UNITED STATES DISTRICT COURT DISTRICT OF MASSACHUSETTS

GORDON SCHIFF and CELESTE ROYCE,

Plaintiffs,

V.

U.S. OFFICE OF PERSONNEL
MANAGEMENT; CHARLES EZELL, in his official capacity as Acting Director of the U.S. Office of Personnel Management; U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES; ROBERT F. KENNEDY, JR., in his official capacity as Secretary of Health and Human Services; AGENCY FOR HEALTHCARE RESEARCH AND QUALITY; and MAMATHA PANCHOLI, in her official capacity as Acting Director of the Agency for Healthcare Research and Quality,

Case No. 25-cv-10595-LTS

Defendants.

DECLARATION OF GORDON SCHIFF

- I, Gordon Schiff, declare under penalty of perjury that the following is true and correct:
- 1. I am a Plaintiff in this action. I offer this declaration in support of Plaintiffs' Motion for a Preliminary Injunction. I have personal knowledge of the facts set forth in this declaration and could testify competently to those facts if called as a witness.
 - 2. I live in Jamaica Plain, Massachusetts.

Background

- 3. I am an Associate Professor of Medicine at Harvard Medical School ("HMS"). At HMS, I am the Quality and Safety Director for the Center for Primary Care, and a Course Director for the Master's Program in Quality.
 - 4. I am board-certified with the American Board of Internal Medicine.

- 5. I have practiced medicine as a primary care physician since 1976 and continue to see patients at Brigham & Women's Hospital ("BWH").
- 6. At BWH, I am the Associate Director of the Center for Patient Safety Research and Practice and Co-Chair of the Ambulatory Morbidity and Mortality ("M&M") Primary Care Conference.
- 7. I have a Doctor of Medicine degree from Rush Medical College and a Bachelor of Science degree from Tufts University where I graduated magna cum laude.
 - 8. I am licensed to practice medicine in the State of Massachusetts.

Career and Research

- 9. I have been working in quality improvement, patient safety, and health IT, as a practitioner, teacher, researcher, institutional leader, and patient and policy advocate for more than four decades. My main areas of interest and contribution have been in the areas of diagnosis and medication errors and safety, health IT, primary care quality improvement, and patient advocacy.
- 10. Through my training and practice, I am very familiar with the prevailing medical standards and protocols for patient safety and diagnostic safety. From 1976 to 2007, I worked at Chicago's Cook County Hospital, where I was Chair of the Quality Assurance/Improvement Committee, Medical Director of the General Medicine Clinic, Chair of the Drug and Formulary Committee, and Rush Medical College/University, where I was a full Professor of Medicine.
- 11. In 2001, under a safety grant from AHRQ, I established the Cook County Hospital/Rush-Presbyterian-St. Luke's Diagnostic Error Evaluation and Research ("DEER") Developmental Center for Patient Safety Research (DCERPS). This center featured a series of projects such as linking lab and pharmacy data to identify errors, a large case series of diagnostic errors, and the development of the DEER taxonomy tool to classify errors.

- 12. In 2005, I was the lead author on a paper that proposed the DEER taxonomy tool for analyzing diagnostic errors. This framework centers on seven stages of the diagnosis process: access/presentation, history taking/collection, the physical exam, testing, assessment, referral, and follow-up. This framework is helpful for organizing discussions and targeting areas for improvement and research. Specifically, the framework identifies what went wrong and where a failure occurred in the diagnosis process. The DEER taxonomy tool has subsequently been widely used, for dozens of diagnosis quality improvement and research studies and has currently been cited 783 times according to Google Scholar.
- 13. In 2010, I received a grant from the Agency for Healthcare Research and Quality ("AHRQ") to launch the Proactive Reduction in Outpatient Malpractice: Improvement Safety Efficiency and Satisfaction ("PROMISES") project. The PROMISES project (2010–2013), for which I was the primary investigator, sought to improve patient safety by redesigning systems and care processes to combat medical and diagnostic errors and to reduce malpractice risk. PROMISES was a randomized controlled trial to test various interventions to improve safety in sixteen Massachusetts primary care practices, and it demonstrated significant improvement in the intervention practices (compared to the control usual care practices).
- 14. In 2015, the U.S. Institute of Medicine, now the National Academy of Medicine, released *Improving Diagnosis in Health Care*, a landmark report which was supported by AHRQ. I was invited as an expert on diagnostic errors to offer testimony for the report on diagnosis safety and improvement. I was also one of seventeen expert reviewers for the report. The chapter on an overview of diagnostic error in health care featured the DEER taxonomy tool.
- 15. In early 2017, I was the Principal Investigator leading the team that established the Primary-Care Research in Diagnostic Errors ("PRIDE") Learning Network, a multidisciplinary

3

group of patient safety organizations working to study and improve diagnoses. This project was supported by a grant from the Gordon and Betty Moore Foundation to address the challenge of diagnostic errors. The PRIDE Learning Network was a collaboration between the BWH Center for Patient Safety Research and Practice and the Commonwealth of Massachusetts Department of Public Health Betsy Lehman Center for Patient Safety.

- 16. Through the PRIDE Learning Network, my colleagues and I collected and shared lessons from diagnostic error cases, conducted innovative research to improve primary care practice, and advanced diagnostic strategies, eight of which we subsequently published on AHRQ's Patient Safety Network ("PSNet") WebM&M *Case Studies* series.
- 17. From 2018 to 2020, I served on AHRQ's Diagnostic Safety Technical Expert Panel. I have served on ten other panels at AHRQ relating to patient safety and diagnostic error. Since 2022, I have served on the AHRQ steering committee for the Achieving Diagnostic Excellence through Prevention and Teamwork ("ADEPT") project.
- 18. I am one of the principal investigators for a current project to create a Diagnostic Center for Excellence at BWH with the University of Washington, to bring together the two fields of diagnostic improvement with communication and resolution programs.
- 19. I was a founding member of the Society to Improve Diagnosis in Medicine and a member of the American Public Health Association ("APHA"), where I was a founding member of the Medical Care Section Quality Improvement Committee. I am a past Chair of the APHA Medical Care Section. I am also a member of the Society of General Internal Medicine and the American College of Physicians.
- 20. I have authored over two hundred peer-reviewed publications in print and other media, including research studies, reviews, chapters, monographs, and editorials. I have served as

a journal peer reviewer for more than 20 medical journals, and I am the chair of the editorial board of *Medical Care*. I am the author of a chapter (Chapter 9, 21st Edition) in the prestigious *Harrison's Principles of Internal Medicine* textbook, entitled "Diagnosis: Reducing Errors and Improving Quality."

- 21. Through these projects and others, I have helped advance understanding, classification, and prevention of diagnostic errors, building on the development of the widely used DEER taxonomy for classifying where in the diagnostic process errors occur.
 - 22. A true and correct copy of my curriculum vita is attached as Exhibit 1.

Publications on WebM&M and PSNet

- 23. I am the author, co-author, or editor of eleven papers for the WebM&M *Case Studies* series, which have been published on PSNet.
- 24. The PRIDE Learning Network has published eight papers for WebM&M *Case Studies* on PSNet.
- 25. To my knowledge, all or nearly all papers on WebM&M *Case Studies*, and the vast majority of content on PSNet, are authored by doctors that are not affiliated with AHRQ.
- 26. To my knowledge, AHRQ had never removed a paper published on WebM&M *Case Studies* before January 2025.

Drafting and Publication of Suicide Risk Assessment

27. One of the papers I co-authored, titled "Multiple Missed Opportunities for Suicide Risk Assessment in Emergency and Primary Care Settings" ("Suicide Risk Assessment"), is a commentary for the WebM&M Case Studies series, originally published on PSNet on January 7, 2022. Attached as Exhibit 2 is a true and correct copy of Suicide Risk Assessment.

- 28. The underlying case involved a young man who sought emergency care for suicidal ideation but was discharged several times, until a more serious suicide emergency that led to his involuntary psychiatric hospitalization.
- 29. In our commentary on that case, my co-authors and I highlighted the challenge of assessing imminent suicide and making diagnostic decisions. The main thrust of our analysis was that improving suicide prevention requires a multifaceted approach, which includes better screening tools, risk factor identification, proactive interventions, and treatment of underlying mental health disorders.
- 30. Our goal in writing the commentary was to help health care providers better confront the unique and serious challenges of assessing and managing patients who are at risk of suicide.
- 31. My co-authors and I submitted our initial draft of *Suicide Risk Assessment* to the WebM&M *Case Studies* series on or around September 2, 2021. The Editorial Team accepted the proposed commentary with suggested revisions.
- 32. Between September 2, 2021, and November 19, 2021, my co-authors and I produced nine drafts of *Suicide Risk Assessment*. These successive drafts and revisions were and are typical for the iterative peer review process.
- 33. In the second draft, dated September 25, 2021, we added the following language: "High risk groups include male sex, veterans, Indigenous tribes, Lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ) as well as more obvious populations such as those with serious mental illness, prior suicide attempts, ideation/attempts, alcohol or substance use, serious recent illness or emotional distress trauma or loss, history of recent trauma or loss." In support of that proposition, we cited an article in *JAMA*, the world's most widely circulated medical journal.

Attached as Exhibit 3 is a true and correct copy of an excerpted page from the second draft of *Suicide Risk Assessment*, containing that language.

- 34. Prior to publication, one of my co-authors separated that sentence into two sentences and added "suicidal ideation" and "being young" to the list of risk factors. The language in the final draft reads, "High risk groups include male sex, being young, veterans, Indigenous tribes, lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ)." *See* Exhibit 2.
- 35. At no time in the editorial process did PSNet's Editorial Team—or any other AHRQ staff reviewing the drafts—suggest this language was scientifically inaccurate, not germane to the case study, or otherwise outside the bounds of PSNet's selection or publication criteria.
- 36. Far from casting doubt on their veracity and relevance, AHRQ staff sought elaboration on the cited risk factors. On November 17, 2021, a medical officer in AHRQ's Center for Quality Improvement and Patient Safety left a comment asking, "Is there a recommendation that these higher risk individuals be automatically screened?" Attached as Exhibit 4 is a true and correct copy of an excerpted page from the draft, which includes this comment.
- 37. In response, on November 24, 2021, I added a sentence noting a recommendation that "all patients with behavioral health risk factors receive screening." Attached as Exhibit 5 is a true and correct copy of an excerpted page from the draft, which includes this new sentence.
- 38. AHRQ staff did not ask any further questions about this language referencing high risk groups.
- 39. In the published version of *Suicide Risk Assessment*, in a section on recommendations to improve patient safety, we noted that "[h]igh risk groups include male sex,

being young, veterans, Indigenous tribes, lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ)." *See* Exhibit 2.

40. The commentary ended with a prominent standard disclaimer, apparently added by AHRQ, that says "The authors are solely responsible for this report's contents, findings, and conclusions, which do not necessarily represent the views of AHRQ."

Removal of Suicide Risk Assessment

- 41. On January 31, 2025, I received an email from Dr. Patrick Romano, who is the Co-Editor-in-Chief at PSNet. In this email, Dr. Romano informed me that *Suicide Risk Assessment* had been removed from PSNet due to a perception that it inculcates or promotes "gender ideology." A true and correct copy of Dr. Romano's January 31, 2025, email to me is attached as Exhibit 6.
- 42. In this email, Dr. Romano attached a memorandum from the U.S. Office of Personnel Management. A true and correct copy of that attachment is attached here as Exhibit 7.
- 43. Hours later, I shared the email with my colleagues at Harvard and professional organizations to ask for their help in overturning this act of censorship and returning our commentary to PSNet. A true and correct copy of my email is attached as Exhibit 6.
- 44. Later that day, one of the email's recipients, the Editor-in-Chief of the Bellevue Literary Review, replied to ask Dr. Romano, "can you share with me how exactly this transpired? Who contacted you? What was the process? How did they find this case study?" A true and correct copy of that email is attached as Exhibit 6.
- 45. On February 1, 2025, I received another email from Dr. Romano. He again explained that AHRQ staff were required to "[t]ake down all outward-facing media . . . that inculcate or promote gender ideology." He said that guidance provided to AHRQ staff instructed them to remove "anything with the words 'transgender,' 'nonbinary,' or 'gender identity." He

added that "[t]he phrase 'LGBTQ' is problematic because it includes the letter T for 'transgender." He stated "AHRQ staff identified the relevant items (using ordinary search tools)." He explained that "[t]he total impact was to remove" about twenty pieces on PSNet, which included *Suicide Risk Assessment* as well as a second PRIDE WebM&M piece, *Endometriosis Commentary*, for which I provided editorial support. A true and correct copy of Dr. Romano's February 1, 2025, email to me is attached as Exhibit 6.

- A6. On February 6, Dr. Romano emailed my co-authors and me, as well as Dr. Celeste Royce and her respective co-author on the *Endometriosis Commentary*, that AHRQ could republish censored versions of our pieces on the "non-negotiable" condition of the "removal of the problematic words—i.e., the words 'transgender' and 'LGBTQ." Dr. Romano identified the "problematic words" that triggered the removal of *Suicide Risk Assessment* as "three words from a list of risk factors for suicide," including "transgender" and "LGBTQ." A true and correct copy of Dr. Romano's February 6, 2025, email is attached as Exhibit 8.
- 47. I responded to this offer by emphasizing that removing the "offending words" would be unethical because it would require us to remove peer-reviewed, evidence-based information. I believed then, and believe now, that it is irresponsible to censor truth and replace it with nontruth. A true and correct copy of my email is attached as Exhibit 8.

Consequences of the Government's Removal of Suicide Risk Assessment

- 48. I have listed *Suicide Risk Assessment* as a peer-reviewed publication on my CV. *See* Exhibit 1.
- 49. If my commentary remains removed from PSNet, I will have to remove this accomplishment from my CV or seek to republish the commentary somewhere less prestigious

and update my CV accordingly. However, it is unclear where I could republish my commentary even if I undertake the effort to do so, given the unique nature of AHRQ's *Case Studies* series.

- 50. PSNet is a major publication in the patient-safety academic field because it has a wide readership and is known for publishing high-quality articles that practitioners and patients can rely on. It is widely considered the premier patient-safety website in the United States and internationally. The removal of the article has deprived me of a placement in the premier patient-safety publication and the opportunity to be credited for the commentary through a citation in future research. I will also need to revise my CV to remove this commentary from my publications.
- 51. At HMS, I am in the process of seeking promotion from Associate Professor to Full Professor. My record of publication in well-regarded forums such as PSNet directly factors into consideration for promotions.
- 52. In the future, I had expected I would be invited to write commentaries for AHRQ's Case Studies series for publication on PSNet. However, given the Trump Administration's ongoing censorship of terms that "promote or inculcate" what it deems to be "gender ideology," my ability to offer a full commentary and views on medical cases will be restricted. Moreover, none of the Defendants have produced a full list of terms that will trigger their removal of PSNet articles. To avoid the censorship and removal of my future commentaries, I will need to steer clear of expressing my views related to gender and its connection to patient safety—regardless of how much evidence and expertise might inform those views.
- 53. The success of the study of patient safety hinges on preserving the free exchange of ideas, scientific integrity, and evidence-based inquiry. These same objectives are central to PSNet and the WebM&M *Case Studies* series.

- 54. The removal and censorship of this article has a chilling and intimidating effect, both on the academic and research community as well as the transgender patients we care for. Academic researchers have been intimidated or threatened with the removal of grant funds—some projects have actually been terminated due to use of these "banned" terms and concepts. This removal of articles has a chilling effect on science and free academic expression, as well as my ability as a clinician to care for patients. For the patients, this act of censorship that singles out and stigmatizes certain groups is discriminatory and harmful. It means that such patients may not be recognized as having a risk factor (for suicide, or endometriosis) which will impair the quality of their diagnosis and safety.
- 55. When such political censorship as this occurs, it compromises the integrity and trustworthiness of a previously trusted patient safety resource, PSNet.
- 56. In my four decades as a practitioner, teacher, researcher, institutional leader, and advocate, I have never before now encountered an effort by the government to stifle the exchange of ideas in the field of patient safety or academic publication.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 31, 2025, in Boston, Massachusetts.

Plaintiff Gordon Schiff

3/31/25

EXHIBIT 1

Harvard Medical School Curriculum Vitae

Date Prepared: 2/5/2025

Gordon D. Schiff Name:

Office Address: Division of General Internal Medicine

Boston, MA 02120-1613

Home Address:

Work Phone:

Mobile Phone

Work Email:

Work FAX: (617) 732-7072

Place of Birth: Chicago, IL

Education

1972 BS **Biology Tufts University**

magna cum laude

1976 MD Medicine Rush Medical College,

Chicago, IL

Medford, MA

Postdoctoral Training

Categorical Medical Medicine Cook County Hospital, 07/76-06/77

Internship

Chicago, IL Medical Residency Cook County Hospital 07/77-06/80 Medicine Cook County Hospital Medical Chief Medicine 07/80-07/81

Resident

Faculty Academic Appointments

01/00-05/05	Associate Professor	Medicine	Rush Medical College
06/06-01/08	Professor	Medicine	Rush Medical College
12/07-02/08	Lecturer	Medicine	Harvard Medical School
			(HMS), Boston, MA

03/08-**Associate Professor** Medicine **HMS**

Appointments at Hospitals/Affiliated Institutions

08/81-05/87	Attending Physician	Medicine	Cook County Hospital
06/87-06/08	Senior Attending	Medicine	Cook County Hospital
	Physician		
12/07-	Associate Physician	General Internal	Brigham and Women's
	•	Medicine and	Hospital (BWH), Boston,
		Primary Care	MA

Major Administrative Leadership Positions

Local

1987-1996	Director, Fantus General Medicine Clinic	Cook County Hospital
1996-2007	Director, Department of Medicine Clinical	Cook County Hospital
	Quality Research & Improvement	
2007-	Associate Director, Center for Patient	BWH
	Safety Research and Practice	
2010-	Chair, Brigham Network Ambulatory	BWH
	Morbidity and Mortality (M&M)	
	Conference, Primary Care Conference	
2012-	Assistant Course Director HMS-CRICO	HMS
	Best Medical Practice Maximizing Skills,	
	Minimizing Risk course	
2014-2016	Safety Science Director, Center for Primary	HMS
	Care Academic Improvement Collaborative,	
	Center for Primary Care	
2016-	Quality and Safety Director, Center for	HMS
	Primary Care	
2018-	Course Director for the HMS Master's	HMS
	Program in Quality. Special Safety Topics	
	course. MHQS 706.	
	700.	

Regional

1991-1993	Course Co-Director, Field Projects	Inventor's Council
		University of Illinois at
		Chicago Graduate School
		of Industrial Design
2010-2013	Director, Consortium for Patient Safety and	Massachusetts Department of
	Medical Malpractice	Public Health, Boston, MA

Committee Service

Local

1976-1978	Chair/Developer, Committee on Department of Medicine History and	Cook County Hospital
1977-1980	Physical Form Implementation Design and Implementation of Computer Assisted Patient Summary. Housestaff	Cook County Hospital
1983-1987	representative Coordinator, Adverse Drug Reaction (ADR) program	Cook County Hospital
1983-2007	Drug and Formulary (P&T) Committee 1983-2000 2000-2004 2005-2007	Cook County Hospital Member Associate Chair Chair
1985-1992	Chair, Executive Medical Staff Quality Assurance Committee	Cook County Hospital
1985-1993, 2001-2007	Executive Medical Staff 1985-1993, 2001-2007	Cook County Hospital Department of Medicine representative
1985-2007	1989-1993 Department of Medicine representative, Hospital-wide Quality Assurance/Quality Improvement Committee	Officer (Treasurer) Cook County Hospital
1989-2007	Clinical Oversight Committee	Cook County Hospital, Department of Medicine
1991-2007	Chair, Drug Utilization Evaluation Committee	Cook County Hospital
1991-2007	Chair, Drug Utilization Review Program	Cook County Hospital
1992-1998	Quality Assurance/Quality Improvement Committee	Cook County Hospital
	1992, 1994, 1996, 1998	Committee Chair
1993-1997	CEO's Fantus Clinic Redesign Liaison Committee	Cook County Hospital
1993-2007	Anti-Infective Committee	Cook County Hospital
1995	Cook County Bureau of Health Services Clinical Council, Subcommittee on Ambulatory Information Systems	Cook County Hospital
1995	Founding Member, Rush/Cook County Hospital Research Affiliation Committee,	Cook County Hospital
1995-2000	Mission and Priorities Subcommittee Chair, Hospital-wide Multidisciplinary Quality Improvement Teams (Alcohol Withdrawal, Cholecystectomy	Cook County Hospital
1996-1998	Surgery Care, Congestive Heart Failure) Cook County Bureau of Health Services Managed Care Quality and Utilization	Cook County Hospital
1996-2007	Review, Steering Committee Rush–Cook County Research Committee	Cook County Hospital
	· ,	

1997-1998	Cook County Bureau of Health Services Information Task Force	Cook County Hospital
1998-2004	Chicago Antibiotic Resistance Project (CARP) (CDC funding Project)	Cook County / Rush Medical College / Oak Forest Hospital / Provident Hospital, Chicago IL
	1998-2004	Quality Improvement (QI) Consultant
	1998-2004	Member, Information Management Steering Committee
1998-2004	Laboratory Steering Subcommittee	Cook County Hospital
1999	Cook County Bureau of Health Services Physician Order-Entry Implementation Steering Committee	Cook County Hospital
1999-2002	Co-Convener, Hospital-wide Medication Errors Committee	Cook County Hospital
1999-2007	Founding Member, Rush-Cook County	Rush University/Cook County
	Section of Medical Informatics	Hospital, Chicago, IL
	1999-2007	Founding Member
2000	Chair, Executive Medical Staff <i>Ad Hoc</i> Informatics Systems Committee	Cook County Hospital
2001-2002	Pharmacy Services Improvement Taskforce	Cook County Hospital
2001-2004	Cook County Bureau of Health Services	Cook County Hospital
	Cerner Health Information System (HIS)	
	Implementation Committee: for new HIS	
	Computer System Implementation	
	2001-2002	Member, Clinical Core
	2002-2004	Selection Committee
	2002-2004	Member, Clinical Rules/Alert Committee
2001-2004	Lead physician, Cerner Mobile Millennium	
	Project	Cook County Hospital
2003	Team Leader, Failure Modes Effects and	Cook County Hospital
	Analysis Project: Warfarin Lab Results	
2002 2007	Medication Improvement	
2003-2007	Founding member; Representative Cook	Rush Medical College-Cook
	County Hospital, Division of General	Chiana H
	Medicine Social Medicine Section	Chicago IL.
2003-2007	Physician member/representative, Cook	Cook County Hospital
	County Bureau of Health Services Health	, 1
	Insurance Portability and Accountability	
	Act (HIPAA) Steering Committee	
2003-2007	Cook County Bureau of Health Services	Cook County Hospital
	Bureau-wide Formulary Committee	

2004	Search Committee for Department of	Cook County Hospital
2004	Emergency Medicine Chair Medication Management Standards Taskforce	Cook County Hospital
2004-2006	Cook County Bureau of Health Services Pharmacy Special Taskforce	Cook County Hospital
2005	Co-Chair, Cook County Bureau of Health Services Quality Outpatient Pharmacy Improvement Task Force	Cook County Hospital
2008 -2011	Communicating Clinically Significant Test Results Steering Committee	Partners HealthCare System (PHS), Boston, MA
2008-2011	Communicating Clinically Significant Test Results Task Force Clinicians' Committee	PHS
2008 -2013	Acute Care Documentation (ACD) Project Clinical Content Committee	BWH
2008-	Pharmacy and Therapeutics (P&T) Committee	BWH
2009-2016	Chair. Ambulatory Risk Management Leader Group	CRICO Harvard Risk Management Foundation, Boston, MA
2013-2015	Interview Committee. Biomedical Informatics Training Programs (BIRT)	BWH
2014	Selection Committee for Biomedical Informatics Research Trainees, Division of General Internal Medicine and Primary Care	BWH
2014	e-Care Clinical Decision Support (CDS) Taskforce	BWH
2014-2017	e-Care CDS Taskforce	PHS
2015	Health Information Technology (HIT) taxonomy codes development technical	CRICO Harvard Risk Management Foundation
2018- 2018-	working group PCP Safety Net Advisory Committee EHRLL (AHRQ Learning Lab) Steering Committee Representative, Opioid Task Force, Phyllis Jen Center	BWH BWH
2019-2020	Primary Care Management of Non-Face-to- Face Work Task Force	CRICO Harvard Risk Management Foundation
2021-	Primary Care Equitable Patient Care Change Group	BWH
Regional		
2006	State of Illinois Governor's Patient Safety Summit	University of Illinois at Chicago, Chicago, IL

2015-	Representative from HMS Center for Primary Care	Massachusetts Coalition for the Prevention of Medical Errors, Burlington, MA
2018	Vanessa Merker PhD Committee. Understanding the Diagnostic Process in a Rare, Genetic Disease: A Mixed Methods Study of Schwannomatosis. Study of diagnostic errors and delays	BU & MGH PhD Thesis Advisor, Committee Member.
2018-2019	Medication Overload Project, Advisory	Lown Institute
2020-	Committee Advisory Committee to Research Committee	Panel Member Betsy Lehman Center for Patient Safety, Boston, MA
National		
1989	Panel on Ambulatory Review	Wisconsin Peer Review Organization, Madison WI
1993-1994	Review Panel on Cost Sharing and Health Reform	U.S. Office of Technology Assessment, Washington, DC
1996	National Steering Committee writing committee for consumer education brochure Prescription Medicine and You: A Consumer Guide	Agency for Health Care Policy and Research (AHCPR), National Council for Patient Information and Education (NCPIE) Washington DC
1999-2000	Expert Technical Panel, Study of Clinically Relevant Indicators for Pharmacology Therapy (SCRIPT)	Health Care Financing Administration (HCFA), Washington DC and Joint Commission on Accreditation of Healthcare Organizations Oak Brook IL
2002	Invited expert panelist, Improving Medical Device Safety-Supporting Resilience and Innovation in Healthcare Organizations	US Food and Drug Administration (FDA), Rockville MD, and University of Chicago Developmental Center for Research in Patient Safety (DCERPS), Chicago IL.
2002-2003	Ambulatory Computerized Provider Order Entry (CPOE) Center for Information Technology Leadership Expert Panel	PHS
2002-2003	National Clinician Initiative Work Group	The Leapfrog Group, Washington, DC
2002-2005	Expert Advisory Committee for the Leapfrog Patient Safety CPOE Standards and Evaluation Tool	The Leapfrog Group
2003	Faculty Consultant/Expert Reviewer, Patient Safety Learning Pilots: Centers for	CMS, Baltimore, MD

	Medicare and Medicaid Services (CMS)/Quality Improvement Organizations	
	(QIO) Learning Session #2	
2003	Model Development Survey Panel to study information system technology adoption	Center for Health Systems Research & Analysis, University of Wisconsin, Madison WI
2003	Developing a National Action Agenda Steering Committee, Quality and Safety Track	National Health Information Infrastructure, Washington, DC
2006-2007	RAND National Patient Safety Indicator Measurement Delphi Panel	RAND Corporation, Santa Monica, CA
2006	Robert Wood Johnson (RWJ) Leading Change Disparities Solutions Initiative Advisory Board	Disparities Solutions Center, Partners MGH Institute for Health Policy, Boston, MA
2007	ASHP Statement on the Role of Health- System Pharmacists in Public Health Review Committee	American Society for Health System Pharmacists (ASHP)
2007-2008	Physician Practice Safety Self-Assessment Pathways for Patient Safety Tool Development Expert Committee	Health Research and Educational Trust (HRET), Institute for Safe Medical Practice (ISMP), and Medical Group Management Association (MGMA)
2007-2009	Consultant, Closing the Feedback Loop to Improve Diagnostic Quality	University of Alabama
2008	Expert Panel, Prioritizing Patient Safety Outcomes Measures: Results of an Expert Consensus- working paper. WR-601-AHRQ	Agency for Healthcare Research and Quality (AHRQ), Washington, DC
2008	Invited Expert Panel, "Defining Continuous Quality Improvement (CQI) in Health Care". AHRQ Evidence Review for Quality Improvement project.	AHRQ
2008	Invited expert. Brookings Forum Meeting on Post-Market Evidence	Brookings Institution Washington, D.C.
2008	Expert Panel. Trigger and Targeted Injury Detection Systems	AHRQ
2009-2011	Technical Assistance Panel, AHRQ Evidence Report on Medication Management Systems and Health Information Technology	McMaster University, Hamilton Ontario
2008-	Center for Education and Research in Therapeutics (CERT) National Steering Committee	AHRQ
2009	Invited expert participant. Comparative Effectiveness Research Method Symposium	AHRQ

2009	Technical Expert Panel, The Patient Safety Education Project (PSEP)- Patient Safety	AHRQ
2010	Education in nursing homes Project. Evaluation of Primary Care Practice Transformation Efforts, Patient Centered Medical Home (PCMH) Process/	Commonwealth Fund
2010-2011	Implementation Evaluation Working Group Key contributor, Educational Module: Reducing Diagnostic Errors (electronic and paper versions).	National Patient Safety Foundation, Boston, MA
2010-2013	Data Safety Monitoring Board	"Using Novel Canadian Resources to Improve Medication Reconciliation at Discharge" study (Robyn Tamblyn PI)
2011-2012	Technical Advisory Panel, Proactive Risk Assessment During the Clinical Laboratory Testing Process to Reduce Diagnostic Error	AHRQ
2013-2016	Expert Advisory Board, Patient Safety Center of Inquiry (PSCI) on Measurement to Advance Patient Safety (MAPS)	Veterans Administration, Washington, DC
2014	Strategic Priorities Expert Panel, Continuum of Care Safety	IHI
2014	Invited Participant, CERT Promoting Appropriate Medication Use: A Collaborative Strategy Symposium	AHRQ
2014	Invited expert testimony and reviewer, Committee on Diagnostic Errors in Medicine	Institute of Medicine, Washington, DC
2014-2015	Taskforce member, Teamwork Working Group	National Cancer Institute / American Society of Clinical Oncology. Alexandria, VA
2015	Expert reviewer, Technical Brief, Patient Safety in Ambulatory Settings	AHRQ Co-author, key informant
2016	Advisory Board, Curriculum on Diagnostic Reliability	Kaiser Permanente School of Medicine
2017	Pragmatic Insights on Patient Safety Priorities and Intervention Strategies in Ambulatory Settings. Technical Brief DOI:	AHRQ
2017	http://dx.doi.org/10.1016/j.jcjq.2017.06.009 Expert Interviewee, Study of the Benefits of Interoperable Health Information Exchange Interoperable Exchange of Health Information (IEHI)	Office of the Assistant Secretary for Planning and Evaluation (ASPE), U.S. Department of Health and Human Services /

2017-2019	Member: Technical Advisory Group. Volume I: Technical Proposal Published 7/13/17 Making Health Care Safer III Project/Contract Abt RFTOP Number 17-	Urban Institute AHRQ
2018	233-SOL-00463 Consultant on report and redesign of Diagnostic Error coding taxonomy, PA- PSRS Event Analysis	Pennsylvania Patient Safety Authority
2018	Expert panelist, Thought Leader Feedback Session	US Pharmacopeia
2018	Symposium Expert Panelist, Achieving a Learning Health System for Diagnostic Excellence: Toward a Learning System for Improving Diagnosis & Facilitator for Stroke Diagnosis Group, Design of Prototypical Learning Cycle	Moore Foundation, Ann Arbor, MI
2018	Consultant and Presenter on Clinical Documentation, Specialist Certificate Program "Using Health Information Technology (HIT) to improve healthcare quality & safety"	International Society for Quality in Health Care (ISQua)
2018-2019	Expert panelist for Diagnostic Error Scoping Review (DEScR) Project, Division of Laboratory Systems (DLS), CSELS	Centers for Disease Control and Prevention
2018-2020	Diagnostic Safety Technical Expert Panel, Medical Office Surveys on Patient Safety Culture TM (SOPS TM), Safety Culture Survey: Diagnostic Safety Supplemental Items for Medical Offices	AHRQ
2019	Research Advisory Board	"Exploring and Addressing Diagnostic Error Disparities Related to Cognitive Reasoning Pitfalls" study / Society for Improvement of Diagnosis in Medicine
2020	Invited Participant, Summit and Roundtable on Research Priorities for Patient Safety Improvement	AHRQ
2020-2021	Member of research team	"Learning While We Build: Identifying the Must-Know Research Questions for Safe and Effective Telediagnosis Multi- Stakeholder Effort to Issue Research Recommendations" study / PCORI / Society to

2020-2022	Expert Panel (recommendations published in JAMA Netw Open 2022;5(2):e2148599)	Improve Diagnosis in Medicine "Development of a Metric to Detect and Decrease Low-Value Prescribing in Older Adults"
2020-2021	Tool Development Committee, Common Formats (for Diagnosis Error Structured Reporting) / Site PI for Medstar	study AHRQ
2021	development and testing project Diagnostic Disparities Project Review Panel	Society to Improve Diagnosis in Medicine & Coverys Community Healthcare
2021-2022	Technical Advisory Committee, Composite Measure of Diagnostic Performance for Pulmonary Embolism (John Sather PI)	Foundation Yale School of Medicine / Gordon and Betty More Foundation Diagnostic Excellence Initiative
2021	Panelist, Telemedicine Roundtable	AHRQ
2022-2024	Advisory Committee. Pediatric Dx	CRICO Funded Project
2022 2026	Uncertainty Project. (Tina Cifra MD PI)	ALIDO
2022-2026	Steering Committee. Achieving Diagnostic Excellence through Prevention and	AHRQ
	Teamwork (ADEPT). Auerbach PI	
2024	ABIM Foundation Medical Debt- Convening panel meeting. Invited expert participant. 6/10/2024	ABIM
International		
2016	PhD Thesis advisor/reviewer Anna-Riia Holmström, the. Medication Safety PhD	University of Helsinki
2018-2021	Global Digital Exemplar (GDE) Independent Evaluation Advisory/Steering Committee	National Health Service, UK
2019	Expert Panel Member, Centre for Health Systems and Safety Research. Australian Institute of Health Innovation. Andrew Georgiou PI.	Australia Centre of Research Excellence in Diagnostic Informatics (CREDI)
Professional S	<u>ocieties</u>	
1980-	American Public Health Association (APHA) 1980- 1992-	Member Member, Drug Policy Committee

	1993-	Founding member, Quality Improvement Committee (QIC)
	1995, 1997, 2003-	Annual Meeting Abstract Reviewer
	1996-1999	Chair, Quality Improvement Committee
	1997-2000	Medical Care Section Counselor
	1999-	Founder, Chair, Avedis
		Donabedian Quality Award
		Committee
	2003-	Annual Meeting Abstract
		Reviewer
	2004-2006	Medical Care Section Chair-
	2001 2000	Elect
	2005-2007	Medical Care Section Chair
	2008-2010	Immediate Past Chair; APHA
	2000 2010	Intersectional Council
		representative
1984-	Society of General Internal Medicine	representative
1701	(SGIM)	
	1984-	Member
	1985-1992	Abstract reviewer
	1990-1991	Midwest meeting workshop
	1,5,0 1,5,1	coordinator
	1991-1992	Midwest meeting interest group
		leader/ convener
	1991-1998	Institutional representative, for
		Cook County Hospital
	1995-1998	Member, SGIM research
		committee
	1999, 2001	Nominee, President Midwest
	,	SGIM
	2002-2007, 2009, 2011	Judge, for Lipkin & Hamolsky
	,	Student Awards committee
	2002	Meeting Meet-the-Professor,
		SGIM Annual Meeting
	2003	Chair, Annual Meeting Health
		Policy Workshop Reviewer
		Committee
	2003	Faculty, One-on-One Mentoring
		program national SGIM meeting
	2003-2005	Member, Herbert W. Nickens
		Award Committee
	2009	Judge New England Region
1984-2010	Society for Medical Decision-Making	
	1984-2010	Member

	1989-1991	Organizer, Co-Chair of Chicago Chapter
1985-1997	International Society of Pharmacoepidemiology	Member
1985-2008	United States Pharmacopeial Convention	
	1985-	Expert panel member
	1985, 1990, 1995	Member Committee of Revision, Official at-large delegate for United States
	1985-2000	Member, Consumer Interest/Health Education Panel
	1990-2000	Committee Chair, Consumer
		Interest/Health Education Panel
	1990-2000	Member, Committee of Revision
	1990-2000	Member, Drug Information Division (DID) Executive
	1995-2000	Committee Committee Chair, Consumer
	1993-2000	Interest/ Health Education Panel
	1996	Convener, USP High Tech IT
		Working Group
	2000-2005	Member, Safe Medication Use
		(SMU) Expert Committee
	2000-2005	Member,
		MedMARX/Medication Error
		Reporting System: Data
		Analysis Working Group
	2006-2010	Member, Medication Error Data
1096 2002	Association for Heath Services Research	Analysis Expert Panel
1986-2003 1989-		
1909-	Physicians for a National Health Program 1989	Founding member
	1991-	National Board member
	1994-1995	National President
	2003-2017	Speaker, at annual national
		leadership development training sessions
1989-	Alliance for the Prudent Use of Antibiotics	
1991-	American College of Physicians	
	1999-2006	Member, Illinois Region Public
1000 200		Policy Committee
1993-2006	American College of Medical Quality	
1995-2002	American Diabetes Association	
1996-	International Society for Quality in Health	
	Care	

1997-2007 1997-	Chicago Area Third Wave Group American Medical Informatics Association	Member
1,7,7,1	2003,2004, 2006-2007, 2011	Abstract reviewer
	2006	Member National meeting
		Scientific Program Committee
		for Applications of Informatics
		Track
	2008	Review of papers for the AMIA
	2008	Annual Symposium selected by members of the Scientific
		Program Committee (SPC)
	2019	Panel / Writing Committee,
		AMIA Draft Group for
		Response to the ONC / CMS
		Health IT Burden Reduction
2005-2011	Healthcare Information and Management	Report
2003-2011	Systems Society (HIMSS)	
	2007	Task force and writing
		committee member: HIMSS
		White Paper: EHR
		Implementation in Ambulatory
	-044	care (white paper)
	2011	Clinical Decision Support
		Workgroup and Task Force,
		Clinical Decision Support Guidebook Series
2011-2024	Society to Improve Diagnosis in Medicine	Guidebook Series
2011 2021	2011	Founding member
	2011-	Member, Research Steering
		Committee Reviewer Abstracts
	2015	annual DEM Conference
	2015	Invited participant national
	2015-	SIDM Board meeting Member, Quality Improvement
	2013	Committee
	2021	Project Advisory Team,
		Improving TeleDiagnosis: A
		Call to Action

Grant Review Activities

1996-2007 Cook County Research Committee for Rush/Cook County Collaborative Research Grant Program applications.

Cook County/Rush University Member

1989	Panel on Ambulatory Review. Grant Review	Wisconsin Peer Review Organization Member
1993-1994	Review panel "Benefit Design in Health Care Reform," OTA-BP-H-112.	Office of Technology Assessment (OTA) Reviewer
1999-2000	Theory and methods for minimizing drug name confusion errors	National Patient Safety Foundation Reviewer
2003	Grant Review Study Section: Safety Practices Implementation Challenge Grants (RFA HS-03-005).	National Institutes of Health (NIH)/AHRQ Reviewer
2003	Grant Peer Reviewer-Tahiti Project: Advancing Health Care Info Technology Review Proposals.	Kaiser Permanente Research Foundation Reviewer
2004	Grant Review Study Section: Transforming Healthcare Quality Through Information Technology (THQIT) Health Information Technology Resource Center (AHRQ-04- 0016)	AHRQ/National Library of Medicine (NLM) Reviewer
2004	Grant Review Study Section: Transforming Healthcare Quality Through Information Technology (THQIT) – Demonstrating the Value of Health Information Technology Grants. A-HS-04-012 (HITRC) Special Emphasis Review Panel	AHRQ/NLM Reviewer
2005	Grant Review Committee, Pharmacy- Nursing Partnership for Medication Safety Grant Program. Final Review	ASHP Research and Education Foundation Reviewer
2007	Special Emphasis Panel (SEP) for the Funding Opportunity Announcement (FOA), entitled, Ambulatory Care Patient Safety Proactive Risk Assessment. Rockville, MD. 5/21-5/22/07	AHRQ Reviewer
2008	Grants Programme for Applied Research: Enhanced Patient Safety via Improving Diagnostic Accuracy in Primary Care. NIHR Program Grants for Applied Research	National Institute of Health Research, UK Reviewer
2008	Program Grants for Applied Research Research Full Stage	UK National Institute of Health Peer Reviewer
2018	reviewer Policy Research Program; Application PR-ST-01-1001 PRP(ST-01-XX) Optimizing ePrescribing in Hospitals	National Institute for Health Research, National Health Service, UK Reviewer

2014, 2015,	Patient Safety Grants	CRICO
2016, 2017		Reviewer
2018	Policy Research Programme PR-ST-01-	National Health Service, UK
	10001 Optimizing ePrescribing in Hospitals	Reviewer
2020, 2021,	DxQI Seed Grant Program, Moore	Society to Improve Diagnosis
2022	Foundation grant project	in Medicine (SIDM)
		Review Committee Member

Editorial Activities

Ad hoc Reviewer (selected list)

Annals of Internal Medicine Applied Clinical Informatics

BioMed Central (BMC) Medical Informatics and Decision Making

BMJ Quality and Safety in Health Care

BMJ Quality Open

Diagnosis

Health Affairs

International Journal Health of Services (IJHS)

Joint Commission Journal on Quality and Patient Safety

Journal of Clinical Informatics (JCI)

Journal of General Internal Medicine (JGIM)

Journal of Public Health Policy

Journal of the American Medical Informatics Association (JAMIA)

Journal of the American Medical Association (JAMA)

JAMA

JAMA Internal Medicine

JMIR Medical Informatics

Medical Care

New England Journal of Medicine (NEJM)

NEJM Catalyst

Journal of Patient Safety

Other Editorial Roles

1997	Guest Editor	Institute for Healthcare Improvement (IHI) Eye on Improvement Newsletter
1997-2011	Editorial Board	Medical Care
1999-2001	Editorial Board	IHI Eye on Improvement
1999-	Editorial Board	Journal of Public Health Policy
2002	Review Board	Yearbook of Medical Informatics
2003	Interim Editor	Journal of Public Health Policy
2005	Guest editor, Special Issue on	Joint Commission Journal on Quality
	Critical Test Results Management	and Safety in Healthcare
2007-2014	Editorial Board	Joint Commission Journal on Quality
		and Safety in Healthcare

2008	Guest Editor, Special Issue Medical Care on Health Insurance in the U.S.	Medical Care
2008-2011	Editorial Board	Clinician-Consumer Health Advisory Information Network (CHAIN) Online –AHRQ CERTs educational, informational, web-based resource dissemination
2011-2012	Guest Co-Editor, Special Issue on Pharmaceutical Policy	Medical Care
2011-	Chair of Editorial Board	Medical Care
2013-	Editorial Advisory Board	BMJ Quality & Safety
2014	Reviewer "Chapter 1. Introduction to N-of-1 Trials: Indications and Barriers" (DECIDE-13-035)	Decide AHRQ Effective Health Care Program
2017	Academic Guest editor, Medication reconciliation manuscript	PLOS Medicine
2019-2023	Editor for PRIDE Cases (total 8 to date; Acute Renal Failure 2° BPH, Colon Cancer, Spinal Epidural Abscess, Endometriosis, Breast Cancer, Suicide Risk) published at AHRQ Web M&M	AHRQ PS Net website https://psnet.ahrq.gov/home

Book/Textbook Editorial Roles

2006	Book editor; author or co-author of five chapters.	Getting Results: Reliably Communicating and Acting on Critical Test Results. Oakbrook Terrace, IL: Joint Commission Resources: 2006
2013	Book Peer Reviewer (later invited to contribute chapter)	Resources; 2006 Annemarie Jutel Goldstein and Kevin Dew, eds. Social Issues in Diagnosis: An Introduction for Students and Clinicians. Baltimore, MD: Johns Hopkins University Press, 2014.

Honors and Prizes

1989 Health Activist Award Health Policy Advisory Center

1994	Selected Interviewee for 50 Leaders in Medicine	Mentors, Mastery and Technology Project. Training in Internal Medicine Kohrman, Anderson, Clements, editors.	
2000	Top 10% Quality Reviewer Commendation	Annals of Internal Medicine	
2001	Quentin D. Young Health Activist Award	Physicians for a National Health Program	
2002	Fellow	Institute of Medicine of Chicago	
2002	Special Leadership Recognition Award	Cook County Hospital Executive Medical (EMS) Staff	Leadership in Committee to Save Cook County Hospital's advocacy role in building new Cook County Hospital
2004	Top 10% Quality Reviewer Commendation	Annals of Internal Medicine	<u>r</u>
2005	Chicago Patient Safety Leader of the Year award	Institute of Medicine of Chicago / Chicago Patient Safety Forum / Otho Sprague Memorial Institute	
2005	Soul of Medicine Award	Physicians for Social Responsibility	
2006	1st Annual Advocacy and Community Service Award	Midwest Society for General Internal Medicine (SGIM)	
2006	30 People for the Future	Modern Healthcare. Celebrating 30 years: the people	Selected as one of 30 national "leaders who are likely to continue to shape health care in the years and decades ahead."
2006	Lifetime Achievement Award	Institute for Safe Medical Practices (ISMP)	
2008	Special service to the community award	Health and Medicine Policy Research Group	
2009	Partners in Excellence Award	Partners HealthCare	Member of communicating Critical Test Results Task Force.

2010	Rx for Excellence Award	Massachusetts Medical Law Report 3 rd Annual Leaders in Quality	
2012	Partners in Excellence Team Award	Partners HealthCare	Understanding Emergency Physician Electronic Documentation and Decision Support Needs
2012	The Brigham Way Award	BWH	Honored as Model Staff Member for The Brigham Way Campaign (poster with quote, awards presentation)
2013	Subject of Harvard Medical School Graduation Student Commencement Speaker	HMS 225th Commencement Speaker Deep Shah.	Cited for care of BWH inpatient and teaching role model
2014	Top reviewer commendation	Annals of Internal Medicine	
2014	Outstanding Leadership, Service and Dedication Award	Medical Care Section. American Public Health Association	
2015	Top Article of Year	BMJ Quality & Safety	CPOE Errors Analysis and Vulnerability Testing study
2017	The Brigham Way Award	BWH	Extraordinary service to patients
2018	Partners in Excellence Award	Partners HealthCare	Indications-based Prescribing Project
2019	Mark Graber Diagnostic Quality Award	Society to Improve Diagnosis in Medicine (SIDM)	Top international contributor in diagnosis safety Inaugural awardee
2020	John M. Eisenberg Award for Patient Safety and Quality	Joint Commission and the National Quality Forum (NQF)	2019 Lifetime Achievement Award recipient (nation's top quality/safety award)
2021	Avedis Donabedian Quality Award	American Public Health Association (APHA) Medical Care Section	22 rd Annual award for contributions to medical quality

2024 Editor's Choice Award Journal of the American

College of Clinical Pharmacy

(JACCP)

Top article in past 2 years for editorial Bruce Lambert and I wrote in 2022 on the Radonda Vaught medication error

Report of Funded and Unfunded Projects

Funding Information

Past

1989-1991 Improving Quality in Cook County Hospital General Medicine Clinic

Robert McCormick Foundation

PΙ

Grant for improving care in the General Medicine Clinic at Cook County

Hospital.

1999-2000 Theory and methods for minimizing drug name confusion errors

National Patient Safety Foundation Co-investigator (PI Bruce Lambert)

Evaluating screening algorithms for look-alike sound- alike drug names'

medication errors. Medical expert for project

1999-2002 RAND evaluation component of Chronic Disease Collaborative

RAND Corporation

Site PI (PI Edward Wagner)

Multisite IHI Collaborative Project on congestive heart failure. Site PI for evaluation of outcomes and effects of multidisciplinary intervention and

learning sessions.

2000 Potential Effects of Online Pharmacies on the Patient Provider Relationship

University of California San Francisco

Consultant (PI Helene Lipton)

Compared patient survey response related to pharmacy services of online mail

order pharmacies and traditional community-based pharmacy services.

2001-2005 Development of Center for Evaluation and Research in Patient Safety: The

Cook County Hospital/Rush-Presbyterian-St. Luke's Diagnostic Error Evaluation and Research (DEER) Developmental Research Center

AHRO P20HS011552

Ы

Established center for research in diagnostic errors (only 1/93 AHRQ Safety grants focused on diagnosis) that featured multiple projects including electronic linking of lab and pharmacy data to identify errors, case series of hundreds of diagnostic errors, development of the DEER taxonomy tool for classifying errors.

2002 Breakthrough Series on Improving Care to Chronically Ill – Congestive Heart Failure Collaborative. IHI project Funded by Robert Wood Johnson PI for Participating Site Scholarship Award Chronic disease improvement for diabetes and hypertension patients to determine if multifaceted intervention could decrease ED visit and readmissions Harvard-Cook County Solid Oral Dose-form Identification Study 2004-2005 United States Pharmacopeia Inc. / American Society of Health Systems Pharmacists (ASHP) Foundation Co-PI (w/ David Bates) Studied clinicians' ability to use pill imprint codes to identify solid oral dosage forms pills in 2 clinician settings (Cook County; Brigham) demonstrating inability to do so and need for universal imprint coding system which worked on in coordination with United States Pharmacopeia Inc. 2005-2006 Medication Reconciliation regional medication safety initiative Michael Reese Health Trust Co-PI (w/ Bruce Lambert) Enhancing communication and coordination between hospital-based clinicians, community pharmacies, and outpatient physician offices. 2005-2007 DECIDE (Developing Evidence to Inform Decisions about Effectiveness) Network AHRO Chicago DECIDE Research Center, University of Illinois at Chicago Center for Pharmacoeconomics Research Co-investigator (PI Glenn Schumacher) Series of pharmaco-economics literature reviews related to medication effectiveness and formulary decision-making. Formulary Leveraged Improved Prescribing (FLIP) Project. 2006-2008 Cook County Stroger Hospital / UIC College of Pharmacy and Department of **Medical Education** PΙ Attorney Generals' Consumer and Prescriber Grant Program: The Marketing of Medicines: Development, Dissemination and Evaluation of a Critical Skills Curriculum for Prescribers. 2007-2009 Closing the Feedback Loop to Improve Diagnosis AHRQ R18HS017060 Co-investigator (PI Eta Berner) Build an interactive voice response system to follow-up on patients seen in 3 urgent care clinics at University of Alabama and demonstrated feasibility of and value of such automated follow-up systems. 2008-2009 Using Feedback to Close the Loop on Diagnosis Errors at Brigham and Women's Hospital and Clinics CRICO-Harvard Risk Management Foundation PΙ Detailed surveillance system to identify diagnostic errors and feedback findings of case review to upstream providers. Tools for Optimizing Prescribing, Monitoring, and Education (TOP-MED) 2008-2012

AHRQ U18HS016973

Clinical Director (PI Bruce Lambert)

AHRQ CERT (Center for Education and Research in Therapeutics)

5 Projects testing high leverage tools to improve safety of medication use including: formulary oversight, conservative prescribing culture, N of 1 Trial (for gabapentin), pharmaco-economic analysis of formulary applications.

2009 Patient Safety Interventions to Reduce Diagnostic Error in the Ambulatory Setting

AHRQ Action Master Task Order Mechanism HHSA290200600001 Task 8 Technical expert panel (PI Mark Graber)

Literature review on cognitive and systems approaches to decreasing diagnostic errors in ambulatory care

2010-2011 Evaluation of Primary Care Practice Transformation Efforts

Commonwealth Fund PCMH Process/Implementation Evaluation Working Group

Chair, Qualitative Evaluation Working Group (PI David Bates)

Evaluation of multiple sites efforts to establish patient centered medical homes. Conducted qualitative evaluation of 5 clinic sites in several clinic networks in NY and MA.

2010-2011 Evaluating the Impact of Computerized Physician Order Entry Systems on the Quality, Safety, and Cost of Care in Massachusetts Community Hospitals Commonwealth Fund

Co-investigator (PI David Bates)

Before and after comparisons of frequency of medication errors in community hospitals following implementation of electronic medication ordering (CPOE

2010-2011 Analysis of CPOE-related errors reported to USP's MEDMARX error-reporting system

National Patient Safety Foundation

PΙ

Review of 2.5 million medication error reports for CPOE related errors, with detailed review of 10,000 selected reports followed by testing current systems' vulnerabilities to the errors identified in the reports.

2010-2012 Advancing Clinical Decision Support (ACDS): Key lessons in clinical decision support implementation

RAND-BWH Contract, Office of the National Coordinator, American Recovery and Reinvestment Act

Task 3 Team member / Subtask 3.3 Team Leader (PI Douglas Bell and Blackford Middleton)

Led literature and consensus development for theoretical constructs (schema) for clinician decision support models to aid in Roll out of effective CDS interventions

2010-2013 PROMISES (Proactive Reduction in Outpatient Malpractice: Improving Safety Efficiency and Satisfaction) Malpractice & Safety Project AHRQ R18HS019508
Clinical and Research Director (PI Madeleine Biondolillo)

Randomized trial of multiple quality improvement interventions for decrease patient safety and malpractice risk in small and medium size primary care practice across Massachusetts. Relationship Between Documentation Method and Quality of Visit Notes Partners Siemens Research Council Investigator (PI David Bates) Developed and validated instrument for chart review of electronic notes and correlation with quality indications Project 2 E-pharmacovigilance – Calling for Early Detection of Adverse Reactions (CEDAR) Project. AHRQ HIT CERT (Health Information Technology Center for Education and Research in Therapeutics) U19HS021094-05 Component Project PI (PI David Bates) Cluster randomized trial of using interactive voice response technology coupled with live pharmacist support to automatically screen patients newly started on medications for hypertension, diabetes, depression and insomnia in 14 primary care clinics, to conduct pharmaco-epidemiologic surveillance for adverse reactions and assist patients reporting reactions. Tools for optimizing medication safety (TOPMEDS) AHRQ U19HS021093 Co-investigator / Senior consultant (PI Bruce Lambert) AHRO CERT Center grant for 4 projects to develop tools to enhance medication safety including tool to screen for Drug Name Confusion, safe opioid dosing, patient education leaflet projects.

2012-2014 Brigham Computerized Prescriber Order Entry Medication Safety Project (CPOEMS)

US FDA - Task Order Proposal: Contract Number HHSF2232010000081 Computerized Physician Order Entry (CPOE) System Task Order Contract Project PI

Multisite FDA-requested project to examine patient safety vulnerabilities of CPOE systems using multiple methods including direct observation of 10 CPOE systems, on site interviews, review of help desk and patient safety logs, analysis of medication orders discontinued in error.

2014-2015 Automated Surveillance for Medication Errors and Adverse Reactions MedAware

PΙ

2011-2012

2011-2015

2011-2015

Evaluation of advanced artificial intelligence commercial software screening program to assess accuracy, validity, and usefulness of alerts, as applied to large BWH outpatient drug database for 5 year period.

2014-2016 Understanding and Preventing Diagnostic Pitfalls CRICO

Ы

Developed new construct of "Diagnostic Pitfalls" and collected pitfalls from literature, safety reports, specialty focus groups, and malpractice cases

2014-2016 HIT Safety Retract and Reorder Wrong Patient Errors AHRQ R01 HS024945 Co-investigator (PI Bruce Lambert)

Studying two types of self-interception events 1) abandon-and-reorder and 2) retract-and-reorder events following indications based (drug indication mismatch) decision support alerts in two CPOE implementations

2014-2018 Enhancing Medication CPOE Safety & Quality by Indications Based Prescribing

AHRQ R01HS023694

PΙ

4 year project to examine rationale, feasibility, barriers to redesigned prescribing that incorporated drug indications, culminating last 2 years with design and testing of indications-based CPOE prototype that was compared head to head with 2 leading EMR vendors' CPOE system and found safer, more efficient and preferred by physicians.

2014-2022 Engineering High Reliability Learning Lab: Engineering Highly Reliable Communication and Coordination Systems for High Risk Patients, Referrals, and Tests

AHRQ P30 1P30HS024453-01

Co-investigator / Core team member (PI Sara Singer)

Collaboration with Northeastern Engineering School to use high reliability methods to drive 4 quality improvement projects-opioid prescribing (at BWH), scoliosis spine surgery (Boston Childrens), out of network referrals (Atrius), discharge planning/coordination (Mt Auburn Hospital).

2015-2017 Clinician-Patient Relationships: Boundaries, Barriers, Breakdowns Arnold P Gold Foundation for Medical Humanism / Lucian Leape Family Foundation

PΙ

a) National AMA Masterfile random sample survey of primary care physicians attitudes and behaviors regarding physician-patient boundaries and b) review of 500 "patient terminations" in a large primary care research network.

2015-2020 Delivering safe and effective test result communication, management and follow-up

Australian Government National Health and Medical Research Council Consultant (PI Andrew Georgiou)

Multi-project initiative to conduct literature review, study issues and performance of test results management systems in multiple hospitals in Australia

2016-2019 Primary-care Research in Diagnosis Errors (PRIDE) learning network Gordon and Betty Moore Foundation

PI

Established collaborative network of patient safety organizations, malpractice insurers, academic partners to review primary care diagnostic error cases; international consensus panel to draft principles for conservative diagnosis, work on diagnostic pitfalls taxonomy and coding of error cases.

2017-2021 Tools for Improving Primary Care Diagnostic Safety CRICO

PΙ

Development and testing of five tools to enhance ambulatory diagnosis and decrease diagnostic errors: a) communicating diagnostic uncertainty to patients, b) PSA shared decision-making and documentation, c) laboratory based formatted report of abnormal lab test results, d) colonoscopy ordered: performed metric database reporting, e) assessing the Assessment

2019-2022 Safely Improving Emergency Diagnostic Testing through Clinical Safe Harbors

AHRQ R18HS025931 / Vanderbilt University Medical Center

Co-Investigator / Steering committee / Expert panel (PI Allan Storrow) Creation of clinical practice guidelines to permit clinicians to safely avoid defensive medicine practices related to inappropriate imaging and other diagnostic testing in the Emergency Department.

2019-2022 MD SOS: Measuring Diagnosis: Safety or Stress

CRICO

PI (\$199,338)

Ambulatory diagnostic safety study correlating diagnostic process quality with clinician burnout.

2017-2022 Preventing Wrong-Drug & Wrong-Patient Errors with Indication Alerts in CPOE Systems

AHRQ U19HS021093

Co-Investigator (PI Bruce Lambert)

Evaluate use of indication-based alerts to warn prescribers about potential medication errors, particularly look-alive sound-alike errors in several hospitals in NY and Chicago.

Current

In no cost extension final year:

2017-2024 Conservative Prescribing: Prescriber Profiling and Education Project Gordon and Betty Moore Foundation

PI (\$2,024,425)

Collaboration with VA, University of Illinois at Chicago, Northwestern to develop and measure metrics to characterize prescribing variations and extent to which they conform to 24 conservative prescribing principles. Creation and deployment of IHI Open School course on Conservative Prescribing: 4 lesson course.

2018-2024 Monitoring for Adverse Drug Events

Gordon and Betty Moore Foundation

PI (\$1,499,662)

Building on prior successful automated screening RCT we performed using interactive voice response surveillance coupled with live pharmacist support, this project extends this screening to use of patient portal and text messaging to

patients newly started on medication in primary care clinics. Coupled with work on new conceptual model for characterizing the dimensions of adverse drug reactions.

2019-2024 Primary-care Research in Diagnosis Errors (PRIDE 2) learning network Gordon and Betty Moore Foundation PI (\$759,916)

Continuation of PRIDE diagnostic errors identification, analysis, sharing network. Creation of PRIDE Toolkit for organizations to use to assess, learn from, and prevent diagnostic errors. Convening of international expert panel to develop consensus guidelines for standards for standardized synoptic interoperable reporting and sharing of diagnostic error cases.

2019-2024 Closed Loop Diagnostics: Patient Safety Engineering Learning Laboratories AHRQ R18HS027282

Multi-PI (with Russell Phillips, James Benneyan) (\$628,000)

Using high reliability engineering design principles and practices, create more reliable systems for following up test results, ensuring critical referrals, and tracking symptoms to ensure that loop is closed on outstanding labs, referrals, and symptoms. Using BI- Health Care Associates, Bowdoin Health Center, and as learning/testing sites.

Active Funding

2021-2024 Creating a highly reliable sign and symptom tracking system to prevent delays in cancer diagnosis

CRICO

Co-Investigator (PI: Tayla Salant)

Project will design novel methods to automate tracking of symptoms that are potential symptoms of cancer (including colon, skin cancer), and engineer reliable safety nets to decrease likelihood that they will have failures or delays in follow-up. To be implemented in community clinic serving historically marginalized populations who experience cancer delays.

2022-2026 ACHIEVING BETTER CANCER DIAGNOSIS (ABCD): Identifying, supporting, and learning from marginalized patients who experience delayed cancer diagnosis. Also titled: ICDx (Improving Cancer Diagnosis).

Agency for Health Care Research and Quality R18 -1R18HS029344-01 (\$3,963,836)

Multi PI (with Thomas Gallagher Univ. Washington)

The BWH-Univ Washington Diagnostic Center of Excellence (DCE) will focus on detecting in real time patients with delayed diagnosis of cancer especially among marginalized patients, and then learning from them about what went wrong, how delays could be avoided, and strategies to mitigate any harm that has occurred. We will integrate expertise on safety science, diagnosis improvement, and Communication and Resolution Programs (initiatives to detect and empathically respond to harm events).

2024-2028 Time for Better Diagnosis: Measuring Outcomes Stress and Time (MOST)

R01 HS030232-01).

PI (1,987,526)

Multisite 4 year project with Hennepin County Heath Care and Northeaster University Dept of Systems Engineering to identify patients with diagnostic visits and solicit their feedback on diagnostic processes and outcomes. Also to collect and analyze data examining relationships between EMR-measured time, clinician stress, and diagnostic assessments (produced by both clinician entry and ambient artificial intelligence documentation notes).

More Reliable And Timely Diagnosis Of ADR's In Older Patients PI (\$100,000)

2024-2026 Institute for Healthcare Improvement (IHI)/Hartford Foundation Diagnostic Excellence—Age Friendly Health Systems (DxEx-AFHS) Grant.

18-month project to conduct adverse drug reaction surveillance in older adults newly prescribed high-risk medications using innovative electronic outreach tools coupled with live clinical pharmacist support. An additional aim will leverage linkages between electronic laboratory and pharmacy data to detect signals of potential adverse drug reaction and where warranted alert clinicians and patients.

Report of Local Teaching and Training

Teaching of Students in Courses

HMS

2015	Patient-Doctor II	HMS
	Observed Midterm H&P Exam	4 hours
2016	Patient-Doctor II Course – Proctor:	HMS
	Observed Final H&P Exam -	4 hours
2018-	HQS 706: Special and Emerging Topics in	HMS
	Patient Safety and Quality	10 course lectures
	MHQS students	(16 hours/yr for 2019-2025)
2020	HMS Advanced Clinical Content and Skills	HMS
	-Selective Session	1.5 hours

Formal Teaching of Residents, Clinical Fellows and Research Fellows (Post-docs)

2011 Primary Care Lecture Series on Quality BWH Principles 2 hours

	BWH residents	
2013-	Lecturing, mentoring	HMS
	Harvard (CRICO) Patient Safety Fellows	6 hours
2015	Symposium faculty/discussant, final	HMS
	projects presentation	3 hours
	HMS Patient Safety and Quality fellows	
2016	Panel Speaker, Integrating Advocacy into	HMS / Boston Children's Hospital
	Healthcare Careers	1 hour
	HMS General Medicine fellows, BCH	
	Pediatric Health Services Research fellows	
2017-2018	Understanding Diagnostic Errors	Partners HealthCare
	Faculty presentation at intern retreat	3 hours
	Partners interns	
2017-	Chair/Presentation of selected Ambulatory	BWH
2025	M&M Conferences on Diagnostic Error,	3 hours
	Medication Safety	
	Primary Care Residency Block trainees	
2018	Diagnostic Errors	BWH
	Oral Surgery Residents Conference. BWH	1 hours
	Oral Surgery residents	
2019	Diagnostic Errors: How to Recognize and	BWH
	Prevent them.	2 hours
	BWH Primary Care residents	

Clinical Supervisory and Training Responsibilities

1984-2006	Faculty/Preceptor/Lecturer. Fantus General Medical Clinic	Cook County Hospital
	Medical Residents and Specialty Fellows	8 hours per week
1997-2001	Workshop leader/ Dept of Family	Cook County Hospital
	Practice Faculty Development Program	Total contact time 10 hours
	Quality Improvement module	
2008-2010	Preceptor Brigham Internal Medicine	BWH
	Associates (BIMA)	4 hrs/wk
	3-5 BWH internal medicine residents	
2008-2013	Inpatient Ward Supervising Attending	BWH
	Medical Residents, HMS Students	2-4 wks /year
2010-2012	Preceptor Brigham Internal Medicine	BWH
	Associates (BIMA) Phyllis Jen Center	1 week/yr plus as needed
	for Primary Care	supervising sessions
	BWH Medical Residents	
2011	Clinical shadowing mentor in Phyllis Jen	BWH
	Center for Primary Care	6 hours/yr
	4th year Massachusetts College of	
	Pharmacy and Health Sciences students	

2013-2016 Ad hoc Preceptor, Phyllis Jen Center for BWH

Primary Care Average 8-10 4-hour supervising

BWH Medical Residents sessions per year

Laboratory and Other Research Supervisory and Training Responsibilities

2008- Research supervision BWH

Fellows, visiting researchers 1-2 hours per week

2016-2024 Reviewer / mentor / advisor for masters HMS

in Safety Quality Informatics Leadership 12-16 hours/year

(SQIL) capstone projects 3-6 students per year

Formally Supervised Harvard Medical, Dental and Graduate Students

2014-2015	Ben Gross Clinical Informatics HMS Fellowship in Biomedical Informatics Class of 2015. Thesis Advisor Automated System for Gathering and Reporting Clinical
	Outcomes to Providers. Master thesis Committee Advisor,
2015-2016	Baker Hamilton. Class of 2016. Clinical Informatics HMS Fellowship in Biomedical Informatics. Building a Mobile DxPlain App. Lessons Learned and
2017 2010	Application to NEJM 2015 CPC Cases. Master thesis Committee Chair.
2017-2018	Mark Johnson. Masters Program Class of 2019. HMS Master's Thesis
2017-2018	Committee Chair. On Uncertainty in Medicine Helen Jack Class of 2018. Mentored on project and publication on role of
2017-2016	Morbidity and Mortality conferences in undergraduate education.
2017-2018	Alissa Groisser Class of 2018. Senior Year research mentor. a) Patient
2017 2010	terminations project. b) Communicating uncertainty with patients and clinicians.
	c) Quality of diagnostic assessments in clinical documentation. Took 3 rd year off
	to work with me on several projects including project on Patient Terminations,
	and one on Communicating Diagnostic Uncertainty to Patients in Primary Care,
2017-2019	Galina Gheiman HMS Student M3 Class of 2019. Quality Improvement mentor.
	Mentored 3 rd -4 th year projects related to QI, manuscript prepared for submission.
2010 2021	Mentored student in role as TA for HMS MQS 706 master's course I am directing
2019-2021	Sarib Hussain HMS 2020. Mentoring for project related to assessing the quality
2020 2022	of diagnostic assessments in primary care urgent care visit documentation,
2020 -2022	Abid Hasan MD. HMS Masters Quality and Safety Student. Mentorship for
2020-2022	various quality and safety projects during and since the course. Tiantian White HMS 2021. Mentoring for quality improvement project, elective
2020-2022	focused on closing the loop on testing, referrals, symptoms at Beth Israel HCA
	clinic.
2021-2022	Takashi Watari, MD, Ph.D., DTMH, MS, MCTM. Associate Professor Shimane
	University Hospital Japan. HMS Masters in Quality and Safety student.
	Mentored several projects related to diagnostic errors.
2022	Sally Bloomberg MBA, BA. Mentor Harvard Advanced Leadership Initiative.
	Supervised auditing HMS Masters in Safety Course.

2022-2023 Andrea McHugh RN. HMS Masters in Quality and Safety 2021-22 class.

Capstone Project mentor for design and implementation of diagnostic error risk management program for Summit Health.

Other Mentored Trainees and Faculty

- Jay Shannon, MD / Former CEO, Cook County Health & Hospitals System *Career stage:* junior faculty. *Mentoring role:* clinical and administrative mentor. *Accomplishments:* mentoring in quality improvement and clinic operation and administration at Fantus Clinic, Cook County Hospital; served as CEO of Cook County Health System.
- 2008-2010 Omar Hasan, MD, MPH / Chief Quality Officer, Maine Medical Center *Career stage:* BWH Internal Medicine fellow. *Mentoring role:* fellowship mentor. *Accomplishments:* named Vice President for Quality, American Medical Association.
- 2008-2011 Robert El-Kareh, MD, MPH / Associate Professor of Medicine, UC San Diego *Career stage:* BWH Clinical Medical Informatics fellow. *Mentoring role:* faculty/project mentor. Associate Professor Biomedical Informatics and Hospital Medicine.
- 2011-2012 James Hudspeth, MD / Assistant Professor of Medicine, Boston University School of Medicine

 *Career stage: BWH Internal Medicine resident. *Mentoring role: research project mentor. *Accomplishments: diagnosis error clinical research project. Hospitalist and lead physician for 2020 Boston Medical Center COVID response team.
- 2011-2012 Jennifer Boehne, PharmD / Senior Advisor, Retail Operations, CVS Health *Career stage:* BWH Pharmacy Informatics and Outcomes Research fellow. *Mentoring role:* Medication error database review study mentor. Safety and Reliability Advisor California Hospital Patient Safety Organization (CHPSO), Senior Advisor CVS.
- Valeria Pazo, MD/ Hospitalist at Yale New Haven Health Northeast Medical Group Greenwich, CT

 Career stage: Post-doctoral fellow. Mentoring role: research project mentor.

 Accomplishments: weight loss informatics project. Educational leader at BWH Brigham Education Institute and BWH hospitalist.
- 2012-2015 Joshua Liao, MD / Assistant Professor of Medicine, University of Washington School of Medicine; Director, Value and Systems Science Lab; Medical Director, Payment Strategy, UW Medicine

 *Career stage: Foundation for Creative Achievement Award in Primary Care Diagnostics fellow. *Mentoring role: fellowship mentor. *Accomplishments: research on diagnostic errors at BWH.
- 2013-2014 Sarah Slight, PhD / Reader in Pharmacy Practice, Newcastle University, UK *Career stage:* HMS visiting research scholar, BWH Center for Patient Research and Practice fellow. *Mentoring role:* research mentor. *Accomplishments:* multiple medication safety research projects.

- 2013-2025 Tewodros Eguale, MD, PhD / Associate Professor of Pharmaceutical Economics and Policy and Director of Assessment, Massachusetts College of Pharmacy and Health Sciences
 - *Career stage:* BWH/McGill CUR-IT postdoctoral fellow. Currently Professor of Epidemiology and Biostatistics Massachusetts College of Pharmacy and Health Sciences.
 - *Mentoring role:* clinical research mentor. *Accomplishments:* multiple medication safety projects, publications, presentations, ongoing collaborations.
- 2015-2025 Harry Reyes Nieva, MAS / Visiting Postgraduate Research Fellow, BWH/HMS; PhD candidate, Medical Informatics, Columbia University, New York, NY *Career stage:* BWH administrative assistant. *Mentoring role:* research mentor. *Accomplishments:* enrolled in Master of Applied Science program at Johns Hopkins; multiple coauthored papers.
- 2016-2019 Elise Ruan, MD / Informatics Fellow Columbia University. Resident, Montefiore Medical Center, Bronx, NY *Career stage:* Tufts medical student. *Mentoring role:* research mentor. *Accomplishments:* Mentored multiple projects and publications on diagnostic errors and pitfalls.
- 2017-2019 Sumit Agarwal, MD / Instructor, part-time, Medicine, HMS; Associate Physician, General Internal Medicine, BWH *Career stage:* BWH General Medicine fellow. *Mentoring role:* research mentor. *Accomplishments:* multiple projects, presentations, and publications related to diagnostic errors.
- 2017-2025 Isaac Chua, MD / Physician, Palliative Medicine, Dana-Farber Cancer Institute; Instructor, Medicine, HMS

 *Career stage: HMS/CRICO Quality and Safety fellow. Mentoring role: research mentor. Accomplishments: 2 studies related to quality improvement for Urine tox drug screens.
- 2018-2020 Andrea Lim / Resident Kaiser Health System. Medical student, Tufts University School of Medicine *Career stage:* Tufts medical student. *Mentoring role:* research mentor. *Accomplishments:* multiple projects with a focus on diagnostic errors, malpractice claims, and primary care quality improvement.
- Narath Carlile, MD, MPH / Instructor, Medicine, HMS; Associate Physician, General Internal Medicine, BWH; Director of Clinical Practice Innovation in Patient Goal Centered Care and Wellness. Director of Safer Opioid Prescribing Task Force, Engineering High Reliability Learning Lab; Director of Innovation, Internal Medicine Residency.

 *Career stage: junior faculty. Mentoring role: research mentor. Accomplishments: multiple projects including opioid improvement, diagnosis safety (PRIDE Project co-investigator, IT interventions.
- 2019 Amy Zanoni, PhD / Postdoctoral Fellow, Southern Methodist University *Career stage:* PhD student, Rutgers University. *Mentoring role:* consulting research advisor. *Accomplishments:* PhD from Rutgers History Department project on history of Chicago public hospital 1950-2000; provided written materials, reviewed proposal and drafts, gave background material.

- 2019-2020 Diana Norwich / Medical student, Tufts University School of Medicine *Career stage:* Tufts medical student. *Mentoring role:* research mentor. *Accomplishments:* multiple projects with a focus on medical safety and improving prescribing appropriateness.
- 2019-2020 Aimie Li / Master's student, Epidemiology, HSPH

 Career stage: HSPH master's student. Mentoring role: thesis practicum mentor.

 Accomplishments: epidemiology research on diagnostic errors and delays in sepsis patients in Ottawa and BWH.
- 2019-2025 Maram Khazen, PhD / BWH visiting postdoctoral researcher from Tel-Aviv University, Israel

 *Career stage: visiting postdoctoral researcher. *Mentoring role: research mentor. *Accomplishments: multiple project related to primary care physician-patient communication, medication safety, and diagnostic errors.
- 2020-2022 Dr. Saina Aminmozaffari Iranian MD; training in diagnostic error coding and career support for U.S. residency application training.
- 2020-2022 Thomas Radomski, MD / Assistant Professor of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA *Career stage:* junior faculty. *Mentoring role:* K23 advisory committee for project Low-Value Prescribing *Accomplishments:* create metrics for searchable triggers for inappropriate medication prescribing and candidates for deprescribing.
- 2020-2022 Joe Willis, MD / ABMS fellowship (project on Telehealth and Diagnosis safety) Career stage: Postdoctoral visiting fellowship. Mentoring role: Primary mentor Accomplishments: Awarded ABMS fellowship; preparing qualitative study featuring literature review and field note regarding diagnostic issues in post COVID telemedicine primary care practice.
- 2021-2025 Carl Berdahl, MD, MS. Cedars-Sinai Medical Center / UCLA / RAND. Society for Improving Diagnosis in Medicine (SIDM) Fellowship mentor and K award application advisor to study frequency, contributors and patient experiences with diagnostic errors among adults discharged from the emergency department.
- 2021-2025 Mei-Sing Ong, PhD. Assistant Professor Department of Population Medicine Harvard Pilgrim Health Care Institute (collaboration between Harvard Pilgrim Health Care and Harvard Medical School) and Boston Children's Hospital. Mentoring Role: Supervising various projects and papers and grant submission related to Diagnostic Delay in Juvenile Idiopathic Arthritis. *Accomplishments*: Multiple Several publications and grant submissions combining big data epidemiology with clinical research in JRA.
- 2021-2025 Allyson Bontempo. School of Communication and Information Rutgers PhD *Career stage*: PhD candidate *Mentoring role*: PhD candidate advisor mentoring research related to diagnostic errors in endometriosis diagnosis focusing on dismissal of women patients' symptoms.

 **Accomplishments:* Several publications of qualitative interviews and presentations on experience of women experiencing diagnostic delays with endometriosis. Now broadening to several additional diagnoses.
- 2021-2024 Eliezer Shinnar. Society for Improving Diagnosis in Medicine Fellowship

Career Stage: Junior faculty Mentoring role: Fellowship primary mentor. Mentoring project related to Indian Health Service diagnostic errors in patient transfers in and out of community level hospital. Accomplishments: Playing leadership role in local hospital in quality improvement initiatives around patient transfers. 2020-2024 Talya Salant PhD. Medical Director of Community Health Equity and Research at Bowdoin St. Health Center, a community health center in Dorchester, MA. Mentored for application and conduct of CRICO sponsored research grant on designing and testing a symptom follow-up tracking in 2 medical clinics. Christina Cifra MD. MS. Member of the Faculty, Department of Pediatrics, 2022-2024 Boston Children's Hospital Career Stage: Junior Faculty. Mentoring Role: Mentorship, supervised several grand proposal related to diagnostic uncertainty in the ICU setting. Accomplishments: Co-Chaired International Diagnostic Error in Medicine Meeting 2022, Submitted CRICO proposal on Identification and Communication of Diagnostic Uncertainty to Prevent Diagnostic Error in Intensive Care.

Formal Teaching of Peers

No presentations below were sponsored by outside entities.

1989-1991	Clinical Decision Analysis, Clinic Prediction Rules, Receiver Operating Characteristic (ROC) Curves: Clinical Decision-Making Course Cook County Graduate School of Medicine Postgraduate Education	Faculty 3 lectures; each repeated twice
2008	Diagnosis Errors in Medicine The Patient Safety Imperative HMS / BWH / BIDMC	Single presentation Boston, MA
2009	EHR Solutions for Reducing Errors and Transforming Healthcare Quality Patient-Centered Computing and e-Health: Transforming Healthcare Quality HMS / Partners HealthCare Clinical Informatics Research and Development Diagnosis Errors Strategies for Prevention	Workshop faculty Boston, MA
2007	Strategies 2009 Annual Patient Safety Summit: Engineering Good Ideas HMS / CRICO Harvard Risk Management Foundation (RMF)	Workshop faculty Boston, MA
2013-2015, 2017, 2020, 2021, 2022	Panel Moderator for Lung Cancer; Colorectal Cancer (2013 –2015); Model M&M Conference (2014-2015); Breast Cancer Screening (2017); COVID Infections and Diagnosis Errors (2020)	1hour of lectures/year Boston, MA

	Best Medical Practices: Maximizing Skills,	
	Minimizing Risk, Diagnostic Pitfalls (2021)	
	HMS / CRICO Risk Management Foundation	
2014-2016	Academic Improvement Collaborative Learning	Workshop faculty
	Sessions (workshops on colorectal cancer, breast	Cambridge, MA
	cancer screening, quality improvement)	
	HMS Center for Primary Care	
2016	Teaching Clinical Skills OSTE. HMS Simulation	Faculty
	Center	Boston, MA
	HMS Center for Primary Care	
2015, 2017,	Quality, Informatics and Leadership (SQIL)	1 webinar (2015)
2019, 2021,	Program. HMS Office of External Education	1 lecture (2017)
2022-2024	Diagnosis Errors in Medicine. Medication Safety.	4 lectures (2019)
	-	Boston, MA / London,
		UK
		3 Webinars (2021)
		2 Webinar lectures
		(2023-24)
2018-2024	What you Need to Know about Diagnostic Errors in	Annual presentations at
	Medicine	BWH Internal Medicine
	HMS Intensive Review of Internal Medicine	Review Course
		Boston, MA

Local Invited Presentations

No presentations below were sponsored by outside entities.

1990	The Healthcare Summit and the Future of Healthcare/Lecturer
1991	Rush University Health Systems Management Graduate Seminar Past, Present, and Future, Rush University Health Systems Management
	Graduate Seminar Cook County Hospital
1995	Lessons from Drug Utilization Evaluation/ Speaker Cook County Hospital
1995	Glucose Control in Diabetes Mellitus: How Tight is the Case?/ Lecturer
	St. Luke's Section of General Internal Medicine/ Cook County Hospital
	General Medicine/ Primary Care
1996-2007	Cook County Hospital OB-GYN Dept. Annual Research Symposium/ Review
	Committee Judge & Guest Discussant
1999	Uncovering and Prevent Errors in Prison Health Setting/ Lecture Cermack
	Health Services
2001	Today's Speech: speech recognition in medicine: is it ready for prime time?/
	Lecture
	Rush Medical College
2001	Medical Errors: Beyond M & M/ Lecture
	Cermack Jail Hospital

2001	Errors and the Practice of Immunology, Rush Section of Allergy and Immunology Special Lecture Series/ Lecture Rush Medical College
2002	Linking Lab, Pharmacy and the Clinicians/ Lecture Cook County Hospital
2004	What is QA/QI for Underserved?/ Presentation Cook County Hospital
2004	Improving Health Care. Eight Forty-Eight Chicago Public Radio. 10/16/04
2003	Developing a National Action Agenda for the National Health Information Infrastructure: Report from the NHII Summit/ Presentation Rush Medical College/ Cook County Hospital
2005	Take the Pledge. Pharma Free Week/ Presenter Rush University
2005	Diagnosis Delay in a Patient with Spinal Epidural Abscess/ Medical Grand Rounds Cook County
2005	Operational Failures in Follow-up of Abnormal Test Results/ Medical Grand Rounds Cook County Hospital
2007	Primary Care-International Issues-The Work of Barbara Starfield/ Presenter Brigham and Women's Hospital
2008	Diagnosis Errors: Going Beyond Medication Errors for Patient Safety/ Presenter Brigham Center for Patient Safety Research and Practice
2008	Leveraging Electronic Utilities and Resources to Improve Personal and Research Productivity/ Presenter. Brigham and Women's Hospital Division of General Medicine Research Seminars
2009	Lessons from Risk Management and Diagnosis Errors in Medicine Brigham and Women's Hospital
2009	Harvard Medical School Promoting More Conservative Prescribing 2/18/2009 Presentation to Division of Pharmacoepidemiology and Pharmacoeconomics Department of Medicine Brigham and Women's Hospital Harvard Medical School
2009	Partners Healthcare Clinical Informatics Research and Development (CIRD) Informatics Seminar. Presentation Electronic Clinical Documentation: It's Role in Diagnosis Error and Improvement
2009	Building on Legacy of the Lown Group: 25 principles for more conservative prescribing. Lown Cardiology Group.
2010-	Co-Chair BWH Primary Care Morbidity and Mortality (M&M) Conference Quarterly. (2-3 conferences chaired /presentations annually)
2012	Special Ethics Grand Rounds: Professional-Patient Boundaries: When Does Helping Patients Cross the Line?" BWH Medical Ethics Dept Lecture Series.
2012	Cuba's Health: Reflections and Review of Medical and Economic Conditions. BWH Division of General Medicine Presentation. 7/12
2012	Professional-Patient Boundaries: When Does Helping Patients Cross the Line. BWH Ethics Symposium.
2013	MGH Stoeckle Center Schwartz Center Rounds for the Primary Care Community. Tis the Season to Give, butBoundary Issues for the Primary Care Relationship. 12/18/2013
2014	Physician –Patient Boundaries. BWH Behavioral Neurology Conference. 3/14

2014	Guest Discussant. Beth Israel Deaconess Hematology-Oncology Tumor Board M&M 12/1/14
2014	
2014	Optimizing HIT for Cancer Screening and High-risk Orders
	Closing the Loop. Ryan's Story. Presentation to Harvard Center for Primary
	Care Academic Improvement Collaborate Learning Session. Cambridge.
2014	6/12/14 Haire a Dairean Diagram of Compact the Data (co/ A. Fillran T. Barndan)
2014	Using a Driver Diagram to Connect the Dots. (w/ A. Ellner, T. Bearden).
	Presentation to the Harvard Center for Primary Care Academic Improvement
2015	Collaborate Learning Session. Cambridge. 11/1/14
2017	Diagnostic Error in Medicine: Understanding and Implementing the
	Institute of Medicine (IOM/NAS) Report on Improving Diagnosis / Grand
	Rounds
	Division of General Medicine, Beth Israel Deaconess Medical Center, Boston,
	MA
2017	Tribute to Ryan Wanniger-Extraordinary Patient,
2010	Dana-Farber Cancer Institute, Boston, MA
2018	Improving Care for Colorectal Cancer Screening. AIC CARES presentation to
2010	CRICO Operations Committee. 2/1/18/
2018	Building A Better CPOE System: Comparing An Indications-Based
	Medication-Ordering Prototype To Leading Commercial CPOE Systems
2010	RSS 3082: Harvard Clinical Informatics Series 2/6/2018
2018	New Harvard Malpractice Study. VIDS Table Content Lead, CRICO
2018	Patient Terminations / Invited Presentation
2010	HMS Center for Primary Care, Boston, MA
2018	Principles of Conservative Diagnosis: Special Edward P Center for Quality
	and Safety Journal Club 12/19/18. Massachusetts General Hospital, Boston, MA
2019	Diagnostic Errors: Adult and Pediatric Issues / Invited presentation
2017	Safety & Quality Forum, Boston Children's Hospital, Boston, MA
2019	Engineering High Reliability/Critical Junctions Learning Lab (EHRLL)
2017	Learning Session #10.
	HMS Center for Primary Care / Harvard T.H. Chan School of Public Health,
	Boston, MA
2019	Proud to Be GIM / Discussion table faculty leader
_01)	HMS Center for Primary Care, Boston, MA
2019	Conceptualizing Flow as a Change Idea / Invited presentation
	Research Executive Council, BWH Center for Patient Safety, Boston, MA
2020	Diagnostic Errors: State of the Art / Medical Grand Rounds
	Harvard University Health Services, Cambridge, MA
2023	Improving Diagnosis 2023:
	Culture, Contributions, and Conundrums
	at BIDMC and Beyond. Mark Aronson annual endowed quality lectureship.
	https://vimeo.com/791960525
	Medical Grand Rounds, BIDMC, Boston, MA
2023	Introduction to Diagnostic Errors in Medicine / Invited presentations
	Social Medicine Special Conference, Cambridge Health Alliance.

Report of Regional, National and International Invited Teaching and Presentations

Invited Presentations and Courses

Those presentations below sponsored by outside entities are so noted and the sponsor(s) identified.

Regional

1984	Health Care to the Poor in the U.S. / Lecturer
	University of Chicago Medical School, Chicago, IL
1984	Underserved Areas: Urban Health Problems in the City of Chicago/ Lecturer
	University of Illinois College of Medicine, Chicago, IL
1985	Analysis of Dumping Patterns and Implications for Current Crisis at Cook
	County Hospital/ Presentation
	College of Pharmacy, University of Illinois, Chicago, IL
1985	Public Hospitals- The Case of Cook County Hospital, Health Care and the
	Poor Course/ Lecturer. University of Chicago Medical School, Chicago, IL
1988	Medical Informatics: Personal Filing System for Residents/ Lecturer. Michael
	Reese Medical Center Primary Care Series, Chicago, IL
1989	Introduction to its History and Future/ Lecturer, site coordinator University of
	Chicago
1989	National Health Program: Physicians' View/ Presentation. Illinois Department
	of Public Health Annual Meeting, Chicago, IL
1989	What is Clinical Decision-making/ Presenter. Chicago Medical Society,
	Chicago, IL
1989	The Need for a National Health Program/ Lecture
	DePaul University Master of Public Service Course, Chicago, IL
1989	Introduction to Decision Analysis: The Amphotericin Case/ Medical Grand
	Rounds
	Christ Hospital, Oak Lawn, IL
1990	Realities of Medicine Course: Access to Health Care/ Lecturer
	University of Illinois College of Medicine at Chicago, Chicago, IL
1990	When to Operate for BPH: Insights from Decision Analysis/ Presentation
	University of Illinois at Chicago, Section of General Medicine Research
	Conference, Chicago, IL
1990	Public Sector Medical Services/ Presentation
	Center for Civic Leadership, Chicago, IL
1990	The Health Services Research Article of the Year: Evaluation of the Value of
1330	Prostatectomy/ Presenter
	Michael Reese Medical Center Primary Care Seminar Series, Chicago, IL
1991	Illinois Physicians for a National Health Program/ Coordinator, Speaker
1//1	imitals in a real real regular contamination, Speaker

1992	Chicago, IL Quality of Care Under a National Health Program: Incorporating and
1992	Critiquing the Corporate Paradigm/ Presentation
	3 rd Annual Midwest Radical Scholars Conference, Loyola University,
1002	Chicago, IL
1992	Dr. Harold Levine: His Legacy and Relevance for Health Quality Today/
	Presentation
	Chicago Internal Medicine Society, Chicago, IL
1995	History, Lessons and Tour of Cook County Hospital/ Presentation and tour
	leader University of Chicago Graduate Seminar on Health Care to the Poor,
	Chicago, IL
1995	Quality and Health Reform: 1995 and Beyond/ Presentation Department of
	Medicine Grand Rounds, West Suburban Hospital, Oak Park, IL
1995	Quality and Corporatized Managed Care/Presentation Department of
	Medicine Grand Rounds, Rush Westlake Hospital, Oak Park, IL
1995	The Public Sector in Health Care/ Lecturer DePaul University School for New
	Learning, Chicago, IL Cook County Hospital History and Future/ Lecturer
1996	Decision Support for Better Prescribing: A Physicians' View/ Presentation
	National Association of Boards of Pharmacy/ American Association of
	Colleges of Pharmacy Regional District IV 1996 Annual Meeting, Chicago, IL
1996	The A.D.A. Standards as Clinical Practice Guidelines: Barriers to
	Implementation and solutions in publicly funded settings/ Plenary speaker
1996	Physicians' role in managed care/ Debate
	University of Chicago Health Policy Research Council, Chicago, IL
1996	Beyond Medline: Medical Informatics for the Practicing Academic General
	Internist/ Workshop Coordinator
	14th Annual Midwest Society for General Internal Medicine, Chicago, IL
1996	Physicians as patients' advocates or adversaries/ Speaker
	National Physicians for Social Responsibility Conference, Chicago, IL
1996	There's Got to be a Better Way: Managed Care and the Current US Health
	System/ Presenter
	Department of Medicine Grand Rounds, Mount Sinai Hospital, Chicago, IL
1997	DePaul University School for New Learning, Chicago, IL, Lecturer
1997	How Students can Make Difference in Reforming Healthcare/ Presentation
	Midwest Regional AMSA Convention, Northwestern University, Chicago, IL
1997	Strategies and Tools for Keeping Up-to-Date in Medicine: Medical
	Informatics for the Practicing Internist/ Presentation
	Northwestern Medical School Dept of Medicine 34 th Annual The Year in
	Internal Medicine, Chicago, IL
1997	Computers as a Clinical Information Resource/ Workshop leader
100,	Rush-Pres St. Luke's/ Cook County Hospital Departments of Medicine/
	General Medicine, Chicago, IL
1997	Clinical Skills for Primary Care/ Presenter
1///	Rush-Pres St. Luke's/ Cook County Hospital Departments of Medicine/
	General Medicine, Chicago, IL
	Conorai Modicine, Cincago, IL

1998	Department of Medicine, Grand Rounds, Medical Informatics for the Practicing Internist/ Grand Rounds
1998	Mercy Hospital, Chicago, IL Healthcare Restructuring and its Effects on Patient Care/ Presentation DePaul University School of Law, Chicago, IL
1998	The Managed Care Debate: Special Topics in Health Policy/ Debate Northwestern University, Chicago, IL
1999	Pharmaceutical Costs: Asking the right questions prescribing the right remedies/ Keynote speaker
1999	Chicago Institute of Medicine, Chicago, IL Redefining Health Care: Minisymposium addressing current status of U.S. Health care/ Speaker Midwest American Student Medical Association, Loyola University, Chicago, IL
1999	Research on Medical Errors/ Speaker Northwestern University, Chicago, IL
2000	Opening Pandora's Box: Health Insurance, Quality and the Future of Medicine/ Grand Rounds Michael Reese Hospital, Chicago, IL
2001	Out of Control: Ethical Conflicts in our Professional Addiction to Drugs/ Grand Rounds Christ Hospital, Oak Lawn, IL
2001	Informatics and Error Prevention/ Presentation and workshop leader Chicago Patient Safety Forum Citywide Conference, Chicago, IL
2001	Medical Errors: New Findings from Institute of Medicine/ Grand Rounds Mt. Sinai Hospital, Chicago, IL
2001	Swept Away: Indigent Patients' Agendas, Outcomes, and Lives Drowning in a Sea of Drugs/ Panel Presenter University of Illinois at Chicago Medical Center, Chicago, IL
2001	Medical care and health access 2001/ Presenter Loyola University, Chicago, IL
2001	Project Leadership Group/ Lecture and tour Cook County Hospital, Chicago, IL
2001	Northwestern University Combined Public Health/ Lecture and tour Northwestern University, Chicago, IL
2001	National conference for uninsured/ Keynote speaker American Medical Students Assn, Chicago, IL
2002	Health Policy, Uninsured and Cook County Hospital/ Guest speaker Northwestern University, Chicago, IL
2002	Health Care in the City/ Lecture and tour DePaul University, Chicago, IL
2002	Illinois Hospital Association – current issues statewide conference call presentation on Involving Hospitals and the Medical Staff in Recognizing and Preventing Diagnosis Error/ Presenter
2002	Illinois Hospital Association, Chicago, IL Health Care for the Uninsured/ Guest lecturer

	University of Illinois College of Medicine, Chicago, IL
2003	Computerized Prescribing: Current Challenges/ Presentation
	Midwestern University, Grove, IL
2003	Diagnostic Error in Medicine/ Grand Rounds
	Trinity Rock Island, IL
2003	Diagnosis Errors: State of the Art/ Grand Rounds
	Condell Memorial Hospital, Libertyville, IL
2003	Patient safety-beyond blame beyond extra care/ Keynote speaker
	Illinois Organization of Nurse Leaders, Bloomington, IL
2003	Showcasing What Works/ Convener, Conference Chair, Moderator
	Chicago Patient Safety Forum, Chicago, IL
2003	Risk Consulting Study Tour/ Consultant, presenter
	Knickerbocker Hotel, Chicago IL
2004	Medication and Diagnosis Errors/ Grand Rounds
	OSF St. Francis Hospital, Bloomington, IL
2004	Medical Errors: Focusing on the Problem of Diagnosis Errors/ Grand Rounds
	St. Francis Hospital, Evanston, IL
2004	Health Policy Reform/ Seminar leader
	St. Elizabeth Hospital, Chicago, IL
2004	Medication and Diagnosis Errors/ Grand Rounds
2004	St. Francis Hospital, Bloomington, IL
2004	Medical Errors: Focusing on the Problem of Diagnosis Errors/ Grand Rounds
2004	St. Francis Hospital, Evanston, IL
2004	Health Policy Reform/ Seminar leader
2004	St. Elizabeth Hospital Dept of Family Practice, Seminar, Chicago, IL
2004	New Paradigms for Understanding and Preventing Diagnosis Errors/ Grand
	Rounds
2004	Provident Hospital, Chicago, IL Patient Safatu Our Personal and Collective Journey, Voynete speaker
2004	Patient Safety: Our Personal and Collective Journey, Keynote speaker
	Plenary Chicago Patient Safety Forum Creating Safer Health Care, Chicago, IL
2004	Lesson and Insights on Electronic Clinical Documentation/ Speaker
2004	Chicago Area Informaticists Meeting, Chicago, IL
2004	A Physician's View of Quality Reforms Midwest Business/ Speaker
2001	Chicago, IL
2004	Debate on Uninsured and Future of U.S. Health Care System/ Speaker
200.	University of Chicago, Chicago, IL (American Medical Student Association)
2004	History and Issues Cook County Stroger Hospital/ Tour, Presentation
	DePaul University Graduate School, Department of Nursing, Chicago, IL
2005	Social Responsibility and Media Advocacy/ Plenary Presentation
	Northwestern University, Chicago, IL
2005	Health Care Policy and National Health Insurance/ Lecturer
	Loyola University Graduate School, Chicago, IL
2005	What Happened to Mr. M?/ Lecturer
	University of Chicago, Chicago, IL
2005	National Health Insurance/ Presentation

	Pritzker School of Medicine at the University of Chicago, Chicago, IL
2005	Medication Reconciliation-Lessons, Insights, Future Work/ Conference Co-
2003	Chair and Keynote Presenter
	Chicago Patient Safety Forum Medication Safety Conference, Chicago, IL
2005	
2003	Patient Safety and Information Technology/ Workshop Organizer and
	Presenter Northwest and Hairmanitas Calmada & Madiaina Chinasa H
2005	Northwestern University School of Medicine, Chicago, IL
2005	Just Saying No to Drug Reps: Pharma Free Week/ Lecturer
	Chicago College of Osteopathic Medicine AMSA Chapter, Downers Grove,
2005	IL Cotting and shoot Potion Sector. Too incide to from the too shoot Planers.
2005	Getting real about Patient Safety – Ten insights from the trenches/ Plenary
	speaker
2006	Loyola University Stritch School of Medicine, Maywood IL
2006	Disparities in Medicine – Lecture and Tour of Cook County (Stroger) Hospital
	University of Chicago/ Seminar Coordinator, Lecturer
2006	M1 Special Orientation Session, Chicago, IL
2006	Patient Safety and Health IT/ Presentation
2006 2007	UIC, Chicago, IL
2006-2007	PMAD 385: Critical Analysis of Pharmaceutical Marketing/ Course co-
	director
2007	University of Illinois at Chicago College of Pharmacy, Chicago, IL
2007	Debate on the Future of American Health Care/ Keynote Speaker, Debater
	Northwestern University Feinberg School of Medicine, Chicago, IL (AMA
•••	Medical Student Section)
2007	Critical Prescribing and Evidence based prescribing issues/ Lecture
2007	University of Illinois, Chicago, IL
2007	Health Care in Chicago: Current crisis at Cook County Hospital and Bureau of
	Health Services Clinics/ Presentation
2007	University of Illinois, Chicago, IL
2007	U.S. Health Care Quality and its Reform/ Grand Rounds
2007	Weiss Hospital, Chicago, IL
2007	P4P or NHP, That is the Question – U.S. Health Care Quality and its Reform/
	Grand Rounds Marroy Hagnital, Chicago, H.
2007	Mercy Hospital, Chicago, IL Mediantian Reconsiliation Experiences, Challenges, and Opportunities
2007	Medication Reconciliation: Experiences, Challenges, and Opportunities,
	Patient Safety: Moving from Concept to Reality/ Workshop presenter and
	organizer Chicago Patient Sefety Forum 2007 Annual Macting, Mayayaad, H.
2007	Chicago Patient Safety Forum 2007 Annual Meeting, Maywood, IL
2007	Evidence Based Prescribing/ Lecturer. University of Illinois at Chicago,
2000 2011	Chicago, IL
2008-2011	Patient Safety Course/ Lecturer
2000	Northeastern University College of Pharmacy, Boston, MA
2009	Medical Grand Rounds. Diagnostic Errors: Lessons from Three Hospitals.
2000	Cook County Stroger Hospital 11/12/09
2009	How To Better Prescribe In Primary Care / CME faculty
	A Core Curriculum in Adult Primary Care Medicine

2009	Boston University School of Medicine, Section of General Internal Medicine How to Better Prescribe in Primary Care / CME faculty A Core Curriculum in Adult Primary Care Medicine
2009	Beth Israel Deaconess Hospital – Needham, Needham, MA Narrow Diagnosis Think Tank Summit. Keynote Speaker. Harvard Risk Management Foundation. June 15, 2009
2009	Core Curriculum in Adult Primary Care lecture; How to Practice More Conservative Prescribing in Primary Care; Boston University School of
2010	Medicine section of General Internal Medicine. 9/19/2009 Man with Renal Mass Overlooked for 5 months: Risk Management and Safety Reliability Implications. Presentation to Ambulatory Risk Management Leaders Council of Harvard Risk Management Foundation. Harvard Faculty
2010-2014	Club 11/19/2010 PBB Medication Safety Professional Elective Spring Semester 2010 Linking Lab and Pharmacy. Massachusetts College of Pharmacy and Health Sciences School of Pharmacy, Boston
2010	What you didn't learn in Pharmacology class: 25 Principles for Conservative Prescribing.
2011	AMSA regional conference in Providence on October 29-31 Health Reform and Quality: Moving Forward with Single Payer BU School of Public Health. BU medical school Boston, MA. 3/21/11
2011	Better to Best: Thoughts on Global Health Systems. American College of Medical Quality and the Brown University IHI Open School Chapter, First Annual Northeast Regional Conference on February 5, 2011
2011	Diagnosis Errors – How to Diagnose; How to Prevent / Medical Grand Rounds
2012	Winchester Hospital, Winchester, MA The View from the Front Lines: the ROI for Diagnostic Safety. Plenary speaker. CRICO Strategies Patient Safety Symposium. Cambridge.
2013	Progress and Prospective for IVR ADR Screening – CUR-IT (Canadian US IT Collaborative Group) Boston. 4/1/13
2013	MA Coalition for Prevention Medical Errors. Presentation on PROMISES Project 4/22/13.
2013	Seeing in Uncertainty: A trans professional Workshop for Care Providers and Science Educations: Arts Practica Thought on Clinical Uncertainty and VTS-Visual Thinking Strategies. 10/25/13 Brandeis University
2013	The PROMISES Project. WIHI (Institute for Healthcare Improvement) National Webinar. 11/7/13
2014	Relevance of Boundaries to Psychology Professions in Training / Invited presentation Graduate Program in Clinical Psychology, Tufts University, Medford, MA
2014	Crossing Doctor-Patient Boundaries / Ethics Grand Rounds Department of Ethics, Tufts New England Medical Center, Boston, MA
2014	Respecting Physician Patient Boundaries / Primary Care Grand Rounds Boston Medical Center, Boston, MA
2015	National Health Reform and Single Payer / Invited presentation

2014	Boston University Medical Students, Boston, MA Plenary Speaker. Massachusetts Patient Safety Forum. Patient Safety in Small Primary Care Practices: Health from the PROMISES Practices and Project
	Results. Massachusetts Coalition for the Prevention of Medical Errors. Burlington MA. 4/7/14
2014	Creating a Primary Care Morbidity and Mortality Conference: The How To's and an Example. Best Medical Practices Maximizing Skills, Minimizing Risk. BWH and BI Hospitals Harvard Medical School Course. 11/14
2014	Ask the Exerts. Panel Coordinator/Moderator: Update on Colorectal Cancer Screening; Does My Patient Have Cardiac Chest Pain? Best Medical Practices Maximizing Skills, Minimizing Risk. BWH and BI Hospitals Harvard Medical School Course. 11/14
2015	Featured speaker. Update on Diagnostic Errors. MA Coalition for Prevention Medical Errors. Burlington, MA. 2/27/15
2015	Diagnostic Pitfalls: Burning Platform and Strategies: CRICO Ambulatory Leaders Primary Care Retreat. 5/20/15
2015	Crossing Boundaries to Better Care for our Patients: Roles and Rules for Psychologists. Cambridge College. 4/6/15
2015	Findings from NSPF and FDA CPOEMS Studies. Presentation to CRICO Errors Taxonomy Task Force. 6/10/15
2016	Diagnostic Pitfalls. A new construct for understanding and preventing diagnostic errors? MA Coalition for Prevention of Medical Errors.
2016	Adding Indications to Prescriptions. MA Coalition for Prevention of Medical Errors. 12/19/16
2017	Presentation to HMS Primary Care Center PCIN Learning Session. Executive Leadership Session. 3/10/17.
2019	Single Payer and Quality / Invited Presentation
2018	Boston University School of Medicine, Boston, MA Learning from and about the #1 Cause of Medical ErrorsDiagnostic Errors / Visiting Professor and Grand Rounds presenter
	Connecticut Children's Medical Center, Hartford, CT
2019	The Intersection of Data and Storytelling / Keynote Speaker CRICO Strategies Comparative Benchmarking System Member Summit 2019. 6/12/19
2019	Improving Diagnosis / Plenary Speaker and Panel Moderator
	Massachusetts Coalition for the Prevention of Medical Errors Annual Meeting, Framingham, MA
2019	Diagnosis Errors / Grand Rounds
2020	Department of Medicine, South Shore Hospital, South Weymouth, MA Diagnosis Error in the Covid-19 Era / Invited Speaker
2020	Mass Coalition for Prevention of Medical Errors Diagnosis Errors in the COVID Era / Invited Speaker
2020	Department of Medicine, Milford Regional Medical Center, Milford, MA
2022	Why and How to Screen for and Analyze Diagnostic Errors / Special PRIDE presentation/discussion moderator

	Primary Care Improvement in Diagnostic Error (PRIDE) 2/23/22.
2022	Learning from Patients with Delayed Diagnosis of Cancer: Presentation on
	proposed for Diagnostic Center for Excellence.
	Primary Care Improvement in Diagnostic Error (PRIDE) Conference 6 15/22
2022	MPIE Risk Management Networking Program – Preventing Diagnostic Error
	in Primary Care 6/22/22.
2022	Medication Errors: Lessons from the RaDonda Vaught Case and Steps for
	Action - American College of Clinical Pharmacy ACCP Journal Webcast
	Episode #87 (w/ Bruce Lambert)
2023	Diagnostic Errors and Betsy Lehman BWH PRIDE Project.
	MA Coalition for Prevention of Medical Errors, Burlington, MA
2023	Keynote Speaker. How Can We Make Diagnosis
	More Reliable and Timely in 2023.
	Massachusetts Board of Registration in Medicine 2023 Quality & Patient
	Safety Conference, University of MA Worcester
2023	Avoiding Diagnostic Errors. Beth Israel Core Updates and Essentials in
	Primary Care 2023-2024. 12/16/2023. Presenter.
2024	Update on Diagnostic Errors. Medical Grand Rounds- BIDMC Plymouth MA
	3/1/24.
2024	Learning from Patients to Prevent Diagnostic Errors - Massachusetts
	Healthcare Advocates Annual Symposium. Worcester MA. 4/10/2024

Regional Abstract Oral Presentations

2005 Contextual Errors in Medical Decision Making: What are they and how do we find them? / Oral presentation
SGIM Midwest Regional Meeting, Chicago, IL

National

1985	Access/Dumping Issues/ Roundtable Moderator
	American Public Health Association 113 th Annual Meeting, Washington, DC
1985	Introduction to Issues in Public Medicine/ Lecture
	Ripon College, Ripon, WI
1986	Introduction to Medical Decision-Making/ Lecture
	Montefiore Rikers Island Health Service, New York City, NY
1988	Malcolm Peterson Memorial Session: General Internal Medicine and Society
	 Bridging the Gap with a National Health Plan/ Keynote Speaker
	11th Annual Meeting Society for General Internal Medicine, Washington, DC
1989	The Chicago You Came to See: Public Health Introduction to Its People,
	Health and History/ Workshop organizer and Presentation
	117 th Annual Meeting American Public Health Association, Chicago, IL
1990	Moving Health Services into the Community: A Dissenting View –
	Dangerous Either/ Or Equation/ Presentation
	118th Annual Meeting American Public Health Association, New York City,
	NY

1990	Urban Health Crisis: Chicago Impact/ Speaker Health Policy Advisory Committee Conference on Urban Health Crisis, New York, NY
1990	Poverty and Health/ Minicourse Coordinator Society for General Internal Medicine, 13th Annual Meeting, Washington, DC
1990	Providing Ambulatory Care to Vulnerable Populations: What We Can Do When Clinical Care is Compromised by Constrained Resources?/ Workshop Coordinator Society for General Internal Medicine, 13th Annual Meeting, Washington, DC
1990	Drug Formularies: Myths-In-Formation, Symposium on the Cost of Drugs, Institute for Health Policy Studies/ Presentation
1991	School of Medicine University of California, San Francisco, CA Need for a National Health Program to Ensure Quality/ Pre-course Faculty Society for General Internal Medicine (SGIM) 14 th Annual Meeting, Seattle, WA
1992	Patient Education: Beyond the Boundaries/ Keynote Address. Bethesda, MD
1992	National Health Program: A Framework for Quality Improvement/ Presentation
	119th Annual Meeting American Public Health Association, Atlanta, GA
1993	Contributed Papers on Drug Policy and Pharmacy Services/ Discussant 121st Annual Meeting American Public Health Association, San Francisco, CA
1994	An Evening with Dr. Quentin Young: Medical Care Section/ Presentation 122 nd Annual Meeting American Public Health Association, Washington, DC
1994	Communicating Risks to Patients: Introduction and Caveats/ Keynote presentation
1995	United States Pharmacopeia Inc. Open Conference, Reston, VA
1996	Horizons in Diabetes Managements, American Diabetes Assn 39 th Annual Professional Symposium, Oak Brook, IL
1996	The Backlash Against the Backlash, Physician's for a National Health Program/ Presentation
	126 th Annual Meeting American Public Health Association, New York City, NY
1997	Examining Errors in Medicine: Prevention of Sentinel Events and Untoward Outcomes/ Workshop coordinator
	20th Annual Meeting Society for General Internal Medicine, Washington, DC
1997-1998	Breakthrough Series Advisory Panel on Improving Physician Prescribing
	Practices Faculty, Planning Committee member Presenter. Boston, MA Boston, MA
1998	Institute for Health Care Improvement (IHI) Improving Prescribing Practices
1770	National Congress/ Faculty Minneapolis, MN
1999	Understanding and Preventing Errors in Medicine/ Grand Rounds
	George Washington University Department of Heath Services, Washington DC
2000	Access, Quality, and the Future of Market Medicine/ Grand Rounds St. Luke's Medical Center, Milwaukee WI

Americ	an Informatics Association, Boston, MA
2001 Conflic Worksl	ets in our professional addiction to drugsand how to Detox/ nop leader and presentation. Physicians for National Health Program Meeting, Atlanta, GA
	care reform or deform: impacts on medical students/ Presenter an Medical Student Association, Chicago, IL
2001 Compu Frog/ P	terized Prescribing: Current Challenges or Seeking a Higher Leaping Presentation. Academy for Health Services Research & Health Policy Meeting, Atlanta, GA
2001 Nation:	al health reform: theirs and ours/ Keynote Presentation. Madison WI
Free Cl	inics of the Great Lakes Region Annual Conference: A Celebration of itment, Progress, and Spirit/ Keynote Presentation. Madison WI
Their w Comm	sium on U.S. Health Science Students as Radical Political Activists: vork and their Impact/ Facilitator Institute of Social Medicine and unity Health, and Socialist Caucus of the American Public Health ation, Atlanta, GA
	rial Service/ Tribute for Avedis Donabedian/ Featured speaker sity of Michigan School of Public Health, Ann Arbor, MI
Practic	r improvement in healthcare / Teleconference presentation to Family e Dept Residents sity of Kansas School of Medicine, Wichita, KS
2002 How w	ould Dr. Donabedian think about Diagnosis Errors/ Presentation can Public Health Association 130 th Annual Meeting, Philadelphia, PA
2002 Financi Worksl	ing National Health Insurance and Why Incrementalism Fails/ nop leader, presentation ans for National Health Program annual meeting, Philadelphia, PA
2002 Intimat Improv	e Strangers: Connecting Lab and Pharmacy to Reduce Errors and the Care/ Plenary Speaker can Medical Informatics Association, Scottsdale, AZ
2002 Spring Drug D	Congress A Drug by Any Other Name: The Role of Informatics from Development through the Point-of-Care/ Plenary Speaker can Medical Informatics Association, Scottsdale, AZ
2002 Health	Reform: Understanding and Addressing the Problems/ Grand Rounds sity of Wisconsin, Madison, WI
2003 Stonem	nan Visiting Professor of Health Care Quality/ Visiting Professorship rael Deaconess Medical Center. Boston, MA
2003 Medica Quality	al Malpractice/ Presentation and National Health Reform, APHA 131st Annual Meeting, San co, CA
2003 Improv Session	ing Quality Improvement in Health Care: Foundations and Frontiers/ n organizer and presentation; APHA 131st Annual Meeting, San co, CA
2003 Health Done N	Progressives in APHA: What Worked, What Didn't, What Should be Now/ Moderator, closing speaker 131st Annual Meeting, San Francisco, CA

2003	Risk Management Tips: A Focused Look at Failure to Diagnose/ National
2003	audio conference Presenter. Risk Management Association. Lansing, MI Paper Imaging: Paradoxical Success of Cerner EMR/ Presentation Cerner Health Conference, Kansas City, MO
2003	Malpractice and Health Reform/ Presentation
	New York Metro Physician for a National Health Program Forum, New York
	City, NY
2003	Pathways for Medication Safety/ Project Consultant
	American Hospital Association (HRET/AHA/ISMP Project), Chicago, IL
2004	Challenges in Putting Research Results to Use: Practitioner Perspective from
	the Trenches/ Plenary Speaker
2004	Special Session: Capitalism and the Environment/ Convener, Moderator,
	Introductory Presentation
2004	American Public Health Association (APHA) 130 th Annual Meeting,
	Philadelphia, PA
2004	Formularies, pharmacies, prescribers, and patients: understanding the
	economic, political, medical, and social pressures behind what we prescribe
	and what patients receive/ Workshop co-coordinator
	27 th Annual National Society for General Internal Medicine (SGIM) Meeting,
2004	Chicago, IL
2004	Universal National Health Insurance: Solution to our Malpractice, Mal-Access
2004	Mess/ Keynote speaker Proodleying Hospital Medical Staff citywide forum Joyg Historical Museum
2004	Broadlawns Hospital Medical Staff citywide forum, Iowa Historical Museum, Des Moines, IA
2004	Medical Grand Rounds. University of Iowa, Iowa Health System Methodist
2004	Hospital, Des Moines, IA
2004	Medical Grand rounds Broadlawns Hospital, (Polk County Public Hospital),
	Des Moines, IA
2004	Deep Connections: Linking Quality Improvement/ Presentation
	American Public Health Association 132 nd Annual Meeting, Washington, DC
2004	Malpractice and National Health Reform: Fifteen Parallels / Workshop Leader
	Physicians for National Health Program national annual meeting & leadership
	training workshop, George Washington University Marvin Center,
	Washington, D.C.
2004	Visiting Professor, The Activism and Medicine Course Case, and MetroHealth
	Hospital Quality Initiatives monthly conference guest speaker discussant
• • • • •	Case Western University, Cleveland, OH
2004	Visiting Professor, including special presentation for research seminar
	Diagnostic Error in Medicine Clinical Quality & Patient Safety Research
2005	Issues.
2005	Visiting Professor University of Iowa Hospitals and Clinics Division of
2005	General Internal Medicine, Iowa City, IA. Myths and Realities about Pharmaceutical Companies and Drug Prices/
2003	Presentation. PNHP Leadership Training Institute, Philadelphia, PA
2005	Getting in Gear to Prevent Adverse Drug Events/ Presentation
2003	Agency for Healthcare Research and Quality, Washington, DC
	1150 not 110 months and Research and Quanty, washington, DC

2005	The Role of Malpractice Reform in Assuring Quality/ Presentation SGIM 28 th Annual Meeting, New Orleans, LA
2005	10 Principles for Malpractice Reform and Quality/ Presentation
	Leadership Training Institute. Harvard Faculty Club, Cambridge, MA
2006	Transforming Passion into Action: A New Era of Physician Advocacy/
	Presenter American Medical Student Association, Chicago, IL
2006	Pharmaceutical Industry and National Health Reform: What are the
	Intersections?/ Leadership Training Workshop Leader
2006	Physicians for a National Health Program (PNHP), Harvard faculty club,
	Cambridge, MA
2006	Communicating and Acting on Critical Test Results/ Presentation AHRQ
	Annual Patient Safety Conference, Washington, DC
2006	Agency for Healthcare Research and Quality (AHRQ), AHIMA's Foundation
	of Research and Education, and the MGMA center for Research/ Invited
	participant, panelist. AHRQ's Conference on Healthcare Data Collection and
	Reporting, Chicago, IL
2006	Using Health Information Technology to Support Quality and Policy:
	Applications of Informatics Track/ Program Committee and Session Chair
	American Medical Informatics Association, Washington, DC
2007	Diagnosis Error: Epidemiology, Concepts, and Taxonomy/ Plenary speaker
	CRICO Harvard Risk Management Foundation, Risk Management conference
	on Diagnostic Error, Cambridge, MA. Missed and Delayed Diagnoses Related
2007	to Incidental Findings/ Workshop coordinator
2007	Quality of Care Through the Lens of the Single Payer National Health
	Insurance Model/ Workshop Organizer, Presenter National STFM 40 th Annual
2007	Spring Conference, Chicago, IL
2007	SGIM Quality of Patient Care, Patient Safety/ Program Committee SGIM 30 th
2007	Annual Meeting, Toronto, Canada Medication Reconciliation: Successes, Failures, and Why It Is So Hard/
2007	Workshop Organizer, Presenter. SGIM 30 th Annual Meeting, Toronto, Canada
2007	Medicare D as a Teaching Opportunity: Lessons in Health Policy and Quality
2007	Prescribing/ Workshop Organizer, Presenter. SGIM 30 th Annual Meeting,
	Toronto, Canada
2008	Medication Reconciliation: Successes, Failures, and Why It Is So Hard
2000	Medicare D as a Teaching Opportunity: Lessons in Health Policy and Quality
	Prescribing.
	"4th International Conference on Technology, Knowledge and Society"
	Northeastern University
2008	Linking lab and pharmacy Data: Warfarin Insights/ Presenter. National
	Steering Committee of Center for Education and Research in Therapeutics
	(CERT), Rockville, MD
2008	The FLIP Formulary Tool – A model for critical review of new drugs/
	Presenter. Center for Education and Research in Therapeutics (CERT)
	investigators national scientific conference call.
2008	Reducing Diagnostic Errors with Electronic Decision Support: Clinical
	Documentation Perspectives / Plenary presentation
	- -

	AHRQ / AMIA Diagnosis Errors in Medicine 1st National Conference,
2008	Phoenix, AZ What Signal? What Data? Provider Perspective: Safer Prescribing: Living
2000	with the Consequences and Opportunities of the Information Age/Plenary Speaker ISPE Mid-Year Meeting Symposium 4/28/2008. Boston, MA.
2008-2012	Pre-Course Presenter
2009	AHRQ / AMIA / SMDM Diagnostic Errors in Medicine Conferences Enhancing the quality of formulary decision making by using a checklist of critical questions. CERT Government day at Center for Medical and Medicare Services (CMS) Baltimore, MD, June 3, 2009
2009	American Medical Students Association. Washington DC Workshop Leader On Principles of Conservative Prescribing 3/14/09
2009	Conceptual issues in the development of a measure of formulary culture /
	Invited presentation ISPOR 14th Annual International Conference, Orlando, FL.
2009	Northwestern University Master's Program in Healthcare Quality and Patient
	Safety: Convocation Ceremony commencement speaker. Presentation Title:
	Executing Detours: From Scully to Obama.
2009	The CRICO/Harvard Risk Management Foundation Diagnosis Error Research
	Project / Co-Chair Plenary Presentation AHRQ-SMDM Diagnosis Errors in Medicine 2 nd National Conference,
	Hollywood, CA
2009	New Perspectives on Brady and Other Disclosure Obligations: What Really
	Works? Conference in New York November 15 and 16, 2009
2009	Rethinking Diagnosis Errors: Developing New Paradigm in Clinician Practice
	and Education / Richard Haber Lectureship Grand Rounds and Visiting
	Professorship San Francisco Congrel Hagnital San Francisco CA
2010	San Francisco General Hospital, San Francisco, CA Tribute to the Life and Work of Dr. Walter J. Lear
2010	Joint Session LGBT Caucus of Health Professionals, Sprit of 1848, Socialist
	Caucus and Medical Care Section, APHA Annual Meeting, Denver, CO
2010	Improving formulary decision making.
	Chicago Effective Healthcare Conference, Chicago, IL
2010	Health Reform, Quality, and Malpractice- A view through the lens of single
	payor reformation
2011	APHA Annual Meeting, Denver, CO Visiting Professor Vanderbilt University. Dept of Emergency Medicine
2011	Emergency Medicine Grand Rounds: Health Reform, Quality and Malpractice
	A view through the lens of single payer reform-ulation
	Heath Services Research Quality Seminar- Guest Speaker. Concepts in
	Quality Improvement
	Emergency Medicine Residents Lecture Series: Diagnosis in the Emergency
2011	Room- Where it Fails
2011	Test Result Reliability Science: How Often are Results Missing and How
	Often are They Missing the Right Diagnosis? / Featured Speaker Society for Hospital Medicine (SHM), Dallas TX
	boolety for Hospital Medicine (SHM), Dallas IA

2011	Donabedian Award: Contributions of Carolyn Clancy to Quality Improvement
2011	APHA Annual Meeting, Washington, DC Respecting and Reflecting on Diagnostic Errors / Workshop leader
2011	SGIM 34 th Annual Meeting, Phoenix, AZ Plenary speaker. System Dynamics and Dysfunctionalities: Levers for Overcoming Emergency Department Overcrowding. Consensus Conference on Interventions to Assure Quality in the Crowded Emergency Department. Society of Academic Emergency Medicine Annual Meeting Boston,
2011	Massachusetts
2011	Linking Lab and Pharmacy National Webinar sponsored by UIC CERT and Partnership for Patient Safety
2011	Diagnostic Error in Medicine: Short Course Organizer and Faculty: Diagnostic Error: A State of the Science Overview; Contributing Factors and Interventions: System Issues. Chicago
2011	Principles of Conservative Diagnosis (w/ David Eidelman). Donabedian Award Session 140 th Annual APHA Meeting Washington DC.
2011	Pharma Knows Best? Managing Medical Knowledge. Georgetown University Panelist: Medical Education: How can CME be ParmaFree June 16, 2011
2011	Critical Test Follow-up Concepts and Tactics. Webinar Presentation to National VA Communicating Test Results Workgroup 9/14/11
2011	IHI Expedition: 6 part series on Critical Values Reporting Communication / Webinar presenter
2012	Institute for Healthcare Improvement Visiting Professor Maine Medical Center. Department of Medicine Grand Round Diagnosis Error in Medicine: Can We do Better?
	Department of Medicine and Family Medicine Educational Conference: How to be a better prescriber: Principles of Conservative Prescribing. Medicine-Pediatrics Residents Seminar – Clinical Documentation Issues
2012	Presenter. Promises of/and Malpractice reform. IHI Quarterly National Faculty Conference Call Institute for Health Care Improvement
2012	Visiting Professor University of Michigan Ann Arbor. Dept of Urology Special Symposium and Dept of Medicine Grand Rounds Presentations.
2012	Quality 111 / Special Presentation City University of New York School of Public Health, New York, NY
2012	Diagnostic Error in Medicine: Plenary Panel Chair Speaker: Current Policy Issues in Diagnostic Error. 5 th International Diagnostic Error in Medicine Conference. Baltimore
2012	Pre-Course Introduction to Diagnostic Error in Medicine: Co-convener, speaker. System Causes of Diagnostic Error. 5 th International Diagnostic Error in Medicine Conference. Baltimore
2012	Plenary Speaker, Chair: Introduction: Lessons from the Untimely Death of Rory Staunton 5 th International Diagnostic Error in Medicine Conference. Baltimore
2013	Keynote Speaker: Role of Pharmacist in Improving Prescribing. Illinois Council of Hospital Pharmacists Annual Meeting 9/20/13

2013	Health Information Technology: Building Solutions for Patient Safety Session 401: Medication Errors in CPOE. National Patient Safety Foundation 15 th Annual Congress New Orleans 5/10/2013
2013	Presentation of Donabedian Award and Introduction to the PROMISES Project 142 nd APHA Annual Meeting, Boston, MA
2013	The Relevance of Errors and Diagnostic Errors in Medicine to Criminal Justice / Keynote speaker National Institute of Justice, Alexandria, VA
2014	Diagnostic Safety in an EHR-enabled Health Care System / webinar National Patient Safety Forum
2014	Diagnostic Error in Medicine: Informatics Challenges / Grand Rounds (w/ David Toker Neuman) Johns Hopkins Division of Health Sciences Informatics (by teleconference)
2014	Principles of Conservative Prescribing / Keynote speaker Berger Health Symposium, Circleville, OH
2014	Introduction to Diagnostic Errors in Medicine / Pre-course Workshop Presenter 7 th International Diagnosis Errors in Medicine Conference, Atlanta, GA
2014	Introduction Opening Keynote: Dr. Lucian Leape. 7th International Diagnosis Errors in Medicine Conference, Atlanta, GA
2014	Top Diagnosis Errors Articles and Events of 2014. (w/ Mark Graber). 7 th International Diagnosis Errors in Medicine Conference. Atlanta 9/17/14
2014	Crossing Boundaries to Better Care for Patients at Grady Hospital: Violation or Obligation / Grand Rounds Grady Hospital, Atlanta, GA
2014	Using Interactive Voice Response and Pharmacist for Earlier Detection and Counseling / National webinar AHRQ CERT National Science Call
2014	Stopping Errors in Ambulatory Care: Improving Patient Safety and Reduce Errors / Invited presentation Progressive Health Conference, New York City
2014	Care Outside the Hospital: Maintaining Quality and Safety / Plenary Presentation. ECRI Institute's 21st Annual Conference, The "New" Complex Patient: The Shifting Locus of Care and Cost, National Academy of Science, Washington, DC
2014	Understanding Professional-Patient Boundaries: Protections or Barriers / Invited lecture
2014	Department of Psychiatry, Montefiore Medical Center, Bronx, NY. 10 Principles for Addressing Diagnostic Error in Health Care / Keynote Speaker
2014	Joint Commission Ambulatory Conference, Oakbrook Terrace, IL Quality, Diagnosis, & Health Reform / Invited lecture APHA 142 nd Annual Meeting, New Orleans, LA

2014	Legacy of Avedis Donabedian and Presentation of 15 th Donabedian Award to Dr. Steffie Woolhandler
	APHA 142 nd Annual Meeting, New Orleans, LA
2014	FDA BWH CPOEMS: FDA Brigham and Women's Hospital / Invited
	presentation
	Computerized Prescriber Order Entry Medication Safety Presentation, U.S.
	FDA CDER/OSE/OMEPRM/DMEPA Divisions, Rockville, MD
2014	Rogers Health Policy Colloquium / Keynote speaker
	Weill Cornell Medical College, New York, NY
2015	What can criminal justice learn from patient safety in medicine
	10th Annual John Jay/Harry Frank Guggenheim Symposium on Crime in
	America, John Jay College of Criminal Justice, New York, NY
2015	Principles of Conservative Diagnosis / Plenary workshop speaker
	Road to RightCare Conference: Engage, Organize, Transform, San Diego, CA
2015	Better Understanding Diagnostic Errors in Medicine: Situational Awareness
	and Safety Nets / Keynote speaker
	AHRQ Patient Safety Organization National Conference, Washington, DC
2015	Indications-Based Prescribing Research Project (series of six 90-min panels) /
	Chair, Lead Presenter
	Panel 1: Delineating and Defining the Construct of Indications-based
	Prescribing
	Panel 2: Indications-based Prescribing and Patient Safety/Medication
	Errors
	Panel 3: Pharmacists and Indications-based Prescribing
	Panel 4: Patient Education/Information and Indications-based Prescribing
	Panel 5: Drugs of Choice
	Panel 6: HIT Technical and Vendor Issues
	AHRQ-BWH Indications-Based Prescribing Research Project
	https://sites.google.com/site/indicationsrx/project-overview
2015	Using Health Information Technology (HIT) as a Tool for Optimizing
	Medication Safety / Panelist
	National Patient Safety Foundation Annual Meeting, Austin, TX
2015	Keynote speaker: Putting Culture on Trial. A Class Action Suit. Ambulatory
	Care Expert Witness. CRICO Symposium 6/5/15 Boston.
2015	Making HIT Safer for Diagnosis / Keynote speaker
	Tregde Annual Patient Safety Conference, Jacobi Medical Center, Montefiore
	Medical Center, Bronx, NY
2015	BWH HIT CERT Projects / Invited Presentation
	CERT Steering Committee Meeting, Rockville, MD
2015	EHR Documentation and Health IT Safety / Webinar
	Health IT Safety Webinar Series, Office of the National Coordinator for
	Health Information Technology (ONC), U.S. Department of Health and
	Human Services
2015	Diagnosis Errors / Invited Lecture
	Department of Medicine, Indian Health Service, Gallup, NM

2015	Guest Discussant. Department of Medicine M&M. Indian Health Service Gallup, NM 7/23/15
2015	Professional-Patient Boundaries. Relevance for Caring for Native Americans. Lecture. Department of Medicine M&M. Indian Health Service Gallup, NM 7/29/15
2015	Activism: Lessons from 4 decades of advocacy work / Invited lecture Oregon Health Sciences University, Portland, OR
2015	Professionalism, advocacy, and clinician-patient boundaries / Grand Rounds Department of Medicine, Oregon Health Sciences University, Portland, OR
2015	Introduction to System Issues in Diagnostic Error / pre-course faculty International Conference on Diagnostic Error in Medicine, Washington, DC
2015	Principles of Conservative Diagnosis / Invited presentation 8th International Conference on Diagnostic Error in Medicine, Washington, DC
2015	Top 10 Articles/Advances in Diagnosis 2015 / Plenary Presentation 8th International Conference on Diagnostic Error in Medicine, Washington, DC
2015	Preventing Diagnostic Errors in Medicine and Healthcare / Keynote Speaker Fundamentally Human: An Innovative Exploration of Patient Safety. Patient Safety/Simulation Symposium Midwest Healthcare Quality Alliance, Southern Illinois School of Medicine, Springfield, IL
2015	Single Payer and Quality: 20 Year Update/Reflection on PNHP JAMA Quality Paper/Plan / Plenary Speaker Physicians for a National Health Program National Meeting, Chicago, IL
2015	Background and Presentation of Award to Rebecca Onie / Donabedian Lecture 143rd APHA Annual Meeting and Exposition, Chicago, IL
2015	Cognitive Skills and Judgment; Communications and Team-Based Care / Featured speaker for 2 panels American Board of Medical Specialties (ABMS) / NSPF Summit on Certification and Diagnostic Accuracy, Washington, DC
2015	Diagnosis Errors: Institute of Medicine Report and Recommendationsand Beyond / Webinar Project Patient Care / Consumers Advancing Patient Safety (CAPS)
2016	Rational Prescribing in Elders / Online Course Faculty Georgetown GW Milken Institute School of Public Health, Washington, DC
2016	Diagnostic Errors in Medicine / Keynote speaker 15th Annual PHTS Risk Management Medical Staff Leadership Advance Conference, Charleston, SC
2016	Crossing Professional Patient Boundaries: Violation or Obligation? / Keynote speaker 15th Annual PHTS Risk Management Medical Staff Leadership Advance Conference, Charleston, SC
2016	Professional Patient Boundaries: How Can We Maintain Both Appropriate Boundaries and Caring Relationships / Medical Grand Rounds

	University of South Carolina (USC) School of Medicine / Palmetto Health, Columbia, SC
2016	Incorporating Medication Indication into CPOE: What Do We Need to Build? iHealth Annual Meeting, American Medical Informatics Association,
2016	Minneapolis, MN
2016	Professional-Patient Boundaries / Leon Kassel Lectureship Grand Rounds Mt Sinai Hospital, Baltimore, MD
2016	Diagnostic Safety: An Emerging Frontier for Health Services Research and
2010	Quality Improvement / Invited Speaker
	AcademyHealth Annual Research Meeting, Boston, MA
2016	Diagnosing the Diagnostic Dilemma - the IOM Report/ Plenary Speaker
	American Academy of Dermatology, Washington, DC
2016	Graduate Communication Program / Commencement Speaker
	Northwestern University Feinberg School of Medicine, Chicago, IL
2016	Why Is Improving Diagnosis Important? Physician and Patient Perspectives /
	Keynote Speaker
	Setting the Stage: What We Know About Improving Diagnosis, AHRQ
•04.5	Research Summit on Improving Diagnosis in Health Care, Rockville, MD
2016	Opioid Adverse Drug Events / Webinar Speaker
2016	Federal Interagency Workgroup
2016	Diagnosis Errors: System Issues / Pre-course Faculty
	9 th International Conference: From IOM to Action, Society for Improvement of Diagnosis in Medicine, Hollywood, CA
2016	The Art of Uncertainty: Unlocking its tools and diagnostic potentials in visual
2010	art / Workshop Leader
	9 th International Conference: From IOM to Action, Society for Improvement
	of Diagnosis in Medicine, Hollywood, CA
2016	Ambulatory Morbidity and Mortality Conferences: Teaching Diagnostic
	Reasoning and Fostering a Culture of Safety / Workshop Leader
	9 th International Conference: From IOM to Action, Society to Improve
	Diagnosis in Medicine, Hollywood, CA
2016	Memorial Tribute to Dr. Quentin Young (chair medicine Cook County
	Hospital) / Walter Lear Session
	144th APHA Annual Meeting and Exposition, Denver, CO
2016	Improving Quality, Safety while Enhancing Joy and Efficiency in Practice:
	Making it Easier to Do the Safe Thing / Donabedian Award Session
2016	144th APHA Annual Meeting and Exposition, Denver, CO
2016	Incorporating Medication Indication into CPOE: What Do We Need to build?
2016	144th APHA Annual Meeting and Exposition, Denver, CO Reliable Diagnosis in Primary Care / Workshop leader
2010	IHIH 28th Annual National Forum, Orlando, FL
2017	EMRs, Data, and Single Payer Health Systems / Workshop Co-Leader
2017	Physicians for a National Health Program Annual Meeting, Atlanta, GA
2017	Principles of Conservative Diagnosis. Workshop Leader (repeated x2)
	5 th Annual Lown Institute National Conference, Boston, MA
2017	State of the Art in Quality & Safety is tomorrow / Keynote speaker

2017	Graduate Programs in Healthcare Quality & Patient Safety 10-Year Event, Northwestern University Feinberg School of Medicine, Chicago, IL Rethinking Diagnostic Error in Wake of National Academy of Medicine Report Improving Diagnosis In Health Care / Seminar Northwestern University Feinberg School of Medicine Institute for Public
2018	Health and Medicine (IPHAM), Chicago, IL Oral Scientific Abstracts Presentations in Quality and Safety / Session Moderator
2018	SGIM Annual Meeting, Denver, CO Why Am I Taking This Drug? Incorporating Indications in CPOE / Invited presentation
2018	HIMSS Annual Meeting, Las Vegas, NV The Next Frontier to Improve Diagnosis: The New Diagnostic Team / Workshop Communicating Diagnostic Uncertainty, NPSF Annual National Meeting,
2018	Boston, MA Introduction to Diagnostic Errors / Pre-course faculty Diagnostic Error in Medicine 11th International Conference, New Orleans, LA
2018	How to Balance Preventing Diagnostic Error with Need for Conservative Diagnosis: 10 Principles / Workshop (repeated) Diagnostic Error in Medicine 11th International Conference, New Orleans, LA
2018	Enterprise Patient Safety Indications Prescribing Working Demonstration / Invited presentation CVS Pharmacy, Woonsocket, RI
2018	Ten Principles for more Conservative and Care-full Diagnosis / Donabedian Session
2019	Medical Care Section, 146th APHA Annual Meeting and Exposition, San Diego, CA Understanding and Preventing: Diagnostic Errors in Primary Care / Grand Rounds, Visiting Professor, consultation for quality improvement The Alfred and Gail Engelberg Department of Family Medicine and
2019	Community Health, Icahn School of Medicine at Mount Sinai, New York, NY Medication Safety Implications of Indications-Based Presibing / Invited presentation (via webex)
2019	NCC MERP Presentation National Steering Committee, Rockville, MD Diagnostic Errors / Invited presentation 7 th Annual National Patient Safety Week, HRSA Bureau of Primary Health
2019	Care, Rockville, MD Principles of Conservative Diagnosis: How to Strategically Deploy in Primary Care / Keynote Speaker and Workshop Leader Division of General Medicine Annual Retreat, John H. Stroger, Jr. Hospital of
2019	Cook County, Chicago, IL Better Medication Prescribing: Practicing more conservatively and Incorporating indications into electronic ordering / Grand Rounds Department of Medicine, John H. Stroger, Jr. Hospital of Cook County, Chicago, IL

2019	Difficult Conversations in Health Care / Keynote Speaker Difficult Conversations in Health Care Preconference, International
2019	Communication Association 69th Annual Conference, Washington, DC Patient Provider Communication / Workshop leader Difficult Conversations in Health Care Preconference, International
2019	Communication Association 69th Annual Conference, Washington, DC The Intersection of Data Intersection of Data and Storytelling / Keynote Speaker
	CRICO Strategies Comparative Benchmarking System National Member Summit 2019 Meeting. 6/12/19
2019	Diagnostic Error in Primary Care: What Do We Know, What Opportunities / Keynote speaker
	I-PrACTISE. Improving PrimAry Care Through Industrial and Systems Engineering, Healthcare Systems Northeastern Engineering Institute and the University of Wisconsin Department of Family Medicine and Community
	Health, Northeastern University, Boston, MA
2019	Advancements and Challenges in Medication Safety / Invited Speaker IHI/NPSF Patient Safety & Quality Coalition Annual Meeting, Boston, MA
2019	Artificial Intelligence and Diagnosis Safety / Plenary Session Panelist Society for Improving Diagnosis in Medicine Annual Meeting, Washington,
2019-2020	DC Conservative Prescribing (4 module course) / Course Director, faculty
2017 2020	IHI Open School, Institute for Healthcare Improvement
2020	Medication Safety / Course Lecturer (4 hours total; virtual)
	University of Illinois at Chicago
2020	Diagnosing Diagnosis Errors: Where Next?: Improving Diagnosis - A
	Personal Agenda / Invited Speaker (virtual)
2020	AHRQ CQuIPS Topic-Oriented Meeting
2020	Diagnostic Errors and Communication and Resolution Programs
	(CRP) / National Webinar
	Collaborative for Accountability & Improvement, University of Washington
2020	Research Priorities for Patient Safety Improvement in the Ambulatory
2020	Setting / Invited Expert Participant
	AHRQ Patient Safety Roundtable
2020	Lessons Learned in Implementing a Chronic Opioid Therapy
	Management System / Panelist
	Annual Research Meeting. AcademyHealth (virtual)
2021	Rational Prescribing and Deprescribing. Improving Prescribing Safety and Appropriateness / Invited presentation
	Pharmed-Out Conference, Georgetown University, Washington, DC (virtual)
2021	A Call to Action. Insights from a Decade of Malpractice Claims /
	Keynote Speaker national webinar
	olson and Med-IQ

2021	A Call to Action. Action Webinar General Medicine Insights / Keynote Speaker for national webinar
	Coverys and Med-IQ. 10/20/21.
2021	Medication Safety: Safer More Conservative Prescribing / Oral Presentation
	American Public Health Association (APHA) 2021 149 th Annual National Meeting, Denver, CO
2021	Donabedian Award Lecture: 22nd Annual Donabedian Award
2021	Lecture: My and Our Debt to Donabedian
	APHA 149 th Annual National Meeting. Denver
2021	Learning from Patients: Case Reviews for Diagnostic Error Prevention
2021	and Improvement / Workshop Co-Chair
	14 th International Diagnostic Error in Medicine Conference (virtual)
2021	Better Together: Driving Diagnostic Improvement through
2021	Communication and Resolution Programs / Workshop Co-Chair
	14 th International Diagnostic Error in Medicine Conference (virtual)
2021	Closing the loop on radiology recommendations: Developing and
	applying a taxonomy to track performance of recommended actions /
	Workshop organizer, chair, presenter
	14 th International Diagnostic Error in Medicine Conference (virtual)
2021	Safely Starting, Using, and Stopping Drugs: Indications Rx, Cancel Rx
	and ADR Monitoring / Webinar presentation
	U.S. Deprescribing Research Network (USDN)
2021	Background and importance of diagnostic safety: Culture of diagnostic
	safety in medical offices / National webinar
	AHRQ Safety Culture Survey: Diagnostic Safety Supplemental Items
	for Medical Offices,
2021	https://www.ahrq.gov/sops/events/webinars/dxsafety.htmlwil
2021	Diagnostic Pitfalls: A New Approach to Anticipate, Prevent and
	Minimize Diagnostic Errors / Plenary Keynote 14th International Diagnostic Error in Medicine Conference (virtual)
2021	Achieving Excellence in Cancer Diagnosis Panel 6: Where do we go
2021	for the future? / Panelist
	National Academies of Sciences, Engineering, and Medicine virtual
	workshop
2022	Diagnostic Pitfalls: A New Approach to Anticipate, Prevent and
	Minimize Diagnostic Errors/ Webinar
	Coverys (national webinar)
2022	Humanism in Medicine / Presenter
	American College of Physicians (ACP) Annual National Meeting,
	Chicago, IL
2022	Workshop on Advancing Diagnostic Excellence for Older Adults /
	Planning Committee and closing panel presenter
	National Academy of Medicine (NAM), Irvine CA (sponsored by
	Moore Foundation and John Hartford Foundation)

2022	Closed Loop Diagnostics - AHRQ R18 Patient Safety Learning Laboratories /Presenter and Panelist
	AHRQ Patient Safety Learning Laboratories Annual Meeting, Seattle, WA
2023	Presentation on state of the art of indications based prescribing
	National Council for Prescription Drug Programs, (NCPDP)workgroup on
	electronic prescribing, Scottsdale, AZ
2023	Conservative Diagnosis Principles: Relevance to Diagnostic Errors.
	Society for Improving Diagnosis in Medicine Fellows (2022-2023 cohort),
	Cleveland, OH
2023	Improving Cancer Diagnosis (ICDx): Learning from and Supporting
	Historically Marginalized Patients following delayed Cancer Diagnosis.
	(Presentation with T Gallagher) AHRQ DCE Update (virtual session)
2023	Introduction to Diagnostic Error in Medicine, Prenerary Workshop.
	16th International Diagnostic Error in Medicine Conference, Cleveland, OH
2023	Diagnostic Centers of Excellence: Improving Cancer Diagnosis. Plenary Panel.
	16 th International Diagnostic Error in Medicine Conference. Cleveland
2023	Closing the Loop for Improving Diagnosis—All Roads lead to Scheduling /
	Donabedian Award Session Chair and Presentation .
	APHA 151st Annual Meeting, Atlanta, GA
2024	A framework for assessing the costs of
	delayed diagnosis. RAND Advisory Board. 1/16/2024. Invited speaker.
2024	Virtual Diagnostic Error Conference / Plenary Speaker.
•0•4	Iowa Healthcare Collaborative, Des Moines, IA
2024	Diagnostic Errors: #1 Safety Problem and Need for Systemic Solutions.
	Medical Grand Rounds, visiting professor. 2024 William N. Chambers
	Professor at Medicine Grand Rounds on Friday, March 29, 2024 at Dartmouth
	Hitchcock Medical Center. Multiple presentations on Diagnostic Errors,
2024	quality and safety Evidence of the Value of Improved Scheduling (Presentation w/ I. Benneyen)
2024	Evidence of the Value of Improved Scheduling (Presentation w/ J. Benneyan) 3/14/2024. National Webinar of Patient Access Collaborative (PAC;
	consortium of leaders from >100 academic health systems, children's
	hospitals, and cancer centers across U.S.
2024	Presentation on state of the art of indications based prescribing to National
2024	Council for Prescription Drug Programs, (NCPDP) workgroup on electronic
	prescribing)
2024	Humanism in Medicine / Presenter. American College of Physicians
202.	(ACP) Annual National Meeting, Boston, MA
2024	Designing for Equity in Healthcare. Incorporating Patient Safety Learning
-	Labs (PSLL) Annual Meeting. Presentation and breakout session co-chair.
	9/13/24
2024	Next Steps in Diagnostic Excellence Research. Presentation at Diagnostic
	Excellence 2024 (DEX24). Minneapolis 10/14/24
2024	Improving Cancer Diagnosis (ICDx): Learning from and Supporting Patients
	Experiencing Stage 3-4 Cancer Diagnosis (w/ Tom Gallagher). Inaugural

2024	Annual Meeting of the AHRQ Diagnostic Safety Community of Learning. Rockville, MD 10/25/24. Donabedian Award Presentation to Mark Linzer: 3 Decades of Research and Advocacy on Patient Burnout. 24 th Annual Donabedian Award Session Medical Care Section. American Public Health Assn (APHA) 10/28/24
National Abst	ract Oral Presentations
2005	Conceptual Issues in Critical Lab Follow-up: Linking the Work of the AHRQ Diagnosis Error and Evaluation Research Project / Oral abstract APHA 133rd Annual Meeting, Philadelphia, PA
2016	Diagnostic Pitfalls: A New Paradigm to Understand and Prevent Diagnostic Error / Oral abstract SGIM Annual Meeting, Hollywood, FL
International	~ = 11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
1998	Future of Drug Information: Consumer Concerns / Invited lecture United States Pharmacopeia, San Jose, Costa Rica
2003	Electronic linkage of lab and pharmacy data: a powerful DUR lever / Keynote Speaker
	Symposium on Drug Utilization Review, XVII Helsinki University Congress of Drug Research, Helsinki, Finland
2007	3 Part Lecture Series on Quality and Patient Safety / Lecture Series King Faisal Hospital, Kigali, Rwanda
2008	Electronically Linking Pharmacy and Data for Better Care / Workshop 13 th Congress of the European Association of Hospital Pharmacists, Maastricht, Netherlands
2009	P4P: Experiences from Abroad / Roundtable
2010	Canadian Federation of Nurses Unions (via videoconference) Introduction to Diagnosis Errors in Medicine / Opening address 3rd International Diagnosis Error in Medicine Conference, Toronto, Canada
2012	Kicking the Tires of CPOE Systems: Analysis of systems' vulnerabilities / Seminar CUR-IT Meeting, Ottawa, Canada
2012	Indications Based Prescribing / Invited presentation CUR-IT Meeting, Montreal, Canada
2012	Effective Management of Diagnostic Test Results Clinical Excellence Commission of Australia 11/23/12 Keynote Regional Conference to review Clinical Focus Report: Review of Data from RCAS and/or IMS Data. Sydney Australia
2012	Diagnostic Error in Medicine: Medical Imaging Interface / Invited presentation
2014	Australasian Imaging Society, Melbourne, Australia EMRs and Diagnostic Error in Medicine / Invited presentation ISQua 31 st International Conference. Rio de Janeiro, Brazil

2016	Research Results on Indication Based CPOE Alerts to Prevent Look Alike and Sound Alike Drug Name Mix-ups / Panelist
	5th World Congress of Clinical Safety, International Association of Risk
	Management in Medicine (IARMM), Boston, MA
2017	Diagnostic Errors in Primary Care: Improving Diagnosis in Healthcare and Beyond / Invited lecture
	17 th Annual Multispeciality Conference: Medical Negligence and Risk
	Management, Center for Human Genetics, Los Cabos, Mexico
2017	Crossing Profession Patient Boundaries in Healthcare: Risks and Benefits / Invited lecture
	17 th Annual Multispeciality Conference: Medical Negligence and Risk
	Management, Center for Human Genetics, Los Cabos, Mexico
2017	The Electronic Medical Record: Vulnerabilities, Liabilities, Opportunities /
	Invited lecture
	17 th Annual Multispeciality Conference: Medical Negligence and Risk
	Management, Center for Human Genetics, Los Cabos, Mexico
2017	Principles of Conservative Diagnosis (repeated twice) / Workshop Leader
	Preventing Overdiagnosis: Towards Responsible Global Solutions, Quebec
	City, Canada
2017	Learning from and Preventing Diagnostic Errors in Medicine / Invited lecture
	Usher Institute for Population Health Science and Informatics, Edinburgh, UK
2017	Diagnosis Error: Moving forward from the US National Academy of Medicine Report on Improving Diagnosis in Medicine / Seminar
	Newcastle University Medical Sciences Graduate School, Newcastle, UK
2019	Under-diagnosis vs. over-diagnosis: Trade-off or 2 sides of same coin? /
	Keynote speaker
	2 nd Australasian Diagnostic Error in Medicine Conference, Melbourne,
	Australia
2020	Presentation of 2020 Mark Graber Diagnosis Award to Dr. Carmel
	Crock Australia- Plenary Speaker (virtual)
	Society to Improve Diagnosis in Medicine Annual International
2022 2022	Meeting Diagnosis Safety / Invited Presentation
2022, 2023	Diagnosis Safety / Invited Presentation
	3rd Saudi Arabia Patient Safety Conference. SPSC 2022.

International Abstract Oral Presentations

2017 Balancing Diagnostic Errors With Conservative Diagnosis: Developing A New Paradigm For More Appropriate Diagnosis / Oral abstract ISQuA 34th Annual International Conference, London, UK

Report of Clinical Activities and Innovations

Current Licensure and Certification

1976	Licensed Physician and Surgeon, State of Illinois
1980	Certification, American Board of Internal Medicine
2002-2007	Registered Pharmacy Technician, State of Illinois
2007	Massachusetts Medical License

Practice Activities

1986-1993

1981-2007	Ambulatory Care	Attending (1981-86) and	3-9 one-month
	Inpatient Medicine	Senior Attending Physician	Inpatient Rotations /yr
	Inpatient and Outpatient	(1987-2007) Cook County	2-3 outpatient primary
	Medical Consult Service	Hospital Chicago	care clinics/yr
2008-2013	Inpatient Attending	General Medicine Service, BWH	2-4 weeks/yr
2008-	Ambulatory Care	Phyllis Jen Center, BWH	1 session/week

Computer Program for General Medicine Physician Scheduling (written in

Report of Technological and Other Scientific Innovations

1700-1773	Dbase 2 and Dbase 3 code. Used for scheduling 225 CCH GMC
	physicians and nurse practitioners' appointments for 250,000+ patient
	appointments 1986 1993). Also, Emergency Dept/Ambulatory Screening
	Clinic direct referral appointment scheduling program Dbase3+ for
	rotating medicine residents.
1988-1997	GMC Physician Practice Group Reports, b) Appointment Slips and Patient
	Label Masters generator, c) Others (multiple relational database report
	programs written in R & R Report Writer. Used in CCH General
	Medicine and Pediatrics Comprehensive Care Clinics 1988-1997. Written
	in R&R Report Writer coded language
2000-2007	Cook County Hospital Pager System: Download/Mapping Program for
	Palm 3 (handheld computer). (widely used in CCH system 2000-2007,
	permitting downloading to palm and Windows-based handheld computers
	of 2500+ pager and office phone #s for quick look-up on wards and
	clinics)
2001	Structured Voice Recognition Program for General Medicine Clinic
	attending notes and quality tracking (using Dragon 5.0 Professional
	speech recognition engineer w/ Microsoft Access 97)
2001	Thyroxine Lab-Pharmacy linkage program (linking SMS laboratory and
	NDC pharmacy data for tracking patients with missed diagnosis of
	hypothyroidism) 10/01. Prototype of lab-pharmacy linked data using
	unique identifier and chronologic serial display of lab data merged with
	pharmacy records. Used for study published in Arch Intern Med 2005.
2001-2003	General Medicine Clinic patient demographic profiles for Palm Pilot.
	Access 97 program for downloading from HBO scheduling system,
	mapping and uploading patient demographic to Palm 3.0 address book.

	Widely used by physicians and others to access patient lists and patient
	demographics. (written w/ A. Rothenberg)
2003	Access Progress for Linking Lab and Pharmacy Data- Presented and
	distributed at Symposium on Drug Utilization Review (DUR). XVII
	Helsinki University Congress of Drug Research Helsinki, Finland (written
	w/ A. Rothenberg)
2003-2006	Medical Consult Services-Rounds List. Designed in Quickbase.com. Used
	for Cook County Stroger Hospital Med Consult Service 2003-2006
2006	Idea Processor-Word Processing Outlining Innovative program using MS
	Access and MS Word.
2017-2019	Indications Based Prescribing: PI for project that designed, programmed,
	tested of innovative prototype CPOE (ordering medications).
2022-2024	Automated interacting texting app for Screening for Adverse Drug
	Reactions (w/ Health Vector) for Pharmacist to reach of to patients newly
	started on medications in 3 General Medicine practices.

Report of Education of Patients and Service to the Community

No presentations or publications below were sponsored by outside entities.

Activities

1975-	Blood Donor: American Red Cross/ Life Source Blood Donor/Brigham and Woman's Hospital. Donate every ~8-12 wks
1975-1989	Committee to Save Cook County Hospital/ Founding member, newsletter editor, treasurer
1985-2008	Chicago Bicycle Coalition/ Member, Community outreach and fundraising Chair
1985	Invited Testimony: Emergency Room Access Issues/ Health Committee, Chicago City Council, Chicago IL
1985	Americans at Risk: The Case of the Medically Uninsured, U.S. Senate Special Committee Hearings June 27, Washington, DC/Expert Witness
1986	The SCAPHA Advocacy Experience, Central Massachusetts Area Health Education Center National Conference on Caring for the Poor, Conway, NH.
1987	League of Women Voters/ Debate Panelist. Debating the Future of Cook County Hospital
1989	Effects of University of Illinois and Michael Reese Merger, Schiff GD, Goldsmith J, Young QD, Billings Hospital / Debate on Future of Health Care in Chicago
1990	Chicago Health Summit Hearings on Future of Health System of Cook County/ Invited Testimony
1990	Future of Cook County Hospital and Effects and Maternal and Child Health/ Debate Panelist. Debate on Chicago Health Summit recommendations at Illinois Maternal and Chicago Health Coalition meeting

1991	Community Renewal Society of Chicago/ Panelist. Features of Australian Health System
1991	Chicago Metropolitan Planning Council/ Panelist. Future of Cook County Hospital
1992	Canada's Health Care System: A Model for the U.S.?/ Presenter
1992	Debate with American Medical Association.
1992	Debate on Alternatives for National Health Reform, Skokie Illinois
1994	American Council on Consumer Interests: 40th Annual Conference
1// 1	Colston Warne Lectureship: Consumer Interest and Health Reform
1995	Illinois Nurses Association/State of Illinois Public Hearings/ Invited
1,,,,	testimony
	The Quality and Safety of Patient Care
1995	The Future of Health Reform and Quality, 5 th Annual Midwest Radical
2,,,,	Scholars & Activists Conference, Chicago, IL/Presenter
1995-1999	Chicago Public Schools' High School Science Fair/ Judge
1996	Delaware Consumer Health Care Consortium/ Speaker
1996	Illinois Nurses Association Forum at Democratic National Convention
	Chicago/ Founding/ supporting member, Presenter, Nurses Network for a
	National Health Program
1997	Oakbrook Republican Club/ Presenter The history, role and future of Cook
	County Hospital/ Lecturer
1997	Lecture to Schweitzer Urban Health Medical Student Urban Health Service
	Internship
1999	Lecturer. Our Nation's Health Care The Forum Club
1999	Implications of universal health care/ Keynote speaker
	Forum for New Priorities Series #6. Presented by Institute for Policy Studies,
	and Committee for New Priorities of Chicago Jobs with Justice
1999-2001	Chicago Public Schools High School Debate/ Judge
1999-2005	Schweitzer Fellows Program/ Faculty
2000	Schackowsky, Jan H.R. 4455 Email Address Forwarding (Portability)
	Act/Author & Initiator
	Bill to require providers of electronic mailboxes to provide forwarding
	addresses. 106 th Congress 2 nd Session. Bill did not pass into law.
2000	Universal Health Care in the Year 2000, Illinois Campaign for Better Health
	Care, South Suburban Grey Panthers/ Keynote speaker
2000	The 2000 Presidential Election and Health Care Reform: Symposium Budetti
	P, Fegan C, Schiff G. UIC Medical Center. Sponsored by Chicago Area
2001	Schweitzer Fellows
2001	The Ethics of Managed Health Care Ethical Humanist Society of Greater
2001	Chicago/ Keynote Presenter
2001	Speaker, Managed care and your care College of Dupage Older Adult Institute
2001	public policy series/ Speaker Chieves Period Sefera Forms (CRSF)/Co. Formulae Steering Committee
2001-	Chicago Patient Safety Forum (CPSF)/Co-Founder. Steering Committee
	Member (2002-2007). Elected representative to Scientific Council (2004-
	2007).

How ESL Teachers Ended up Uninsuredand What Can be Done about it?/
Speaker
2nd Annual Wisconsin Activist's Conference Activism Not Reactivism/
Keynote speaker and workshop leader Wisconsin Physicians for Social
Responsibility. Madison WI
Cover the Uninsured Week/ Keynote speaker Policy Forum University of
Illinois Chicago School of Public Health
Delegation of Vietnam Women's Union Peace Tour including Bach Mai
Hospital/ Participant, organizer
Patient Safety and Information Technology-Five Key Issues for Today and the
Future/ Speaker Chicago Patient Safety Summit. Metropolitan Chicago
Healthcare Council (MCHC).
Illinois Healthcare Referendum 2006 Speaker Training Workshop/ Keynote
Speaker
Alternatives for National Health Reform/ Temple KAM Isaiah Israel, Chicago
Keynote speaker
Debating and Answering the Hard Questions: Physicians for a National
Health Program Annual Nation Meeting/ Panelist
Debating Concierge MedicineConcierge Medicine New Horizons in Health
Care Event/ Debater Union League Club. Business Development Institute and
Castle Connolly Medical Conference. Chicago IL
Addressing the opioid epidemic by prescribing drugs more rationally Berger
Health Community Forum 4/22/14. Circleville, OH
Editorial Reviewer. Section on Drug Therapy Our Bodies Ourselves
Women's Health Book 2011 40th Anniversary Edition
Mentor for Job Shadow Day (community high school students mentor)
Bikes Not Bombs. Fundraising Support

Educational Materials for Patients and the Lay Community

Books, Monographs, Articles and Presentations in Media

- 1. Concerned Rush Students*. M.D.'s in the Drug Industry's Pocket. Science for the People. 1976; 8(6):6-9, 20. (*member of authorship group)
- 2. **Schiff GD**. Why we need to rebuild cook county hospital, Chicago Tribune (op ed article) 1987 pp. unknown.
- 3. **Schiff GD**. Prevention and managed care. New York Times (letter) 3/19/97.
- 4. **Schiff GD**, Blatt M. Sprit of Debate (letter) Tufts Magazine 2000; 8 (1):2-3
- 5. Cohen M, **Schiff GD**. Ban on Generic Drugs Will Proved to be Fatal Mistake. (op-ed commentary) Chicago Sun Times. 5/5/2004; pp. 63

Recognition

1990	The Casualties of Cost	Radio interview, Minnesota Public Radio, Saint Paul, MN
1997	Is America's Health Worse Under Managed Care?	National televised debate, National Public Television/HBO Studio Debate

1997	Good or Bad Deal for Patients?	Local televised debate, AMA-Sunbeam
2002	Tour of Cook County Hospital (shown on historic evening of closing of old Cook County hospital building)	Television appearance, WTTW, Chicago, IL
2007	Health Care in Cook County	Television interview, Chicago Tonight, WTTW, Chicago IL
2019	Medicare for All	Radio interview, Bradley Jay Radio Program WBZ, Boston, MA https://www.iheart.com/podcast/1002-jay-talking-28654274/episode/medicare-for-all-45589615/

Report of Scholarship

Peer reviewed publications in print or other media

Research investigations

- 1. **Schiff GD**. Using a computerized discharge summary database check box for adverse drug reaction monitoring. QRB Qual Rev Bull. 1990; 16:149-155.
- 2. Rucker D, **Schiff GD**. Drug formularies: myths-in-formation. Med Care. 1990; 28:928-942.
 - Reprinted in Hospital Pharmacy 1991; 26:507-514.
- 3. **Schiff GD**, Hedge HM, LaCloche L, Hryhorczuk DL. Inpatient theophylline toxicity: preventable factors. Ann Intern Med. 1991; 114:748-753. Author reply to letters: Ann Intern Med. 1991; 115:407-8.
 - Abstracted as a key article of year in Yearbook of Medicine 1992;102-106
 - Reprinted as book chapter in Harris AP, Zitzmann WG (eds). Operating Room Management: Structure, Strategies, & Economics. Baltimore, MD. Mosby- 1998 (pages not available)}
- 4. Ansell DA, **Schiff GD**, Dick S, Cwiak C, Wright K. Voting with their feet: public hospitals, health reform and patient choices. Am J Pub Health 1997; 88 (3):439-441.
- 5. **Schiff GD**, Aggarwal HC, Kumar S, McNutt R. Prescribing potassium despite hyperkalemia: medication errors uncovered by linking laboratory and pharmacy information systems. Am J Med. 2000; 109:494-497.
- 6. **Schiff GD**, Wisniewski M, Bult J, Parada JP, Aggarwal H, Schwartz DN. Improving inpatient antibiotic prescribing: insights from participation in a national collaborative. Jt Comm J Quality Improv. 2001; 27(8);387-402.
 - Lead article in theme issue: Overcoming Antimicrobial Resistance
- 7. **Schiff GD**, Keehr L, Sai TT, Bult J. High Rates of Adverse Effects and Patient Unawareness of Withdrawn Lipid Lowering Drug Combination in a Public Hospital Clinic. Pharmacoepidemiol Drug Saf. 2002;11(8):643-645.
- 8. **Schiff GD**, Klass D, Peterson J, Shah G, Bates DW. Linking laboratory and pharmacy: opportunities for reducing errors and improving care. Arch Intern Med. 2003;163: 893-900.

- 9. **Schiff GD**, Fung S, Speroff T, McNutt RA. Decompensated heart failure: symptoms, patterns of onset, and contributing factors. Am J Med. 2003; 114:625-630.
- 10. Goldberg D, **Schiff GD**, McNutt R, Furumoto-Dawson A, Hoffman A, Hammerman M. Mailings timed to patients' appointments: a controlled trial of fecal occult blood test cards. Am J Prev Med. 2004; 26(5):431-435.
- 11. Cram P, Rosenthal GE, Ohsfeldt R, Wallace R, Schlechte J, **Schiff GD.** Failure to recognize and act on abnormal test results: the case of screening bone densitometry. Jt Comm J Qual Patient Saf. 2005; 31:90–97.
- 12. **Schiff GD**, Kim S, Krosnjar N, Wisniewski MF, Bult J, Fogelfeld L, McNutt RA. Missed Hypothyroidism Diagnosis Uncovered by Linking Laboratory and Pharmacy Data. Arch Intern Med. 2005; 165: 574-577.
- 13. Parada JP, Schwartz DN, **Schiff GD**, Weiss KB. Effects of type and level of training on variation in physician knowledge in the use and acquisition of blood cultures: a cross sectional survey. BMC Infect Dis. 2005; 5:71-79.
- 14. **Schiff GD**, Kim S, Seger AS, Bult J, Bates DW. Ability of practitioners to identify solid oral dosage tablets Cook County-Harvard Solid Oral Dosage Identification Study. Am J Health Syst Pharm. 2006; 63 (9): 838-843. Reply to letters: **Schiff G D**, Kim S, et al. Issues in medication safety. Am J Health Syst Pharm. 2007; 64(1): 24.
- 15. Weiner SJ, Schwartz A, Yudkowsky R, **Schiff GD**, Weaver FM, Goldberg J, Weiss KB. Evaluating physician performance at individualizing care: a pilot study tracking contextual errors in medical decision making. Med Decis Making. 2007;27(6):726-34.
- 16. **Schiff GD**, Hasan O, Kim S, Abrams R, Costby K, Lambert BL, Elstein AS, Kabongo ML, Krosjnar N, Odwazny R, Wisniewski MF, McNutt RA. Diagnostic Error in Medicine: Analysis of 583 Physician-reported Errors. Arch Intern Med. 2009;169(20):1881-1887.
- 17. Raja AS, Wright C, Sodickson AD, Zane RD, **Schiff GD**, Hanson R, Baeyens PF, Khorasani R. Negative appendectomy rate in the era of CT: an 18-year retrospective. Radiology. 2010;256(2):460-5.
- 18. Crabtree BF, Chase SM, Wise CG, **Schiff GD**, Schmidt LA, Goyzueta JR, Malouin RA, Payne SM, Quinn MT, Nutting PA, Miller WL, Jaén CR. Evaluation of patient centered medical home practice transformation initiatives. Med Care. 2011 Jan;49(1):10-6.
- 19. Haas JS, Iyer A, Orav EJ, **Schiff GD**, Bates DW. Participation in an ambulatory epharmacovigilance system. Pharmacoepidemiol Drug Saf. 2010;19(9):961-9.
- 20. Yu S, Galanter W L, Lambert B L, Borkowsky S, DiDomenico R, **Schiff GD**. Selection of drug-laboratory result pairs for an inpatient asynchronous alert program: results of a Delphi survey. Am J Health-Syst Pharm. 2011; 68:407-14
- 21. Yang Y, McBride MV, Rodvold KA, Tverdek F, Trese AM, Hennenfent J, **Schiff GD**, Lambert BL, Schumock GT. Hospital policies and practices on prevention and treatment of infections caused by methicillin-resistant *Staphylococcus aureus*. A J Health-Syst Pharm. 2010; 67(12):1017-24.
- Weingart SN, Seger AC, Feola N, Heffernan J, **Schiff G**, Isaac T. Electronic Drug Interaction Alerts in Ambulatory Care: The Value and Acceptance of High-Value Alerts in US Medical Practices as Assessed by an Expert Clinical Panel. Drug Saf. 2011;34(7):587-93.

- 23. Goldberg D, Benson JL, **Schiff G**, Pandey T. Contributions of public hospitals to regional health care: a population-based analysis of the county health care system serving metropolitan Chicago. J Health Care Poor Underserved. 2011;22(1):346-58
- 24. Steinman MA, Handler SM, Gurwitz JH, **Schiff GD**, Covinsky KE. Beyond the prescription: medication monitoring and adverse drug events in older adults. J Am Geriatr Soc. 2011; 59(8) 1513-20
- 25. Leung AA, Keohane C, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, **Schiff GD**, Zimlichman E, Seger DL, Yoon C, Song P, Bates DW. Impact of Vendor Computerized Physician Order Entry in Community Hospitals. J Gen Intern Med. 2012;27(7):801-7.
- 26. Haas JS, Klinger E, Marinacci LX, Brawarsky P, Orav EJ, **Schiff GD**, Bates DW. Active pharmacovigilance and healthcare utilization. Am J Manag Care. 2012;18(11):e423-8.
- 27. Haas JS, Amato M, Marinacci L, Orav EJ, **Schiff GD**, Bates DW. Do Package Inserts Reflect Symptoms Experienced in Practice?: Assessment Using an Automated Phone Pharmacovigilance System with Varenicline and Zolpidem in a Primary Care Setting. Drug Saf. 2012;35(8): 623-628
- 28. Horsky J, **Schiff GD**, Johnston D, Mercincavage L, Bell D, Middleton B. Interface design principles for usable decision support: A targeted review of best practices for clinical prescribing interventions. J Biomed Inform. 2012;45(6):1202-16.
- 29. Bitton A, Schwartz GR, Stewart EE, Henderson DE, Keohane CA, Bates DW, **Schiff GD**. Off the hamster wheel? Qualitative evaluation of a payment-linked patient-centered medical home (PCMH) pilot. Milbank Q. 2012;90(3):484-515.
- 30. **Schiff GD**, Galanter WL, Duhig J, Koronkowski MJ, Lodolce AE, Pontikes P, Busker J, Touchette D, Walton S, Lambert BL.. A Prescription for Improving Drug Formulary Decision Making. PLoS Med. 2012; 9(5): 1-7.
- 31. Pollard SE, Neri PM, Wilcox AR, Volk LA, Williams DH, **Schiff GD**, Ramelson HZ, Bates DW. How physicians document outpatient visit notes in an electronic health record. Int J Med Inform. 2013;82(1):39-46.
- 32. Leung AA, Keohane C, Lipsitz S, Zimlichman E, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, **Schiff G**, Seger DL, Bates DW. Relationship between medication event rates and the Leapfrog computerized physician order entry evaluation tool. J Am Med Inform Assoc. 2013; 20(e1):e85-90
- 33. Roy CL, Rothschild JM, Dighe AS, **Schiff GD**, Graydon-Baker E, Lenoci-Edwards J, Dwyer C, Khorasani R, Gandhi TK. An initiative to improve the management of clinically significant test results in a large health care network. Jt Comm J Qual Patient Saf. 2013;39(11):517-27.
- 34. Leung AA, **Schiff G**, Keohane C, Amato M, Simon SR, Cadet B, Coffey M, Kaufman N, Zimlichman E, Seger DL, Yoon C, Bates DW. Impact of vendor computerized physician order entry on patients with renal impairment in community hospitals. J Hosp Med. 2013; 8(10): 545-552.
- 35. Houser SH, Ray MN, Maisiak R, Panjamapirom A, Willing J, **Schiff GD**, English T, Nevin C, Berner ES. Telephone follow-up in primary care: can interactive voice response calls work? Stud Health Technol Inform. 2013;192:112-6.
- 36. El-Kareh R, Hasan O, **Schiff GD**. Use of health information technology to reduce diagnostic errors. BMJ Qual Saf. 2013;22 Suppl 2:ii40-ii51.

- 37. **Schiff GD**, Puopolo AL, Huben-Kearney A, Yu W, Keohane C, McDonough P, Ellis, BR, Bates DW, Biondolillo M. Primary care closed claims experience of Massachusetts malpractice insurers. JAMA Intern Med. 2013;173(22):2063-8. Reply to letters: JAMA Intern Med. 2014; 174 (7): 1202-1203.
- 38. Landman AB, Redden L, Neri P, Poole S, Horsky J, Raja AS, Pozner CN, **Schiff G**, Poon EG. Using a medical simulation center as an electronic health record usability laboratory. J Am Med Inform Assoc. 2014;21(3):558-63.
- 39. Edwards ST, Neri PM, Volk LA, **Schiff GD**, Bates DW. Association of note quality and quality of care: a cross-sectional study. BMJ Qual Saf. 2014;23(5):406-13
- 40. Galanter WL, Bryson ML, Falck S, Rosenfield R, Laragh M, Shrestha N, **Schiff GD**, Lambert BL. Indication Alerts Intercept Drug Name Confusion Errors during Computerized Entry of Medication Orders. PLoS ONE. 2014;9(7):e101977.
- 41. Heyworth L, Bitton A, Lipsitz SR, Schilling T, **Schiff GD**, Bates DW, Simon SR. Patient-Centered Medical Home Transformation With Payment Reform: Patient Experience Outcomes. Am J Manag Care. 2014;20(1):26-33.
- 42. **Schiff G**, Griswold P, Ellis BR, Puopolo AL, Brede N, Nieva HR, Federico F, Leydon N, Ling J, Wachenheim D, Leape LL, Biondolillo M. Doing right by our patients when things go wrong in the ambulatory setting. Jt Comm J Qual Patient Saf. 2014;40(2):91-6.
- 43. Neri PM, Volk LA, Samaha S, Pollard SE, Williams DH, Fiskio JM, Burdick E, Edwards ST, Ramelson H, **Schiff GD**, Bates DW. Relationship between documentation method and quality of chronic disease visit notes. Appl Clin Inform. 2014; 5(2): 480-490
- 44. Berner ES, Ray MN, Panjamapirom A, Maisiak RS, Willig JH, English TM, Krawitz M, Nevin CR, Houser S, Cohen MP, **Schiff GD**. Exploration of an automated approach for receiving patient feedback after outpatient acute care visits. J Gen Intern Med. 2014; 29(8):1105-1112.
- 45. Singer SJ, Reyes Nieva H, Brede N, Ling J, Leydon N, Weissman JS, Goldmann D, Griswold P, Yoon C, Orav EJ, Bates DW, Biondolillo M, **Schiff GD**. Evaluating Ambulatory Practice Safety: The PROMISES Project Administrators and Practice Staff Surveys. Med Care. 2015;53(2):141-52.
- 46. **Schiff GD**, Amato MG, Eguale T, Boehne JJ, Wright A, Koppel R, Rashidee AH, Elson RB, Whitney DL, Thach TT, Bates DW, Seger AC. Computerised physician order entry-related medication errors: analysis of reported errors and vulnerability testing of current systems. BMJ Qual Saf. 2015;24:264-271
- 47. Taplin SH, Weaver S, Chollette V, Marks LB, Jacobs A, **Schiff GD**, Stricker CT, Bruinooge SS, Salas E. Teams and Teamwork During a Cancer Diagnosis: Interdependency Within and Between Teams. J Oncol Pract. 2015;11(3):231-8.
- 48. Neri PM, Redden L, Poole S, Pozner CN, Horsky J, Raja AS, Poon E, **Schiff G**, Landman A. Emergency Medicine Resident Physicians Applied Clinical Informatics and Perceptions of Electronic Documentation and Workflow: A mixed methods study. Appl Clin Inform. 2015;6(1):27-41.
- 49. Slight SP, Berner ES, Galanter W, Huff S, Lambert BL, Lannon C, Lehmann CU, McCourt BJ, McNamara M, Menachemi N, Payne TH, Spooner SA, **Schiff GD**, Wang TY, Akincigil A, Crystal S, Fortmann SP, Vandermeer ML, Bates DW. Meaningful use of electronic health records: experiences from the field and future opportunities. JMIR Med Inform. 2015; 3(3):e30. Erratum in: JMIR Med Inform. 2015; 3(3):e32 [added missing author Vandermeer ML].

- 50. Hudspeth J, El-Kareh R, **Schiff G**. Use of an Expedited Review Tool to Screen for Prior Diagnostic Error in Emergency Department Patients. Appl Clin Inform. 2015;6(4):619-28
- 51. **Schiff GD**, Hickman TT, Volk LA, Bates DW, Wright A. Computerised prescribing for safer medication ordering: still a work in progress. BMJ Qual Saf. 2016;25(5):315-9. Erratum in: BMJ Qual Saf. 2017 May;26(5):429 [added missing acknowledgments]
- 52. El-Kareh R, Pazo V, Wright A, **Schiff GD**. Losing weights: Failure to recognize and act on weight loss documented in an electronic health record. J Innov Health Inform. 2015;22(3):316-22
- 53. Slight SP, Eguale T, Amato MG, Seger AC, Whitney DL, Bates DW, **Schiff GD**. The vulnerabilities of computerized physician order entry systems: a qualitative study. J Am Med Inform Assoc. 2016;23(2):311-6.
- 54. Amato MG, Salazar A, Hickman TT, Quist AJ, Volk LA, Wright A, McEvoy D, Galanter WL, Koppel R, Loudin B, Adelman J, McGreevey JD 3rd, Smith DH, Bates DW, **Schiff GD**. Computerized prescriber order entry–related patient safety reports: analysis of 2522 medication errors. J Am Med Inform Assoc. 2017;24(2):316-322.
- 55. Leaf DE, Cheng XS, Sanders JL, Mendu M, **Schiff GD**, Mount DB, Bazari H. An electronic alert to decrease Kayexalate ordering. Ren Fail. 2016;38(10):1752-1754.
- 56. Schroeder SR, Salomon MM, Galanter WL, **Schiff GD**, Vaida AJ, Gaunt MJ, Bryson ML, Rash C, Falck S, Lambert BL. Cognitive tests predict real-world errors: the relationship between drug name confusion rates in laboratory-based memory and perception tests and corresponding error rates in large pharmacy chains. BMJ Qual Saf. 2017 May;26(5):395-407.
- 57. Kannampallil T, Galanter WL, Falck S, Gaunt MJ, Gibbons RD, McNutt R, Odwazny R, **Schiff G**, Vaida AJ, Wilkie DJ, Lambert BL. Characterizing the pain score trajectories of hospitalized adult medical and surgical patients: a retrospective cohort study. Pain. 2016;157(12):2739-2746.
- 58. **Schiff GD**, Volk LA, Volodarskaya M, Williams DH, Walsh L, Myers SG, Bates DW, Rozenblum R. Screening for medication errors using an outlier detection system. J Am Med Inform Assoc. 2017;24(2):281-287.
- 59. Adelman JS, Berger MA, Rai A, Galanter WL, Lambert BL, **Schiff GD**, Vawdrey DK, Green RA, Salmasian H, Koppel R, Schechter CB, Applebaum JR, Southern WN. A national survey assessing the number of records allowed open in electronic health records at hospitals and ambulatory sites. J Am Med Inform Assoc. 2017;24(5):992-995
- 60. Kannampallil TG, Abraham J, Solotskaya A, Philip SG, Lambert BL, **Schiff GD**, Wright A, Galanter WL. Learning from errors: analysis of medication order voiding in CPOE systems. J Am Med Inform Assoc. 2017;24(4):762-768.
- 61. Abraham J, Kannampallil TG, Jarman A, Sharma S, Rash C, **Schiff G**, Galanter W. Reasons for computerised provider order entry (CPOE)-based inpatient medication ordering errors: an observational study of voided orders. BMJ Qual Saf. 2018;27(4):299-307.
- 62. **Schiff GD**, Bearden T, Hunt LS, Azzara J, Larmon J, Phillips RS, Singer S, Bennett B, Sugarman JR, Bitton A, Ellner A. Primary Care Collaboration to Improve Diagnosis and Screening for Colorectal Cancer. Jt Comm J Qual Patient Saf. 2017;43(7):338-350.
- 63. Rash-Foanio C, Galanter W, Bryson M, Falck S, Liu KL, **Schiff GD**, Vaida A, Lambert BL. Automated detection of look-alike/sound-alike medication errors. Am J Health Syst Pharm. 2017;74(7):521-527.

- 64. Quist AJ, Hickman TT, Amato MG, Volk LA, Salazar A, Robertson A, Wright A, Bates DW, Phansalkar S, Lambert BL, **Schiff GD**. Analysis of variations in the display of drug names in computerized prescriber-order-entry systems. Am J Health Syst Pharm. 2017;74(7):499-509.
- 65. Kerrissey M, Satterstrom P, Leydon N, **Schiff G**, Singer S. Integrating: A managerial practice that enables implementation in fragmented health care environments. Health Care Manage Rev. 2017;42(3):213-225.
- 66. Seoane-Vazquez E, Rodriguez-Monguio R, Alqahtani S, **Schiff G**. Exploring the potential for using drug indications to prevent look-alike and sound-alike drug errors. Expert Opin Drug Saf. 2017;16(10): 1103-1109.
- 67. **Schiff GD**, Reyes HN, Griswold P, Leydon N, Ling J, Federico F, Keohane C, Ellis BR, Foskett C, Orav EJ, Yoon C, Goldmann D, Weissman JS, Bates DW, Biondolillo M, Singer SJ. Randomized Trial of Reducing Ambulatory Malpractice and Safety Risk: Results of the Massachusetts PROMISES Project. Med Care. 2017;55(8): 797-805
- 68. Garada M, McLachlan AJ, **Schiff GD**, Lehnbom EC. What do Australian consumers, pharmacists and prescribers think about documenting indications on prescriptions and dispensed medicines labels?: A qualitative study. BMC Health Serv Res. 2017; 17(1):734. PMID: 29141618.
- 69. Kron K, Myers S, Volk L, Nathan A, Neri P, Salazar A, Amato MG, Wright A, Karmiy S, Seoane-Vazquez E, Eguale T, Rodriguez-Monquio R, Bates DW, **Schiff G**. Incorporating medication indications into the prescribing process. Am J Health Syst Pharm. 2018;75(11):774-783.
- 70. Wright A, Aaron S, Seger DL, Samal L, **Schiff GD**, Bates DW. Reduced effectiveness of interruptive drug-drug interaction alerts after conversion to a commercial electronic health record. J Gen Intern Med. 2018;33(11):1868-1876. PMID 29766382
- 71. Hickman TT, Quist AJL, Salazar A, Amato MG, Wright A, Volk LA, Bates DW, **Schiff** G. Outpatient CPOE orders discontinued due to 'erroneous entry': prospective survey of prescribers' explanations for errors. BMJ Qual Saf. 2018;27(4):293-298.
- 72. Cheng CM, Salazar A, Amato MG, Lambert BL, Volk LA, **Schiff GD**. Using drug knowledgebase information to distinguish between look-alike-sound-alike drugs. J Am Med Inform Assoc. 2018; 25(7):872-884. PMID: 29800453.
- 73. **Schiff G**, Mirica MM, Dhavle AA, Galanter WL, Lambert B, Wright A. A Prescription for Enhancing Electronic Prescribing Safety. Health Aff (Millwood). 2018; 37(11):1877-1883. PMID: 30395495
- 74. **Schiff GD**, Klinger E, Salazar A, Medoff J, Amato MG, Orav EJ, Shaykevich S, Seoane EV, Walsh L, Fuller TE, Dykes PC, Bates DW, Haas JS. Screening for Adverse Drug Events: a Randomized Trial of Automated Calls Coupled with Phone-Based Pharmacist Counseling. J Gen Intern Med. 2019;34(2):285-292. PMID: 30291602.
- 75. **Schiff GD**, Tripathi JB, Galanter W, Paek JL, Pontikes P, Fanikos J, Matta L, Lambert BL. Drug formulary decision-making: Ethnographic study of 3 pharmacy and therapeutics committees. Am J Health Syst Pharm. 2019;76(8):537-542. PMID: 30915453
- 76. Aaronson EL, Quinn GR, Wong CI, Murray AM, Petty CR, Einbinder J, **Schiff GD**. Missed diagnosis of cancer in primary care: Insights from malpractice claims data. J Healthc Risk Manag. 2019;39(2):19-29. PMID: 31338938.

- 77. Lambert BL, Galanter W, Liu KL, Falck S, **Schiff G**, Rash-Foanio C, Schmidt K, Shrestha N, Vaida AJ, Gaunt MJ. Automated detection of wrong-drug prescribing errors. BMJ Qual Saf. 2019;28(11):908-915. PMID: 31391313
- 78. Adelman JS, Applebaum JR, Schechter CB, Berger MA, Reissman SH, Thota R, Racine AD, Vawdrey DK, Green RA, Salmasian H, **Schiff GD**, Wright A, Landman A, Bates DW, Koppel R, Galanter WL, Lambert BL, Paparella S, Southern WN. Effect of Restriction of the Number of Concurrently Open Records in an Electronic Health Record on Wrong-Patient Order Errors: A Randomized Clinical Trial. JAMA. 2019;321(18): 1780-1787. PMID: 31087021.
- 79. Salazar A, Karmiy SJ, Forsythe KJ, Amato MG, Wright A, Lai KH, Lambert BL, Liebovitz DM, Eguale T, Volk LA, **Schiff GD**. How often do prescribers include indications in drug orders? Analysis of 4 million outpatient prescriptions. Am J Health Syst Pharm. 2019;76(13):970-979. PMID: 31361884.
- 80. Garabedian PM, Wright A, Newbury I, Volk LA, Salazar A, Amato MG, Nathan AW, Forsythe KJ, Galanter WL, Kron K, Myers S, Abraham J, McCord SK, Eguale T, Bates DW, **Schiff GD**. Comparison of a Prototype for Indications-Based Prescribing With 2 Commercial Prescribing Systems. JAMA Netw Open. 2019;2(3):e191514. PMID 30924903
- 81. Chua I, Petrides AK, **Schiff GD**, Ransohoff JR, Kantartjis M, Streid J, Demetriou CA, Melanson SEF. Provider Misinterpretation, Documentation, and Follow-Up of Definitive Urine Drug Testing Results. J Gen Intern Med. 2020;35(1):283-290. PMID: 31713040
- 82. Reyes Nieva H, Ruan E, **Schiff GD**. Professional-Patient Boundaries: a National Survey of Primary Care Physicians' Attitudes and Practices. J Gen Inter Med. 2020;35(2):457-464. PMID: 31755012
- 83. Rozenblum R, Rodriguez-Monguio R, Volk LA, Forsythe KJ, Myers S, McGurrin M, Williams DH, Bates DW, **Schiff G**, Seoane-Vazquez E. Using a Machine Learning System to Identify and Prevent Medication Prescribing Errors: A Clinical and Cost Analysis Evaluation. Jt Comm J Qual Patient Saf. 2020; 46(1):3-10. PMID: 31786147.
- 84. Wright A, Salazar A, Mirica M, Volk LA, **Schiff GD**. The Invisible Epidemic: Neglected Chronic Disease Management During COVID-19. J Gen Intern Med. 2020; 35(9):2816-2817. PMID: 32666485.
- 85. Chua IS, Ransohoff JR, Ehrlich O, Katznelson E, Virk ZM, Demetriou CA, Petrides AK, Orav EJ, **Schiff GD**, Melanson SEF. Laboratory-Generated Urine Toxicology Interpretations: A Mixed Methods Study. Pain Physician. 2021; 24(2):E191-E201. PMID: 33740356.
- 86. Galanter W, Eguale T, Gellad W, Lambert B, Mirica M, Cashy J, Salazar A, Volk LA, Falck S, Shilka J, Van Dril E, Jarrett J, Zulueta J, Fiskio J, Orav J, Norwich D, Bennett S, Seger D, Wright A, Linder JA, **Schiff G**. Personal Formularies of Primary Care Physicians Across 4 Health Care Systems. JAMA Netw Open. 2021; 4(7):e2117038. PMID: 34264328.
- 87. Benneyan JC, White T, Nehls N, Yap TS, Aronson M, Sternberg S, Anderson T, Goyal K, Lindenberg J, Kim H, Cohen M, Phillips RS, **Schiff GD**. Systems Analysis of a Dedicated Ambulatory Respiratory Unit for Seeing and Ensuring Follow-up of Patients With COVID-19 Symptoms. J Ambul Care Manage. 2021; 44(4):293-303. PMID: 34319924.

- 88. Nehls N, Yap TS, Salant T, Aronson M, **Schiff G**, Olbricht S, Reddy S, Sternberg SB, Anderson TS, Phillips RS, Benneyan JC. Systems engineering analysis of diagnostic referral closed-loop processes. BMJ Open Qual. 2021;10(4):e001603. PMID: 34844935.
- 89. Groisser AR, Reyes Nieva H, Ruan E, Wright A, **Schiff GD.** Terminations in Primary Care: a Retrospective Observational Study of 16 Primary Care Clinics. J Gen Intern Med. 2022;37(3):548-555. PMID: 33948801.
- 90. Atkinson MK, Benneyan JC, Phillips RS, **Schiff GD**, Hunt LS, Singer SJ. Patient engagement in system redesign teams: a process of social identity. J Health Organ Manag. 2022;36(3): 293-313. PMID: 34693670.
- 91. Grauer A, Kneifati-Hayek J, Reuland B, Applebaum JR, Adelman JS, Green RA, Lisak-Phillips J, Liebovitz D, Byrd TF, Kansal P, Wilkes C, Falck S, Larson C, Shilka J, VanDril E, **Schiff GD**, Galanter WL, Lambert BL. Indication alerts to improve problem list documentation. J Am Med Inform Assoc. 2022;29(5):909-917. PMID: 34957491.
- 92. Barrett AK, Cashy JP, Thorpe CT, Hale JA, Suh K, Lambert BL, Galanter W, Linder JA, **Schiff GD**, Gellad WF. Latent Class Analysis of Prescribing Behavior of Primary Care Physicians in the Veterans Health Administration. J Gen Intern Med. 2022 Jan 6. doi: 10.1007/s11606-021-07248-9. Epub ahead of print. PMID: 34993865.
- 93. **Schiff GD**, Volodarskaya M, Ruan E, Lim A, Wright A, Singh H, Nieva HR. Characteristics of Disease-Specific and Generic Diagnostic Pitfalls: A Qualitative Study. JAMA Netw Open. 2022;5(1):e2144531-e2144531. PMID: 35061037.
- 94. Atkinson MK, Benneyan JC, Bambury EA, **Schiff GD**, Phillips RS, Hunt LS, Belleny D, Singer SJ. Evaluating a patient safety learning laboratory to create an interdisciplinary ecosystem for health care innovation. Health Care Manage Rev. 2022;47(3):E50-E61. PMID: 35113043.
- 95. Bradford A, Shahid U, **Schiff GD**, Graber ML, Marinez A, DiStabile P, Timashenka A, Jalal H, Brady PJ, Singh H. Development and Usability Testing of the Agency for Healthcare Research and Quality Common Formats to Capture Diagnostic Safety Events. J Patient Saf. 2022 Apr 21. doi: 10.1097/PTS.000000000001006. Epub ahead of print. PMID: 35443253.
- 96. Carlile N, Fuller TE, Benneyan JC, Bargal B, Hunt L, Singer S, Schiff GD. Lessons Learned in Implementing a Chronic Opioid Therapy Management System. J Patient Saf. 2022 Dec 01; 18(8):e1142-e1149. PMID: 35617623; PMCID: PMC9691784.
- 97. White, T., Aronson, M.D., Sternberg, S.B., Shafiq, U., Berkowitz, S.J., Benneyan, J., Phillips, R.S. and **Schiff, G.D**. Analysis of Radiology Report Recommendation Characteristics and Rate of Recommended Action Performance. JAMA Network Open 2022; 5(7), pp.e2222549-e2222549. PMID: 35867062
- 98. Johnson, M.W., Gheihman, G., Thomas, H., **Schiff, G**., Olson, A.P. and Begin, A.S. The impact of clinical uncertainty in the graduate medical education (GME) learning environment: A mixed-methods study. Medical Teacher 2022, pp.1-9. PMID: 35666840
- 99. Khazen, M., Sullivan, E.E., Ramos, J., Mirica, M., Linzer, M., **Schiff, G.D**. and Olson, A.P. Anatomy of diagnosis in a clinical encounter: how clinicians discuss uncertainty with patients. BMC Primary Care 2022; 23(1), pp.1-9. PMID: 35715733
- 100. King B, Spadaro A, **Schiff G**, Rodriguez-Monguio R, Jordan AO, Flaherty L, Lee WC, Zito J, Fein O. The American Public Health Association Endorses Single-Payer Health System Reform. Med Care. 2022 06 01; 60(6):397-401. PMID: 35471488.

- 101. Pagani K, Lukac D, Olbricht SM, Aronson MD, Benneyan JC, Fernandez L, Salant T, Schiff GD, Shafiq U, Sternberg SB, McGee JS. Urgent referrals from primary care to dermatology for lesions suspicious for skin cancer: patterns, outcomes, and need for systems improvement. Arch Dermatol Res. 2023 Jul; 315(5):1397-1400. PMID: 36352152.). https://doi.org/10.1007/s00403-022-02456-7
- 102. Salazar A, Amato MG, Shah SN, Khazen M, Aminmozaffari S, Klinger EV, Volk LA, Mirica M, **Schiff GD**. Pharmacists' role in detection and evaluation of adverse drug reactions: Developing proactive systems for pharmacosurveillance. Am J Health Syst Pharm. 2023 02 15; 80(4):207-214. PMID: 36331446..
- 103. Khazen M, Sullivan EE, Arabadjis S, Ramos J, Mirica M, Olson A, Linzer M, **Schiff GD**. How does work environment relate to diagnostic quality? A prospective, mixed methods study in primary care. BMJ Open. 2023 05 05; 13(5):e071241. PMID: 37147090; PMCID: PMC10163453.
- 104. Sullivan, E. E., Khazen, M., Arabadjis, S. D., Mirica, M., Ramos, J. M., Olson, A. P. J., Linzer, M., & **Schiff, G. D.** Exploring relationships between physician stress, burnout, and diagnostic elements in clinician notes. Diagnosis (Berlin, Germany) 2023 Mar 7;10(3):309-312. doi: 10.1515/dx-2022-0118. eCollection 2023 Aug 1.
- 105. Mirica M, Khazen M, Hussein S, Ramos J, Tewodros E, Linzer M, **Schiff G.D**. Assessing the assessment Developing and deploying a novel tool for evaluating clinical notes' diagnostic assessment quality. JGIM 2023 Jul;38(9):2123-2129. doi: 10.1007/s11606-023-08085-8. Epub 2023 Feb 28
- 106. Khazen M, Mirica M, Carlile N, Groisser A, **Schiff GD**. Developing a Framework and Electronic Tool for Communicating Diagnostic Uncertainty in Primary Care: A Qualitative Study. JAMA Netw Open. 2023 03 01; 6(3):e232218. PMID: 36892841; PMCID: PMC9999246.
 - 107. Yusufov M, Melanson SEF, Kang P, Kematick B, Schiff GD, Chua IS. Clinician Ordering and Management Patterns of Urine Toxicology Results at a Cancer Center. J Pain Symptom Manage. 2024 Jul; 68(1):e36-e45. PMID: 38599533.
 - 108. Bell SK, Amat MJ, Anderson TS, Aronson MD, Benneyan JC, Fernandez L, Ricci DA, Salant T, **Schiff GD**, Shafiq U, Singer SJ, Sternberg SB, Zhang C, Phillips RS. Do patients who read visit notes on the patient portal have a higher rate of "loop closure" on diagnostic tests and referrals in primary care? A retrospective cohort study. J Am Med Inform Assoc. 2024 Feb 16; 31(3):622-630. PMID: 38164964; PMCID: PMC10873783.
 - 109. Campbell KA, Sternberg SB, Benneyan J, Flier SN, Amat M, Salant T, Nambara K, Fernandez L, Feuerstein J, Shafiq U, Phillips RS, Aronson MD, **Schiff GD**. Completion Rates and Timeliness of Diagnostic Colonoscopies for Rectal Bleeding in Primary Care. J Gen Intern Med. 2024 May; 39(6):985-991. PMID: 37940753; PMCID: PMC11074061.
 - 110. Zhong A, Amat MJ, Anderson TS, Shafiq U, Sternberg SB, Salant T, Fernandez L, **Schiff GD**, Aronson MD, Benneyan JC, Singer SJ, Phillips RS. Completion of Recommended Tests and Referrals in Telehealth vs In-Person Visits. JAMA Netw Open. 2023 Nov 01; 6(11):e2343417. PMID: 37966837; PMCID: PMC10652149.
 - 111. Amat MJ, Anderson TS, Shafiq U, Sternberg SB, Salant T, Fernandez L, **Schiff GD**, Aronson MD, Benneyan JC, Singer SJ, Graham KL, Phillips RS. Low Rate of Completion of Recommended Tests and Referrals in an Academic Primary Care Practice

- with Resident Trainees. Jt Comm J Qual Patient Saf. 2024 03; 50(3):177-184. PMID: 37996308.
- 112. Shah S, Salazar A, Bennett S, Fathima A, Kandikatla R, Eguale T, Mirica M, Garabedian P, Volk LA, Wright A, **Schiff GD**. Using a Patient Portal to Screen Patients for Symptoms After Starting New Medications Journal of Patient Safety. 2024;20:7 pp 449-453. PMID: 39110569.
- 113. Ellinger LK, Bursua A, Galanter WL, **Schiff GD**. Lambert BL. Empowering pharmacists with data: Steps toward proactive medication safety and quality improvement. Journal of the American College of Clinical Pharmacy. 2024:7:8 pp. 824-831. https://doi.org/10.1002/jac5.2002
- 114. Mena J, Rodriguez M, Sternberg SB, Graham T, Fernandez L, Benneyan J, Salant T, Pollack A, Ricci D, Phillips RS, Shafiq U, Aronson MD, **Schiff GD**, Denker BM. Incidence, recognition, and follow-up of laboratory evidence of acute kidney injury in primary care practices: Analysis of 93,259 creatinine results. Am J Medicine. 2024. In press.

Other Peer-Reviewed Publications

- 1. **Schiff GD**, Bindman AN, Brennen TA; PNHP Quality of Care Working Group. A better quality alternative: single payer national health system reform. JAMA 1994;272:803-808. Author reply to letters: Health System Reform: Still Twitching. JAMA. 1995; 273: 997-998.
- 2. **Schiff GD**. Diagnosis tracking and health reform. Am J Med Quality. Winter 1994; 9(4):149-152.
- 3. **Schiff GD,** Goldfield NI. Deming meets Braverman: toward a progressive analysis of the continuous quality improvement paradigm. Intl J Health Serv. 1994; 24(4):655-673.
- 4. Goldfield N, **Schiff GD**. Continuous quality improvement at the crossroads: contradictions and challenges for CQI. Manag Care Q. 1997; 5(1)10-18.
- 5. **Schiff GD**, Young QD. You can't leap a chasm in two jumps: the IOM quality chasm report. Public Health Reports. 2001;116: (Sept/Oct):396-403.
- 6. **Schiff GD**, Rucker TD. Computerized prescribing: building the infrastructure for better medications use. JAMA 1998; 279: 1024-1029.

 Reprinted in *Yearbook of Medical Informatics* top articles of the year,
 - International Medical Informatics Assn (IMIA). 3/2000;221-226
- 7. **Schiff GD**, Rucker TD. Beyond structure-process-outcome: Donabedian's seven pillars and eleven buttresses of quality. Jt Comm J Quality Improv. 2001; 27(3);169-174.
- 8. **Schiff GD**. An Unsuspecting American with No Medicare Coverage—Me! Health Aff. 2002;(6); 202-206.
- 9. **Schiff GD**. Computerized provider order entry: models and hurdles. Am J Health Syst Pharm. 2002; 59(15):1456-1460.
- 10. **Schiff GD**. Standardized Pill Imprint Codes: A Pharma Fantasy. J Med Syst. 2004;28(1):1-7.
- 11. **Schiff GD**, Kim S, Abrams R, Cosby K, Lambert B, Elstein AS, Hasler S, Krosnjar N, Odwazny R, Wisniewski MF, McNutt RA. Diagnosing Diagnostic Errors: Lessons from a Multi-Institutional Collaborative Project. In: Henriksen K, Battles JB, Marks ES, Lewin DI, eds. Advances in Patient Safety: From Research to Implementation. Rockville, MD: Agency for Healthcare Research & Quality (AHRQ), 2005; vol. 2: 255-264.

- 12. **Schiff GD**. Minimizing Diagnostic Error: The Importance of Follow-up and Feedback. Am J Med. 2008; 121: S38-S42.
- 13. **Schiff GD**, Galanter WL. Promoting More Conservative Prescribing. JAMA 2009; 301(8):865-867.
- 14. **Schiff GD**, Bates DW. Can Electronic Clinical Documentation Help Prevent Diagnostic Errors? N Engl J Med. 2010;362(12):1066-1069
- 15. **Schiff GD**. Medical Error: 60 year- old man with delayed care for a renal mass. JAMA. 2011; 305:1890-98.
- 16. **Schiff GD**, Galanter WL, Duhig J, Lodolce AE, Koronkowski MJ, Lambert BL. Principles of Conservative Prescribing. Arch Intern Med. 2011; 171:1433-40.
- 17. Zwaan L, **Schiff GD**, Singh H. Advancing the research agenda for diagnostic error reduction. BMJ Qual Saf. 2013;22 Suppl 2:ii52-ii57
- 18. **Schiff GD**. A piece of my mind. Crossing boundaries--violation or obligation? JAMA. 2013;310(12):1233-4.
 - Reprinted in: JAMA. 2020 May 05; 323(17):1674-1675. PMID: 32369131. (reprinted as one of top 40 "Piece of My Mind" articles in past 40 years)
- 19. Donohoe M, **Schiff G**. Ethics Case: A Call to Service: Social Justice Is a Public Health Issue. American Medical Association Journal of Ethics Virtual Mentor. Special Theme Issue: Physicians as Agents of Social Change. 2014; 16:699-707. http://virtualmentor.ama-assn.org/2014/09/ecas2-1409.html.
- 20. **Schiff GD**. Editorial: Diagnosis and diagnostic errors: time for a new paradigm. BMJ Qual Saf. 2014: 23:1-3
- 21. Heisler S, **Schiff GD**. An Intergenerational Conversation about Frustrations, Lessons, and Hope in Physician Activism. AMA J Ethics. 2015; 17(5):465-68.
- 22. Wright AP, Becker WC, **Schiff GD**. Strategies for Flipping the Script on Opioid Overprescribing. JAMA Intern Med. 2016;176(1):7-8.
- 23. **Schiff GD**, Vazquez ES, Wright A. Incorporating Indications into Medication Ordering—Time to Enter the Age of Reason. N Engl J Med. 2016; 375(4):306-309.
- 24. **Schiff GD**, Reyes Nieva H, Griswold P, Leydon N, Ling J, Biondolillo M, Singer SJ. Addressing Ambulatory Safety and Malpractice: The Massachusetts PROMISES Project. Health Serv Res. 2016; 51(S3):2634-2641.
- 25. Bruce BB, El-Kareh R, Ely JW, Kanter MH, Rao G, **Schiff GD**, Ten Berg MJ, McDonald KM. Methodologies for evaluating strategies to reduce diagnostic error: report from the research summit at the 7th International Diagnostic Error in Medicine Conference. Diagnosis. 2016;3(1):1-7
- 26. **Schiff GD**, Martin SA, Eidelman DH, Volk LA, Ruan E, Cassel C, Galanter W, Johnson M, Jutel A, Kroenke K, Lambert BL, Lexchin J, Myers S, Miller A, Mushlin S, Sanders L, Sheikh A. Ten principles for more conservative, care-full diagnosis. Ann Intern Med. 2018;169(9):643-645. Response to letters: Ann Intern Med. 2019;170(11):823-824.
- 27. Jack HE, **Schiff G**. Morbidity and mortality conferences as medical student learning tools. Clin Teach. 2019;16(5):527-529. PMID: 30417572.
- 28. Sanders L, Fortin AH, **Schiff GD**. Connecting With Patients-The Missing Links. JAMA. 2020; 323(1):33-34. PMID: 31910264.
- 29. **Schiff G**, Mirica M. COVID-19: making the right diagnosis. Diagnosis. 2020 Jul 13. doi: 10.1515/dx-2020-0063.

- 30. Olson APJ, Linzer M, **Schiff GD**. Measuring and Improving Diagnostic Safety in Primary Care: Addressing the "Twin" Pandemics of Diagnostic Error and Clinician Burnout. J Gen Intern Med. 2021; 36(5):1404-1406. PMID: 33575908.
- 31. Willis JS, Tyler C, **Schiff GD**, Schreiner K. Ensuring Primary Care Diagnostic Quality in the Era of Telemedicine. Am J Med. 2021; 134(9):1101-1103. PMID: 34051151.
- 32. Khazen M, **Schiff GD.** Feedback on Missed and Delayed Diagnosis: Differential Diagnosis of Communication Dilemmas. Jt Comm J Qual Patient Saf. 2021; 47(2):71-73. PMID: 33357969
- 33. **Schiff G**, Shojania KG. Looking back on the history of patient safety: an opportunity to reflect and ponder future challenges. BMJ Qual Saf. 2022;31(2):148-152. PMID: 34625484.
- 34. Lambert, B.L. and **Schiff, G.D**. RaDonda Vaught, medication safety, and the profession of pharmacy: Steps to improve safety and ensure justice. Journal of the American College of Clinical Pharmacy 2022; 5(9), pp.981-987. https://doi.org/10.1002/jac5.1676
- 35. Syed, S.S., Eguale, T., Mirica, M. and **Schiff, G.** RWD111 Analysis on Prescribing Practices of Primary Care Providers Using Real World Data. Value in Health 2022; 25(7), p.S597.
- 36. Linzer, M., Sullivan, E.E., Olson, A.P., Khazen, M., Mirica, M. and **Schiff, G.D.,** 2022. Improving diagnosis: adding context to cognition. Diagnosis. 2022 Aug 22;10(1):4-8. doi: 10.1515/dx-2022-0058. PMID: 35985033
 - 37. **Schiff GD**, Lambert BL, Wright A. Prescribing medications with indications: time to flip the script. BMJ Qual Saf. 2023 06; 32(6):315-318. PMID: 36948544.
 - 38. Phillips RS, Benneyan J, Bargal B, **Schiff GD**. Closing the Loop: Re-engineering the Assessment and Tracking of Symptoms in Primary Care. J Gen Intern Med. 2023 03; 38(4):1054-1058. PMID: 36414802; PMCID: PMC10039145.
 - 39. **Schiff, G.D.**, 2024. Hard Cell: A Primary Care Physician's Experience and Perspective on Boundaries and Burnout. JCO Oncology Practice. 2024:20:8. pp.1006-1008.
 - 40. Watari T, **Schiff GD**. 2023. Diagnostic Excellence in Primary Care. J Gen Fam Med. 2023;24(3):143-145. PMID: 37261043

Scholarship without named authorship

- 1. Himmelstein DU, Woolhandler S; **Writing Committee of the Working Group on Program Design***. A national health program for the United States: A physicians' proposal. N Engl J Med. 1989; 320:102-108 (* member of writing committee cited in manuscript)
- 2. Jha AK, Prasopa-Plaizier N, Larizgoitia I, Bates DW; **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;19:42-47. (* cited as contributor in manuscript acknowledgments)
- 3. Gaffney A, Lexchin J; Canadian Pharmaceutical Policy Reform Working Group*. Healing an ailing pharmaceutical system: prescription for reform for United States and Canada. BMJ. 2018;361:k1039. PMID: 29773533 (*member of writing committee cited in manuscript)

Non-peer reviewed scientific or medical publications/materials in print or other media

Proceedings of Meetings or other non-peer reviewed research publications

- 1. **Schiff GD.** Patient Education: Beyond the Boundaries. Proceedings of the United States Pharmacopeial Conference on Patient Education, Bethesda, MD, 1992.
- 2. **Schiff GD**. Communicating Risk to Patients: Moderator's Introduction and Opening Keynote (Conference Chair). Proceedings of the U.S. Pharmacopeial Open Conference on Medication Risk, Reston VA, 1995; 5-7.
- 3. **Schiff GD**. System Dynamics and Dysfunctionalities: Levers for Overcoming Emergency Department Overcrowding. Acad Emerg Med. 2011; 18(12): 1255-61.
- 4. **Schiff GD**. Learning from Errors in Medicine. Relevance for Criminal Justice and Sentinel Event National Institute of Justice 2013. NIJ's Sentinel Events Roundtable https://www.ncjrs.gov/pdffiles1/nij/243586.pdf.
- 5. PNHP New York Metro Forum Report #4. Medical Malpractice. Health Care Quality and Health Reform 11/5/2004
- 6. Certification and Diagnostic Accuracy: Insights and Opportunities. American Board of Medical Specialties and National Patient Safety Foundation. Monograph 2016 ABMS Chicago. https://www.abms.org/media/100055/npsfsafetysummitsummarydigital.pdf

Reviews, chapters, monographs, and editorials

- 1. Rosenberg K, **Schiff GD**: The Politics of Health Care- Bibliography, Boston. New England Free Press, 3rd edition 1973; 28 pp.
- 2. **Schiff GD**, Cohen M.: Health and Hospitals in Critical Condition, Health-PAC Bulletin. 1980; 11:(3).
- 3. **Schiff G**. Organizing to Save Cook County Hospital-- Problems and Lessons, In: Dallek, J eds. The Struggle to Save Public Hospitals: An Advocacy Guide, Los Angeles: National Health Law Program. 1981; 3:446-455.
- 4. **Schiff G**: Adverse Drug Reactions: Facts & Comparisons: Update, 1984; 4(1):1-4.
- 5. **Schiff GD**, Cohen M. Health and hospitals in critical condition. Health PAC Bulletin. 1980; Jan-Feb; 11(3):17-18.
- 6. **Schiff GD**. Adverse drug reactions part I: dimensions of the problem, Pharmacy Newsletter Cook County Hospital 1984 (1);2-4.
- 7. **Schiff GD**. Adverse drug reactions part II: when is a disease drug induced? Pharmacy Newsletter Cook County Hospital 1984 (2);1-4.
- 8. **Schiff GD**. Adverse drug reactions Part III: prevention--monitoring of drugs after release, Pharmacy Newsletter Cook County Hospital 1984 (3); 2-6.
- 9. **Schiff GD,** Angus K, Razafinarivo. The Base of the Iceberg. Outpatient Dumping in Chicago. Health PAC Bull. 1984;15(6):14-6. PMID: 10271866
- 10. **Schiff GD**, Hedge H, Hryhorczuk D, LaCloche L, Theophylline toxicity: inpatient audit, Pharmacy Newsletter Cook County Hospital 1987 (5); 1-5.
- 11. Dolan M, **Schiff GD**, Ray P, Reitan J, Lacloche L. Phenytoin utilization review, Pharmacy Newsletter Cook County Hospital 1987 (5);1-4.
- 12. Dolan M, **Schiff GD**, Richardson. Warfarin Utilization Review. Cook County Hospital Pharmacy Newsletter. 1987 (10):1-4.

- 13. **Schiff GD**. Prying open the caps: using the cook county hospital discharge summary for adverse drug reaction monitoring, Cook County Hospital Pharmacy Newsletter 1989 (1):1-6.
- 14. **Schiff GD**, Strauss M. Concurrent Beta Blocker and Beta Agonist Drug Usage Evaluation, Pharmacy Newsletter Cook County Hospital 1993(2):1-5.
- 15. **Schiff GD**. Universal Drug Imprint Coding (American Public Health Association Resolution #9010). The Nation's Health (8/90) p.20-21
- 16. **Schiff GD**. Editorial: Cascade or Facade: Focusing or Obfuscating the Pathogenesis of Iatrogenesis, JCAHO QRB Qual Rev Bull 1993;(6):196-198
- 17. **Schiff GD**. Point-counterpoint: would health alliance bureaucracies be worse than federal bureaucracy? (debate w/ W. Zelmar). Physician's Weekly. 1994; 11:1.
- 18. **Schiff GD**. Quality Struggles: Dr. Gordon Schiff (interviewee). In: Lewis S (ed). Hospital: An Oral History of Cook County Hospital. New York: The New Press, 1994; pp. 205-209.
- 19. **Schiff GD**. Consumer Interest and Health Reform: The Logic of Withdrawal from Managed Competition. J Consum Aff. 1994; 24(2):234-254.
- 20. **Schiff GD**. Red man syndrome and the red button system: where next for adverse drug reaction reporting. (editorial commentary) Jt Comm J Qual Improv. 1995; 21(10):549-552.
- 21. **Schiff GD**. Why for-profit managed care fails you and your patients: 12 Fundamental Problems. ACP Observer 11/96; p.5. {Expanded version published in Public Citizen Health Newsletter 12/96; p.2-3}
- 22. **Schiff GD**, Shansky R. Challenges of Improving Quality in the Correctional Setting. In: Pussis M, editor. Clinical Practice of Correctional Medicine. Philadelphia, PA: Mosby; 1998; pp. 450-462.
- 23. Reilly BR, **Schiff GD**, Conway TC. Primary Care for the Medically Underserved: Challenges and Opportunities. Dis Mon. 1998;44(7):320-342.
- 24. **Schiff GD**. Clinical Health Disease: Lifestyle changes without drugs reverse CHD (commentary). IHI Eye on Improvement 1999;(6) 7
- 25. **Schiff GD**. Editorial: Computer Prescribing: Steps to Improved therapy. Hospital Practice. 1999; 34(8):11-12, 17-18.
- 26. **Schiff GD**. Editorial: Fatal distraction: finance vs. vigilance in our nation's hospitals. J Gen Intern Med. 2000; 15(4)269-70. Fatal distraction: finance vs. vigilance in U.S. hospitals. {expanded version of above editorial) Int J Health Services 2000; 30:4:739-743}.
- 27. **Schiff GD**, Bates DW. Electronic Point-of-Care Prescribing: Writing the Script. Dis Manage Health Outcomes. 2000; 7 (6) 297-304.
- 28. **Schiff GD**. Special Issue Review of Reflections on the Effectiveness of Quality Assurance by Avedis Donabedian, Chapter II in Striving for Quality in Healthcare. I.H.I. Eye on Improvement 2000; 7:1-18.
- 29. **Schiff GD**. Medication Errors-Beyond Individual Blame. (editorial commentary) Eye on Improvement 2000;7(5):3-4.
- 30. **Schiff GD**. Error in Medicine. In: Lock S, Last JM, Dunea G, editors. Oxford Illustrated Companion to Medicine. 3rd Edition. New York: Oxford University Press, 2001; pp. 282-85. (page #s not available)
- 31. **Schiff GD**, Fegan C. Community Health Centers and the Underserved: Eliminating

- Disparities or Increasing Despair. (Editorial) J Public Health Policy. 2003; 24:3-4: 307-311.
- 32. **Schiff GD**. Medical Malpractice, Health Care Quality and Health Care Reform. PNHP NY Metro Forum Report. 2003; 4:1-4.
- 33. **Schiff GD**. The Last Rounds (at Cook County Hospital): Key (& Door)-Note Address. Chicago Medicine February 2003; 5-8
- 34. Wears RL, **Schiff GD**. MD. Editorial: One Cheer for Feedback. Ann Emerg Med. 2005; 45(1):24-25.
- 35. **Schiff GD**. Editorial: Introduction to special issue Communicating Critical Test Results. Jt Comm J Qual Patient Saf. 2005; 31(2):63-65.
- 36. **Schiff GD**. Formulary Myths Exist: (update of 1991 Schiff/Rucker Medical Care paper on formulary myths; special safety survey ISMP survey re-examining status of these myths). ISMP Medication Safety Alert. 2/10/2005;10:(3):1
- 37. **Schiff GD**, Kim S. Applying Principles and Practice of Quality Improvement to Better Care for the Underserved. In: King T, Wheeler M, editors. Medical Management of Vulnerable and Underserved Patients: Principles, Practice, and Populations. New York: McGraw-Hill; 2006; pp. 141-150.
- 38. Graber M, Beavis K, Green E, Kim S, McNutt RA, **Schiff GD**. Issues in Critical Lab Follow-up: Case Studies. In: Getting Results: Reliably Communicating and Acting on Critical Test Results. Oakbrook Terrace, IL: Joint Commission Resources; 2006. pp. 13-18.
- 39. **Schiff GD**, Shansky R. Challenges of Improving Quality in the Correctional Setting. In: Puisis M, editor. Clinical Practice of Correctional Medicine. 2nd Edition. Philadelphia, PA: Mosby. 2006. pp. 491-502.
- 40. Kim S, Shansky R, **Schiff GD**. Using Performance Improvement Measurement to Improve Chronic Disease Management In Prisons. In; Puisis M, editor. Clinical Practice of Correctional Medicine. 2nd Edition. Philadelphia, PA: Mosby. 2006; pp. 503-509.
- 41. **Schiff GD.** Getting Results: From Theory to Practice and Back Again. In: **Schiff GD**, ed. Getting Results: Reliably Communicating and Acting on Critical Test Results. Oakbrook Terrace, IL. Published by Joint Commission Resources; 2006; pp. 133-82.
- 42. **Schiff GD**, Felkey BG. Electronic Technology. In: Fulda TR, Wertheimer AI, editors. Handbook of Pharmaceutical Public Policy, Binghamton, NY: Pharmaceutical Products Press, The Haworth Press. 2007. pp. 589-620.
- 43. Liang BA, Alper E, Hickner J, **Schiff G**, Lambert BL, Gleason K, Coleman EA, Sokol P E, Toepp MC, Meyer M, Jette CG. The physician's role in medication reconciliation: Issues, strategies and safety principles. American Medical Association; 2007. https://pogoe.org/sites/default/files/Medication%20Reconciliation.pdf
- 44. **Schiff GD**. Break or Break. Invited Commentary on Nutting et al. Initial Lessons from the First National Demonstration Project on Practice Transformation to a Patient-Centered Medical Home. Ann Fam Med. 2009 May 22. http://www.annfammed.org/content/7/3/254.full/reply#annalsfm_el_10878 (electronic letter).
- 45. **Schiff GD**, Kachalia AB. Chapter 18, Ensuring Reliable Follow-up of Critical Test Results in the ED setting. In: Croskerry P, Cosby KS, Schenk SM, Wears RL, editors. Patient Safety in Emergency Medicine. Philadelphia: Lippincott Williams & Wilkins; 2009; pp. 126-32.

- 46. **Schiff GD**, Editorial: Eight Questions for Getting Beyond 'Getting Results.' J Comm J Qual Patient Saf. 2010; 36 (5): 224-225.
- 47. **Schiff GD**, Norsigian J. Estrogen implants: Deeper problems in the marketing of drugs. J Gen Intern Med. 2011;26(1):13.
- 48. Byrne C, Sherry D, Mercincavage L, Johnston D, Pan E, **Schiff GD**. Advancing Clinical Decision Support: Key Lessons In Clinical Decision Support Implementation. Office of the National Coordinator for Health IT, Department of Health and Human Services. 2012. 97 pp. https://www.healthit.gov/sites/default/files/acds-lessons-in-cds-implementation-deliverablev2.pdf
- 49. **Schiff GD**, Graber M. Diagnosis Errors. In: McKean SC, Ross JJ, Dressler DD, Brotman DJ, Ginsberg JS, editors. Principles and Practice of Hospital Medicine. New York: McGraw-Hill; 2012; pp. 42-49.
- 50. **Schiff GD**. Respecting and reflecting on diagnostic errors. Invited editorial. Health Affairs blog. 2010 Sep 16. http://healthaffairs.org/blog/2010/09/16/respecting-and-reflecting-on-diagnostic-errors
- 51. **Schiff GD**. Finding and fixing diagnosis errors: can triggers help? BMJ Qual Saf. 2012;21(2):89-92.
- 52. Cohen MC, **Schiff GD**. Reflections of Mardge Cohen and Gordy Schiff. In: Young Q. Everybody in, nobody out: Memoirs of a rebel without a pause. Copernicus Healthcare, 2013. Pp 177-178.
- 53. **Schiff GD**, Leape LL. How can we make diagnosis safer? Acad Med. 2012;87(2):135-8.
- 54. **Schiff GD**. When Diagnosis Goes Wrong: Connecting and Dissecting Diagnosis Errors. In: Jutel AG, Dew K, editors. Social Issues in Diagnosis: An Introduction for Students and Clinicians. Baltimore, MD: John Hopkins University Press; 2014; pp. 220-30.
- 55. FDA White Paper: Computerized Prescriber Order Entry Medication Safety (CPOE-MS) Uncovering And Learning From Issues And Errors. (PI/Lead author) Released 12/15/15 http://www.fda.gov/downloads/Drugs/DrugSafety/MedicationErrors/UCM477419 .pdf
- 56. Wright AP, Becker WC, **Schiff GD**. Strategies for Flipping the Script on Opioid Overprescribing. JAMA Intern Med. 2016;176(1):7-8
- 57. **Schiff G**, Eguale T, Felkey BG. Electronic Information Technology: Role in Supporting Drug Use and Policy. In: Fulda TR, Lyles A, Wertheimer AI, editors. Pharmaceutical Public Policy. Boca Raton, FL: CRC Press; 2016; pp. 335-52. Book chapter https://www.crcpress.com/Pharmaceutical-Public-Policy/Fulda-Lyles-Wertheimer/p/book/9781498748506
- 58. **Schiff GD**, Zucker L. Medical Scribes: Salvation for Primary Care or Workaround for Poor EMR Usability? J Gen Intern Med. 2016;31(9):979-81.
- 59. Yeh JS, Kushner RF, **Schiff GD**. Obesity and Management of Weight Loss. N Engl J Med. 2016;375(12):1187-1189.
- 60. **Schiff GD**. Sick Children Crying for Help: Fostering Adverse Event Reports. <u>PLoS Med.</u> 2017;14(1):e1002216.
- 61. Singh H, Onakpoya I, Thompson M, Graber M, **Schiff GD**. Diagnostic Errors. Technical Series on Safer Primary Care. World Health Organization. 2016. 28 pp. https://apps.who.int/iris/bitstream/handle/10665/252410/9789241511636-eng.pdf
- 62. **Schiff GD**, Tharayil MJ. Electronic Clinical Documentation. In: Sheikh A, Cresswell

- KM, Wright A, Bates DW, editors. Key Advances in Clinical Informatics. London: Academic Press/Elsevier, 2017; pp. 51-68.
- 63. Singh H, **Schiff GD**, Graber ML, Onakpoya I, Thompson MJ. The global burden of diagnostic errors in primary care. BMJ Qual Saf. 2017;26(6):484-494
- 64. **Schiff GD**, Winch S. The Degradation of Medical Labor and the Meaning of Quality in Health Care. In: Waitzkin H, editor. Health Care Under the Knife: Moving Beyond Capitalism for Our Health. New York: Monthly Review Press/NYU Press, 2018; pp. 43-56.
- 65. Amato M, **Schiff G**. Slow Down: Right Drug, Wrong Formulation. AHRQ PSNet WebM&M. 2018. https://psnet.ahrq.gov/webmm/case/432/slow-down-right-drug-wrong-formulation
- 66. **Schiff GD**, Ruan EL. The Elusive and Illusive Quest for Diagnostic Safety Metrics. J Gen Intern Med. 2018; 33(7):983-985. PMID: 29713882.
- 67. Lim AJ, Agarwal S, Dulgarian SM, Volk LA, **Schiff GD**. Patient-Centered Principles for More Conservative Cancer Diagnosis, American Society of Clinical Oncology (ASCO) Post. 3/10/19. https://ascopost.com/issues/march-10-2019-patient-centered-principles-formore-conservative-cancer-diagnosis/
- 68. Sheridan S, Merryweather P, Rusz D, **Schiff G.** What if?: Transforming diagnostic research by leveraging a diagnostic process map to engage patients in learning from errors. NAM Perspectives. Commentary, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/202002a; PMID: 34532684
- 69. **Schiff** GD, Hall KK, Fitall E. Patient Safety in Primary Care 2019 (annual AHRQ review). Perspectives on Safety. Published February 21, 2020. https://psnet.ahrq.gov/perspective/patient-safety-primary-care
- 70. Hall KK, Shoemaker-Hunt S, Hoffman L, Richard S, Gall E, Schoyer E, Costar D, Gale B, **Schiff G**, Miller K, Earl T, Katapodis N, Sheedy C, Wyant B, Bacon O, Hassol A, Schneiderman S, Woo M, LeRoy L, Fitall E, Long A, Holmes A, Riggs J, Lim A. Making Healthcare Safer III: A Critical Analysis of Existing and Emerging Patient Safety Practices. Rockville, MD: Agency for Healthcare Research and Quality; 2020. Report No.: 20-0029-EF. https://www.ahrq.gov/research/findings/making-healthcare-safer/mhs3/index.html
- 71. Weingart SN, Schiff GD, James T. Delayed Breast Cancer Diagnosis: A False Sense of Security. AHRQ Web M&M 12/23/2020. https://psnet.ahrq.gov/web-mm/delayed-breast-cancer-diagnosis-false-sense-security
- 72. Graber ML, **Schiff GD**. 2019 John M. Eisenberg Patient Safety and Quality Awards: An Interview with Gordon D. Schiff. Jt Comm J Qual Patient Saf. 2020; 46(7): 371-380.
- 73. Martin SA, **Schiff GD**, Kanjilal S. A Postpartum Woman with an Erroneous SARS-CoV-2 Test. AHRQ Web M&M. 2021 Apr 28. https://psnet.ahrq.gov/web-mm/postpartum-woman-erroneous-sars-cov-2-test
- 74. Carlile N, El-Chemaly S, **Schiff GD**. Coming up for Err Missed Diagnosis in a Patient with Recurrent Pneumothorax. AHRQ Web M&M. 2021 Aug 25. https://psnet.ahrq.gov/web-mm/coming-err-missed-diagnosis-patient-recurrent-pneumothorax
- 75. Erb J, Shah S, **Schiff GD**. Multiple Missed Opportunities for Suicide Risk Assessment in Emergency and Primary Care Settings. AHRQ Web M&M. 2022 Jan 7.

- https://psnet.ahrq.gov/web-mm/multiple-missed-opportunities-suicide-risk-assessment-emergency-and-primary-care-settings
- 76. **Schiff GD**. Diagnosis: Reducing Errors and Improving Quality (Chapter 9). In: Jameson LJ, Fauci A, Kasper D, Hauser S, Longo D, Loscalzo J, eds. Harrison's Principles of Internal Medicine, 21st Edition. New York: McGraw-Hill Education; 2022. p. 54-58. In Press 22nd edition 2025.
- 77. **Schiff GD.** Diagnostic Errors. In: Rapport F, Clay-Williams R, Braithwaite J, eds. Implementation Science: The Key Concepts. Abingdon, UK & New York: Routledge; 2022. p. 199-200.
- 78. Carlie N, Lanford Smith L, Maguire JH, **Schiff GD.** Strongyloides: A Hidden Traveler and Potentially Lethal Missed Diagnosis. AHRQ Web M&M 12/14/22. https://psnet.ahrq.gov/web-mm/strongyloides-hidden-traveler-and-potentially-lethal-missed-diagnosis

Letters to the Editor

- 1. **Schiff GD**. Changing patterns of drug prescriptions (letter). N Engl J Med. 1983; 309:1256-1257.
- 2. Nightingale SD, Ansell D, Cohen M, Danel I, Hoffman A, Kiken S, Orris P, Patch O, Ringel P, Sable R, **Schiff GD**, Schiff R, Sherer R, Shansky R, Trainor W, Tully J, Watson C, Kallal C. Dealing with conflicts of interest (letter). N Engl J Med. 1984; 311:404.
- 3. Cohen M, **Schiff GD**. The declining rates of autopsies (letter). N Engl J Med. 1984; 310:1266.
- 4. **Schiff GD**. Use of the hospital in a randomized trial of prepaid care (letter), JAMA 1988; 260:338.
- 5. **Schiff GD**, Yaacoub AS. The diagnostic coding of myocardial infarction (letter). Ann Intern Med. 1989;110:243.
- 6. **Schiff GD**. Hospital Discharge Summary: Emerging Functions (letter). J Gen Intern Med. 1990; 5:272-273.
- 7. **Schiff GD**. Persantine advertisement: artistic license or misleading implication (letter). JAMA. 1990; 263:658.
- 8. **Schiff G.** Sputum gram stain controls. J Gen Intern Med. 1991; 6(6): 588-588.
- 9. **Schiff GD**, Rucker D. Cost and price of comparable branded and generic pharmaceuticals (letter). JAMA. 1987;257:236-237.
- 10. **Schiff GD**. Preventing errors to avoid tragedy. Eye on Improvement. 1999; 6(19):4-5.
- 11. Lopez V, **Schiff GD**. Cervico-facial actinomycosis, Eur J Nucl Med 1982; 7:143-144.
- 12. Smith R, Ford D, **Schiff GD**. Theophylline toxicity: ER audit, Pharmacy Newsletter Cook County Hospital_1988; (7):1-4.
- 13. **Schiff GD**. Profiteers are taking the care out of health care. Nursing Revolution. Summer 1995; 5:(2)84-86 {reprinted in Illinois Nurses Assn Chart for Nurses_1995; 92(2)7-8, {also reprinted as Nursing cuts threaten quality, Physicians for a National Health Program Newsletter. 1995; 13-14}.
- 14. **Schiff GD**. Strategic priorities for health reform. Physicians for a National Health Program Newsletter. 1995; (2) p. 2.

- 15. **Schiff GD**. Can a health care organization lend its name to a product or service and still maintain its credibility? Internal Medicine News 1997; 9.
- 16. Bult J, **Schiff GD**, Wisniewski M. Sertraline Tablet Splitting Program. Cook County Hospital Pharmacy Newsletter 1998; 21(8)1-3.
- 17. Bult J, Wisniewski M, **Schiff GD**. Sertraline Tablet Splitting Program. Hospital Pharmacy 1999; 34: 996-999.
- 18. Rising Up: A Team Approach (experience sharing residencies) Physicians Weekly 2000;17(33) pp 1.
- 19. Chew M, Bult J, **Schiff GD**. Drug-Induced Hyperkalemia. Hosp Pharmacy. 2001; 36 (6):1-2.
- 20. **Schiff GD**. The who, what, when, where, whom, and how of hospitalist care. Ann Intern Med. 2003; 139 (1):76-7. PMID: 12834324...
- 21. Schiff GD and Sorum P. National single-payer plan is the only solution. Boston globe 7/18/23

Professional educational materials or reports, in print or other media

- 1. Six Part Webinar on Appropriate Prescribing. Producted by the Cook County UIC Attorney General's Neurontin Settlement Grant FLIP Project 2008

 https://www.slideserve.com/uriah/course-introduction-background-on-attorney-generals-f-l-i-p-grant-and-neurontin-case-powerpoint-ppt-presentation
- 2. Webinar: Patient safety experts and authors of the AHRQ/RAND report "Prioritizing Patient Safety Outcomes Measures: Results of an Expert Consensus Process." 2009-2010.
- 3. Negotiating Professional Boundaries in the Patient-Physician Relationship. Interview with Gordon D. Schiff. AMA Journal of Ethics. Vol 17; May 5/2015. Podcast http://journalofethics.ama-assn.org/podcast/ethics-talk-may-2015.mp3
- 4. 5 Questions with Dr. Gordon Schiff about 'telediagnosis' and health disparities during the pandemic. 8/6/20.

 https://betsylehmancenterma.gov/news/patient-safety-expert-addresses-telediagnosis-and-health-disparities-during-the-pandemic

Abstracts, Poster Presentations, and Exhibits Presented at Professional Meetings

- 1. Norwich DE, Galanter WL, Jarrett JB, Mirica M, Seger DL, Fiskio J, Eguale T, Salazar A, Cashy JP, Hale JA, Linder JA, Lambert B, Falck S, Volk LD, **Schiff GD**. Did the PCP prescribe that drug? Conceptual and methodological challenges in defining new prescriptions initiated by PCP's. Poster Presentation 5/8/19. SGIM 41st Annual National Meeting. Washington DC.
- 2. Reyes NH, Ruan R, Wright A, Lim A, Singh H, Agarwal S, **Schiff GD**. Diagnostic Pitfalls: Operationalizing a New Paradigm to Understand and Prevent Diagnostic Errors. Poster Presentation. 5/9/19. SGIM 41st Annual National Meeting. Washington DC.
- 3. Winch S, Seoane L, Blackwell N, **Schiff G.** Medical Wellbeing?" Flat lining not flourishing. Can the virtues help the crisis in medical wellbeing? Coauthor (S. Winch 1st

- author) Jubilee Centre's 8th annual conference, Virtues and the Flourishing Life, Oriel College University of Oxford. 1/2020 (oral abstract presented by S.Winch)
- 4. Chua IS, Ehrlich O, Ransohoff JR, Petrides AK, Khazen M, Melanson SEF, **Schiff GD**. Help me with that urine toxicology result: insights and challenges to providing laboratory-assisted interpretations for patients receiving chronic opioid therapy SGIM 2020 National Annual Meeting. Accepted Poster Presentation
- 5. Bennett S, Mirica M, Wright A, Volk L, Salazar A, Shah S, Khazem M, Eguale T, **Schiff GD**. Designing and Deploying a Pharmacist-Mediated Adverse Drug Reaction Surveillance System using a Patient Portal SGIM 2020 Accepted Oral Presentation by co-author.
- 6. Ramos JM, Mirica MM, **Schiff GD**. Are clinicians adhering to the 2018 USPHTF PSA shared decision-making guidelines? Chart review of PSA discussion documentation. SGIM 2020 National Meeting Birmingham. (poster accepted; meeting canceled due to COVID)
- 7. **Schiff GD**, Olson M, Linzer, Sullivan E, Mirica M, Khazem M. Ramos J. The Quest for a High-Quality Diagnosis: Measuring and Comparing Acute Clinical Encounters and Clinical Documentation. 14th International Diagnostic Error in Medicine Conference, 2021.
 - 8. Bontempo AC, and **Schiff GD**. Diagnosing Diagnostic Error of Endometriosis: A Qualitative Analysis of Patient Experiences from a Mixed Methods Survey. Diagnostic Excellence 2024 (DEX2024). Minneapolis, MN. 10/13/24.
 - 9. **Schiff, GD;** Marica, M; Brigham, KB; Hussey HM; Gallagher, TH; Stone VE Inequities in Diagnosis of Late-Stage Breast, Colorectal, Lung, and Prostate Cancers. Diagnostic Excellence 2024 (DEX2024). Poster Presentation. Minneapolis, MN. 10/13/24

Narrative Report

I have been working in quality improvement, patient safety, and health IT, as a practitioner, teacher, researcher, institutional leader, and patient and policy advocate for more than four decades. My main areas of interest and contribution have been in the area of diagnosis and medication errors/safety, health information technology, primary care quality improvement, and patient advocacy.

Working at Chicago's Cook County Hospital and Rush Medical College/University I led the Hospital's Quality Assurance/Improvement, and Pharmacy and Therapeutics (Formulary) Committees, was Medical Director of the General Medicine Clinic, and was full Professor of Medicine at Rush. I was recruited by Dr. David Bates to be the Associate Director of the BWH Center for Patient Safety Research and Practice in 2007. I have continued in that role and have also served (since 2016) as Quality and Safety Director of the Harvard Medical School Center for Primary Care, and for the past four years Course Director for the HMS Master of Healthcare Quality and Safety Special Topics Course, while leading a series of externally funded projects over the past 13 years.

My recent projects and contributions include being PI leading:

- -AHRQ-funded malpractice and safety statewide randomized controlled trial —the PROMISES Study; demonstrated the impact of a primary care improvement collaborative and coaching on reducing safety risks.
- -Multi-institutional project funded by the FDA examining electronic prescribing safety risks (CPOEMS; produced an FDA White Paper, new taxonomy, and multiple articles illuminating CPOE-related errors and ways to prevent).
- -Succession of 4 innovative diagnosis error safety projects funded by CRICO (most recently Diagnostic Pitfalls -collating and analyzing hundreds of diagnostic pitfalls from specialty focus groups and malpractice claims; MD-SOS developing and testing new diagnostic process metrics and their correlation with PCP burnout, stress and encounter times).
- -AHRQ- Indications Rx Project where we designed an innovative electronic prescribing protype which outperformed Epic and Cerner in terms of safety, speed and clinician satisfaction.
- -AHRQ CoPI on a 2022-2026 R18 Grant to create a Diagnostic Center for Excellence (BWH lead center, in collaboration with Tom Gallagher, University of Washington), which will bring together the two field of diagnostic improvement with communication and resolution programs. The project will enroll 240 patients with advanced cancers to both learn about potential opportunities for improvement in their diagnostic journeys, as well as support patients in obtaining transparent answers to their concerns about potential delays.
- -Two current major medication safety projects funded by the Moore Foundation:
- 1) Conservative Prescribing, a \$2 million project for creating and testing new metrics for clinician prescribing practices, consortium of VA, Northwestern, UIC, and Brigham for which I am the overall PI. This project also developed an IHI Open School course to teach rational prescribing principles (>3,000 students completed course in just 1st 4 months).
- 2) Adverse Drug Reaction Surveillance -using automated electronic outreach to patients to patients newly started on medications, building on our successful AHRQ-CEDAR (Calling for Early Detection of Adverse Reactions, which used IVR phone outreach) using patient portals and texting to screen patients for adverse reactions.

We are currently in the second round of funding and projects for the Moore Foundation funded PRIDE (Primary-care Research in Diagnosis Errors (PRIDE) Learning Network PRIDE project for which I am the PI. This project is a collaborative with the State of Massachusetts Dept of Public Health Betsy Lehman Center for Patient Safety which centers on collecting, learning from and sharing diagnostic error cases and issues. We have published 9 AHRQ Web M&M Case in depth case discussions from the PRIDE Project at https://psnet.ahrq.gov/psnet-collection We are developing the PRIDE Toolkit to facilitate statewide dissemination and spread of this work. https://psnet.ahrq.gov/psnet-collection This past year I have been part of speaking and planning for 2 National Academy of Medicine Conferences on Diagnostic Excellent (one related to cancer, upcoming one on diagnosis in elderly patients).

Through these projects and others, we have helped transform understanding and classification of diagnostic errors (through the development of the widely used DEER Taxonomy for classifying where in the diagnostic process errors occur), identified multiple design and workflow vulnerabilities and areas for prescribing safety improvement (by collating safety reports from multiple institutions, performing a series of vulnerability tests, directly querying clinicians in real time about erroneous prescriptions), developed multiple practical tools and interventions to detect, increase situational awareness, and provide clinical decision support to prevent medication and diagnostic errors (including publication of a series of recommendations), and educated tens of thousands of clinicians and safety researchers (through national webinars, grand rounds, and conference presentations).

From 2010-2014, I chaired the CRICO (Harvard Risk Management Foundation) Ambulatory Risk Management (ARM) Leaders Group. In that role I helped lead the development of the Building Risk Management/Patient Safety Bridges to Outpatient Networks Program, which provided \$5 million in funding to support creation of the first-ever ambulatory risk/safety programs (hiring Ambulatory Risk Manager and building safety infrastructure) in 10 Harvard academic institutions. Since 2010, I have been co-Director the BWH Ambulatory M&M Conference and in that capacity prepared and presented multiple highly interactive didactic sessions which I continue to co-lead.

Previously I supervised residents in the ambulatory clinics and general medical inpatient services (for 25 years at Cook County and 1st five years working at BWH). More recently my HMS teaching activities have been through a series of course teaching roles and mentoring. I served as a lead faculty for the HMS Center for Primary Care Academic Improvement Collaborative (AIC-CARES) as well as faculty and Core Steering Committee member for the AHRQ Engineering High Reliability Learning Lab (faculty for multiple Learning Sessions for these 2 projects based in the HMS Center for Primary Care, Harvard School of Public Health, and the Northeastern Healthcare Systems Engineering Institute). In each of these projects we brought together participants from multiple Harvard institutions for one-to-two day learning sessions to present didactic sessions as well as lead small group workshops and discussions related to quality improvement activities and engineering reliability and design concepts.

Since 2012, I have been the Assistant Director of the HMS-CRICO Best Medical Practice Maximizing Skills, Minimizing Risk course as well as lecturer at each of the (mostly) annual course sessions. I serve as faculty (Capstone reviewer/mentor; lecturer) for the HMS Global Safety Quality, Informatics and Leadership (SQIL) program), and am now the Course Director for the HMS Master's Program in Quality and Safety Special Topics course. As special topics course director I prepared and presented 8 two-hour sessions as well as oversaw an additional 5 sessions.

I have been a member of the editorial board of *Medical Care* since 1997 and have served as its Chair since 2011. I have also served on the editorial board of the *Joint Commission Journal on Quality and Safety* and am currently a member of the Editorial board of *BMJ Quality & Safety*—two leading quality and safety journals. I am also a long-time member of the editorial board for the *Journal of Public Health Policy*. I have served as the guest-editor for special issues for three of these four journals (all but BMJ QS). I am the author of a new chapter, Chapter 9 in the 21st

Edition of *Harrison's Principles of Internal Medicine* entitled "Diagnosis: Reducing Errors and Improving Quality."

Awards/honors include: Institute of Medicine Chicago Leader of the Year, Institute for Safe Medical Practice (ISMP) Lifetime Achievement Award, Modern Healthcare Top 30 Leaders of the Future, and BWH President's Recognition Award for Extraordinary Service to Patients (2017) and Partners in Excellence Award (2018), and the Mark Graber Diagnostic Quality Award from the Society to Improve Diagnosis in Medicine (2019), and the John M. Eisenberg Patient Safety and Quality 2019 lifetime achievement award (with a lengthy interview published in the July 2020 *Joint Commission Journal of Quality and Safety*). In 2020 my "Piece of My Mind" article on professional patient boundaries was featured by *JAMA* as one of the top personal essays in the past 40 years. In 2021, I was awarded the Avedis Donabedian Quality Award from the American Public Health Association Medical Care Section. In 2024 the editorial that Bruce Lambert and I wrote in 2022 on the Radonda Vaught medication error has been awarded the 2024 Editor's Choice Award the Journal of the American College of Clinical Pharmacy (JACCP) for the top article in the past 2 years.

EXHIBIT 2

The Wayback Machine - https://web.archive.org/web/20241113202106/https://psnet.ahrq.go...

Multiple Missed Opportunities for Suicide Risk Assessment in Emergency and Primary Care Settings

Jane L. Erb, MD, Sejal B. Shah, MD and Gordon D. Schiff, MD | January 7, 2022

View more articles from the same authors.

The Case

An 18-year-old man with a reported history of untreated depression and suicide attempts at age 13 (with cutting behaviors and over-ingestion of medication), but no history of psychiatric hospitalizations, was seen in the Emergency Department (ED) with a chief complaint of suicidal ideation. He reported feeling more depressed lately. He had been open with his older brother about suicidal thoughts for some time, but 2 days prior to presentation, he became intoxicated and reported having purchased a gun, but did not disclose details. After the brother disclosed this information to their mother, emergency medical services (EMS) brought the patient to a local ED. He initially reported taking 10 ibuprofen tablets, although he later denied this quantity.

The patient was not on any psychiatric medications and did not have an outpatient therapist or psychiatrist. He denied auditory and visual hallucinations, had no somatic complaints, denied illicit substance use but did endorse alcohol use and occasional cannabis use. He had stable vital signs, was calm and cooperative, and displayed a stable affect. Due to suicidal ideation, he was placed on safety hold and a psychiatric consultation was requested. Laboratory studies were only remarkable for a positive cannabis result on urine toxicology screen. The Psychiatry team's recommendation was for

discharge with outpatient therapy. The patient's mother agreed with this plan. He was discharged with outpatient resources, the crisis hotline phone number, and strict return precautions.

One month later, the patient had his first visit with his new primary care physician (PCP). He was again sent to an ED after he described a suicidal gesture consisting of superficial cutting of his wrist with a kitchen knife several days earlier, which he stated was in reaction to a recent romantic disappointment. In the ED, he was placed on emergency hold civil commitment for "persons posing risk of serious harm by reason of mental illness." However, he stated that the thoughts of hurting himself had passed quickly, and he had no plan to hurt or kill himself or anyone else. He denied any safety concerns at home--he reported living alone but was looking forward to moving in with his brother in 1 week and noted strong family support in the area. He cited future-orientation including enjoying working in a hotel. The Psychiatry team recommended that the patient was safe for discharge with outpatient follow-up, which was arranged. They also recommended that patient start an antidepressant medication, but the patient declined, stating he does not like to take medications.

Ten days later, the patient had a follow-up phone visit with his PCP. He mentioned that two days prior, he had been up all-night sending texts to a girl and felt "manic," or restless with racing thoughts. He reported recurrent thoughts of harming himself but no plan and no self-injurious behavior. He thought that he would be able to manage these feelings himself as he did not want to kill himself and did not want to go to the ED again. The only medication he expressed interest in taking was "a stimulant for his ADHD," which he self-diagnosed due to his impulsivity. The patient's PCP felt he would likely benefit from inpatient psychiatric care but documented that he denied suicidal ideation or an active plan. Nonetheless, the PCP was quite concerned and scheduled a therapy appointment for the

3/22/25, 3:51 PM

next day, with a plan for the therapist to call the patient later in the day.

Later that day, the patient was found with a loaded gun in a hotel room. He said he was about to shoot himself in the head. He called his mother, who called the police, who quickly came and took him to the ED for the third time. There he was evaluated and involuntarily admitted to an inpatient psychiatric hospital for five weeks. He was ultimately discharged with a diagnosis of "Bipolar 1 – moderate-severe with mixed features." Suicide risk at discharge was assessed as being "chronic risk which was mildly elevated," although he did well with no known instances of suicidality or suicide attempts in the next six months of follow-up.

The Commentary

By Jane L. Erb, MD, Sejal B. Shah, MD and Gordon D. Schiff, MD

Few considerations are more critical than identifying a person at risk for taking their own life. The frequency of suicide is distressingly high—every year 800,000 people globally, of whom nearly 50,000 reside in the U.S., die by suicide. In 2019 in the U.S., 12.0 million adults had serious thoughts of suicide of whom 3.5 million made suicide plans and 1.4 million attempted suicide with suicide rates rising every year over the past two decades. While this past year has been an exception, in that suicide rates slightly decreased in 2020 for reasons that are not well understood, we know that COVID-19 has also increased many stresses and risk factors such as social isolation, unemployment, substance use, and depression, and there is worry that any downward trends in suicide rates may not continue.

While a large published series of all types of diagnostic errors in medicine found that "failure to consider" a particular diagnosis was the leading contributor to misdiagnosis, *failure to consider* suicide risk was not the problem in the current case.³ The patient had recently been seen twice in the ED, and he had several contacts with his primary care clinician, all of whom worried about and weighed this risk. We can debate whether the ultimate diagnosis of bipolar disorder might have been made earlier, the diagnosis that he was at risk for suicide was strongly considered, although in hindsight one could argue this risk was not considered seriously enough. This "near miss" illustrates many of the issues and challenges that primary care and mental health provider face in assessing and helping such patients.

In clinical medicine, patients are generally forthcoming with their medical history, symptoms, concerns, and plans. However, some patients who are seriously contemplating suicide hide their thoughts or intentions out of shame or because they do not want to be detected and stopped. A recent meta-analysis examining the sensitivity of inquiring about suicidal thoughts showed that the overall pooled sensitivity was 41%, and in nonpsychiatric settings (e.g., general medical practices), the sensitivity was only 22%.4 Another meta-analysis of more sophisticated prediction models concluded that while they did identify some patients at risk and helped classify overall population-level risks, they had low positive predictive values with high false positive and false negative rates if implemented in isolation ("their accuracy in predicting a future event is near zero").^{5,6} These sobering findings have important implications for our ability to use simple screening questions (such as question #9 in the PHQ-9, which asks patients whether they had "thoughts that you would be better off dead, or thoughts of hurting yourself in some way"). Numerous studies have shown that the PHQ-9 is neither sensitive nor specific enough to predict imminent suicide. An analysis of > 200,000 PHQ-9s showed that a positive screen on question #9 was associated with an increased risk over days to months but was not good at predicting acute risk for an individual patient.^{6,7}

Approaches to Improving Safety

Nonetheless, a variety of understandings and tools can help us better assess patients. First is having knowledge of which populations are at higher risk of suicide and factors that increase or reduce risk. High risk groups include male sex, being young, veterans, Indigenous tribes, lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ).8 Factors such as serious mental illness, prior suicide attempts and self-harming behavior, alcohol or substance use, serious recent illness or diagnosis, physical pain, a history of trauma or recent loss, and severe anxiety or insomnia, to name a few, are associated with increased risk of suicide. Risk factors can be divided into nonmodifiable risk factors (sex, family history) and modifiable risk factors, which include protective factors such as having a stable and meaningful job and family/friend support. The Joint Commission now recommends that all patients with behavioral health risk factors receive screening further assessment and screening with one of the validated tools they have identified.9

The second is having a continuing care connection and carefully following the patient. In one study, about 45% of patients who died by suicide visited a primary care physician in the preceding 30 days. In many cases, there are identifiable opportunities to help the patient overcome issues such as social isolation, refer for additional help, provide resources (particularly telehealth access), and prevent or minimize access to lethal means such as firearms and pills. And, as in many other chronic diseases, a long term, trusting, personal relationship with a primary care provider can help in improving access, assessments, and accuracy of decision making.

Finally, standardized screening tools should be routinely available, utilized, and their results documented and acted upon in the patient's medical record. Although there insufficient evidence to recommend any one tool, 11 several mentioned by the Joint Commission and the national Zero Suicide initiative, 9

one widely used tool they recommend and which we favor is the Columbia Suicide Severity Rating Scale (C-SSRS) Screener. 12-14 It is among the best evidence-based tools to help screen for and triage risk for suicidal behavior. 15 It has a demonstrated ability to identify those at higher imminent risk for suicide and thus direct resources to those at highest risk. It consists of 2 versions-one for initial screening and a second for follow-up. It has both better specificity (99%) than the final question of the PHQ-9 (fewer false positive responses) as well as higher (93%) sensitivity.¹⁴ After two questions about wishing one were dead and/or having actual thoughts of killing oneself, any positive findings open a branch of three additional questions to delve further into whether one is thinking about methods of suicide and having any intent or preparatory behavior. Everyone, regardless of their answers about suicidal thoughts, is then asked about any history of attempting suicide, including just starting to attempt or preparing for an attempt, and how long ago that was. Using the C-SSRS does not require mental health training, as it was designed for use by clinicians as well as nonclinicians such as police, clergy, school counselors, crisis hotlines, and paramedics. It is publicly available in over 100 languages. 13

Importantly, the C-SSRS does not solely rely on patients' volunteering of suicide ideation but collects information about actual behaviors. This means that the questioner can seek out and include information from multiple sources (e.g., in our case, the patient's brother, or in other cases a patient's spouse or even the presence of a suicide note). At-risk behaviors are assessed in relation to their connection with intention to use them to attempt suicide rather in than a disconnected way (e.g., superficially cutting his wrist but no intention of killing himself). This markedly improves the accuracy, especially the specificity, of the screening.

One of the reasons it is important to improve not only the

sensitivity of a screening tool, but also its specificity, is to prevent false positive conclusions and suboptimal resulting actions. Family members, PCPs, or mental health staff might feel it safer to send individuals to an ED anytime there is the slightest concern of suicide. Viewed through the lens of hindsight bias, any time a patient attempts to take one's life, everyone involved may wish they had taken such an action. The problem is that repeatedly sending a patient to the ED has its own side effects and often is not the optimal way to help a patient in serious mental distress. Here, we are not simply referring to prioritizing limited ED and psychiatry resources (although we always should be mindful of these considerations), but rather what is best for the patient. If patients who do not have a high acute risk for suicide are reflexively sent to the ED, they risk spending many hours waiting to be "cleared" and receiving little more than a one-time psychiatric safety risk assessment. Unfortunately, up to 70percent of patients who leave the ED after an evaluation for suicidal ideation or behavior never attend their first follow-up appointment. 16 Most importantly, when patients learn that expressing any thoughts of suicide results in being sent to the ED, they may be less likely to honestly share their thoughts or to seek mental health help in the future.

The best answer to this dilemma lies in more far-reaching upstream prevention efforts. First, it is crucial to recognize that just over half of individuals who attempt suicide do not have an established mental health history listed in their health record. About 54% of individuals who died by suicide in 27 states in 2015 had not received a clinical diagnosis of a mental illness at time of death (and attributed to relationship, substance use, health, financial, job crises). 17,18 In fact, Parkland Health and Hospital System in Dallas elected to begin screening all inpatients, outpatients, and emergency room patients using the Columbia screening tool. 19 At the very least, one should consider screening any patient presenting in any setting in

3/22/25, 3:51 PM

distress or who otherwise has significant risk factors, such as recent perceived loss, new diagnosis of serious health issue, financial or job crises, or being treated for a major psychiatric disorder. If the screening shows someone is at an elevated risk, then a more detailed analysis of other factors that contribute to risk as well as protective factors should be routine. In addition to potentially identifying individuals at risk, consider the destigmatizing benefits of inquiring about mental health as a routine matter and making it clear that it is an important component of one's general health. Not over or under-reacting to suicidal thoughts or behaviors will also promote patients being more open with their clinicians.

Once the assessment is done, then safety planning is another key component, which consists of a brief intervention, jointly developed by a clinician and patient, that plan for coping and support.²⁰ It includes an agreed upon plan for ways to manage thoughts of suicide between provider visits, steps to reduce access to lethal means, and supports that the patient can access.²¹ Additionally, any interventions that can reduce modifiable risk factors should be implemented. This approach should replace the use of "no-harm contracts," a practice that many consider to be ineffective, disrespectful, and at times even harmful in that these "contracts" can drive a wedge between caregivers and patients.²¹⁻²³ Much better is to jointly develop a plan that respectfully builds upon patients' innate resiliency and problem-solving capabilities, including a series of "what-if" scenarios of what to do if suicidal feelings start to intensify.

Providing optimal suicide prevention requires leadership support and a competent workforce. Unfortunately, most health professionals enter the workforce unprepared to work with suicide-related ideation and behavior. ^{24,25} It will also likely require additional resources, something even committed leaders will be challenged to dedicate in this pandemic era where

resources are even more stretched and stressed.^{26,27}

While in the past, treatment for suicidal patients has mostly focused on the underlying mental health disorder, evidence now supports directly targeting suicidal thoughts and behaviors with approaches such as cognitive behavioral therapy and dialectical behavior therapy, and collaborative assessment.²¹

It is worth highlighting the important fact that firearms are the leading cause of death by suicide, and thus it is important to inquire whether an individual has access to a firearm.²⁸ While not every gunshot wound results in death, this method is not only the most likely to kill, but the time involved is so short that there is little opportunity for the attempt to be aborted by the individual or interrupted by another person. 28,29 Gun and ammunition storage practices may be relevant for preventing unintentional injuries, but a gun safe is not safe if an individual with a suicide plan knows the combination. According to a recent review discussing the most promising approaches for decreasing self-harm, efforts to decrease the case-fatality rate from suicide attempts by restricting access to firearms remain a high priority, especially in the United States.^{29,30} However, as the authors stated, such approaches have been slow to be implemented in the US, given the high prevalence of gun ownership and the political influence of the opponents of firearm safety policies.31

Death by suicide is a public health crisis. Healthcare providers often feel ill-equipped to identify and manage patients who are at high psychiatric safety risk. With the use of evidence-based tools, engagement with patients and an understanding that health care providers can be a "lifeline," the interventions described above may begin to turn the tide in this crisis.

Take Home Points

• As do many other clinicians and families, the primary care

- team, ED doctors, psychiatry consultants, and family struggled with the challenges of trying to help this young man who was in various ways reporting thoughts and behaviors suggesting risk of self-harm and possibly suicide.
- Screening for suicide risk, while a critical step in potentially preventing death or injury by suicide, is fraught with additional challenges centering around the poor sensitivity and specificity of many of the screening tools. The widely used PHQ-9 question about suicide has poor sensitivity and specificity. A much better screening tool we recommend is the Columbia-Suicide Severity Rating Scale Screener which can be administered by both clinicians and non-clinician individuals who have been trained in its use.
- So called "no harm contracts" are best avoided and, instead, replaced with approaches that emphasize joint planning that more respectfully builds upon patients' innate resiliency to self-soothe, build upon one's protective factors and reduce those risk factors that are modifiable, and problem-solve ways to create a series of "what-if" scenarios of what to do if suicidal feelings start to intensify
- Firearms are the leading means of fatal suicides in the U.S. Effort to ensure patients at risk for suicide do not have access is critical
- There is a bidirectional and undoubtedly complicated relationship between substance use and suicide. The longer-term mental health and suicide impacts of the COVID-19 pandemic are difficult to predict, but there are many reasons for concern.

Jane L. Erb, MD

Department of Psychiatry
Brigham and Women's Hospital
Harvard Medical School

Sejal B. Shah, MD

Department of Psychiatry
Brigham and Women's Hospital
Harvard Medical School

Gordon D. Schiff, MD

Brigham and Women's Hospital

Harvard Medical School

Acknowledgements

The long-standing process for submitting PSNet WebM&M case submissions is anonymous. Users may contribute by submitting a case at the following

link: https://psnet.ahrq.gov/webmm/submit-case

Periodically, the Primary-Care Research in Diagnosis
Errors (PRIDE) Learning Network, a collaborative project
convened by the Brigham and Women's Hospital Center for
Patient Safety Research and Practice, and the State of
Massachusetts Betsy Lehman Center for Patient Safety,
contributes cases and commentaries from their monthly
discussions of diagnosis error cases to PSNet. PRIDE is funded
by a grant from the Gordon and Betty Moore Foundation. This
case was produced in cooperation with the PRIDE Learning
Network. We acknowledge the assistance of the PRIDE project
director Maria Mirica, PhD, in preparing this case discussion.

References

 Drapeau C, McIntosh JL. USA Suicide: 2019 Official Final Sata. 2020. Washington DC; American Association of Suicidology: December 23, 2020. [Free full text] Accessed December 17, 2021.

- 2. Moran M. Suicides drop during past year of pandemic, study finds. May 20, 2021. Psychiatric News. [Free full text Accessed December 17, 2021.
- 3. Schiff GD, Hasan O, Kim S, et al. Diagnostic error in medicine: analysis of 583 physician-reported errors. Arch Intern Med. 2009;169(20):1881-1887. [Available at]
- 4. McHugh CM, Corderoy A, Ryan CJ, et al. Association between suicidal ideation and suicide: meta-analyses of odds ratios, sensitivity, specificity and positive predictive value. BJPsych Open. 2019;5(2):e18. [Free full text]
- 5. Belsher BE, Smolenski DJ, Pruitt LD, et al. Prediction models for suicide attempts and deaths: a systematic review and simulation. JAMA Psychiatry. 2019;76(6):642-651. [Available at]
- 6. Simon GE, Rutter CM, Peterson D, et al. Does response on the PHQ-9 Depression Questionnaire predict subsequent suicide attempt or suicide death? Psychiatr Serv. 2013;64(12):1195-1202. [Free full text]
- 7. Na PJ, Yaramala SR, Kim JA, et al. The PHQ-9 Item 9 based screening for suicide risk: a validation study of the Patient Health Questionnaire (PHQ)-9 Item 9 with the Columbia Suicide Severity Rating Scale (C-SSRS). J Affective Disord. 2018;232:34-40. [Available at]
- 8. Mann JJ, Apter A, Bertolote J, et al. Suicide prevention strategies: a systematic review. JAMA. 2005;294(16):2064-2074. [Free full text]
- 9. Suicide Prevention The Joint Commission. [Available at Accessed December 17, 2021.
- 10. Pearson A, Saini P, Da Cruz D, et al. Primary care contact prior to suicide in individuals with mental illness. Br J Gen

- Pract. 2009;59(568):825-832. [Free full text]
- 11. Saab MM, Murphy M, Meehan E, et al. Suicide and selfharm risk assessment: a systematic review of prospective research. Arch Suicide Res. Epub 2021 Jul 1. [Available at]
- 12. Watts B. Sustained effectiveness of the Mental Health Environment of CareChecklist to decrease inpatient suicide. Psychiatric Serv. 2017;68(4):405-407. [Free full text
- 13. Schiff GD, Vazquez ES, Wright A. Incorporating indications into medication ordering—time to enter the age of reason. New Engl J Med.2016;375(4):306-309. [Free full text]
- 14. Posner K, Brown GK, Stanley B, et al. The Columbia-Suicide Severity Rating Scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults. Am J Psychiatry. 2011;168(12):1266-1277. [Free full text]
- 15. Thom R, Hogan C, Hazen E. Suicide risk screening in the hospital setting: a review of brief validated tools. Psychosomatics. 2020;61(1):1-7. [Available at]
- 16. Luxton DD, June JD, Comtois KA. Can postdischarge follow-up contacts prevent suicide and suicidal behavior? A review of the evidence. Crisis. 2013;34(1):32-41. [Available at]
- 17. Zargarzadeh AH, Law AV. Design and test of preference for a new prescription medication label. Int J Clin Pharm. 2011;33(2):252-259. [Free full text]
- 18. Stone DM ST, Fowler KA, et al. Vital Signs: trends in state suicide rates—United States, 1999-2016 and circumstances contributing to suicide—27 states, 2015. MMWR Morb Mortal Wkly Rep. 2018;67(22):617-624. [Free

full text]

- 19. Roaten K, Johnson C, Genzel R, et al. Development and Implementation of a universal suicide risk screening program in a safety-net hospital system. *Jt Comm J Qual Patient Saf.* 2018;44(1):4-11. [Available at]
- Stanley B, Brown GK. Safety planning intervention: a brief intervention to mitigate suicide risk. Cogn Behav Pract.
 2012;19(2):256-264. [Available at]
- 21. Hogan M, Grumet, J. Suicide prevention: an emerging priority for health care. *Health Aff (Millwood)*.2016;35(6):1084-1090. [Free full text]
- 22. Caldwell B. Why therapists stopped creating no-harm contracts for safety. *Pollen*. August 28, 2021. [Free full text]
- 23. McMyler C, Pryjmachuk S. Do 'no-suicide' contracts work? *J Psychiatric Ment Health Nurs.* 2008;15(6):512-522. [Free full text]
- 24. Ross LE, Vigod S, Wishart J, et al. Barriers and facilitators to primary care for people with mental health and/or substance use issues: a qualitative study. *BMC Fam Pract.* 2015;16:135. [Free full text]
- 25. Keynejad R, Spagnolo J, Thornicroft G. WHO mental health gap action programme (mhGAP) intervention guide: updated systematic review on evidence and impact. *Evid Based Ment Health.* 2021;24(3):124-130. [Free full text]
- 26. Perlis RH, Fihn SD. Hard truths about suicide prevention.

 JAMA Netw Open. 2020;3(10):e2022713-e2022713. [Free full text]
- 27. Rozel JS. Broken promise: challenges in achieving effective universal suicide screening. *Acad Emerg Med.*

- 28. Miller M, Hemenway D. Guns and suicide in the United States. New Engl J Med. 2008;359(10):989-991. [Free full text 1
- 29. US Burden of Disease Collaborators, Mokdad AH, Ballestros K, et al. The state of US health, 1990-2016: burden of diseases, injuries, and risk factors among US States. JAMA. 2018;319(14):1444-1472. [Free full text]
- 30. Kiewra K. Guns and suicide: a fatal link. Harvard Public Health Magazine. Spring 2008. [Free full text] Accessed December 17, 2021.
- 31. Bhatia R. Guns, Lies, and Fear: Exposing the NRA's Messaging Playbook. Washington DC; Center for American Progress: April 24, 2019. [Free full text] Accessed December 17, 2021.

This project was funded under contract number 75Q80119C00004 from the Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services. The authors are solely responsible for this report's contents, findings, and conclusions, which do not necessarily represent the views of AHRQ. Readers should not interpret any statement in this report as an official position of AHRQ or of the U.S. Department of Health and Human Services. None of the authors has any affiliation or financial involvement that conflicts with the material presented in this report. View AHRQ Disclaimers

Save

Save to your library

Discussants: Jane Erb, Sejal B. Shah and Gordon D. Schiff

Few diagnoses are more critical, and difficult to accurately make, than correctly diagnosing a person about to, or at risk for taking their own life. The frequency of suicide is truly daunting—every year 800,000 people globally of whom nearly 50,000 reside in the U.S., die by suicide. In 2019 in the U.S., 12.0 million adults had serious thoughts of suicide of whom 3.5 million made suicide plans and 1.4 million attempted suicide with suicide rates rising every year over the past 2 decades. (REF)

While a large published series of all types of diagnostic errors in medicine found "failure to consider" a particular diagnosis to be the leading contributor to misdiagnosis, in our patient this type error was not the problem. He had recently been seen twice in the emergency department, as well as had several contacts with his primary care clinicians (including earlier the same day he went to a hotel room with a loaded gun and a plan to kill himself) all of whom worried about and weighed this diagnosis. Thus, while the suicide risk was strongly considered, in hindsight one could argue this risk was not considered seriously enough. This "near miss" illustrates many of the issues and challenges primary care and mental health practitioners face in assessing and helping such patients.

In clinical medicine, patients are generally forthcoming with their medical history, symptoms, concerns, and plans. However, this is not always the case in patients in patients who are seriously contemplating suicide, who not infrequently hide their thoughts or intentions out of shame or because they don't want to be detected and stopped. A recent meta-analysis examining the sensitivity of inquiring about suicide showed that the overall pooled sensitivity was 41%, and in non-psychiatric settings (e.g. general medical practices such as our patient), the sensitivity was only 22%. Another metanalysis of more sophisticated prediction models concluded that while they did help classify overall population level risks, they had low positive predictive value and with high false positive and considerable false negative rates if implemented in isolation ("their accuracy in predicting a future event is near zero"). This data is sobering and humbling and has important implications for our ability to use simple screening questions (such as question #9 in the PHQ-9 which asks patients whether they had "Thoughts that you would be better off dead, or thoughts of hurting yourself in some way"). Numerous studies have shown that the PHQ-9 is neither sensitive nor specific enough to predict imminent suicide including an analysis of > 200,00 PHQ-9's that showed that a positive screen on questions #9 was associated with an increased risk over days to months, but was not good at predicting acute risk for an individual patient.

Nonetheless a variety of understandings and tools can help us better assess patients. First is having knowledge of which populations are at higher risk of suicide. High risk groups include male sex, veterans, Indigenous tribes, Lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ) as well as more obvious populations such as those with serious mental illness, prior suicide attempts, ideation/attempts, alcohol or substance use, serious recent illness or emotional distress trauma or loss, history of recent trauma or loss.). Risk factors for assessing a particular patient can be divided into static non modifiable risk factors (sex, family history), modifiable risk factors which include protective factors such as having a stable job and family support.

The second is "knowing" and more carefully following the patient. Data shows that 45% the patients who die by suicide visited a primary care physician in the preceding 30 days.(REF) In many cases there are identifiable opportunities to better help the patient overcome issues such as social isolation, refer

Commented [GS1]: Schiff, Gordon D., Omar Hasan, Seijeoung Kim, Richard Abrams, Karen Cosby, Bruce L. Lambert, Arthur S. Elstein et al. "Diagnostic error in medicine: analysis of 583 physician-reported errors." Archives of internal medicine 169, no. 20 (2009): 1881-1887.

Commented IGS21: Association between suicidal ideation and suicide: meta-analyses of odds ratios, sensitivity, specificity and positive predictive value

BJPsych Open Highlight Articles

Published online by Cambridge University Press: 31 January

Catherine M. McHugh Amy Corderoy Christopher James Ryan

Commented [GS3]: Prediction Models for Suicide Attempts and Deaths A Systematic Review and Simulation

Bradley E. Belsher, PhD1,2; Derek J. Smolenski, PhD, MPH1; Larry D. Pruitt, PhD1; et alNigel E. Bush, PhD1; Erin H. Beech, MA1; Don E. Workman, PhD1,2; Rebecca L. Morgan, PhD, MPH3; Daniel P. Evatt, PhD1,2; Jennifer Tucker, PhD1; Nancy A. Skopp, PhD1 Author Affiliations

JAMA Psychiatry. 2019;76(6):642-651

Commented [GS4]: 1. Na PJ, Yaramala SR, Kim JA, et al. The PHQ-9 item 9 based screening for suicide risk: a validation study of the Patient Health Questionnaire (PHQ)-9 Item 9 with the Columbia Suicide Severity Rating Scale (C-SSRS). J Affective Disorders, 2018, 232:34-40

2. Simon GE, Rutter CM, Peterson D, et al. Does response on the PHQ-9 depression questionnaire predict subsequent suicide attempt or suicide death? Psychiatr Serv, 2013 Dec 1;64(12):1195-1202

Commented [GS5]: Mann, J. John, Alan Apter, Jose Bertolote, Annette Beautrais, Dianne Currier, Ann Haas, Ulrich Hegerl et al. "Suicide prevention strategies: a systematic review." Jama 294, no. 16 (2005): 2064-2074

general medical practices), the sensitivity was only 22%.⁴ Another meta-analysis of more sophisticated prediction models concluded that while they did help classify overall population-level risks, they had low positive predictive values with high false positive and false negative rates if implemented in isolation ("their accuracy in predicting a future event is near zero").^{5,6} These sobering findings have important implications for our ability to use simple screening questions (such as question #9 in the PHQ-9, which asks patients whether they had "thoughts that you would be better off dead, or thoughts of hurting yourself in some way"). Numerous studies have shown that the PHQ-9 is neither sensitive nor specific enough to predict imminent suicide. An analysis of > 200,000 PHQ-9s showed that a positive screen on question #9 was associated with an increased risk over days to months but was not good at predicting acute risk for an individual patient.^{6,7}

Approaches to Improving Safety

Nonetheless, a variety of understandings and tools can help us better assess patients. First is having knowledge of which populations are at higher risk of suicide and factors that increase or reduce risk. High risk groups include male sex, being young, veterans, Indigenous tribes, lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ). Factors such as serious mental illness, prior suicide attempts and self-harming behavior, alcohol or substance use, serious recent illness or diagnosis, physical pain, a history of trauma or recent loss, and severe anxiety or insomnia, to name a few, are associated with increased risk of suicide. Risk factors can be divided into non-modifiable risk factors (sex, family history) and modifiable risk factors, which include protective factors such as having a stable and meaningful job and family/friend support.

The second is having a continuing care connection and carefully following the patient. In one study, about 45% of patients who died by suicide visited a primary care physician in the preceding 30 days. In many cases, there are identifiable opportunities to help the patient overcome issues such as social isolation, refer for additional help, provide resources (particularly telehealth access), and prevent or minimize access to lethal means such as firearms and pills. And, as in many other chronic diseases, a long term, trusting, personal relationship with a primary care provider can help in improving access, assessments, and accuracy of decision making.

Finally, standardized screening tools should be routinely available, utilized, and their results documented and acted upon in the patient's medical record. We favor the Columbia Suicide Severity Rating Scale (C-SSRS) Screener, 10-12 which is among the best evidence-based tools to help screen for and triage risk for suicidal behavior. It has a demonstrated ability to identify those at higher imminent risk for suicide and thus direct resources to those at highest risk. It consists of 2 versions-one for initial screening and a second for follow-up. It has both better specificity (99%) than the final question of the PHQ-9 (fewer false positive responses) as well as higher (93%) sensitivity. 12 After two questions about wishing one were dead and/or having actual thoughts of killing oneself, any positive findings open a branch of three additional questions to delve further into whether one is thinking about methods of suicide and having any intent or preparatory behavior. Everyone, regardless of their answers about suicidal thoughts, is then asked about any history of attempting suicide, including just starting to attempt or preparing for an attempt, and how long ago that was. Using the C-SSRS does not require mental health training, as it was designed for use by clinicians as well as non-clinicians such as police, clergy, school counselors, crisis hotlines, and paramedics. It is publicly available in over 100 languages.11

Commented [RS(7]: Is there a recommendation that these higher risk individuals be automatically screened?

Commented [SSB8R7]: There is a Joint Commission recommendation to screen all patients who present to the hospital setting with a behavioral health complaint. This is in hopes of capturing as many patients as possible with a screening tool.

Commented [GS9R7]: Goal of identifying patients will automatically capture the patients at higher risk If coming in with a behavioral health... Not just recommendation but mandate. Our hope is new standard of care get screen w/ CC RS

Commented [RS(10]: I think it would be helpful to discuss additional screening tools in more detail. Although your recommendation that C-SSRs may be the best screening tool, it would be helpful to describe a few other tools (with sensitivity and specificity) and other components important in a screening tool. In an older manuscript, Giddens JM et al. Innov Clin Neurosci 2014;11:66-80 challenged that type I and II errors may not be controlled in C-SSRs. Has this been settled?

Commented [SSB11R10]: I'm definitely not the expert in this—Jane may be better suited to answer this.

Commented [GS12R10]: Finise appease we are aware there are multplle validated tools our health system believes int eh validity of this easy to train and administter efficient no official endorsement all colleagues in ED using this across country

Commented [GS13R10]: Disclaimer not endorsing but finese

showed that the overall pooled sensitivity was 41%, and in non-psychiatric settings (e.g., general medical practices), the sensitivity was only 22%.⁴ Another meta-analysis of more sophisticated prediction models concluded that while they did identify some patients at risk and helped classify overall population-level risks, they had low positive predictive values with high false positive and false negative rates if implemented in isolation ("their accuracy in predicting a future event is near zero").^{5,6} These sobering findings have important implications for our ability to use simple screening questions (such as question #9 in the PHQ-9, which asks patients whether they had "thoughts that you would be better off dead, or thoughts of hurting yourself in some way"). Numerous studies have shown that the PHQ-9 is neither sensitive nor specific enough to predict imminent suicide. An analysis of > 200,000 PHQ-9s showed that a positive screen on question #9 was associated with an increased risk over days to months but was not good at predicting acute risk for an individual patient.^{6,7}

Approaches to Improving Safety

Nonetheless, a variety of understandings and tools can help us better assess patients. First is having knowledge of which populations are at higher risk of suicide and factors that increase or reduce risk. High risk groups include male sex, being young, veterans, Indigenous tribes, lesbian, gay, bisexual, transgender, queer/questioning (LGBTQ). Factors such as serious mental illness, prior suicide attempts and self-harming behavior, alcohol or substance use, serious recent illness or diagnosis, physical pain, a history of trauma or recent loss, and severe anxiety or insomnia, to name a few, are associated with increased risk of suicide. Risk factors can be divided into non-modifiable risk factors (sex, family history) and modifiable risk factors, which include protective factors such as having a stable and meaningful job and family/friend support. The Joint Commission now recommends that all patients with behavoral health risk factors receive screening further assessment and screening with one of the validated tools they have identified.

The second is having a continuing care connection and carefully following the patient. In one study, about 45% of patients who died by suicide visited a primary care physician in the preceding 30 days. In many cases, there are identifiable opportunities to help the patient overcome issues such as social isolation, refer for additional help, provide resources (particularly telehealth access), and prevent or minimize access to lethal means such as firearms and pills. And, as in many other chronic diseases, a long term, trusting, personal relationship with a primary care provider can help in improving access, assessments, and accuracy of decision making.

Finally, standardized screening tools should be routinely available, utilized, and their results documented and acted upon in the patient's medical record. Although there insufficient evidence to recommend any one tool, several mentioned by the Joint Commission and the national Zero Suicide initiative, one widely used tool they recommend and which we favor is the Columbia Suicide Severity Rating Scale (C-SSRS) Screener, 10-12 It is among the best evidence-based tools to help screen for and triage risk for suicidal behavior. It has a demonstrated ability to identify those at higher imminent risk for suicide and thus direct resources to those at highest risk. It consists of 2 versions-one for initial screening and a second for follow-up. It has both better specificity (99%) than the final question of the PHQ-9 (fewer false positive responses) as well as higher (93%) sensitivity. After two questions about wishing one were dead and/or having actual thoughts of killing oneself, any positive findings open a branch of three additional questions to delve further into whether one is thinking about methods of suicide and having any intent or preparatory behavior. Everyone, regardless of their answers about suicidal thoughts, is then asked about any history of attempting suicide, including just starting to attempt or preparing

Deleted: did

Commented [RS(6]: Is there a recommendation that these higher risk individuals be automatically screened?

Commented [SSB7R6]: There is a Joint Commission recommendation to screen all patients who present to the hospital setting with a behavioral health complaint. This is in hopes of capturing as many patients as possible with a screening tool.

Commented [GS8R6]: We have revised to address your comment and incorporate above information from our psychiatry expert co-author

Commented [GS9]: Reference to add

National Patient Safety Goal on Suicide Prevention in Healthcare Settings. R3 NPSG Suicide Prevention Resources

https://www.jointcommission.org/resources/patient-safety-topics/suicide-prevention/

Commented [GS10]: https://www.tandfonline.com/doi/full/10.1080/13811118.2021.1938321

Commented [GS11]: https://www.jointcommission.org/resources/patient-safety-topics/suicide-prevention/

https://zerosuicide.edc.org/toolkit/identify/screening-options

Deleted: We

Deleted: ,

Deleted: which

Commented [GS12]: https://www.sciencedirect.com/science/article/pii/S0033318219301872

Commented [RS(13]: I think it would be helpful to discuss additional screening tools in more detail. Although your recommendation that C-SSRs may be the best screening tool, it would be helpful to describe a few other tools (with sensitivity and specificity) and other components important in a screening tool. In an older manuscript, Giddens JM et al. Innov Clin Neurosci 2014;11:66-80 challenged that type I and II errors may not be controlled in C-SSRs. Has this been settled?

Commented [SSB14R13]: We are definitely not the national experts on the this

Commented [GS15R13]: We are aware there are multiple tools and don't want to partisan in exclusively endorsing one to neglect of other others. We are not aware of any "offical" endorsement or preference for the Columbia tool (tho Jt Commission does cite it prominently and most of our psychiatrists' colleagues use mainly this one acros(...[1])

Commented [GS16R13]: Disclaimer not endorsing but finese

From: Patrick S Romano

Sent: Saturday, February 1, 2025 1:28:20 AM

To: Schiff, Gordon D.,MD

Subject: RE: removal of your publication for AHRQ Web M&M

External Email - Use Caution

Memo attached. Per this memo, AHRQ staff were given until 5 pm ET Friday to "Take down all outward facing media (websites, social media accounts, etc.) that inculcate or promote gender ideology."

Based on guidance provided to AHRQ staff, this instruction from OPM was interpreted to include anything with the words "transgender," "nonbinary," or "gender identity." The phrase "LGBTQ" is problematic because it includes that letter T for "transgender."

AHRQ staff identified the relevant items (using ordinary search tools) and communicated directly with their web site contractor to pull them down.

We (the content producers and editors) were informed after the materials had already been pulled down.

The total impact was to remove 2 Perspectives, 3 WebM&Ms (Cases, Commentaries, Spotlights), and ABOUT 15 shorter materials (e.g., brief summaries of published papers from journals indexed in PubMed).

Best wishes...

Patrick S. Romano, MD MPH FAAP FACP
Professor of Medicine and Pediatrics, UC Davis Division of General Medicine
Co-Editor in Chief, AHRQ *Patient Safety Network* (PSNet and WebM&M)

อลติเลเทยแบ. GA ฮอด เ.	Sacramento,	CA	958	17
------------------------	-------------	----	-----	----

Telephone:

E-mail:

From:

Sent: Friday, January 31, 2025 11:18 PM

To: Schiff, Gordon D.,MD

Cc:

Subject: Re: removal of your publication for AHRQ Web M&M

External Email - Use Caution

Gordy,

This is unbelievable, though not surprising.

I can certainly try to pitch an article to my editors about this. A couple of questions for you:

1. Is this the offending line: "High risk groups include male sex, being young, veterans,

YES THAT IS THE ENTIRE "OFFENSIVE" LANGUAGE. NO ADVOCY OF ANYTHING OR ANYONE, THO HONORED TO HAVE THIS STAND WITH THOSE AUTHORS AND ARTICLES WHO DO.

2. Can you forward me the policy document (it didn't come through in the forwarded email.)

YES WILL GET TO YOU IN NEXT EMAIL

AS I BELIEVE YOU WILL SEE, IT IS NOT EVEN CLEAR THAT OUR ARTICLE VIOLATES THESE BROAD DROCONIAN TRUMP SWEEPING GUIDELINES.

3. Patrick, can you share with me how exactly this transpired? Who contacted you? What was the process? How did they find this case study?

Thanks,

Bellevue Hospital NYU School of Medicine Editor-in-Chief, *Bellevue Literary Review*

On Jan 31, 2025, at 10:22 PM, Schiff, Gordon D., MD

wrote:

This is a true outrage and we all (those on this email chain and many others) need to actively oppose the removal of published peer reviewed articles such as ours here. (see below with link)

In this AHRQ Web-M&M case discussion, we simply quoted the scientific literature for evidence-based risk factors for suicide (as part of a much larger patient safety discussion of a suicide M&M case).

This is a dangerous attack on science, academic freedom, medical and public education, and patient safety. I doubt the Trump administrator who removed this even read this. I pray they have no family members or friends impacted by suicide, though it would be highly unlikely that this would be the case.

I am cc'ing this email to leaders here at Harvard and professional organizations of which I am a member to ask your help in having this peer-reviewed publication "book burning" attack overturned, and the article returned to the publication site. Of course, I recognize this only one tiny example of a widespread assault of science, as well as one human rights and justice that is occurring at many levels, but I believe every article censored is a serious blow to patients' safety and professional medical practice.

Gordon D. Schiff MD

Associate Director Center for Patient Safety Research and Practice Brigham and Women's Hospital. General Medicine Division Quality and Safety Director Harvard Medical School Center for Primary Care Associate Professor of Medicine Harvard Medical School

Research Office

Boston, MA 02120

Clincal Practice Office: Phyllis Jen Center for Primary Care

From: Patrick S Romano

Sent: Friday, January 31, 2025 8:28:02 PM

To: Schiff, Gordon D.,MD

Cc:

Subject: FW: removal of publication

External Email - Use Caution

I regret to inform you that your wonderful Case and Commentary from 2022 on "Multiple Missed

Opportunities for Suicide Risk Assessment," has been removed from the PSNet website due to a perception that it violates the White House policy on websites "that inculcate or promote gender ideology" (attached).

It is still visible through the Wayback machine,

https://web.archive.org/web/20241113202106/https://psnet.ahrq.gov/web-mm/multiple-missed-opportunities-suicide-risk-assessment-emergency-and-primary-care-settings

We live in troubling times. If you have any connections or influence that might be helpful in restoring factual and unbiased content of this type, please let me know or use your best judgment. Best wishes...

Patrick S. Romano, MD MPH FAAP FACP

Professor of Medicine and Pediatrics, UC Davis Division of General Medicine Co-Editor in Chief, Agency for Healthcare Research and Quality (AHRQ) *Patient Safety Network* (PSNet and WebM&M)

Sacramento, CA 95817

Telephone Facsimile Facsimile E-mail:

<image001.jpg>

^{**}CONFIDENTIALITY NOTICE** This e-mail communication and any attachments are for

the sole use of the intended recipient and may contain information that is confidential and privileged under state and federal privacy laws. If you received this e-mail in error, be aware that any unauthorized use, disclosure, copying, or distribution is strictly prohibited. If you received this e-mail in error, please contact the sender immediately and destroy/delete all copies of this message.

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at https://www.massgeneralbrigham.org/complianceline.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at https://www.massgeneralbrigham.org/complianceline.

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at https://www.massgeneralbrigham.org/complianceline.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.



UNITED STATES OFFICE OF PERSONNEL MANAGEMENT Washington, DC 20415

MEMORANDUM

TO: Heads and Acting Heads of Departments and Agencies

FROM: Charles Ezell, Acting Director, U.S. Office of Personnel Management

DATE: January 29, 2025

RE: Initial Guidance Regarding President Trump's Executive Order *Defending*

Women.

Pursuant to its authority under 5 U.S.C. § 1103(a)(1) and (a)(5), the U.S. Office of Personnel Management (OPM) is providing the following initial guidance to agencies regarding the President's Executive Order entitled *Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government (Defending Women)*.

Steps to End Federal Funding of Gender Ideology: In light of *Defending Women*, each agency should take prompt actions to end all agency programs that use taxpayer money to promote or reflect gender ideology as defined in Section 2(f) of *Defending Women*. Specifically, agency heads should take the following steps:

1. No later than 5:00 p.m. EST on Friday, January 31, 2025

- a. Send an email to all agency employees announcing that the agency will be complying with *Defending Women* and this guidance.
- b. Review all agency programs, contracts, and grants, and terminate any that promote or inculcate gender ideology.
- c. Review all agency position descriptions and send a notification to all employees whose position description involves inculcating or promoting gender ideology that they are being placed on paid administrative leave effective immediately as the agency takes steps to close/end all initiatives, offices, and programs that inculcate or promote gender ideology.
- d. Take down all outward facing media (websites, social media accounts, etc.) that inculcate or promote gender ideology.
- e. Review agency email systems such as Outlook and turn off features that prompt users for their pronouns.

- f. Withdraw any final or pending documents, directives, orders, regulations, materials, forms, communications, statements, and plans that inculcate or promote gender ideology.
- g. Cancel any trainings that inculcate or promote gender ideology or have done so in the past.
- h. Disband or cancel any employee resource groups or special emphasis programs that inculcate or promote gender ideology or have done so in the past.
- i. Review all agency forms that require entry of an individual's sex and ensure that all list male or female only, and not gender identity. Remove requests for "gender" and substitute requests for "sex."
- j. Ensure that all applicable agency policies and documents, including forms, use the term "sex" and not "gender."
- k. Ensure that intimate spaces designated for women, girls, or females (or for men, boys, or males) are designated by biological sex and not gender identity.
- 2. No later than <u>12:00 p.m. EST on Friday, February 7, 2025</u>, report to OPM on all steps taken to implement this guidance, including:
 - a. a complete list of actions taken in response to this guidance and *Defending Women*; and
 - b. any agency plans to fully comply with this guidance and *Defending Women*.

Please contact OPM at <u>defendingwomen@opm.gov</u> if you have any questions regarding this guidance. Please send any reports requested by this guidance to <u>defendingwomen@opm.gov</u>.

cc: Chief Human Capital Officers (CHCOs), Deputy CHCOs, Human Resources Directors, and Chiefs of Staff

Subject: RE: removed commentaries and interviews - UPDATE

Date: Thursday, February 6, 2025 at 5:33:01 PM Eastern Standard Time

From: Schiff, Gordon D.,MD

To: Patrick S Romano

CC: croyce

Thank you, Patrick, for this information and all your efforts and advocacy here.

We should probably further strategize about this, but I would say on first reading here, that if the Trump administration officials insisting on removing the offending words can produce evidence that these are *not* in fact risk factors for suicide (as the data we cited did show), we would be happy to correct any factual inaccuracies. But otherwise, it would be unethical to remove this evidence-based peer reviewed information. In other words, it would be irresponsible to falsely remove this as a risk factor when in fact it was, and censor truth out to be replaced by nontruth. I suspect my co-authors would concur.

(why LGBT and transgender individuals are driven to suicide at higher rates, is a longer but obviously related and important discussion we do not discuss in the article, but one which this censorship crusade would appear to be contributing to rather than ameliorating related to this serious public health problem).

Gordy Schiff



Subject: removed commentaries and interviews - UPDATE

External Email - Use Caution

To Harvard-affiliated PSNet colleagues...

As of this morning, AHRQ has received approval to re-post your original commentaries, which we have been discussing over the last several days.

However, the condition is the removal of the problematic words – i.e., the words "transgender" and "LGBTQ".

In the case of Gordy's commentary, this entails simply editing out just three words from a list of risk factors for suicide.

In the case of Malcolm's commentary, this entails editing out just the very last sentence ("Although not germane to this particular case, it is important to note that endometriosis can occur in trans.."

These conditions are non-negotiable.

My counter-condition for this restoration was the addition of a prominent editor's note, along these lines:

"This article was updated on February 5, 2025 to comply with President Trump's Executive Order, Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government."

(I also proposed identifying the words that were edited out, but that didn't fly...)

I told AHRQ that I would give each affected author(s) the choice of accepting this set of conditions for restoration, or not.

If you are unable to accept this condition, I understand completely and will continue to work independently for unconditional restoration (see NYT, Washington Post, etc.).

However, I consider it UNLIKELY that unconditional restoration will occur during the Trump Administration, so this is probably our best shot at restoration in the current policy environment.

I apologize for having to give you a very mild version of Sophie's choice, but such is the current situation... please take the time you need to consider the options, and feel free to make different decisions and communicate with me separately. (Sadly, I have several of these email to send, so trying to be efficient.)

Patrick S. Romano, MD MPH FAAP FACP

Professor of Medicine and Pediatrics, UC Davis Division of General Medicine Co-Editor in Chief, AHRQ *Patient Safety Network* (PSNet and WebM&M)

Sacramento, CA 95817

Telephone:

E-mail:

From: Patrick S Romano

Sent: Monday, February 3, 2025 12:34 PM

To: Royce, Celeste (HMFP - OBGYN)

Schiff, Gordon, M.D.

Cc:

Subject: RE: [External] RE: PRIDE Endometriosis Case PSNet Commentary REMOVED

I regret to inform you that your wonderful Case and Commentary from 2020 on "Endometriosis: A Common and Commonly Missed and Delayed Diagnosis," has been removed from the PSNet website due to a perception that it violates the White House policy on websites "that inculcate or promote gender ideology" (attached).

It is still visible through the Wayback machine,

https://web.archive.org/web/20241113093130/https://psnet.ahrq.gov/web-mm/endometriosis-common-and-commonly-missed-and-delayed-diagnosis

Please understand that your publication has not been deleted; it is simply archived so it can be restored to public access at a future time.

If you have any connections or influence that might be helpful in restoring factual and unbiased content of this type, please let me know or use your best judgment. Gordy and I have already been in contact with the Boston Globe and others on this topic.

Patrick S. Romano, MD MPH FAAP FACP
Professor of Medicine and Pediatrics, UC Davis Division of General Medicine
Co-Editor in Chief, AHRQ *Patient Safety Network* (PSNet and WebM&M)

Sacramento, CA 95817

Telephone: E-mail:

CONFIDENTIALITY NOTICE This e-mail communication and any attachments are for the sole use of the intended recipient and may contain information that is confidential and privileged under state and federal privacy laws. If you received this e-mail in error, be aware that any unauthorized use, disclosure, copying, or distribution is strictly prohibited. If you received this e-mail in error, please contact the sender immediately and destroy/delete all copies of this message.

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at https://www.massgeneralbrigham.org/complianceline.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.