

CURRICULUM VITAE

Date Prepared: September 20, 2010

Name: David Westfall Bates

Office Address: Brigham and Women's Hospital
1620 Tremont Street, BC3-2M
Boston, MA 02120

Home Address: 4 Lovell Road
Watertown, MA 02172

E-mail: dbates@partners.org FAX: 617-732-7072

Place of Birth: Madison, Wisconsin

Education:

1979 B.S.	Stanford University
1983 M.D.	Johns Hopkins University School of Medicine
1990 M.Sc.	Harvard School of Public Health (Department of Health Policy and Management)

Postdoctoral Training:

Internships and Residencies:

1983-1986	Internal Medicine, Oregon Health Sciences University, Portland
-----------	--

Clinical and Research Fellowships:

1988-1990	Research/Clinical Fellow in Medicine, Brigham and Women's Hospital, Boston
1988-1990	Research Fellow in Medicine, Harvard Medical School, Boston

Licensure and Certification:

1984-1990	Oregon License Registration
1986	American Board of Internal Medicine, Diplomate
1988-	Massachusetts License Registration

Academic Appointments:

1986-1987	Instructor in Medicine, Oregon Health Sciences University, Portland, OR
1990-1993	Instructor in Medicine, Harvard Medical School, Boston, MA
1993-1997	Assistant Professor of Medicine, Harvard Medical School, Boston, MA
1997-2003	Associate Professor of Medicine, Harvard Medical School, Boston, MA
2000-2003	Joint Appointment, Associate Professor, Harvard School of Public Health, Department of Health Policy and Management, Boston, MA
2003-	Joint Appointment, Professor, Harvard School of Public Health, Department of Health Policy and Management, Boston, MA
2003-	Professor of Medicine, Harvard Medical School, Boston, MA

Hospital or Affiliated Institution Appointments:

1990-1995	Attending Physician, Holding Unit, Brigham and Women's Hospital
1990-1997	Attending Physician, Medical Consultation Service, Brigham and Women's Hospital
1990-	Attending Physician, Brigham Internal Medicine Associates, Brigham and Women's Hospital
1993-2003	Member, Center for Applied Medical Information Systems Research, Brigham and Women's Hospital
1997-1999	Medical Director, Partners Clinical Data Warehouse
2003-2005	Physician, Brigham Internal Medicine Associates, Brigham and Women's Hospital
2005-	Senior Physician, Brigham Internal Medicine Associates, Brigham and Women's Hospital

Other Professional Positions and Major Visiting Appointments:

1984-1986	House Physician, Kaiser Sunnyside Hospital, Portland, Oregon
1984-1987	House Physician, Vancouver Veteran's Hospital, Vancouver, WA
1986-1987	Associate Physician, Oregon Health Sciences University Hospital, Portland, Oregon
1989-1991	House Physician, St. Luke's Hospital, New Bedford
2007-2010	Visiting Professor, The School of Pharmacy, University of London, London, England

Major Administrative Responsibilities:

1996-1997	Medical Director, Brigham and Women's Physician Hospital Organization, Boston, MA
1997-	Medical Director, Clinical and Quality Analysis, Partners Healthcare Systems, Boston, MA
1998-	Chief, Division of General Internal Medicine, Boston, MA
1999-	Co-Director, Clinical Effectiveness Program, Harvard School of Public Health, Boston, MA

2000-	Member, Board of Trustee, Institute for Safe Medication Practices, Huntingdon Valley, PA
2001-2009	Editor-in-Chief, Journal of Clinical Outcomes Management
2004-	Member, Board of Directors, Massachusetts Chapter American College of Physicians (ACP), Waltham, MA
2005-	Member, Board of Directors, American Medical Informatics Association, Bethesda, MD
2007-2009	Chair, Board of Directors, American Medical Informatics Association, Bethesda, MD

Major Committee Assignments:

Regional, National and International:

1993	Member, SGIM Task Force for the Residency Curriculum, Medical Informatics/Computing Chapter
1993-1995	Member, Academic Medical Center Consortium Tools Committee, Quality Measurement and Management Initiative
1995	Member, Symposium for Computer Applications in Medical Care, National Program Committee
1995	Member, Initiative to Make National Recommendations Regarding Adverse Drug Event Prevention, American Society of Health-System Pharmacists
1996	Member, National Cancer Institute of Canada, Program Project Grant Committee
1996-1998	Member, Medication Error Reduction Initiative, American Medical Association
1997	Member, National Academy of Clinical Biochemistry, Standards for Laboratory Practice, Washington, DC
1997-1998	Member, Improving Prescribing Practices Initiative, Institute for Health Care Improvement
1998-2001	Scientific Advisor, SCRIPT Project, Health Care Financing Administration and Joint Commission for Accreditation of Healthcare Organizations
1999	Chair, Abstract Selection Committee, SGIM Northeast Region
1999	Member, Consensus Development Panel on the Safety of Intravenous Drug Delivery Systems, Latiolais Leadership Program, The Ohio State University, Columbus, OH
2000-2004	Member, Steering Committee, National Quality Forum (NQF), Washington, DC
2000-2004	Member, Safe Medication Use Expert Committee, U.S. Pharmacopoeia
2000-	Member, Awards Committee, American Medical Informatics Association (AMIA); 2006-2007 Chair
2000-	Mentor, Harkness Fellows in Health Care Policy, The Commonwealth Fund, New York, NY
2000-	Advisor, Computer Physician Order Entry (CPOE), The Leapfrog Group for Patient Safety
2001-2002	Member, Emerging Technologies Conference Advisory Board, Kalkines, Arky, Zall & Bernstein LLP

2001-2002	Member, National Advisory Committee of the Feasibility Study for an Applied Patient Safety and Outplacement Program, Agency for Healthcare Research and Quality (AHRQ)
2001-2006	Advisory Board Member, Project for Reduction in Medication Errors (PRIME), University of Pennsylvania
2002-2004	Member, Patient Safety Data Standards Committee, Institute of Medicine (IOM)
2002-2004	Member, Research Funding Administrative Structure Committee, Risk Management Foundation of the Harvard Medical Institutions, Inc. and the Healthcare Safety Research Institute
2002-2005	Member, Quebec Integrated Network for Health Care and Research: International Advisory Committee (Comité Consultatif International), Infostructure de Recherche Intégrée en Santé), Quebec, Canada
2002-2005	Advisory Board Member, The Maine Institute of Patient Safety
2002-	Member, Targeted Research Enhancement Program (TREP) Steering Committee, Vanderbilt and VA Tennessee Valley Healthcare System, Nashville, TN
2003	Member, Grant Review Committee, Patient Safety Research Programme (PSRP), University of Birmingham and the National Patient Safety Agency (NPSA)
2003	Member, Technical Advisory Committee (TAG), Department of Health and Human Services, Assistant Secretary for Planning and Evaluation Office
2003-2004	Member, Steering Committee for the Pediatric Chemotherapy and Medication Safety Project, Dana-Farber Cancer Institute
2003-2005	Member, HIMSS Patient Safety Task Force, Healthcare Information and Management Systems Society (HIMSS)
2003-2006	Member, Standing Committee on Promotions, Reappointments and Appointments, Harvard Medical School
2003-	Member, International Advisory Committee, Infostructure de Recherche Intégrée en Santé (IRIS) Québec
2003-	Member, CRICO/RMF Patient Safety Research Grant Review Board, Risk Management Foundation and Healthcare Safety Research Institute
2003-	Member, Steering Committee, Research Enhancement Award Program (REAP), Department of Veterans Affairs Medical Center
2003-	Member, Patient Safety Working Group Subcommittee, American Board of Medical Specialties/Council of Medical Specialty Societies
2003-	Member, Application Review Team for the George W. Merck Fellowships, Institute for HealthCare Improvement (IHI)
2004	Member, Writing Committee, American College of Endocrinology (ACE)
2004	Member, Mission and Governance Committee, MassSafe Collaborative
2004-2005	Member, Technical Expert Panel, "Electronic Health Information Technology Systems: Costs and Benefits", Southern California Evidence-Based Practice Center (EPC)
2004-2005	Member, Advisory Board, National CIS Benefits Task Force, Healthcare Information and Management Systems Society (HIMSS)
2004-2006	Member, Committee on Drug Safety, Institute of Medicine (IOM)
2004-2009	Member, Medical Informatics Subcommittee, American College of Physicians (ACP)

- 2004- Member, Mass eHealth Collaborative Clinical Requirements Workgroup, Massachusetts eHealth Collaborative (MAeHC)
- 2004- Member, Scientific Advisory Committee, Kaiser Permanente Medical Group
- 2004- Member, Health Information Technology in Long Term Care, Meyers Primary Care Institute, Worcester, MA
- 2005 Member, 2005 Conference Advisory Committee, Patient Safety and Health Information Technology: Making the Health Care System Safer Through Implementation and Innovation, Agency for Healthcare Research and Quality
- 2005-2006 Member, Scientific Program Committee, American Medical Informatics Association, Bethesda, MD
- 2005-2007 Commissioner, Board of Commissioners, Certification Commission for Healthcare Information Technology (CCHIT), Chicago, IL
- 2005- Member, External Advisory Board, New England Regional Translational Center
- 2005- Member, Inter-Community Coordination Committee (ICCC), Massachusetts eHealth Collaborative, Waltham, MA
- 2005- Advisory Group Member, Patient Safety Education Project, Northwestern's Feinberg School of Medicine, Chicago, IL
- 2005- Member, Web-based Patient Safety Advisory Board, American Board of Medical Specialties, Evanston, IL
- 2005- Member, External Advisory Board (EAB), Clinical Transformation Return on Investment Initiative, Baylor Health Care System, Dallas, TX
- 2006 Member, Advisory Panel on "Business Briefing: Healthcare IT 2006", Touch Briefings, London, England
- 2006 Member, Advisory Board, Patient Safety Education Project (PSEP), Buehler Center on Aging, The Feinberg School of Medicine, Northwestern University, Chicago, IL
- 2006-2007 Chair, 2007 Conference Planning and Program Committee, The International Society for Quality in Health Care (ISQua) 24th International Conference: Transforming Healthcare in the Electronic Age, Boston, MA
- 2006-2010 Member, External Steering Group for a Systematic Review of the Impact of IT on the Quality and Safety of Health Services (NHS Connecting for Health Evaluation Programme Project CfH001), University of Edinburgh and Imperial College London, London, England
- 2006- Member, Benefits Evaluation Advisory Panel, Canada Health Infoway Inc./Inforoute Sante du Canada, Montreal (Quebec), Canada
- 2006- Member, Infoway Drug Information System Business Case Expert Panel, Praxia Information Intelligence, Toronto ON, Canada
- 2006- Member, Advisory Council, Institute for Clinical Innovation, Hackensack University Medical Center, Hackensack, NJ
- 2006- External Program Leader, Patient Safety Research, WHO World Alliance for Patient Safety, World Health Organization, Geneva, Switzerland
- 2006- Member, Executive Advisory Committee, PatientSafe Solutions, Inc., San Diego, CA (previously IntelliDOT Corporation).
- 2006- Member, Center for Patient Safety Advisory Board, Dana-Farber Cancer Institute, Boston, MA
- 2006- Member, American College of Medical Informatics Scientific Affairs Committee, American Medical Informatics Association, Bethesda, MD

- 2006- Member, AHIMA and AMIA Advocacy Council (AAAC), American Medical Informatics Association, Bethesda, MD
- 2006- Member, Primary Health Care Specialist Group, The British Computer Society, Worcester, UK
- 2007-2008 Member, ASHP Commission on Goals for 2008, American Society of Health-System Pharmacists, Bethesda, MD
- 2007-2008 Member, North America Advisory Council (NAAC), CRIX International Association, Reston, VA
- 2007-2009 Member, Publication Committee, American College of Physicians, Philadelphia, PA
- 2007-2009 Member, Medical Service Committee, American College of Physicians, Philadelphia, PA
- 2007-2009 Member, Clinical Decision Support Roadmap Steering Committee, American Medical Informatics Association, Bethesda, MD
- 2007-2009 Member, Advisory Board of the Harvard Pediatric Health Services Research Fellowship Program, Children's Hospital, Boston, MA
- 2007-2009 Member, Laboratory Monitoring Advisory Panel, Harvard Pilgrim Health Care, Boston, MA
- 2007-2011 Member, Public Policy Committee (PPC), American Medical Informatics Association, Bethesda, MD
- 2007- Member, Identifying Core Data Elements for EH Information Systems HIT Expert Panel, The National Quality Forum, Washington, DC
- 2007- Member, Cost Effectiveness and HIT Experts Panel, Office of the National Coordinator for HIT, Washington, DC
- 2008 Member, Business Sustainability Planning Group, The American Health Information Community (AHIC) Successor, Department of Health & Human Services, Office of the National Coordinator for Health Information Technology, Washington, DC
- 2008-2009 Member, Health IT Expert Panel, National Quality Forum, Washington, DC
- 2008-2009 Co-Chair, Quality Data Set (QDS) Workgroup, Washington, DC
- 2008-2010 Member, International Affairs Committee, American Medical Informatics Association, Bethesda, MD
- 2008-2011 Chair, NHS CFHEP 005 - Independent Project Steering Committee, The University of Edinburgh, Edinburgh, Scotland, United Kingdom
- 2009 Chair, Eisenberg Award Committee, Society of General Internal Medicine, Washington, DC
- 2009-2010 Member, Health Information Technology-Industry Advisory Panel (HIT-IAP), American Society of Health Information Managers (ASHIM), Salt Lake City, UT
- 2009-2010 Member, Technical Expert Panel, AHRQ Project on Medication Management Systems and Health IT, McMaster University, Hamilton, Ontario, Canada
- 2009-2012 Member, Health Information Technology (HIT) Policy Committee, Government Accountability Office (GAO), Washington, DC
- 2009- Member, Health Policy Steering Committee, American Medical Informatics Association, Bethesda, MD

2009-	Member, Technical Expert Panel, Enabling Healthcare Decision Making Through Clinical Decision Support and Knowledge Management, Duke University Medical Center, Durham, NC
2010-2011	Chair, Nominating Committee Volunteer Selection, American Medical Informatics Association, Bethesda, MD
2010-2011	Member, Management Committee, American Medical Informatics Association, Bethesda, MD
2010-2013	Member, Biomedical Science Advisory Board, Vanderbilt University School of Medicine, Nashville, TN
2010-2013	Member, SHARPS Project Advisory Committee (PAC), University of Illinois, Urbana, IL
2010-2013	Member, Health Information Technology Advisory Committee (HITAC), National Quality Forum, Washington, DC

Brigham and Women's Hospital:

1992-1999	Member, Medical Record Committee
1993-	Member, Pharmacy and Therapeutics Committee
1993-	Member, Medication Education Subcommittee
1993-	Member, Primary Care Residency Subcommittee
1994-1997	Co-chair, Ancillary Test Utilization Subcommittee
1994-1997	Member, Quality Measurement Task Force
1995-1998	Chair, Radiology Utilization Group
1996-1998	Member, Clinical Users Group
2001-2003	Member, Task Force to Improve Clinical Faculty Development
2003-2005	Member, Executive Committee on Space (ECOS) Dry Space Subcommittee
2003-	Member, Center for Evidence-Based Imaging (CEBI) Fellowship Review Committee
2004-	Member, Society of Brigham and Women's Professors
2006-	Chair, Center for Patient Safety Research and Practice
2006-	Member, External Advisory Board, Multidisciplinary Clinical Research Centers
2008	Member, Clinical Systems Advisory Council (CAC)
2008-2009	Member, Patient Safety Leadership Group
2008-	Member, Clinical Orthopedic and Musculoskeletal Education and Training Program (COMET) T32 Review Committee
2009-	Member, Quality Leadership Council

Massachusetts General Hospital:

2003-2005	Member, MIMEPS Intervention Advisory Committee
2003-2005	Member, Cost of Care Advisory Group
2005	Member, HIT Adoption Initiative's Expert Consensus Panel
2006-2007	Member, Safety Measurement Expert Advisory Group
2007	Member, Expert Panel on Quality and HIT
2007-2008	Member, Work Design Subcommittee of the Partners Taskforce on Primary Care

Harvard Medical School:

1998-1999	Member, Hospital Linkages Committee
1999	Member, Medical Area Health Services Committee
2003-	Member, Medical Administrators Conference (MAC), Health Policy and Management
2005-	Advisory board member, Patient-Centered Computing and eHealth: Transforming Health Care Quality
2006-	Member, Biomedical Informatics Research Training Program
2009-	Co-chair, Primary Care Advisory Group (PCAG)
2009-	Member, Masters Directors Committee

Partners Community Health Care, Inc.:

1996-1998	Member, Coronary Disease Prevention Task Force
1996-1998	Chair, Drug Therapy Team
1996-2000	Member, Medical Management Committee
1996-2000	Chair, Systems Subcommittee
1996-	Member, Care Improvement Council
2005-2007	Member, LMR Clinical Content Committee (LMR C ³)
2008	Member, Technology Integration Workgroup

Partners Healthcare System:

2003-2004	Member, Next Generation Order Entry Advisory Committee
2003-2004	Chair, Signature Initiative for Enhancing Patient Safety
2003-2010	Member, Center for Information Technology Leadership Board
2004-2006	Member, Signature Initiatives Steering Committee
2006-	Member, High Performance Medicine Steering Committee
2006-	Member, Patient Gateway Steering Committee
2007-2008	Member, Primary Care Task Force
2007-2008	Member, Practice Redesign Subcommittee
2007-	Member, Information Systems Intellectual Property Advisory Committee
2008-2009	Member, BW/F Health IT Innovation Program (HIP) Selection Committee
2008-	Member, Centers of Expertise Quality and Safety Committee

Professional Societies:

1984-	Member, American College of Physicians (ACP)
1984-1995	Member, International Physicians for the Prevention of Nuclear War
1986-	Committee Assignment, Society for General Internal Medicine
1989-1998	Member, American Federation of Clinical Research
1990-	Member, Society for Medical Decision Making
1990-	Member, Association for Health Services Research
1991-	Committee Assignment, American Medical Informatics Association
1997-	Member, American Medical Association

1999-	Member, American Society for Clinical Pharmacology and Therapeutics (ASPCT)
2002-	Member, American Society for Clinical Investigation (ASCI)
2002-	Member, International Society for Quality in Health Care (ISQua)
2002-2008	Member, International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT), Kingston, Ontario, Canada
2006-	Member, British Computer Society Primary Health Care Specialist Group, Worcester, England
2007-2008	Member, Association of Specialty Professors (ASP), Washington, DC

Community Service Related to Professional Work:

1985-1987	Physician, Wallace Medical Concern, Portland, Oregon
1987-1988	Physician, Tumu-Tumu Hospital, Karatina, Kenya

Editorial Boards:

1997-2001	Member, The Joint Commission Journal on Quality Improvement
1997-2003	Member, Journal of the American Medical Informatics Association
1997-	Member, Journal of Evaluation in Clinical Practice
2000-	Member, Clinical Pathway Constructor TM and Evidence-Based Forecaster TM , web-based software tools, Zynx Health Incorporated, a subsidiary of Cedars-Sinai Health System
2001-	Advisory Board Member, WebMD, online case-based journal and forum on patient safety and healthcare quality. Supported by a contract from the Agency for Healthcare Research and Quality (AHRQ)
2002-	Advisory Board Member, Clineguide, Clineanswers
2004-	Member, BMC Medical Informatics and Decision Making
2004-	Member, Drug Safety
2004-	Member, American Journal of Medicine
2005-	Associate Editor, Journal of Patient Safety, National Patient Safety Foundation
2006-2009	Member, Journal of General Internal Medicine Editorial Board, Society of General Internal Medicine, Washington, DC
2006-2009	Member, Annals of Internal Medicine
2006-	Member, Innovations Clearinghouse, ECRI, Plymouth Meeting, PA
2006-	Advisory Board Member, PDR Monthly Prescribing Guide and the PDR Concise Prescribing Guide, Thomson PDR, Montvale NJ
2009-	Advisory Board Member, Journal of Experimental and Clinical Medicine, Taipei, Taiwan
2010-2011	Member, Healthcare Informatics Research (HIR), Seoul, Korea.

Awards and Honors:

1990	Fellow, American College of Physicians
1990	National Research Service Award, Agency for Health Care Policy and Research
1992	Henry Christian Award for Excellence in Research, American Federation for Clinical Research

1992	Culpeper Award, Brigham and Women's Hospital
1993	Young Investigator of the Year Award, Society for Medical Decision-Making
1993	Clinical Investigator of the Year Award, Northeast Region, Society for General Internal Medicine
1996	Center for Healthcare Information Management Award for application most likely to affect the HIS industry, 1996 AMIA Fall Symposium
1999	Partners in Excellence Award for Quality Treatment and Service, and Leadership and Innovation, Partners Healthcare to the NEPHROS Team
1999	Cheers Award for Outstanding Contribution to Medication Error Prevention, Institute for Safe Medication Practices
2000	Fellow, American College of Medical Informatics
2001	Partners in Excellence Award for Quality Treatment and Service and Leadership and Innovation, Partners Healthcare to the Partners Quality Measurements Leaders
2002	John M. Eisenberg Award for Patient Safety Research, The National Quality Forum
2005	Elected member, Institute of Medicine of the National Academies, Washington, DC
2006	Healthy Sleep Community Award, National Sleep Foundation, Washington, DC
2006	Board of Directors Honor Award of Excellence in Medication-Use Safety, American Society of Health-System Pharmacists, Bethesda, MD
2006	Partners in Excellence Award for Quality Treatment and Service and Leadership and Innovation: Medication Black Box Alerts, Partners Healthcare
2007	Elected member, Association of American Physicians, Belleville, MI
2008	John M. Eisenberg National Award for Career Achievement in Research, Society of General Internal Medicine, Washington, DC
2008	Mastership Award, American College of Physicians, Philadelphia, PA
2008	Partners in Excellence Award for Leadership and Innovation: Primary Care Task Force, Partners Healthcare
2008	Partners in Excellence Award for Guiding Redesign Work: Primary Care Task Force, Partners Healthcare
2010	Microsoft HUG 2010 Innovation Awards for Clinical Records – Ambulatory Care: Adverse Drug Event Spontaneous Triggered Electronic Reporting (ASTER) Project, Healthcare Information and Management Systems Society (HIMSS), Chicago, IL

Major Research Interests:

1. Clinical decision-making and affecting physician behavior, particularly using computerized interventions
2. Quality of care and cost-effectiveness in medical practice
3. Outcome assessment

Research, Teaching and Clinical Contributions

Narrative Report:

I am Chief of the Division of General Medicine at Brigham and Women's Hospital, which now includes approximately 150 physicians. I am directly responsible for the research activities of this group, and oversee its teaching and clinical activities.

I am also Medical Director of Clinical and Quality Analysis for Partner's Healthcare Systems. My main responsibility in this role is to evaluate the impact of information systems across the Partners network.

Regarding education, I have been active in education of fellows, residents and medical students, as well as in CME. I have mentored many fellows personally (usually several at a time), and teach regularly in several courses at the School of Public Health. I'm also a co-Director of the Clinical Effectiveness Program, which now has more than 175 enrollees annually. I teach a course in Medical Informatics which began in 2000. Regarding residency education, I developed and continue to coordinate the Clinical Epidemiology lecture series, which has been given to primary care residents since 1990, and is now being given to all medicine residents. Together with Bill Branch, I developed the Humanistic Curriculum in 1991, and I precepted in it annually until 2000. I developed the Evidence-based Medicine series in 1995, and it has been expanded; I continue to teach in it regularly. I attend on the wards 2-4 weeks per year. Regarding medical student education, I have taught in the history/physical examination course, Patient-Doctor III, and the Ambulatory clerkship. I have served as a Primary Care Mentor since 1994. Regarding CME, I give many lectures annually around the country and overseas, and was the co-Director of the Radiology Utilization Course, and was the co-Director of the Division of General of General Medicine's Primary Care course.

I also have a large and active research group; my main interest has been the use of computer systems to improve patient care. I have done extensive work on evaluating the incidence and preventability of adverse drug events, or injuries due to drugs. We have focused primarily on improving the systems by which drugs are given, and our group has demonstrated that computerizing medication ordering has resulted in a major decrease in serious medication errors. This work has been cited by the Health Care Financing Administration in its regulations, and in the Medicare Patient Advisory Commission's 1999 Report to Congress, as well as by the Leapfrog Group. We have also improved the efficiency of drug use through decision support. We have also done many studies on improving efficiency and quality of laboratory and radiology testing using information systems. I have also published on predicting bacteremia and evaluation of patients with suspected sepsis.

On the national level, I served as one of two Science Advisors to the SCRIPT project which was charged with developing medication indicators. I have testified on multiple occasions to the Institute of Medicine and Congress, and serve as an advisor to the Leapfrog Group, and am the editor of the Journal of Clinical Outcomes Management.

Research Funding Information:Past:

1991-1993	Agency for Health Care Policy and Research, National Service Award Altering Physician Behavior Using Physician Computer Order Entry	Fellow
1992-1993	Culpeper Award Improving Utilization of Ancillary Tests	PI
1992-1996	Academic Medical Center Consortium Sepsis Study Multicenter Evaluation of Sepsis Syndrome in Academic Hospitals	Overall Co-PI BWH PI
1993-1994	Associates of Cape Cod SEPTTEST Study Use of Endotoxin Levels to Predict Outcomes in Sepsis Syndrome	Site PI
1993-1994	Agency for Health Care Policy and Research/RO1 Prevention of Drug-Related Complications	Overall Co-PI BWH PI
1994-1995	Risk Management Foundation Interventions to Prevent Adverse Drug Events	Overall Co-PI BWH PI
1994-1996	Agency for Health Care Policy and Research PORT Outcomes of Myocardial Infarction	Co-investigator
1994-1997	Agency for Health Care Policy and Research Using Information Systems to Improve the Efficiency and Quality of Care	PI
1995-1998	American Academy of Orthopedic Surgery Cost-effectiveness of Musculoskeletal Care	PI
1996-1998	Agency for Health Care Policy and Research Management of Neonatal Hyperbilirubinemia	Overall Co-PI BWH PI
1996-1999	National Institute of Aging and Agency for Health Policy and Research/RO1 Prevention of Adverse Drug Events in the Nursing Home Setting	Co-PI
1997-1999	Agency for Health Care Policy and Research PORT Outcomes of Myocardial Infarction	Co-investigator
1997-1999	Merck Observational Study of Amphotericin B Related Nephrotoxicity	PI
1998-2000	National Library of Medicine Clinical Software Quality Review Process	Co-investigator

1998-2000	Aetna - US Healthcare Using Information Systems to Improve the Efficiency and Quality of Primary Care	PI
1998-2002	Agency for Health Care Policy and Research Adverse Drug Events in the Geriatric Outpatient Setting	Co-PI
1999-2000	Risk Management Foundation Improving Medication Prescribing	PI
1999-2000	Risk Management Foundation Improving the Safety of Outpatient Chemotherapy	PI
1999-2000	Avandel Predicting the Costs of Cancer Care	PI
2000-2001	Smith-Kline Beecham Ineffective Utilization, Somatization and Undetected Psychiatric Disorder	Co-PI
2000-2003	Agency for Health Research and Quality Improving Safety by Computerized Outpatient Prescribing	PI
2000-2003	Agency for Health Research and Quality Improving Quality with Outpatient Decision Support	PI
2000-2005	University of Massachusetts Medical Center, Worcester (subcontract) Reducing Adverse Drug Events in the Nursing Home	Co-PI
2001-2003	Markle Foundation Patient Computing and Quality of Care	PI
2001-2003	National Library of Medicine Improving Allergy Alerts in Computerized Physician Order Entry	PI
2001-2003	Merck & Co., Inc. Costs of and Risk Factors for Failure of Empiric Azole	PI
2001-2003	Merck & Co., Inc. Frequency and Consequences of Azole Drug-Drug Interaction	PI
2001-2003	Agency for Health Research and Quality Improving Adherence to JNC VI Guidelines: Can Computerized Decision Support Tools Improve Racial Variation in Blood Pressure Response? (Supplement to Improving Quality with Outpatient Decision Support)	Co-PI
2001-2003	Agency for Healthcare Research and Quality The Relation of Hospital Workload to Patient Safety	Co-PI

2001-2004	Agency for Healthcare Research and Quality Effects of Extended Work Hours in ICU Patient Safety	Co-PI
2001-2005	University of Chicago (subcontract) A Multi Center Trial of Academic Hospitalists	Site PI
2001-2007	Agency for Healthcare Research and Quality Improving Medication Safety Across Clinical Settings	PI
2001-2007	The Commonwealth Fund Improving the Outpatient Referral Process with Electronic Communications	Co-PI
2002-2003	ALARIS Medical Systems, Inc. The Medley System for the Guardrail	PI
2002-2005	National Heart, Lung and Blood Institute Improving Transfusion Practices Using Decision Support	Co-PI
2002-2007	Agency for Healthcare Research and Quality Shared Online Health Records for Patient Safety and Care	Co-PI
2003	Markle Foundation Supplement to: Patient Computing and Quality of Care	PI
2003-2005	Agency for Healthcare Research and Quality Trial to Reduce Antibiotic Use in a Primary Care PBRN	PI
2003-2007	Agency for Healthcare Research and Quality Using Barcode Technology to Improve Medication Safety	Co-Investigator
2004-2005	Epocrates Study of Epocrates Essentials Use Among Physicians	Co-Investigator
2004-2007	Agency for Healthcare Research and Quality Taconic Health Information Network and Community (THINC)	Site PI
2004-2007	Agency for Healthcare Research and Quality Health Information Technology in the Nursing Home	Site PI
2004-2007	Agency for Healthcare Research and Quality Improving Pediatric Safety & Quality with HealthCare IT	Site PI
2004-2008	Agency for Healthcare Research and Quality Improving Safety and Quality with Outpatient Order Entry	Co-Investigator
2004-2008	Agency for Healthcare Research and Quality	PI

Statewide Implementation of Electronic Health Records

2005-2007	National Institute of Diabetes and Digestive and Kidney Diseases Hospital and Community Acquired Acute Renal Failure	Site PI
2005-2007	Agency for Healthcare Research and Quality Implementing Reduced Work Hours for All ICU House Staff	Co-investigator
2005-2007	Department of Health and Human Services Measuring Adoption and Use of Electronic Health Records	Site PI
2006	Agency for Healthcare Research and Quality Electronic Prescribing Using a Community Utility: The ePrescribing Gateway	Co-investigator
2006	Blue Cross Blue Shield of Massachusetts Ideal Health System Model	PI
2006-2007	Partners IS Research Council Impact of Implementing Black Box Related Alerts into Electronic Medical Records (EMR)-A Phase 2 study of adherence to black box warnings for prescription medications in outpatients	PI
2006-2008	Massachusetts Technology Collaborative Evaluating the Impact of CPOE	PI
2007	Robert Wood Johnson Foundation Are there Racial, Ethnic or Gender Disparities in the Effectiveness of Guidance Based Diabetes Guidelines?	Co-Investigator
2007-2008	National Health Service-Connecting for Health Provision of a System of Prompts and Alerts at Patient of Prescribing	PI
2007-2008	Rx Foundation Transforming Acute Care: Estimating the Financial Benefits to the U.S. of Improving Patient Safety & Eliminating Redundant Tests	PI
2008	Rx Foundation Procedural Complications Associated with Attending Physician Extended-Duration Work Shifts	Co-Investigator
2008-2009	The World Health Organization Study of the Global Burden of Unsafe Medical Care	PI
2008-2009	Pfizer/ASTER Improving Pharmacovigilance at the Point of Care: in Partners LMR	Co-Investigator

Current:

2007-2009	Rx Foundation Patient Safety across a Spectrum of Care: An Exploration of Safety Culture in Nursing Homes	Site PI
2007-2010	National Heart, Lung and Blood Institute Pharmacist Intervention for Low Literacy in Cardiovascular Disease (PILL-CVD)	Co-Investigator
2007-2010	Agency for Healthcare Research and Quality Improving Laboratory Monitoring in Community Practices: A Randomized Trial	Site PI
2007-2011	Agency for Healthcare Research and Quality Center for Education and Research in Therapeutics on Health Information Technology and Improving Medication Use	PI
2008-2010	American Society of Health-System Pharmacists (ASHP) Foundation Medication Errors Recovered by Emergency Department Pharmacists	Investigator
2008-2010	Agency for Healthcare Research and Quality The Clinical Decision Support Consortium for AHRQ	Co-Investigator
2008-2011	Shared Health, Inc. Evaluation of a Regional Electronic Health Information Exchange's Clinical Health Record	Co-Investigator
2008-2013	AHRQ/Rutgers State University Comparative Safety and Effectiveness of Antipsychotics	Subcontract (Schneeweiss)
2008-2013	Canadian Institutes of Health Research (CIHR) Improving Patient Safety and Chronic Disease Management with a New Generation of Health Information Technologies Sub to: The Royal Institution for the Advancement of Learning/McGill University (Robyn Tamblyn-PI)	Site PI
2009	Partners IS Research Council Adoption of Partners PHR: An Evaluation of Adoption Rates and Development of Recommendations for Enhancing Patient Engagement	PI
2009-2010	U.S. Army Medical Research Acquisition Activity Implementing a Comprehensive Handoff Program to Improve Patient Safety	Co-Investigator

Report of Teaching:

Local Contributions:

Medical School Courses:

Harvard Medical School:

1989, 1990-1	History/Physical Examination Course Preceptor 2 medical students 4 hours/week for half academic year
1990-1997	Ambulatory Clerkship Preceptor 2-4 medical students/year 4 hours/week for one month
1991-1992	Introduction to Clinical Medicine Instructor for HST students 2 medical students 4 hours/week for half-academic year
1991-1993	Patient-Doctor Year III Preceptor 10 medical students 2 hours/week for full academic year
1994-	Primary Care Mentor Mentor 1 medical student/year 4-6 hours/month
1999-	Managing Radiology Utilization in a New Era Course Director, lecturer 60 attendees 4 hours
2000-	Office Practice of Primary Care Medicine CME Course Course Director, lecturer 250-300 physicians, residents, fellows 16 hours/year
2004-	The Patient Safety Imperative CME Course Co-Director 93 practicing physicians, medical educators, medical practice directors, nurses, pharmacists, risk managers, quality improvement professionals, health administrators 16 hours/year 40 hours preparation time
2009-	“Best Medical Practices: Maximizing Skills, Minimizing Risk CME Course”

Co-Director, lecturer
 100 physicians
 40 hours/year
 30 hours preparation time

Brigham and Women's Hospital:

- 1990-7 **Brigham Internal Medicine Associates**
 Preceptor
 8-10 medical house staff
 4 hours/week
- 1990- **General Medicine Clinic**
 Preceptor
 Interns, and residents
- 1990- **Clinical Epidemiology Lecture Series**
 Director
 Primary care residents
 6-12 residents
 4-12 seminars/year
- 1991- **Humanistic Curriculum**
 Co-developer, preceptor
 10 interns
 2 hours/month
- 1995- **Evidence-based Medicine Series**
 Preceptor
 1 hour/month
- 1995- **Primary Care Lecture Series**
 8-80 residents
 1-4 lectures/year
- 2005 **Decision Support for CPOE Program**
 Co-chair with Peter Gross, Hackensack University Medical Center
 40 physicians, 30 pharmacists, 30 nurses
 16 hours/year
 24 hours preparation time

Harvard School of Public Health:

- 1992-1995 **Clinical Effectiveness Program**
 Seminar Leader, Clinical Epidemiology
 15 physicians
 2 seminars/year

- 1994- **Clinical Effectiveness Program**
Mentor, Clinical Epidemiology
8 physicians
2 sessions/year
- 1996- **Health Services Research Course**
Lecturer
80 physicians
1-7 hours/year
- 1999- **Clinical Effectiveness Program**
Co-Director
150 hours/year
- 2000- **Medical Informatics Course**
Lecturer
42 postgraduate students
60 hours
- 2002 **Intro to Clinical Epidemiology Course (Epi 208)**
Student Project Workshop Leader
4-5 research fellows
1-1/2 hrs
- 2005 **Intro to Clinical Epidemiology Course (Epi 208)**
Student Project Workshop Leader
5 research fellows
1-1/2 hrs
- 2009 **Intro to Clinical Epidemiology Course (Epi 208)**
Student Project Workshop Leader
4-6 research fellows
1-2 hrs

National Contributions:

Foundation for Better Health Care and the Massachusetts General Hospital Institute for Health Professions. Assisted in the development of Abbott Laboratories Inc. CME course which is offered by hospitals nationwide.

- 2001- **Preventing Medication Errors: Moving from Knowledge to Action**
physicians, nurses and pharmacists
8 hours preparation

University of Oregon Health Sciences:

1986-1987

Medicine

Attending physician
2 medical students, 6 residents
1 month/year

Third-year Medicine Clerkship

Lecturer
30 medical students
4 lectures/year

Physical Examination Course

Preceptor for history and physical examination course
2 medical students
4 hours/week for half academic year

Names of Advisees/Trainees:

Fellowship Trainees:

07/93-06/95 David Katz, MD, Assistant Professor, University of Wisconsin
07/93-06/95 Ronald Schoenenberger, MD, Director, Chief, Department of Medicine,
Burgerspital Solothurn (Community Hospital), (Teaching Hospital of the
University of Berne, Switzerland)
07/95-06/97 Linda Harpole, MD, Assistant Professor, Department of Medicine, Duke University
07/96-06/98 Daniel Solomon, MD, Associate Professor of Medicine, Pharmacoeconomics,
Brigham and Women's Hospital
07/97-06/99 Tejal Gandhi, MD, Assistant Professor of Medicine, Brigham and Women's
Hospital
07/98-06/99 Chi Hsu, MD, Assistant Professor of Medicine, University California-San Francisco
06/98-06/00 Andrew Karson, MD, Instructor in Medicine, Massachusetts General Hospital
07/98-06/00 Saverio Maviglia, MD, Assistant Professor of Medicine, Brigham and Women's
Hospital
07/98-06/00 Rainu Kaushal, MD, Assistant Professor of Public Health and Pediatrics, Weill
Medical College of Cornell University, Director of Quality and Patient Safety,
Komansky Center for Children's Health, New York Presbyterian Hospital
06/00-06/02 Harvey Murff, MD, MSc, Assistant Professor, Department of Medicine, Vanderbilt
University
06/00-06/02 Josh Peterson, MD, MSc, Assistant Professor, Department of Medicine, Vanderbilt
University
07/01-06/03 Stephen Persell, MD, Assistant Professor, Feinberg School of Medicine, General
Medicine Division, Northwestern University
07/01-06/03 Eric Poon, MD, Assistant Professor of Medicine, Brigham and Women's Hospital
07/02-06/04 Ashish Jha, MD, Assistant Professor of Medicine, Brigham and Women's Hospital
07/02-06/04 Thomas Sequist, MD, Assistant Professor of Medicine, Brigham and Women's
Hospital

- 07/02-06/04 Kshitij Mistry, Assistant Professor of Pediatrics, Pediatric Critical Care Medicine, The University of North Carolina
- 07/02-06/04 Allison Rosen, MD, MPH, ScD, Assistant Professor, Internal Medicine and Health Management & Policy, University of Michigan, Ann Arbor, MI
- 07/03-07/05 Nidhi Shah, MD, Co-Chief Medical Information Officer, Yale-New Haven Hospital
- 07/06- David Chan, MD, Resident, Brigham and Women's Hospital
- 07/07- Balthasar Hug, MD, MBA, Department of Internal Medicine, University Hospital, Basel, Switzerland
- 07/08-07/09 Peter Hockey, DM, RCP, Deputy Medical Director, NHS South Central Leadership Development Team, Berkshire, UK

Junior Faculty Trainees:

- 07/98-06/99 Jeffrey Rothschild, MD, Assistant Professor, Brigham and Women's Hospital
- 05/99-06/00 Samuel Wang, MD, Assistant Professor, Radiation Medicine, Oregon Health & Science University, Department of Radiation Medicine, Portland, OR
- 07/07- Adam Wright, MD, Instructor in Medicine, Brigham and Women's Hospital, Boston, MA
- 10/07- Heather Baer, SM, ScD, Brigham and Women's Hospital, Boston, MA
- 07/08- Shobha Phansalkar, MS, PhD, Instructor in Medicine, Brigham and Women's Hospital, Boston, MA
- 07/09- Sonali Desai, MD, Instructor in Medicine, Rheumatology, Brigham and Women's Hospital, Boston, MA
- 07/09- Adrian Zai, MD, PhD, MPH, Clinical Director of Population Informatics, Massachusetts General Hospital, Boston, MA

Medical Student Trainees:

- 07/94-07/97 Ashish Jha, MD, Assistant Professor, Brigham and Women's Hospital, Boston, MA
- 06/96-12/96 Fina Cañas-Barouche, MD, Lahey Clinic, Burlington, MA
- 07/97-06/98 Eric Nadler, MD, Clinical Fellow, Brigham and Women's Hospital
- 07/98-06/99 Elizabeth Fortescue, MD, Instructor in Pediatrics, Children's Hospital, Boston, MA
- 11/05-04/07 Helen Lo, Medical Student, Resident, University of Pennsylvania
- 07/06-06/08 Nir Harish, BS, Medical Student, Harvard Medical School, Boston, MA
- 07/09- Cyrus Yamin, BS, Medical Student, Harvard Medical School, Boston, MA

Doctoral Candidate Trainees:

- 07/02-07/05 Thomas Stelfox, MD, PhD, FRCP, Assistant Professor, Critical Care Medicine Department, University of Calgary, Foothills Medical Center, Calgary, Alberta, Canada
- 09/04- Roxanne, Gardner, MD, PhD candidate, Brigham and Women's Hospital
- 07/05- Alicia Scott-Wright, MD, Resident, Brigham and Women's Hospital

Kennedy School Trainees:

- 07/96-06/97 Patrick Tyrance, MD, Orthopedics resident, Brigham and Women's Hospital

07/96-06/97 Suzanne Sims, MD, Concierge Internal Medicine, Palo Alto, CA

Residency Trainees:

06/94-12/95 Nathan Spell, MD, Assistant Professor, Division of General Medicine, Emory Primary Care, Atlanta, GA
 06/96-12/96 David Meltzer, MD, PhD, Associate Professor, Division of General Medicine, University of Chicago, Chicago, IL
 07/97-12/97 Kaveh Shojania, MD, Assistant Professor, Department of Medicine, University of Ottawa
 07/98-06/99 Joshua Lee, MD, Assistant Clinical Professor, Hospital Medicine Division, Information Services Medical Director, UC San Diego Medical Center
 07/99-07/00 Nathan Shapiro, MD, Assistant Professor, Beth Israel-Deaconess Medical Center
 07/06- David Chan, MD, Resident, Brigham and Women's Hospital

Postdoctoral Trainees:

07/04-09/05 Klaus Mann, MD, Senior Psychiatrist, Department of Psychiatry, University of Mainz, Mainz, Germany
 07/04- Balthasar Hug, MD, MBA, Department of Internal Medicine, University Hospital, Basel, Switzerland
 05/08- Ronen Rozenblum, PhD, MPH, Research Associate, Brigham and Women's Hospital
 07/09- Eyal Zimlichman, MD, Research Associate, Brigham and Women's Hospital

Commonwealth Fund, Harkness Fellowship in Health Care Policy Trainees:

07/00-06/01 David Doolan, MD, Director, Clinical Services, Greater Newcastle Sector, Hunter Health, NSW, Australia
 09/01-08/02 John Hobbs, MD, Principal Advisor, Sector Policy Directorate, Ministry of Health, Wellington, NZ
 09/04-07/05 Peter Sprivulis, PhD, Clinical Director, Acute Demand Management Unit, Western Australian Department of Health

Regional, National, or International Invited Presentations:

Regional Invited Presentations:

March 1991 "Predicting Bacteremia in Hospitalized Patients"
 Citywide Infectious Disease Conference, Boston, MA
 May 1992 "Adverse Drug Events in Hospitalized Patients"
 Brigham and Women's Postgraduate Medication Series, Boston, MA
 November 1992 "Adverse Drug Events"
 Core Curriculum Committee CME Program, Dedham, MA

- May 14, 1993 "Adverse Drug Events and Medication Errors"
Brigham and Women's Postgraduate Medical Evaluation Series, Boston, MA
- June 22, 1993 "Prevention of Adverse Drug Events"
Risk Management Foundation, Boston, MA
- May 6, 1994 "Computer-Assisted Quality Improvement"
Brigham and Women's Postgraduate Medical Education Series, Boston, MA
- May 31, 1994 "Improving Quality Using Physician Computer Order Entry"
University of Massachusetts Medical Center, Worcester, MA
- July 12, 1994 "Adverse Drug Events in Children: Implications of the ADE Prevention Study"
Pharmacy and Therapeutics Committee, Children's Hospital, Boston, MA
- July 14, 1994 "Improving Quality Using the Computer"
Medical Ground Rounds, New England Baptist Hospital, Boston, MA
- October 18, 1994 "Results of the Adverse Drug Event Prevention Study"
Harvard School of Public Health Quality Series, Boston, MA
- October 27, 1994 "Preventing Adverse Drug Events: Implications of the ADE Prevention Study"
Risk Management Foundation, Boston, MA
- June 20, 1995 "Improving Quality and Efficiency with Information Systems"
Medical Ground Rounds, New England Deaconess Hospital, Boston MA
- October 3, 1995 "Measuring and Improving Quality Using Information Systems"
Harvard School of Public Health Quality Series, Boston, MA
- October 10, 1995 "Incidence and Preventability of Adverse Drug Events"
Pharmacoepidemiology Seminar Series, Harvard School of Public Health,
Boston, MA
- November 18, 1995 "Preventing Adverse Drug Events Using Information Systems"
Medical Evaluation Series, Atlanticare, Salem, MA
- December 28, 1995 "Prevention of ADEs Using Information Systems: Recommendations to
Hospitals"
Massachusetts Department of Public Health, Boston, MA
- January 17, 1996 "Capitation and Medical Management"
Grand Rounds, Department of Obstetrics and Gynecology, Brigham and
Women's Hospital, Boston, MA
- January 23, 1996 "Ways to Prevents ADEs"
Institute for Healthcare Quality Breakthroughs Series, Boston, MA.

- February 1, 1996 "Workshop: Using Information Systems to Improve Quality"
Harvard CME Program on Improving Care in the Cost Containment Era,
Boston, MA
- September 26, 1996 "Improving Quality and Efficiency Using Information Systems"
Harvard Risk Management Course on Computers in Office Practice, Boston,
MA
- October 30, 1996 "Prevention of Medication Errors"
Plenary Session, American Academy of Pediatrics, Boston, MA
- January 30, 1997 "Medical Management and Managed Care"
New England Healthcare Assembly, Waltham, MA
- February 5, 1997 "Prevention of Adverse Drug Events"
Medical Grand Rounds, West Roxbury VA Hospital, West Roxbury, MA
- March 21, 1997 "Measuring and Improving Quality Using Information Systems"
Medical Grand Rounds, Brigham and Women's Hospital, Boston, MA
- May 15, 1997 "Medical Management: What Case Managers Need to Know"
New England Healthcare Assembly, Boston, MA
- May 15, 1997 "Frequency and Prevention of Adverse Drug Events"
Medical Grand Rounds, University of Massachusetts, Worcester, MA
- Sept. 26, 1997 "Detection and Prevention of Adverse Events"
Harvard Medical School CME, Boston, MA
- October 21, 1997 "Changing Ancillary Utilization Using Information Systems"
Boston Informatics Research, Boston, MA
- November 5, 1997 "Reducing the Frequency of Adverse Drug Events, Improving Appropriate
Prescribing"
Harvard CME Course, Cambridge, MA
- April 2, 1998 "How Medical Management and Case Management are Integrated"
New England Health Care Assembly, Boston, MA
- September 25, 1998 "Detecting and Preventing Adverse Events"
Harvard Medical School CME, Boston, MA
- October 2, 1998 "Detection and Prevention of Adverse Drug Events"
Medical Grand Rounds, Brigham and Women's Hospital, Boston, MA

- December 9, 1998 “Preventing Medication Errors and Adverse Drug Events”
Medical Grand Rounds, Harvard University Health Services, Boston, MA
- January 19, 1999 “Use of Information Systems in Preventing Adverse Drug Events. Results of the
ADE Prevention Study”
Harvard School of Public Health Quality Series, Boston, MA
- January 29, 1999 “Adverse Drug Events: Magnitude and Solutions”
VHA New England, interactive video originating in Braintree, MA sent to 19
national sites
- February 3, 1999 “Improving the Quality and Efficiency of Care Using Information Systems”
Surgical Grand Rounds, Brigham and Women’s Hospital, Boston, MA
- March 9, 1999 “Drug Errors: Epidemiology & Prevention”
Lawrence Memorial Hospital Visiting Clinician Program, Lawrence, MA
- March 19, 1999 “Managing Radiology Utilization in a New Era”
Harvard Medical School, Boston, MA
- April 8, 1999 “Using Computerized Guidelines to Improve Physician Test Use”
Brigham and Women’s Clinical Pathology Conference, Boston, MA
- May 26, 1999 “Medication Errors – Frequency and Prevention”
Grand Rounds, Deaconess-Glover Hospital, Needham, MA
- June 8, 1999 “Medication Safety: How Big a Problem? What Can be Done?”
Grand Rounds, McLean Hospital, Belmont, MA
- June 27, 1999 “Reducing Cost of Care and Improving Safety by Providing Computerized
Decision Support”
The IAIMS Consortium, Pittsburgh, MA
- July 1, 1999 “Drug Safety: How Big a Problem?”
Grand Rounds, Faulkner Hospital, Boston, MA
- October 27, 1999 “Implementation of a Physician – Order Entry System: Lessons Learned”
Massachusetts Hospital Association, Newton, MA
- December 10, 1999 “Using Information Systems to Reduce Errors and Improve Patient Care”
Mass General Hospital, Boston, MA
- December 16, 1999 “Drug Safety: How Big a Problem and What Can Be Done”
Grand Rounds, Beth-Israel Hospital, Boston, MA
- February 12, 2000 “Minimizing Medical Errors”
Annual Partners Physicians Day, Partners HealthCare System, Boston, MA

- March 9, 2000 “Medical Errors in the Outpatient Setting”
Safer Medication Practices in Ambulatory Care, Risk Management Foundation,
Boston, MA
- April 13, 2000 “Using Information Technology to Reduce ADE Frequency”
Massachusetts Institute of Technology, Boston, MA
- May 9, 2000 “Improving Care Using Information Technology”
Quality Management in Health Care Course, Harvard School of Public Health,
Boston, MA
- May 10, 2000 “Medical Errors and Adverse Drug Events – Frequency and Prevention”
Warthin Memorial Lecture, Medical Grand Rounds, West Roxbury VAMC,
West Roxbury, MA
- August 23, 2000 “To Err is Human--Healthcare Internet Strategies in Enhancing Quality and
Avoiding Medical Errors”
The eHealth Colloquium, Boston, MA
- September 28, 2000 “A Medication Error”
Clinical Crossroads Series at Medical Grand Rounds, Beth Israel Deaconess
Medical Center, Boston, MA
- January 9, 2001 “Improving Outpatient Medication Prescribing”
Quality of Care Research Seminar, Harvard School of Public Health, Boston,
MA
- February 3, 2001 “Reducing the Frequency of Medication Errors”
2nd Annual Partners Physicians Day, Partners HealthCare System, Boston, MA
- March 29, 2001 “Healthcare Internet Strategies in Enhancing Quality and Avoiding Medical
Errors”
Strategies for Enhancing Healthcare Quality and Reducing Medical Error: A
Special Edition of The eHealth Colloquium, Harvard University, Boston, MA
- August 8, 2001 “Using Computerized Physician Order Entry to Improve Education Safety”
ProMutual Group Board Meeting, Brewster, MA
- October 25, 2001 “Computerized Physician Order Entry (CPOE) – Using Technology to Improve
Safety”
Speaker, “Improving Patient Safety – Frontiers of Practice”, Massachusetts
Medical Society, Waltham, MA
- December 10, 2001 “Medication Safety in the Outpatient Setting, and Computerizing Prescribing”
Speaker, Biomedical Informatics Grand Rounds. Children’s Hospital, Boston,
MA

- January 8, 2002 “Medication Errors across the Continuum of Care. A National Center of Excellence for Error Reduction”
Speaker, Quality of Care Research Seminar, Harvard School of Public Health, Boston, MA
- January 24, 2002 “Computerized Physician Order Entry: Policy Issues”
Speaker, Monthly Policy Speakers’ Series, Massachusetts Division of Health Care Financing, Boston, MA
- January 30, 2002 “Using Information Technology to Improve Medication Safety”
Luncheon Keynote Speaker, Healthcare and the Internet, Massachusetts Health Data Consortium, Inc., Boston, MA
- February 6, 2002 “Patient Safety: Demonstration of Computerized Physician Order Entry System”
Speaker, “Leadership Through Effective HR Management: Improving Health Care Delivery – Benchmarking with the US” seminar, NHS United States Elective Module, in cooperation with Harvard School of Public Health and PricewaterhouseCoopers LLP, Boston, MA
- February 9, 2002 “Patient Safety in Partners: Update 2002”
3rd Annual Partners Physicians Day, Partners Healthcare System, Boston, MA
- June 28, 2002 “Information Technology and Patient Safety”
Host, Information Technology and Patient Safety Webinar Conference, Per-Se Technologies, Atlanta, GA. Presentation was done from Boston.
- June 28, 2002 “Managing for Patient Safety at the Brigham and Women’s Hospital”
Speaker, Medical Administrators Conference (MAC), Harvard Medical School, Health Policy and Management, Boston, MA
- October 3, 2002 “Ambulatory Medical Safety”
Speaker, Primary Care Grand Rounds, Brigham and Women’s Hospital, Boston, MA
- November 14, 2002 “Computerized Physician Order Entry”
Participant, Conference Calls Series on Innovations in Information Technology in Health Care, Institute for Healthcare Improvement, Boston, MA
- November 21, 2002 “Improving Safety Using Information Technology”
Neurology Grand Rounds, Massachusetts General Hospital, Boston, MA
- January 17, 2003 “Improving Quality Using Information Technology”
Speaker, Medical Grand Rounds, Spaulding Rehabilitation Hospital, Boston, MA

- January 28, 2003 “The Benefits of and Policy Issues Relating to Electronic Medical Records in the Ambulatory Setting”
Speaker, Harvard School of Public Health Quality Series, Boston, MA
- January 30, 2003 “Patient Safety: Demonstration of Computerized Physician Order Entry System”
Speaker, Leadership Through Effective HR Management: Improving Health Care Delivery Seminar, NHS/Harvard School of Public Health, Boston, MA
- February 8, 2003 “Patient Safety in Partners: Update 2003”
4th Annual Partners Physicians Day, Boston, MA
- March 10, 2003 “Communicating Critical Test Results”
Speaker, Leadership Briefing, Massachusetts Coalition for the Prevention of Medical Errors and Massachusetts Hospital Association, Framingham, MA
- March 13, 2003 “CPOE and Error Reduction”
Lecturer, HST 9500-6.872 Medical Computing Course
Massachusetts Institute of Technology, Cambridge, MA
- April 17, 2003 “Electronic Health Records Research Report: Quality Outcomes Justify Government Investment”
Presenter, online teleconference, Scottsdale Institute, Boston, MA
- May 12, 2003 “Communicating Critical Test Results: What is it? Why do we Need it? How do we do it?”
Communicating Critical test Results: A Learning Collaborative on Safe Practice Recommendations, Massachusetts Coalition for the Prevention of Medical Errors and Massachusetts Hospital Association, Westborough, MA
- May 13, 2003 “Patient Safety Research at BWH - An Overview”
Presenter, Quality Grand Rounds, Brigham and Women’s Hospital, Boston, MA
- May 13, 2003 “Medication Errors: How to Prevent the #1 Cause of Patient Harm”
Speaker, Implementation of JCAHO’S 2004 Medication Use Standards
Audioconference, HCPro, Inc, Boston, MA
- June 7, 2003 “Improving Safety in Office Practice: The Role of Electronic Health Records”
Speaker, Patient Safety in the Office Initiative, Massachusetts Chapter ACP Retreat, American College of Physicians and American Society of Internal Medicine, Chatham, MA
- August 14, 2003 “Managing Risk in the Ambulatory Setting”
Medical Grand Rounds, Mount Auburn Hospital, Cambridge, MA
- August 14, 2003 “CPOE: The Benefits, and Implementing it Successfully”
Medical Grand Rounds, Faulkner Hospital, Jamaica Plain, MA

- September 25, 2003 “Computerized Approaches to Finding and/or Preventing Medication Mistakes”
Presenter, Medication Error Prevention Initiative Task Force, Task Force
Retreat: Measuring Medication Safety, VHA New England, Chatham, MA
- October 9, 2003 “Use of Chart and record Reviews to Detect Medication Errors in a State
Psychiatric Hospital”
Grand Rounds, Boston University School of Medicine, Boston, MA
- October 15, 2003 “Systems of Hospital Care”
Lecturer, Core Curriculum Conference for General Surgery, Brigham and
Women’s Hospital, Boston, MA
- November 22, 2003 “Confronting Medication Errors”
Keynote Speaker, Boston Fall National Academy for Infusion Therapy (NAIT),
Infusion Nurses Society (INS), Boston, MA
- January 8, 2004 “Patient Safety and the Clinical Laboratories”
Speaker, Clinical Pathology Seminar Series, Brigham and Women’s Hospital
- February 6, 2004 “Converting to Electronic Health Records”
Speaker, Healthcare Information Technology Conference, Massachusetts Health
Data Consortium, Inc., Waltham, MA
- February 7, 2004 “Reducing Medication Errors in the Inpatient & Outpatient Setting”
Speaker, Partners HealthCare System, 5th Annual Partners Physicians Day,
Boston, MA
- March 25, 2004 “Patient Safety: Demonstration of Computerized Physician Order Entry System”
Speaker, “Leadership Through Effective HR Management: Improving Health
Care Delivery – Benchmarking with the US” seminar, National Health Service
(NHS) United States Elective Module, in cooperation with Harvard School of
Public Health and PricewaterhouseCoopers LLP, Boston, MA
- March 29, 2004 “Communicating Critical Test Results”
Speaker, Grand Rounds, Beverly Hospital, Beverly, MA
- March 30, 2004 “The Synergy Between Patient Safety and IT”
Speaker, Health-IT World Conference and Expo, First Consulting Group,
Boston, MA
- April 7, 2004 “CPOE Utilization Rates: Developing a Common Definition”
Presenter, online teleconference, Scottsdale Institute, Boston, MA
- May 24, 2004 “Improving Safety With IT in Nursing”
Speaker, Nursing Informatics Conference, Trends in Clinical Informatics: A
Nursing Perspective, Boston Area Nursing Informatics Consortium (BANIC),
Waltham, MA

- May 28, 2004 "Improving Safety with Information Technology"
Speaker, Grand Rounds, Emerson Hospital, Concord, MA
- September 13, 2004 "Collaborative Status Report"
Speaker, Communicating Critical Test Results: A Learning Collaborative on Safe Practice Recommendations, Massachusetts Coalition for the Prevention of Medical Errors and Massachusetts Hospital Association, Westborough, MA
- October 14, 2004 "Using Information Technology to Improve Safety"
Speaker, Obstetrics and Gynecology Grand Rounds, Massachusetts General Hospital, Boston, MA
- October 25, 2004 "Technology and Safety: Transforming the Delivery of Health Care"
Lecturer, The Patient Safety Imperative CME Course: A New View, Harvard Medical School, Boston, MA
- December 2, 2004 "Improving Medication Safety in the Ambulatory Setting"
Panelist, 1st Annual Betsy Lehman Center for Patient Safety & Medical Error Reduction Symposium: Medication Safety Efforts Panel, Massachusetts Medical Society, Waltham, MA
- February 5, 2005 "Health Care Management Association"
Panelist, The Electronic Medical Record: How Technology is Transforming the Business and Practice of Health Care, Boston University Graduate School of Management 6th Annual Symposium, Boston, MA
- February 15, 2005 "Implementing Electronic Health Records and the Massachusetts eHealth Collaborative"
Speaker, QCARE Seminar Series, Implementing Electronic Health Records and the Massachusetts eHealth Collaborative, Boston, MA
- March 8, 2005 "Using Information Technology to Improve Safety and Quality"
Speaker, "Leadership Through Effective HR Management: Improving Health Care Delivery – Benchmarking with the US" seminar, NHS United States Elective Module, in cooperation with Harvard School of Public Health and PricewaterhouseCoopers LLP, Boston, MA
- March 14, 2005 "The Role of Health IT Standards in Improving Health Care Quality, including Patient Safety"
Speaker, e-Health and Health Care Quality Improvement: Strategic Opportunities Colloquium, International Society for Quality in Health Care (ISQua) and American Medical Informatics Association (AMIA), Boston, MA
- May 4, 2005 "Technology and Safety: Transforming the Delivery of Health Care"
Speaker, Palliative Care Grand Rounds, Massachusetts General Hospital, Boston, MA

- September 1, 2005 “Information Technology”
Speaker, Pay for Performance: Can Information Technology Drive the Re-engineering Health Care Needs? 2005 Congressional Health Staff Forum, Harvard University Kennedy School of Government, Cambridge, MA
- December 5, 2005 “Massachusetts Hospital CPOE Initiative”
Speaker, Governor's Conference on e-Health, Massachusetts in the Vanguard Session, Massachusetts Technology Collaborative, Boston, MA
- May 3, 2006 “Bridging the Gap Between Research and Practice: Electronic Health Records”
Keynote Speaker, HMO Research Network Annual Meeting, Meyers Primary Care Institute, Cambridge, MA
- May 30, 2006 “Innovations in Patient Safety”
Speaker, Research Accelerator Program (RAP) Meeting, Partners HealthCare, Waltham, MA
- June 13, 2006 “Electronic Health Records: The National Landscape, and Massachusetts Developments”
Speaker, Quality Rounds, Brigham and Women's Hospital, Boston, MA
- August 11, 2006 “Clinical Decision Support in Electronic Records”
Moderator, Executive Roundtable Discussion Groups, Leadership Summit on RHIOs, EMRs & Patient Portals, World Congress, Boston, MA
- August 11, 2006 “Electronic Medical Records: Building an EMR System – Case Study”
Presenter, Leadership Summit on RHIOs, EMRs & Patient Portals, World Congress, Boston, MA
- December 2, 2006 “Update From the MA eHealth Collaborative”
Presenter, Annual Scientific Meeting, Massachusetts Chapter of the American College of Physicians (MA ACP), Waltham, MA
- December 11, 2006 “Case Studies in Strategies to Moderate Costs: Information Technology”
Presenter, HPM 235: Managed Care Policy Issues, Harvard School of Public Health, Boston, MA
- January 8, 2007 “Evaluation of the Massachusetts eHealth Collaborative”
Speaker, IHI Fellowship Seminar, Institute for Healthcare Improvement, Cambridge, MA
- January 25, 2007 “Massachusetts E-Health Collaborative and RHIO's”
Speaker, MHIMA Winter Meeting/Coding Seminar: “Your HIM Regulatory Check List for 2007”, Massachusetts Health Information Management Association, Waltham, MA

- February 15, 2007 “Evaluation of the Massachusetts e-Health Collaborative”
Presenter, Evaluation of the Massachusetts e-Health Collaborative Seminar, DACP, Harvard Pilgrim Health Care and Harvard Medical School, Boston, MA
- July 20, 2007 “A Commissioner’s Perspective on CCHIT Initiatives”
Presenter, The 2nd Annual Leadership Summit on the Road to Interoperability, World Congress, Boston, MA
- April 10, 2007 “Medication Safety: How can Pharmacists Contribute Most?”
Keynote Speaker, Rho Chi Pharmaceutical Society Induction Ceremony, Massachusetts College of Pharmacy & Health Sciences, Boston, MA
- April 23, 2007 “Global Alliance for Patient Safety”
Presenter, Division of General Medicine Lunch Series, Brigham and Women’s Hospital, Boston, MA
- May 3, 2007 “Electronic Health Records and Quality: What Does it Take to Use Them to Improve Care”
Keynote Speaker, Forum for Quality Improvement: Effective use of EMR, Partners Community HealthCare, Inc, Needham, MA
- May 17, 2007 “The State of Primary Care”
Presenter, Physician Executive Committee Meeting, Partners HealthCare System, Inc, Boston, MA
- August 1, 2007 “Medical Errors and their Solutions”
Presenter, Oral and Maxillofacial Surgery Grand Rounds, Massachusetts General Hospital, Boston, MA
- October 1, 2007 “A Global Agenda for Patient Safety Research: First Public Release from the Global Alliance for Patient Safety and WHO”
Speaker, International Conference, The International Society for Quality in Health Care (ISQua): Transforming Healthcare in the Electronic Age, Boston, MA
- October 18, 2007 “Implementing Electronic Health Records and Clinical Data Exchange in Massachusetts: The Massachusetts eHealth Collaborative”
Speaker, Biomedical Informatics Research Seminar, HST 957, Harvard Medical School, Boston, MA
- October 23, 2007 “Technology and Safety: Transforming the Delivery of Health Care”
Lecturer, The Patient Safety Imperative CME Course: Harvard Medical School, Boston, MA
- December 4, 2007 “Using IT to Improve Patient Safety”
Lecturer, Core Course in Health Policy, HCP 597-598, Harvard Medical School, Cambridge, MA

- January 9, 2008 “Reducing Medical Errors in the EMR”
Speaker, Medical Grand rounds, Harvard University Health Services, Cambridge, MA
- January 9, 2008 “Using IT to Improve Pediatric Safety”
Speaker, Pediatric Health Services Program Seminar, Massachusetts General Hospital, Boston, MA
- February 8, 2008 “Primary Care: Its Impact on Health and Its Future”
Speaker, Medical Grand Rounds, Brigham and Women’s Hospital, Boston, MA
- February 14, 2008 “CPOE Clinical Baseline Study”
Speaker, Massachusetts Hospital CPOE Initiative “Saving Lives, Saving Money: The Imperative for CPOE Adoption in Massachusetts Hospitals”, Massachusetts Technology Collaborative and the New England Healthcare Institute, Boston, MA
- February 14, 2008 “Evidence Behind the Use of HIT to Improve Patient Safety”
Lecturer, HIT Course, Harvard School of Public Health, Boston, MA
- March 4, 2008 “Evidence-base Practice for Reducing Medication Prescribing and Administration”
Speaker, EBP on Medication Administration Videoconference Series, Saudi Aramco Medical Services Organization (SAMS) and Partners HealthCare, Inc., Boston, MA
- March 6, 2008 “Electronics Health Records”
Speaker, The 29th Annual Office Practice of Primary Care Medicine, Meet the Professor Session, Harvard Medical School, Boston, MA
- May 2, 2008 “The Future of Health Information Technology”
Keynote Speaker, Clinical Systems Analyst Annual Retreat, Partners, Boston, MA
- May 9, 2008 “Computerized Prescribing Order Entry”
Lecturer, Medical Grand Rounds, Winchester Hospital, Winchester, MA
- June 2, 2008 “IT Solutions: Helping Health Care Do the Right Thing”
Keynote Speaker, Strategies Symposium - Problem Solved?: Expected Benefits, Unexpected Risks of Health IT Solutions , CRICO/Risk Management Foundation, Boston, MA
- July 22, 2008 “EHRs and the National Agenda: Changing the Focus”
Panelist, The 23rd Annual World Congress Leadership Summit on the Road to Interoperability, World Congress, Boston, MA

- September 3, 2008 “Preventable Medical Errors: The Clinical Baseline Study”
Speaker, Saving Lives, Saving Money: The Imperative for CPOE in
Massachusetts Hospitals webinar, Massachusetts Technology Collaborative and
New England Healthcare Initiative, Cambridge, MA
- October 7, 2008 “A New Concept in Primary Care: The Medical Home”
Speaker, National Primary Care Week: The Future of Primary Care in America,
Harvard Medical School, Boston, MA
- October 7, 2008 “The Experience of e-Health Industry Leaders – What We Can Learn From
Implementation so Far”
Speaker, National E-prescribing Conference, Centers for Medicare and Medicaid
Services and Industry Partners, Department of Health and Human Services,
Boston, MA
- October 8, 2008 “Leveraging Information Technology to Improve Care Across a Healthcare
System”
Medical Grand Rounds, The First Robert E. Flynn, MD Memorial Lecture,
Caritas St. Elizabeth’s Medical Center, Boston, MA
- November 3, 2008 “Technology and Safety: Transforming the Delivery of Health Care”
Lecturer, The Patient Safety Imperative CME Course, Harvard Medical School,
Boston, MA
- December 2, 2008 “Patient Safety and IT”
Lecturer, Core Course in Health Policy, Harvard Medical School, Cambridge,
MA
- April 1, 2009 “Ambulatory Safety: Present and Future”
Boston HealthNet Retreat, Boston HealthNet, Boston, MA
- May 20, 2009 “Patient Safety and Ob/Gyn”
Grand Rounds, Brigham and Women’s Hospital, Boston, MA
- July 8, 2009 “Health Information Technology in Medicine”
Speaker, Healthcare in the 21st Century, National Youth Leadership Forum on
Medicine, Framingham, MA
- July 15, 2009 “Health Information Technologies – A New Blueprint for Systems
Improvement”
Speaker, MIT Information Quality Industry Symposium, Translating Advances
in Health Information Technologies into Improved Care for Populations Patients
and Families Session, Massachusetts Institute of Technology, Cambridge, MA
- September 2, 2009 “Update on Health Information Technology Policy”
Speaker, Centers of Expertise Quality and Safety Meeting, Brigham and
Women’s Hospital, Boston, MA

- September 17, 2009 “Electronic Health Record Adoption and Implementation: A Report from the Massachusetts eHealth Collaborative”
Speaker, Pediatric Health Services Research Fellowship Seminar, Children’s Hospital, Boston, MA
- October 1, 2009 “Best Medical Practices: The Big Picture”
Speaker, Best Medical Practices: Maximizing Skills, Minimizing Risks CME Course, Harvard Medical School, Boston/Brigham and Women’s Hospital, Boston, MA
- October 20, 2009 “Technology and Safety”
Lecturer, The Patient Safety Imperative CME Course, Harvard Medical School, Boston, MA
- October 20, 2009 “Take-Home Lessons”
Lecturer, The Patient Safety Imperative CME Course, Harvard Medical School, Boston, MA
- October 29, 2009 “Quality Plenary”
Speaker, Update in Hospital Medicine CME Course, Harvard Medical School, Boston, MA
- November 12, 2009 “The Future of HIT”
Medical Grand Rounds, Faulkner Hospital, Jamaica Plains, MA
- December 3, 2009 “Improving Safety Using Health Information Technology”
Lecturer, Quality of Care Section Core Course in Health Policy, HCP 597-598, Harvard Medical School, Cambridge, MA
- January 15, 2010 “Electronic Health Records in the US: Meeting the Standards and Getting Funded”
Speaker, Care of Adults with Congenital Heart Disease: Informatic Solutions for Quality Improvement and Surveillance Meeting, Adult Congenital Heart Association, Boston, MA
- February 9, 2010 “Health Systems: Planning for Meaningful Use”
Session Leader, Boston ‘Healthcare Stimulus Exchange’ (HSX) National Road Show 2010: A CONNECTed Health Care System: The Federal Government’s Role in Promoting the National Health Information Network, Healthcare IT News, New Gloucester ME (presented in Boston)
- May 12, 2010 “The Future of Health Information Technology Under the Obama Health Plan: Trainee Lecture”
Speaker, Centers of Expertise Quality and Safety Meeting, Brigham and Women’s Hospital, Boston, MA

- May 18, 2010 “Using IT to Improve Patient Safety”
Speaker, Leadership Strategies for Information Technology in Health Care: A Certificate Program – Module III: Maximizing Quality and Safety Gains from EHRs, Harvard School of Public Health, Boston, MA
- May 20, 2010 “Evaluation of the Massachusetts eHealth Collaborative”
Keynote Speaker, CIO Retreat, Massachusetts Health Data Consortium, Waltham, MA
- June 8, 2010 “The Electronic Record and the Medical Home”
Speaker, Massachusetts Chapter of the American College of Physicians/Northeast Physician Hospital Organization, Peabody, MA
- June 16, 2010 “Health Care Reform, HIT and HIT Policy, and the Health Care System”
Speaker, Medical Exchange Club of Boston dinner, University of Massachusetts Medical School, Boston, MA
- June 28, 2010 “Using HIT for Comparative Effectiveness Research and to Improve Quality”
Keynote Speaker, BRI-MSK Research Workshop Series: Comparative Effectiveness Research and Quality Improvement in MSK Diseases, Brigham and Women’s Hospital, Boston, MA
- July 7, 2010 “Health Information Technology in Medicine”
Speaker, Healthcare in the 21st Century, National Youth Leadership Forum on Medicine, Waltham, MA

National Invited Presentations:

- January 21, 1994 “Barriers to Reporting of Adverse Drug Events”
MedWatch, 1994, Food and Drug Administration, Washington, DC
- October 25, 1994 “Quality Improvement and Measurement and Information Systems”
Visiting Professorship and Medical Grand Rounds, Oregon Health Sciences University, Portland, OR
- March 16, 1995 “Clinical Decision Support Systems”
Agency for Health Care Policy and Research Panel, Orlando, FL
- March 18, 1995 “New Directions for Electronic Medical Records”
American College of Physicians, Atlanta, GA
- December 15, 1995 “Results of the ADE Prevention Study”
American Medical Association, Specialty Society Medical Liability Project, AMA, Chicago, IL
- January 18, 1996 “Above All Do No Harm: Information That Saves Lives”

- Keynote Speaker, HealthInfo West, Managed Health Care and Technology Solutions Conference, San Diego, CA
- February 14, 1996 “Using Information Systems to Measure and Improve Quality”
Executive Program in Managed Care, The National Center for Managed Health Care Administration, Kansas City, MO
- March 22, 1996 “Automation and Preventing ADEs”
Rhode Island College of Pharmacy Annual Program, Newport, RI
- May 23, 1996 “Using Information Systems to Improve and Measure Quality”
Harvard Risk Management Course on Risk Management's Contributions on a Total Quality Environment, Chicago, IL
- June 2, 1996 “The Nature and Significance of Adverse Drug Events”
Inaugural Clifton J. Latiolais Symposium, San Diego, CA
- October 28, 1996 “Computerization of Guidelines”
Symposium for Computer Applications in Medical Care, Washington, DC
- November 6, 1996 “Improving the Safety of Drug Use”
St. Anthony's Hospital, Annual Dinner, St. Louis, MO
- November 22, 1996 “Error in Medicine”
Visiting Professor, Susquehanna Hospital, Williamsport, PA
- December 3, 1996 “Top-Priority Actions for Preventing Adverse Drug Events in Hospitals”
American Society of Health-Systems Pharmacists, New Orleans, LA
- March 1, 1997 “Preventing Adverse Drug Events Using Automation”
Auburn Institute on the Evaluation of Pharmacy Automation, Atlanta, GA
- March 27, 1997 “Preventing Adverse Drug Events Using Information Systems”
National Congress on Adverse Drug Events, Institute for Healthcare Improvement, St. Louis, MO
- July 19, 1997 “Standard of Laboratory Practice: Guidelines for Monitoring Antiepileptic Drug Levels”
National Academy of Clinical Biochemistry, Atlanta, GA
- July 21, 1997 “Educating Physicians About Therapeutic Drug Monitoring”
American Association of Clinical Chemistry, Atlanta, GA
- September 18, 1997 “Preventing Adverse Drug Events Using Automation”
Maine Medical Society, Portland, ME
- October 14, 1997 “Error Prevention in Medicine”

Carelink, Charleston, WV

- November 10, 1997 “Improving Quality and Reducing Costs with Information Systems: The Provider Perspective”
Academic Medicine and Managed Care Forum, Washington, DC
- April 8, 1998 “Improving Prescribing Practices Using Information Systems”
National Congress on Improving Prescribing Practices, Institute for Healthcare Improvement, Cambridge, MA
- June 1, 1998 “Frequency and Prevention of Adverse Drug Events”
St. Joseph’s Hospital, Towson, MD
- June 1, 1998 “HCFA’s Proposed Revisions to the Medicare Conditions of Participation: the Physician Perspective”
American Society of Health-Systems Pharmacists Annual Meeting Baltimore, MD
- June 2, 1998 “Detecting and Preventing Adverse Drug Events”
American Society of Health-Systems Pharmacists Annual Meeting Baltimore, MD
- June 4, 1998 “Understanding and Preventing Medical Error”
Grand Rounds, St. Luke’s Hospital, Milwaukee, WI
- September 18, 1998 “Preventing Medication Errors”
Illinois Pharmacy Association, Oakbrook Park, IL
- October 1, 1998 “Prevention of Adverse Drug Events”
INOVA Health Systems, Falls Church, VA
- October 20, 1998 “The Effect of Computerized Physician Order Entry and a Team Intervention on Prevention of Serious Medication Errors”
17th Annual Science Reporters Conference, American Medical Association
Durham, NC
- November 12, 1998 “Detection and Prevention of Adverse Drug Events”
Pharmacy Directors’ Meeting, VHA, Seattle, WA
- December 18, 1998 “Improving Medication Safety”
Becton-Dickinson, Franklin Lakes, NJ
- February 24, 1999 “Improving the Post-Marketing Surveillance System”
U.S. GAO Symposium, Drug Information Association, Washington, DC
- June 17, 1999 “Clinical Decision Support. What’s the Impact?”

- Aetna-U.S. Healthcare Academic Medicine and Managed Care Forum,
Washington, DC
- July 16, 1999 “Medication Errors: The Problem, The Effects and Potential Solutions”
VHA New England Medication Error Conference, VHA New England, Inc.,
Nashua, NH
- September 24, 1999 “Improving Patient Safety through the Reduction of Medication Errors”
VHA Inc, Dallas, TX
- October 5, 1999 “Preventing Medication Errors in Cancer Care”
MD Anderson Pharmacy Symposium, Houston, TX
- October 9, 1999 “Computerized Decision Support: What is the Benefit?”
Medical Information Systems Physicians' Association (MISPA) MISPA
International Conference, New York, NY
- September 29, 1999 “Using Information Technology to Improve Quality in Health Care”
National Academy of Sciences, Institute of Medicine, Washington, DC
- October 15, 1999 “Medication Error Reduction: How Can MERP be Most Effective?”
National Coordinating Council for Medication Error Reporting and Prescribing,
American Pharmaceutical Association Foundation, Washington, DC
- October 28, 1999 “Clinical Decision Support: Current Benefits and Downstream Potential”
Executive Forum, Eclipsys Corp., West Palm Beach, FL
- November 2, 1999 “Medication Errors and Adverse Drug Events: Frequency and Prevention”
Grand Rounds, Brown University, Providence, RI
- December 2, 1999 “Computer-aided Decision Support”
85th Scientific Assembly and Annual Meeting, Radiological Society of North
America (RSNA), Chicago, IL
- March 2, 2000 “Preventing Errors Using Information Systems”
NCQHC Annual Conference and Presentation of the 2000 NCQHC Award,
National Committee for Quality Health Care, Washington, DC
- March 14-15, 2000 “Drug Safety: How Big a Problem? What can be Done?”
Sonis Lecture and Visiting Professorship, Center for Research on Healthcare
(CRHC), U-Pittsburgh, PA
- March 20, 2000 “Improving Medication Safety Using Information Technology”
Pharmacy, Nursing and Medical Leadership, Metro Region, Aurora Health Care,
Milwaukee, WI
- March 23, 2000 “Computerized Physician Order Entry”

- Safety Meeting, General Motors, Detroit, MI
- April 27, 2000 “Top Priority Actions for Preventing Medication Errors”
Medication Error National Conference, Phico, Osage Beach, MO
- April 28, 2000 “Strategies for Preventing Medication Ordering Errors”
VHA New England Medication Error Conference, VHA Hew England, Inc.,
Nashua, NH
- May 17, 2000 “ADE Frequency and Prevention in Pediatrics”
Pediatric Grand Rounds, duPont Hospital for Children, Wilmington, DE
- June 6, 2000 “Medication Safety Issues in the New Millennium”
American Society of Health-System Pharmacists Annual Meeting, Philadelphia,
PA
- June 22, 2000 “Adverse Drug Events: Frequency and Prevention”
Medical Systems Meeting, ALARIS Medical Systems, San Diego, CA
- September 13, 2000 “Medication Errors and Adverse Drug Events: Frequency and Prevention”
Medical Mistakes and Their Prevention, North American Congress of Clinical
Toxicology Symposium, American College of Medical Toxicology, Tucson, AZ
- September 14, 2000 “Prevention of Medication Errors and Adverse Drug Events Using Computer
Order Entry”
Medical Informatics Grand Rounds, Cedars-Sinai Medical Center, Los Angeles,
CA
- September 26, 2000 “Computerized Physician Order Entry and Medication Errors”
Leapfrog Conference, Washington, DC
- October 3, 2000 “Frequency and Prevention of Medication Errors and Adverse Drug Events”
Medical Staff Grand Rounds, Cleveland Clinic Cancer Center, Cleveland, OH
- October 26, 2000 “Safety and Medication Error”
P&T Society Annual Meeting, Philadelphia, PA
- November 15, 2000 “Computerized Order Entry and Errors”
Leapfrog Group Lunch, National Press Club, Washington, DC
- November 17, 2000 “Reducing Medication Errors ”
GYNHA Symposium, Greater New York Hospital Association, New York, NY
- March 7, 2001 “Using IT to Improve Quality: Past Results and Future Potential”
Speaker, The Healthcare (R)evolution: Information Technology, Central Florida
Health Care Coalition, Orlando, FL

- March 9, 2001 “Implementing Computerized Physician Order Entry”
VHA New England PCOE Symposium, Portland, ME
- March 12, 2001 “Getting to Zero: Can We All Agree”
National Committee for Quality Health Care (NCQHC) Annual Conference:
Zero Errors: A New Paradigm for Patient Safety, Washington, DC
- April 27, 2001 “Preventing Medication Errors and ADEs”
State of Ohio Healthcare Summit on Medical Errors, Ohio Northern University,
Raabe College of Pharmacy, Ada, Ohio
- May 3, 2001 “Handheld Devices in Improving the Safety of Prescription Drug Prescribing”
Testimony at Technology and Prescription Drug Safety hearing before the US
Senate Special Committee on Aging
On behalf of the American Medical Informatics Association, Washington, DC
- May 3, 2001 “Medication Error Reduction Act of 2001”
Presentation with Senators Graham and Snowe, Washington, DC
- May 7, 2001 “A Year After “To Err is Human”
Mercy Hospital Presentation on Medication Errors – Progress Report One Year
After “To Err is Human”, Scripps Medical Center, San Diego, CA
- May 11, 2001 “Computer Order Entry: How it Works Ideally”
Forum on Health Policy – Clinicians’ Orders Online: New Possibilities, New
Challenges, University of Michigan, Ann Arbor, MI
- June 11, 2001 “The Implications of Change in Information Systems for Cost and Quality”
Panelist, 2001 Academy for Health Services Research and Health Policy Annual
Meeting Research to Action: Shaping our Health Care Future, Atlanta, Georgia
- June 22, 2001 “Improving Medication Safety with Computer Order Entry”
Medical Grand Rounds, Sloan Kettering Cancer Center, New York, NY
- June 28, 2001 “What is a Medical Error and How Common are They?”
Speaker, The Effective Strategies for Improving Patient Safety and Preventing
Medical Errors in Infectious Diseases Conference, Infectious Diseases Society of
America (IDSA), Chicago, IL
- August 23, 2001 “Using Computerized Physician Order Entry to Improve Medication Safety”
MHA Insurance Company Annual Risk Management Seminar, Harbor Springs,
MI
- September 10, 2001 “The IOM Report – Errors and Quality”
Clinic Club Fall Conference, MeritCare Health System, Bemidji, Minnesota
- September 10, 2001 “Preventing Adverse Drug Effects”

- Clinic Club Fall Conference, MeritCare Health System, Bemidji, Minnesota
- September 10, 2001 “Physician Order Entry – Starting at the Point of Care”
Clinic Club Fall Conference, MeritCare Health System, Bemidji, Minnesota
- October 4-5, 2001 “The Benefits of Clinical Information Systems”
Participant, Institute of Medicine and Kaiser Permanente Institute for Health Policy, Denver, CO
- October 10, 2001 “Improving Patient Safety: The Case of Adverse Drug Events”
Speaker, Improving Patient Safety and Decreasing Errors in the Hospital, University of California-San Francisco, San Francisco, CA
- October 15, 2001 “Clinical Decision Support and Reductions in Errors”
Speaker, Institute of Medicine Annual Meeting “Information Technology: Its Strategic Role in Biology, Medicine and Health”, Washington, DC
- October 22, 2001 “Improving Medication Safety Using Computerized Physician Order Entry”
Speaker, “The Second Annual Health Care Quality Summit”, Qualidigm, Waterbury, CT
- October 28, 2001 “Reducing Medication Error Rates Using Information Technology”
Keynote Speaker, Reducing Medication Error Rates Using Information Technology Meeting, Eclipsys, Orlando, FL
- December 4, 2001 “Screening for Adverse Drug Events Using Medical Records”
Speaker, American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, LA
- December 4, 2001 “Preventing Death by Decimal: An Innovative IV Safety Net”
Speaker, American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, LA
- February 13, 2002 “Medication Errors in the Outpatient Setting”
Speaker, General Internal Medicine/Outcomes Research Conference, University of Cincinnati, Cincinnati, OH
- February 13, 2002 “Using Computerized Physician Order Entry to Improve Quality”
Lecturer, Medical Grand Rounds – Greenberg Lectureship, University of Cincinnati, Cincinnati, OH
- March 6, 2002 “Healthcare IT and Quality of Care”
Presenter, NQF/IOM Information Technology Summit, The National Quality Forum, Washington, DC
- March 18, 2002 “Using Technology to Improve Patient Care and Reduce Risk”
Speaker, APhA 2002 Annual Meeting and Exposition: Sesquicentennial Session

- E-Pharmacy: Improving Patient Care and Managing Risk, American Pharmaceutical Association, Philadelphia, PA
- April 8, 2002 “Computer Monitoring”
Speaker, Measuring Medication Safety in Hospitals, American Society of Health System Pharmacists (ASHP), Tucson, AZ
- April 21, 2002 “CPOE: Getting it Done”
Speaker, VHA National Physician Leadership Council, Northwestern Memorial Hospital, Chicago, IL
- April 22, 2002 “Computerized Physician Order Entry: What Does it Take, and What are the Benefits”
Speaker, 19th Annual VHA Leadership Conference, VHA, Inc., Chicago, IL
- May 3, 2002 “Disclosing Medical Errors and Adverse Events to Patients”
Workshop, SGIM 25th Annual Meeting, Society of General Internal Medicine, Atlanta, GA
- May 8, 2002 “Defining and Rewarding Medical Quality in the 21st Century”
Panelist, 9th Annual Logician User Group Healthcare Symposium, MedicaLogic Logician User Group, St. Louis, MO
- May 9, 2002 “Defining Medical Quality: The Providers’ Perspective”
Keynote Speaker, 9th Annual Logician user Group Healthcare Symposium, MedicaLogic Logician User Group, St. Louis, MO
- May 14, 2002 “Introduction to Evidence-based Medicine”
Moderator, Evidence-based Medicine: Outcomes and Utilization track, TEPR 18th Annual Conference and Exhibition, Emerging Health Information Solutions, Seattle, WA
- May 20, 2002 “Drugs and Information Technology: What’s Next?”
Keynote Speaker, AMIA 2002 Spring Congress “A Drug by any Other Name: The Role of Informatics from Drug Development Through the Point-of-Care”, American Medical Informatics Association, Scottsdale, AZ
- May 31, 2002 “Using Information Technology to Improve Clinical Outcomes”
Plenary speaker, The 2nd Outcomes Management Conference, Northwestern University, Chicago, IL
- May 31, 2002 “Using Computerized Physician Order Entry to Improve Medication Safety”
Medical Grand Rounds, The 2nd Outcomes Management Conference, Northwestern University, Chicago, IL
- June 4, 2002 “The Impact of Clinical Decision Support Tools on Patient Safety”
Medical Grand Rounds, University of Chicago, Chicago, IL

- June 6, 2002 “CPOE Best Practices”
Speaker, CPOE Summit, “CPOE: Best Practices and Lessons Learned”,
Vanderbilt Center for Better Health (VCBH), Nashville, TN
- July 18, 2002 “Medication Safety in Psychiatry”
Speaker, Medication Safety in Psychiatry, American Psychiatric Association,
Chantilly, VA
- September 17, 2002 “Using CPOE to Reduce Medical Errors”
Speaker, Dean’s Lecture Series and ICIS Distinguished Professor Lectures,
University of Kentucky Medical Center, Lexington, KY
- September 20, 2002 “Decision Support Technology and Knowledge Machines – What are They,
Working Models Content Needed for Expansion?”
Speaker, Making Health Care Work for Everyone, Jackson Hole Group
Meeting, Jackson Hole, WY
- September 23, 2002 “Surveillance and Quality Improvement Systems”
Speaker, Committee on Patient Safety Data Standards, Institute of
Medicine/National Academy of Sciences, Washington, DC
- September 26, 2002 “Using Information Technology to Improve Patient Safety”
Keynote Speaker, Summit on Patient Safety and Information Technology:
CPOE and Other Innovative Approaches for Medical Error Reduction, TCBI –
The Center for Business Innovation, San Diego, CA
- October 8, 2002 “Preventing Surgical Errors and Adverse Events Using Information
Technology”
Speaker, ACS 88th Annual Clinical Congress, American College of Surgeons,
San Francisco, CA
- October 22, 2002 “Closing the Quality Chasm: Ideas for Improving Health Care”
Speaker, Medical Grand Rounds, Maine Medical Center, Portland, ME
- October 25, 2002 “CPOE Best Practices”
Speaker, Fourth Annual Health Care Quality Forum “Look Before you Leap:
Healthcare Quality Leaps Ahead”, HealthCare 21 Business Coalition,
Chattanooga, TN
- November 7, 2002 “Critical Medication Administration Errors - Framing the Problem”
Moderator, ALARIS Center for Medication Safety and Clinical Improvement
Conference, ALARIS Medical Systems, San Diego, CA
- December 3, 2002 “Improving Medication Safety”
Speaker, Medical Grand Rounds, St. Mary’s Medical Center, Huntington, WV

- December 10, 2002 “Preventing ADEs Through the Use of Information Provided by Combining Lab and Pharmacy File Information”
Speaker, ASHP Mid-year Clinical Meeting, VigiLanz Corporation, Atlanta, GA
- December 10, 2002 “IV Medication Errors”
Speaker, Addressing Critical Drug Administration Errors: An Innovative Safety Software System, ASHP Mid-year Clinical Meeting, ALARIS Medical Systems, Atlanta, GA
- December 16, 2002 “Leapfrog and the National Health Information Infrastructure”
Speaker, National Health Information Infrastructure (NHII), Department of Health and Human Services, Washington, DC
- March 5, 2003 “Standards: Impact on Delivery of Care”
Presenter, Connecting for Health Joint Medical Society Meeting, Markle Foundation, Washington, DC
- March 21, 2003 “The Impact of Computerized Physician Order Entry at Brigham and Women’s Hospital”
Speaker, American Talks Health Care: Better Health Through Information Technology, Town Hall with Health and Human Services Secretary Tommy G. Thompson, Dearborn, MI
- April 3, 2003 “Information Technology and Medication Safety”
Keynote Speaker, 2003 ASCPT Annual Meeting, American Society for Clinical Pharmacology and Therapeutics, Washington, DC
- May 5, 2003 “Information Technology and Policy”
Visiting Professor, University of Washington’s Robert Wood Johnson Clinical Scholars Program, Seattle, WA
- May 15, 2003 “Facilitating Information Transfer and Clear Communication”
Speaker, Safe Practices Close Up Panel, Safe Practices for Better Healthcare: It’s Time to Act, The National Quality Forum, Los Angeles, CA
- May 28, 2003 “Successfully Implementing Computerized Physician Order Entry”
Speaker, Medical Error Reduction Team (MERT) Meeting, Robert Wood Johnson University Hospital New Brunswick, NJ
- June 30, 2003 “Safety and Quality”
Plenary speaker, National Health Information Infrastructure 2003, Developing a National Action Agenda for NHII, US Department of Health and Human Services, Washington, DC
- July 2, 2003 “Relevance of the CCR”

- Speaker, Continuity of Care Record Executive Meeting, Healthcare Information and Management Systems Society, Massachusetts Medical Society, Washington, DC
- September 9, 2003 “Allergy Alerts in Computerized Physician Order Entry”
Speaker, National Library of Medicine Board of Regents Meeting, Bethesda, MD
- September 18, 2003 “Research Challenges in Ambulatory Primary Care Patient Safety”
Keynote Speaker, National Ambulatory Primary Care Research and Education Conference on Patient Safety, American Academy of Family Physicians, Chicago, IL
- September 26, 2003 “Improving Patient Safety Using Information Technology”
Lecturer, Dean Afaf Meleis’ Lecture Series on Patient Safety Management, Hospital of the University of Pennsylvania, Philadelphia, PA
- October 7, 2003 “Electronic Health Information in Post-Acute and Long-Term Care”
Technical advisor, Technical Advisory Group (TAG), Office of the Assistant Secretary of Planning and Evaluation (ASPE), Department of Health and Human Services, Washington, DC
- October 22, 2003 “Improving Patient Care Through Quality Assurance and Clinical Systems”
Speaker, Medical Grand Rounds, Columbia University, New York, NY
- November 7, 2003 “Preliminary Findings from a Comprehensive IV Infusion Pump Study”
Speaker, Addressing Harm with High Risk Drug Administration conference, ALARIS Medical Systems, Inc., San Diego, CA
- November 9, 2003 “Report from NAPCI”
Speaker, AMIA Primary Care Informatics Working Group, Washington, DC
- January 20, 2004 “Institute of Medicine (IOM). The Nature of the Problem – Inappropriate Medication Use in the Elderly (Outcomes and Cost)”
Speaker, Prescription Continuity of Care System (PCCS) External Expert Meeting, Centers for Medicare and Medicaid Services, Baltimore, MD
- February 5, 2004 “Patient Safety and Automatic Adverse Event Reporting: How the FDA Can Tap the Potential of the Emerging National Health Information Infrastructure”
Lecturer, Automatic Adverse Event Meeting, Food and Drug Administration, Rockville, MD
- February 14, 2004 “What are the Factors and Forces Impacting EHR System Adoption?”
Speaker, ACMI 2004 Symposium: Define a Workable Strategy to Stimulate Widespread Adoption of Electronic Health Records in the United States, The American College of Medical Informatics, San Diego, CA

- February 24, 2004 "Improving Safety and Quality through Information Technology"
Speaker, Duke Clinical Research Conference, Managing Quality in Health Care: The State of the Art, Clinical Research Conference, Duke University, Durham, NC
- April 6, 2004 "Introducing a New System to Reduce Harm with High-Alert Medications: The Medley™ Medication Safety Systems with Guardrails® Safety Software"
Host, live VHATV program, ALARIS Medical Systems, Dallas, TX
- April 11-12, 2004 "Reducing Medical Errors in Inpatient Setting"
Charles H. Rammelkamp, Jr. Visiting professor and Grand Rounds, Case Western Reserve University, Cleveland, OH
- April 15, 2004 "Using IT to Improve Medical Safety"
Lecturer, 2004 Distinguished Lecture Series in Health Informatics, College of Applied Health Sciences, University of Illinois, Chicago, IL
- May 13, 2004 "Electronic Medical Records in Primary Care"
Speaker, Meet the Professor Session, 27th SGIM Annual Meeting, Shaping the Future of General Internal Medicine, Society of General Internal Medicine, Chicago, IL
- May 13, 2004 "Overview of Ambulatory Patient Safety and Quality"
Speaker, Using Information Technology to Improve Safety and Quality in the Ambulatory Setting Precourse, 27th SGIM Annual Meeting, Shaping the Future of General Internal Medicine, Society of General Internal Medicine, Chicago, IL
- May 13, 2004 "Methodology Overview"
Speaker, Using Information Technology to Improve Safety and Quality in the Ambulatory Setting Precourse, 27th SGIM Annual Meeting, Shaping the Future of General Internal Medicine, Society of General Internal Medicine, Chicago, IL
- May 25, 2004 "Medication Safety and E-Prescribing"
National Committee for Vital and Health Statistics (NCVHS) testimony regarding E-Prescribing Standards
On behalf of Office of HIPAA Standards, Washington, DC
- September 7, 2004 "What is Primary Care Informatics"
Keynote Speaker, Primary Care Informatics Consensus Conference, AMIA Primary Care Informatics Working Group (PCIWG), American Medical Informatics Association, San Francisco, CA
- September 8, 2004 "Ambulatory Patient Safety"
Tutorial Presenter, Medinfo 2004, 11th World Congress on Medical Informatics, American Medical Informatics Association, San Francisco, CA

- September 10, 2004 “Reconstructing Prescription Medication History from Dispensed Drug Claims: Issues and Opportunities”
Panelist, Medinfo 2004, 11th World Congress on Medical Informatics, American Medical Informatics Association, San Francisco, CA
- September 10, 2004 “The Case for Electronic Health Records in Primary Care”
Presenter, Medinfo 2004, 11th World Congress on Medical Informatics, American Medical Informatics Association, San Francisco, CA
- October 18, 2004 “Using Technology to Ensure Quality Patient Care and Medication Safety”
Keynote presenter, Improving Patient Care and Medication Safety: Ninth Annual ASHP Management Conference for Leaders in Health-System Pharmacy, ASHP Advantage, Chicago, IL
- October 21, 2004 “The Role of Health Information Technology in Improving Healthcare Quality and Patient Safety”
Remarks, The Health Information Technology Summit: The Leading Form on Electronic Health Records and Rapidly Emerging Health Information Technology Policy...both Nationally and Globally, eHealth Initiative, Washington, DC
- November 29, 2004 “The Potential of Clinical Transformation to Improve Patient Safety in Both Hospital and the Ambulatory Space”
Speaker, BHCS Physician Leadership Council Dinner Meeting, Baylor Health Care System, Dallas, TX
- November 30, 2004 “Improving Patient Safety Using Information Technology”
Speaker, Medical Grand Rounds, Baylor Health Care System, Dallas, TX
- November 30, 2004 “Role of Electronic Health Records in the Outpatient Setting”
Speaker, House Staff Conference, Baylor Health Care System, Dallas, TX
- December 8, 2004 “Variability in Intravenous Infusion Therapy”
Speaker, Consortia Medication Safety Symposium at ASHP, Cardinal Health, Orlando, FL
- December 9, 2004 “Who’s Driving the Technology Bandwagon?”
Speaker, Technology is Risky Business: USP Error Findings on Computer Entry, CPOE, and Automated Dispensing Devices Panel, ASHP 39th Midyear Clinical Meeting, American Society of Health-System Pharmacists, Orlando, FL
- January 10, 2005 “The Role of a Computerized Medical Record in Pharmacotherapy”
Speaker, Consensus Conference on Patient Safety and Medical Systems Errors in Diabetes and Endocrinology, American Association of Clinical Endocrinologists (AACE), Washington, DC
- March 4, 2005 “Using the EHR to Improve Safety”

- Speaker, Introduction to Clinical Information Seminar Series, Stanford University School of Medicine, Stanford, CA
- June 21, 2005 “Decision Support for Medication Orders”
Keynote Speaker, Decision Support for CPOE Program, Hackensack University Medical Center and Brigham and Women’s Hospital, San Francisco, CA
- July 25, 2005 “Use of HIT and the Clinical Laboratory: Present and Future”
Speaker, Laboratory Information Systems & Medical Informatics (LISMI) Division Meeting, American Association for Clinical Chemistry (AACC), Orlando, FL
- September 15, 2005 “Information Technology and Patient Safety”
Speaker, Perinatal Leadership Conference, Triad Hospitals, Inc., North Dallas, TX
- October 23, 2005 “The EHR and Patient Safety”
Presenter, AMIA 2005 Annual Symposium, American Medical Informatics Association, Washington, DC
- October 26, 2005 “Electronic Medical Records in Primary Care”
Presenter, AMIA 2005 Annual Symposium, American Medical Informatics Association, Washington, DC
- November 9, 2005 “CPOE in Inpatients and EHRs in Outpatients: Making the Switch Work”
Keynote Speaker, FOJP’s 21st Annual Conference, FOJP Service Corporation, New York, NY
- November 10, 2005 “Reimbursement, Staffing, Capital, Quality, Medical Errors and Patient Safety: Will IT Deliver?”
Speaker, The World Health Care Innovations in Technology Congress: Technologies to Transform, World Congress/The Wall Street Journal, Washington, DC
- December 1, 2005 “Improving Patient Safety and Reducing Medication Errors: A Systems Approach”
Speaker, 91st Scientific Assembly and Annual Meeting Session, Radiological Society of North America (RSNA) Chicago, IL
- January 13, 2006 “Improving Oncology Safety Using Information Technology”
Speaker, Medical Grand Rounds, Memorial Sloan Kettering Cancer Center, New York, NY
- February 3, 2006 “Improving Medication Safety Using Information Technology”
Lecturer, Dean’s Distinguished Lecture Series for Pharmaceutical Quality, The University of Arizona, Tucson, AZ

- February 8, 2006 “Using Information Technology to Improve Safety in Healthcare”
Speaker, Medical Grand Rounds, New York University Medical Center, New York, NY
- March 18, 2006 “Safety and Quality with IT as well as Biosurveillance, Public Health and Future Directions”
Panelist, Special Session: The Future of Medical Informatics: time for Greater Specialty Society Involvement. CMSS Spring M, Council of Medical Specialty Societies (CMSS), Rosemont, IL
- April 3, 2006 “Summary of 2004-2006 Activities and The Action Plan for 2006-2007”
Speaker, Governing Council for Research of the World Alliance for Patient Safety (WAPS) Inaugural Meeting, WHO, Rockville, MD
- May 17, 2006 “The Personal Health Record: Partners Health Care Experiences”
Panelist, Personal Health Records Track (PHR), What do Primary Care Providers Think About Personal Health Records Panel, Informatics Across the Spectrum from Clinical Care to Biomedical Research, AMIA Spring Congress, American Medical Informatics Association, Phoenix, AZ
- May 17, 2006 “Is CPOE Helpful or Hurtful”
Speaker, Semi-plenary Session, Informatics Across the Spectrum from Clinical Care to Biomedical Research, American Medical Informatics Association 2006 Spring Congress, Phoenix, AZ
- May 18, 2006 “CPOE and Pitfalls, and How to Succeed”
Speaker, Care Management Council, Banner Health, Phoenix, AZ
- June 5, 2006 “The Massachusetts eHealth Collaborative: An Overview”
Chair, Achieving and Sustaining Improvements Track, AHRQ Patient Safety and Health IT Annual Conference: Strengthening the Connections, Agency for Healthcare Research and Quality, Washington, DC
- June 22, 2006 “A Conversation about the Future of Medication Safety”
Speaker, Leadership conference, Cardinal Health, Palm Springs, CA
- July 9, 2006 “The Future of Medication Safety: Implications”
Speaker, AACP Annual Meeting and Seminar, American Association of Colleges of Pharmacy, San Diego, CA
- October 21, 2006 “The Role of CPOE for Improving Safety, and the Perils and Pitfalls”
Speaker, Campaign for Quality Annual Educational Symposium, Faxton-St. Luke’s Healthcare, Syracuse, NY
- November 9, 2006 “Prescribing Safety: The Role of Information Technology, and Importance of a Culture of Safety”

- Keynote Speaker, Medication Safety: State of the Art 2006 Symposium, North Shore-Long Island Jewish health System, Manhasset, NY
- November 13, 2006 “Medical Informatics: Impact and Opportunities Resulting from the IOM Committee on Identifying and Preventing Medication Errors”
Presenter, AMIA 2006 Annual Symposium, American Medical Informatics Association, Washington, DC
- November 14, 2006 “Secondary Uses of Clinical Data in Primary Care”
Speaker, AMIA 2006 Annual Symposium, American Medical Informatics Association, Washington, DC
- December 3, 2006 “Preventing Medication Errors: A Summary”
Speaker, ASHP MCM Symposium: IOM Report: Preventing Medication Errors, Cardinal Health, Anaheim, CA
- December 5, 2006 “CPOE: Evidenced Based Medicine or Doing Harm?”
Speaker, ASHP Midyear Clinical Meeting, The Evidence for Clinical Information Technology Interventions Session, American Society of Health-System Pharmacists, Anaheim, CA
- December 6, 2006 “Preventing Medication Errors – Summary of the IOM Report”
Speaker, ASHP MCM Symposium: IOM Report: Preventing Medication Errors, Cardinal Health, Anaheim, CA
- February 28, 2007 “Building for the Future: Moving to Administrative Sources and Electronic Health Records”
Presenter via teleconference, Medicare’s Physician Performance Reporting Agenda: Understanding Next Steps and Shaping the Future Course Discussion Forum, Consumer-Purchaser Disclosure Project, National Partnership for Women & Families, Washington, DC
- April 25, 2007 “Developing a Global Agenda for Patient Safety Research”
Speaker, 30th SGIM Annual Meeting, The Puzzle of Quality: Clinical, Educational and Research Solutions, Society of General Internal Medicine, Chicago, IL
- April 26, 2007 Meet the Professor Session
Speaker, 30th SGIM Annual Meeting, The Puzzle of Quality: Clinical, Educational and Research Solutions, Society of General Internal Medicine, Chicago, IL
- May 10, 2007 “Medication Management – Preventing Harm: Implementation Issues”
Keynote session, NQF Implementation Session, The National Quality Forum, Chicago, IL
- June 11, 2007 “Information Technology Evaluation Review Committee”

- Chair, The Patient Safety and Quality Impact of KP Healthconnect, Kaiser Permanente Institute for Health Policy, Oakland, CA
- June 11, 2007 “The Future of Health Information Technology”
Speaker, Kaiser Policy Forum, East Bay Community Foundation, Oakland, CA
- November 11, 2007 “Electronic Health Record Series Tutorial: Making Electronic Prescribing Work”
Presenter, AMIA 2007 Annual Symposium, American Medical Informatics Association, Chicago, IL
- March 27, 2008 “Health Information Technology in the 21st Century: Where Are We and What's Next?”
Lecture, Health Information Technology Program, The College of Physicians of Philadelphia, Philadelphia, PA
- April 8, 2008 “Improving Medication Safety Using Information Technology”
Speaker, Distinguished Lecture Series, University of Pittsburgh School of Pharmacy, Pittsburgh, PA
- May 30, 2008 “Is the Juice Worth the Squeeze? Implementing Quality Measures in Primary Care EHRs”
Speaker, Electronic Health Record Track, AMIA Spring Congress, American Medical Informatics Association, Phoenix, AZ
- July 29, 2008 “CPOE Implementation: A Short History and Review of the Evidence”
Presenter, CPOE Evaluation Tool: First Announcement of Results, The Leapfrog Group, Washington, DC
- September 26, 2008 “Medication Safety Technologies: What is and is not Working”
Presented via national webinar, Cardinal Health, San Diego, CA
- October 2, 2008 “Progress and Challenges in Ambulatory Patient Safety”
Plenary speaker, 2nd National Ambulatory Primary Care Research and Education Conference: Patient Safety and Health Information Technology (HIT), AHRQ and Academic Pediatric Association, Washington, DC
- November 10, 2008 “Informatics as a Recognized Health Profession and AMIA as its Professional Home”
Presenter, AMIA 2008 Annual Symposium: Biomedical and Health Informatics From Foundation to Applications to Policy, American Medical Informatics Association, Washington, DC
- December 12, 2008 “Using Information Technology to Improve Patient Safety”
Keynote Speaker, 4th Annual Patient Safety and Quality Conference, Duke University Health System, Durham, NC

- February 23, 2009 “Pediatric Medication Safety and the Emergency Department: Review of the Literature”
Panelist, Pediatric Medication Safety in the Emergency Setting: Practical Solutions, Health Resources and Services Administration, Maternal and Child Health Bureau, and Duke University Health System, Durham, NC
- March 12, 2009 “Information Technology and Patient Safety”
29th Annual Balfour Lecture – ‘Computerized Physician Order Entry’, Archbold Memorial Hospital, Thomasville, GA
- April 28-29, 2009 “The Under Secretary for Health’s International Round Table on Clinical Quality and Patient Safety”
Panelist, Department of Veterans Affairs, Washington, DC
- July 10, 2009 “Accessing the Healthcare System”
Keynote Speaker, 5th Annual Meeting – Our Patients, Our Profession, Chronic Care Impact: Optimizing Pharmacotherapy in Disease State Management, Arizona Pharmacy Alliance (AzPA), Tucson, AZ
- September 3, 2009 “Evaluation of The Massachusetts eHealth Collaborative: An Update”
Speaker, 7th Annual Rocky Mountain Geriatrics Conference: Graduate Seminar Series. The University of Utah, Midway, UT
- September 4, 2009 “The Role of HIT in Care of Rural Adults”
Speaker, 7th Annual Rocky Mountain Geriatrics Conference: Graduate Seminar Series. The University of Utah, Midway, UT
- October 8, 2009 “The Role of HIT in the Medical Home, and Evaluation of the Impact of a Medical Home”
Speaker, The Ethel Donaghue Center for Translating Research into Practice and Policy Seminar Series [TRIPP], University of Connecticut Health Center, Farmington, CT
- October 16, 2009 “Health Information Technology Panel Session”
Moderator, Steering Committee, AHRQ Centers for Education & Research on Therapeutics (CERTs), Rockville, MD
- October 26, 2009 “Achieving ‘Meaningful Use’: The Importance of Clinical Decision Support”
Speaker, Zynx Health ARRA National Webinar, Zynx Health Incorporated, Los Angeles, CA. Presentation was done from Boston
- November 19, 2009 “Achieving Success with CPOE”
Speaker, Clear Communication Practices for Safer Healthcare (Safe Practices 12-16” National Webinar, National Quality Forum, Washington, DC/Texas Medical Institute of Technology (TMIT), Austin, TX.
- December 7, 2009 “The Role of the Pharmacist in the Medical Home”

- Speaker, 44th Annual ASHP Midyear Clinical Meeting, American Society of Health-System Pharmacists, Las Vegas, NV
- February 16, 2010 “Improving Hospitals Safety with IT”
Lecturer, 6th Parvin Visiting Professor Hospital-wide Lecture, University California-Los Angeles, Los Angeles, CA
- February 17, 2010 “The Future of Healthcare IT”
Speaker, Medical Grand Rounds, University California-Los Angeles, Los Angeles, CA
- February 19, 2010 “International Perspective on Current Advances in EHRs”
Chair, Scientific Session, ACMI Winter Symposium, Tucson, AZ
- February 23, 2010 “The Future of Human Information Technology”
Lecturer, Honorary Medical Grand Rounds, Northwestern Memorial Hospital, Chicago, IL
- May 6, 2010 “The 2010 Health Care Innovation Landscape”
Speaker, 2010 Innovation Conference: Growth Strategies in the Post-Reform Era, Health Evolution Partners, Laguna Niguel, CA
- May 25, 2010 “The Future Role of Health Information Technology in the Medical Home”
Speaker, AMIA Now! 2010: Clinical Informatics Session, American Medical Informatics Association, Phoenix, AZ
- June 17, 2010 “Introduction to Medication Management and the Role of Bar-coding”
Speaker, Barcoding End-to-End Solutions: From Pharmacy to Bedside (SP 16 & 18) national webinar, Texas Medical Institute of Technology, Austin, TX.
- June 24, 2010 “The Future of Health Information Technology in the Patient-Centered Medical Home”
Speaker, PCPCC CeHIA national webinar, Patient Centered Primary Care Collaborative, Center for eHealth Information Adoption and Exchange, Washington, DC

International Invited Presentations:

- November 14, 1997 “Improving the Use of Therapeutic Drug Monitoring”
International Society for Therapeutic Drug Monitoring and Toxicology, Vancouver, BC
- March 11, 1998 “Critical Success Factors in the Implementation of Information Technology in Hospitals”
Melbourne, Australia
- March 12, 1998 “Measuring and Improving Quality Using Information Systems”

- Sesquicentennial Meeting of the Royal Melbourne Hospital, Melbourne, Australia
- March 13, 1998 “The Epidemiology of Adverse Drug Events in the U.S.”
Australian Patient Safety Foundation Meeting on Prevention of Medication Errors, Adelaide, Australia
- October 10, 1998 “Measuring and Improving Quality Using Information Systems”
Teikyo-Harvard Collaborative, Tokyo, Japan
- April 16, 1999 “Using Information Systems to Measure and Improve Quality”
Swiss Society of Internal Medicine, Basel, Switzerland
- May 31, 2000 “Cost of Nephrotoxicity Associated with Amphotericin B”
Economic Meeting, Merck & Co., Inc., Stockholm, Sweden
- July 18, 2000 “Computer-assisted Prescribing - A New Tool for Practice-based Epidemiology”
VII World Conference on Clinical Pharmacology and Therapeutics, NEWTOURS, S.p.A., Florence, Italy
- September 3-4, 2000 “Using Clinical Decision Support to Improve Quality”
Health Informatics Society (HIC) 2000 Australia, Adelaide, Australia
- March 20-21, 2001 “Using Computerized Physician Order Entry to Prevent Medication Errors”
Visiting Professor, Baycrest Centre for Geriatric Care, Toronto, Canada
- April 20, 2001 “The Impact of Computerized Physician Order Entry on Medication Errors”
Breaking the Silence: Error in Healthcare, CQI Network and The Institute for Safety Medication Practices (ISMP) Canada, Toronto, Canada
- May 31, 2001 “Preventing Medical Errors”
Lecturer, HST 951 Medical Decision Support, Decision Systems Group, Brigham and Women’s Hospital, Sao Paulo, Brazil
- June 23, 2001 “Improving Quality of Health Care in the United States and United Kingdom: Strategies for Change and Action, 2001”
Panelist, Cost Improving Quality of Care: Strategies for Provider and Organizational Change in the UK and US, The Commonwealth Fund, United Kingdom
- August 30, 2001 “Improving Quality and Efficiency Using Information Technology”
University Hospital Gentofte, Copenhagen, Denmark
- September 3, 2001 “Preventing Medical Errors: Social, Ethical, Organizational and Technical Issues”
Panel, Medinfo 2001 “Towards Global Health – The Informatics Route Knowledge to Knowledge”, Global Health Council, London, England

- October 2, 2001 “Methods of Detecting Medication Errors and Adverse Drug Events: Lessons from Partners”
Focus on Medication Errors panel, 18th International Conference of the International Society for Quality in Health Care in association with Asociación para el Fomento de la Calidad en Atención de la Salud, Buenos Aires, Argentina
- March 19, 2002 “Bringing Evidence to Practice: Preliminary Results of a Controlled Trial of Computerized Guidelines in Primary Care. Effectiveness of Bringing Evidence to the Point of Care”
Speaker, Medical Grand Rounds, Centre for Evaluation of Medicines, Hamilton, Ontario, Canada
- March 20, 2002 “Improving Safety Using Information Technology”
Speaker, Medical Grand Rounds, St Joseph’s Hospital, Hamilton, Ontario, Canada
- March 21, 2002 “Improving Safety Using Information Technology”
Speaker, Medical Grand Rounds, McMaster University Hospital, Hamilton, Ontario, Canada
- March 21, 2002 “Using Clinical Systems to Detect Adverse Events”
Speaker, Clinical Epidemiology and Biostatistics Grand Rounds, McMaster University Hospital, Hamilton, Ontario, Canada
- July 13, 2002 “Information System Infrastructure: Design, Development, Financing, and Going to Scale”
Reactor, “Improving Quality of Health Care in the United States and United Kingdom: Strategies for Change and Action, 2002”, Commonwealth Fund-Nuffield Conference, United Kingdom
- August 5, 2002 “Using IT to Improve Medication Safety: What Works?”
Workshop Presentation, ABIM Foundation Forum 2002 “Information Technology: Bridge or Barrier to the Doctor/Patient Relationship?”, ABIM Foundation, Vancouver, BC
- September 25, 2003 “Information Technology and Patient Safety”
Speaker, Medical Grand Rounds/Greenblatt Lecture, Ottawa Hospital, Ottawa, Canada
- May 1, 2003 “Improving Patient Safety in the Ambulatory Care Setting”
Meet the Professor Session, SGIM 26th Annual Meeting, Generalist Physicians as Agents for Change: Education and Research Practice and Policy, Society of General Internal Medicine, Vancouver, BC
- June 26, 2003 “Improving Nursing Safety with Information Technology”

- Speaker, IMIA-International Nursing Informatics 2003 Patient Safety Post Conference, Decision Systems Group, Brigham and Women's Hospital, Sao Paulo, Brazil
- November 15, 2003 "E-prescribing Applications"
Speaker, 26th Federal Conference, The Society of Hospital Pharmacists of Australia, Canberra, Australia
- November 15, 2003 "Electronic Prescribing: Implementation"
Speaker, 26th Federal Conference, The Society of Hospital Pharmacists of Australia, Canberra, Australia
- December 5, 2003 "Policy and the Future of Adverse Event Detection Using Information Technology"
Speaker, Patient Safety Symposium, Taipei Veterans General Hospital, Taiwan
- December 5, 2003 "Linking Laboratory and Pharmacy: Opportunities for Reducing Errors and Improving Care"
Speaker, Patient Safety Symposium, Chang Gung Hospital, Taiwan
- March 3, 2004 "Technology and Error in the USA"
Speaker, Medication Error and Technologies Analysis (META) Network conference: Patient Safety Research, University of London, School of Pharmacy, Wych Cross, East Sussex, England
- June 22, 2004 "E-prescribing Applications"
Speaker, The Society of Hospital Pharmacists of Australia, Sydney, Australia
- June 22, 2004 "Improving Patient Safety and Implementing Medication Safety Initiatives"
Speaker, St. Vincent's Hospital, New South Wales, Australia
- July 12, 2004 "Electronic Prescribing and eMedicines Management – The Boston Experience"
Queensland Health Medication Management Services, Royal Brisbane Hospital, Brisbane, Australia
- July 12, 2004 "Medication Safety – The Boston Experience"
Queensland Health Medication Management Services, Royal Brisbane Hospital, Brisbane, Australia
- July 14, 2004 "CPOE for Medications"
South Western Sydney Area Health Service, Liverpool NSW, Australia
- July 14, 2004 "Lessons Learned from the US Experience about Evaluating Pathology and Imaging"
University of New South Wales, Kensington, Australia
- September 2, 2004 "Medication Errors: Causes, Prevention & Reduction – Lessons to Share"

- Distinguished Visiting Professor, National Healthcare Group, Singapore, Malaysia
- September 2, 2004 “Harnessing IT Systems to Enhance Patient Safety”
Masterclass Lecture
Distinguished Visiting Professor, National Healthcare Group, Singapore
- September 3, 2004 “Medication Errors: Causes, Prevention & Reduction – Lessons to Share”
Distinguished Visiting Professor, National Healthcare Group, Singapore
- October 4, 2004 “Using IT to improve Safety: The BWH Experience”
Speaker, Medical Ward of the 21st Century Retreat, University of Calgary, Calgary, Alberta, Canada
- October 5, 2004 “Harnessing IT to Improve Safety and Quality”
Speaker, Medical Grand Rounds, University of Calgary, Calgary, Alberta, Canada
- January 19, 2005 “Patient Safety and Healthcare Information Technology”
Keynote Speaker, Health Informatics for Patient Safety, Icelandic Medical Association, Reykjavik, Iceland
- April 19, 2005 “Using IT to Improve Medication Safety”
Keynote Speaker, 1st German Congress on Medication Safety, Klinikum Saarbruecken, Saarbrucken, Germany
- July 15, 2005 “Using Information Technology to Maximize Clinical and Patient Engagement”
Panelist, 7th International Meeting to Improve the Quality of Health Care: Strategies for Change and Action, 2005”, The Commonwealth Fund and The Nuffield Trust, Bagshot, England
- September 12, 2005 “Developments in the USA”
Speaker, 2nd Medication Error and Technologies Analysis (META) Network conference: Patient Safety Research, University of London, School of Pharmacy, Regent’s Park, London, England
- September 30, 2005 “CPOE: The Benefits, Perils and Pitfalls”
Keynote Speaker, 5th Quality and Patient Safety Week Launch, National Healthcare Group (NHG), Singapore, Malaysia
- November 12, 2005 “Improving Safety with Healthcare Information Technology”
Speaker, Health Informatics International Seminar, Hospital Universitario Austral/Universidad Austral, Buenos Aires, Argentina
- November 12, 2005 “The Benefits of Electronic Health Records in the Outpatient Setting”
Speaker, Health Informatics International Seminar, Hospital Universitario Austral/Universidad Austral, Buenos Aires, Argentina

- November 12, 2005 “Key Issues with Clinical Decision Support and Electronic Prescribing”
Speaker, Health Informatics International Seminar, Hospital Universitario Austral/Universidad Austral, Buenos Aires, Argentina
- November 17, 2005 “Patient Safety Through SMART U-healthcare for the Innovative Digital World”
Keynote Speaker, 2005 Korean Society of Medical Informatics (KOSMI) Fall Congress: Realization of Global u-Healthcare symposium, Seoul National University College of Nursing, Seoul, Korea
- November 20, 2005 “Preventing Medication Error Using Information Technology”
Speaker, The First Gulf Medication Errors Symposium: Preventing Medication Errors Session, Council of Health Ministers for Gulf Cooperation States, Bahrain, Saudi Arabia
- May 4, 2006 “Interoperable EHR Evaluation Plan”
Speaker, Benefits Evaluation Expert Advisory Panel; Canada Health Infoway, Victoria, BC, Canada
- May 6, 2006 “Computerized Monitoring for Adverse Drug Events”
Lecturer, Symposium 12 – Health Informatics III, Hong Kong Hospital Authority Convention, Hospital Authority, Hong Kong
- May 8, 2006 “Informatics and Risk Management”
Lecturer, Plenary Session III – Healthcare System, Hong Kong Hospital Authority Convention, Hospital Authority, Hong Kong
- June 12, 2006 “It’s Not About the Gadgets”
Speaker, Beyond Good Intentions: Accelerating the EHR in Canada Conference, Inforoute Sante du Canada – Canada Health Infoway, Quebec, Canada
- September 14, 2006 “Computerized Physician Order Entry: Risks & Benefits”
Medical Grand Rounds, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
- October 24, 2006 “Using Health Information Technology to Measure and Improve Healthcare Quality & Safety”
Plenary speaker, Improving Healthcare: The Challenge of Continuous Change, ISQua 23rd International Conference, International Society for Quality in Health Care, London, England
- January 11, 2007 “Using Information Technology to Improve Hospital Safety”
Speaker, Quality Assurance Department, Clinical Informatics Rounds, McGill University and McGill University Health Centre, Montreal, Quebec, Canada
- March 23, 2007 “Using Information Technology to Improve Patient Safety”

- Speaker, Symposium on the Medical Application of Ubiquitous Network, Ministry of Internal Affairs and Communications Tokyo, Medical and Dental University, Kyoto, Japan
- May 14, 2007 “Using IT to Improve Safety”
Speaker, NHS Faculty of Health Informatics Masterclass, National Health System Connecting for Health, London, England
- June 29, 2007 “Using Healthcare IT to Improve Medication Safety”
Speaker, Congress on Medication Safety, Qualidoc ag, Berne, Switzerland
- August 19, 2007 “The Benefits of Clinical Decision Support in Outpatients”
Keynote Speaker, Medinfo 2007, The 12th International Health (Medical) Informatics Congress, Health Informatics Society of Australia (HISA), Brisbane, Australia
- August 20, 2007 “Patient Safety Initiatives at Partners HealthCare System”
Speaker, Medinfo 2007, The 12th International Health (Medical) Informatics Congress, Health Informatics Society of Australia (HISA), Brisbane, Australia
- August 20, 2007 “U.S. HIT Update: 2007”
Speaker, Medinfo 2007, The 12th International Health (Medical) Informatics Congress, Health Informatics Society of Australia (HISA), Brisbane, Australia
- Sept 24-26, 2007 “Methods and Measures for Patient Safety Research”
Chair, World Health Organization World Alliance for Patient Safety – Patient Safety Research: Shaping the European Agenda, Porto, Portugal
- October 8, 2007 “Using IT to Improve Safety”
Keynote Speaker, PEP 2007 – Electronic Patient Record 2007 Conference, SBIS – Sociedade Brasileira de Informática em Saúde, (Brazilian Health Informatics Society), Rio de Janeiro, Brazil
- October 30, 2007 “Global Priorities for Patient Safety Research”
Speaker, Forum 11: Helping Correct the 10/90 Gap, Global Forum for Health Research, Beijing, China
- November 28, 2007 “Using Information Technology to Improve Medication Safety--the Latest Evidence”
Speaker, Hon DSc Lecture presentation, The School of Pharmacy, University of London, England
- November 28, 2007 “Quality and Safety Implications of EHRs”
Speaker, Electronic Health Records Symposium, The Nuffield Trust, London, England
- November 29, 2007 “The US Roadmap to Medication Safety”

- Keynote Speaker, 2nd German Congress for Patient Safety in Drug Therapy, Klinikum Saarbruecken, Bonn, Germany
- November 29, 2007 “Medication Safety at Transitions”
Speaker, 2nd German Congress for Patient Safety in Drug Therapy, Klinikum Saarbruecken, Bonn, Germany
- January 25, 2008 “The Evidence that Health Information Technology Improves Safety”
Speaker, Driving Quality in Europe: an Exchange to Accelerate Improvements, International Quality Improvement Exchange Conference, The Health Foundation, Snekkersten, Denmark
- April 21, 2008 “Healthcare Reform Trends in the U.S.”
Speaker, Partnership in Productivity Colloquium, International Healthcare, Reform Trends: Lead, Follow or Ignore, Canada Health Infoway, Victoria, BC, Canada
- June 27, 2008 “Patient Safety and Information Technology: The Role of Human Factors”
Speaker, Healthcare Systems Ergonomics and Patient Safety (HEPS) 2008: Creating and Designing the Healthcare Experience, Newtown S.p.A., Strasbourg, France
- July 18, 2008 “Medication Management and Patient Safety”
Keynote Speaker, National Health IT Summit (NHITS), MOH Holdings Pte Ltd, Singapore
- September 29, 2008 “Impact of the Electronic Recipe”
Speaker, 3rd Normalized Iberoamerican Medical Informatics Congress (3er Congreso Iberoamericano de Informatica Medica Normalizada, Congresos Elis, Montevideo, Uruguay
- October 20, 2008 “Better Knowledge for Safer Care: Advancing Research for Patient Safety Worldwide with the WHO World Alliance for Patient Safety”
Speaker, Healthcare Quality and Safety: Meeting the Next Challenges, 25th International Conference, The International Society for Quality in Health Care. Copenhagen, Denmark
- October 21, 2008 “Patient Safety Through Intelligent Procedures and Medical Systems”
Speaker, Healthcare Quality and Safety: Meeting the Next Challenges, 25th International Conference, The International Society for Quality in Health Care. Copenhagen, Denmark
- November 17, 2008 “Patient Safety Research: Safer Care Saves Lives”
Speaker, 2008 Global Ministerial Forum on Research for Health: Strengthening Research for Health Development and Equity, Research for Health, Bamako, Mali

- November 26, 2008 “Research in Patient Safety”
Speaker, IV International Conference on Patient Safety, Spanish Ministry of Health and Consumer Affairs: Finding the Best Clinical Practices for Safer Care, Madrid, Spain
- April 30, 2009 “Capturing the Power of Technology to Ensure the Safety of Patients”
Speaker, Patient Safety Congress 2009, Department of Health, the National Patient Safety Agency (NPSA), NHS Connecting for Health, the NHS Institute for Innovation and Improvement and the Health Foundation, Birmingham, UK
- June 29, 2009 “Improving Patient Safety Using IT”
Keynote Speaker, The 10th International Congress on Nursing Informatics, The Finnish Nurses Association, Helsinki, Finland
- September 24, 2009 “Measuring Patient Safety: The Need for Prospective Detection of Adverse Events”
Keynote Speaker, 1st PSIP Workshop: Adverse Drug Events, Human Factors, IT Tools for Patient Medication Safety, KITE Solutions, Belgirate, Lake Maggiore, Italy
- September 25, 2009 “Detection of ADE”
Session Chair, 1st PSIP Workshop: Adverse Drug Events, Human Factors, IT Tools for Patient Medication Safety, KITE Solutions, Belgirate, Lake Maggiore, Italy
- October 12, 2009 “Health Information Management Systems”
Speaker, ISQua 26th International Conference, The International Society for Quality in Health Care, Dublin, Ireland
- October 14, 2009 “Education and Research”
Speaker, ISQua 26th International Conference, The International Society for Quality in Health Care, Dublin, Ireland
- November 9, 2009 “Patient Safety and World Alliances”
Keynote Speaker, Pre-Congress to the 36th World Hospital Congress Seminar, CBA-Brazilian Consortium Accreditation and Joint Commission International, Rio de Janeiro, Brazil
- January 7, 2010 “Revolutionizing Safety with Health Information Technology”
Keynote Speaker, Annual Roter Memorial Conference, Maccabi Institute for Health Services Research, Tel Aviv, Israel
- March 8, 2010 “e-Health in the USA: An Update”
Keynote Speaker, 6th Annual eHealth Research Colloquium, The Australian e-Health Research Center, Royal Brisbane and Women’s Hospital, Herston Queensland, Australia
- April 7, 2010 “What is Patient Safety?”

Lecturer, Réseau en Afrique Francophone pour la Tèlemèdecine (RAFT) global webinar course, Geneva University Hospitals (HUG), World Health Organization Patient Safety Program, Geneva, Switzerland

- April 14, 2010 “Measures to Improve Patient Safety: An Overview”
Lecturer, Réseau en Afrique Francophone pour la Tèlemèdecine (RAFT) global webinar course, Geneva University Hospitals (HUG), World Health Organization Patient Safety Program, Geneva, Switzerland
- April 20, 2010 “Slaying the HIT Dragon”
Speaker, International Forum on Quality and Safety in Health Care: Nice 2010, international webinar, BMJ-IHI, Nice France
- April 27, 2010 “Improving Medication Safety Using Information Technology”
Speaker, The 8th Saudi International Pharmaceutical Conference, King Saudi University, College of Pharmacy, Riyadh, Saudi Arabia

Report of Clinical Activities:

I practice one session per week in our hospital-associated primary care clinic, Brigham Internal Medical Associates, where I serve as the primary care provider for a panel of approximately 300 patients; a high proportion are elderly and complex. I attend on these patients when they are admitted to the hospital and attend on the inpatient service 2-4 weeks per year.

Bibliography:

Original Reports:

1. Bates DW, Campbell SC. Shoulder pain as a presentation of non-Hodgkin lymphoma invading muscle. *J Rheumatol* 1988;15:141-143.
2. Bates DW, Tolle SW, Elliot DW. Subspecialty differences in responding to patient death-comparing cardiologists with oncologists. *West J Med* 1988;148:471-473.
3. Bates DW, Cook FC, Goldman L, Lee TH. Predicting bacteremia in hospitalized patients. A prospectively validated model. *Ann Intern Med* 1990;113:495-500.
4. Bates DW, Goldman L, Lee TH. Contaminant blood cultures and resource utilization. The true consequences of false-positive results. *JAMA* 1991;265:365-369.
5. Bates DW, Lee TH. Rapid classification of positive blood cultures: prospective validation of a multivariate algorithm. *JAMA* 1992;267:1962-1966.
6. Bates DW, Leape LL, Petrycki S. Incidence and preventability of adverse drug events in hospitalized adults. *J Gen Intern Med* 1993;8:289-294.
7. O'Neil AC, Petersen LA, Cook EF, Bates DW, Lee TH, Brennan TA. Physician reporting compared with-medical record review to identify adverse medical events. *Ann Intern Med* 1993;119:370-376.
8. Bates DW, Schmitt W, Buchwald D, Ware NC, Lee J, Thoyer E, Kornish RJ, Komaroff AL. Prevalence of fatigue and chronic fatigue syndrome in a primary care practice. *Arch Intern Med* 1993;153:2759-2765.
9. Bates DW, Buchwald D, Lee J, Kith P, Doolittle TH, Umali P, Komaroff AL. A comparison of case definitions of chronic fatigue syndrome. *Clin Infect Dis* 1994;18(Suppl 1):S11-15.
10. Bates DW, Lee TH. Projected impact of monoclonal anti-endotoxin antibody therapy. *Arch Intern Med* 1994;154:1241-1249.
11. Schwartz RB, Komaroff AL, Garada BM, Gleit M, Doolittle TH, Bates DW, Vasile RG, Holman BL. SPECT imaging of the brain: comparison of findings in patients with chronic fatigue syndrome, AIDS dementia complex, and major unipolar depression. *AJR Am J Roentgenol* 1994;162:943-951.
12. Kuperman GJ, Bates DW, Teich JM, Schneider JR, Cheiman D. A new knowledge structure for drug-drug interactions. *Proceedings of the 18th AMIA Annual Symposium on Computer Applications in Medical Care*; 1994 Nov 5-9; Philadelphia: Hanley and Belfus, Inc 18:836-840.
13. Bates DW, O'Neil AC, Boyle D, Teich JM, Chertow GM, Komaroff AL, Brennan TA. Potential identifiability and preventability of adverse events using information systems. *J Am Med Inform Assoc* 1994; 1(5):404-411.

14. Bates DW, Kuperman G, Teich JM. Computerized physician order entry and quality of care. *Qual Manag Health Care* 1994;2(4):18-27.
15. Bates DW, Buchwald D, Lee J, Kith P, Doolittle T, Rutherford C, Churchill WH, Schur PH, Wener M, Wybenga D, Winkelman J, Komaroff AL. Clinical laboratory test findings in patients with chronic fatigue syndrome. *Arch Intern Med* 1995;155(6):97-103.
16. Bates, DW, Pruess KE, Lee TH. How bad are bacteremia and sepsis? Outcomes in a cohort with suspected bacteremia. *Arch Intern Med* 1995;155(6):593-598.
17. Bates DW, Boyle DL, VanderVliet MB, Schneider J, Leape L. Relationship between medication errors and adverse drug events. *J Gen Intern Med* 1995;10(4):199-205.
18. Bates DW, O'Neil AC, Petersen LA, Lee TH, Brennan TA. Evaluation of screening criteria for adverse events in medical patients. *Med Care* 1995;33(4):452-462.
19. Bates DW, Pruess KE, Souney P, Platt R. Serious falls in hospitalized patients. Correlates and resource utilization. *Am J Med* 1995; 99(2):137-143.
20. Leape LL, Bates DW, Cullen DJ, Cooper J, Demonaco HJ, Gallivan T, Hallisey R, Ives J, Laird N, Laffel G, Nemeskal R, Petersen LA, Porter K, Servi D, Shea BF, Small SD, Sweitzer BJ, Thompson T, Vander Vliet M. Systems analysis of adverse drug events. ADE Prevention Study Group. *JAMA* 1995;274(1):35-43.
21. Bates DW, Cullen DJ, Laird N, Petersen LA, Small SD, Servi D, Laffel G, Sweitzer BJ, Shea BF, Hallisey R, Vander Vliet M, Nemeskal R, Leape LL. Incidence of adverse drug events and potential adverse drug events: implications for prevention. ADE Prevention Study Group. *JAMA* 1995;274(1):29-34.
22. Schoenenberger RA, Tanasijevic MJ, Jha A, Bates DW. Appropriateness of antiepileptic drug level monitoring. *JAMA* 1995; 274(20):1622-1626.
23. Cullen DJ, Bates DW, Small SD, Cooper JB, Nemeskal AR, Leape LL. The incident reporting system does not detect adverse drug events: A problem in quality assurance. *Jt Comm J Qual Improv* 1995; 21:541-548.
24. Kuperman GJ, Teich JM, Bates DW, Mclatchey J, Hoff TG. Representing hospital events as complex conditionals. *Proceedings of the 19th AMIA Annual Symposium on Computer Applications in Medical Care*; 1995 Oct 28-Nov 1; New Orleans, LA. Philadelphia: Hanley & Belfus, Inc. 19:137-141.
25. Katz JN, Chang LC, Sangha O, Fossel AH, Bates DW. Can comorbidity be measured by questionnaire rather than medical record review? *Med Care* 1996; 34:73-84.
26. Lee F, Teich JM, Spurr CD, Bates DW. Implementation of physician order entry: user satisfaction and self-reported usage patterns. *J Am Med Inform Assoc* 1996; 3:42-55.

27. Leape LL, Hilborne LH, Schwartz JS, Bates DW, Rubin HR, Slavin P, Park RE, Witter DM Jr, Panzer RJ, Brook RH. The appropriateness of coronary artery bypass graft surgery in academic medical centers. Working Group of the Appropriateness Project of the AMCC. *Ann Intern Med* 1996; 125(1):8-18.
28. Ellis RP, Pope GC, Iezzoni L, Ayanian JZ, Bates DW, Burstin H, Ash A. Diagnosis-based risk adjustment for Medicare capitation payments. *Health Care Financ Rev* 1996;17:101-128.
29. Komaroff AL, Fagioli LR, Doolittle TH, Gandek B, Gleit M, Guerriero RT, Kornish RJ, Ware NC, Ware JE Jr, Bates DW. Health status in patients with chronic fatigue syndrome and in general population and disease comparison groups. *Am J Med* 1996;101:281-290.
30. Kuperman GJ, Teich JM, Bates DW, Hiltz FL, Hurley JM, Lee RY, Paterno MD, Mus B. Detecting alerts, notifying the physician, and offering action items: a comprehensive alerting system. Proceedings of the 20th AMIA Annual Fall Symposium; 1996 Oct 26-30; Washington, DC. Philadelphia: Hanley & Belfus, Inc. 20:704-708.
31. Katz DA, Bates DW, Rittenberg E, Onderdonk A, Sands K, Barefoot LA, Snyderman D. Predicting *Clostridium difficile* stool cytotoxin results in hospitalized patients with diarrhea. *J Gen Intern Med* 1997;12:57-62.
32. Bates DW, Spell N, Cullen DJ, Burdick E, Laird N, Peterson LA, Small SD, Sweitzer BJ, Leape LL. The costs of adverse drug events in hospitalized patients. *JAMA* 1997;277(4):307-311.
33. Ketchum PA, Parsonnet J, Stotts LS, Nivitsky TJ, Schlain B, Bates DW, investigators of the AMCC SEPSIS Project. Utilization of a chromogenic limulus amebocyte lysate blood assay in a multi-center study of sepsis. *J Endotoxin Res* 1997;4:9-16.
34. Sands KE, Bates DW, Lanken PN, Graman PS, Hibberd PL, Khan KL, Parsonnet J, Panzer R, Orav EJ, Snyderman DR, Black E, Schwartz JS, Moore R, Johnson BL, Platt R. Epidemiology of sepsis syndrome in eight academic medical centers. *JAMA* 1997;278:234-240.
35. Harpole LH, Khorasani R, Fiskio J, Kuperman GJ, Bates DW. Automated evidence-based critiquing of orders for abdominal radiographs: impact on utilization and appropriateness. *J Am Med Inform Assoc* 1997;4(6):511-521.
36. Bates DW, Sands K, Miller E, Lanken PN, Hibberd PL, Graman PS, Schwartz JS, Kahn K, Snyderman DR, Parsonnet J, Moore R, Black E, Johnson BL, Jha A, Platt R. Predicting bacteremia in patients with sepsis syndrome. *J Infect Dis* 1997;176:1538-51.
37. Cullen DJ, Sweitzer BJ, Bates DW, Burdick E, Edmonson A, Leape LL. Preventable adverse drug events in hospitalized patients: a comparative study of intensive care and general care units. *Crit Care Med* 1997;25(8):1289-97.
38. Bates DW, Kuperman GJ, Jha A, Teich JM, Orav EJ, Ma'luf N, Onderdonk A, Pugatch R, Wybenga D, Winkelman J, Brennan TA, Komaroff AL, Tanasijevic MJ. Does the computerized display of charges affect inpatient ancillary test utilization? *Arch Intern Med* 1997;157:2501-2508.

39. Teich JM, Kuperman GJ, Bates DW. Clinical decision support: making the transition from the hospital to the community network. *Healthc Inf Manage* 1997;11(4):27-37.
40. Bates DW, Boyle DL, Rittenberg E, Kuperman GJ, Ma'Luf N, Menkin V, Winkelman JW, Tanasijevic MJ. What proportion of common diagnostic tests appear redundant? *Am J Med* 1998;104(4):361-368.
41. Sittig DF, Franklin M, Turetsky M, Sussman AJ, Bates DW, Komaroff AL, Teich J. Design and development of a computer-based clinical referral system for use within a physician hospital organization. In Cesnik et al. (Eds): *Proc of the 9th World Congress on Medical Informatics Conference Seoul, S. Korea Medinfo* 1998;9 Pt 1:98-102.
42. Kuperman GJ, Boyle D, Jha A, Rittenberg E, Ma'Luf N, Tanasijevic MJ, Teich JM, Winkelman J, Bates DW. How promptly are inpatients treated for critical laboratory results? *J Am Med Inform Assoc* 1998;5(1):112-119.
43. Jha AK, Kuperman GJ, Teich JM, Leape L, Shea B, Rittenberg E, Burdick E, Seger DL, Vander Vliet M, Bates DW. Identifying adverse drug events: development of a computer-based monitor and comparison with chart review and stimulated voluntary report. *J Am Med Inform Assoc* 1998;5(3):305-314.
44. Khorasani R, Goel PK, Ma'Luf NM, Fox LA, Seltzer SE, Bates DW. Trends in the use of radiology with inpatients: What has changed in a decade? *AJR Am J Roentgenol* 1998;170:859-861.
45. Bates DW, Makary MA, Teich JM, Pedraza L, Burstin H, Brennan TA. Asking residents about adverse events in a computer dialogue: How accurate are they? *Jt Comm J Qual Improv* 1998;24(4):197-202.
46. Bates DW, Parsonnet J, Ketchum PA, Miller EB, Novitsky TJ, Sands K, Hibberd PL, Graman PS, Lanken PN, Schwartz SJ. Limulus amoebocyte lysate assay for detection of endotoxin in patients with sepsis syndrome. AMCC Sepsis Project Working Group. *Clin Infect Dis* 1998 Sep; 27(3):582-591.
47. Shojanian KG, Yokoe D, Platt R, Fiskio J, Ma'luf N, Bates DW. Reducing vancomycin use utilizing a computer guideline: results of a randomized controlled trial. *J Am Med Inform Assoc* 1998; 5(6):554-562.
48. Jha AK, Kuperman GJ, Rittenberg E, Bates DW. Gender and utilization of ancillary services. *J Gen Intern Med* 1998 Jul;13(7):476-481.
49. Kuperman GJ, Sussman A, Schneider LI, Fiskio JM, Bates DW. Towards improving the accuracy of the clinical database: allowing outpatients to review their computerized data. *Proc AMIA Symp* 1998;22:220-4.

50. Bates DW, Leape L, Cullen DJ, Laird N, Petersen LA, Teich JM, Burdick E, Hickey M, Kleefield S, Shea B, Vander Vliet M, Seger D. Effect of computerized physician order entry and a team intervention on prevention of serious medication errors. *JAMA* 1998; 280(15):1311-1316.
51. Bates DW, Pappius E, Kuperman GJ, Sittig D, Burstin H, Fairchild D, Brennan TA, Teich JM. Using information systems to measure and improve quality. *Int J Med Inform* 1999;53:115-124.
52. Bates DW, Kuperman GJ, Rittenberg E, Teich JM, Fiskio J, Ma'luf N, Onderdonk A, Wybenga D, Winkelman J, Brennan TA, Komaroff AL, Tanasijevic M. A randomized trial of a computer-based intervention to reduce utilization of redundant laboratory tests. *Am J Med* 1999;106:144-150.
53. Cañas F, Tanasijevic MJ, Ma'luf N, Bates DW. Evaluating the appropriateness of digoxin level monitoring. *Arch Intern Med* 1999;159:363-368.
54. Tyrance PH, Sims S, Ma'luf N, Fairchild D, Bates DW. Capitation and its effects on physician satisfaction. *Cost Qual J* 1999;5:12-18.
55. Solomon DH, Bates DW, Horsky J, Burdick E, Schaffer JL, Katz JN. Development and validation of a patient satisfaction scale for musculoskeletal care. *Arthritis Care Res* 1999;12:96-100.
56. Nadler ES, Sims S, Tyrance PH, Fairchild DG, Brennan TA, Bates DW. Does a year make a difference? changes in physician satisfaction and perception in an increasingly capitated environment. *Am J Med* 1999;107:38-44.
57. Bates DW, Teich JM, Lee J, Seger D, Kuperman GJ, Boyle D, Leape L. The impact of computerized physician order entry on medication error prevention. *J Am Med Inform Assoc* 1999;6:313-321.
58. Teich JM, Glaser JP, Beckley RF, Aranow M, Bates DW, Kuperman GJ, Ward ME, Spurr C. The Brigham integrated computing system (BICS): advanced clinical systems in an academic hospital environment. *Int J Med Inform* 1999;54:197-208.
59. Leape LL, Cullen DJ, Clapp MD, Burdick E, Demonaco HJ, Erickson JI, Bates DW. Pharmacist participation on physician rounds and adverse drug events in the intensive care unit. *JAMA* 1999;282:267-270.
60. Kuperman GJ, Teich JM, Tanasijevic MJ, Ma'Luf N, Rittenberg E, Jha A, Fiskio J, Winkelman J, Bates DW. Improving response to critical laboratory results with automation: results of a randomized controlled trial. *J Am Med Inform Assoc* 1999;6:512-522.
61. Sittig DF, Gandhi TK, Franklin M, Turetsky M, Sussman AJ, Fairchild DG, Bates DW, Komaroff AL, Teich JM. A computer-based outpatient clinical referral system. *Int J Med Inform* 1999;55:149-158.
62. Solomon DH, Shmerling RH, Schur PH, Lew R, Fiskio J, Bates DW. A computer based intervention to reduce unnecessary serologic testing. *J Rheumatol* 1999;26:2578-2584.

63. Bates DW, Miller EB, Cullen DJ, Burdick L, Williams L, Laird N, Petersen LA, Small SD, Sweitzer BJ, Vander Vliet M, Leape LL. Patient risk factors for adverse drug events in hospitalized patients. ADE Prevention Study Group. *Arch Intern Med* 1999;159:2553-2560.
64. Abookire SA, Teich JM, Bates DW. An institution-based process to ensure clinical software quality. *Proc AMIA Symp* 1999;(1-2):461-5.
65. Meltzer D, Hiltz FL, Bates D. Implications of managed care for teaching hospitals: Comparisons of traditional and managed care medical services within a single institution. In: Cutler DM, editor. *The changing hospital industry: comparing not-for-profit and for-profit institutions*. Chicago and London: The University of Chicago Press; 2000. p. 249-272. A National Bureau of Economic Research Conference Report (NBER-C 2000).
66. Katz JN, Solomon DH, Schaffer JL, Horsky J, Burdick E, Bates DW. Outcomes of care and resource utilization among patients with knee or shoulder disorders treated by general internists, rheumatologists, or orthopedic surgeons. *Am J Med* 2000;108:28-35.
67. Poteat HT, Chen P, Loughlin KR, Winkelman JW, Allada R, Ma'luf N, Tanasijevic MJ, Bates DW. Appropriateness of prostate-specific antigen testing. *Am J Clin Pathol* 2000;113:421-428.
68. Gandhi TK, Burstin HR, Cook EF, Puopolo AL, Haas JS, Brennan TA, Bates DW. Drug complications in outpatients. *J Gen Intern Med* 2000;15:149-154.
69. Solomon DH, Schaffer JL, Katz JN, Horsky J, Burdick E, Nadler E, Bates DW. Can history and physical examination be used as markers of quality? An analysis of the initial visit note in musculoskeletal care. *Med Care* 2000;38:383-391.
70. Fortescue EB, Bates DW, Chertow GM. Predicting acute renal failure after coronary bypass surgery: cross validation of two risk-stratification algorithms. *Kidney Int* 2000;57:2594-2602.
71. Fortescue EB, Kahn K, Bates DW. Prediction rules for complications in coronary bypass surgery: a comparison and methodological critique. *Med Care* 2000;38:820-835.
72. Hsu C, Bates DW, Kuperman GJ, Curhan GC. Diabetes, hemoglobin a(1c), cholesterol, and the risk of moderate chronic renal insufficiency in an ambulatory population. *Am J Kidney Dis* 2000;36(2):272-281.
73. Gurwitz JH, Field TS, Avorn J, McCormick D, Jain S, Eckler M, Benser M, Edmondson AC, Bates DW. Incidence and preventability of adverse drug events in nursing homes. *Am J Med* 2000;109:87-94.
74. Gandhi TK, Sittig DF, Franklin M, Sussman AJ, Fairchild DG, Bates DW. Communication breakdown in the outpatient referral process. *J Gen Intern Med* 2000;15:626-631.
75. Pope GC, Ellis RP, Ash AS, Liu C, Ayanian JZ, Bates DW, Burstin H, Iezzoni LI, Ingber MJ. Principal inpatient diagnostic cost group model for Medicare risk adjustment. *Health Care Financ Rev* 2000 Spring;21(3):93-118.

76. Ash AS, Ellis RP, Pope GC, Ayanian JZ, Bates DW, Burstin H, Iezzoni LI, MacKay E, Yu W. Using diagnoses to describe populations and predict costs. *Health Care Financ Rev* 2000 Spring;21:7-28.
77. Teich TM, Merchia PR, Schmiz JL, Kuperman GJ, Spurr CD, Bates DW. Effects of computerized physician order entry on prescribing practices. *Arch Intern Med* 2000;160:2741-2747.
78. Abookire SA, Teich JM, Sandige HL, Paterno MD, Martin MT, Kuperman GJ, Bates DW. Improving allergy alerting in a computerized physician order entry system. *Proc AMIA Symp* 2000;(20 Suppl):2-6.
79. Del Fiol G, Rocha BH, Kuperman GJ, Bates DW, Nohama P. Comparison of two knowledge bases on the detection of drug-drug interactions. *Proc AMIA Symp* 2000;(20 Suppl):171-175.
80. Kuperman GJ, Spurr C, Bates D, Glaser J. A clinical information systems strategy for a large integrated delivery network. *Proc AMIA Symp* 2000;(20 Suppl):438-442.
81. Wang SJ, Kuperman GJ, Ohno-Machado L, Onderdonk A, Sandige H, Bates DW. Using electronic data to predict the probability of true bacteremia from positive blood cultures. *Proc AMIA Symp* 2000;(20 Suppl):893-897.
82. Abookire SA, Karson AS, Fiskio J, Bates DW. Use and monitoring of "Statin" lipid-lowering drugs compared with guidelines. *Arch Intern Med* 2001;161:53-58.
83. Hsu CY, Bates DW, Kuperman GJ, Curhan GC. Relationship between hematocrit and renal function in men and women. *Kidney Int* 2001;59:725-731.
84. Rothschild JM, Khorasani R, Silverman SG, Hanson RW, Fiskio JM, Bates DW. Abdominal cross-sectional imaging for inpatients with abnormal liver function test results. *Arch Intern Med* 2001;161:583-588.
85. Bates DW, Su L, Yu DT, Chertow GM, Seger DL, Gomes DRJ, Dasbach EJ, Platt R. Mortality and costs of acute renal failure associated with amphotericin B therapy. *Clin Infect Dis* 2001;32:686-693.
86. Honigman B, Light P, Pulling RM, Yu T, Bates DW. A computerized method for identifying incidents associated with adverse drug events in outpatients. *Int J Med Inform* 2001;61(1):21-32.
87. Kaushal R, Bates DW, Landrigan C, McKenna KJ, Clapp MD, Federico F, Goldmann DA. Medication errors and adverse drug events in pediatric inpatients. *JAMA* 2001;285(16):2114-2120.
88. Honigman B, Lee J, Rothschild J, Light P, Pulling RM, Yu T, Bates DW. Using computerized data to identify adverse drug events in outpatients. *J Am Med Inform Assoc* 2001;8:254-266.
89. Paramore LC, Halpern MT, Lapuerta P, Frost FJ, Hurley JS, Fairchild D, Bates D. Impact of poorly controlled hypertension on healthcare resource utilization and cost. *Am J Manag Care* 2001;7:389-398.

90. Jha AK, Kuperman GJ, Rittenberg E, Teich JM, Bates DW. Identifying hospital admissions due to adverse drug events using a computer-based monitor. *Pharmacoepidemiol Drug Saf* 2001;10:113-119.
91. Field TS, Gurwitz JH, Avorn J, McCormick D, Jain S, Eckler M, Benser M, Bates DW. Risk factors for adverse drug events among nursing home residents. *Arch Intern Med* 2001;161:1629-1634.
92. Chertow GM, Lee J, Kuperman GJ, Burdick E, Horsky J, Seger DL, Lee R, Mekala A, Song J, Komaroff AL, Bates DW. Guided medication dosing for inpatients with renal insufficiency. *JAMA* 2001;286:2839-2844.
93. Barsky AJ, Ettner SL, Horsky J, Bates DW. Resource utilization of patients with hypochondriacal health anxiety and somatization. *Med Care* 2001;39:705-715.
94. Senst BL, Achusim LE, Genest RP, Cosentino LA, Ford CC, Little JA, Raybon SJ, Bates DW. Practical approach to determining costs and frequency of adverse drug events in a health care network. *Am J Health-Syst Pharm* 2001;58(12):1126-1132.
95. Maviglia SM, Teich JM, Fiskio J, Bates DW. Using an electronic medical record to identify opportunities to improve compliance with cholesterol guidelines. *J Gen Intern Med* 2001;16:531-537.
96. Shu K, Boyle D, Spurr C, Horsky J, Heiman H, O'Connor P, Lepore J, Bates DW. Comparison of time spent writing orders on paper with computerized physician order entry. In: Patel VL, Rogers R, Haux R, editors. *MEDINFO 2001. Proceedings of the 10th World Congress on Medical Informatics*; Sep 2-5, London, UK. Amsterdam: IOS Press; 2001. P. 1207-11.
97. Solomon DH, Bates DW, Schaffer J, Horsky J, Burdick E, Katz J. Referrals for musculoskeletal disorders: patterns, predictors, and outcomes. *J Rheumatol* 2001;28:2090-2095.
98. Kuperman GJ, Teich JM, Gandhi TK, Bates DW. Patient safety and computerized medication ordering at Brigham and Women's Hospital. *Jt Comm J Qual Improv* 2001;27:509-521.
99. Bates DW, Su L, Yu DT, Chertow GM, Seger DL, Gomes RJ, Platt R. Correlates of acute renal failure in patients receiving parenteral amphotericin B. *Kidney Int* 2001;60:1452-1459.
100. Fairchild DG, McLoughlin KS, Gharib S, Horsky J, Portnow M, Richter J, Gagliano N, Bates DW. Productivity, quality, and patient satisfaction. comparison of part-time and full-time primary care physicians. *J Gen Intern Med* 2001;16:663-667.
101. Fortescue EB, Kahn K, Bates DW. Development and validation of a clinical prediction rule for major adverse outcomes in coronary bypass grafting. *Am J Cardiol* 2001;88:1251-1258.
102. Pope GC, Kautter J, Ash AS, Ellis RP, Ayanian JZ, Bates DW, Iezzoni LI, Marcantonio E. Parsimonious risk adjustment models for medicare. Health Economics Research, Inc. Report, December 21, 2001. (Prepared for: Centers for Medicare & Medicaid Services, Contract No. 500-95-048).

103. Hsu C, Bates DW, Kuperman GJ, Curhan GC. Blood pressure and angiotensin converting enzyme inhibitor use in hypertensive patients with chronic renal insufficiency. *Am J Hypertens* 2001;14:1219-1225.
104. Flynn EA, Barker KN, Pepper GA, Bates DW, Leape LL, Mikeal RL. Comparison of methods for detecting medication errors in 36 hospitals and skilled-nursing facilities. *Am J Health Syst Pharm* 2002;59:436-445.
105. Fairchild DG, Hogan J, Smith R, Portnow M, Bates DW. Survey of primary care physicians and home care clinicians. *J Gen Intern Med* 2002;17:253-257.
106. Birkmeyer CM, Lee J, Bates DW, Birkmeyer JD. Will electronic order entry reduce healthcare costs? *Eff Clin Pract* 2002;5(2):67-74.
107. Poon EG, Kuperman GJ, Fiskio J, Bates DW. Real-time notification of laboratory data requested by users through alphanumeric pagers. *J Am Med Inform Assoc* 2002;9:217-222.
108. Rothschild JM, Lee TH, Bae T, Bates DW. Clinician use of a palmtop drug reference guide. *J Am Med Inform Assoc* 2002;9:223-229.
109. Doolan DF, Bates DW. Computerized physician order entry systems in hospitals: mandates and incentives. *Health Aff* 2002;12:180-188.
110. Barker KN, Flynn EA, Pepper GA, Bates DW, Mikeal RL. Medication errors observed in 36 healthcare facilities. *Arch Intern Med* 2002;162:1897-1903.
111. Kaushal R, Bates DW. Information technology and medication safety: what is the benefit? *Qual Saf Health Care* 2002;11:261-265.
112. Rothschild JM, Khorasani R, Hanson RW, Fiskio JM, Bates DW. Do abnormal liver function tests predict inpatient imaging yield? An evaluation of clinical decision making. *J Eval Clin Pract* 2002;8:397-406.
113. Rothschild JM, Federico FA, Gandhi TK, Kaushal R, Williams DH, Bates DW. Analysis of medication-related malpractice claims: causes, preventability, and costs. *Arch Intern Med* 2002;162:2414-2420.
114. Doolan DF, Bates DW, James BC. The use of computers for clinical care: a case series of advanced U.S. sites. *J Am Med Inform Assoc* 2003 Jan-Feb;10:94-107.
115. Wang SJ, Blumenfeld BH, Roche SE, Greim JA, Burk KE, Gandhi TK, Bates DW, Kuperman GJ. End of visit: design considerations for an ambulatory order entry module. *Proc AMIA Symp* 2002;864-8.

116. Khorasani R, Cheng D, Bates DW, Lippert J, Eslami M, Seltzer SE, Brooks DC, Doubilet PM. Has the use of appendiceal ultrasonography been effective in reducing the negative appendectomy rate? *J Clin Outcome Manage* 2003;10(1):19-23.
117. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med.* 2003;138(3):161-167.
118. Fortescue EB, Kahn K, Bates DW. Fortescue EB, Kahn K, Bates DW. Major adverse outcomes after percutaneous transluminal coronary angioplasty: a clinical prediction rule. *J Clin Epidemiol* 2003;56:17-27.
119. Bates DW, Yu DT, Black E, Sands KE, Schwartz JS, Hibberd PL, Graman PS, Lanken PN, Kahn KL, Snyderman DR, Parsonnet J, Moore R, Platt R. Resource utilization among patients with sepsis syndrome. *Infect Control Hosp Epidemiol* 2003;24:62-70.
120. Maviglia SM, Zielstorff RD, Paterno M, Teich JM, Bates DW, Kuperman GJ. Automating complex guidelines for chronic disease: lessons learned. *J Am Med Inform Assoc* 2003;10:154-165.
121. Gurwitz JH, Field TS, Harrold LR, Rothschild J, Debellis K, Seger AC, Cadoret C, Fish LS, Garber L, Kelleher M, Bates DW. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA* 2003;289:1107-1116.
122. Shapiro NI, Wolfe RE, Moore RB, Smith E, Burdick E, Bates DW. Mortality in emergency department sepsis (MEDS) score: a prospectively derived and validated clinical prediction rule. *Crit Care Med* 2003;31:670-675.
123. Chen P, Tanasijevic MJ, Schoenenberger RA, Fiskio J, Kuperman GJ, Bates DW. A computer-based intervention for improving the appropriateness of antiepileptic drug level monitoring. *Am J Clin Path* 2003;119:432-438.
124. Silverman JB, Stapinski CD, Churchill WW, Neppel C, Bates DW, Gandhi TK. Multifaceted approach to reducing preventable adverse drug events. *Am J Health Syst Pharm* 2003 Mar 15;60(6):582-586.
125. Fortescue EB, Kaushal R, Landrigan CP, McKenna KJ, Clapp MD, Federico F, Goldmann DA, Bates DW. Prioritizing strategies for preventing medication errors and adverse drug events in pediatric inpatients. *Pediatrics* 2003 111(4):722-729.
126. Gandhi TK, Weingart SN, Borus J, Seger AC, Peterson J, Burdick E, Seger DL, Shu K, Federico F, Leape LL, Bates DW. Patient safety - adverse drug events in ambulatory care. *N Engl J Med* 2003;348:1556-1564.
127. Hobbs J, Wald J, Jagannath YS, Kittler A, Pizziferri L, Volk LA, Middleton B, Bates DW. Opportunities to enhance patient and physician e-mail contact. *Int J Med Inform* 2003;70:1-9.

128. Wang SJ, Middleton B, Prosser LA, Bardon CG, Spurr CD, Carchidi PJ, Kittler AF, Goldszer RC, Fairchild DG, Sussman AJ, Kuperman GJ, Bates DW. A cost-benefit analysis of electronic medical records in primary care. *Am J Med* 2003;114:397-403.
129. Grasso BC, Genest R, Jordan CW, Bates DW. Use of chart and record reviews to detect medication errors in a state psychiatric hospital. *Psychiatr Serv* 2003;54:677-681.
130. Yu DT, Black E, Sands KE, Schwartz JS, Hibberd PL, Graman PS, Lanken PN, Kahn KL, Snyderman DR, Parsonnet J, Moore R, Platt R, Bates DW. Severe sepsis: variation in resource and therapeutic modality use among academic centers. *Crit Care* 2003;7:R24-R34.
131. Khorasani R, Bates DW, Teager S, Rothschild JM, Adams DF, Seltzer SE. Is terminology used effectively to convey diagnostic certainty in radiology reports? *Acad Radiol* 2003;10:685-688.
132. Grasso BC, Rothschild JM, Genest R, Bates DW. Patient safety. what do we know about medication errors in inpatient psychiatry? *Jt Comm J Qual Improv* 2003;29(8):391-499.
133. Stelfox HT, Bates DW, Redelmeier DA. Safety of patients isolated for infection control. *JAMA* 2003;290: 1899-1905.
134. Murff HJ, Gandhi TK, Karson AK, Mort EA, Poon EG, Wang SJ, Fairchild DG, Bates DW. Primary care physician attitudes concerning follow-up of abnormal test results and ambulatory decision support systems. *Int J Med Inform* 2003;71:137-149.
135. Bates DW, Kuperman GJ, Wang S, Gandhi T, Kittler A, Volk L, Spurr C, Khorasani R, Tanasijevic M, Middleton B. Ten commandments for effective clinical decision support: making the practice of evidence-based medicine a reality. *J Am Med Inform Assoc* 2003;10(6):523-530.
136. Kuperman GJ, Gandhi TK, Bates DW. Effective drug-allergy checking: methodological and operational issues. *J Biomed Inform* 2003;36:70-79.
137. Poon EG, Wang SJ, Gandhi TK, Bates DW, Kuperman GJ. Design and implementation of a comprehensive outpatient results manager. *J Biomed Inform* 2003;36:80-91.
138. Hope C, Overhage JM, Seger A, Teal E, Mills V, Fiskio J, Gandhi TK, Bates DW, Murray MD. A tiered approach is more cost effective than traditional pharmacist-based review for classifying computer-detected signals as adverse drug events. *J Biomed Inform* 2003;36:92-98.
139. Murff HJ, Forster AJ, Peterson JF, Fiskio JM, Heiman HL, Bates DW. Electronically screening discharge summaries for adverse medical events. *J Am Med Inform Assoc* 2003;10(4):339-350.
140. Frankel A, Gandhi TK, Bates DW. Improving patient safety across a large integrated health delivery system. *Int J Qual Health Care* 2003;15(Supplement I):i31-i40.
141. Yu DT, Platt R, Lanken PN, Black E, Sands KE, Schwartz JS, Hibberd PL, Graman PS, Kahn KL, Snyderman DR, Parsonnet J, Moore R, Bates DW. Relationship of pulmonary artery catheter use to mortality and resource utilization in patients with severe sepsis. *Crit Care Med* 2003;31:2734-2741.

142. Kuperman GJ, Marston E, Paterno M, Rogala J, Plaks N, Hanson C, Blumenfeld B, Middleton B, Spurr CD, Kaushal R, Gandhi TK, Bates DW. Creating an Enterprise-wide Allergy Repository At Partners HealthCare System. *Proc AMIA Symp* 2003;376-80.
143. Wang SJ, Bates DW, Chueh HC, Karson AS, Maviglia SM, Greim JA, Frost JP, Kuperman GJ. Automated coded ambulatory problem lists: evaluation of a vocabulary and a data entry tool. *Int J Med Inform* 2003;72:17-28.
144. Stelfox HT, Ahmed SB, Fiskio J, Bates DW. Monitoring amiodarone's toxicities: recommendations, evidence, and clinical practice. *Clin Pharmacol Ther* 2004;75(1):110-122.
145. Hobbs J, Kittler AF, Fox S, Middleton B, Bates DW. Communicating health information to an alarmed public facing a threat such as a bioterrorist attack. *J Health Commun* 2004;9(1):67-75.
146. Poon EG, Haas JS, Puopolo L, Gandhi TK, Burdick E, Bates DW, Brennan TA. Communication factors in the follow-up of abnormal mammograms. *J Gen Intern Med* 2004;19(4):316-323.
147. Kittler AF, Hobbs J, Volk LA, Kreps GL, Bates DW. The Internet as a vehicle to communicate health information during a public health emergency: a survey analysis involving the anthrax scare of 2001. *J Med Internet Res*. 2004 Mar 3;6(1):e8. URL <http://www.jmir.org/2004/1/e8/>.
148. Keating NL, Gandhi TK, Orav EJ, Bates DW, Ayanian JZ. Patient characteristics and experiences associated with trust in specialist physicians. *Arch Intern Med* 2004;164:1015-1020.
149. Feifer C, Fifield J, Ornstein S, Karson AS, Bates DW, Jones KR, Vargas PA. From research to daily clinical practice: what are the challenges in "translation"? *Jt Comm J Qual Saf* 2004;30(5):235-45.
150. Morimoto T, Gandhi TK, Fiskio JM, Seger AC, So JW, Cook EF, Fukui T, Bates DW. Development and validation of a clinical prediction rule for angiotensin-converting enzyme inhibitor-induced cough. *J Gen Intern Med* 2004;19:684-691.
151. Poon EG, Blumenthal D, Jaggi T, Honour MM, Bates DW, Kaushal R. Overcoming barriers to adopting and implementing computerized physician order entry systems in U.S. hospitals. *Health Aff* 2004;23:184-190.
152. Yasnoff WA, Humphreys BL, Overhage JM, Detmer DE, Brennan PF, Morris RW, Middleton B, Bates DW, Fanning JP. A consensus action agenda for achieving the national health information infrastructure. *J Am Med Inform Assoc* 2004 11(4):332-338.
153. Van De Castle B, Kim J, Pedreira ML, Paiva A, Goossen W, Bates DW. Information technology and patient safety in nursing practice: an international perspective. *Int J Med Inf*. 2004 73(7-8):607-614.
154. Field TS, Gurwitz JH, Harrold LR, Rothschild J, DeBellis KR, Seger AC, Auger JC, Garber LA, Cadoret C, Fish LS, Garber LD, Kelleher M, Bates DW. Risk factors for adverse drug events among older adults in the ambulatory setting. *J Am Geriatr Soc* 2004;52(8):1349-1354.

155. Morimoto T, Gandhi TK, Seger AC, Hsieh TC, Bates DW. Adverse drug events and medication errors: detection and classification methods. *Qual Saf Health Care* 2004;13:306-314.
156. Heiman H, Bates DW, Fairchild D, Shaykevich S, Lehmann LS. Improving completion of advance directives in the primary care setting: a randomized controlled trial. *Am J Med* 2004 117(5):318-324.
157. Morimoto T, Gandhi TK, Fiskio JM, Seger AC, So JW, Cook EF, Fukui T, Bates DW. An evaluation of risk factors for adverse drug events associated with angiotensin-converting enzyme inhibitors. *J Eval Clin Pract* 2004;10(4):499-509.
158. Stelfox HT, Ahmed SB, Fiskio J, Bates DW. An evaluation of the adequacy of outpatient monitoring of thyroid replacement therapy. *J Eval Clin Pract* 2004;10(4):525-530.
159. Murff HJ, Orav EJ, Lee TH, Bates DW, Fairchild DG. Patient satisfaction profiling of individual physicians: impact of panel status. *J Eval Clin Pract* 2004;10(4):553-561.
160. Landrigan CP, Rothschild JM, Cronin JW, Kaushal R, Burdick E, Katz JT, Lilly CM, Stone PH, Lockley SW, Bates DW, Czeisler CA. Effect of reducing interns' work hours on serious medical errors in intensive care units. *N Engl J Med* 2004;351(18):1838-1848.
161. Poon EG, Gandhi TK, Sequist TD, Murff HJ, Karson AS, Bates DW. "I wish I had seen this test result earlier!": dissatisfaction with test-result management systems in primary care. *Arch Intern Med* 2004;164:2223-2228.
162. Hsieh TC, Kuperman GJ, Jaggi T, Hojnowski-Diaz P, Fiskio J, Williams DH, Bates DW, Gandhi TK. Characteristics and consequences of drug-allergy alert overrides in a computerized physician order entry system. *J Am Med Inform Assoc* 2004;11(6):482-491.
163. Field TS, Gurwitz JH, Harrold LR, Rothschild JM, Debellis K, Seger AC, Fish LS, Garber L, Kelleher M, Bates DW. Strategies for detecting adverse drug events among older persons in the ambulatory setting. *J Am Med Inform Assoc* 2004;11(6):492-498.
164. McNaughton-Collins M, Barry MJ, Caubet JF, Bates DW, Lee JM, Hauser A, Fowler FJ Jr. Validity of primary care patient self-report of abnormal (but not cancer) prostate biopsy results. *J Urol* 2004;172(6, Part 1 of 2):2366-2368.
165. McNaughton-Collins M, Fowler FJ Jr, Caubet JF, Bates DW, Lee JM, Hauser A, Barry MJ. Psychological effects of a suspicious prostate cancer screening test followed by benign biopsy result. *Am J Med* 2004;117(10):719-725.
166. Kittler AF, Carlson GL, Harris C, Lippincott M, Pizziferri L, Volk LA, Jagannath Y, Wald J, Bates DW. Primary care physician attitudes towards using a secure web-based portal designed to facilitate electronic communication with patients. *Inform Prim Care* 2004;12(3):129-138.

167. Persell SD, Heiman HL, Weingart SN, Burdick E, Borus JS, Murff HJ, Bates DW, Gandhi TK. Understanding of drug indications by ambulatory care patients. *Am J Health-Syst Pharm* 2004;61:2523-2527.
168. Wang T, Pizziferri L, Volk LA, Mikels DA, Wald JS, Bates DW. Implementing patient access to electronic health records under HIPAA: lessons learned. *Perspect Health Inf Manag* 2004;1:11. http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_025377.pdf
169. Solomon DH, Brookhart MA, Gandhi TK, Karson A, Gharib S, Orav EJ, Shaykevich S, Licari A, Cabral D, Bates DW. Adherence with osteoporosis practice guidelines: a multilevel analysis of patient, physician, and practice setting characteristics. *Am J Med* 2004;117(12):919-924.
170. Hicks LS, Fairchild DG, Horng MS, Orav EJ, Bates DW, Ayanian JZ. Determinants of JNC VI guideline adherence, intensity of drug therapy, and blood pressure control by race and ethnicity. *Hypertension* 2004;44:429-434.
171. Walker J, Pan E, Johnston D, Adler-Milstein J, Bates DW, Middleton B. The value of health care information exchange and interoperability. *Health Aff* 2005 (Millwood);10.1377:W5 10-18. <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.w5.10>
172. Sequist TD, Bates DW, Cook EF, Lampert S, Schaefer M, Wright J, Sato L, Lee TH. Prediction of missed myocardial infarction among symptomatic outpatients without coronary heart disease. *Am Heart J* 2005;149(1):74-81.
173. Weingart SN, Gandhi TK, Seger AC, Seger DL, Borus J, Burdick E, Leape LL, Bates DW. Patient-reported medication symptoms in primary care. *Arch Intern Med* 2005;165(2):234-240.
174. Hanna D, Griswold P, Leape L, Bates DW. Communicating critical test results: safe practice recommendations. *Jt Comm J Qual Patient Saf* 2005;31(2):68-80.
175. Gurwitz JH, Field TS, Judge J, Rochon P, Harrold LR, Cadoret C, Lee M, White K, LaPrino J, Erramuspe-Mainard J, DeFlorio M, Gavendo L, Auger J, Bates DW. The incidence of adverse drug events in two large academic long-term care facilities. *Am J Med* 2005;118(3):251-258.
176. Rothschild JM, Keohane CA, Cook EF, Orav EJ, Burdick E, Thompson S, Hayes J, Bates DW. A controlled trial of smart infusion pumps to improve medication safety in critically ill patients. *Crit Care Med* 2005;33(3):533-540.
177. Persell SD, Maviglia SM, Bates DW, Ayanian JZ. Persell SD, Maviglia SM, Bates DW, Ayanian JZ. Ambulatory hypercholesterolemia management in patients with atherosclerosis: gender and race differences in processes and outcomes. *J Gen Intern Med* 2005;20:123-130.
178. Peterson JS, Kuperman GJ, Shek C, Patel M, Avorn J, Bates DW. Guided prescription of psychotropic medications for geriatric inpatients. *Arch Intern Med* 2005;165:802-807.
179. Bates DW, Vanderveen T, Seger D, Yamaga C, Rothschild J. Variability in intravenous medication practices: implications for medication safety. *Jt Comm J Qual Patient Saf* 2005;31(4):203-210.

180. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. Adverse drug events occurring following hospital discharge. *J Gen Intern Med* 2005;20(4):317-323.
181. Pizziferri L, Kittler AF, Volk LA, Honour MM, Gupta S, Wang S, Wang T, Lippincott M, Li Q, Bates DW. Primary care physician time utilization before and after implementation of an electronic health record: a time-motion study. *J Biomed Inform* 2005;38(3):176-188.
182. Hicks LS, Shaykevich S, Bates DW, Ayanian JZ. Determinants of racial/ethnic differences in blood pressure management among hypertensive patients. *BMC Cardiovasc Disord* 2005;5(1):16.
183. Sequist TD, Gandhi TK, Karson AS, Fiskio JM, Bugbee D, Sperling M, Cook EF, Orav EJ, Fairchild DG, Bates DW. A randomized trial of electronic clinical reminders to improve quality of care for diabetes and coronary artery disease. *J Am Med Inform Assoc* 2005;12(4):431-437.
184. Kaushal R, Blumenthal D, Poon EG, Jha AK, Franz C, Middleton B, Glaser J, Kuperman G, Christino M, Fernandopulle R, Newhouse JP, Bates DW; Cost of National Health Information Network Working Group. The costs of a national health information network. *Ann Intern Med* 2005;143(3):165-173.
185. Barsky AJ, Orav EJ, Bates DW. Somatization increases medical utilization and costs independent of psychiatric and medical comorbidity. *Arch Gen Psychiatry* 2005;62(8):903-910.
186. Rothschild JM, Landrigan CP, Cronin JW, Kaushal R, Lockley SW, Burdick E, Stone PH, Lilly CM, Katz JT, Czeisler CA, Bates DW. The Critical Care Safety Study: The incidence and nature of adverse events and serious medical errors in intensive care. *Crit Care Med*;2005;33(8):1694-1700.
187. Weingart SN, Pagovich O, Sands DZ, Li JM, Aronson MD, Davis RB, Bates DW, Phillips RS. What can hospitalized patients tell us about adverse events? learning from patient-reported incidents. *J Gen Intern Med* 2005;20(9):830-836.
188. Gandhi TK, Weingart SN, Seger AC, Borus J, Burdick E, Poon EG, Leape LL, Bates DW. Outpatient prescribing errors and the Impact of computerized prescribing. *J Gen Intern Med* 2005;20(9):837-841.
189. Bates DW. Physicians and ambulatory electronic health records. *Health Aff (Millwood)* 2005;24(5):1180-1189.
190. Kaushal R, Bates DW, Poon EG, Jha AK, Blumenthal D. Functional gaps in attaining a national health information network. *Health Aff (Millwood)* 2005;24(5):1281-1289.
191. Yu DT, Peterson JF, Seger DL, Gerth WC, Bates DW. Frequency of potential azole drug-drug interactions and consequences of potential fluconazole drug interactions. *Pharmacoepidemiol Drug Saf* 2005;14(11):755-767.
192. Linder JA, Bates DW, Platt R. Antivirals and antibiotics for influenza in the United States, 1995-2002. *Pharmacoepidemiol Drug Saf* 2005;14(8):531-536.

193. Rochon PA, Field TS, Bates DW, Lee M, Gavendo L, Erramuspe-Mainard J, Judge J, Gurwitz JH. Computerized physician order entry with clinical decision support in the long-term care setting: insights from the Baycrest Centre for Geriatric Care. *J Am Geriatr Soc* 2005;53(10):1780-1789.
194. Keohane CA, Hayes J, Saniuk C, Rothschild JM, Bates DW. Intravenous medication safety and smart infusion systems: lessons learned and future opportunities. *J Infus Nurs* 2005;28(5):321-328.
195. Linder JA, Bates DW, Lee GM, Finkelstein JA. Antibiotic treatment of children with sore throat. *JAMA* 2005;294(18):2315-2322.
196. Kennedy M, Bates DW, Wright SB, Ruiz R, Wolfe RE, Shapiro NI. Do emergency department blood cultures change practice in patients with pneumonia? *Ann Emerg Med* 2005;46(5):393-400.
197. Halamka J, Aranow M, Ascenzo C, Bates DW, Debor G, Glaser J, Goroll A, Stowe J, Tripathi M, Vineyard G. Health care IT collaboration in Massachusetts: the experience of creating regional connectivity. *J Am Med Inform Assoc* 2005 12(6):596-601.
198. Chertow GM, Burdick E, Honour M, Bonventre JV, Bates DW. Acute kidney injury, mortality, length of stay, and costs in hospitalized patients. *J Am Soc Nephrol* 2005;16(11):3365-3370.
199. Field TS, Gilman BH, Subramanian S, Fuller JC, Bates DW, Gurwitz JH. The costs associated with adverse drug events among older adults in the ambulatory setting. *Med Care* 2005;43(12):1171-1176.
200. Gandhi TK, Bartel SB, Shulman LN, Verrier D, Burdick E, Cleary A, Rothschild JM, Leape LL, Bates DW. Medication safety in the ambulatory chemotherapy setting. *Cancer* 2005;104(11):2477-2483.
201. Sun BC, Bates DW, Sussman A. Effects of a hospital formulary on outpatient drug switching. *J Clin Outcome Manage* 2005 Sep;12(9):459-463.
202. Wuerdeman L, Volk L, Pizziferri L, Tsurikova R, Harris C, Feygin R, Meyers EM, Lansky D, Wald JS, Bates DW. How accurate is information that patients contribute to their electronic health record? *AMIA Annu Symp Proc* 2005;:834-838.
203. Shah NR, Seger AC, Seger DL, Fiskio JM, Kuperman GJ, Blumenfeld B, Recklet EG, Bates DW, Gandhi TK. Improving acceptance of computerized prescribing alerts in ambulatory care. *J Am Med Inform Assoc* 2006;13(1):5-11.
204. Linder JA, Bates DW, Williams DH, Connolly MA, Middleton B. Acute infections in primary care: accuracy of electronic diagnoses and electronic antibiotic prescribing. *J Am Med Inform Assoc* 2006;13(1):61-66.
205. Maviglia SM, Yoon CS, Bates DW, Kuperman G. KnowledgeLink: impact of context sensitive information retrieval on clinicians' information needs. *J Am Med Inform Assoc* 2006;13(1):67-73.

206. Matin A, Bates DW, Sussman A, Ros P, Hanson R, Khorasani R. Inpatient radiology utilization: trends over the past decade. *AJR Am J Roentgenol* 2006;186(1):7-11.
207. Poon EG, Jha AK, Christino M, Honour MM, Fernandopulle R, Middleton B, Newhouse J, Leape L, Bates DW, Blumenthal D, Kaushal R. Assessing the level of healthcare information technology adoption in the United States: a snapshot. *BMC Med Inform Decis Mak* 2006 Jan 5;6(1):1.
208. Rothschild JM, Hurley AC, Landrigan CP, Cronin JW, Martell-Waldrop K, Foskett C, Burdick E, Czeisler CA, Bates DW. Recovery from medical errors: the critical care nursing safety net. *Jt Comm J Qual Patient Saf* 2006 Feb;32(2):63-72.
209. Cina JL, Gandhi TK, Churchill W, Fanikos J, McCrea M, Mitton P, Rothschild JM, Featherstone E, Keohane C, Bates DW, Poon EG. How many hospital pharmacy medication dispensing errors go undetected? *Jt Comm J of Quality and Safety* 2006 Feb;32(2):73-80.
210. Mann K, Hiemke C, Schmidt LG, Bates DW. Appropriateness of therapeutic drug monitoring for antidepressants in routine psychiatric inpatient care. *Ther Drug Monit* 2006 Feb;28(1):83-88.
211. Lasser KE, Seger DL, Yu DT, Karson AS, Fiskio JM, Seger AC, Shah NR, Gandhi TK, Rothschild JM, Bates DW. Adherence to black box warnings for prescription medications in outpatients. *Arch Intern Med* 2006 Feb;166(3):338-344.
212. Nicholson D, Hersh W, Gandhi TK, Weingart SN, Bates DW. Medications errors: not just a “few bad apples”. *J Clin Outcome Manage* 2006 Feb;13(2):114-115.
213. Kim J, Bates DW. Results of a survey on medical error reporting systems in Korean hospitals. *Int J Med Inform* 2006 Feb;75(2):148-155.
214. Schnipper JL, Kirwin JL, Cotugno C, Wahlstrom SA, Brown BA, Tarvin E, Kachalia A, Horng M, Roy CL, McKean SC, Bates DW. Role of pharmacist counseling in preventing adverse drug events after hospitalization. *Arch Intern Med* 2006 Mar;166(5):565-571.
215. Weingart SN, Pagovich O, Sands DZ, Li JM, Aronson MD, Davis RB, Phillips RS, Bates DW. Patient-reported service quality on a medicine unit. *Int J Qual Health Care* 2006 Apr;18(2):95-105.
216. Murray SB, Bates DW, Ngo L, Ufberg JW, Shapiro NI. Charlson index is associated with one-year mortality in emergency department patients with suspected infection. *Acad Emerg Med* 2006 May;13(5):530-536.
217. Schiff GD, Kim S, Seger AC, Bult J, Bates DW. Ability of practitioners to identify solid oral dosage tablets. *Am J Health Syst Pharm* 2006 May 1;63(9):838-843.
218. Halamka J, Aranow M, Ascenzo C, Bates DW, Berry K, Debor G, Fefferman J, Glaser J, Heinold J, Stanley J, Stone DL, Sullivan TE, Tripathi M, Wilkinson B. E-Prescribing collaboration in Massachusetts: early experiences from regional prescribing projects. *J Am Med Inform Assoc* 2006;13:239-244.

219. Kaushal R, Jha AK, Franz C, Glaser J, Shetty KD, Jaggi T, Middleton B, Kuperman GJ, Khorasani R, Tanasijevic M, Bates DW. Return on investment for a computerized physician order entry system. *J Am Med Inform Assoc* 2006;13:261-266.
220. Stelfox HT, Palmisani S, Scurlock C, Orav JE, Bates DW. The “to err is human” report and the patient safety literature. *Qual Saf Health Care* 2006;15(3):174-178.
221. Linder JA, Chan JC, Bates DW. Appropriateness of antiviral prescribing for influenza in primary care. *J Clin Pharm Ther* 2006;31(3):245-252.
222. Stebbing C, Kaushal R, Bates DW. Pediatric medication safety and the media: what does the public see? *Pediatrics* 2006;117(6):1907-1914.
223. Fowler FJ Jr, Barry MJ, Walker-Corkery BW, Caubet JF, Bates DW, Lee JM, Hauser A, McNaughton-Collins M. The impact of a suspicious prostate biopsy on patients’ psychological, socio-behavioral, and medical care outcomes. *J Gen Intern Med* 2006;21(7):715-721.
224. Linder JA, Chan JC, Bates DW. Evaluation and treatment of pharyngitis in primary care practice: the difference between guidelines is largely academic. *Arch Intern Med* 2006;166(13):1374-1379.
225. Judge J, Field TS, DeFlorio M, Laprino J, Auger J, Rochon P, Bates DW, Gurwitz JH. Prescribers’ responses to alerts during medication ordering in the long term care setting. *J Am Med Inform Assoc* 2006;13(4):385-390.
226. Desai AA, Desai P, Blum M, Bates DW. Leveraging change: educational opportunities in information technology implementation. *J Clin Outcome Manage* 2006;13(7):372-381.
227. Bootman JL, Cronenwett LR, Bates DW, Califf RM, Cannon HE, Chater RW, Cohen MR, Conway JB, Evans RS, Flynn EA, Gurwitz JH, Inlander CB, Johnson KB, Pace WD, Stevens KR, Westrick E, Wu AW. Committee on Identifying and Preventing Medication Errors. Preventing medication errors. Institute of Medicine. Washington: The National Academies Press; 2006.
228. Leape LL, Rogers G, Hanna D, Griswold P, Federico F, Fenn CA, Bates DW, Kirle L, Clarridge BR. Developing and implementing new safe practices: voluntary adoption through statewide collaboratives. *Qual Saf Health Care* 2006;15(4):289-295.
229. Barsky AJ, Orav EJ, Bates DW. Distinctive patterns of medical care utilization in patients who somatize. *Med Care* 2006;4(9):803-811.
230. Stebbing C, Macklin A, Barber N, Bates DW. A comparison of the US and UK inpatient medication systems. *The European Journal of Hospital Pharmacy Practice* 2006;12(4):36-40.
231. McLoughlin V, Millar J, Mattke S, Franca M, Jonsson PM, Somekh D, Bates D. Selecting indicators for patient safety at the health system level in OECD countries. *Int J Qual Health Care* 2006;18(1):14-20.

232. Poon EG, Cina JL, Churchill W, Patel N, Featherstone E, Rothschild JM, Keohane CA, Whittemore AD, Bates DW, Gandhi TK. Medication dispensing errors and potential adverse drug events before and after implementing bar code technology in the pharmacy. *Ann Intern Med* 2006;145(6):426-434.
233. Staroselsky M, Volk LA, Tsurikova R, Pizziferri L, Lippincott M, Wald J, Bates DW. Improving electronic health record (EHR) accuracy and increasing compliance with health maintenance clinical guidelines through patient access and input. *Int J Med Inform* 2006;75(10):693-700.
234. Shapiro N, Howell MD, Bates DW, Angus DC, Ngo L, Talmor D. The association of sepsis syndrome and organ dysfunction with mortality in emergency department patients with suspected infection. *Ann Emerg Med*. 2006;48(5):583-90, 590.e1.
235. Rothschild JM, Fang E, Liu V, Litvak I, Yoon C, Bates DW. Use and perceived benefits of handheld computer-based clinical references. *J Am Med Inform Assoc* 2006 13(6):619-626.
236. Yu DT, Seger DL, Peterson JF, Kumar RN, Bates DW. Fluconazole for empiric antifungal therapy in cancer patients with fever and neutropenia. *BMC Infect Dis* 2006;6:173.
237. Kilbridge PM, Classen D, Bates DW, Denham CR. The National Quality Forum safe practice standard for computerized physician order entry: updating a critical patient safety practice. *J Patient Saf* 2006;2(4):183-190.
238. Seger AC, Gandhi TK, Hope C, Overhage JM, Murray MD, Weber D, Fiskio J, Teal E, Bates DW. Development of a computerized adverse drug event (ADE) monitor in the outpatient setting using electronic medical record data. *Advances in Patient Safety: From Research to Implementation*. Agency for Healthcare Research and Quality. 2006;2:173-83.
239. Gross PA, Bates DW. A pragmatic approach to implementing best practices for clinical decision support systems in computerized provider order entry systems. *J Am Med Inform Assoc* 2007;14(1):25-28.
240. Classen D, Avery AJ, Bates DW. Evaluation and certification of computerized physician order entry systems. *J Am Med Inform Assoc* 2007;14(1):48-55.
241. Simon SR, Kaushal R, Cleary PD, Jenter CA, Volk LA, Poon EG, Orav EJ, Lo HG, Williams DH, Bates DW. Correlates of electronic health record adoption in office practices: a statewide survey. *J Am Med Inform Assoc* 2007;14(1):110-117.
242. Shapiro NI, Howell MD, Talmor D, Donnino M, Ngo L, Bates DW. Mortality in emergency department sepsis (MEDS) score predicts 1-year mortality. *Crit Care Med* 2007;35(1):192-198.
243. Rothschild JM, McGurk S, Honour M, Lu L, McClendon AA, Srivastava P, Churchill WH, Kaufman RM, Avorn J, Cook EF, Bates DW. Assessment of education and computerized decision support interventions for improving transfusion practice. *Transfusion* 2007;47:228-239.
244. Rothschild JM, Mann K, Keohane CA, Williams DH, Foskett C, Rosen SL, Flaherty L, Chu JA, Bates DW. Medication safety in a psychiatric hospital. *Gen Hosp Psychiatry* 2007;29(2):156-62.

245. Sequist TD, Cullen T, Hays H, Taulii MM, Simon SR, Bates DW. Implementation and use of an electronic health record within the Indian health service. *J Am Med Inform Assoc* 2007;14(2):191-197.
246. Simon SR, Kaushal R, Cleary PD, Jenter CA, Volk LA, Orav EJ, Burdick E, Poon G, Bates DW. Physicians and electronic health records. a statewide survey. *Arch Intern Med* 2007;167(5):507-512.
247. Weissman JS, Rothschild JM, Bendavid E, Sprivulis P, Cook EF, Evans RS, Kaganova Y, Bender M, David-Kasdan J, Haug P, Lloyd J, Selbovitz LG, Murff HJ, Bates DW. Hospital workload and adverse events. *Medical Care* 2007;45(5):448-455.
248. Maviglia SM, Yoo JY, Franz C, Featherstone E, Churchill W, Bates DW, Gandhi TK, Poon EG. Cost-benefit analysis of a hospital pharmacy bar code solution. *Arch Int Med* 2007;167(8):788-794.
249. Adler-Milstein J, Bu D, Pan E, Walker J, Kendrick D, Hook JM, Cusack, CM Bates DW, Middleton B. The cost of information technology-enabled diabetes management. *Dis Manag* 2007;10(3):115-128.
250. Bu D, Pan E, Walker J, Adler-Milstein J, Kendrick D, Hook JM, Cusack CM, Bates DW, Middleton B. Benefits of information technology-enabled diabetes management. *Diabetes Care* 2007;30(5):1137-1142.
251. Linder JA, Ma J, Bates DW, Middleton B, Stafford RS. Electronic health record use and the quality of ambulatory care in the United States. *Arch Intern Med* 2007;167(13):1400-1405.
252. Seger AS, Jha K, Bates DW. Adverse drug event detection in a community hospital utilising computerised medication and laboratory data. *Drug Saf* 2007;30(9):817-824.
253. Lo H, Newmark LP, Yoon C, Volk LA, Carlson V, Kittler A, Lippincott M, Wang T, Bates DW. Electronic health records in specialty care: a time-motion study. *J Am Med Inform Assoc* 2007;14(5):609-615.
254. Volk LA, Staroselsky M, Newmark LP, Pham H, Tumolo PH, Williams DH, Tsurikova R, Schnipper J, Wald J, Bates DW. Do physicians take action on high risk family history information provided by patients outside of a clinic visit? *Stud Health Technol Inform* 2007;12(Pt 1):13-17. MEDINFO 2007 – Proc of the 12th World Congress on Health (Medical) Informatics – Building Sustainable Health Systems, Kuhn KA, Warren JR, Leong T, eds.
255. Poon EG, Wald J, Schnipper JL, Grant R, Gandhi TK, Volk LA, Bloom A, Williams DH, Gardner K, Epstein M, Nelson L, Businger A, Li Q, Bates DW, Middleton B. Empowering patients to improve the quality of their care: design and implementation of a shared health maintenance module in a US integrated healthcare delivery network. *Stud Health Technol Inform* 2007;129(Pt 2):1002-1006. MEDINFO 2007 – Proc of the 12th World Congress on Health (Medical) Informatics – Building Sustainable Health Systems, Kuhn KA, Warren JR, Leong T, eds.

256. Issa AM, Phillips KA, Van Bebber S, Nidamarthy HG, Lasser KE, Haas JS, Alldredge BK, Wachter RM, Bates DW. Drug withdrawals in the United States: a systematic review of the evidence and analysis of trends. *Drug Saf* 2007;2:177-185.
257. Kaushal R, Goldmann DA, Keohane CA, Christino M, Honour M, Hale AS, Zigmont K, Lehmann LS, Perrin J, Bates DW. Adverse drug events in pediatric outpatients. *Ambul Pediatr* 2007;7(5):383-389.
258. Snyder RA, Abarca J, Meza JL, Rothschild JM, Rizos A, Bates DW. Reliability evaluation of the adapted National Coordinating Council Medication Error Reporting and Prevention (NCC MERP) index. *Pharmacoepidemiol Drug Saf* 2007;16:1006-1013.
259. Matheny ME, Gandhi TK, Orav EJ, Ladak-Merchant Z, Bates DW, Kuperman GJ, Poon EG. Impact of an automated test results management system on patients' satisfaction result communication. *Arch Intern Med* 2007;167(20):2233-2239.
260. Fiumara K, Moniz T, Churchill WM, Bane A, Luppi CJ, Bates DW, Gandhi TK. Case study on the use of health care technology to improve medication safety. In: Porche RA, editor. *Medication use: a systems approach to reducing errors*, second edition. Oakbrook, Illinois: Joint Commission Resources; 2007. pp. 103-114.
261. Teasdale S, Bates D, Kmetik K, Suzewits J, Bainbridge M. Secondary use of clinical data in primary care. *Inform Prim Care* 2007;15(3):157-166.
262. Sprivulis P, Walker J, Johnston D, Pan E, Adler-Milstein J, Middleton B, Bates DW. The economic benefits of health information exchange interoperability for Australia. *Aust Health Rev* 2007;31(4):531-539.
263. Kaushal R, Bates DW, Franz C, Soukup JR, Rothschild JM. Costs of adverse events in intensive care units. *Crit Care Med* 2007;35(22):2479-2483.
264. Hripcsak G, Kaushal R, Johnson KB, Ash JS, Bates DW, Block R, Frisse ME, Kern LM, Marchibroda J, Overhage JM, Wilcox AB. The United Hospital Fund meeting on evaluating health information exchange. *J Biomed Inform* 2007 Dec;40(6 Suppl):S3-10.
265. Adler-Milstein J, McAfee AP, Bates DW, Jha AK. The state of regional health information organizations: current activities and financing. *Health Aff* 2008;27(1):w60-w69.
266. Keohane CA, Bane AD, Featherstone E, Hayes J, Woolf S, Hurley A, Bates DW, Gandhi, TK, Poon EG. Quantifying nursing workflow in medication administration. *J Nurs Adm* 2008;38(1):19-26.
267. Zandieh SO, Goldmann DA, Keohane CA, Yoon C, Bates DW, Kaushal R. Risk factors in preventable adverse drug events among pediatric outpatients. *J Pediatr* 2008;152(2):225-231.
268. Simon SR, McCarthy ML, Kaushal R, Jenter CA, Volk LA, Poon EG, Yee KC, Orav EJ, Williams DH, Bates DW. Electronic health records: which practices have them, and how are clinicians using them? *J Eval Clin Pract* 2008;14(1):43-47.

269. Taylor BB, Marcantonio ER, Pagovich O, Carbo A, Bergmann M, Davis RB, Bates DW, Phillips RS, Weingart SN. Do medical inpatients who report poor service quality experience more adverse events and medical errors? *Med Care* 2008;46(2):224-228.
270. Staroselsky M, Volk LA, Tsurikova R, Newmark LP, Lippincott M, Litvak I, Kittler A, Wang T, Wald J, Bates DW. An effort to improve electronic health record medication list accuracy between visits: patients' and physicians' response. *Int J Med Inform* 2008;77(3):153-160.
271. Weingart SN, Hamrick HE, Tutkus S, Carbo A, Sands DZ, Tess A, Davis RB, Bates DW, Phillips RS. Medication safety messages for patients via the web portal: the MedCheck intervention. *Int J Med Inform* 2008;77:161-168.
272. Hicks LS, Sequist TD, Ayanian JZ, Shaykevich S, Fairchild DG, Orav EJ, Bates DW. Impact of computerized decision support on blood pressure management and control: a randomized controlled trial. *J Gen Intern Med* 2008;23(4):429-441.
273. Sittig DF, Wright A, Osheroff JA, Middleton B, Teich JM, Ash JS, Campbell E, Bates DW. Grand challenges in clinical decision support. *J Biomed Inform* 2008;41(2):387-392.
274. Rothschild JM, Woolf S, Finn KM, Friedberg MW, Lemay C, Furbush KA, Williams DH, Bates DW. A controlled trial of a rapid response system in an academic medical center. *Jt Comm J Qual Patient Saf* 2008;34(7):417-425, 365.
275. Kaushal R, Bates DW, Abramson EL, Soukup JR, Goldmann DA. Unit-based clinical pharmacists' prevention of serious medication errors in pediatric inpatients. *Am J Health Syst Pharm* 2008;65(13):1254-1260.
276. Matheny EM, Sequist TD, Seger AC, Fiskio JM, Sperling M, Bugbee D, Bates DW, Gandhi TK. A randomized trial of electronic clinical reminders to improve medication laboratory monitoring. *J Am Med Inform Assoc* 2008;(4)15:424-429.
277. Wu JH, Shen WS, Lin LM, Greenes RA, Bates DW. Testing the technology acceptance model for evaluating healthcare professional's intention to use an adverse event reporting system. *Int J Qual Health Care* 2008;20(2):123-129.
278. Simon SR, Kaushal R, Jenter CA, Volk LA, Burdick E, Poon EG, Tumolo AZ, Tripathi M, Bates DW. Readiness for electronic health records: comparison of characteristics of practices in a collaborative with the remainder of Massachusetts. *Inform Prim Care* 2008;16(2):129-137.
279. Pan E, Cusack C, Hook J, Vincent A, Kaelber DC, Bates DW, Middleton BM. The value of provider-to-provider telehealth. *Telemed J E Health* 2008;14(5):446-453.
280. Kaelber DC, Jha AK, Johnston D, Middleton B, Bates DW. A research agenda for personal health records (PHRs). *J Am Med Inform Assoc* 2008;15(6):729-736.

281. Shapiro NI, Wolfe RE, Wright SB, Moore R, Bates DW. Who needs a blood culture? a prospectively derived and validated prediction rule. *J Emerg Med* 2008;35(3):255-264.
282. Virapongse A, Bates DW, Shi P, Jenter CA, Volk LA, Kleinman K, Sato L, Simon SR. Electronic health records and malpractice claims in office practice. *Arch Intern Med* 2008;168(21):2362-2367.
283. Gurwitz JH, Field TS, Rochon P, Judge J, Harrold LR, Bell CM, Lee M, White K, LaPrino J, Erramuspe-Mainard J, DeFlorio M, Gavendo L, Baril JL, Reed G, Bates DW. Effect of computerized physician order entry with clinical decision support on adverse drug events in the long-term care setting. *J Am Geriatr Soc* 2008;56:2225-2233.
284. Jha AK, Laguetta J, Seger A, Bates DW. Can surveillance systems identify and avert adverse drug events? A prospective evaluation of a commercial application. *J Am Med Inform Assoc* 2008; 15(5):647-653.
285. Jha AK, Doolan D, Grandt D, Scott JT, Bates DW. The use of health information technology in seven nations. *Int J Med Inform* 2008;77(12):848-854.
286. Paterno MD, Maviglia SM, Gorman PN, Seger DL, Yoshida E, Seger AC, Bates DW, Gandhi TK. Tiering drug-drug interaction alerts by severity increases compliance rates. *J Am Med Inform Assoc* 2009;16(1):40-46.
287. Lo HG, Matheny ME, Seger DL, Bates DW, Gandhi TK. Impact of non-interruptive medication laboratory monitoring alerts in ambulatory care. *J Am Med Inform Assoc* 2009;16(1):66-71.
288. Goroll AH, Simon SR, Tripathi M, Ascenzo C, Bates DW. Community-wide implementation of health information technology: the Massachusetts eHealth Collaborative experience. *J Am Med Inform Assoc* 2009;16(1):132-139.
289. Ferris TG, Johnson SA, Co, JP, Backus M, Perrin J, Bates DW, Poon EG. Electronic results management in ambulatory care: qualitative assessment. *Pediatrics* 2009;123 Suppl 2:S85-91.
290. Harris AM, Orav EJ, Bates DW, Barsky AJ. Somatization increases disability independent of comorbidity. *J Gen Intern Med* 2009 Feb;24(2):155-161.
291. Jha AK, Bates DW, Jenter C, Orav JE, Zheng J, Cleary PD, and Simon SR. Electronic health records: use, barriers, and satisfaction among physicians who care for black and Hispanic patients. *J Eval Clin Pract* 2009 Feb;15(1):158-63.
292. Adler-Milstein J, Bates DW, Jha AK. U.S. regional health information organizations: progress and challenges. *Health Aff* 2009 Mar-Apr;28(2):483-492.
293. Levitzion-Korach O, Alcalai H, Orav EJ, Graydon-Baker E, Keohane C, Bates DW, Frankel AS. Evaluation of the contributions of an electronic web based reporting system: enabling action. *J Patient Saf* 2009 Mar;5(1):9-15.

294. Weingart SN, Morway L, Brouillard D, Cleary A, Eng TK, Saadeh MG, Seger AC, Bates DW, Leape LL. Rating recommendations for consumers about patient safety: sense, common sense, or nonsense? *Jt Comm J Qual Saf* 2009 Apr;35(4):206-215.
295. Goldhamer ME, Cohen AP, Bates DW, Cook EF, Davis RB, Singer DE, Simon SR. Protecting an endangered species: training physicians to conduct clinical research. *Acad Med* 2009 Apr;84(4):439-445.
296. Wright A, Bates DW, Middleton B, Hongsermeier T, Kashyap V, Thomas SM, Sittig DF. Creating and sharing clinical decision support content with Web 2.0: issues and examples. *J Biomed Inform* 2009 Apr;42(2):334-346.
297. Vaithianathan R, Hockey PM, Moore TJ, Bates DW. Iatrogenic effects of COX-2 inhibitors in the US population: findings from the medical expenditure panel survey. *Drug Saf* 2009;32(4):335-343.
298. Kaushal R, Bates DW, Jenter CA, Mills SA, Volk LA, Burdick E, Tripathi M, Simon SR. Imminent adopters of electronic health records in ambulatory care. *Inform Prim Care* 2009;17(1):7-15.
299. Poutsiaka DD, Davidson LE, Kahn KL, Bates DW, Snyderman DR, Hibberd PL. Risk factors for death after sepsis in patients immunosuppressed before the onset of sepsis. *Scand J Infect Dis* 2009;41:469-479.
300. Zhou L, Soran CS, Jenter CA, Volk LA, Orav EJ, Bates DW, Simon SR. The relationship between electronic health record use and quality of care over time. *J Am Med Inform Assoc* 2009;16(4):457-464.
301. Simon SR, Soran CS, Kaushal R, Jenter CA, Volk LA, Burdick E, Cleary PD, Orav EJ, Poon EG, Bates DW. Physicians' use of key functions in electronic health records from 2005 to 2007: a statewide survey. *J Am Med Inform Assoc* 2009;16(4):465-470.
302. Quinn MA, Wilcox A, Orav EJ, Bates DW, Simon SR. The relationship between perceived practice quality and quality improvement activities and physician practice dissatisfaction, professional isolation, and work-life stress. *Medical Care* 2009;47(8):924-928.
303. Rothschild JM, Bates DW, Franz C, Soukup JR, Kaushal R. The costs and savings associated with prevention of adverse events by critical care nurses. *J Crit Care* 2009;24:471.e1-.e7.
304. Simon SR, Evans JS, Benjamin A, Delano D, Bates DW. Patients' attitudes toward electronic health information exchange: a qualitative study. *J Med Internet Res* 2009;11(3):e30.
305. Wright A, McGlinchey EA, Poon EG, Jenter Ca, Bates DW, Simon SR. Ability to generate patient registries among practices with and without electronic health records. *J Med Internet Res* 2009;11(3):e31.
306. Jha AK, Chan DC, Ridgway AB, Franz C, Bates DW. Improving safety and eliminating redundant tests: cutting costs in U.S. hospitals. *Health Aff (Millwood)* 2009;28(5):1475-1484.

307. Bates DW, Larizgoitia I, Prasopa-Plazier N, Jha AK, Research Priority Setting Working Group of the WHO World Alliance for Patient Safety. Global priorities for patient safety research. *BMJ* 2009;338:1242-1244.
308. Lemer C, Bates DW, Yoon C, Keohane C, Fitzmaurice G, Kaushal R. The role of advice in medication administration errors in the pediatric ambulatory setting. *J Patient Saf* 2009;5(3):168-175.
309. Rothschild JM, Keohane CA, Rogers S, Gardner R, Lipsitz SR, Salzberg CA, Yu T, Yoon CS, Williams DH, Wien MF, Czeisler CA, Bates DW, Landrigan CP. Risks of complications by attending physicians after performing nighttime procedures. *JAMA* 2009;302(14):1565-1572.
310. Chen LM, Rein MS, Bates DW. Costs of quality improvement: a survey of four acute care hospitals. *Jt Comm J Qual Saf* 2009;35(11):544-550.
311. Hug BL, Witkowski DJ, Sox CM, Keohane CA, Seger DL, Yoon C, Matheny ME, Bates DW. Occurrence of adverse, often preventable, events in community hospitals involving nephrotoxic drugs or those excreted by the kidney. *Kidney Int* 2009;76(11):1192-1198.
312. Hug BL, Lipsitz SR, Seger DL, Karson AS, Wright SC, Bates DW. Mortality and drug exposure in a 5-year cohort of patients with chronic liver disease. *Swiss Med Wkly* 2009;139(51-52):737-746. http://www.smw.ch/dfe/set_archiv.asp?target=smw-12686.
313. Wright A, Soran C, Jenter CA, Volk LA, Bates DW, Simon SR. Physician attitudes toward health information exchange: results of a statewide survey. *J Am Med Inform Assoc* 2010;17:66-70.
314. Hug BL, Witkowski DJ, Sox CM, Keohane CA, Seger DL, Yoon C, Matheny ME, Bates DW. Adverse drug event rates in six community hospitals: and the potential impact of computerized physician order entry for prevention. *J Gen Intern Med* 2010;25(1):31-38.
315. Jha AK, Prasopa-Plaizier N, Larizgoitia I, Bates DW; on behalf of the research priority setting working group of the WHO World Alliance for Patient Safety. Patient safety research: an overview of the global evidence. *Qual Saf Health Care* 2010 Feb;19(1):42-47.
316. Carpenter KB, Duevel MA, Lee PW, Wu AW, Bates DW, Runciman WB, Baker GR, Larizgoitia I, Weeks WB; on behalf of the Methods & Measures Working Group of the WHO World Alliance for Patient Safety. Measures of patient safety in developing and emerging countries: a review of the literature. *Qual Saf Health Care* 2010 Feb;19(1):48-54.
317. Poon EG, Wright A, Simon SR, Jenter CA, Kaushal R, Volk LA, Cleary PD, Singer JA, Tumolo AZ, Bates DW. Relationship between use of electronic health record features and health care quality: results of a statewide survey. *Med Care* 2010 Mar;48(3):203-209.
318. Schnipper JL, Roumie CL, Cawthon C, Businger A, Dalal AK, Mugalla I, Eden S, Jacobson TA, Rask KJ, Vaccarino V, Gandhi TK, Bates DW, Johnson DC, Labonville S, Gregory D, Kripalani S, for the PILL-CVD study group. Rationale and design of the Pharmacist intervention for low literacy in cardiovascular disease (PILL-CVD) study. *Circ Cardiovasc Qual Outcomes* Mar 1;3(2):212-219.

319. Bates DW, Bitton A. The future of health information technology in the patient-centered medical home. *Health Aff Millwood* 2010;29(4):614-621.
320. Metzger J, Welebob E, Bates DW, Lipsitz S, Classen DC. Mixed results in the safety performance of computerized physician order entry. *Health Aff Millwood* 2010;29(4):655-663.
321. Smith M, Bates DW, Bodenheimer T, Cleary PD. Why pharmacists belong in the medical home. *Health Aff (Millwood)* 2010;29(5):906-913.
322. Poon EG, Keohane CA, Yoon CS, Ditmore M, Bane A, Levtzion-Korach O, Moniz T, Rothschild JM, Kachalia AB, Hayes J, Churchill WW, Lipsitz S, Whittemore AD, Bates DW, Gandhi TK. Effect of bar-code technology on the safety of medication administration. *N Engl J Med* 2010;362(18):1698-1707.
323. Hockey PM, Bates DW. Physicians' identification of factors associated with quality in high- and low-performing hospitals. *Jt Comm J Qual Patient Saf* 2010;36(5):217-223.
324. Morrison AP, Tanasijevic MJ, Goonan EM, Lobo MM, Bates MM, Lipsitz SR, Bates DW, Melanson SE. Reduction in specimen labeling errors after implementation of a positive patient identification system in phlebotomy. *Am J Clin Pathol* 2010;133(6):870-877.
325. Rothschild JM, Churchill W, Erickson A, Munz K, Schuur JD, Salzberg CA, Lewinski D, Shane R, Aazami R, Patka J, Jagers R, Steffenhagen A, Rough S, Bates DW. Medication errors recovered by emergency department pharmacists. *Ann Emerg Med* 2010;55(6):513-521.
326. Gandhi TK, Seger AC, Overhage JM, Murray MD, Hope C, Fiskio J, Teal E, Bates DW. Outpatient adverse drug events identified by screening electronic health records. *J Patient Saf* 2010;6(2):91-96.
327. Rothschild JM, Gandara E, Woolf S, Williams DK, Bates DW. Single-parameter early warning criteria to predict life-threatening adverse events. *J Patient Saf* 2010;6(2):97-101.
328. Classen D, Bates DW, Denham CR. Meaningful use of computerized prescriber order entry. *J Patient Saf* 2010;6(6): (in press).
329. Stuebe A, Ecker J, Bates DW, Zera C, Bentley-Lewis R, Seely E. Barriers to follow-up for women with a history of gestational diabetes. *Am J Perinatol* 2010; (in press).
330. Wright A, Bates DW. Distribution of problems, medications and lab results in electronic health records: the Pareto principle at work. *Appl Clin Inform* 2010 (in press).
331. Pang JE, Wright A, Ramelson H, Schneider L, McLoughlin KS, Bates DW. The creation of a decision support intervention to identify and resolve problem list gaps. *AMIA Annu Symp Proc* 2010 (in press).
332. Haas JS, Iyer A, Orav EJ, Schiff GD, Bates DW. Participation in an ambulatory e-pharmacovigilance system. *Pharmacoepidemiol Drug Saf* 2010: (in press).

333. Linder JA, Haas JS, Iyer A, Labuzetta MA, Ibara M, Celeste M, Getty G, Bates DW. Secondary use of electronic health record data: spontaneous triggered adverse drug event reporting. *Pharmacoepidemiol Drug Saf* 2010: (in press).

Reviews, Monographs and Editorials:

1. Bates DW, Reuler JB. Back pain and epidural spinal cord compression. *J Gen Intern Med* 1988; 3:191-7.
2. Kuperman G, Bates DW. Standardized coding of the medical problem list. *J Am Med Inform Assoc* 1994;1:414-415.
3. Bates DW, Komaroff AL. A piece of my mind. A cyberday in the life. *JAMA* 1996; 275(10):753-754.
4. Bates DW. Medication errors: How common are they and what can be done to prevent them? *Drug Saf* 1996;15(5):303-310.
5. Teich JM, Glaser JP, Beckley RF, Aranow M, Bates DW, Kuperman GJ, Ward MA, Spurr CD. Toward cost-effective, quality care: The Brigham Integrated Computing System. Proc. 2nd Nicholas E. Davies CPR Recognition Symposium. Washington DC: Computer-based Patient Record Institute. 1996;3-34.
6. Bates DW, Burrows AM, Grossman DG, Schneider PJ, Strom BL. Top-priority actions for preventing adverse drug events in hospitals - recommendations of an expert panel. *Am J Health-Syst Pharm* 1996;53:747-751.
7. Tanasijevic M, Bates DW. Criteria for appropriate monitoring of antiepileptic drugs. *Ther Drug Mon and Tox* 1997;18(1):13-19.
8. Bates DW, Miller E, Bernstein SJ, Hauptman PJ, Leape LL. Coronary angiography and angioplasty after acute myocardial infarction: a literature review. *Ann Intern Med* 1997;126(7):539-550.
9. Katz JN, Solomon DH, Bates DW. Differences between generalists and specialists [editorial]. *Arthritis Care Res* 1997 Jun;10(3):161-162.
10. Solomon DH, Bates DW, Panush RS, Katz JN. Costs, outcomes, and patient satisfaction by provider type for patients with rheumatic and musculoskeletal condition: a critical review of the literature and proposed methodologic standards. *Ann Intern Med* 1997;127(1):52-60.
11. Bates DW. Commentary: Quality, costs, privacy and electronic medical data. *J Law Med Ethics* 1997;25(2-3):111-112.
12. Bates DW, Soldin SJ, Rainey PM, Micelli JN. Strategies for physician education in therapeutic drug monitoring. *Clin Chem* 1998;44(2):401-407.
13. Bates DW. Editorial: Drugs and adverse drug reactions. how worried should we be? *JAMA* 1998;279(15):1216-1217.

14. Bates DW. Preventing medication errors. In: Cousins DD, editor. Medication use: a systems approach to reducing errors. Oak Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations; 1998. p.57-73.
15. Warner A, Privitera M, Bates D. Antiepileptic drug monitoring. In: Warner A, Annesley T, editors. Guidelines for therapeutic drug monitoring services. Washington, DC: National Academy of Clinical Biochemistry; 1998. p.10-17.
16. Iezzoni LI, Ayanian JZ, Bates DW, Burstin HR. Paying more fairly for Medicare capitated care. *N Engl J Med* 1998; 339:1933-1938.
17. Bates DW, Pappius E, Kuperman GJ, Sittig D, Burstin H, Fairchild D, Brennan TA, Teich JM. Measuring and improving quality using information systems. In Cesnik et al. (Eds): Proc of the 9th World Congress on Medical Informatics Conference Seoul, S. Korea 1998;9:814-818.
18. Bates DW. Adverse drug reactions in hospitalized patients. *JAMA* 1998;280:1743-1744.
19. Bates DW. Improving the use of therapeutic drug monitoring. *Ther Drug Monit* 1998;20:550-5.
20. Karson AS, Bates DW. Screening for adverse events. *J Eval Clin Pract*;1999;5(1):23-32.
21. Maviglia SM, Bates DW. Hospitalism in the USA. *Lancet* 1999;353(9168):1902.
22. Bates DW. Evidence-based gynecology. In: Ryan KJ, Berkowitz RS, Barbieri RL, Dunaif A, editors. *Kistner's Gynecology and Women's Health*. 7th ed. St. Louis: Mosby, Inc; 1999. p 3-11.
23. Bates DW. Using information systems to improve practice. In E. Yano, ed. *Evaluation in Medicine and Health Care-Toward Evidence Based Medicine*. Proc of the 3rd International Teikyo-Harvard Symposium, Tokyo: Nankodo Co Ltd; 1999:89-99.
24. Bates DW. "Iryou to Hoken niokeru-Hyouka - Using information systems to improve practice." In: E. Yano, ed. *Evaluation in Medicine and Health Care-Toward Evidence Based Medicine*. Proc of the 3rd International Teikyo-Harvard Symposium, Tokyo: Nankodo Co Ltd; 1999:69-76 (Japanese version).
25. Bates DW. Frequency, consequences and prevention of adverse drug events. *J Qual Clin Pract* 1999;19(1):13-7.
26. Bates DW. Using information systems to improve practice. *Schweiz Med Wochenstr* 1999;129:1913-1919.
27. Gandhi TK, Seger DL, Bates DW. Methodology matters. identifying drug safety issues: from research to practice. *Int J Qual Health Care* 2000;12(1):69-76.
28. Bates DW. Using information technology to reduce rates of medication errors in hospitals. *BMJ* 2000;320:788-791.

29. Bates DW, Leape L. Adverse drug reactions. In: Carruthers GS, Hoffman BB, Melmon KL, Nierenberg DW, editors. *Melmon and Morrelli's Clinical Pharmacology: Basic Principles in Therapeutics*, 4th ed. New York: McGraw Hill; 2000. p. 1223-1256.
30. Gawande AA, Bates DW. The use of information technology in improving medical performance: Part I. Information systems for medical transactions. *MedGenMed*, February 7, 2000.
31. Gawande AA, Bates DW. The use of information technology in improving medical performance: Part II. Physician-support tools. *MedGenMed*, February 14, 2000.
32. Gawande AA, Bates DW. The use of information technology in improving medical performance: Part III. Patient-support tools. *MedGenMed*, February 22, 2000.
33. Bates DW, Gawande AA. Error in medicine: what have we learned? *Ann Intern Med* 2000;132(9):763-767.
34. Bates DW. Improving medication safety across institutions [editorial]. *Jt Comm J Qual Improv* 2000;26:319-320.
35. Bates DW. Iatrogenesis and the risks of hospitalization. In: Wachter RM, Goldman L, Hollander H, editors. *Hospital Medicine*. Philadelphia: Lippincott Williams & Wilkins; 2000. p. 49-53.
36. Rothschild JM, Bates DW, Leape LL. Preventable medical injuries in older patients. *Arch Intern Med* 2000;160:2717-2728.
37. Bates DW, Cousins DD, Flynn E, Gosbee JW, Richason L, Schneider PJ. Consensus development conference statement on the safety of intravenous drug delivery systems. *Hospital Pharmacy* 2000;35:150-5.
38. Rothschild JM, Khorasani R, Bates DW. Evidence-based medicine: guidelines and decision support help improve image utilization. *Diagn Imaging (San Franc)* 2000;22(11):95-7, 99, 101. http://diagnosticimaging.com/db_area/archives/2000/0011evindence.95.di.shtml
39. Schiff G, Bates DW. Electronic point-of-care-prescribing: writing the 'script'. *Dis Manage Health Outcomes* 2000;7(6):297-304.
40. Bates DW, Gawande A. The impact of the internet on quality measurement. *Health Aff* 2000;19(6):104-114.
41. Cullen DJ, Bates DW, Leape LL. Prevention of adverse drug events: a decade of progress in patient safety. *J Clin Anesth* 2000;12:600-614.
42. Peterson JF, Bates DW. Preventable medication errors: identifying and eliminating serious drug interactions. *J Am Pharm Assoc* 2001;41(2):159-160.
43. Bates DW. Costs of drug-related morbidity and mortality: enormous and growing rapidly. *J Am Pharm Assoc* 2001;41(2):156-157.

44. Bates DW. What duration of therapy for a patient with *S aureus* bacteremia? *J Crit Illn* 2001;16(5):227.
45. Gandhi T, Bates D. Guest commentary: Using JCAHO'S new patient safety standards to improve medication safety. *Joint Commission Perspectives on Patient Safety* 2001;1(3):6.
46. Bates DW. A 40-year-old woman who noticed a medication error. *JAMA* 2001;285:3134-3140.
47. Kaushal R, Bates DW. Computerized physician order entry (CPOE) with clinical decision support systems (CDSSs). In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 63-72.
48. Kaushal R, Bates DW. The clinical pharmacist's role in preventing adverse drug events. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 73-78.
49. Gandhi TK, Bates DW. Computer adverse drug event (ADE) detection and alerts. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 79-85.
50. Gandhi TK, Shojania KG, Bates DW. Protocols for high-risk drugs: reducing adverse drug events related to anticoagulants. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 87-99.
51. Murff HJ, Gosbee JW, Bates DW. Human factors and medical devices. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 461-472.
52. Murff HJ, Bates DW. Information transfer. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-

Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 473-487.

53. Jha AK, Duncan BW, Bates DW. Simulator-based training and patient safety. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 513-520.
54. Jha AK, Duncan BW, Bates DW. Fatigue, sleepiness and medical errors. In: Shojania KG, Duncan BW, McDonald KM, Wachter RM, editors. Making health care safer: a critical analysis of patient safety practices. Evidence Report/Technology Assessment No. 43 (prepared by the University of California at San Francisco-Stanford Evidence-based Practice Center under Contract No. 290-97-0013), AHRQ Publication No. 01-E058, Rockville, MD; Agency for Healthcare Research and Quality. July 2001. p 521-534.
55. Kaushal R, Barker KN, Bates DW. How can information technology improve patient safety and reduce medication errors in children's health care? *Arch Pediatr Adolesc Med* 2001;155:1002-1007.
56. Bates DW. Refining JCOM's mission to support quality improvement. *J Clin Outcome Manage* 2001;8(3):59-60.
57. Solomon DH, Simel DL, Bates DW, Katz JN, Schaffer JL. The rational clinical examination. Does this patient have a torn meniscus or ligament of the knee?: value of the physical examination. *JAMA* 2001;286:1610-1620.
58. Bates DW. Technology and prescription drug safety hearing before the Special Committee on Aging, United States Senate, 107th Congress, First Session, Washington, DC, May 3, 2001;Serial No. 107-4:52-55 [testimony].
59. Bates DW, Cohen M, Leape LL, Overhage JM, Shabot MM, Sheridan T. Reducing the frequency of errors in medicine using information technology. *J Am Med Inform Assoc* 2001;8:299-308.
60. Peterson JF, Bates DW. Automated selection of drugs and drug dose in patients with renal insufficiency. *Medscape Pharmacists* 3(1), 2002.
61. Bates DW. Invited commentary. *Baylor University Medical Center Proceedings* 2002;15:205-208.
62. Bates DW. Unexpected hypoglycemia in a critically ill patient. *Ann Intern Med* 2002;137:110-116.
63. Leape LL, Berwick DM, Bates DW. What practices will most improve safety? evidence-based medicine meets patient safety. *JAMA* 2002;288:501-507.
64. Bates DW. Sustained-release preparations and medication errors [editorial]. *J Gen Intern Med* 2002 17;657:658.

65. Cummings SR, Bates DW, Black DM. Clinical use of bone densitometry: scientific review. *JAMA* 2002;288:1889-1897.
66. Bates DW, Black DM, Cummings SR. Clinical use of bone densitometry: clinical applications. *JAMA* 2002;288:1898-1900.
67. Bates DW. The quality case for information technology in healthcare. *BMC Med Inform Decis Mak* 2002;2:7.
68. Bates DW. Using information technology to screen for adverse drug events. *Am J Health-Syst Pharm* 2002;59:2317-2319.
69. John M. Eisenberg Patient Safety Awards. Research: David W. Bates, MD, MSc, Brigham and Women's Hospital. Interview by Steven Berman. *Jt Comm J Qual Improv* 2002;28(12):651-659.
70. Bates DW. Description and outcomes of the DoctorQuality incident reporting system used at Baylor Medical Center at Grapevine. *Proc (Bayl Univ Med Cent)* 2002;15(2):208-209.
http://www.baylorhealth.edu/proceedings/15_2/15_2_commentary.pdf.
71. Bates DW, Ebell M, Gotlieb E, Zapp J, Mullins HC. A proposal for electronic medical records in U.S. primary care. *J Am Med Inform Assoc* 2003;10:1-10.
72. Bates DW, Evans RS, Murff H, Stetson PD, Pizziferri L, Hripcsak G. Detecting adverse events using information technology. *J Am Med Inform Assoc* 2003;10:115-128.
73. Bates DW, Evans RS, Murff H, Stetson PD, Pizziferri L, Hripcsak G. Policy and the future of adverse event detection using information technology. *J Am Med Inform Assoc* 2003;10:226-228 (editorial).
74. Maviglia SM, Zielstorff RD, Paterno M, Teich JM, Bates DW, Kuperman JG. Automating complex guidelines for chronic disease: lessons learned. *J Am Med Inform Assoc* 2003;10:154-65.
75. Bates DW. Improving care in the hospital: hospitalists and JCOM. *J Clin Outcome Manage* 2003;10:184 (editorial).
76. Schiff GD, Klass D, Peterson J, Shan G, Bates DW. Linking laboratory and pharmacy: opportunities for reducing errors and improving care. *Arch Intern Med* 2003;163:893-900.
77. Grasso BC, Bates DW. Medication errors in psychiatry: are patients being harmed? *Psychiatr Serv* 2003;54:599.
78. Bates DW, Gawande AA. Improving safety with information technology. *N Engl J Med* 2003;348:2526-2534.
79. Kaushal R, Shojania KG, Bates DW. Effects of computerized physician order entry and clinical decision support systems on medication safety. *Arch Intern Med* 2003;163:1409-1416.

80. Kaushal R, Landrigan CP, Bates DW. Improving patient safety in Massachusetts. In: Moore RT, editor. *Memos to the Governor: management advice from the commonwealth's experts in public administration and policy*. Bloomington, IN: United States of America; 2003. p. 98-113.
81. Gandhi TK, Kaushal R, Bates DW. Introduction to Patient Safety. In: Cassiani SH, Ueta J, eds. *Patient safety in the process of medications*. Sao Paulo SP, Brazil: Editora Artes Medicas Ltda 2004. p. 1-10.
82. Kaushal R, Gandhi TK, Bates DW. Epidemiology of medication errors and prevention strategies. In: Cassiani SH, Ueta J, eds. *Patient safety in the process of medications*. Sao Paulo SP, Brazil: Editora Artes Medicas Ltda 2004. p.21-31.
83. Patel VL, Bates DW. Cognition and measurement in patient safety research [editorial]. *J Biomed Inform* 2003;36(1-2):1-3.
84. Murff HJ, Patel VL, Hripcsak G, Bates DW. Detecting adverse events for patient safety research: a review of current methodologies. *J Biomed Inform* 2003;36(1-2):131-143.
85. Bates DW, Shore MF, Gibson R, Bosk C. Patient safety forum: examining the evidence: do we know if psychiatric inpatients are being harmed by errors? What level of confidence should we have in data on the absence or presence of unintended harm? *Psychiatr Serv* 2003;54:1599-1603.
86. Bates DW, Yu DT. Clinical impact of drug-drug interactions with systemic azole antifungals. *Drugs Today (Barc)* 2003;39(10):801-13.
87. Johnston J, Pan E, Walker JD, Bates DW, Middleton B. The value of computerized provider order entry in ambulatory settings. Center for Information Technology Leadership, 2003, Boston, MA.
88. Middleton B, Gandhi TK, Bates DW. Patient safety: the role of information technology in ambulatory care patient safety. In: Memel DS, editor. *Effective Management of Healthcare Information: Leadership Roles, Challenges, and Solutions*. Chicago: Healthcare Information Management and Systems Society; 2003, p. 53-73.
89. Bates DW. Achieving the vision of the chasm report [editorial]. *J Clin Outcome Manage* 2004;11(1):9.
90. Kaushal R, Jaggi T, Walsh K, Fortescue EB, Bates DW. Pediatric medication errors: what do we know? What gaps remain? *Ambul Pediatr* 2004;4(1):73-81.
91. Kittler AF, Wald JS, Volk LA, Pizziferri L, Jagannath Y, Harris C, Lippincott M, Yu T, Hobbs J, Bates DW. The role of primary care non-physician clinic staff in e-mail communication with patients. *Int J Med Inform* 2004;73(4):333-340.
92. Tang PC, Coye MJ, Bakken S, Balas EA, Bates DW, Clarke JR, Classen DC, Cohn SP, Cronin C, Einbinder JS, Grandia LD, Hammond WE, James BC, Johnson KB, Rosenthal J, van der Schaaf TW. Patient safety. Achieving a new standard for care. Committee on data standards for patient

safety, ed Aspden P, Corrigan JM, Wolcott J, Erickson SM. Washington, DC: The National Academies Press; 2004.

93. Bates DW. Invited commentary. Computerized physician order entry and its impact on medication safety. *BUMC Proceedings* 2004;17:361-362.
94. Bates DW. Using information technology to improve surgical safety. *Brit J Surg* 2004;91(8):939-940.
95. Wald JS, Middleton B, Bloom A, Walmsley D, Gleason M, Nelson E, Epstein M, Volk L, Bates DW. A patient-controlled journal for an electronic medical record: issues and challenges. In: Fieschi M, Coiera E, Li YJ, editors. *Medinfo 2004. Proceedings of the 11th World Congress on Medical Informatics*; 2004 Sep 7-11, San Francisco, CA. Amsterdam: IOS Press; 2004. p. 1166-70.
96. Boxwala AA, Dierks M, Keenan M, Jackson S, Hanscom R, Bates DW, Sato L. Organization and representation of patient safety data: current status and issues around generalizability and scalability. *J Am Med Inform Assoc* 2004;11:468-478.
97. Bates DW, Jenkins M. The National Alliance for Primary Care Informatics: development and current status. *Inform Prim Care* 2004;12(3):183-185.
98. Ash JS, Bates DW. Factors and forces affecting EHR system adoption: report of a 2004 ACMI discussion. *J Am Med Inform Assoc* 2004;12(1):8-12.
99. Pan E, Johnston D, Walker J, Adler-Milstein J, Bates DW, Middleton B. The value of healthcare information exchange and interoperability. Chicago: Healthcare Information and Management Systems Society (HIMSS); 2004. <http://www.himss.org/asp/book.asp?ContentID=52848>.
100. de Lusignan S, Teasdale S, Little D, Zapp J, Zuckerman A, Bates DW, Steele A. Comprehensive computerised primary care records are an essential component of any national health information strategy: report from an international consensus conference. *Inform Prim Care* 2004;12(4):255-64.
101. Bates DW. The health care scene as 2005 opens: how are we doing? *J Clin Outcome Manage* 2005;12(1):7-8.
102. Rosen AB, Blendon RJ, DesRoches CM, Benson JM, Bates DW, Brodie M, Altman DE, Zapert K, Steffenson AE, Schneider EC. Physicians' views of interventions to reduce medical errors: does evidence of effectiveness matter? *Acad Med* 2005 Feb;80(2):189-192.
103. Bates DW, Leape LL. Doing better with critical test results. *Jt Comm J Qual Patient Saf* 2005;31(2):66-67, 61.
104. Shirky C, Reis B, Adams RS, Bates DW, Braithwaite W, Dempsey J, Emig D, Fernandes L, Fitzmaurice M, Friedrichs P, Goldman J, Graham G, Halamka J, Hammond WE, Jonas J, Keller-Bottom S, Overhage JM, Swire P, Tang P, Weinberger D. Linking health care information: proposed methods for improving care and protecting privacy. Markle Foundation; Annual HIMSS

Conference & Exhibition; 2005 Feb 14; Dallas.

http://www.connectingforhealth.org/assets/reports/linking_report_2_2005.pdf

105. Bates DW. Medication safety in the hospital. In: Wachter RM, Goldman L, Hollander H, editors. *Hospital Medicine*, 2nd Edition. Philadelphia: Lippincott Williams & Wilkins; 2005. p. 157-160.
106. Rosen AB, Blendon RJ, Desroches CM, Benson JM, Bates DW, Brodie M, Altman DE, Zapert K, Steffenson AE, Schneider EC. Physicians' views of interventions to reduce medical errors: does evidence of effectiveness matter [editorial comment]? *Obstet Gynecol Surv* 2005;60(7):431-433.
107. Bates DW. Computerized physician order entry and medication errors: finding a balance [commentary]. *J Biomed Inform* 2005;38(4):259-261.
<http://www.sciencedirect.com/science/journal/15320464>.
108. Bates DW. A conversation with the editor on improving patient safety, quality of care, and outcomes by using information technology. Interview by William Clifford Roberts. *Proc (Bayl Univ Med Cent)* 2005;18(2):158-164.
109. Bates DW. The National Alliance for Primary Care Informatics: an update. *Inform Prim Care* 2005;13(3):227-228.
110. Kaushal R, Bates DW. The use of pharmacoepidemiology to study medication errors. Chapter 34 In: Strom BL, ed. *Pharmacoepidemiology (Fourth Edition)*. Sussex: John Wiley; 2005. p. 531-38.
111. Rochon PA, Field TS, Bates DW, Lee M, Gavendo L, Erramuspe-Mainard J, Judge J, Gurwitz JH. Clinical application of a computerized system for physician order entry with clinical decision support to prevent adverse drug events in long-term care [commentary]. *CMAJ* 2006;174(1):52-54.
112. Tang PC, Ash JS, Bates DW, Overhage JM, Sands DZ. Personal health records: definitions, benefits, and strategies for overcoming barriers to adoption. *J Am Med Inform Assoc* 2006 Mar-Apr;13(2):121-126.
113. Bates DW, Leape LL. Doing better with critical test results. In: Schiff GD, ed. *Getting results: reliably communicating and acting on critical test results*. Oakbrook Terrace, IL: Joint Commission Resources; 2006. p. 9-11 (editorial).
114. Hanna D, Griswold P, Leape L, Bates DW. Communicating critical test results: safe practice recommendations. In: Schiff GD, ed. *Getting results: reliably communicating and acting on critical test results*. Oakbrook Terrace, IL: Joint Commission Resources; 2006. p. 55-67.
115. Bates DW [Foreword]. In: Kelly WN, ed. *Prescribed medications and the public health: laying the foundation for risk reduction*. Binghamton, NY: Pharmaceutical Products Press; 2006. p. xiii-xv.
116. Bates DW [Commentary]. The road to implementation of the electronic health record. *Proc (Bayl Univ Med Cent)* 2006;19(4):311-312.

117. Bates DW, Komaroff AL. Digital age. next: paperless medicine. *Newsweek* 2006 Oct 16;148(16):63. <http://www.msnbc.msn.com/id/15173075/site/newsweek>.
118. Virk P, Bates DW. Moving beyond hospitals: e-prescriptions. *EHealth Magazine* 2006 Nov/Dec:23-25. http://www.ehealthonline.org/pdf/nov_dec06.pdf.
119. Weiner, MG, Dorr DA, Garvin JH, Kho AN, Pifer E, Bates DW. Health information technology's potential to improve care: what is the reality? *Tex Med* 2006;102(7):37-44.
120. Ammenwerth E, Talmon J, Ash JS, Bates DW, Beuscart-Zephir MC, Duhamel A, Elkin PL, Gardner RM, Geissbuhler A. Impact of CPOE on mortality rates--contradictory findings, important messages. *Methods Inf Med* 2006;45(6):586-593.
121. Kuperman GJ, Bobb A, Payne T, Avery AJ, Gandhi TK, Burns G, Classen D, Bates DW. Medication-related clinical decision support in computerized provider order entry systems: a review. *J Am Med Inform Assoc* 2007;14(1):29-40.
122. Lee D, Majumdar SR, Lipton HL, Soumerai SB, Hennessy S, Davis RL, Chen RT, Bright RA, Mitchell AA, Graham DJ, Bates DW, Strom BL. Special application of pharmacoepidemiology. In: Strom BL, Kimmel SE, eds. *Textbook of pharmacoepidemiology*. England: John Wiley & Sons Ltd; 2006. p. 401.
123. Bates DW, Lo HG. Patients, doctors, and information technology: clinical decision support at Brigham and Women's Hospital and Partners Healthcare. In: Greenes RA, ed. *Clinical decision support: the road ahead*. Oxford: Academic Press; 2007. p. 127-141. <http://books.elsevier.com/us/lifescience/us/subindex.asp?maintarget=&isbn=9780123693778&country=United+States&srccode=&ref=CWS1&subcode=&head=&pdf=&basiccode=&txtSearch=&SearchField=&operator=&order=&community=lifescience>.
124. Bates DW. Foreword. In: Brown SL, Bright RA, Tavis DR, eds. *Medical device epidemiology and surveillance*. West Sussex, England: John Wiley & Sons, Ltd.; 2007. p. xiii-xv.
125. Bates DW. Preventing medication errors: a summary. *Am J Health Syst Pharm* 2007;64(14 Suppl 9):S3-9; quiz S24-6.
126. Kaelber D, Bates DW. Health information exchange and patient safety. *J Biomed Inform* 2007;40:S40-S45.
127. Einbinder JS, Bates DW. Leveraging information technology to improve quality and safety. In: Geissbuhler A, Houx R, Kulikowski C, editors. *Yearb Med Inform*. 2007:22-9. Review. Erratum in: *Yearb Med Inform*. 2008:19.
128. Cusack CM, Pan E, Hook JM, Vincent A, Kaelber DC, Bates DW, Middleton B. *The value of provider-to-provider telehealth technologies*. Charlestown, MA: Center for Information Technologies Leadership; 2007.

129. Tsilimingras D, Bates DW. Addressing postdischarge adverse events: a neglected area. *Jt Comm J Qual Patient Saf* 2008;34(2):85-97.
130. Mann K, Rothschild JM, Keohane CA, Chu JA, Bates DW. Adverse drug events and medication errors in psychiatry: methodological issues regarding identification and classification. *World J Biol Psychiatry* 2008;8(1):24-33.
131. Adams M, Bates D, Coffman G, Everett W. Saving lives, saving money: the imperative for computerized physician order entry in Massachusetts hospitals. Massachusetts Technology Collaborative and New England Healthcare Institute; 2008.
<http://web3.streamhoster.com/mtc/cpoe20808.pdf>
<http://www.masstech.org/ehealth/cpoe/cpoe08release.html>
132. Keohane CA, Bates DW. Medication safety. *Obstet Gynecol Clin N Am* 2008;35(1):37-52.
133. Bates DW. The safety and quality of health care. In: Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DS, Jameson JL, Loscalzo J, editors. *Harrison's Principles of Internal Medicine*. 17th ed. New York: McGraw-Hill; 2008. p. e1-e6.
134. Kahn JM, Bates DW. Improving sepsis care—the road ahead [editorial]. *JAMA* 2008;299(19):2322-2323.
135. Jha A, Larizgoitia I, Bates D, Prasopa-Plaizier N, editors. The Research Priority Setting Working Group of the World Alliance for Patient Safety. Summary of the evidence on patient safety: implications for research. Geneva, Switzerland: WHO Press; 2008.
http://www.who.int/patientsafety/information centre/20080523_Summary_of_the_evidence_on_patient_safety.pdf
136. Bates DW. Mountains in the clouds: patient safety research. *Qual Saf Health Care* 2008;17(3):156-157.
137. Graham RE, Gandhi TK, Borus J, Seger AC, Burdick E, Bates DW, Phillips RS, Weingart SN. Risk of concurrent use of prescription drugs with herbal and dietary supplements in ambulatory care. (CRICO/RMF and Grant Number T32-AT0051-03 from NCCAM, NIH). *Advances in Patient Safety: New Directions and Alternative Approaches*. AHRQ Publication No. 08-0034-4 Rockville, MD: Agency for Healthcare Research and Quality. August 2008, pp 1-13.
http://www.ahrq.gov/downloads/pub/advances2/vol4/Advances-Graham_77.pdf
138. Bates D. Commentary: Nursing and health information technology. *Nurs Outlook* 2008;56(5):237.
139. Solomon DH, Simel DL, Bates DW, Katz JN, Schaffer JL. Does this patient have a torn meniscus or ligament of the knees? In: Simel DL and Rennie D, eds. *The rational clinical examination: evidence-based clinical diagnosis*. New York: McGraw-Hill; 2009. p 357-367. <http://jamaevidence.com/>
140. Bates DW. Commentary: A conversation with the chairman of the American Medical Informatics Association. Interview by Brian Raymond, *The Permanente Journal* 2008;12(2):73-77.
http://xnet.kp.org/permanentejournal/spr08/David_Bates_interview.pdf

141. Kaelber DC, Shah S, Vincent A, Pan E, Hook JM, Johnston D, Bates DW, Middleton B. The value of personal health records, Charlestown, MA: Center for Information Technologies Leadership; 2008.
142. John M. Eisenberg Patient Safety Awards. Research: Michael Cohen, RPh, MS, ScD, Institute for Safe Medication Practices. Interview by David Bates. *Jt Comm J Qual Improv* 2008;34(12):693-696.
143. Bates DW. The effects of health information technology on inpatient care [editorial]. *Arch intern Med* 2009;169(2):105-107.
144. Bates DW. Healthcare IT's big challenge [editorial]. *Asian Hospital & Healthcare Management* 2009;18:64-65.
145. Bates DW. The role of pharmacists in the medical home [commentary]. *Am J Health-Syst Pharm* 2009 Jun 15;66(12):1116-1118.
146. Bates DW. The approaching revolution in quality measurement [editorial]. *Jt Comm J Qual Patient Saf* 2009 Jul;35(7):358.
147. Bates DW. Fatigue, resident work hours, and safety [editorial]. *Medical Care* 2009 Jul;47(7):711-713.
148. Shortliffe EH, Bates DW, Bloomrosen M, Greenwood K, Safran C, Steen EB, Tang PC, Williamson JJ, Don E, Detmer and the American Medical Informatics Association: an appreciation. *J Am Med Inform Assoc* 2009;16(4):429-438.
149. Schedlbauer A, Prasad V, Mulvaney C, Phansalkar S, Stanton W, Bates DW, Avery AJ. What evidence supports the use of computerized alerts and prompts to improve clinicians' prescribing behavior? *J Am Med Inform Assoc* 2009;16(4):531-538.
150. Sequist TD, Bates DW. Developing information technology capacity for performance measurement. In: Smith PC, Mossialos E, Leatherman S, Papanicolas I, editors. *Performance measurement for health system improvement: experiences, challenges and prospects*. Cambridge: Cambridge University Press; 2009. p 552-581.
151. Bates DW, Wright A. Evaluating eHealth: undertaking robust international cross-cultural eHealth research. *PLoS Med* 2009;6(9):e1000105.
<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1000105>
152. Phansalkar S, Bates DW. Technology and patient safety. Capturing the power of technology. *Asian Hospital & Healthcare Management* 2009;20:22-64.
153. Bates DW, Wachter RM, Vanderveen T. Commentary: Medication safety technologies: what is and is not working. *Patient Saf Qual Healthc* 2009;6:22-27 <http://www.psqh.com/julyaugust-2009/165-medication-safety-technologies.html>.

154. Adler-Milstein J, Bates DW. Paperless healthcare: progress and challenges of an IT-enabled healthcare system. *Business Horizons* 2010;53:119-130.
155. Bates DW. Getting in step: electronic health records and their role in care coordination. *J Gen Intern Med* 2010;25(3):174–176.
156. Schiff GD, Bates DW. Can electronic clinical documentation help prevent diagnostic errors? *N Engl J Med* 2010;362(12):1066-1069.
157. Bates DW. An ‘e-Nudge’ electronic reminder system that highlights individuals at raised cardiovascular risk encourages GPs to improve the collection of patient cardiovascular risk factor data. *Evid Based Med* 2010 (in press).

Letters:

1. Kaushal R, Bates DW, Clapp MD, Federico F, Landrigan C, McKenna KJ, Goldmann DA. Medication errors in children. *JAMA* 2001;286:915-916 [letter].
2. Leape LL, Berwick DM, Bates DW. Counting deaths due to medical errors. *JAMA* 2002;288(19):2404-5 [letter].
3. Rothschild JM, Landrigan CP, Bates DW. Serious Errors in Intensive Care. *Crit Care Med* 2006;34(2):580.
4. Mann, K, Hiemke C, Lotz J, Schmidt LG, Lackner KJ, Bates DW. Appropriateness of plasma level determinations for lithium and valproate in routine care of psychiatric inpatients with affective disorders. *J Clin Psychopharmacol* 2006;26(6):671-673.
5. Schiff GD, Kim S, Seger AC, Bult J, Bates DW. Issues in medication safety. *Am J Health Syst Pharm* 2007;64(1):24.
6. Metzger J, Bates DW, Classen DC. Feedback for providers: the authors reply. *Health Aff (Millwood)*. 2010;29(7):1417.
7. Shapiro NI, Bates DW. The unacceptable costs of trying to achieve “diagnostic certainty” [response]. *J Emerg Med* 2010 (in press).

Abstracts:

1. Bates DW, Lee TH, Tosteson ANA. Cost-effective management strategies for hospitalized adults with suspected bacteremia [abstract]. *Med Decis Making* 1990;10:328.
2. Bates DW, Boyle DL, Teich JM. Impact of physician computer order-entry on physician time [abstract]. *Proc Annu Symp Comput Appl Med Care* 1994;18:996.
3. Petersen LA, Bates DW, Vander Vliet M, Cullen D, Burdick E, Leape LL. Intercepting potential adverse drug events: when the system works [abstract]. *J Gen Intern Med* 1995; 10 Suppl 2:77.
4. Solomon CG, Goel PK, Larsen PR, Tanasijevic M, Bates DW. Thyroid function testing in an ambulatory setting: identifying suboptimal patterns of use [abstract]. *J Gen Intern Med* 1996;11(51):88.
5. Meltzer DO, Hiltz F, Bates DW. Effect of house officer workload on length of stay on traditional and managed care medical services [abstract]. *J Gen Intern Med* 1996;11(51):81.
6. Paterno MD, Mus B, Teich JM, Seger DL, Bates DW. A practical method for presenting drug interactions to clinicians [abstract]. *Proc AMIA Fall Symp* 1996;872.
7. Sims S, Tyrance PH, Bates DW. Physicians' ethical concerns about capitation [abstract]. *J Gen Intern Med* 1997;12(1):85.

8. Kuperman G, Sussman A, Schneider LI, Fiskio JM, Bates DW. Towards improving the accuracy of the clinical database: allowing outpatients to review their computerized data [abstract]. Proc AMIA Symp 1998. p. 220-4.
9. Rothschild JM, Petersen LA, Thomas EJ, Gandhi TK, Bates DW. Interrelater reliability in determination of adverse drug events [abstract]. J Gen Intern Med 1999;14 Suppl 2:67.
10. Karson AS, Kuperman GJ, Fairchild DG, Fiskio J, Mekala A, Bates DW. Why don't physicians follow computerized outpatient reminders [abstract]? The 23rd Annual Meeting of the Society of General Internal Medicine. J Gen Intern Med 2000;15 Suppl 1:125.
11. Karson AS, Kuperman GJ, Horsky J, Fairchild DG, Fiskio J, Bates DW. Patient-specific computerized outpatient reminders to improve physician compliance with clinical guidelines [abstract]. The 23rd Annual Meeting of the Society of General Internal Medicine. J Gen Intern Med 2000;15 Suppl 1:126.
12. Abookire SA, Martin MT, Teich JM, Kuperman GJ, Bates DW. Analysis of user-feedback as a tool for improving software quality [abstract]. Proc AMIA Symp 2000;(20 Suppl):940.
13. Bates DW, Studer J, Reilly CA, Cureton EL, Spurr CD, Kuperman GJ. Evaluating the impact of a computerized ambulatory record [abstract]. Proc AMIA Symp 2000;(20 Suppl):964.
14. Gandhi TK, Sittig DF, Franklin M, Fairchild DG, Sussman AJ, Bates DW. Obstacles to implementation of an electronic referral [abstract]. Proc AMIA Symp 2000;(20 Suppl):1013.
15. Karson AS, Kuperman GJ, Horsky J, Fairchild DG, Fiskio JM, Bates DW. Patient-specific computerized outpatient reminders to improve physician compliance with clinical guidelines abstract]. Proc AMIA Symp 2000;(20 Suppl):1043.
16. Rothschild J, Underwood HR, Weeks J, Earle CC, Fiskio J, Bates DW. A severity adjustment system using electronic data sources for predicting financial outcomes for oncology [abstract]. Proc AMIA Symp 2000;(20 Suppl):1126.
17. Abookire SA, Bates DW, Sandige H, Lee TH. Gender disparities affecting demand for on-call services [abstract]. The 24th Annual Meeting of the Society of General Internal Medicine. J Gen Intern Med 2001;16 Suppl 1:185.
18. Connors LE, Ezer MR, Uchida TL, Fiskio JM, Borus JS, Bates DW, Fairchild DG. Blood pressure control in the diabetic population [abstract]. The 24th Annual Meeting of the Society of General Internal Medicine. J Gen Intern Med 2001;16 Suppl 1:191.
19. Peterson JF, Kuperman GJ, Shek C, Bates DW. Physician responses to life-threatening drug-drug interaction alerts [abstract]. The 24th Annual Meeting of the Society of General Internal Medicine. J Gen Intern Med 2001;16 Suppl 1:212.

20. Rothschild JM, Bartel S, Flynn EA, Barker KN, Gandhi TK, Leape LL, Bates DW. An observational study of outpatient chemotherapy safety [abstract]. The 24th Annual Meeting of the Society of General Internal Medicine. *J Gen Intern Med* 2001;16 Suppl 1:215.
21. Peterson JF, Rosen A, Gandhi TK, Weingart SN, Seger AC, Seger DL, Borus J, Shu K, Burdick E, Federico F, Leape LL, Bates DW. Predictors of adverse drug events in outpatients. *J Gen Intern Med* 2002;17 Suppl 1:117.
22. Poon EG, Gandhi TK, Weingart SN, Burdick E, Peterson JF, Leape LL, Bates DW. Risk factors for prescribing errors in primary care practices: a multivariate analysis. *J Gen Intern Med* 2002;17 Suppl 1:208.
23. Solomon DH, Simel DL, Bates DW, Katz JN, Schaffer JL. General physical examination is accurate for identification of meniscal or ligamentous injuries of the knee. *J Bone Joint Surg Am* 2002;84-A(5):884.
24. Peterson JF, Williams DH, Seger A, Gandhi TK, Bates DW. Drug-lab triggers have potential to prevent adverse drug events in outpatients. *J Am Med Inform Assoc* 2002;9(6 Suppl):S39-40.
25. Gandhi T, Weingart SN, Seger AC, Seger DL, Borus J, Burdick E, Leape LL, Bates DW. Impact of basic computerized prescribing on outpatient medication errors and adverse drug events. *J Am Med Inform Assoc* 2002;9(6 Suppl):S48-49.
26. Poon EG, Wang SJ, Gandhi TK, Kiernan DP, Murff HJ, Rothschild JM, Bates DW, Kuperman GJ. A comprehensive outpatient results manager with decision support: design considerations and architecture. *Proc AMIA Symp* 2002;1132.
27. Wald JS, Pizziferri L, Kittler AF, Jagannath Y, Harris C, Weissmann L, Burk K, Yu T, Volk LA, Middleton B, Bates DW. Patient and staff adoption of web-based communication in primary care. *J Gen Intern Med* 2003;18 Suppl 1:138-139.
28. Murff H, Orav EJ, Lee TH, Bates DW. Patient satisfaction profiling of individual physicians: impact of panel status. *J Gen Intern Med* 2003;18 Suppl 1:212.
29. Volk LA, Pizziferri L, Harris C, Kittler A, Jagannath Y, Wald J, Middleton B, Bates DW. Understanding practice staff readiness for electronic patient practice communication. *J Gen Intern Med* 2003;18 Suppl 1:219.
30. Gandhi T, Overhage JM, Seger AC, Hope C, Murry MD, Weber D, Fiskio J, Teal E, Mills V, Bates DW. Identification of outpatient adverse drug events using a computer monitor. *J Gen Intern Med* 2003;18 Suppl 1:283.
31. Sequist TD, Gandhi TK, Poon E, Murff H, Karson A, Bates DW. Clinician attitudes towards health maintenance and disease specific practice guidelines and electronic clinical reminders. *J Gen Intern Med* 2003;18 Suppl 1:296.

32. Shapiro NI, Wolfe RE, Wright S, Spears J, Bates DW. Who needs a blood culture? a prospectively derived and validated clinical prediction rule. *Acad Emerg Med* 2003 May;10(5):435-436.
33. Kaushal R, Bates DW, McKenna KJ, Soukup JR, Landrigan CP, Goldmann DA. Ward-based clinical pharmacists and serious medication errors in pediatric inpatients. *Academy Health Annual Research Conference*, June 29, 2003, Nashville, TN.
34. Jha AK, Poon EG, Bates DW, Blumenthal D, Middleton B, Kuperman GJ, Kaushal R. Defining the Priorities and Challenges for the Adoption of Information Technology in HealthCare: Opinions from an Expert Panel. *Proc AMIA Symp* 2003;881.
35. Maviglia SM, Strasberg HR, Bates DW, Kuperman GJ. KnowledgeLink update: just-in-time context-sensitive information retrieval. *Proc AMIA Symp* 2003;928.
36. Rothschild JM, Keohane CA, Thompson S, Bates DW. Intelligent intravenous infusion pumps to improve medication administration safety. *Proc AMIA Symp* 2003;992.
37. Poon EG, Wald J, Bates DW, Middleton B, Kuperman GJ, Gandhi TK. Supporting patient care beyond the clinical encounter: three informatics innovations from partners health care. *Proc AMIA Symp* 2003;1072.
38. Persell SD, Maviglia S, Bates DW, Ayanian JZ. Ambulatory management of hypercholesterolemia in patients with atherosclerosis: differences by sex and race. *J Gen Intern Med* 2004;19 Suppl 1:116.
39. Lasser KE, Seger DL, Yu T, Fiskio J, Seger AC, Karson AS, Bates DW. Assessing the frequency of failure to adhere to black-box warnings in outpatients. *J Gen Intern Med* 2004;19 Suppl 1:122.
40. Hicks LS, Horng MS, Fairchild D, Orav E, Bates DW, Ayanian JZ. Association of intensity of hypertension therapy with patient race and ethnicity and blood pressure control. *J Gen Intern Med* 2004;19 Suppl 1:123.
41. Graham RE, Gandhi TK, Borus J, Seger A, Burdick E, Bates DW, Phillips RS, Weingart SN. Concurrent use of prescription drugs and herb/dietary supplements in ambulatory care prevalence, risk factors, and adverse drug events. *J Gen Intern Med* 2004;19 Suppl 1:132.
42. Hicks LS, Fairchild D, Orav E, Bates DW, Ayanian JZ. Guideline adherence and blood pressure control among special populations. *J Gen Intern Med* 2004;19 Suppl 1:155.
43. Poon, EG, Featherstone E, Churchill W, Mitton P, McCrea M, Keohane CA, Bates DW, Gandhi TK. Incidence and severity of dispensing errors in a hospital pharmacy. *J Gen Intern Med* 2004;19 Suppl 1:167.
44. Shah NR, Poon EG, Seger AC, Fiskio J, Murray MD, Overhage JM, Bates DW, Gandhi TK. Risk factors for outpatient adverse drug events. *J Gen Intern Med* 2004;19 Suppl 1:207.
45. Kaushal R, Jha A, Franz C, Jaggi T, Bates DW. The costs and benefits of computerized physician order entry. *J Gen Intern Med* 2004;19 Suppl 1:216.

46. Weingart SN, Pagovich O, Sands DZ, Li JM, Aronson MD, David RB, Bates DW, Phillips RS. What can inpatients tell us about adverse events? *J Gen Intern Med* 2004;19 Suppl 1:237.
47. Gandhi TJ, Weingart SN, Leape LL, Seger AC, Burdick, E, Bates, DW. Medication errors and potential adverse drug events among outpatients. Proceedings of the 1st National Ambulatory Research and Education Conference on Patient Safety; 2003 Sept 18-19; Rosemont, IL. Sponsored by: American Academy of Family Physicians (AAFP), Primary Care Organizations Consortium (PCOC), National Patient Safety Foundation (NPSF), Department of Family Medicine, Pritzker School of Medicine-The University of Chicago; Funding provided by Grant 1R13HS014122, Agency of Healthcare Research and Quality; p. 145.
48. Hsieh TC, Gandhi TK, Seger AC, Overhage JM, Murray MD, Hope C, Weber D, Chan B, Fiskio J, Sun Y, Chang FY, Lamar V, Bates DW. Identification of adverse drug events in the outpatient setting using a computerized, text-searching monitor. *Medinfo* 2004;2004(CD):1651.
49. Kuperman GJ, Greim J, Seger DL, Gandhi TK, Bates DW. How often are maximum dose limits exceeded in a computer order entry application? *Medinfo* 2004;2004(CD):1701.
50. Murray MD, Seger AC, Gandhi TK, Overhage M, Lamar V, Hope C, Bates DW. Use of computers to identify and prevent adverse drug events (ADEs) in outpatients. *Medinfo* 2004;2004(CD):1766.
51. Pizziferri L, Kittler A, Lippincott M, Volk LA, Gupta S, Wang S, Bates DW. Does using an electronic health record require more time for primary care physicians? *Medinfo* 2004;2004(CD):1776.
52. Poon EG, Kaushal R, Jha AK, Christino M, Honour MM, Fernandopulle R, Middleton B, Bates DW, Blumenthal D. Assessing the level of healthcare information technology adoption in the United States: a 2003 snapshot of the Boston and Denver markets. *Medinfo* 2004;2004(CD):1815.
53. Volk L, Kittler A, Wald J, Pizziferri L, Hobbs J, Bates DW. Practice staff experience with patient electronic communication. *Medinfo* 2004;2004(CD):1897.
54. Poon EG, Bates DW, Kuperman GJ, Li Q, Carchidi P, Wang SJ, Middleton B, Gandhi TK. Implementation of an electronic test result management system to improve the quality of abnormal test result followup. *J Gen Intern Med* 2005;20 Suppl 1:46.
55. Linder JA, Chan JC, Bates DW. Appropriateness of antiviral prescribing for influenza in primary care. *J Gen Intern Med* 2005;20 Suppl 1:91.
56. Wuerdeman L, Volk LA, Pizziferri L, Tsurikova R, Harris C, Feygin R, Epstein M, Wald J, Bates DW. Can patients contribute accurate information to their electronic health record. *J Gen Intern Med* 2005;20 Suppl 1:93.
57. Pizziferri L, Lippincott M, Volk LA, Wambsgans C, Wald J, Bates DW. Content of patient messages sent via a secure web portal designed for patient-clinic communication. *J Gen Intern Med* 2005;20 Suppl 1:94.

58. Staroselsky M, Volk L, Tsurikova R, Pizziferri L, Wald J, Bates DW. Improving electronic health record (EHR) accuracy for increasing compliance with health maintenance clinical guidelines through patient access and input. *J Gen Intern Med* 2005;20 Suppl 1:100.
59. Volk LA, Staroselsky M, Pizziferri L, Wang T, Tsurikova R, Wald J, Bates DW. Risk assessment based on patient input of structured family history information compared to risk identified by electronic health record data. *J Gen Intern Med* 2005;20 Suppl 1:103.
60. Poon EG, Cina J, Churchill W, Mitton P, McCrea M, Featherstone E, Rothschild J, Keohane CA, Bates DW, Gandhi T. Effect of barcode technology on the incidence of medication dispensing errors and potential adverse drug events in a hospital pharmacy. *J Gen Intern Med* 2005;20 Suppl 1:199.
61. Tsurikova R, Volk L, Pizziferri L, Lippincott M, Kittler A, Wang T, Wald J, Bates DW. Increasing medication list accuracy in the electronic health record. *J Gen Intern Med* 2005;20 Suppl 1:203.
62. Schiff G, Kim S, Seger AC, Bull J, Bates DW. What is this pill? Results from the Cook County-Harvard solid oral dosage identification (SODID) study. *J Gen Intern Med* 2005;20 Suppl 1:208.
63. Pizziferri L, Kittler AF, Volk LA, Shulman LN, Kessler J, Carlson G, Michaelidis T, Bates DW. Impact of an electronic health record on oncologists' clinic time. *AMIA Annu Symp Proc* 2005;;1083.
64. Rothschild JM, Fang E, Gottschall J, Liu V, Bates DW. Use and Perceived Benefits of Handheld PDA Clinical Reference Applications. *AMIA Annu Symp Proc* 2005;;1099.
65. Shah NR, Seger AC, Seger DL, Fiskio JM, Kuperman GJ, Blumenfeld B, Recklet EG, Bates DW, Gandhi TK. Improving override rates for computerized prescribing alerts in ambulatory care. *AMIA Annu Symp Proc* 2005;;1110.
66. Volk LA, Pizziferri L, Wald J, Bates DW. Patients' perceptions of a web portal offering clinic messaging and personal health information. *AMIA Annu Symp Proc* 2005;;1147.
67. Gandhi TK, Poon EG, Sequist TD, Johnson R, Pizziferri L, Karson AS, Bates DW. Primary care clinician attitudes towards ambulatory computerized physician order entry. *AMIA Annu Symp Proc* 2005;;961.
68. Lo H, Newmark LP, Yoon C, Volk LA, Carlson V, Kittler A, Lippincott M, Wang T, Bates DW. The electronic health record (EHR) in specialty care: a time-motion study. *AMIA Annu Symp Proc* 2006 Nov 11;2006(CD):1014.
69. Virk P, Bates DW, Halamka J, Fournier GA, Rothschild JM. Analyzing transaction workflows in an ePrescribing system. *AMIA Annu Symp Proc* 2006 Nov 11;2006(CD):1129.
70. Goldhamer ME, Bates DW, Cook E, Davis R, Cohen A, Singer D, Simon SR. Research training in clinical effectiveness: does academic status in a cohort of trainees impact time to NIH grant funding? *J Gen Intern Med* 2007;22 Suppl 1:90.

71. Simon SR, Kaushal R, Jenter C, Cleary P, Volk L, Orav EJ, Burdick E, Poon EG, Bates DW. How and why are physicians using electronic health records? A statewide survey. *J Gen Intern Med* 2007;22 Suppl 1:126-127.
72. Matheny ME, Gandhi TK, Orav EJ, Ladak-Merchant Z, Bates DW, Kuperman GJ, Poon EG. Impact on patient satisfaction with physician use of an automated test results management system. *J Gen Intern Med* 2007;22 Suppl 1:128.
73. Jha AK, Chan DC, Ridgway A, Franz C, Bates DW. Transforming acute care: potential savings from improving safety in U.S. hospitals. *J Gen Intern Med* 2007;22 Suppl 1:139-140.
74. Poon EG, Simon SR, Jenter C, Kaushal R, Volk L, Cleary PD, Tumolo AZ, Bates DW. Use of features in electronic health records and health care quality: how are they related? *J Gen Intern Med* 2007;22 Suppl 1:140-141.
75. Jha AK, Bates DW, Jenter C, Orav J, Zheng J, Simon SR. Do minority-serving physicians have comparable rates of use of electronic health records. *J Gen Intern Med* 2007;22 Suppl 1:146-147.
76. Jha AK, Bates DW, Jenter CA, Orav EJ, Zheng J, Simon SR. Do minority-serving physicians have comparable rates of use of electronic health records? *AMIA Annu Symp Proc.* 2007 Oct 11:993.
77. Lo HG, Matheny ME, Seger DL, Bates DW, Gandhi TK. Non-interruptive drug-lab alerts in ambulatory care. *AMIA Annu Symp Proc.* 2007 Oct 11:1038.
78. Poon EG, Simon SR, Jenter CA, Kaushal R, Volk LA, Cleary PD, Tumolo AZ, Bates DW. Use of features in electronic health records and health care quality: How Are They Related? *AMIA Annu Symp Proc.* 2007 Oct 11:1079.
79. McGlinchey EA, Wright A, Poon E, Jenter CA, Bates DW, Simon SR. Ability to perform registry functions among practices with and without electronic health records. *AMIA Annu Symp Proc,* 2008 Nov 6:1052
80. Soran CS, Simon SR, Jenter CA, Volk LA, Burdick E, Bates DW, Poon E. Do electronic health records create more errors than they prevent? *AMIA Annu Symp Proc.* 2008 Nov 6:1143
81. Wright A, Poon E, Wald JS, Schnipper J, Grant R, Gandhi T, Volk L, Bloom A, Williams DH, Gardner K, Epstein M, Nelson L, Businger A, Li Q, Bates DW, Middleton B. Effectiveness of health maintenance reminders provided directly to patients. *AMIA Annu Symp Proc,* 2008 Nov 6:1183.
82. Jenter CA, Soran CS, Volk LA, Kaushal R, Zhou L, Bates DW, Simon SR. Imminent adopters of electronic health records: do things go as planned. *J Gen Intern Med* 2009;24(Suppl 1):S96.
83. Poon EG, Keohane CA, Ditmore M, Moniz T, Yoon C, Bane A, Hayes J, Whittemore A, Rothschild J, Kachalia AB, Levtzion-Korach O, Bates DW, Gandhi T. Impact of bedside barcode scanning technology on medication administration errors in the hospital. *J Gen Intern Med* 2009;24 (Suppl 1):S96.

84. Bates DW. Measuring patient safety: the need for prospective detection of adverse events. *Stud Health Technol Inform* 2009;148:3.

Audiovisual Material:

1. Detmer DE, Bates DW, Donovan P, Tripathi M, Delano D, Fritz T, Johnson KB, Galusha C, Clode JB. Electronic Health Records & Patient Safety. Information Television Network (ITV), Public Television Series Highlights Electronic Health Records and Patient Safety in Examination of U.S. Health Care: Healthy Body, Healthy Mind; Cambridge (MA); 2006.
http://www.itvisus.com/programs/hbhm/episode_804patientsafety.asp

Other Articles:

1. Bates DW, Smith JP, Marra P. Birding Jamaica. Bird Observer 1990; 18:320-7.
2. Bates DW. Anticoagulants: Errors in their use, and claims. Forum (Risk Mgt. Found. of Harvard) 1994;12-14.
3. Bates DW, Leape L. Results of the adverse drug event prevention study, and implications for change. Forum (Risk Mgt. Found. of Harvard) 1995;14-16.