take place via interpersonal contact, email and Blackboard messages.

Messages are a private and secure text-based communication that occurs within a Course and among Course members. Users must log on to Blackboard to send/receive/read messages. The Messages tool is located on the left side Course Menu (Blackboard user interface). It is recommended that students check their messages routinely to ensure up-to-date communication.

The Email feature is an external communication tool that allows users to send emails to users enrolled within the course including the instructor and other students. Emails are sent to the students' FIU email on record. The Email tool is located on the left side Course Menu (Blackboard user interface).

For more information on professional writing and technical communication visit this link:

[http://online.fiu.edu/app/webroot/html/blackboardlearn/resources/writing\\_resources/](http://online.fiu.edu/app/webroot/html/blackboardlearn/resources/writing_resources/).

**ASSIGNMENTS****The Instructor will provide clear guidelines for each assignment**

*There will be three types of assignments in this course: Individual in-class presentations, Group in-class presentations Research Papers. The online discussion forum will be used for class interaction between Saturday sessions.*

- *In-class presentations will address information covered in each chapter of the class text book with additional outside research on health information technology applications. Presentations can be individual or group, as preferred.*
- *The online forums will be used to provide a forum for students to research the usability and functionality of the EHRs that they are working with.*
- *Specifications for papers will be distributed at least two weeks before the paper is due. All papers will be evaluated within two weeks of the due date.*

**DISCUSSION FORUMS**

Keep in mind that forum discussions are public, and care should be taken when determining what to post.

## Instructor

Instructor will provide clear guidance on the expectations and requirements of assignments.

- Students will receive specifications for in-class presentations during the first day of class. Specifications will include expected breadth of topic, depth of content and grading criteria.
- Students will be evaluated on the extent and quality of their classroom discussions.
- Online discussion topics will be communicated one week ahead of the online discussion. Students will be evaluated on the number of entries they post in the discussion forum and on the quality of their posts. Minimum expectations are for three posts within the week.
- Specifications for research papers will be distributed two weeks before papers are due. Online discussion topics will be selected that feed into the research papers and give students a chance to discuss the research topic and gather background materials. Criteria for evaluating the papers will be included in the specification sheets.

## WEEKLY SCHEDULE

All classes will be held at the FIU Brickell Campus

Class Date	Class Discussion	Class Assignment
Week 1 Saturday, May 10, 2014	Anatomy and Usability of an EHR	Introduction to course content and student expectations. Student introductions. Introduction to practice EHRs to be used by the class.
Week 2 Saturday, May 17, 2014	Implementation of EHR and Workflow Assessment	Individual report on EHR Usability and Satisfaction Survey in each student's workplace based on a survey conducted between Week 1 and Week 2. Selection of Course EHR
Week 3 Saturday, May 24, 2014	Government Policy and Regulation	Group PowerPoint presentations on selected federal policies and regulations with reference to EHRs
Week 4 Saturday, May 31, 2014	Interoperability	Individual paper on the effect of federal regulations on the health IT implementation of the student's workplace.
Week 5 Saturday, June 7, 2014	Privacy and Security	Group PowerPoint presentations on methods of health information exchange and actual HIE in the students' workplace.
Week 6 Saturday, June 14, 2014	Health Information Management Standards in EHRs	Individual report on the Privacy and Security compliance in each student's workplace based on short risk assessment.
Week 7 Saturday, June 21, 2014	Population Health and Revenue Cycle Management	Group PowerPoint presentations on standards for HIM coding used in EHRs
Week 8 Saturday, June 28, 2014	Analytics for Health Outcomes	Individual paper on the future of health IT and its continuing influence on the quality and coordination of care in the health care system with reference to selected EHR.

## **GRADING**

Assignments will be evaluated according to the weights given below:

	<b>Number</b>	<b>Per Unit</b>	<b>Total</b>	<b>Cumulative</b>
<i>In-Class Individual Report</i>	2	15%	30%	15%
<i>Research Papers</i>	2	15%	30%	60%
<i>In-Class Group Report</i>	3	10%	30%	90%
<i>Online Discussion</i>	<i>Ongoing</i>	10%	10%	100%
		<b>Total</b>	100%	

Grades will be assigned according to the percentage totals given below:

<b>Letter Grade</b>	<b>Range</b>
A	93% - 100%
A-	91% - 92%
B+	87% - 90%
B	84% - 86%
B-	81% - 83%
C+	77% - 80%
C	74% - 76%
C-	71% - 73%
D+	67% - 70%
D	64% - 66%
D-	61% - 63%
F	Less than 61%

**Bibliography**

**Week 1: Anatomy and Usability of an EHR**

**Week 1 AMIA Specs Grad Prgrm Medical Informatics.pdf**

AMIA Board white paper: definition of biomedical informatics and specification of core competencies for graduate education in the discipline

Casimir A Kulikowski, Edward H Shortliffe, Leanne M Currie, Peter L Elkin, Lawrence E Hunter, Todd R Johnson, Ira J Kalet, Leslie A Lenert, Mark A Musen, Judy G Ozbolt, Jack W Smith, Peter Z Tarczy-Hornoch, Jeffrey J Williamson

**Week 1 Overcoming User.pdf**

Implementation of an Obstetrics EMR Module: Overcoming User Dissatisfaction

Deborah Dagroso; Patricia D. Williams, MPA; James D. Chesney, PhD; Monica M. Lee, MD; Evan Theoharis, MD; and Robert N. Enberg, MD, MMM

Journal of Healthcare Information Management — Vol. 21, No. 1

**Week 1 ONC physicianadoption\_of\_ehrs2014\_01.15.14.pdf**

Physician Adoption of Electronic Health Records

HealthIT.gov

**Week 1 NIST Guide\_Final\_Publication\_Version.pdf**

NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records

Robert M. Schumacher

Svetlana Z. Lowry

National Institute of Standards and Technology

November 2010

**Week 1 NIST Technical Evaluation, Testing and Validation of the Usability of Electronic Health Records.pdf**

Usability in Health IT: Technical Strategy, Research, and Implementation

Summary of Workshop

Janice (Ginny) Redish

Svetlana Z. Lowry

National Institute of Standards and Technology

November 2010

**Week 1 NIST EHR Tech Eval\_Version\_2\_23\_12-Final-2.pdf**

Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records

Svetlana Z. Lowry Matthew T. Quinn Mala Ramaiah Robert M. Schumacher Emily S. Patterson Robert North

Jiajie Zhang Michael C. Gibbons Patricia Abbott

National Institute of Standards and Technology

February 2012

[http://www.nist.gov/healthcare/usability/upload/EUP\\_WERB\\_Version\\_2\\_23\\_12-Final-2.pdf](http://www.nist.gov/healthcare/usability/upload/EUP_WERB_Version_2_23_12-Final-2.pdf)



### **Week 1 HIMSS\_Promoting\_Usability\_in\_Health\_Org.pdf**

Promoting Usability in Health Organizations: Initial Steps and Progress Toward a Healthcare Usability Maturity Model

HIMSS Usability Task Force

©2011 Healthcare Information and Management Systems Society.

### **Week 1 HIMSS Guide to Usability\_Selecting an EMR.pdf**

Selecting an EHR for Your Practice: Evaluating Usability v1.2

HIMSS EHR Usability Task Force

August 2010

© 2010 Healthcare Information and Management Systems Society (HIMSS)

### **Week 1 DefiningTestingEMR.pdf**

Defining and Testing EMR Usability: Principles and Proposed Methods of EMR Usability Evaluation and Rating  
HIMSS EHR Usability Task Force

June 2009

© 2009 Healthcare Information and Management Systems Society (HIMSS)

### **Week 1 HIMSS Baylor\_EHR\_UserExperienceSurvey.pdf**

Baylor EHR User Experience Survey©

© 2011 Baylor Health Care System

Please contact [sunni.barnes@baylorhealth.edu](mailto:sunni.barnes@baylorhealth.edu) if you would like to utilize this survey instrument or for more information.

### **Week 1 EHR Communication Plan.pdf**

EHR Communication Plan

This material, prepared by Margret\A Consulting, LLC, is provided by Stratis Health, the Minnesota Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS) , an agency of the US Department of Health and Human Services. Contents do not necessarily reflect CMS policy.  
8SOW-MN-1d1-05-17 09.02.05

### **Week 1 EHR\_Usability\_Toolkit\_Background\_Report.pdf**

EHR Usability Toolkit: A Background Report on Usability and Electronic Health Records

Agency for Healthcare Research and Quality

AHRQ Publication No. 11-0084-EF

August 2011

### **Week 1 HIMSS EMR Adoption Model.pdf**

US EMR Adoption Model<sup>SM</sup>

Data from HIMSS Analytics<sup>TM</sup> Database © 2014

### **Week 1 CHANGE MANAGEMENT.pdf**

Change Management Strategies for an Effective EMR Implementation

Claire McCarthy, MA, Douglas Eastman, PhD and David E. Garets,

© 2010 by the Healthcare Information and Management Systems Society.

### **Week 1 Best\_Practices\_in\_EMR\_Implementation.pdf**

Best Practices in EMR Implementation: A Systematic Review

Karim Keshavjee, John Bosomworth, John Copen, James Lai, Beste Kucukyazici, Rizwana Lilani, Anne M Holbrook

**Week 1 AMA\_health\_it\_transcript.pdf**

HEALTH INFORMATION TECHNOLOGY

For additional Health IT resources, please consult the AMA website.

[www.ama-assn.org/go/hit](http://www.ama-assn.org/go/hit)

**Week 1 AMA\_select-pms-vendor.pdf**

How to select a practice management system

Copyright 2010–2013 American Medical Association. All rights reserved.

**Week 2: Implementation of EHR and Workflow Assessment****Week 2 ONC nlc\_changemanagementprimer.pdf**

Change Management in EHR Implementation

The National Learning Consortium (NLC)

Health Information Technology Research Center (HITRC)

April 30, 2013 • Version 1.0

**Week 2 ONC workflow\_redesign\_templates.pptx**

Workflow Redesign Templates

The National Learning Consortium (NLC)

Health Information Technology Research Center (HITRC)

Practice and Workflow Redesign Community of Practice

**Week 2 ONC vendor\_meaningful\_use\_compare\_tool\_v1.0\_0.xlsx**

Vendor Meaningful Use Compare Tool

The National Learning Consortium (NLC)

Vendor Selection and Management Community of Practice, 1.0

October 21, 2011

**Week 2 ONC vendor\_evaluation\_matrix\_tool\_v1.0.xlsx**

Vendor Evaluation Matrix Tool

The National Learning Consortium (NLC)

Health Information Technology Research Center (HITRC)

Vendor Selection and Management Community of Practice

October 21, 2011

**Week 2 ONC reference-checking-for-ehr-vendor\_0.xlsx**

Reference Checking Worksheet for EHR Vendors

The National Learning Consortium (NLC)

Health Information Technology Research Center (HITRC)

Iowa Foundation for Medical Care (IFMC)

March 31, 2012

**Week 2 Workflow Questionnaire.pdf**

Workflow Assessment Guide

Updated 1/09/07

HealthInsight

**Week 2 PDF WorkflowAnalysisEHRDeploymentTechniques.pdf**

Workflow Analysis: EHR Deployment Techniques  
California Healthcare Foundation  
January 2011

**Week 2 ONC workflow-process-mapping-for-electronic-health-record-ehr-implementation.docx**

Workflow Process Mapping for Electronic Health Record (EHR) Implementation  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Iowa Foundation for Medical Care (IFMC)  
Health Information Technology Extension Center for Los Angeles County (HITEC LA)

**Week 2 ONC request-for-proposal-template-for-health-information-technology.docx**

Request for Proposal (RFP) Template for Health Information Technology  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Wisconsin Health Information Technology Extension Center (WHITEC)  
Stratis Health  
Wide River Technology Extension Center (Wide River TEC)  
March 31, 2012

**Week 2 ONC nlc-ehr-implementation-go-live-planning-checklist.docx**

Electronic Health Record (EHR) Implementation: Go-Live Planning Checklist  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Doctor's Office Quality Information Technology (DOQ-IT)  
March 31, 2012

**Week 2 ONC nlc-ehr-demonstration-scenario-evaluation-vendor-questions.docx**

EHR Demonstration Scenario, Evaluation and Vendor Questions  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Iowa Foundation for Medical Care (IFMC)  
Arkansas Foundation for Medical Care (AFMC)  
Doctor's Office Quality Information Technology University (DOQ-IT University)  
June 30, 2012

**Week 2 ONC goals-and-objectives-for-ehr-implementation.docx**

Goals and Objectives for Electronic Health Record (EHR) Implementation  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Colorado Regional Extension Center (CO – REC)  
Doctor's Office Quality Information Technology (DOQ-IT)  
March 31, 2012

**Week 2 ONC ehr-system-test-plan.docx**

Electronic Health Record (EHR) System Testing Plan  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Iowa Foundation for Medical Care (IFMC)  
April 30, 2012

**Week 2 ONC ehr\_implementation\_communication\_guidelines.docx**

EHR Implementation Communication Guidelines  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Iowa Foundation for Medical Care (IFMC)  
October 31, 2013

**Week 2 ONC ehr-implementation-wirec.pdf**

EHR Implementation with Minimal Practice Disruption in Primary Care Settings: The Experience of the Washington & Idaho Regional Extension Center  
Jeff Hummel, MD, MPH  
Peggy Evans, PhD, CPHIT  
November 2012

**Week 2 ONC contracting-guidelines-and-checklist-for-ehr-vendor-selection.docx**

Contracting Guidelines and Checklist for Electronic Health Record (EHR) Vendor Selection  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Iowa Foundation for Medical Care (IFMC)  
Arkansas Foundation for Medical Care (AFMC)  
March 31, 2012

**Week 2 ONC ehr\_contracting\_terms\_final\_508\_compliant.pdf**

EHR Contracts: Key Contract Terms for Users to Understand  
The Office of the National Coordinator for Health Information Technology  
Westat  
June 25, 2013

**Week 2 ONC chart-migration-and-scanning-checklist.docx**

Chart Migration and Scanning Checklist  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
June 30, 2012

**Week 2 NIST Human Factors Guidance to Prevent Healthcare Disparities with the Adoption of EHRs.pdf**

Human Factors Guidance to Prevent Healthcare Disparities with the Adoption of EHRs  
Michael C. Gibbons  
Svetlana Z. Lowry  
Matthew T. Quinn  
National Institute of Standards and Technology  
February 2011

**Week 2 HIMSS-6-10-doc-implementation-success-factors-FINAL.pdf**

EHR Implementation Success Factors for Practices with 6-10 Physicians  
Patient Flow Process to Capture Meaningful Use Actions  
Marie Richards  
October 7, 2010

**Week 2 EHR\_Adoption\_Sustainability080608.pdf**

Key Issues in EHR Adoption and Sustainability Whitepaper

### **Week 3: Government Policy and Regulation**

#### **Week 3 Voluntary 2015 Edition EHR Certification Criteria 2014-03959\_PI.pdf**

Voluntary 2015 Edition Electronic Health Record (EHR) Certification Criteria; Interoperability Updates and Regulatory Improvements

Office of the National Coordinator for Health Information Technology (ONC)

Department of Health and Human Services.

#### **Week 3 Voluntary 2015 Edition EHR Certification Criteria 2014-03959\_PI.pdf**

45 CFR Part 170

Voluntary 2015 Edition Electronic Health Record (EHR) Certification Criteria; Interoperability Updates and Regulatory Improvements

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

#### **Week 3 ONC final2015certedfactsheet.022114.pdf**

ONC Fact Sheet: Voluntary 2015 Edition EHR Certification Criteria ("2015 Edition") Proposed Rule

Office of the National Coordinator for Health Information Technology (ONC), Department of Health and Human Services.

#### **Week 3 ONC\_FS\_EHR\_Stage\_2\_Final\_082312.pdf**

ONC Fact Sheet: 2014 Edition Standards & Certification Criteria (S&CC) Final Rule

Office of the National Coordinator for Health Information Technology (ONC), Department of Health and Human Services.

#### **Week 3 ONC 2014 Certification EHR.pdf**

Health Information Technology: Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, 2014 Edition; Revisions to the Permanent Certification Program for Health Information Technology Office of the National Coordinator for Health Information Technology (ONC), Department of Health and Human Services.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

45 CFR Part 170

Federal Register /Vol. 77, No. 171 /Tuesday, September 4, 2012 /Rules and Regulations

#### **Week 3 CCHIT The EHR Guide to 2011 & 2014 Certification.pdf**

The EHR Certification Guide

ONC 2011& 2014 Editions

January 2, 2013

Copyright © 2013 CCHIT

#### **Week 3 EHR Incentive Prgrm Beginners\_Guide.pdf**

An Introduction to the Medicare EHR Incentive Program for Eligible Professionals

A program administered by the Centers for Medicare & Medicaid Services (CMS)

Medicare & Medicaid EHR Incentive Program Meaningful Use Stage 1 Requirements Overview

Centers for Medicare & Medicaid Services

2010

**Week 3 EP-MU-Stage1-TOC.pdf**

Eligible Professional Meaningful Use Table of Contents Core and Menu Set Objectives

Stage 1

Centers for Medicare & Medicaid Services

**Week 3 Stage2\_Guide\_EPs\_9\_23\_13.pdf**

Eligible Professional's Guide to Stage 2 of the EHR Incentive Programs

A program administered by the Centers for Medicare & Medicaid Services (CMS)

September 2013

**Week 3 Stage2\_Toolkit\_EHR\_0313.pdf**

The Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs: STAGE 2 TOOLKIT

Centers for Medicare & Medicaid Services

Last Updated: FEBRUARY 2013

**Week 3 Stage2Overview\_Tipsheet.pdf**

Stage 2 Overview Tipsheet

Centers for Medicare & Medicaid Services

Last Updated: August, 2012

**Week 3 Stage2\_MeaningfulUseSpecSheet\_TableContents\_EligibleHospitals\_CAHs.pdf**

Stage 2 Eligible Hospital and Critical Access Hospital (CAH) Meaningful Use Core and Menu Objectives Table of Contents

Centers for Medicare & Medicaid Services

October, 2012

**Week 3 Stage1vsStage2CompTablesforEP.pdf**

Stage 1 vs. Stage 2 Comparison Table for Eligible Professionals

Centers for Medicare & Medicaid Services

Last Updated: August, 2012

**Week 3 Stage1vsStage2CompTablesforHospitals.pdf**

Comparison Table for Eligible Hospitals and CAHs

Centers for Medicare & Medicaid Services

Last Updated: August, 2012

**Week 3 MU-Pocket-Guide-3-1-13.pdf**

Pocket Quick Guide Comparison Stage 1 to Stage 2 Meaningful Use Final Rule Objectives and Measures  
IT Strategy Council

©2013 THE ADVISORY BOARD COMPANY • ADVISORY.COM • 25695

UPDATED 02/26/13

**Week 3 2013\_PQRS\_ImplementationGuide.pdf**

2013 Physician Quality Reporting System (PQRS): Implementation Guide – Claims-Based Reporting for Incentive

Centers for Medicare & Medicaid Services

11/09/2012

### **Week 3 Medicare PQRS Quality Assurance.pdf**

Medicare's Physician Quality Reporting System (PQRS): Medicare's Unique Approach to Quality Assurance<sup>1</sup>  
Samuel Knapp, Ed.D. ABPP, Rachael Baturin, MPH, JD

### **Week 3 2013SE13\_\_eRx2014PaymentAdjustment\_020113.pdf**

2013 Electronic Prescribing (eRx) Incentive Program: 2014 Payment Adjustment  
Centers for Medicare & Medicaid Services  
February 2013

### **Week 3 2013MLNSE13\_\_AvoidingPQRSPaymentAdjustment\_083013.pdf**

2013 Electronic Prescribing (eRx) Incentive Program: 2015 Payment Adjustment  
Centers for Medicare & Medicaid Services  
August 2013

### **Week 3 2014\_eCQM\_Measure\_Logic\_Guidance.pdf**

Clinical Quality eMeasure Logic and Implementation Guidance v1.0  
Clinical Quality Measures (CQM) reporting beginning in 2014 under the Meaningful Use EHR Incentive Program of the Centers for Medicare and Medicaid Services (CMS).

### **Week 3 2014ClinicalQualityMeasuresTipsheet.pdf**

2014 Clinical Quality Measures Tipsheet  
Centers for Medicare & Medicaid Services  
Last Updated: August, 2012

### **Week 3 EP\_MeasuresTable\_Posting\_CQMs.pdf**

ADDITIONAL INFORMATION REGARDING EP CLINICAL QUALITY MEASURES FOR 2014 EHR INCENTIVE PROGRAMS  
Centers for Medicare & Medicaid Services  
Last updated January 2013

### **Week 3 Guide\_Reading\_EP\_Hospital\_eCQMs.pdf**

GUIDE FOR READING ELIGIBLE PROFESSIONAL (EP) AND ELIGIBLE HOSPITAL (EH) EMEASURES  
This document was originally developed by the National Quality Forum (NQF, [www.qualityforum.org](http://www.qualityforum.org)) under contract with the U.S. Department of Health and Human Services to promote the effective use of Electronic Health Record (EHR) systems and released in October, 2010.

### **Week 3 2014\_CQM\_EH\_CAH.pdf**

CLINICAL QUALITY MEASURES FINALIZED FOR ELIGIBLE HOSPITALS AND CRITICAL ACCESS HOSPITALS BEGINNING WITH FY 2014  
National Quality Forum

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### **Week 4 2011 Report on Health Information Exchange - Full Report.pdf**

2011 REPORT ON HEALTH INFORMATION EXCHANGE THE CHANGING LANDSCAPE  
Based on Results from eHealth Initiative's Eighth Annual Survey of Health Information Exchange

### **Week 4 2011-03-09 PDF - XDR and XDM for Direct Messaging Specification\_FINAL.pdf**

**Week 4 Applicability Statement for Secure Health Transport v1.1.pdf**

Applicability Statement for Secure Health Transport  
Version 1.1, 10 July 2012

**Week 4 Companion\_Guide\_to\_CCDA\_for\_MU2\_r0.docx**

Companion\_Guide\_to\_CCDA\_for\_MU2\_r0.docx  
[wiki.siframework.org/file/view/Companion\\_Guide\\_to\\_CCDA\\_for\\_MU2\\_r0.docx/390200714/Companion\\_Guide\\_to\\_CCDA\\_for\\_MU2\\_r0.docx](http://wiki.siframework.org/file/view/Companion_Guide_to_CCDA_for_MU2_r0.docx/390200714/Companion_Guide_to_CCDA_for_MU2_r0.docx)

**Week 4 Continuity of Care Document Standard v1 approved.pdf**

Utah Health Information Network STANDARDS COMMITTEE  
Continuity of Care Document Standard/Specification  
Version 1.0

**Week 4 continuity-of-care-document-ccd.pdf**

Corepoint  
The Continuity of Care Document  
Changing the Landscape of Healthcare Information Exchange

**Week 4 Data Interoperability and Information Security in Healthcare.pdf**

Data Interoperability and Information Security in Healthcare  
Reid Berryman, Nathan Yost, Nicholas Dunn and Christopher Edwards  
10/1/2013

**Week 4 direct-scalable-trust-forum-summary-of-findings-report.pdf**

DIRECT SCALABLE TRUST FORUM SUMMARY REPORT OF FINDINGS February 6, 2013 Prepared for:  
Office of the National Coordinator for Health Information Technology US Department of Health and Human Services Prepared by: Deloitte Consulting, LLP

**Week 4 Direct-Secure-Messaging-Training-Guide-5\_7\_13.pdf**

North Coast Health Information Network (NCHIN)  
Direct Secure Messaging Training Guide

**Week 4 direct\_implementation\_guidelines\_to\_assure\_security\_and\_interoperability.pdf**

Direct: Implementation Guidelines to Assure Security and Interoperability  
May, 2013

**Week 4 EHRI\_D1\_2\_Conceptual\_framework\_v1\_0.pdf**

Report on The conceptual framework of interoperable electronic health record and ePrescribing systems  
Version 1.0  
April 2008

**Week 4 glidepath\_hitsp\_c83\_to\_ccda.pdf**

Glide Path from HITSP C83 to C-CDA: Informed decision making for health information stakeholders

**Week 4 HIMSS Emerging-Standards Interoperability-for-EHRs-and-HIEs-fixed.pdf**



Emerging Standards – Interoperability for EHRs and HIEs: the States' Vendors' EHR/HIE  
Interoperability Workgroup  
David A. Minch  
November 8, 2011  
Transforming Healthcare Stakeholder Summit Page

**Week 4 HIMSS HIE and Small Practice.pdf**

HIMSS  
HIE and the Small Physician Practice

**Week 4 HIMSS hie\_guidewhitepaper.pdf**

A HIMSS Guide to Participating in a Health Information Exchange HIMSS Healthcare Information Exchange  
HIE Guide Work Group White Paper  
November 2009

**Week 4 HITSP Summary Documents using CCD and CDA Content Modules\_developer-08-25-2011.pdf**

Implementation Guide for CDA Release 2  
HITSP Summary Documents using CCD and CDA Content Modules C32, C83, and C80  
C32 Version 2.5, C83 Version 2.0.1

**Week 4 HITSP\_V1.0\_2008\_IS12\_-\_Patient\_-\_Provider\_Secure\_Messaging.pdf**

IS 12 Patient-Provider Secure Messaging Interoperability Specification  
HITSP\_V1.0\_2008\_IS12\_-\_Patient\_-\_Provider\_Secure\_Messaging.pdf

**Week 4 HITSP\_V2.5\_2009\_C32\_-\_Summary\_Documents\_Using\_CCD.pdf**

C 32 HITSP Summary Documents Using HL7 Continuity of Care Document (CCD) Component  
Version:2.5

[http://www.hitsp.org/ConstructSet\\_Details.aspx?&PrefixAlpha=4&PrefixNumeric=32](http://www.hitsp.org/ConstructSet_Details.aspx?&PrefixAlpha=4&PrefixNumeric=32) HITSP\_V2.5\_2009\_C32\_-\_Summary\_Documents\_Using\_CCD.pdf

**Week 4 HL7 EHR System Functional Model WhitePaper.pdf**

HL7 EHR System Functional Model: A Major Development Towards Consensus on  
Electronic Health Record System Functionality  
A White Paper  
Copyright 2004 by Health Level Seven, ® Inc.

**Week 4 Interoperability Updates and Regulatory Improvements 2014-03959.pdf**

Federal Register / Vol. 79, No. 38 / Wednesday, February 26, 2014 / Proposed Rules  
Voluntary 2015 Edition Electronic Health Record (EHR) Certification Criteria; Interoperability Updates and  
Regulatory Improvements  
Office of the National Coordinator for Health Information Technology (ONC),  
Department of  
Health and Human Services. ACTION: Notice of proposed rulemaking with comment period.

**Week 4 NCPDP-eprescribing-101-201308.pdf**

NCPDP-eprescribing-101-201308.pdf  
NCPDP Electronic Prescribing Standards  
August 2013  
<http://www.ncdp.org/NCPDP/media/pdf/NCPDP-eprescribing-101-201308.pdf>

#### **Week 4 NCPDPSupplementaryPresentation.pdf**

NCPDPSupplementaryPresentation.pdf

<http://www.emdeon.com/resourcepdfs/NCPDPSupplementaryPresentation.pdf>

#### **Week 4 NeHC\_Roadmap\_for\_HIE\_The\_Landscape\_and\_a\_Path\_Forward.pdf**

EXCHANGE ROADMAP The Landscape and a Path Forward

APRIL 2012

#### **Week 4 NHIN-Direct-Deployment-Models-20101208.ppt**

ONC

Deployment Models

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The HL7 Clinical Document Architecture

ROBERT H. DOLIN, MD, LIORA ALSCHULER, CALVIN BEEBE, PAUL V. BIRON, MLIS, SANDRA LEE BOYER, DANIEL ESSIN, MD, ELLIOT KIMBER, TOM LINCOLN, MD, JOHN E. MATTISON, MD

#### **Week 4 UnitedHealthcare\_Companion\_Guide\_HL7\_v3\_CDA\_v1\_04.pdf**

Standard Companion Guide - Refers to the Implementation Guide Based on HL7 version 3.0 for Clinical Document Architecture Documents

Companion Guide Version Number: 1.04

December 2011

[http://www.uniprise.com/hipaa/docs/2012/UnitedHealthcare\\_Companion\\_Guide\\_HL7\\_v3\\_CDA\\_v1\\_04.pdf](http://www.uniprise.com/hipaa/docs/2012/UnitedHealthcare_Companion_Guide_HL7_v3_CDA_v1_04.pdf)

#### **Week 4 What-is-EHR-Interoperability.pdf**

What is EHR Interoperability and Why Should I Care?

A reference document for Urgent Care and Occupational Health Providers

Mary P. Stroupe

May, 2011

#### **Week 4 XDM\_XDR\_Overview\_v0002.ppt**

IHE

XDM / XDR - Point-to-Point Transmission of Documents

### **Week 5 Privacy and Security**

#### **Week 5 1\_types of fraud\_medical study.PDF**

Ponemon Institute© Research Report

Second Annual Survey on Medical Identity Theft

Independently conducted by Ponemon Institute LLC

Publication Date: March 2011

#### **Week 5 053013\_GL\_NA\_WP\_Ponemon-2013-Cost-of-a-Data-Breach-Report\_daiNA\_cta72382.pdf**

2013 Cost of Data Breach Study:

Global Analysis

Benchmark research sponsored by Symantec

Independently Conducted by Ponemon Institute LLC

May 2013

Ponemon Institute

**Week 5 basic-security-for-the-small-healthcare-practice-checklists.pdf**

CYBERSECURITY

The protection of data and systems in networks that connect to the Internet - 10 Best Practices For The Small Healthcare Environment

V 1.0 November, 2010

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Best Practices for a Healthcare Data Breach: What You Don't Know Will Cost You

Emilio Cividanes, Paul Luehr, Stroz Friedberg, Bob Krenek

May 2011

**Week 5 fs\_dbir-industries-healthcare-threat-landscape\_en\_xg.pdf**

Verizon

Threat Landscape in Healthcare

**Week 5 How to Avoid a HIPAA Horror Story -SCW.pdf**

How to Avoid a HIPAA Horror Story

Scott C. Withrow

healthcare financial management

AUGUST 2010

**Week 5 MIFA-Growing-Threat-07232013.pdf**

The Growing Threat of Medical Identity Fraud: A Call to Action

A Publication of The Medical Identity Fraud Alliance

July 2013

**Week 5 July 2002 SP\_800-30.pdf**

Special Publication 800-30

Risk Management Guide for Information Technology Systems

Recommendations of the National Institute of Standards and Technology

Gary Stoneburner, Alice Goguen, and Alexis Feringa

July 2002

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NIST Special Publication 800-30 Revision 1

Guide for Conducting Risk Assessments

September 2012

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NIST Special Publication 800-50

Building an Information Technology Security Awareness and Training Program

Mark Wilson and Joan Hash

October 2003

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Health Care Cyberthreat Report

Widespread Compromises Detected, Compliance Nightmare on Horizon

A SANS Analyst Whitepaper

Barbara Filkins

February 2014

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Information Security Policy Template  
The National Learning Consortium (NLC)  
Health Information Technology Research Center (HITRC)  
Privacy & Security Community of Practice (Toolkit Workgroup)

**Week 5 ONC privacy-and-security-guide.pdf**

Guide to Privacy and Security of Health Information  
Version 1.2 060112

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Breach Report 2011  
Protected Health Information  
www.redspin.com

**Week 5 CMS Security101.pdf**

CMS Security 101 for Covered Entities

**Week 5 CMS Riskassessment.pdf**

Basics of Risk Analysis and Risk Management

**Week 5 rp\_data-breach-investigations-report-2013\_en\_xg.pdf**

Verizon  
2013 DATA BREACH INVESTIGATIONS REPORT

**Week 5 Security Risk Analysis requirements HITRC.pdf**

Security Risk Analysis Requirements  
Mary Crimmins, Nathan Gibson, Nick Heesters, Holly Schlenvogt and Trish Harkness

**Week 5 NIST SP-800-66-Revision1.pdf**

NIST Special Publication 800-66 Revision 1  
An Introductory Resource Guide for Implementing the Health Insurance Portability and Accountability Act (HIPAA) Security Rule  
Matthew Scholl, Kevin Stine, Joan Hash, Pauline Bowen, Arnold Johnson, Carla Dancy Smith, and Daniel I. Steinberg  
October 2008

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NIST Special Publication 800-37 Revision 1  
Guide for Applying the Risk Management Framework to Federal Information Systems  
A Security Life Cycle Approach  
February 2010

**Week 5 NIST SP-800-39-final.pdf**

NIST Special Publication 800-39  
Managing Information Security Risk  
Organization, Mission, and Information System View  
March 2011

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## STAGE 2 of the EHR Incentive Programs

### **Week 5 strategies-for-healthcare-security-and-privacy-paper.pdf**

Health Information at Risk: Successful Strategies for Healthcare Security and Privacy

### **Week 5 The Cyber Security Management System.pdf**

The Cyber Security Management System: A Conceptual Mapping

John H. Dexter

The SANS Institute

February 2002

### **Week 5 Prescription Drug Event (PDE) Data - Source and Processing (Slides).pdf**

Prescription Drug Event (PDE) Data: Source and Processing

Barbara Frank, M.S., M.P.H.

## **Week 6 Health Information Management Standards in EHRs**

### **Week 6 A Method for Encoding Clinical Datasets with SNOMED 1472-6947-10-53.pdf**

A method for encoding clinical datasets with SNOMED CT

Dennis H Lee, Francis Y Lau, Hue Quan

Lee et al. BMC Medical Informatics and Decision Making 2010, 10:53

<http://www.biomedcentral.com/1472-6947/10/53>

### **Week 6 AHIMA Data Mapping Best Practices.pdf**

AHIMA

Data Mapping Best Practices

2/25/2014

### **Week 6 AHIMA Electronic Documentation Templates Support ICD-10-CM.pdf**

AHIMA

Electronic Documentation Templates Support ICD-10-CM/PCS

2/25/2014

### **Week 6 AHRQ Prospects for Care Coordination Measurement.pdf**

Prospects for Care Coordination Measurement Using Electronic Data Sources

Agency for Healthcare Research and Quality ([www.ahrq.hhs.gov](http://www.ahrq.hhs.gov))

Stanford University Center for Primary Care and Outcomes Research

Kathryn M. McDonald, M.M., Ellen Schultz, M.S., Tamara Chapman, M.A., Sheryl Davies, M.A.

Noelle Pineda, B.A., Julia Lonhart, B.S., B.A., Eric Schmidt, B.A., Suzanne Wilson, A.B., M.P.H.

### **Week 6 CEDI\_NCPDP\_D\_0\_CompanionDocument.pdf**

National Government Services, Inc.

Common Electronic Data Interchange Companion Guide Communications/Connectivity Information

Instructions related to Transactions based on NCPDP Telecommunication Standard Version D.0 NCPDP Batch Standard Version 1.2

Companion Guide Version Number: 1.3.2

July 2013

### **Week 6 CRPITV72Ryan.pdf**

Towards Semantic Interoperability in Healthcare: Ontology Mapping from SNOMED-CT to HL7 Version 3

Amanda Ryan

Email: [ajr883@uow.edu.au](mailto:ajr883@uow.edu.au)

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Development of the Logical Observation Identifier Names and Codes (LOINC) Vocabulary

Stanley M Huff, Roberto A Rocha, Clement J McDonald, et al.

JAMIA 1998 5: 276-292

### **Week 6 doc\_UserGuide\_Current-en-US\_INT\_20120731.pdf**

SNOMED CT® User Guide

July 2012 International Release

### **Week 6 StarterGuide\_Current-en-US\_INT\_20140222.pdf**

SNOMED CT Starter Guide

FEBRUARY 2014

Version: 2014-02-22

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[http://ihtsdo.org/fileadmin/user\\_upload/doc/download/doc\\_StarterGuide\\_Current-en-US\\_INT\\_20140222.pdf](http://ihtsdo.org/fileadmin/user_upload/doc/download/doc_StarterGuide_Current-en-US_INT_20140222.pdf)

### **Week 6 FAQs\_Indy.pdf**

What is the NCPDP Provider ID?

### **Week 6 ICD-10\_2nd\_ed\_volume2.pdf**

ICD-10 Tenth Revision Volume 2

### **Week 6 ICD10SmallandMediumPractices508.pdf**

CMS

ICD-10 Implementation Guide for Small and Medium Practices

### **Week 6 JAMIA-2010-Lurio-217-9.pdf**

Using electronic health record alerts to provide public health situational awareness to clinicians

Joseph Lurio, Frances P Morrison, Michelle Pichardo, et al.

JAMIA 2010 17: 217-219

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An Introduction to LOINC

Logical Observation Identifier Name and Codes

W. Ed Hammond February 25, 2008

### **Week 6 LOINCManual.pdf**

Logical Observation Identifiers Names and Codes (LOINC®) Users' Guide

Clem McDonald, MD, Stan Huff, MD, Jamalynne Deckard, MS, Katy Holck, MPH, Daniel J. Vreeman, PT, DPT

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Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee

([loinc@regenstrief.org](mailto:loinc@regenstrief.org))

### **Week 6 Mapping from a Clinical Terminology to a Classification.pdf**

AHIMA

Mapping from a Clinical Terminology to a Classification  
Margo Imel and James Campbell, MD

**Week 6 NCPDP\_HIMSS\_SCRIPT\_final.pdf**

Presented by NDPCP and HIMSS for the Pharmacy Informatics Community  
The ABCs of the SCRIPT Standard  
Steven J. Franko, Tim McNeil, Laura Topor  
August 30, 2012

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ICD-10-PCS Official Guidelines for Coding and Reporting  
2014

**Week 6 SNOMED Assessment in EHRs.pdf**

AHIMA  
SNOMED CT Survey: An Assessment of Implementation in EMR/EHR Applications  
Kathy Giannangelo, MA, RHIA, CCS, CPHIMS, and Susan H. Fenton, PhD, RHIA

**Week 6 SNOMED CT Helps Drive EHR Success.pdf**

AHIMA  
SNOMED CT Helps Drive EHR Success  
Kathy Giannangelo, MA, RHIA, CCS, CPHIMS and Lyle Berkowitz, MD

**Week 6 SnomedCt\_Benefits\_20120203.pdf**

THE INTERNATIONAL HEALTH ERMINOLOGY STANDARDS DEVELOPMENT ORGANISATION (IHTSDO)  
Making the EHR Meaningful - Delivering Benefits with SNOMED CT

**Week 6 SnomedCt\_MeaningfulUse\_20120203.pdf**

IHTSDO  
Meaningful Use – Today - Resources for Implementation of SNOMED CT – encoded problem lists

**Week 7 Population Health and Revenue Cycle Management**

**Week 7 1471-2458-13-251.pdf**

Comparison of the information provided by electronic health records data and a population health survey to estimate prevalence of selected health conditions and multimorbidity  
Concepción Violán, Quintí Foguet-Boreu, Eduardo Hermosilla-Pérez, Jose M Valderas, Bonaventura Bolívar, Mireia Fàbregas-Escuriola, Pilar Brugulat-Guiteras and Miguel Ángel Muñoz-Pérez  
BMC Public Health 2013, 13:251  
<http://www.biomedcentral.com/1471-2458/13/251>

**Week 7 Actionable-Analyticssmallpdf.com\_.pdf**

ACTIONABLE ANALYTICS  
CareCloud Corporation  
Email: hello@carecloud.com  
Copyright © 2012 CareCloud Corporation. All rights reserved.

**Week 7 AHIMA Best Practices in Revenue Cycle Management.pdf**

Best Practices in Revenue Cycle Management

Margret Amatayakul, MBA, RHIA, CHPS, FHIMSS, and Mitch Work,

**Week 7 AHIMA Coding Connections in Revenue Cycle Management.pdf**

AHIMA

Coding Connections in Revenue Cycle Management

Ruth Cummins, PHIA, CCS and Julie Waddell

**Week 7 AHIMA How to Improve your Revenue Cycle Processes.pdf**

AHIMA

How to Improve your Revenue Cycle Processes

Janice Crocker, MSA, RHIA, CCS, CHP

**Week 7 AHIMA Look at the Revenue Cycle from the Billing Perspective.pdf**

AHIMA

A Show Me the Money... Look at the Revenue Cycle from the Billing Perspective

Cheryl Gregg Fahrenholz, RHIA, CCS-P

**Week 7 Developing an Electronic Health.pdf**

Developing an Electronic Health Record-Based Population Health Surveillance System

A Report from the New York City Department of Health and Mental Hygiene

July 2013

**Week 7 Finding the Role of Health Care in Population Health.pdf**

Finding the Role of Health Care in Population Health

Emma M. Eggleston, MD, MPH and Jonathan A. Finkelstein, MD, MPH

**Week 7 FutureofRevenueCycleWhitePaper-EDITED5-24NV.pdf**

The Future of Revenue Cycle: Preparing for Near-Term Change

A White Paper Prepared by HIMSS Revenue Cycle Improvement Task Force

May 2011

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Collecting And Sharing Data For Population Health: A New Paradigm

Carol C. Diamond, Farzad Mostashari and Clay Shirky

*Health Affairs*, 28, no.2 (2009):454-466

<http://content.healthaffairs.org/content/28/2/454.full.html>

**Week 7 HEALTH INFORMATION TECHNOLOGY.pdf**

HEALTH INFORMATION TECHNOLOGY AND THE PRIMARY CARE INFORMATION PROJECT

Week 7 IDeaS-Basics-of-RM.pdf

THE BASICS OF REVENUE MANAGEMENT

Integrated **D**ecisions and **S**ystems, Inc (*IDeaS*)

**Week 7 The Revenue Cycle and the Electronic Health Record-final - Copy.ppt**

The Revenue Cycle and the Electronic Health Record

Presented By Suzanne Adolphson, MSW, MHA

**Week 7 Update from CDC Public Health Surveillance & Informatics Program Office.pdf**

Update from CDC's Public Health Surveillance & Informatics Program Office (PHSIPO)



## **Week 8 Analytics for Health Outcomes**

### **Week 8 1608\_SilowCarroll\_using\_EHRs\_improve\_quality.pdf**

Using Electronic Health Records to Improve Quality and Efficiency: The Experiences of Leading Hospitals  
July 2012

### **Week 8 Do Electronic Health Records Improve Preventive Care.pdf**

Do Electronic Health Records Improve Processes and Outcomes of Preventive Care?  
KENNETH W. LIN, MD

### **Week 8 EHR and Quality of Diabetes Care.pdf**

Electronic Health Records and Quality of Diabetes Care  
Randall D. Cebul, M.D, Thomas E. Love, PhD, Anil K. Jain, MD, and Christopher J. Hebert, MD  
The New England Journal of Medicine

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Top Considerations for Choosing a Practice Information Management System (PIMS)

### **Week 8 J Am Med Inform Assoc-2013-Middleton-e2-8.pdf**

Enhancing patient safety and quality of care by improving the usability of electronic health record systems:  
recommendations from AMIA  
Blackford Middleton, Meryl Bloomrosen, Mark A Dente, Bill Hashmat, Ross Koppel, J Marc Overhage, Thomas  
H Payne, S Trent Rosenbloom, Charlotte Weaver, Jiajie Zhang

### **Week 8 NIST Toward a Shared Approach for Ensuring Patient Safety with Enhanced Workflow Design.pdf**

Toward a Shared Approach for Ensuring Patient Safety with Enhanced Workflow Design for Electronic Health  
Records - Summary of the Workshop  
Svetlana Z. Lowry, Mala Ramaiah, A. Ant Ozok, Ayse P. Gurses, Michael C. Gibbons, David Brick, Emily S.  
Patterson, Vicki R. Lewis and Debora Simmons

### **Week 8 ONC nlc\_continuousqualityimprovementprimer2.pdf**

Continuous Quality Improvement (CQI) Strategies to Optimize your Practice Primer  
Provided By: The National Learning Consortium (NLC)  
Developed By: Health Information Technology Research Center (HITRC)

### **Week 8 pcast-health-it-report.pdf**

REPORT TO THE PRESIDENT REALIZING THE FULL POTENTIAL OF HEALTH INFORMATION  
TECHNOLOGY TO IMPROVE HEALTHCARE FOR AMERICANS: THE PATH FORWARD  
Executive Office of the President  
President's Council of Advisors on Science and Technology  
December 2010

### **Week 8 PCORI-PRO-Workshop-EHR-Landscape-Review-111913.pdf**

Advances in the Use of Patient Reported Outcome Measures in Electronic Health Records Including Case  
Studies  
In support of the PCORI National Workshop to Advance the Use of PRO measures in Electronic Health  
Records

November 7, 2013

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Population Health Management: Implementing a Strategy for Success

David A. Burton, MD Executive Chairman Health Catalyst

**Week 8 Return\_On\_Investments\_in\_EHRs\_whitepaper\_FINAL.pdf**

Return on Investment in EHRs

Meaningful Use Is Only the Beginning: Efficiency and More-Appropriate Coding Bring Savings and Increase Revenues