

American Medical Informatics Association Annual Symposium 2007

Biomedical and Health Informatics: From Foundations to Applications to Policy

**Chicago, Illinois, USA
10-14 November 2007**

Volume 1 of 2

Editors:

**Jonathan M. Teich
George Hripcsak**

Jaap Suermondt

ISBN: 978-1-61567-434-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2007) by the American Medical Informatics Association
All rights reserved.

Printed by Curran Associates, Inc. (2009)

For permission requests, please contact the American Medical Informatics Association
at the address below.

American Medical Informatics Association
4915 St. Elmo Avenue, Suite 401
Bethesda, Maryland 20814

Phone: (301) 657-1291
Fax: (301) 657-1296

mail@amia.org

TABLE OF CONTENTS

VOLUME 1

PAPERS

Privacy Preserving Integration of Health Care Data.....	1
<i>Nabil Adam</i>	
Using the Literature-Based Discovery Paradigm to Investigate Drug Mechanisms	6
<i>Caroline Ahlers</i>	
An Analysis of Skin Integrity Alerts Used to Monitor Nursing Home Residents.....	11
<i>Greg Alexander</i>	
A Combined Qualitative Method For Testing an Interactive Risk Communication Tool.....	16
<i>Jessica Ancker</i>	
What Nurses Do: Use of the ISO Reference Terminology Model for Nursing Action as a Framework for Analyzing MICU Nursing Practice Patterns	21
<i>Margot Andison</i>	
Some Unintended Consequences of Clinical Decision Support Systems	26
<i>Joan Ash</i>	
A Model for Indexing Medical Documents Combining Statistical and Symbolic Knowledge.....	31
<i>Paul Avillach</i>	
Lessons Learned from the Implementation of Clinical Messaging Systems	36
<i>Mike Barnes</i>	
An Ontology for Major Histocompatibility Complex (MHC) Alleles and Molecules	41
<i>Elena Beisswanger</i>	
Implementation and Evaluation of a Web Based System for Pharmacy Stock Management in Rural Haiti	46
<i>Elisabeth Berger</i>	
Network Analysis of Toxic Chemicals and Symptoms: Implications for Designing First-Responder Systems	51
<i>Suresh Bhavnani</i>	
The @neurIST Ontology of Intracranial Aneurysms: Providing Terminological Services for an Integrated IT Infrastructure.....	56
<i>Martin Boeker</i>	
A Physiotherapy EHR Specification Based on a User-Centered Approach in the Context of Public Health	61
<i>Heloisa Borges</i>	
Use of Ambulatory Physician Group Clinical Information by Hospital-Based Users Within an Integrated Delivery Network	66
<i>Watson Bowes</i>	
Project HealthDesign: Stimulating the Next Generation of Personal Health Records	70
<i>Patricia Brennan</i>	
Direct Comparison of MEDCIN and SNOMED CT for Representation of a General Medical Evaluation Template	75
<i>Steven Brown</i>	
Retrospective Monitoring of Drug-Drug Interactions Using a CPOE Alerting Knowledgebase	80
<i>Michael Buck</i>	
Issues in Integrating Epidemiology and Research Information in Oncology: Experience with ICD-O3 and the NCI Thesaurus	85
<i>Anita Burgun</i>	
The Cost of Adverse Drug Events in Ambulatory Care	90
<i>Matthew Burton</i>	
Overdependence on Technology: An Unintended Adverse Consequence of Computerized Provider Order Entry	94
<i>Emily Campbell</i>	
Analysis of a Computerized Sign-out Tool: Identification of Unanticipated Uses and Contradictory Content	99
<i>Thomas Campion</i>	
Would SNOMED CT benefit from Realism-Based Ontology Evolution?	105
<i>Werner Ceusters</i>	

Graphical Representation of the Comprehensive Patient Flow Through the Hospital.....	110
<i>Emmanuel Chazard</i>	
Clinical Arrays of Laboratory Measures, or "Clinarrays", Built from an Electronic Health Record	
Enable Disease Subtyping by Severity	115
<i>David Chen</i>	
Detection of Practice Pattern Trends through Natural Language Processing of Clinical Narratives and Biomedical Literature	120
<i>Elizabeth Chen</i>	
Comparing Text-based and Graphic User Interfaces for Novice and Expert Users.....	125
<i>Jung-Wei Chen</i>	
Application of Artificial Neural Network-Based Survival Analysis on Two Breast Cancer Datasets	130
<i>Chih-Lin Chi</i>	
Redesign of the Columbia University Infobutton Manager	135
<i>James Cimino</i>	
Threading Together Patient Expertise.....	140
<i>Andrea Civian</i>	
Predicting the Impact of an Electronic Health Record on Practice Patterns Using Computational Modeling and Simulation	145
<i>Thomas Clancy</i>	
Updating the Genomic Component of the UMLS Semantic Network.....	150
<i>Barry Cohen</i>	
A Methodology for Meeting Context-Specific Information Needs Related to Nursing Orders.....	155
<i>Sarah Collins</i>	
Automatic Identification & Classification of Surgical Margin Status from Pathology Reports Following Prostate Cancer Surgery	160
<i>Leonard D'Avolio</i>	
Using the UMLS Semantic Network to Validate NCI Thesaurus Structure and Analyze its Alignment with the OBO Relations Ontology	165
<i>Sherri De Coronado</i>	
Use of Classification Models Based on Usage Data for the Selection of Infobutton Resources	171
<i>Guilherme Del Fiol</i>	
Data Quality for Situational Awareness during Mass-Casualty Events.....	176
<i>Barry Demchak</i>	
Virtual Patient Model for Multi-Person Virtual Medical Environments.....	181
<i>Parvati Dev</i>	
Enabling Joint Commission Medication Reconciliation Objectives with the HL7 / ASTM Continuity of Care Document Standard	186
<i>Robert Dolin</i>	
Applying a Decision Support System in Clinical Practice: Results from Melanoma Diagnosis.....	191
<i>Stephan Dreiseitl</i>	
An Ontology of Bacteria to Help Physicians to Compare Antibacterial Spectra	196
<i>Catherine Duclos</i>	
A Modeling Environment for Patient Portals.....	201
<i>Sean Duncavage</i>	
A Randomized Trial of Standardized Nursing Patient Assessment Using Wireless Devices.....	206
<i>Patricia Dykes</i>	
Evaluating Implementation Fidelity in Health Information Technology Interventions	211
<i>Eric Eisenstein</i>	
Electronic Healthcare Record and Clinical Research in Cardiovascular Radiology. HL7 CDA and CDISC ODM Interoperability	216
<i>Naji Elfally</i>	
Identifying Challenges and Opportunities in Clinical Research Informatics: Analysis of a Facilitated Discussion at the 2006 AMIA Annual Symposium	221
<i>Peter Embi</i>	
Computer Identification of Symptomatic Deep Venous Thrombosis Associated with Peripherally Inserted Central Catheters	226
<i>Scott Evans</i>	
Combining Contextual and Lexical Features to Classify UMLS Concepts	231
<i>Jung-Wei Fan</i>	
Kick-Starting Health Informatics Careers - A Canadian Approach.....	236
<i>Shirley Fenton</i>	

Creating Operations Research Models to Guide RHIO Decision Making	240
<i>Michael Ferris</i>	
Comparison of Long-term Results of Computer-Assisted Anti-Stigma Education and Reading Anti-Stigma Educational Materials	245
<i>Joseph Finkelstein</i>	
Identifying Risk Factors for Metabolic Syndrome in Biomedical Text	249
<i>Marcelo Fiszman</i>	
Details of a Successful Clinical Decision Support System	254
<i>Jeff Friedlin</i>	
Logical Schema Acquisition from Text-Based Sources for Structured and Non-Structured Biomedical Sources Integration	259
<i>Miguel García-Remesal</i>	
Combination of Heterogeneous Criteria for the Automatic Detection of Ethical Principles on Health Web sites	264
<i>Arnaud Gaudinat</i>	
Evaluation of Meta-Concepts for Information Retrieval in a Quality Controlled Health Gateway	269
<i>Jean-Francois Gehanno</i>	
Informing the Front Line about Common Respiratory Viral Epidemics	274
<i>Per Gesteland</i>	
Three Approaches to Automatic Assignment of ICD-9-CM Codes to Radiology Reports	279
<i>Ira Goldstein</i>	
Classification of Health Webpages as Expert and Non Expert with a Reduced Set of Cross-language Features	284
<i>Natalia Grabar</i>	
Research Subject Enrollment by Primary Care Pediatricians Using an Electronic Health Record	289
<i>Robert Grundmeier</i>	
Evaluation of a UMLS Auditing Process of Semantic Type Assignments	294
<i>Huanying Gu</i>	
Validity of Electronic Medical Record-based Rules For the Early Detection of Meningitis and Encephalitis	299
<i>Adi Gundlapalli</i>	
Computerized Pathological Image Analysis For Neuroblastoma Prognosis	304
<i>Metin Gurcan</i>	
Extracting Nursing Practice Patterns from Structured Labor and Delivery Data Sets	309
<i>Eric Hall</i>	
Analysis of Error Concentrations in SNOMED	314
<i>Michael Halper</i>	
Evidence-based Anomaly Detection in Clinical Domains	319
<i>Milos Hauskrecht</i>	
Cluster Analysis of Trajectory Data on Hospital Laboratory Examinations	324
<i>Shoji Hirano</i>	
Communication and Sense-Making in Intensive Care: An Observation Study of Multi-Disciplinary Rounds to Design Computerized Supporting Tools	329
<i>Danny Ho</i>	
Relationship of Estimated Resolution Time and Computerized Clinical Reminder Adherence	334
<i>Sze-Jung Wu</i>	
Piecewise Synonyms for Enhanced UMLS Source Terminology Integration	339
<i>Kuo-Chuan Huang</i>	
Migrating toward a Next-Generation Clinical Decision Support Application: The BJC HealthCare Experience	344
<i>Yan Huang</i>	
Leveraging Semantic Knowledge in IRB Databases to Improve Translation Science	349
<i>John Hurdle</i>	
Decision Theoretic Analysis of Improving Epidemic Detection	354
<i>Masoumeh Izadi</i>	
Recommendations for Clinical Decision Support Deployment: Synthesis of a Roundtable of Medical Directors of Information Systems	359
<i>Robert Jenders</i>	
Informatics in the Doctor of Nursing Practice Curriculum	364
<i>Melinda Jenkins</i>	
A Recursive Algorithm for Spatial Cluster Detection	369
<i>Xia Jiang</i>	

A Framework and Approach for Assessing the Value of Personal Health Records (PHRs)	374
<i>Douglas Johnston</i>	
A Security Architecture for Health Information Networks	379
<i>Rajashekhar Kailar</i>	
Small-scale Testing of RFID in a Hospital Setting: RFID as Bed Trigger	384
<i>Joseph Kannry</i>	
Estimating the Horizon of Articles to Decide When to Stop Searching in Systematic Reviews: An Example Using a Systematic Review of RCTs.....	389
<i>Monika Kastner</i>	
Development and Evaluation of an Improved Methodology for Assessing Adherence to Evidence-Based Drug Therapy Guidelines Using Claims Data	394
<i>Kensaku Kawamoto</i>	
Towards Consumer-Friendly PHRs: Patients Experience with Reviewing Their Health Records	399
<i>Alla Keselman</i>	
Utility of Commonly Captured Data from an EHR to Identify Hospitalized Patients at Risk for Clinical Deterioration.....	404
<i>Abel Kho</i>	
Usage Patterns of a Personal Health Record by Elderly and Disabled Users.....	409
<i>Eung-Hun Kim</i>	
Capture and Classification of Problems During CPOE Deployment in an Academic Pediatric Center	414
<i>Gary Kim</i>	
Beyond Surface Characteristics: A New Health Text-Specific Readability Measurement.....	418
<i>Hyeoneui Kim</i>	
Clinician Adoption Patterns and Patient Outcome Results in Use of Evidence-Based Nursing Plans of Care.....	423
<i>Tae Youn Kim</i>	
Digital Partnerships for Health: Steps to Develop a Community-specific Health Portal Aimed at Promoting Health and Well-being.....	428
<i>Rita Kukafka</i>	
The Cancer Biomedical Informatics Grid (caBIG™) Security Infrastructure	433
<i>Stephen Langella</i>	
Extraction and Mapping of Drug Names from Free Text to a Standardized Nomenclature	438
<i>Matthew Levin</i>	
LesionViewer: A Tool for Tracking Cancer Lesions Over Time	443
<i>Mia Levy</i>	
Auditing Dynamic Links to Online Information Resources	448
<i>Jianhua Li</i>	
XGI: A Graphical Interface for XQuery Creation	453
<i>Xiang Li</i>	
Semantic Clustering of Answers to Clinical Questions.....	458
<i>Jimmy Lin</i>	
Methodologies for Extracting Functional Pharmacogenomic Experiments from International Repository	463
<i>Yi-An Lin</i>	
Clinical Decision Support to Improve Antibiotic Prescribing for Acute Respiratory Infections: Results of a Pilot Study	468
<i>Jeffrey Linder</i>	
Proactive Population Health Management in the Context of a Regional Health Information Exchange Using Standards-Based Decision Support	473
<i>David Lobach</i>	
Lessons Extracting Diseases from Discharge Summaries	478
<i>William Long</i>	
Event Communication in a Regional Disease Surveillance System	483
<i>Wayne Loschen</i>	
Subject-Adaptive Real-Time Sleep Stage Classification Based on Conditional Random Field.....	488
<i>Gang Luo</i>	
A Tool for Improving Patient Discharge Process and Hospital Communication Practices: The Patient Tracker	493
<i>Christopher Malone</i>	
Evaluation of the VA/KP Problem List Subset of SNOMED as a Clinical Terminology for Electronic Prescription Clinical Decision Support.....	498
<i>Surendranath Mantena</i>	

A Middleware Approach to Integrate Referent Tracking in EHR Systems.	503
<i>Shahid Manzoor</i>	
Grading Glioma Tumors Using OWL-DL and NCI Thesaurus	508
<i>Gwenaelle Marquet</i>	
RadiO: A Prototype Application Ontology for Radiology Reporting Tasks	513
<i>Dirk Marwede</i>	
Rare Adverse Event Monitoring of Medical Devices with the Use of an Automated Surveillance Tool	518
<i>Michael Matheny</i>	
Perceived Barriers to Information Access Among Medical Residents in Iran: Obstacles to Answering Clinical Queries in Settings with Limited Internet Accessibility	523
<i>Danesh Mazloomdoost</i>	
Rural RHIOs: Common Issues in the Development of Two State-wide Health Information Networks	528
<i>Julie McGowan</i>	
Using UMLS Concept Unique Identifiers (CUIs) for Word Sense Disambiguation in the Biomedical Domain	533
<i>Bridget McInnes</i>	
Interpretation Errors Related to the GO Annotation File Format	538
<i>Dilvan Moreira</i>	
An Analysis of Narrative Nursing Documentation in an Otherwise Structured Intensive Care Clinical Information System	543
<i>Jacqueline Moss</i>	
Architecture of the Open-source Clinical Research Chart from Informatics for Integrating Biology and the Bedside	548
<i>Shawn Murphy</i>	
Fine-Grained Indexing of the Biomedical Literature: MeSH Subheading Attachment for a MEDLINE Indexing Tool	553
<i>Aurelie Neveol</i>	
Modeling the fMRI Signal via Hierarchical Clustered Hidden Process Models	558
<i>Radu Niculescu</i>	
Developing a Web Site to Support the Implementation of Medical Home	563
<i>Chuck Norlin</i>	
Making Sense of Clinical Practice: Order Set Design Strategies in CPOE	568
<i>Laurie Novak</i>	
caGrid 1.0: A Grid Enterprise Architecture for Cancer Research	573
<i>Scott Oster</i>	
ActiveOptions: Leveraging Existing Knowledge and Usability Testing to Develop a Physical Activity Program Website for Older Adults	578
<i>Marilyn Ostergren</i>	
Cost of Interconnecting Health Information Exchanges to Form a National Network	583
<i>Eric Pan</i>	
Decompositional Terminology Translation Using Network Analysis	588
<i>Chintan Patel</i>	
Modeling Participant-Related Clinical Research Events Using Conceptual Knowledge Acquisition Techniques	593
<i>Philip Payne</i>	

VOLUME 2

Design and Evaluation of a Web-Based Interactive Visualization System for Lung Transplant Home Monitoring Data	598
<i>David Pieczkiewicz</i>	
Abstraction-based Temporal Data Retrieval for a Clinical Data Repository	603
<i>Andrew Post</i>	
Unambiguous Data Modeling to Ensure Higher Accuracy Term Binding to Clinical Terminologies	608
<i>Rahil Qamar</i>	
An Ontology-Driven Method for Hierarchical Mining of Temporal Patterns: Application to HIV Drug Resistance Research	614
<i>Rashmi Raj</i>	
A Comparative Analysis of Retrieval Features Used in the TREC 2006 Genomics Track Passage Retrieval Task	620
<i>Hari Krishna Rekapalli</i>	

The CLEF Corpus: Semantic Annotation of Clinical Text	625
<i>Angus Roberts</i>	
What Particulars are Referred to in Electronic Health Record Data? A Case Study in Integrating Referent Tracking into an EHR Application.....	630
<i>Ron Rudnicki</i>	
Designing Tailored Internet Support to Assist Cancer Patients in Illness Management	635
<i>Cornelia Ruland</i>	
Using Human Factors Methods to Design a New Interface for an Electronic Medical Record	640
<i>Jason Saleem</i>	
Information-Theoretic Classification of SNOMED Improves the Organization of Context-Sensitive Excerpts from Cochrane Reviews	645
<i>Lee Sam</i>	
Assessing the Impact of HL7/FDA Structured Product Label (SPL) Content for Medication Knowledge Management.....	646
<i>Gunther Schadow</i>	
Defining and Applying a Method for Improving the Sensitivity and Specificity of an Emergency Department Early Event Detection System	651
<i>Matthew Scholer</i>	
Supporting Multidisciplinary Staff Meetings for Guideline-based Breast Cancer Management: A Study with OncoDoc2	656
<i>Brigitte Seroussi</i>	
An Ontology-based Architecture for Integration of Clinical Trials Management Applications	661
<i>Ravi Shankar</i>	
Using Cluster Ensemble and Validation to Identify Subtypes of Pervasive Developmental Disorders	666
<i>Jess Shen</i>	
Recommendations for Monitoring and Evaluation of In-Patient Computerbased Provider Order Entry Systems: Results of a Delphi Survey.....	671
<i>Dean Sittig</i>	
Nursery, Gutter, Or Anatomy Class? Obscene Expression in Consumer Health	676
<i>Catherine Smith</i>	
Adaptive Classifiers, Topic Drifts and GO Annotations	681
<i>Padmini Srinivasan</i>	
Are Random Forests Better than Support Vector Machines for Microarray-Based Cancer Classification?	686
<i>Alexander Statnikov</i>	
Maintenance of a Computerized Medical Record Form	691
<i>Olivier Steichen</i>	
Signout: A Collaborative Document with Implications for the Future of Clinical Information Systems	696
<i>Daniel Stein</i>	
Optimizing the Acceptance of Medication-based Alerts by Physicians During CPOE Implementation in a Community Hospital Environment.....	701
<i>Harris Stutman</i>	
Modeling Relief	706
<i>Walton Sumner</i>	
Enriching Knowledge Domain Visualizations: Analysis of a Record Linkage and Information Fusion Approach to Citation Data.....	711
<i>Marie Synnestvedt</i>	
Creating a Clinical Video-Conferencing Facility in a Security-Constrained Environment Using Open-Source AccessGrid Software and Consumer Hardware.....	716
<i>Enrique Terrazas</i>	
The UMLS Knowledge Source Server: An Experience in Web 2.0 Technologies	721
<i>Karen Thorn</i>	
Neonatal Bilirubin Management As an Implementation Example of Interdisciplinary Continuum of Care Tools	726
<i>Sidney Thornton</i>	
Enhancing Acronym/Abbreviation Knowledge Bases with Semantic Information.....	731
<i>Manabu Torii</i>	
Evaluation of a Chief Complaint Pre-Processor for Biosurveillance	736
<i>Debbie Travers</i>	
An XML Standard for Virtual Patients: Exchanging Case-Based Simulations in Medical Education	741
<i>Marc Trioloa</i>	

An Evaluation of Biosurveillance Grid-Dynamic Algorithm Distribution Across Multiple Computer Nodes.....	746
<i>Ming-Chi Tsai</i>	
Identification of Misspelled Words without a Comprehensive Dictionary Using Prevalence Analysis.....	751
<i>Alexander Turchin</i>	
Variation in Use of Informatics Tools Among Providers in a Diabetes Clinic.....	756
<i>Kim Unerl</i>	
Assessing Data Relevance For Automated Generation Of A Clinical Summary.....	761
<i>Tielman Van Vleck</i>	
General Practitioners' Adherence with Clinical Reminders for Secondary Prevention of Dyslipidemia	766
<i>Geva Vashitz</i>	
A Rationale for Parsimonious Laboratory Term Mapping by Frequency	771
<i>Daniel Vreeman</i>	
Assessing Patient Preferences for Delivery of Reminders on Scheduled Visits in a Psychiatry Ambulatory Service.....	776
<i>Dongwen Wang</i>	
Use of RxNorm to Exchange Codified Drug Allergy Information between Department of Veterans Affairs (VA) and Department of Defense (DoD)	781
<i>Pradnya Warnekar</i>	
Critical Issues in an Electronic Documentation System	786
<i>Charlene Weir</i>	
Concept Dictionary Creation and Maintenance Under Resource Constraints: Lessons from the AMPATH Medical Record System	791
<i>Martin Were</i>	
Effect of a Computerized Provider Order Entry (CPOE) System on Medication Orders at a Community Hospital and University Hospital	796
<i>Mark Wess</i>	
Indexing of Diagnostic Accuracy Studies in MEDLINE and EMBASE	801
<i>Nancy Wilczynski</i>	
Arthritis Quality Indicators for the Veterans Administration: Implications for Electronic Data Collection, Storage Format, Quality Assessment, and Clinical Decision Support.....	806
<i>Carl Williams</i>	
An Unsupervised Machine Learning Approach to Segmentation of Clinician-Entered Free Text.....	811
<i>Jesse Wrenn</i>	
SANDS: An Architecture for Clinical Decision Support in a National Health Information Network.....	816
<i>Adam Wright</i>	
A Study of Abbreviations in Clinical Notes	821
<i>Hua Xu</i>	
Investigating CBIR Techniques for Cervicographic Images.....	826
<i>Zhiyun Xue</i>	
Automatic Summarization of Mouse Gene Information by Clustering and Sentence Extraction from MEDLINE Abstracts.....	831
<i>Jianji Yang</i>	
A Model Browser for Biosimulation.....	836
<i>Gary Yingve</i>	
A Comparison of Two Methods for Retrieving ICD-9-CM Data: The Effect of Using an Ontology-based Method for Handling Terminology Changes	841
<i>Alexander Yu</i>	
Making Texts in Electronic Health Records Comprehensible to Consumers: A Prototype Translator.....	846
<i>Qing Zeng-Treitler</i>	
Identifying Mismatches in Alignments of Large Anatomical Ontologies.....	851
<i>Songmao Zhang</i>	

POSTERS

Evaluating the Usability of a Mobile Clinical Computing Device.....	856
<i>Patti Abbott</i>	
Unified Messaging Solution for Biosurveillance and Disease Surveillance	857
<i>John Abellera</i>	

Quality of Healthcare Websites: A Comparison of a General-Purpose vs. Domain-Specific Search Engine	858
<i>Joanna Abraham</i>	
TLC-HEAT: Telephony-based Self-care for Overweight Children	859
<i>Bill Adams</i>	
Expanding an Electronic Medical Record to Support Community Health Worker and Nutritional Support Programs in Rural Rwanda	860
<i>Christian Allen</i>	
Internet-based Coaching to Improve Patient-Clinician Communication in Primary Care	861
<i>Marybeth Allen</i>	
A Web-Based Family Health Record Supporting Genealogical Clinical Anamnesis	862
<i>Matteo Andreoni</i>	
The Effect of Implementing Computerized Provider Order Entry on Medication Prescribing Errors in an Emergency Department	863
<i>Dominik Aronsky</i>	
Enhanced Normalization of Emergency Department Chief Complaints	864
<i>Michael Aswell</i>	
A Framework for Describing First Time Breastfeeding Latina Mothers Information Needs, Information Seeking Behaviors, Resources & Communication Processes	865
<i>Susanne Bakken</i>	
A Patient-centric, Internet-based Application for the Data Management of a Multi-centre Respiratory Syncytial Virus Prophylaxis Program	866
<i>Paul Barton</i>	
A Ferret-Based Gastrointestinal Image Retrieval System	867
<i>Steven Bedrick</i>	
Automated Identification, Tracking and Reporting of Central Line-Associated Blood Streams Infection to comply with Required New York State Reporting	868
<i>Maryam Behta</i>	
Learning and Retention from an Online Tutorial among Resident Physicians	869
<i>Doug Bell</i>	
Using Electronic Questionnaires to Collect Patient Reported History	870
<i>Angie Benoit</i>	
Effectiveness of a Clinical/Billing Alert System vs Education Alone in Assisting Physicians to Correctly Bill for Asthma Nebulization Treatments in the Pediatric Office Setting	871
<i>Lisa Biggs</i>	
Assessing Effects of the e-Chasqui Laboratory Information System on Accuracy and Timeliness of Bacteriology Results in the Peruvian Tuberculosis Program	872
<i>Joaquin Blaya</i>	
Clinical Decision Support to Avoid Adverse Drug Events with Anticoagulants	873
<i>Anne Bobb</i>	
Personal Health Records: Key Features within Existing Applications	874
<i>Nathan Bodily</i>	
UCare Navigator: A Dynamic Guide to the Hybrid Electronic and Paper Medical Record in Transition	875
<i>Seth Bokser</i>	
Web-based Portal for Patients Undergoing Bariatric Surgical Procedures	876
<i>Emily Bonham</i>	
Evaluating an NLP-Based Approach to Modeling Computable Clinical Trial Eligibility Criteria	877
<i>Tara Borlawsky</i>	
Development of a Virtual Self-Management Tool for COPD Patients: Towards a User Needs Ontology	878
<i>Elizabeth Borycki</i>	
Electronic Personal Health Records and Systems to Improve Care for Vulnerable Populations	879
<i>Nathan Botts</i>	
Patients Treated Across Multiple Sites of Care: A Case for Personally Controlled Health Records	880
<i>Fabienne Bourgeois</i>	
Identification of Inactive Medications in Narrative Physician Notes	881
<i>Eugene Breydo</i>	
Initiators and Recipients of Interruption in Workflow: A Role-Based Event	882
<i>Juliana Brixey</i>	
Implementing A Mandatory Password Change Policy at an Academic Medical Institution	883
<i>Michael Brogan</i>	

Patient Care Experience Enhanced By Use of Online Journals.....	884
<i>Lauren Buckel</i>	
Comparison of the Effectiveness of Wireless Electronic Tracking Devices Versus Traditional Paper Systems to Track Victims in a Large Scale Disaster.....	885
<i>Colleen Buono</i>	
Patient Review of Selected Electronic Health Record Data Improves Visit Experience.....	886
<i>Alexandra Businger</i>	
Visualizing Temporal Patterns of Demand, Throughput and Crowding in an Emergency Department.....	887
<i>Alan Calvitti</i>	
Coding Free Text Radiology Reports Using the Cancer Text Information Extraction System (caTIES)	888
<i>David Carrell</i>	
Modeling Electronic Documentation as a Communication System	889
<i>Jane Carrington</i>	
Multi-Factor Authentication using Contents from Disparate EHRs.....	890
<i>Chris Cassa</i>	
Exploration and Statistical Analysis of Human Gene Expression Annotations	891
<i>Mario Ceresa</i>	
Acceptance of Home Telemanagement is High in Patients with Multiple Sclerosis.....	892
<i>Eunme Cha</i>	
Towards Automatic Augmentation of Electronic Medical Records with MEDLINE® Citations.....	893
<i>Vinod Chacko</i>	
Assessing User Perceptions of an Electronic Patient Record (EPR) before Implementation.....	894
<i>Sheryl Chambers</i>	
Is the Quality of Our National Quality-and-accreditation-label-awarded Health Websites Still Good in the Non-campaign Period?	895
<i>Polun Chang</i>	
Field Provider Position Tracking At Mass Gathering Events.....	896
<i>Theodore Chang</i>	
Personal Health Record Evaluation: My HealtheVet and RE-AIM.....	897
<i>Kathleen Charters</i>	
FreezeFramer: A Prototype Tool to Monitor Stress and Heart Rate Variability	898
<i>Samir Chatterjee</i>	
Architectural Design of a Data Warehouse to Support Operational and Analytical Queries Across Disparate Clinical Databases	899
<i>John Chelico</i>	
Monitoring the Function and Use of a Clinical Decision Support System	900
<i>Elizabeth Chen</i>	
Teledentistry: Increase Access To Dental Specialists In Rural Minnesota	901
<i>Hong Chen</i>	
Identifying Functional Discrepancies among Systems, Users, and Activities of Electronic Dental Records: A Work Domain Ontology Approach	902
<i>Jung-Wei Chen</i>	
A Lessons Learned System in Healthcare IT Implementation.....	903
<i>Yunan Chen</i>	
A Web-Based, Meta-Data Drive, Clinical Research Platform for Managing Multiple Clinical Research Studies	904
<i>Huey Cheung</i>	
Predicting 5-Year Survival of Colorectal Carcinoma Patients Using Data Mining Methods.....	905
<i>David Chhieng</i>	
Use of Natural Language Programming to Extract Medication from Unstructured Electronic Medical Records	906
<i>David Chhieng</i>	
A Data Mining Technique for Risk-stratification Diagnosis	907
<i>Chih-Lin Chi</i>	
Developing An Advisor Predicting Inpatient Hypokalemia: A Negative Study	908
<i>Kou-Wei Chiu</i>	
Towards Chronological Summary of Medical Records.....	909
<i>Jinwook Choi</i>	
A Content Analysis of the Nursing Records Pre- and Post-implementation of an Electronic Nursing Record System.....	910
<i>Woan-Heui Choi</i>	

Assessing a Bayesian Risk Prediction Model in a High-Risk Breast Cancer Population.....	911
<i>Jennifer Chun</i>	
Agile Informatics: Application of Agile Project Management to the Development of a Personal Health Application.....	912
<i>Jeanhee Chung</i>	
An Online Audio Computer-Assisted Self-Interview for Pre-screening Prior to Rapid HIV Testing in a Vulnerable Population.....	913
<i>Alwyn Cohall</i>	
Information Needs Related to Antibiotic Prescribing While Using CPOE.....	914
<i>Sarah Collins</i>	
Synthesis of a Database Test Bed for Evaluating Record Linkage Algorithms.....	915
<i>Donald Connelly</i>	
Slide2Go: A Virtual Slide Collection for Pathology Education	916
<i>Richard Conran</i>	
Design and Implementation of an Inpatient Physician Documentation System Using Off-the-Shelf Components.....	917
<i>Russell Cucina</i>	
Conceptual Model for a Mass Casualty Continuum of Care	918
<i>Joan Culley</i>	
Training Biomedical and Health Informatics Professionals in Peru: Towards the Development of the First Graduate Diploma Program in the Country	919
<i>Walter Curioso</i>	
Technology Evaluation for a Mobile Fall-Injury Risk Assessment Instrument	920
<i>Leanne Currie</i>	
Is Redundancy in Vital Signs Monitoring Useful?	921
<i>Dorothy Curtis</i>	
PDA for Health Professionals: Can You Deal with That?.....	922
<i>Thiago Da Costa</i>	
Employer Sponsored Personal Health Record (PHR) Systems.....	923
<i>Juanita Dawson</i>	
Clinical Trial Interim Monitoring Support: Requirements and Implementation	924
<i>Roger Day</i>	
Education and Research in INFOBIOMED, the European Network of Excellence in Biomedical Informatics.....	925
<i>Guillermo De La Calle</i>	
A Survey Study Exploring the Potential of Telehealth in Critical Access Hospitals.....	926
<i>George Demiris</i>	
Characterization of the Knowledge Contained in Diagnostic Problem Oriented Clinical Practice Guidelines.....	927
<i>Yaron Denekamp</i>	
Open Source Tools in Support of a Multi-center Prospective Biomarker Study in Prostate Cancer	928
<i>Robert Dennis</i>	
A Comparison of Three Methods for Automatic Text Categorization for Geriatrics.....	929
<i>Joshua Denny</i>	
Use of an Enterprise Wiki as a Research Collaboration Tool.....	930
<i>Bimal Desai</i>	
An Automated Surveillance and Analysis Tool for Online STI/HIV Behaviors.....	931
<i>Jonathan Deshazo</i>	
Querying Non-Materialized Ontology Views	932
<i>Landon Detwiler</i>	
Adapting Experimental Ontologies for Molecular Epidemiology	933
<i>Helena Deus</i>	
Development of a Software Package for Electronic Documentation of Orthopaedic X-Ray Findings	934
<i>Douglas Dew</i>	
Predicting Hospital Admission at Triage in an Emergency Department	935
<i>Judith Dexheimer</i>	
Participation in a Prototype Federated System for Sharing Medical Content	936
<i>Paul Dexter</i>	
Leveraging an Information Warehouse to Create Translational Research Environment for Wound Care Center	937
<i>Rakesh Dhaval</i>	

Augmenting Oracle Text with the UMLS for Enhanced Searching of Free-Text Medical Reports	938
<i>Jing Ding</i>	
Building a Medical Spanish Lexicon	939
<i>Guy Divita</i>	
Improved Management of Chronic Disease Using Health Information Technology	940
<i>Brian Dixon</i>	
A Technology-Assisted Approach for Discontinuing Contact Isolation	941
<i>Joshua Doherty</i>	
Visualization of Semantic Indexing Similarity over MeSH	942
<i>Haixia Du</i>	
Mining for Associations between Categorical Data Items in a Clinical Data Repository	943
<i>Anil K. Dubey</i>	
Collection of Socially Sensitive Data: A Randomized Study Comparing the Advantages and Limitations of Self Administered Questionnaire on Computer vs. Traditional Paper Based Method	944
<i>Mona Duggal</i>	
Development of a Multi-jurisdictional Syndromic Surveillance System	945
<i>Peter Dunbar</i>	
Linking Patients to Providers for Quality Reporting in an EHR	946
<i>Jonathan Einbinder</i>	
Implementation Fidelity: A Framework for Evaluation in the Health Information Technology Field	947
<i>Eric Eisenstein</i>	
ICD9 Code Assistant: A Prototype	948
<i>Selnur Erdal</i>	
The dGrail Toolkit for Iterative Deterministic Record Linkage	949
<i>Jeremy Ey</i>	
Improving the Monitoring of Nosocomial Infections in the Intensive Care Unit with Real-time Medical Informatics	950
<i>Adam Fadlalla</i>	
Evaluating the AMIA-OHSU 10x10 Program to Train Health Care Professionals	951
<i>Sue Feldman</i>	
Community Hospital CPOE System Implementation: The Lived Experience of Multi-Disciplinary Healthcare Team Members	952
<i>Willa Fields</i>	
Using Machine Learning to Predict Asthma Exacerbations	953
<i>Joseph Finkelstein</i>	
MMSPix - A Multimedia Messaging Service (MMS) Medical Images Weblog	954
<i>Paul Fontelo</i>	
An Informatics Course On Applied Clinical Information Systems	955
<i>Bruce Forman</i>	
Telepathology: Diagnostic Aid, Second Medical Opinion and Validation of the Diagnostic Efficiency.	956
<i>Carlos Fronza</i>	
Using the i2b2 Hive for Clinical Discovery: An Example	957
<i>Vivian Gainer</i>	
Creating A Hospital-Wide Patient Safety Net: Design and Deployment of ZigBee Vital Sign Sensors	958
<i>Tia Gao</i>	
Clinicians and Coders are Different: Examples of Disparities in Primary Care Coding	959
<i>Jennifer Garvin</i>	
Evolution of Clinical Decision Support to Increase Influenza Vaccination	960
<i>Mary Gerard</i>	
Leader Genes: A Data Mining Approach for Molecular Genomics	961
<i>Luca Giacomelli</i>	
Medical Identity Theft: An Emerging Problem for Informatics	962
<i>William Gillette</i>	
A Qualitative Analysis of Academic and Private Physicians and Administrators™ Perceptions of Health Information Technology	963
<i>Lisa Grabenbauer</i>	
Underdiagnosis of Pediatric Hypertension – An Example of a New Era of Clinical Research Enabled by Electronic Medical Records	964
<i>Paul Gunn</i>	
A Distributed Lag Model with First Order Auto-regressive Error Term for Hemoglobin Response to Erythropoietin in Dialysis Patients	965
<i>Ashwani Gupta</i>	

Identifying Significant Associations Using Free Text Problem Summary Lists in a Clinical Data Repository	966
<i>David Hanauer</i>	
Perceptions of Workflow and Information Exchange in an Academic Medical Center in Preparation for EHR Implementation: A Preliminary Field Study	967
<i>Saira Haque</i>	
Leveraging Electronic Medical Record (EMR) Systems Along with Other Health Information Systems (HIS) to Improve Data Capture and Reporting for a Surgical Quality Improvement Program at a Tertiary Care Institution and Integrated Health System.....	968
<i>Stephen Hayden</i>	
Alerts to Improve Chart Documentation for National Quality Measures	969
<i>Kevin Heard</i>	
Rule Base System for Identification of Patients with Specific Critical Care Syndromes: The “Sniffer” for Acute Lung Injury	970
<i>Vitaly Herasevich</i>	
Knowledge Integration of Software for HIV Drug Resistance Research	971
<i>Genaro Hernandez</i>	
AboutKidsHealth Online Resource Centres: Innovation in Family Health Education	972
<i>Ross Hetherington</i>	
Genomic Analysis and Geographic Visualization of H5N1 and SARS-CoV.....	973
<i>Andrew Hill</i>	
Linking the Clinical Vocabulary of Diseases to the Genes by Mapping UMLS to OMIM Allelic Variant Fields.....	974
<i>Teruyoshi Hishiki</i>	
Development of Requirements and a Pilot Registry for Long-term Follow-up of Children with Heritable Conditions	975
<i>Reid Holbrook</i>	
A Comparison of Four Feature Selection Algorithms Applied to Multiply-Imputed Proteomic Data.....	976
<i>John Holmes</i>	
Towards Automatic Extraction of Research Findings from the Literature.....	977
<i>Dimitar Hristovski</i>	
Developing an Usability-engineered Excel-based Nursing Administrative e-Form Generator.....	978
<i>Hsiang-Fen Lai</i>	
Development and Evaluation of a Dynamic Web-based Application	979
<i>Yichuan Hsieh</i>	
Developing an SDK of Usability-engineered Handheld Evaluation Aid	980
<i>Chiaoling Hsu</i>	
Automated Dose Checking and Intervention for Bariatric Patients.....	981
<i>Yan Huang</i>	
Development of a Quality Measurement Ontology in OWL	982
<i>Peter Hung</i>	
COPD - Endurance Training via Mobile Phone	983
<i>Shu Hui Hung</i>	
Graphical Modeling of HEDIS Quality Measures and Prototyping of Related Decision Support Rules to Accelerate Improvement.....	984
<i>Vojtech Huser</i>	
Quality Assessment of English and Spanish Oral Cancer Websites.....	985
<i>Jeannie Irwin</i>	
A Knowledge Representation of Local Pandemic Influenza Planning Models.....	986
<i>Runa Islam</i>	
SNOMED CT as the Clinical Terminology for the Representation of the Clinical Care of the Newborn Infant	987
<i>Andrew James</i>	
The Redesign of the Medical Informatics Master of Science Course at the University of Amsterdam.....	988
<i>Monique Jaspers</i>	
Use of Coded and Administrative Data to Identify Mental Health Conditions: Impediments and Implications in a Chronic Pain Study	989
<i>Samar Jasser</i>	
Facilitating Transitions to EMR Adoption through Client-Side Electronic Documentation	990
<i>Mike Jernigan</i>	
Do Minority-Serving Physicians Have Comparable Rates of Use of Electronic Health Records?.....	991
<i>Ashish Jha</i>	

Formalizing the International Classification of Functioning, Disability, and Health (ICF) Using Formal Concept Analysis (FCA)	992
<i>Guoqian Jiang</i>	
Building a Predictive Breast Cancer Risk Model	993
<i>Constance Johnson</i>	
Visualization of Usability and Functionality of a Professional Website through Web-mining	994
<i>Josette Jones</i>	
Real-Time Demand Forecasting in the Emergency Department	995
<i>Spencer Jones</i>	
The Coronary Artery Disease Quality Dashboard: A Chronic Care Disease Management Tool in an Electronic Health Record	996
<i>Eunice Jung</i>	
Ambulatory Electronic Medical Record Payback Analysis 7 years after Implementation in a Tertiary Care County Medical System	997
<i>David Kaelber</i>	
Development of an Ontology-Anchored Data Warehouse Meta-Model	998
<i>Jyoti Kamal</i>	
Building Knowledge: A System for Batch Loading Biomedical Terminologies	999
<i>Aaron Kamauu</i>	
Comparison of Linear and Non-Linear Classifiers for Oral Cancer Screening by Optical Spectroscopy	1000
<i>Chih-Wen Kan</i>	
Using Computerized Provider Order Entry Application to Improve Compliance with Co-signature of Verbal Orders	1001
<i>Andrew Karson</i>	
Towards NLP-Based Psychological Evaluation	1002
<i>Yefim Katz</i>	
Understanding Dimensions of Complexity in Nurse Case Managers' Workflow in a Telemedicine Program	1003
<i>David Kaufman</i>	
Healthy Harle: Empowering Health Consumers Through Social Networking, Tailoring and Web 2.0 Technologies	1004
<i>Sharib Khan</i>	
Linking Patients' Records Across Organizations While Maintaining Anonymity	1005
<i>Boonchai Kijasanayotin</i>	
Visualization of CYP2D6 Genotype to Phenotype Correlation in Korean	1006
<i>Eun-Young Kim</i>	
Representing Nursing Assessment Data with the ICNP	1008
<i>Hyeoneui Kim</i>	
Quantifying the Aesthetic Outcomes of Breast Cancer Treatment: Assessment of Artificial Scars	1009
<i>Min Soon Kim</i>	
The Good News about CPOE and Medical Student Ordering Ability	1010
<i>Amy Knight</i>	
A Standards-Based Solution for Public Health Reporting and Surveillance	1011
<i>Sarah Knoop</i>	
Tailoring Online Information Retrieval to User's Needs based on a Logical Semantic Approach to Natural Language Processing and UMLS mapping	1012
<i>Susan Kossman</i>	
CRAFT™: Facilitating Clinical Trial Execution Quality	1013
<i>Carl Kraus</i>	
Needs Assessment for the Design of an Informatics Tool for HIV Counselors	1014
<i>Rita Kukafka</i>	
Personal Digital Assistants for HIV Treatment Adherence, Safer Sex Behavior Support, and Provider Training in Resource-Constrained Settings	1015
<i>Ann Kurth</i>	
Breast Cancer Internet Information and Support (BCIIS): How Are Older Persons Different?	1016
<i>Sheryl Lacoursiere</i>	
REPETE2: A Next Generation Home Telemedicine Architecture	1017
<i>Albert Lai</i>	
Developing an Automatic Accreditation Support System of Health Websites	1018
<i>Minling Lai</i>	

Analyzing Online Public Support Groups for People Living with HIV/AIDS.....	1019
<i>Tsai-Ya Lai</i>	
Introducing Patient Navigation Electronic Log (PaNEL): An Innovative Platform to Facilitate Cancer Screening and Detection.....	1020
<i>Oleg Lapshin</i>	
The Order of Priority in Standardization of Ubiquitous Home Healthcare Technology.....	1021
<i>Byung Mun Lee</i>	
Database Design and Implementation for a PDA-based Decision Support System for Screening and Tailored Care Planning.....	1022
<i>Nam-Ju Lee</i>	
Predicting Ambulance Diversion in an Adult Emergency Department using a Gaussian Process	1023
<i>Jeffrey Leegon</i>	
US and Scottish Health Professionals' Attitudes toward DNA Biobanking.....	1024
<i>David Leiman</i>	
MedlinePlus en Español and Spanish-Speakers.....	1025
<i>Sergio Leon</i>	
Main Bibliographic Database in European Ethics for EU New Member States	1026
<i>Branimir Leskoek</i>	
Quicksilver: A Novel Publish and Subscribe Clinical Messaging Platform.....	1027
<i>William Lester</i>	
Model-Driven CDA Clinical Document Development Framework	1028
<i>Jingdong Li</i>	
Acceptance and Expectations of Information Technology to Support Hypertension Self-Care in African Americans: A Qualitative Inquiry.....	1029
<i>Jingyi Li</i>	
Designing CPOE Systems Using an Ecological Approach.....	1030
<i>Ching-Ping Lin</i>	
PTXT Finder—An Application for Finding Appropriate EHR Data Elements for Data Analysis Using Cross Referencing Information Sources	1031
<i>Jau-Huei Lin</i>	
The Acute Respiratory Infection Quality Dashboard: A Performance Measurement Reporting Tool in an Electronic Health Record.....	1032
<i>Jeffrey Linder</i>	
BabelMeSH2 and PICO Linguist2: Combined Language Search for MEDLINE/PubMed.....	1033
<i>Fang Liu</i>	
Data Mining Tools for Genotype-Phenotype Correlation	1034
<i>Jianhua Liu</i>	
Noninterruptive Drug-Lab Alerts in Ambulatory Care.....	1035
<i>Helen Lo</i>	
Robust Informatics Methods for Accurate Diagnosis Using Highly Multiplexed Virus Arrays.....	1036
<i>Yang Lui</i>	
Development of a Data Management System for ELISPOT Assay in Immunological Research.....	1037
<i>Jingming Ma</i>	
Quantifying Genomic Variation at the Individual Level: Putting the “Person” in Personalized Medicine	1038
<i>Nathan Markward</i>	
Semantic Data Integration in the European ACGT Project	1039
<i>Luis Martin</i>	
Validating an Automated Outcomes Surveillance Application Using Data from a Terminated Randomized, Controlled Trial (OPUS [TIMI-16])	1040
<i>Michael Matheny</i>	
ECIDS: Standardizing the Data for Birth to 3 Programs	1041
<i>Kaycee McClyman</i>	
Using Term Frequency to Identify Trends in the Media’s Coverage of Health	1042
<i>Delano McFarlane</i>	
Challenges in Reconciling Different Views of Neuroanatomy in a Reference Ontology of Anatomy	1043
<i>Jose Mejino</i>	
Can a "Smart Form" Increase Physicians' Satisfaction with Managing Patient Health Behavior Risks? Results of a Physician Satisfaction Survey	1044
<i>Andrea Melnikas</i>	
Integration of Hive and Cell Software in the i2b2 Architecture	1045
<i>Michael Mendis</i>	

The MED-AUDIT Ontology Version 1: An Ontology for Auditing the Accessibility of Medical Devices.....	1046
<i>Rochelle Mendonca</i>	
Barriers to Information Access among County Health Department Employees.....	1047
<i>Jacqueline Merrill</i>	
A Statistical Approach for Detecting Deviations from Usual Medical Care.....	1048
<i>James Mezger</i>	
Expert Validation of the Knowledge Base for E-CAD - A Pre-hospital Dispatch Triage Decision Support System	1049
<i>Muzna Mirza</i>	
Semi Automatic Indexing of PostScript Files using Medical Text Indexer in Medical Education.....	1050
<i>Shamim Mollah</i>	
Managing Changes to User Defined Standard Content in Clinical Information Systems Deployed Across a Large Complex Healthcare System.....	1051
<i>Catherine Mullins</i>	
Best Practices for Distribution of Controlled Medical Terminologies	1052
<i>Senthil Nachimuthu</i>	
Service-Oriented Architecture for Pediatric Immunization Decision Support	1053
<i>Mari Nakamura</i>	
An XML-based Integration Method for Different Types of Patient Data in Cardiology	1054
<i>Masaharu Nakayama</i>	
Developing a Process for a Metadata Standard for Environmental Public Health Tracking	1055
<i>Gonza Namulanda</i>	
Feasibility Study of Speech Recognition for Gathering Information Needs	1056
<i>Karthik Natarajan</i>	
Archetypes As Interface Between Patient Data and a Decision Support System	1057
<i>Julie Nies</i>	
Long-term Effectiveness of an Automated Guideline Adherence Monitor for Secondary Prevention of Acute Myocardial Infarction	1058
<i>Laura Noirot</i>	
Use of a Quality Improvement Tool, the Prioritization Matrix, to Identify and Prioritize Triage Software Algorithm Enhancement	1059
<i>Frederick North</i>	
Enhancing Continuity of Care through an Emergency Medical Card at Intermountain Healthcare: Using Continuity of Care Record (CCR) Standard	1060
<i>Christopher Olola</i>	
Hybrid Representation of Hierarchical Structures in Point-of-Care Coded Data Capture Platform	1061
<i>Maya Olsha-Yehiav</i>	
Are Lay People Ready for Health Information Exchange?	1062
<i>Mustafa Ozkaynak</i>	
Propagating the Effects of Missing Data Sources in a Surveillance System	1063
<i>Ian Painter</i>	
User Interface Accelerators for Clinical Documentation in Smart Form	1064
<i>Matvey Palchuk</i>	
Prioritizing Disease Genes by Analysis of Common Elements (PDG-ACE)	1065
<i>Hee Kyong Park</i>	
Optical Flow Techniques with Peak Detection Method for Ciliary Beat Frequency Measurement	1066
<i>Rae Woong Park</i>	
Semantic Query Generation from Eligibility Criteria in Clinical Trials	1067
<i>Chintan Patel</i>	
A Framework for Workflow-based Clinical Research Billing Disambiguation	1068
<i>Philip Payne</i>	
Ontological Representation of Family and Family History	1069
<i>Jane Peace</i>	
Peptide Identification in Whole-Sample Mass Spectrometry Proteomics.....	1070
<i>Richard Pelikan</i>	
An Ontology-based and Distributed KDD Model for Biomedical Sources	1071
<i>David Perez-Rey</i>	
Data Normalization in Biosurveillance: An Information-Theoretic Approach.....	1072
<i>William Peter</i>	
Physicians' Knowledge and Attitudes about Coronary Heart Disease Secondary Prevention	1073
<i>Victor Pham</i>	

Looking for a Needle in the Haystack? a Case for Detecting Adverse Drug Events (ADE) in Clinical Notes.....	1074
<i>Shobha Phansalkar</i>	
Development and Order set Utilization in Ambulatory Pediatric Specialty Care.....	1075
<i>Ari Pollack</i>	
Use of Features in Electronic Health Records and Health Care Quality: How are They Related?	1076
<i>Eric Poon</i>	
Identification of Co-occurring Diseases Using Ontological Data Mining Techniques	1077
<i>Mihail Popescu</i>	
Mapping Laboratory Test Codes to LOINC for a Regional Health Information Exchange.....	1078
<i>Jameson Porter</i>	
Emergency Room Providers Perceptions of MyChart®'s My Emergency Data: Findings From a Focus Group Study.....	1079
<i>Sandra Potthoff</i>	
Can Adverse Events Be Extracted From Electronic Anesthesia Records?	1080
<i>Thomas Powell</i>	
An Online Decision Support System for Diagnosing Hematopoietic Malignancies By Flow Cytometry Immunophenotyping	1081
<i>You-Wen Qian</i>	
Cognitive Debiasing through Sparklines in Clinical Data Displays.....	1082
<i>Ryan Radecki</i>	
A Web Based Application for Surveillance and Quality Management in Chronic Hepatitis C	1083
<i>Ivo Rakovac</i>	
Augmented Interactive Starfield Displays For Health Management	1084
<i>Luke Rasmussen</i>	
An Ethical Review of Euthanasia Web Sites	1085
<i>Kourosh Ravvaz</i>	
Natural Language Processing to Identify Venous Thromboembolic Events	1086
<i>Richard Reichley</i>	
WHIST: A Web-based Survey on Health Information Seeking on Internet in France, 2007	1087
<i>Emilie Renahy</i>	
Using Business Intelligence to Monitor Clinical Quality Metrics	1088
<i>Ervina Resetar</i>	
Electronic Medical Records Adoption Challenges in Mexico	1089
<i>Juan Reynoso</i>	
An Automated Communication System in a Contact Registry for Persons with Rare Diseases: Tools for Retaining Potential Clinical Research Participants	1090
<i>Rachel Richesson</i>	
Integrating Public Health Applications with Commercial EMRs	1091
<i>Carla Rodriguez</i>	
Physician Adoption of an Information System in an Integrated Health Region	1092
<i>Thomas Rosenal</i>	
Qualitative Assessment of Diabetes-STAR: A Patient Portal with Disease Management Functions.....	1093
<i>Stephen Ross</i>	
Information Needs of Pre-hospital Care Providers - A Requirements Analysis	1094
<i>Devashish Saini</i>	
Integrating Heterogeneous Rules-Engine Technologies with caGrid	1095
<i>Joel Saltz</i>	
Information-Theoretic Classification of SNOMED Improves the Organization of Context-Sensitive Excerpts from Cochrane Reviews	1096
<i>Lee Sam</i>	
Using Data Mining Tools to Discover Novel Clinical Laboratory Test Batteries	1097
<i>Jennifer Santangelo</i>	
Encouraging Change in Anesthesiology Practice Through Electronic Feedback to Physicians: Results from Prototype System.....	1098
<i>Pankaj Sarin</i>	
The Cell Line Ontology and Its Use in Tagging Cell Line Names in Biomedical Text.....	1099
<i>Sirarat Sarntivijai</i>	
Current Status of the Japanese Cancer Registry System: Results of a Nationwide Survey	1100
<i>Tomohiro Sawa</i>	
Requirements for An Efficient Biomedical Terminology Browser.....	1101
<i>Jeff Scadden</i>	

Infusion of Nursing Informatics: From Outside In.....	1102
<i>Pamela Scheibel</i>	
Facilitating Group Learning and Dialogue between Neighboring Academic Institutions Using a Collaborative Web Application Framework	1103
<i>Elisabeth Scheufele</i>	
Psychometric Evaluation of a Handheld Decision Support Attitudes Scale	1104
<i>Rebecca Schnall</i>	
Development of User-configurable Information Source Pages for Medical Information Retrieval	1105
<i>Yalini Senathirajah</i>	
Mapping Medical School Curricula Using the MeSH Tree.....	1106
<i>Sami Shaban</i>	
Social Relations Model in Telehomecare	1107
<i>Kimberly Shea</i>	
Systematic Development and Usability Testing of a Physician-based Prostate Cancer Education Program in an African American Community.....	1108
<i>Sherri Sheinfeld Gorin</i>	
A New Approach to Medical and Clinical Knowledge Management by Using the Medical Cells Strategy.....	1109
<i>Akiko Shibuya</i>	
Effect of Normalization Methods on Biomarker Identification Utilizing Mass Spectrometry	1110
<i>Hyunjin Shin</i>	
Determining User Preferences between Touch and Pen Data Entry Methods in the Tablet PC Computing Environment	1111
<i>Garry Silvey</i>	
Physicians Value Patient Review of their Electronic Health Record Data as a Means to Improve Accuracy of Medication List Documentation.....	1112
<i>Elizabeth Siteman</i>	
Community Hospital Physician Adoption of a CPOE System: Perceptions of Readiness, Usefulness, and Satisfaction.....	1113
<i>Rita Snyder</i>	
Adaptation of the NegEx Algorithm to Veterans Affairs Electronic Text Notes for Detection of Influenza-like Illness (ILI)	1114
<i>Brett South</i>	
Documentation of Clinical Workflow: A Key Step in a Plan to Facilitate Implementation of an Electronic Patient Record	1115
<i>James Spence</i>	
A Randomized Study of Feedback on Student Write-ups Using an Electronic Portfolio	1116
<i>Anderson Spickard</i>	
Software supporting Planning, Quality Assurance, Accreditation and Operation of interdisciplinary Healthcare Professional Education	1117
<i>Basile Spyropoulos</i>	
Improving Awareness in Message Exchanging Platform - A Knowledge Driven Approach.....	1118
<i>Arunkumar Srinivasan</i>	
Implementing Pneumonia Quality Care Measures with an Informatics-Driven Intervention.....	1119
<i>Jack Starmer</i>	
Immunization Registries: Use of Race and Ethnicity, and Socioeconomic Status Indicators to Identify Immunization Disparities.....	1120
<i>Christina Stephan</i>	
Challenges and Solutions to Deployment of Internet Videoconferencing for Researchers and Clinicians in Primary Care Medical Settings	1121
<i>Joseph Stone</i>	
Physician Adoption & Governance Strategies for a Multi-facility Community Hospital EMR/CPOE Implementation.....	1122
<i>Harris Stutman</i>	
A Comparison of a Decision Tree Induction Algorithm with the ACS Guidelines for Trauma Triage	1123
<i>Steve Talbert</i>	
Validating Prediction Models of Kidney Transplant Outcome Using Local Data	1124
<i>Hongying Tang</i>	
Integrating Electronic Patient Records Into a Multi-media Clinic-based Simulation Center Using a PC Blade Platform: A Foundation for a New Pedagogy in Dentistry	1125
<i>David Taylor</i>	

On-Line Discussion Boards: Impact on Caregiver Reports of Satisfaction, Support and Decision Making in Health Care.....	1126
<i>Laura Taylor</i>	
Access Controls for a Pediatric Personally Controlled Health Record	1127
<i>Patrick Taylor</i>	
French MeSH Browser: a Cross-language Tool to Access MEDLINE/PubMed.....	1128
<i>Benoit Thirion</i>	
Housestaff and Attending Physician Knowledge Of and Attitude Towards an EMR on the Eve of Implementation.....	1129
<i>David Thomas</i>	
Representing Risky Behavior for Sexually Transmitted Diseases on the Semantic Web by Using Notation3.....	1130
<i>Herman Tolentino</i>	
Do Computer-generated Summaries, “The Bottom Line (TBL)” Accurately Reflect Published Journal Abstracts?.....	1131
<i>Oscenio Tom</i>	
Mapping Terms to UMLS Concepts of the Same Semantic Type	1132
<i>Nam Tran</i>	
Patient-Centered Consumer Health Social Network Websites: A Pilot Study of Quality of User-Generated Health Information	1133
<i>Christopher Tsai</i>	
Biosurveillance Grid: Evaluation of the Distribution of Biosurveillance Data across Multiple Computers.....	1134
<i>Ming-Chi Tsai</i>	
BioSTORM: A Test Bed for Configuring and Evaluating Biosurveillance Methods.....	1135
<i>Samson Tu</i>	
Modeling Workflow and Information Flow in Chronic Disease Care.....	1136
<i>Kim Unertl</i>	
A Clinical Recruiting Management System for Complex Multi-Site Clinical Trials Using Qualification Decision Support Systems	1137
<i>Massoud Vahabzadeh</i>	
Understanding Informed Consent in Bioinformatics Research: Cross- Cultural Issues	1138
<i>Rupa Valdez</i>	
Creating a Searchable Digital Dental Radiograph Repository for Patient Care, Teaching and Research Using an Online Photo Management and Sharing Application.....	1139
<i>John Valenza</i>	
A Web based Radiation Oncology Dose Manager with a Rich User Interface developed using AJAX, Ruby, Dynamic XHTML and the New Yahoo/EXT User Interface Library.....	1140
<i>Faisal Vali</i>	
A New Taxonomy for Telehealth Technologies.....	1141
<i>Adam Vincent</i>	
A Human-centered Design of a Dental Discharge Summary (DDS) for Patients	1142
<i>Muhammad Walji</i>	
Forecasting Hospital Census at a Tertiary Care Children’s Hospital.....	1143
<i>Nephi Walton</i>	
Automated Clinical Data Collection for National Quality Measurement Reporting	1144
<i>Song Wang</i>	
Feasibility of Linking External Valuation Sources to Bedside-Caregiver Activities in Interdisciplinary Patient Care Standards	1145
<i>Jeff Washburn</i>	
Assessing the Quality of Quality of Care Measures: The Impact of the Sampling Frame on Baseline Assessments of Diabetes Control	1146
<i>Mark Weiner</i>	
Challenges of Social Networking Technologies for Cancer Care and Social Support	1147
<i>Jacob Weiss</i>	
Effect of a Computerized Provider Order Entry (CPOE) System on Provider and Nurse Satisfaction at a Community Hospital and University Hospital	1148
<i>Mark Wess</i>	
Supporting CMT and User Customization in Clinical Documentation Templates	1149
<i>Nancy Whipple</i>	

BostonBreathes: An RCT to Improve Pediatric Asthma Care with a Home-Based Interactive Website for Patient Education, Monitoring, and Clinical Teamwork	1150
<i>John Wiecha</i>	
Accuracy of Provider Generated Computerized Problem Lists in the Veterans Administration.....	1151
<i>Carl Williams</i>	
Providing Contextually Relevant Health Literature for At-risk Patients Using Free-standing Touchscreen Computer Kiosks in Community Settings.....	1152
<i>Janese Willis</i>	
Development of a Quarterly Referral Productivity Report	1153
<i>Cai Wu</i>	
Low Internet Use among Patients with Diabetes in a Safety-Net Population	1154
<i>Edward Wu</i>	
Web-based Training Tool for Interpreting Dental Radiographic Images	1155
<i>Min Wu</i>	
A Computing Platform to Support Communication and Sense-Making in Intensive Care	1156
<i>Yan Xiao</i>	
Applying Human Factors Research to Alert-Fatigue in E-prescribing.....	1157
<i>Minhui Xie</i>	
Representational Affordances in Design of Clinical Research Information System	1158
<i>Zhong Xie</i>	
Simplifying Access to a Clinical Data Repository Using Schema Summarization	1159
<i>Cong Yu</i>	
Development Approach to an Enterprise-wide Medication Reconciliation Tool in a Free-standing Pediatric Hospital with Commercial Best-of-breed Systems.....	1160
<i>Feliciano Yu</i>	
Resource Management Simulator for Radiology Departments	1161
<i>Shuntaro Yui</i>	
Design and Implementation of an HIV/AIDS Electronic Medical Record System (HIV/AIDS EMR) in the Philippines.....	1162
<i>Gelza Mae Zabat</i>	
MEADERS: Medication Errors and Adverse Drug Event Reporting System	1163
<i>Atif Zafar</i>	
Improving Diabetes Population Management Efficiency with an Informatics Solution.....	1164
<i>Adrian Zai</i>	
Do Patients Understand how PHRs Work?	1165
<i>Teresa Zayas-Cahn</i>	
Integrating the UMLS into an RDF-Based Biomedical Knowledge Repository.....	1166
<i>Kelly Zeng</i>	
Building User Research Interest Profiles through a MeSH Indexer	1167
<i>Dongming Zhang</i>	
Blood Glucose Monitoring in Critical Care.....	1168
<i>Ying Zhang</i>	
An Issue Tracking System to Facilitate the Enhancement of Clinical Data Quality in the Clinical Breast Care Project	1169
<i>Yonghong Zhang</i>	
Using Protein-semantic Network Metrics to Evaluate Functional Coherence of Protein Groups	1170
<i>Bin Zheng</i>	
Social Contagion and Technology Adoption: A Study in Healthcare Professionals.....	1171
<i>Kai Zheng</i>	
A Dashboard Model for Monitoring Alert Effectiveness and Bandwidth.....	1172
<i>Christopher Zimmerman</i>	
Knowledge Acquisition and Visualization for Biomedical Research.....	1173
<i>Noah Zimmerman</i>	

AMERICAN COLLEGE OF MEDICAL INFORMATICS DISTINGUISHED PRESENTATION SERIES

Changing Systems Means Changing Behaviors	1174
<i>Marion Ball</i>	

Standards in Health Information Technology: Promise and Challenges	1175
<i>Robert Jenders</i>	

PARTNERSHIPS IN INNOVATION

Title: S-WIRE™ / University of Michigan	1177
<i>Lynn Johnson</i>	
Improving Clinical and Business Processes: Capitalizing on the Investment in Controlled Medical Terminology	1179
<i>Frank Naeymi-Rad</i>	
HealthInfoNet: Maine's Statewide RHIO/HIE	1182
<i>Kasey Poon</i>	
Creating a Research Commons Around Behavioral Markers of Disease	1185
<i>Bern Shen</i>	
Integration of Evidence-based Medicine into Order Sets	1186
<i>Ferdinand Velasco</i>	
Improving Workflow and Timeliness of Documentation in the Acute Care Setting through the Use of Mobile Clinical Assistants with Device Integration	1187
<i>Ann Williamson</i>	

THEATER STYLE DEMONSTRATIONS

The Emergency Department Whiteboard - An Information Hub for Tracking Patient Care and Enhancing Operational Workflow	1189
<i>Dominik Aronsky</i>	
A Patient-centric, Internet-based Application for the Data Management of a Multi-centre Respiratory Syncytial Virus Prophylaxis Program	1190
<i>Marianne Bracht</i>	
Integration of Health Information Resources into Electronic Health Records Using HL7	1191
<i>Guilherme Del Fiol</i>	
Report Central: Quality Reporting in an EHR	1192
<i>Jonathan Einbinder</i>	
Web Clinical Information System (WebCIS) - An Ambulatory/In- Patient EMR Built Around Clinical Workflow Process	1193
<i>Raj Gopalan</i>	
ARUP Consult: Development and Implementation of an Online Laboratory Test Ordering and Interpretive Guide	1194
<i>Brian Jackson</i>	
A Citywide Electronic Infection Control Network: Successfully Translating Data into Action	1195
<i>Abel Kho</i>	
Making the Paperless Transition: Marshfield Clinic's Cattails EHR	1196
<i>Peggy Peissig</i>	
P-PROMPT: Provider & Patient Reminders: Multi-strategy Prevention Tools	1197
<i>Rolf Sebaldt</i>	
RxNav: An Integrated View on Drug Information	1198
<i>Kelly Zeng</i>	
Author Index	