

**Emily Elizabeth ('Beth') Devine**  
**December 2025**

[bdevine@uw.edu](mailto:bdevine@uw.edu)  
<https://sop.washington.edu/people/beth-devine/>

<https://www.bethdevineheor.com/>  
LinkedIn: <https://www.linkedin.com/in/beth-devine/>

---

## ACADEMIC POSITIONS

### Current Primary Appointment

The Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute  
School of Pharmacy, University of Washington  
2023 - Professor Emeritus

### Past Primary Appointments

The CHOICE Institute

Formerly Pharmaceutical Outcomes Research and Policy Program (PORPP)  
School of Pharmacy, University of Washington  
2021 - 2023 Shirley and Herb Bridge Endowed Professor for Women in Pharmacy  
2018 - 2023 Professor  
2015 - 2018 Associate Professor with tenure  
2011 - 2015 Associate Professor, tenure eligible  
2007 - 2011 Research Associate Professor  
2001 - 2007 Research Assistant Professor

### External Academic Appointments

2024 - 2026 Visiting Professor, Population Health Sciences, Bristol Medical School, University of Bristol, UK  
2022 - 2023 Honorary Professor, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain  
2021 - 2022 Visiting Professor, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain

### Adjunct Academic Appointments

University of Washington

2018- Member, Plein Center for Aging, School of Pharmacy  
2016- Member, Institute for Public Health Genetics, School of Public Health  
2012- 2023 Adjunct Professor, Department of Health-Systems and Population Health (Health Services), School of Public Health  
2009 - 2023 Adjunct Professor, Department of Biomedical Informatics & Medical Education, School of Medicine  
2012-2019 Adjunct Associate Professor/Professor, Department of Surgery, School of Medicine

### Administrative Academic Appointments

University of Washington, School of Pharmacy

2022 - 2024 Associate Director, The CHOICE Institute  
2016 - 2022 Director, Graduate Program, The CHOICE Institute  
2015 - 2016 Associate Director, Graduate Program, PORPP  
2015 - 2022 Associate Director, Agency for Healthcare Research and Quality (AHRQ) T-32 Training Grant  
in Health Services and Pharmaceutical Outcomes  
2014 - 2025 Assistant Director, Pacific Northwest Evidence-based Practice Center (AHRQ-funded)  
2012 - 2023 Director, UW CHOICE Allergan Fellowship Program  
2012 - 2019 Director, UW Graduate Certificate in Comparative Effectiveness Research  
2001 - 2006 Associate Director, PORPP

### EDUCATION AND TRAINING

2024 – 2025 MSc, Medical Statistics and Health Data Science, Department of Population Health, School of Medicine,  
University of Bristol, UK (Class: Merit)  
*Dissertation: The impact on results when causal inference studies and bias-adjustment  
procedures are incorporated into network meta-analyses of randomized controlled trials”*

2005 - 2008 PhD, Health Services Research, Department of Health Services, School of Public Health, UW, Seattle WA, USA  
Area of emphasis: Evaluation Sciences and Biostatistics  
*Dissertation: “Evaluating the impact of an ambulatory computerized provider order entry system on  
outcomes in a community-based multispecialty health system”*

1999 - 2001 Post-doctoral Fellowship in Pharmacoconomics and Outcomes Research, UW, Seattle, WA, USA  
and Roche Global Pharmacoconomics, Palo Alto, CA

1997 - 1999 Master in Business Administration, Masagung Graduate School of Business and Management,  
University of San Francisco, San Francisco, CA, USA  
*Thesis: “UCSF Pharmacy Faculty Practice Consortium: A plan for optimizing medication use in physician  
group practices”*

1978 - 1979	Clinical Pharmacy Residency, Veterans Administration Health Care System, Palo Alto, CA
1975 - 1978	Doctor of Pharmacy degree, University of the Pacific, Stockton, CA
1973 - 1975	Pre-pharmacy, University of the Pacific, Stockton, CA
	Music minor, Conservatory of Music, University of the Pacific, Stockton, CA

#### ACADEMIC AND PROFESSIONAL EXPERIENCE:

During the first phase of my career (1978-1999), I was an advanced practice (i.e. prescribing) clinical pharmacist in the acute care setting of first community-based, then academic medical centers. While president of the California Society of Health-System Pharmacists, I co-led a statewide initiative that expanded the already existing pharmacy scope of practice law for hospitals to include any site where clinical data were available. While at the University of California San Francisco (UCSF) (1990-1999), I worked closely with the medical staff in clinical pharmacy administrative roles – leading Pharmacy & Therapeutics, Medication Safety, and Quality Improvement Committees. At the level of the medical center, I served on the Quality Improvement Executive (Risk Management) Committee, Joint Commission Preparedness Committee, and represented the issue of pharmacist credentialing on the Medical Staff Credentialing Committee. Details about these past clinical and clinical administrative positions are not reflected in this CV and are available separately.

#### Previous Academic Positions Held

1997 – 2001	Associate Clinical Professor, Department of Clinical Pharmacy, UCSF, San Francisco, CA, USA
1991 – 1997	Assistant Clinical Professor, Department of Clinical Pharmacy, UCSF, San Francisco, CA, USA

#### Previous Administrative Positions Held

1995 – 1999	Assistant Director, Pharmacoeconomics and Clinical Outcomes, Department of Pharmaceutical Services, UCSF
1994 – 1995	Assistant Director and Site Manager, Department of Pharmaceutical Services, Mount Zion Campus, UCSF
1993 – 1994	Clinical Coordinator, Department of Pharmaceutical Services, Mount Zion Campus, UCSF
1987 – 1990	Coordinator of Quality Assurance and Special Projects, Sierra Vista Regional Medical Center, San Luis Obispo, CA
1985 – 1987	Assistant Director of Pharmacy, Mission Oaks Hospital, Los Gatos, CA
1984 – 1987	Regional Clinical Coordinator and Quality Assurance Analyst, HPI-Health Care Services, Los Gatos, CA

#### Clinical Positions Held

1993 – 1994	Clinical Pharmacist, Adult Internal Medicine Service, Mount Zion Campus, UCSF
1990 – 1993	Clinical Pharmacist with prescribing privileges, Neurosurgery Service, Parnassus Campus, UCSF
1987 – 1990	Clinical Pharmacist with prescribing privileges, Sierra Vista Regional Medical Center, San Luis Obispo, CA
1979 – 1985	Clinical Pharmacist, Mission Oaks Hospital, Los Gatos, CA
1979 – 1980	Consultant Pharmacist (part-time), Convalescent Pharmaceutical Services, Inc., Mountain View, CA
1976 – 1978	Pharmacy Intern, El Camino Hospital Pharmacy, Mountain View, CA; Pharmacy Intern, Kahn's Corner Pharmacy, Los Altos, CA

#### HONORS AND AWARDS

\*asterisk indicates my role was a mentor

2025 – 2028	Presidential officer, International Society for Pharmacoeconomics and Outcomes Research (ISPOR) – The Professional Society for Health Economics and Outcomes Research
2023 – 2024	Guest Editor, Theme issues, "State of the Science of Pharmacogenomics Implementation in Healthcare Systems and Communities". <i>Frontiers in Pharmacology</i> , Frontiers in Pharmacology: Pharmacogenetics and Pharmacogenomics
	*Publication received distinction as in top 5 of JMCP articles viewed and cited in 2021. Lee W, Dayer T, Jiao B, Carlson J, <b>Devine B</b> , Veenstra DL. The use of real-world evidence in economic assessments of pharmaceuticals in the US. <i>J Manag Care Spec Pharm</i> 2021 Feb;27(2):223-239. doi: 10.18553/jmcp.2021.27.2.223.
	Publication received distinction as Editor's Choice: Saldaña EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, <b>Devine, B.</b> Assessing payers' preferences for real world evidence: A discrete choice experiment. <i>Value Health</i> 2022;25:443-450.
	Publication received distinction as Editor's Choice: <b>Devine B.</b> Assessing the value of remote patient monitoring solutions in addressing challenges in patient care. <i>Value Health</i> . 2022;25:887-889.
	Recognized by the UW CoMotion Innovation Hub as one of six UW Women Research Innovators, for development of the REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence., March 17, 2022. Available from: <a href="https://comotion.uw.edu/blog/celebrating-womens-history-month-march-2022/">https://comotion.uw.edu/blog/celebrating-womens-history-month-march-2022/</a>
2023	Publication featured in a Special Issue: Original work by Women: Poehler D,... <b>Devine B.</b> A multi-criteria decision analysis to compare patient and provider preferences for lower limb amputations. <i>Ann Vasc Surg</i> . 2023 May 30:S0890-5096(23)00284-4. doi: 10.1016/j.avsg.2023.05.026.

2021	Fulbright US Scholar, Epidemiology, Public Health & Health Services, School of Medicine, University of Murcia, Spain  Alumni Legend, University of Washington School of Pharmacy  Nominated for the UW-wide Marsha L. Landolt Distinguished Graduate Mentor of the Year Award
	Recipient of the HEOR Excellence Application Award, ISPOR, for the paper titled, "Online tools to synthesize real-world evidence of comparative effectiveness research to enhance formulary decision-making". (Chen S, Yun S, Graf J, Beal B, Bansal A, Carlson J, Basu A, <b>Devine B</b> . The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence. <i>J Manag Care Spec Pharm</i> . 2021 Jan;27(1):95-104. doi: 10.18553/jmcp.2021.27.1.095.
2021 - 2024	Elected member, ISPOR Board of Directors
2021 - present	Associate Editor, <i>Value in Health</i>
2021	Guest Editor, Theme section, "Remote Patient Monitoring", <i>Value in Health</i>
2019	Nominated for Faculty Mentor of the Year Award, UW School of Pharmacy (June)
2018	Publication mentioned as a 'Notable Event' at the "Year in Review" presentation, AMIA Clinical Research Informatics (CRI) Meeting, San Francisco, CA (March). <b>Devine EB</b> , Hersh W, Totten A, Eden K, Gorman P, Kassakian S, Woods S, Daeges M, Pappas M, McDonagh M. Use of health information exchange. <i>eGEMS</i> (Wash DC). 2017 Dec 7;5(1):27. doi: 10.5334/egems.249.
	Invited participant (selected by peer review process), NIH Collaboratory enhanced Pragmatic Clinical Trials (ePCT) Workshop, Duke University, (February)
2017 - 2023	Member by competitive appointment, Academy Health Methods & Data Council.
2017	Publication nominated for the Marco Ramoni Distinguished Paper Award, American Medical Informatics Association (AMIA) Joint Summits on Translational Science. The Marco Ramoni award recognizes the paper that best exemplifies the spirit and scholarship of Marco Ramoni in applying informatics methods to the elucidation of basic molecular biology processes that are relevant to the conquest of human disease. Chin, <b>Devine</b> (co-primary authors), et al. Characterizing the Strength of Evidence in FDA Labels for Pharmacogenomic Biomarker-Guided Medication Use. <i>AMIA Jt Summits Transl Sci Proc</i> . 2017 Jul 26;2017:30-39. eCollection 2017.
	*Publication one of the 10 top cited papers in this journal.*Overby CL, Tarczy-Hornoch P, Kalet IJ, Thummel KE, Smith JW, Del Fiol G, Fenstermacher D, <b>Devine EB</b> . Developing a prototype system for integrating pharmacogenomics findings into clinical practice. <i>J Pers Med</i> 2012;2:241-56 PMID: 23741623
	Guest editor, Concordium 2016 Special Issue Papers in: <i>eGEMS; Generating Evidence &amp; Methods to improve patient outcomes</i> . <i>eGEMS</i> (Wash DC). 2017 Apr 20;5(2):9. doi: 10.13063/2327-9214.1306.
2016	Publication recognized with press release from <i>JAMA Surgery</i> : <b>Devine EB</b> , Alfonso-Cristancho R, Devlin A, Yanez ND, Edwards TC, Patrick DL, Armstrong CAL, Devlin A, Symons RG, Meissner MH, Thomason EL, Lavallee DC, Kessler LG, Flum DR, and CERTAIN Collaborative. Patient-Reported Outcomes after Medical versus Revascularization Interventions for Intermittent Leg Claudication. <i>JAMA Surg</i> Published online August 17, 2016. doi:10.1001/jamasurg.2016.2024
	Book of the Year designated by the Health Information Management Systems Society (HIMSS). <i>Health Information Exchange (HIE), Navigating and Managing a Network of Health Information Systems</i> . Dixon B, ed. Hersh WR, Totten AM, Eden K, <b>Devine B</b> , Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh M. Part IV: The Value of HIE, Chapter 14 The Evidence Base for HIE. Elsevier, 2016. Oxford, UK: Elsevier; 2016. pp.213-229.
2014	Publication selected as one of the top 100 in the "Informatics Year in Review" Presentation, American Medical Informatics Association 2014 Annual Symposium (November). <b>Devine EB</b> , Overby CO, Lee CJ, Abernethy N, Tarczy-Hornoch P A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System. <i>Int J Med Inform</i> . 2014 Jul;83(7):473-83. DOI: 10.1016/j.ijmedinf.2014.04.008
	Nominated for Institute of Medicine (now National Academies of Medicine) Anniversary Pharmacy Fellowship
	Publication recognized with press release from ISPOR: Forrester S, Hepp Z, Roth J, Wirtz HS, <b>Devine EB</b> . Cost-effectiveness of a computerized provider order entry system in improving medication safety in ambulatory care. <i>Value Health</i> 2014. NIHMS ID: NIHMS 567912

	<p>*Finalist for Best Poster Award, Student Category. Yep TD, <b>Devine EB</b>. A cost-utility analysis of CYP2D6 pharmacogenetic guided dosing versus standard dosing of risperidone for treatment of schizophrenia. ISPOR 19<sup>th</sup> Annual Meeting, Montreal, Quebec Canada</p>
	<p>*Finalist for best Poster Award, Student Category. Forrester, SH, Sullivan SD, <b>Devine EB</b>. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events. ISPOR 19<sup>th</sup> Annual Meeting, Montreal, Quebec Canada</p>
2013	<p>*Best Poster Award, New Investigator Category. Hepp Z, Forrester SH, Roth JA, Wirtz HS, <b>Devine EB</b>. Cost-effectiveness of a computerized provider order entry system in improving medication safety: A case study in ambulatory care, ISPOR, 18th Annual Meeting, New Orleans, LA</p>
	<p>*Finalist for Best Poster Award, Student Category. Agapova M, <b>Devine EB</b>, Bresnahan B, Garrison LP Jr. The Challenges of Quantifying Benefits and Risks Associated with Diagnostic Imaging: A Literature Review. ISPOR, 18th Annual Meeting, New Orleans, LA</p>
2013 - present	<p>Elected member, Society for Research Synthesis Methodology</p> <p>Alternate member, PCORI Advisory Panel on Assessment of Prevention, Diagnosis and Treatment Options</p>
2012	<p>*Publication designated as “Editor’s Choice”; Manuscript selected for national JAMIA Journal Club Webinar (September): Overby CL, <b>Devine EB</b>, Tarczy-Hornoch P, Kalet I. Deriving Rules and Assertions From Pharmacogenomic Knowledge Resources In Support Of Patient Drug Exposure Predictions. <i>J Am Med Inform Assoc</i> 2012;19:840-850</p>
2010	<p>Recognition for Professional Service to the 2010-2011 Pharmacy Resident Class, UW Medicine (June)</p>
2009	<p>Publication designated as “Editor’s Choice”. <b>Devine EB</b>. Hansen RN, Wilson-Norton JL, Lawless NM, Fisk AW, Blough DK, Martin DP, Sullivan SD. The impact of computerized provider order entry on medication errors in a multispecialty group practice. <i>J Am Med Inform Assoc</i> 2010;17:78-84. doi: 10.1197/jamia.M3285.</p>
2008	<p>Nominee, Distinguished Poster Award, <b>Devine EB</b>. Hansen RN, Wilson-Norton JL, Lawless NM, Fisk AW, Blough DK, Martin DP, Sullivan SD. <i>The impact of computerized provider order entry on medication errors in a multispecialty group practice</i>. American Medical Informatics Association, 2008 Annual Symposium, Washington DC (November)</p>
2006 - 2008	<p>Member by competitive appointment, Student Editorial Advisory Board, <i>Journal of the American Medical Informatics Association</i></p>
2005	<p>Editor’s Commendation for Excellence in Peer Review of Submitted Manuscripts, <i>Annals of Internal Medicine</i></p>
2003	<p>Publication “#81 in Top 100” downloads from Value in Health Website between 1998-2003. <b>Devine EB</b>, Kowdley KV, Veenstra DL, Sullivan SD. <i>Management strategies for ribavirin-induced hemolytic anemia in the treatment of hepatitis C: clinical and economic implications</i>. <i>Value Health</i>. 2001 Sep-Oct;4(5):376-84.</p>
2000	<p>Award for Best New Investigator Podium Presentation, ISPOR 5<sup>th</sup> Annual Meeting, Crystal City, VA (May)</p> <p>Award for Best New Investigator Poster Presentation, ISPOR 5<sup>th</sup> Annual Meeting, Crystal City, VA (May)</p>
1999	<p>Beta Gamma Sigma National Business Honor Society, Dean’s Honor Roll – all semesters (GPA: 3.94), Masagung Graduate School of Business and Management, University of San Francisco</p>
1998	<p>Elected Fellow, American Society of Health-System Pharmacists</p>
1997	<p>Pharmacist of the Year Lifetime Achievement Award, California Society of Health-System Pharmacists</p> <p>Nominee, Milton and Helen Pearl Award for Outstanding Service, UCSF-Mount Zion Medical Center</p> <p>Inducted into Phi Lambda Sigma, Pharmacy Leadership Society</p>
1996	<p>Elected Fellow, California Society of Health-System Pharmacists</p> <p>Nominee, Milton and Helen Pearl Award for Outstanding Service, UCSF-Mount Zion Medical Center</p>

1993, '95, '97	UCSF Academic and Professional Staff Outstanding Achievement Award
1990	Pharmacist of the Year, Cuesta Chapter, California Society of Health-System Pharmacists
1989	Toastmaster of the Year Award, Toastmasters Club of San Luis Obispo, CA
1987	Admitted to Albany Medical School, Class of 1991, Albany, NY
	Invited Participant, Western Regional Conference on Clinical Pharmacy Practice (The Coto de Caza Conference)
	Sales Award, HPI-Health Care Services, Inc., Los Angeles, CA
1978	Dean's Honor Roll, School of Pharmacy, University of the Pacific, Stockton, CA
1973 – 1974	Pacific Wind Ensemble, Honors Band, Conservatory of Music, University of the Pacific, Stockton, CA
1973	Honors at Entrance, University of the Pacific, Stock CA
	California Scholarship Federation, Lifetime member

#### **LICENSURE AND CERTIFICATION**

1993 - 2015	Board Certified Pharmacotherapist Specialist
1978 - 2019	Licentiate in Pharmacy, State of California; retired license in 2019
1978 - 2020	Licentiate in Pharmacy, State of Nevada, retired license in 2020

#### **RESEARCH**

##### **Current Grants and Contracts**

Faculty Mentor, *UW Biomedical and Health Informatics Training Program*, (2T15-LM 007442-13; PI: Tarczy-Hornoch) NIH/NLM, 2017- (Donated)

Faculty Mentor, *UW Health-Systems and Population Health Research Training, AHRQ T32 Training Grant*, PI: Weiner. 2023-2028, (donated)

Faculty Mentor, *UW Developing Data-Driven Cancer Researchers Training Grant (NCI T32)*, PI: Schwartz, 2023-2028 (donated)

##### **Grants Completed**

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest *Evidence-based Practice Center (EPC) VI* with Oregon Health & Science University (OHSU), AHRQ, 2019 - 2025

Co-investigator, RFTO #: 88, USPSTF Group B: Systematic review and validation of decision modeling (to be completed by CISNET). 2024-2027, 8% time)

Co-investigator, CHOICE Executive Series in Conveying Knowledge (CHECK): Principles of Data Sciences in HEOR. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2022-2024 (donated)

Lead co-investigator, EDGE: *Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies*. PI: Bowen. NIH/National Cancer Institute, 2020-2024 \$376,124) (8.3%/1%)

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest *Evidence-based Practice Center (EPC) VI* with Oregon Health & Science University (OHSU), AHRQ, 2019 -

Co-investigator, RFTO #, USPSTF Group A: *Prostate Cancer Screening Topic Refinement for Systematic Review*. 2023-2024, \$34,118 (5% time)

Co-Investigator, eMERGE IV Northwest: A partnership to evaluate the use of genomic information in the health care of diverse participants. NIH/NHGRI (PI: G. Jarvik) 2020-2024 (8.3%/2%)

Principal Investigator, The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool. University of Washington CoMotion Innovations Gap Fund (6/2022-5/2023) \$50,000 over 12 months (now LATITUDES, with University of Bristol, UK)

Co-investigator, member, Advisory Board (subaward PI: Basu): "Defining Value and Supporting Equity in Sickle Cell Disease (SCD) Project". SickCells proposes to convene a group of stakeholders to drive consensus on important inputs to measure value in SCD. Through this convening, stakeholders will foster new partnerships and facilitate discussion around development of priority elements, methods, and engagement plans for future patient-centered outcomes research (PCOR), comparative effectiveness research (CER), and value assessments. PCORI award. 2022-2023. \$14,000 (2.15%)

Co-Investigator: Cure Sickle Cell: Model for Economic Analysis of Sickle Cell (CureSC: MEASURE). NHLBI (PI: Basu/Roth/Ramsey). 2019-2022. \$869,724 (20%/5%)

Lead co-investigator: Cancer Health Assessments Reaching Many (CHARM). NIH/NHGRI (PI: Goddard: Site PI G. Jarvik). *Estimating the cost of using exome sequencing to diagnose individuals with hereditary cancer syndromes*, 2018-2022, \$82,412 (10%)

Associate Director, *UW Health Services Research Training, AHRQ T32 Training Grant*, PI: Weiner. 2018-2023, \$368,352 (donated)

Co-investigator. Machine Learning in Health Economics and Outcomes Research. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2020-2022 (donated)

Co-investigator. *Evolving Our Partnership: The CSER2 Centralized Support Coordinating Center*. NIH/NIGRI, 2U01HG007307-05. (PI: Jarvik). 2017-2021, \$645,000 (Donated)

Key personnel. *U.S Deprescribing Research Network*. (Pls: Steinman/Boyd; Site PI: Gray). NIH/NIA, 2019-2021, \$72,667 (5%)

Lead Co-investigator, *Improving Dysvascular Amputee Outcomes by Enhancing Shared Decision Making*. Veterans Affairs Health Services Research and Development Service (PI: Czerniecki) (2018-2022) Interagency Personnel Agreement (IPA) for 10%

Principal Investigator, *Customizing Value-based Methods to Prioritize Implementation of Pharmacogenomic Clinical Decision Support for Learning Health Systems*, AHRQ 1R21HS026544-01 (2019-2021) 20%, \$299,3011

Lead co-investigator. Payer Demand for Real-World Evidence in Health Economic Information Communication from Industry: Stated and Revealed Preferences. *Health Technology Fund* projects, UW Corporate Advisory Board, Health Tech Fund, 2018-2020 (donated)

Faculty Mentor, *UW Developing Data-Driven Cancer Researchers Training Grant* (NCI T32), PI: Schwartz, 2016-2021 (donated)

Lead co-investigator. REAdi (Real-World Evidence Assessments and Needs Guidance) Tool. *Health Tech Fund Projects*, UW Corporate Advisory Board, 2016-2018 (donated)

Principal Investigator, *Evaluating the Impact of Pharmacogenetic Testing on Clinical Outcomes in a Retirement Community*. UW School of Pharmacy Innovations Award 01/01/18 – 9/15/2020 (\$20,000)

Co-Investigator, *Patient Centered Outcomes Research Partnership, Training for the WWAMI Region*, AHRQ R25, (PI: Kessler), 2014-2019 (20%/10%/5%)

Faculty Mentor, *UW Patient-Centered Outcomes Research Career Development Program*, AHRQ K12 Training Grant 1K12 HS022982-01, (PI: Sullivan) 2014-2019. 3.7% for each of two mentees

Co-investigator, *Patient-Centered Research for Standards of Outcomes in Diagnostic Tests (PROD)*, PCORI ME-1503-29245. (PI: Thompson) PCORI, 2015-2018, \$361,054 (7%)

Consortium Site Principal Investigator (Assistant Director), Pacific Northwest Evidence-based Practice Center (EPC) V with Oregon Health & Science University (OHSU), AHRQ, 2015 – 2019

Co-investigator, RFTO #18: *Medication Assisted Treatment*, 2016, \$17,049 (10% Time)

Co-investigator, RFTO #19: *Treatment for Schizophrenia*, 2016-2017, \$42,891 (10% time)

Co-investigator, RFTO #25: *Systematic Reviews to Support the USPSTF, A and B*, 2016-2017, \$111,323 (5% time)

Co-investigator, RFTO #30: *Telehealth for Acute and Chronic Consultation*, 2016-2017 \$232,451 (5% time)

Co-investigator, RFTO #34: *Non-Pharmacological Treatment for Pain*, 2016-2017 \$142,846 (5% time)

Faculty Mentor, *UW Biomedical and Health Informatics Training Program*, (2T15-LM 007442-13; Pls: Demiris, Tarczy-Hornoch) NIH/NLM, 07/01/02 - 06/30/17 (Donated)

Principal Investigator, *ITHS Certificate in Translational Team Science*. Herb Jones Foundation. 2015-2018, \$40,000

Principal Investigator, *UW Center of Excellence for a Comparative Effectiveness Research Educational Program*, PhRMA Foundation, 2014-2015, \$83,333 (5%)

Principal Investigator, *Use of Patient-Reported Outcome Instruments in Clinical Trials*, Novartis Pharmaceuticals, 2013-2014, \$50,263

Consortium Co-Investigator, Pacific Northwest Evidence-based Practice Center (EPC) IV with Oregon Health & Science University (OHSU), Consortium PI: Sullivan, AHRQ, 2012-2015

Co-Investigator, RFTO #6: *Imaging for Hepatocellular Cancer*, 2013-2014, \$78,346 (5%)

Co-Investigator, RFTO #7: *Opioids for Chronic Pain*, 2013-2014, \$161,438 (5%)

Co-investigator, RFTO #10: *Imaging Techniques for Metastatic Breast Cancer*, 2013-2014, \$162,460 (25%)

Co-investigator, RFTO #12: *Health Information Exchanges*, 2013-2015, \$63,007 (20%)

Principal Investigator/Faculty Mentor, *UW-Allergan Post-Doctoral Fellowship (Training Grant)*, Allergan Pharmaceuticals, 2012 - 2024 (n=18)

2012-2014	Zsolt Hepp, PharmD	\$147,083	(1.5%)
2013-2015	Tracy Yep, PharmD	\$169,765	(1.5%)
2014-2016	Kate Keyloun, PharmD	\$174,858	(1.5%)
2014-2016	Vanessa Shih, PharmD	\$174,858	(1.5%)
2015-2017	Sarah Baradaran, PharmD	\$179,714	(1.5%)
2015-2017	Amy Tung, PharmD	\$179,714	(1.5%)
2016-2018	Michael Serbin, PharmD,	\$204,153	(5%)
2016-2018	Sheila Shapouri, PharmD,	\$204,153	(5%)
2017-2019	Chiemeke Ike, PharmD, MPH	\$205,772	(5%)
2017-2019	Sara Higa, PharmD, MS	\$205,772	(5%)
2018-2020	Ashley Kim, PharmD	\$219,909	(5%)
2018-2020	Jamie Ta, PharmD	\$219,909	(5%)
2019-2021	Brennan Beal, PharmD	\$219,909	(5%)
2019-2021	Jae Lee	\$219,909	(5%)
2020-2022	Tae Jin Park	\$228,783	(5%)
2020-2022	Kimberly Cai	\$228,783	(5%)
2022-2024	Jae Kim	\$239,243	(10%/5%)
2022-2024	Zachary Baldwin	\$239,243	(10%/5%)

Co-investigator/Faculty Mentor, *UW-Allergan Post-Doctoral Fellowship (Training Grant)*, Allergan Pharmaceuticals, (n=4)

2009-2011	Patrick Gillard, PharmD	Donated time
2010-2012	Joanna Sanderson	Donated time
2011-2013	Vincent Lin	Donated time
2012-2014	Chris Wallick, PharmD	Donated time

Co-Investigator (Lead, CERTAIN Methods Core), *CERTAIN (Comparative Effectiveness Research Translation Network) Hub*, AHRQ R01 HS022959, PI: Flum, 2013-2015, \$735,830 (10% in 2013)

Co-Investigator/Key Personnel, UW Institute for Translational Health Sciences (ITHS), Education Core, NIH/NCATS/CTSA 5 UL1 TR000423-07 (PI: Disis) 6/1/2013 – 12/31/2015, \$6,920,759 (10%)

Co-Investigator, *Evaluation of Initial Prescription Monitoring Program Implementation*, (PI: Banta-Green), Washington State Department of Health, 2013-2014, \$93,897 (10%)

Co-Investigator, *UW Center of Excellence for a Comparative Effectiveness Research Educational Program*, PI: Garrison, PhRMA Foundation, 2011-2014, \$166,667 (5%)

Co-Investigator, *National CER Curricular Conference*, PI: Segal (Johns Hopkins), AHRQ Conference Grant, 2013-2014 (Donated)

Lead Co-Investigator, CERTAIN Methods Core; Co-Investigator, CERTAIN HIT Core; *Surgical Care and Outcomes Assessment Program Comparative Effectiveness Research Network (SCOAP) CERTAIN*, PI: Flum, AHRQ 1R01 HS20025, 2010-2013, \$11,799,186 (20%)

Lead Co-Investigator: *Communication to Prevent and Respond to Medical Injuries: WA State Collaborative; Effect on Communication Sensitive Clinical Events*, PI: Gallagher, AHRQ 1R18 HS019531, 2010-2014, \$2,348,681 (10%)

Principal Investigator, *Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Study*, Academy Health UW #20-3859/AHRQ, 2011-2012, \$7,000

Co-Investigator, *A Problem-Solving Intervention for Hospital Caregivers*, PI: Demiris, NIH: National Institute of Nursing Research 1R01 NR012213, 2011-2012, \$1,975,439 (5%)

Co-Investigator, *CER Administrative Supplement, Workforce Development*, PI: Disis, NIH, CER Administrative Supplement to UW ITHS Grant 5UL1 RR025014, 2010-2011, \$320,513 (2%)

Co-Investigator, *Tools for Optimizing Prescribing*, PI: Lambert (University of Illinois, Chicago), AHRQ Centers for Education and Research on Therapeutics (CERTs) 1U18 HS016973, 2009-2011 (Donated)

Principal Investigator, *Evaluating e-prescribing in a Community-based, Integrated Health System*, AHRQ 5K08 HS014739, 2006-2011, \$509,982 (75%-85%)

Co-Principal Investigator (with Chan), *Acquired Coagulopathy in Hospitalized Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes*, ZymoGenetics, \$174,877 (10%)

Lead Co-Investigator, *Evaluating the Impact of an Ambulatory Computerized Provider Order Entry System with Clinical Decision Support Alerts on Outcomes*, PI: Sullivan, AHRQ 5UC1 HS015319), 2004-2007, \$1,030,363 (Federal) /\$2,389,035 (including cost-sharing) (20%)

Principal Investigator, *Surgical Site Infection Prevention*, Amerinet, 2006, \$18,000

Principal Investigator, *Characterizing Medication Errors using an Ambulatory Computerized Prescriber Order Entry System*, UW Royalty Research Fund, 2005, \$10,221

Principal Investigator, *Treatment of Warfarin-Associated Coagulopathy Benchmarking Outcomes Study*, Amerinet, 2005, \$17,000

Principal Investigator, *Heart Failure Outcomes Benchmarking Project*, Amerinet, 2004, \$15,000

Principal Investigator, *Characterizing the Prescription-flow Process and Medication Error Rates in the Multi-specialty Clinic Ambulatory Care Setting*, The Merck Foundation, 2002-2004, \$34,916

Faculty Mentor and Co-PI: *Characterizing the Prescription-flow Process and Medication Error Rates in the Multi-specialty Clinic Ambulatory Care Setting*, ASHP Research and Education Foundation Pharmacy Resident Medication Safety Grant, 2002-2004, \$2,747

Co-Investigator, *The Use of Electronic Prescribing Technology to Impact Medication Errors in the Multispecialty Clinic Setting*, PI: Fisk, (The Everett Clinic), American Medical Group Association, 2002-2003, \$50,000 (5%)

## **PUBLICATIONS AND PRESENTATIONS**

\*mentored a student

\*\*co-first or co-senior author

MyNCBI Bibliography (n=187; includes book, chapters, commentaries/editorials, blog)

<https://www.ncbi.nlm.nih.gov/myncbi/emily.devine.1/bibliography/public/>

Google Scholar Profile: (n = 336; citations: 11189; h-index = 43, i10-index = 128)

<https://scholar.google.com/citations?user=Wor4Qv0AAAAJ&hl=en>

### **Manuscripts in Preparation**

1. **Devine B**, Welton NJ, Higgins JPT. The impact on results when causal inference studies and bias-adjustment procedures are incorporated into network meta-analyses of randomized controlled trials.

### **Manuscripts Submitted and under Review**

1. Moreno-Llamas AS, Li J, **Devine B**. Socioeconomic inequalities in overall self-rated health status, mental health symptoms, and physical functioning in Populations with Chronic Diseases: Comparing of Spain and the US (*under review at Prev Med*, September 2025)

2. \*Li K, Brandling-Bennett H, Luong J, **Devine B**. Indirect Treatment Comparison of Biologic Treatments in Adolescents with Moderate to Severe Atopic Dermatitis: A Systematic Literature Review and Network Meta Analysis. (*under revision at Ann Pharmacother*, November 2025)

3. White A, Valliant S, Onukuwugha E, **Devine B**, Slejko J, Albarmawi H, Shukla S, Murray J, Pizzi L. ISPOR Competency Framework, 2023 Update. (*ISPOR White Paper*, forthcoming, early 2026)

### **Peer-Reviewed Publications (n=175)**

1. **Devine B**, Albers S, Chan HH, Jiang S, Dusic EJ, Harris, H, Shirts B, Brandt J, Swisher E, Bowen DJ. Comparative and cost-effectiveness of primary care screening strategies to identify patients at high risk of hereditary cancers. (*in press at BMC Primary Care*, November 2025)

2. Smith DM, Douglas MP, Aquilante CL, Dverka PA, Devine B, Dunnenberger HM, Empey PE, Hertz DL, Monte AA, Moyer AM, Patel JN, Pratt VM, Saulsberry L, Scott SA, Voora D, Woodahl EL, Whirl-Carrillo M, Oni-Orisan A. Progress in Pharmacogenomics Implementation in the U.S.: Barrier Erosion and Remaining Challenges. *Clin Pharmacol Ther.* 2025 Oct;118(4):778-789. doi: 10.1002/cpt.3736. Epub 2025 Jun 4. PMID: 40468601.

3. Swisher EM, Harris HM, Knerr S, Theoryn TN, Norquist BM, Brant JM, Shirts BH, Beers F, Cameron D, Dusic EJ, Reinmann LA, **Devine B**, Raff ML, Kadel R, Cabral HW, Wang C. Strategies to Assess Risk for Hereditary Cancer in Primary Care Clinics: A Cluster Randomized Clinical Trial. *JAMA Netw Open.* 2025 Mar 3;8(3):e250185. doi: 10.1001/jamanetworkopen.2025.0185. PMID: 40053353.

4. Kim JR, Park TJ, Agapova M, Blumenfeld A, Smith JH, Shah D, Devine B. Healthcare Resource Use and Costs Associated with the Misdiagnosis of Migraine. *Headache.* 2025 Jan;65(1):35-44. doi: 10.1111/head.14822. Epub 2024 Aug 28. PMID: 39193981.

5. Whiting P, Wolff R, Savović J, Devine B, Mallett S. Introducing the LATITUDES Network: a Library of Assessment Tools and training to Improve Transparency, Utility and Dissemination in Evidence Synthesis. 2024 Jul 30:174:111486. PMID: 39084579. doi: 10.1016/j.jclinepi.2024.111486.

6. Chua S, **Devine B**, Todd A, Huang Y, Hughes S, Elsisi Z, Husband A, Gray SL, and members of the US Deprescribing Network Systematic Review Panel. Effectiveness of deprescribing interventions in older adults: An overview of systematic reviews. *PLoS One.* 2024 Jun 17;19(6):e0305215. PMID: 38885276. doi: 10.1371/journal.pone.0305215. eCollection 2024.

7. Gilmore MJ, Knerr S, Kraft SA, Bulkley JE, Biesecker BB, Feigelson HS, Huner JE, Jenkins CL, Kauffman TL, Lee SS, Liles EG, Mittendorf KF, Muessig KR, Porter KM, Rolf BA, Rope AF, Zepp JM, Anderson KP, **Devine B**, Joseph G, Leo MC, Goddard K, Wilfond BS. Improving care for marginalized populations at risk for hereditary cancer syndromes: Innovations that expanded reach in the CHARM study. *Public Health Genomics.* 2024;27(16-22. doi: 10.1159/000535610. Epub 2023 Dec 23. PMID: 38142673.

8. \*Park TJ, Hansen R, Gillard P, Shah D, Ferguson WG, Piccini J, Romano MA, **Devine B**. Healthcare resource utilization and costs for patients with postoperative atrial fibrillation in the United States. *J Med Econ.* 2023;26:1, 1417-1423, PMID: 37801391. DOI: 10.1080/13696998.2023.2267390.

9. Basu A, Winn AN, Johnson KM, Jiao B, **Devine B**, Hankins JS, Arnold SD, Bender MA, Ramsey SD. Gene Therapy Versus Common Care for Eligible Individuals With Sickle Cell Disease in the United States : A Cost-Effectiveness Analysis. *Ann Intern Med.* 2024 Feb;177(2):155-164. doi: 10.7326/M23-1520. Epub 2024 Jan 23. PubMed PMID: 38252942; PubMed Central PMCID: PMC11657757.

10. Basu A, Veenstra DL, **Devine B**, Carlson JJ, Sullivan SD. Medicare drug price negotiations: A principles-based guide for CMS. *Health Affairs Forefront*, June 22, 2023. Available at: <https://www.healthaffairs.org/content/forefront/medicare-drug-price-negotiations-principles-based-guide-cms>. Accessed: 26 July 2023.

11. Sullivan SD, Lakdawalla DN, **Devine B**, Grueger J, Garrison LP, Carlson JJ, Veenstra DL, Phelps CE, Basu A. Alternatives to the QALY for comparative effectiveness research. *Health Affairs Forefront*, April 21, 2023. Available at: <https://www.healthaffairs.org/content/forefront/alternatives-qaly-comparative-effectiveness-research>. Accessed: 26 July 2023.

12. Guo B, Knerr S, Kauffman TL, Mittendorf KF, Keast E, Gilmore MJ, Feigelson HS, Lynch FL, Muessig KR, Okuyama S, Zepp JM, Veenstra DL, Hsu L, Phipps A, Lindstrom S, Leo MC, Goddard KAB, Wilfond BS, Devine B. Risk management actions following genetic testing in the Cancer Health Assessments Reaching Many (CHARM) Study: A prospective cohort study. *Cancer Med.* 2023 Sep;12(18):19112-19125. PMID: 37644850. doi: 10.1002/cam4.6485. Epub 2023 Aug 30.

13. De la Cruz-Sánchez E, Moreno-Llamas A, García-Mayor J, Mendiola-Olivares J, Torres-Cantero A, **Devine B**. Estimating the association between Covid-19 sources of information, beliefs, and vaccination rates: Results from an EU-wide survey. *Eur J Public Health.* 2023 33:897-904. PMID: 37459132. doi: 10.1093/eurpub/ckad115.

14. Knerr , Guyo B, Wernli KJ, Mittendorf K, Feigelson HS, Gilmore MJ, Jarvik G, Kauffman TL, Keast EM, Liles B, Lynch F, Muessig K, Okuyama S, Veenstra DL, Zepp J, Wilfond BS, **Devine B**, Goddard K. Longitudinal Adherence to Breast Cancer Surveillance Following Cancer Genetic Testing in an Integrated Health Care System. *Breast Cancer Research and Treatment.* 2023;201:461–470 <https://doi.org/10.1007/s10549-023-07007-w>

15. Poehler D, Czerniecki J, Norvell D, Henderson A, Dolan J, **Devine B**. A multi-criteria decision analysis to compare patient and provider preferences for lower limb amputations. *Ann Vasc Surg.* 2023 May 30:S0890-5096(23)00284-4. doi: 10.1016/j.avsg.2023.05.026. Online ahead of print. (part of Special Issue: Original Work by Women). PMCID: PMC10782550.

16. Bloudek L, Wright P, McKay C, Derleth CL, Lill JS, Lenero E, Hepp Z, Ramsey SD, Sullivan SD, **Devine B**. Systematic Literature Review (SLR) and Network Meta-Analysis (NMA) of First-Line Therapies (1L) for Locally Advanced/Metastatic Urothelial Carcinoma (la/mUC). *Curr Oncol.* 2023 Mar 26;30(4):3637-3647. doi: 10.3390/currongol30040277. PMID: 37185390

17. Jiao B, Johnson KM, Ramsey SD, Bender MA, Devine B, Basu A. Long-term survival of individuals with Sickle Cell Disease: A nationwide cohort study of Medicare and Medicaid beneficiaries. *Blood Adv.* 2023 Jul 11;7(13):3276-3283. doi: 10.1182/bloodadvances.2022009202.

18. Buchwald D, Rogers M, Rose B, Bresnahan B, **Devine B**, LeResche L, Nelson L, Patrick DL, Lavallee D, Garrison M, White A, Kessler LG. Evaluation of an experiential training program in patient-centered outcomes and comparative effectiveness research for diverse researcher communities and healthcare organizations. *J Clin Transl Sci.* 2023 Mar 15;7(1):e81. doi: 10.1017/cts.2023.36. eCollection 2023.

19. Dhippayom T, **Devine B**. Reply to Assessing safety and efficacy in a network meta-analysis. *J Allergy Clin Immunol Pract.* 2022 Nov;10(11):3047-3048.e5. doi: 10.1016/j.jaip.2022.08.040. PMID: 36357053.

20. Dhippayom T, Saldanha IJ, Chaiyakunapruk N, **Devine B**. Characterizing health services interventions for evidence synthesis by using the Theme, Intensity, Provider/Platform (TIP) Framework. *J Evid Based Med.* 2022;15:333-337. PMID: 36529853. doi: 10.1111/jebm.12511. Epub 2022 Dec 18.

21. Ramsey SD, Bender MA, Li L, Johnson KM, Jiao B, **Devine B**, et al. (2022) Prevalence of comorbidities associated with sickle cell disease among non-elderly individuals with commercial insurance—A retrospective cohort study. *PLoS ONE* 17(11): e0278137. <https://doi.org/10.1371/journal.pone.0278137>.

22. Poehler D, Czerniecki J, Norvell D, Henderson A, Dolan J, **Devine B**. The Development and Pilot Study of a Multiple Criteria Decision Analysis (MCDA) to Compare Patient and Provider Priorities around Amputation-Level Outcomes. *MDM Policy & Practice.* 2022;7(2). PMCID: PMC9761219. doi:10.1177/23814683221143765.

23. Linder JE, Allworth A, Bland ST...**Devine B**,... et al. for the eMERGE Consortium. Returning integrated genomic risk and clinical recommendations: the eMERGE study. *Genet Med.* 2023 Apr;25(4):100006. doi: 10.1016/j.gim.2023.100006. Epub 2023 Jan 6.

24. Bounthavong M, Christopher MLD, Veenstra DL, Basu A, Devine EB. Exploring Providers' Perception to Naloxone Education for Opioid Overdose After Receiving Academic Detailing at the U.S. Department of Veterans Affairs. *J Pharm Pract.* 2023 Jun;36(3):514-522. doi: 10.1177/08971900211053282. Epub 2021 Nov 12. PubMed PMID: 34766510.

25. Saldanha IJ, Adam GP, Bañez LL, Bass EB, Berliner E, **Devine B**, Hammarlund N, Jain A, Norris SL, Skelly AC, Vander Ley K, Wang Z, Wilt TJ, Viswanathan M. Inclusion of nonrandomized studies of interventions in systematic reviews of interventions: updated guidance from the Agency for Health Care Research and Quality Effective Health Care program. *J Clin Epidemiol.* 2022 Sep 19:S0895-4356(22)00217-7. doi: 10.1016/j.jclinepi.2022.08.015. Online ahead of print. PMID: 36245131. PMCID: PMC10777810.

26. Lee W, Schwartz N, Bansal S, Khor S, Hammarlund N, Basu A, **Devine B**. A Scoping Review of the Use of Machine Learning in Health Economics and Outcomes Research: Part 1 – Data from Wearable Devices, *Value Health.* 2022 Sep 15:S1098-3015(22)02145-3. PMID doi: 10.1016/j.jval.2022.08.005. Online ahead of print.: 36115806.

27. Lee W, Schwartz N, Bansal S, Khor S, Hammarlund N, Basu A, **Devine B**. A Scoping Review of the Use of Machine Learning in Health Economics and Outcomes Research: Part 2 – Data from non-Wearables. *Value Health.* 2022 Dec;25(12):2053-2061. PMID: 35989154. doi: 10.1016/j.jval.2022.07.011. Epub 2022 Aug 18.

28. Jiao B, Hankins JS, **Devine B**, Barton M, Bender MA, Basu A. Application of validated mapping algorithms between generic PedsQL scores and utility values to individuals with sickle cell disease. *Qual Life Res.* 2022 Jun 17. doi: 10.1007/s11136-022-03167-2. Online ahead of print. PMID: 35715626. PMCID: PMC10827278.

29. Johnson KM, Jiao B, Bender MA, Ramsey SD, **Devine B**, Basu A. Development of a conceptual model for evaluating new non-curative and curative therapies for sickle cell disease. *PLoS One.* 2022 Apr 28;17(4):e0267448. doi: 10.1371/journal.pone.0267448. eCollection 2022. PMID: 35482721

30. Canestaro WJ, **Devine B**, Bansal A, Sullivan SD, Carlson JJ. Adjustment of Publication Bias Using a Cumulative Meta-Analytic Framework. *Int J Technol Assess Health Care.* 2022;38:e61. doi: 10.1017/S0266462322000435. PMID: 35761433.

31. Angelo F, Veenstra D, Knerr S, Devine B. Prevalence and prediction of medical distrust in a diverse medical genomic research sample. *Genet Med.* 2022 Jul;24(7):1459-1467. doi: 10.1016/j.gim.2022.03.007. Epub 2022 Apr 6. PubMed PMID: 35384843.

32. Schwartz NRM, McNichol SR, **Devine B**, Phipps AI, Suskind DL, Roth JA. Assessing barriers to use of the Specific Carbohydrate Diet in pediatric inflammatory bowel disease: a qualitative study. *JPGN Rep.* 2022 Jul 29;3(3):e239. doi: 10.1097/PG9.000000000000239. eCollection 2022 Aug. PMID: 37168638.

33. Knerr S, Guo B, Mittendorf KF, Goddard KAB, **Devine EB** and the CHARM Study Team. Risk-reducing surgery in unaffected women receiving cancer genetic testing in an integrated healthcare system. *Cancer* 2022;128:3090-3098. doi: 10.1002/cncr.34349. Online ahead of print. PMID: 35679147.

34. Johnson KM, Jiao B, Ramsey SD, Bender MA, Devine B, Basu A. [Lifetime medical costs attributable to sickle cell disease among nonelderly individuals with commercial insurance.](#) *Blood Adv.* 2023 Feb 14;7(3):365-374. doi: 10.1182/bloodadvances.2021006281. PubMed PMID: 35575558; PubMed Central PMCID: PMC9898623.

35. Quach D, Jiao B, Basu A, Bender MA, Hankins J, Ramsey S, **Devine B**. A landscape analysis and discussion of value of gene therapies for sickle cell disease. *Expert Rev Pharmacoecon Outcomes Res* 2022 Apr 18:1-21. doi: 10.1080/14737167.2022.2060823. Online ahead of print. PMID: 35363602. PMCID: PMC10783332.

36. Jiang S, Mathias PC, Hendrix N, Shirts BH, Tarczy-Hornoch P, Veenstra D, Malone D, Devine B. [Implementation of pharmacogenomic clinical decision support for health systems: a cost-utility analysis.](#) *Pharmacogenomics J.* 2022 May;22(3):188-197. doi: 10.1038/s41397-022-00275-7. Epub 2022 Apr 1. PubMed PMID: 35365779; PubMed Central PMCID: PMC9156556.

37. Saldanha IJ, Skelly AC, Vander Ley K, Wang Z, Berliner E, Bass EB, Devine B, Hammarlund N, Adam GP, Duan-Porter D, Bañez LL, Jain A, Norris SL, Wilt TJ, Leas B, Siddique SM, Fiordalisi CV, Patino-Sutton C, Viswanathan M. Inclusion of Nonrandomized Studies of Interventions in Systematic Reviews of Intervention Effectiveness: An Update. Methods Guide for Comparative Effectiveness Reviews. (Prepared by the Scientific Resource Center under Contract No. 290-2017-00003-C.) AHRQ Publication No. 22-EHC033. Rockville, MD: Agency for Healthcare Research and Quality; September 2022. DOI: <https://doi.org/10.23970/AHRQEPCMETHODSGUIDENRSI>. PMID: 36153934. [Posted final reports are located on the Effective Health Care Program search page.](#)

38. Baldwin Z, Jiao B, Basu A, Roth J, Bender MA, **Devine B**. Medical and non-medical costs of sickle cell disease, treatments, and related complications: A Systematic Review and Landscape Analysis. *Pharmacoecon Open*. 2022 Apr 26. doi: 10.1007/s41669-022-00330-w. Online ahead of print. PMID: 35471578

39. Dhippayom T, Boonpattharathiti K, Thammathuros T, Dilokthornsakul P, Sakunrag I, Devine B. Clinical Outcomes of Different Warfarin Self-Care Strategies: A Systematic Review and Network Meta-Analysis. *Thromb Haemost*. 2022 Apr;122(4):492-505. doi: 10.1055/a-1677-9608. Epub 2022 Jan 20. PMID: 34695873

40. Lee W, Cheng S, Grant SJ, Marcum ZA, Devine B. Use of Geriatric Assessment in Cancer Clinical Trials: A Systematic Review. *J Geriatric Onc*. 2022;13:907-913. doi: 10.1016/j.jgo.2022.04.014. PMID: 35550351.

41. Dhippayom T, Saensook T, Promkhatja N, Teakthong T, Chaiyakunapruk N, **Devine B**. Comparative effects of music intervention on depression in older adults: A systematic review and network meta-analysis. *EClinicalMedicine*. 2022 Jul 1;50:101509. doi: 10.1016/j.eclinm.2022.101509. eCollection 2022 Aug. PMID: 35812990

42. Chaitesipaseut L, Wilson Norton J, Trivelli K, Argon S, Petrie I, Ragueneau-Majlessi I, Mikes T, Nguyen H, Devine B. Evaluating the feasibility of performing pharmacogenetic guided-medication therapy management in a retirement community: A prospective, single arm study. *Journal of the American College of Clinical Pharmacy*. 2022 Mar;5(3):291-301. <https://doi.org/10.1002/jac5.1570>.

43. \*Lee JH, Barthold D, Shewale A, Burslem K, **Devine B**. Geographic variation in the use of triptans and opioids for the acute treatment of migraine attacks. *Headache* 2021;6:1499-1510. doi: 10.1111/head.14238. Epub 2021 Nov 28. PubMed PMID: 34841520.

44. EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, **Devine, B**. Assessing payers' preferences for real world evidence: A discrete choice experiment. *Value Health*. 2022 Mar;25(3):443-450. doi: 10.1016/j.jval.2021.09.016. Epub 2021 Oct 30. PubMed PMID: 35227457. (*Editor's Choice*)

45. Dhippayom T, Wateemongkollert A, Mueangfa K, Im H, Dilokthornsakul P, **Devine B**. Comparative efficacy of strategies to support self-management in patients with asthma: a systematic review and network meta-analysis. *J Allergy Clin Immunol Pract*. 2022 Mar;10(3):803-814. doi: 10.1016/j.jaip.2021.09.049. Epub 2021 Oct 18. PMID: 34673290.

46. Thompson MJ, Zigman Suchsland M, Hardy V, Lavallee D, Jarvik J, Walter F, Trikalinos T, Findlay S, Chou R, Green B, Wernli K, Lord S, **Devine B**, Bossuyt P. Patient centered outcomes of imaging tests: Recommendations for test developers, researchers, and clinicians. *BMJ Qual Saf*. 2021 Oct 6:bmjqs-2021-013311. doi: 10.1136/bmjqs-2021-013311. Online ahead of print. PMID: 34615733.

47. Phillips KA, Trosman JR, Douglas MP, **Devine BE**, et al. US Private Payers' Perspectives on Insurance Coverage for Genome Sequencing Versus Exome Sequencing: A Study by the Clinical Sequencing Evidence-Generating Research Consortium (CSER). *Genet Med* 2022;24:238-244.

48. Jiao B, Basu A, Roth J, Bender M, Rovira I, Clemons T, Quach D, Ramsey S, **Devine B**. The Use of Cost-Effectiveness Analysis in Sickle Cell Disease: A Critical Review of Literature. *Pharmacoeconomics*. 2021 Nov;39(11):1225-1241. doi: 10.1007/s40273-021-01072-z. Epub 2021 Aug 9. PMID: 34368937.

49. Jiao B, Baldwin Z, Basu A, Roth J, Bender MA, Devine B. Health State Utilities for Sickle Cell Disease: A Catalog Prepared from a Systematic Review. *Value Health*. 2022 Feb;25(2):276-287. doi: 10.1016/j.jval.2021.08.002. Epub 2021 Sep 4. PMID: 35094801.

50. \*Lee D, Kim Y, **Devine B**. Spillover effects of mental disorders on family members' utility: SF-6D scores from a US sample. *Med Decis Making*. 2021 Aug 11:272989X211027146. doi: 10.1177/0272989X211027146. Online ahead of print. PMID: 34378438

51. Slade IR, Beck SJ, Kramer CB, Symons RG, Cusumano M, Flum DR, Gallagher TH, **Devine EB**. Communication Training, Adverse Events, and Quality Measures: 2 Retrospective Database Analyses in Washington State Hospitals. *J Patient Saf*. 2021 Aug 1;17(5):e393-e400. doi: 10.1097/PTS.0000000000000348. PubMed PMID: 28671907.

52. \*Kim A, **Devine B**, Campbell J, Shirneshan E, Zhao C, Bansal A. Healthcare Resource Utilization and Costs in Patients with Geographic Atrophy Secondary to Age-Related Macular Degeneration. *Clin Ophthalmol*. 2021;15:2643-2651. doi: 10.2147/OPTH.S307603. eCollection 2021. PubMed PMID: 34188442; PubMed Central PMCID: PMC8236262.

53. Beal B, Shih V, Campbell J, Veenstra DL, **Devine B**. Comparing healthcare resource utilization and costs for patients with normal tension glaucoma across levels of severity: A large convenience sample of US adults. *Clin Ophthalmol*. 2021 Feb 9;15:453-460. PMID: 33603322. doi: 10.2147/OPTH.S284474. eCollection 2021.

54. Duchowny M, Chopra I, Niewoehner J, Wan GJ, **Devine B**. A Systematic Literature Review and Indirect Treatment Comparison of Efficacy of Repository Corticotropin Injection versus Synthetic Adrenocorticotropic Hormone for Infantile Spasms. *J Health Econ Outcomes Res*. 2021 Jan 27;8(1):1-9. PMID: 33521161. doi: 10.36469/jheor.2021.18727.

55. \*Hendrix N, Kim DD, Patel KS, **Devine B**. Differences in the selection of health state utility values by sponsorship in published cost-effectiveness analyses. *Med Decis Making*. 2021 Apr;41(3):366-372. doi: 10.1177/0272989X20985821. Epub 2021 Jan 15.

56. \*Cha AS, Chen Y, Fazioli K, Rivara M, **Devine B**. Microvascular benefits of new antidiabetic agents: A systematic review and network meta-analysis of renal outcomes. *J Clin Endocrinol Metab*. 2021 Mar 25;106(4):1225-1234. doi: 10.1210/clinem/dgaa894

57. Bowen DJ, Wang C, Cole AM, Norquist BM, Knerr S, **Devine B**, Shirts B, Cain K, Harris HM, Haile HG, Swisher EM. Design of a study to implement population-based risk assessment for hereditary cancer genetic testing in primary care. *Contemp Clin Trials*. 2021 Feb;101:106257. doi: 10.1016/j.cct.2020.106257. PMID: 33373667. Epub 2020 Dec 26.

58. \*Wang WJ, **Devine B**, Bansal A, White HS, Basu A. Meta-analyzing count events over varying durations using the piecewise Poisson model: The case for poststroke seizures. *Res Synth Methods*. 2021 May;12(3):347-356. doi: 10.1002/jrsm.1465. Epub 2020 Nov 15. PubMed PMID: 33131152.

59. Ta JT, Sullivan SD, Tung A, Oliveri D, Gillard P, **Devine B**. Health care resource utilization and costs associated with nonadherence and nonpersistence to antidepressants in major depressive disorder. *J Manag Care Spec Pharm*. 2021 Feb;27(2):223-239. doi: 10.18553/jmcp.2021.27.2.223. PubMed PMID: 33506730; PubMed Central PMCID: PMC10391056.

60. \*Lee W, Dayer T, Jiao B, Carlson J, **Devine B**, Veenstra DL. The use of real-world evidence in economic assessments of pharmaceuticals in the US. *J Manag Care Spec Pharm* 2021 Feb;27(2):223-239. doi: 10.18553/jmcp.2021.27.1.005.

61. Chen S, Graff J, Yun S, Beal B, Bansal A, Carlson J, Basu A, **Devine B**. The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence. *J Manag Care Spec Pharm*. 2021 Jan;27(1):95-104. doi: 10.18553/jmcp.2021.27.1.095. PMID: 33377442

62. \*Jiao B, Veenstra D, Lee W, Carlson J, **Devine B**. The use of real-world evidence in ICER's scoping process and clinical evidence assessment. *J Manag Care Spec Pharm*. 2020 Dec;26(12):1590-1595. doi: 10.18553/jmcp.2020.26.12.1590.

63. \*Dhippayom T, Rattanachaisit N, Jhunsom S, Dilokthornsakul P, Chaiyakunapruk N, **Devine B**. Comparative effects of telemedicine and face-to-face anticoagulation management: A systematic review and network meta-analysis. *J Am Pharm Assoc* (2003). Nov-Dec 2020;60(6):880-891.e9. doi: 10.1016/j.japh.2020.06.010. Epub 2020 Jul 21. PMID: 32703667.

64. McDonagh, M.S., Dana, T., Selpf, S., **Devine, E.B.**, Cantor, A., Bougatsos, C., Blazina, I., Grusing, S., Fu, R. and Haupt, D.W. (2020), Updating the Comparative Evidence on Second-Generation Antipsychotic Use with Schizophrenia. *Psych Res Clin Pract*, 2: 76-87. <https://doi.org/10.1176/appi.prpc.20200004>. PMID: 36101867.

65. Dhippayom T, **Devine B**. Letter to the editor for a published article titled, "The effect of online versus hospital warfarin management on patient outcomes: A systematic review and meta-analysis. *Int J Clin Pharm*. April 2, 2020. <https://doi.org/10.1007/s11096-019-00947-8>.

66. \*Bounthavong M, Suh K, Christopher MLD, Veenstra DL, Basu A, **Devine EB**. Providers' perceptions on barriers and facilitators to prescribing naloxone for patients at risk for opioid overdose after implementation of a national academic detailing program. *Res Social Adm Pharm*. 2019 Oct 31. pii: S1551-7411(19)30065-8. doi: 10.1016/j.sapharm.2019.10.015. [Epub ahead of print]. PMID: 31706950.

67. \*Serbin M, Basu A, Campbell J, **Devine EB**. Assessing the Societal Burden of Glaucoma Patients With vs. Without Physical or Mental Comorbidities. *J Manag Care Spec Pharm*. 2020;26:325-331. DOI: 10.18553/jmcp.2020.26.3.325. PMID: 32105174

68. \*Bounthavong M, **Devine EB**, Christopher MLD, Harvey MA, Veenstra DL, Basu A. National implementation of academic detailing service on naloxone prescribing trends at the United States Department of Veterans Affairs: A retrospective cohort study. *Health Serv Res*. 2019 Oct;54(5):1055-1064. doi: 10.1111/1475-6773.13194. PMID: 31313839. Epub 2019 Jul 17.

69. \*Hart MR, Garrison LP, Doyle DL, Jarvik GP, Watkins J, **Devine B**. Projected cost-effectiveness for two gene-drug pairs using a multi-gene panel for patients undergoing percutaneous coronary intervention. *Value Health*. 2019 Nov;22(11):1231-1239. doi: 10.1016/j.jval.2019.05.015. Epub 2019 Oct 16. PMID: 31708059.

70. Thompson M, Hardy V, Suchsland MZ, **Devine B**, Kurth D, Chou R, Haines R, Jarvik JG, for the PROD Research Group. A secondary analysis to identify patient-centered outcomes in the American College of Radiology's Appropriateness Criteria. *J Am Coll Radiol* 2019 Dec;16(12):1645-1655. doi: 10.1016/j.jacr.2019.05.016. Epub 2019 Jun 4. PMID: 31173747.

71. \*Higa S, **Devine B**, Patel V, Baradaran S, Wang D, Bansal A. Psoriasis treatment patterns: A retrospective claims study. *Curr Med Res Opin*. 2019 Oct;35(10):1727-1733. doi: 10.1080/03007995.2019.1618805. PMID: 31081697. Epub 2019 Jun 17.

72. \*Mou J, Bolieu EL, Pfluegisen BM, Amoroso PJ, **Devine B**, Baldwin LM, Frank LL, John RH. Delay in treatment after cancer diagnosis in adolescents and young adults: Does facility transfer matter? *J Adolesc Young Adult Oncol*. 2019 Feb 20. <https://doi.org/10.1089/jayao.2018.0128>. PMID: 30785806. [Epub ahead of print]

73. \*Baradaran S, Black D, Keyloun K, Hansen RH, Gillard P, **Devine EB**. The Impact of Acute Kidney Injury (AKI) on the Risk of Mortality and Healthcare Utilization Among Patients Treated with Polymyxins for Severe Gram-Negative Infections. *Open Forum Infect Dis*. 2018 Aug 3;5(8):ofy191. doi: 10.1093/ofid/ofy191. PMID: 30182031. eCollection 2018 Aug.

74. Mercieca-Bebber R, Williams D, Tait MA, Roydhouse J, Busija L, Sundaram CS, Wilson M, Langford A, Rutherford C, Roberts N, King M, Vodicka E, Devine B. Correction to: Trials with patient-reported outcomes registered on the Australian New Zealand Clinical Trials Registry (ANZCTR). *Qual Life Res*. 2018 Oct;27(10):2593. doi: 10.1007/s11136-018-1934-0. PubMed PMID: 30014457.

75. Mercieca-Bebber R, Williams D, Tait MA, Roydhouse J, Busija L, Sundaram CS, Wilson M, Langford A, Rutherford C, Roberts N, King M, Vodicka E, Devine B. Trials with patient-reported outcomes registered on the Australian New Zealand Clinical Trials Registry (ANZCTR). *Qual Life Res*. 2018 Oct;27(10):2581-2591. doi: 10.1007/s11136-018-1921-5. Epub 2018 Jun 18. PubMed PMID: 29915979.

76. \*McDermott C, Lockhart C, **Devine EB**. Outpatient directly observed therapy for hepatitis C among people who inject drugs: a systematic review and meta-analysis. *J Virus Erad*. 2018 Apr 1;4(2):118-122. PMID: 29682305

77. Aronson S, Babb L, Ames D, Gibbs RA, Venner E, Connelly J, Marsolo K, Weng C, Williams MS, Hartzler A, Liang W, Ralston J, **Devine EB**, Murphy S, Chute CG, Caraballo PG, Freimuth R, Rasmussen L, Wehbe FH, Derveloy B, Howell KM, Peterson JF, Robinson JR, Wiley K, Overby CL, on behalf of the eMERGE Network EHRI Working Group. Empowering Genomic Medicine by Establishing Critical Sequencing Result Data Flows: The eMERGE Example. *J Am Med Inform Assoc*. published May 31, 2018 <https://doi.org/10.1093/jamia/ocy051>. PMID: 29860405.

78. **Devine EB**, Van Eaton E, Zadworny ME, Symons R, Devlin A, Yanez D, Yetisgen M, Keyloun KR, Capurro D, Alfonso-Cristancho R, Flum DR, Tarczy-Hornoch P. Automating Electronic Clinical Data Capture for Quality Improvement and Research: The CERTAIN Validation Project of Real World Evidence. *EGEMS (Wash DC)*. 2018 May 22;6(1):8. doi: 10.5334/egems.211. PMID: 29881766.

79. **Devine EB**, Perfetto E, Pickard AS, Schumock GT, Segal JB, Brixner D, Cannon E, Gagnon JP, Garrison LP, Murray, MD. Nine Years of Comparative Effectiveness Research Education and Training: Initiative Supported by the PhRMA Foundation. *J. Comp. Eff. Res*. 2018;7:167-175. PMID: 29464964. doi: 10.2217/cer-2017-0059. Epub 2018 Feb 21.

80. **Devine EB**, Totten AM, Gorman P, Eden KB, Kassakian S, Woods S, Daeges M, Pappas M, McDonagh M, Hersh WR. Health Information Exchange Use (1990-2015): A Systematic Review. *EGEMS (Wash DC)*. 2017 Dec 7;5(1):27. doi: 10.5334/egems.249. PMID: 29881743

81. McDonagh MS, Dana T, Selph S, Devine EB, Cantor A, Bougatsos C, Blazina I, Grusing S, Fu R, Kopelovich SL, Monroe-DeVita M, Haupt DW. Treatments for Schizophrenia in Adults: A Systematic Review. Comparative Effectiveness Review No. 198. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2015-00009-I.) AHRQ Publication No. 17(18)-EHC031-EF. Rockville, MD: Agency for Healthcare Research and Quality; October 2017. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). DOI: <https://doi.org/10.23970/AHRQEPCCER198>. PubMed PMID: 29537779.

82. Edwards T, Lavallee D, Clowes A, **Devine EB**, Flum DR, Meissner M, Thomason ET, Barbic SP, Beck SJ, Patrick DL. Preliminary Validation of the Claudication Symptom Instrument (CSI). *Vascular Medicine*, 2017, 1-8. DOI: 10.1177/1358863X17731623. PubMed PMID: 28931345.

83. Viswanathan M, McPheeers ML, Murad MH, Butler ME, **Devine EB**, Dyson MP, Guise JM, Kahwati LC, Miles JNV, Morton SC. AHRQ series on complex intervention systematic reviews-paper 4: selecting analytic approaches. *J Clin Epidemiol*. 2017 Jul 15. pii: S0895-4356(17)30639-X. doi: 10.1016/j.jclinepi.2017.06.014. PMID: 28720515. [Epub ahead of print]

84. Pigott T, Noyes J, Umscheid CA, Myers E, Morton SC, Fu R, Sanders-Schmidler GD, **Devine B**, Murad MH, Kelly MP, Fonnesbeck C, Kahwati L, Beretvas SN. AHRQ series on complex intervention systematic reviews-paper 5: advanced analytic methods. *J Clin Epidemiol*. 2017 Jul 15. pii: S0895-4356(17)30640-6. doi: 10.1016/j.jclinepi.2017.06.015. PMID: 28720512. [Epub ahead of print]

85. \*Randall I, Maynard C, Chan G, **Devine B**, Johnson C. Assessing the effect of the VA PCMH model on utilization patterns among veterans with PTSD. *Am J Manag Care*. 2017 May;23(5):291-296. PMID: 28738685..

86. \*Canestaro WJ, Hendrix N, Bansal A, Sullivan SD, **Devine EB**, Carlson JJ. Favorable and Publicly-Funded Studies are More Likely to be Published: A Systematic Review and Meta-Analysis. *J Clin Epidemiol*. 2017;92:58-68. PMID: 28842289. doi: 10.1016/j.jclinepi.2017.08.004. Epub 2017 Aug 31.

87. \*Mathias PC, Hendrix N, Wang WJ, Keyloun KR, Khelifi M, Tarczy-Hornoch P, **Devine B**. Characterizing pharmacogenomic-guided medication use with a clinical data repository. *Clin Pharmacol Ther*. 2017 Aug;102(2):340-348. doi: 10.1002/cpt.611. PMID: 28073152. Epub 2017 Jun 5.

88. \*\*Chin L, \*\***Devine B**, Baradaran S, Keyloun K, Canestaro WJ, Pham J. Characterizing the strength of evidence in FDA Labels for pharmacogenomic biomarker-guided medication use. *AMIA Jt Summits Transl Sci Proc*. 2017 Jul 26;2017:30-39. eCollection 2017

89. \*Lee CJ, **Devine B**, Tarczy-Hornoch P. A Knowledge-based System for Intelligent Support in Pharmacogenomics Evidence Assessment: Ontology-driven Evidence Representation and Retrieval. *AMIA Jt Summits Transl Sci Proc*. 2017 Jul 26;2017:175-184. eCollection 2017.

90. \*Khelifi M, Tarczy-Hornoch P, **Devine EB**, Pratt W. Design Recommendations for Pharmacogenomics Clinical Decision Support Systems. *AMIA Jt Summits Transl Sci Proc*. 2017 Jul 26;2017:237-246. eCollection 2017.

91. \*Agapova M, Bresnahan B, Linna KF, Garrison LP, Higashi M, Kessler L, Devine EB. Toward a Framework for Benefit Risk Assessment in Diagnostic Imaging: Identifying Scenario-Specific Criteria. *Acad Radiol*. 2017 May;24(5):538-549. doi: 10.1016/j.acra.2017.02.002. Epub 2017 Mar 31. PMID: 28372958.

92. \*Wheat CL, Thornton T, Grembowski D, Ko CW, **Devine B**. Inflammatory Bowel Disease (IBD) Pharmacotherapy and the Risk of Serious Infection: A Systematic Review and Network Meta-Analysis. *BMC Gastroenterol*. 2017 Apr 14;17(1):52. doi: 10.1186/s12876-017-0602-0. PMID: 28407755.

93. Keyloun KR, Hansen RN, Hepp Z, Gillard P, Thase ME, Devine EB. Erratum to: Adherence and Persistence Across Antidepressant Therapeutic Classes: A Retrospective Claims Analysis Among Insured US Patients with Major Depressive Disorder (MDD). *CNS Drugs*. 2017 Jun;31(6):511. doi: 10.1007/s40263-017-0435-y. PubMed PMID: 28451963.

94. Keyloun KR, Hansen RN, Hepp Z, Gillard P, Thase ME, Devine EB. Adherence and Persistence Across Antidepressant Therapeutic Classes: A Retrospective Claims Analysis Among Insured US Patients with Major Depressive Disorder (MDD). *CNS Drugs*. 2017 May;31(5):421-432. doi: 10.1007/s40263-017-0417-0. PubMed PMID: 28378157.

95. \*Buckley SA, Wood BL, Othus M, Hourigan CS, Ustun C, Linden MA, DeFor TE, Malagola M, Anthias C, Valkova V, Kanakry CG, Gruhn B, Buccisano F, **Devine B**, Walter RB. Minimal residual disease prior to allogeneic hematopoietic cell transplantation in AML: A meta-analysis. *Haematologica*. 2017 May;102(5):865-873. doi: 10.3324/haematol.2016.159343. Epub 2017 Jan 25. PMID: 28126965.

96. \*Adamson B, D Dimitrov, **Devine B**, Barnabas R. The Potential Cost-Effectiveness of an HIV Vaccine: A Systematic Review. *Pharmacoeconom Open*. 2017 Mar;1(1):1-12. doi: 10.1007/s41669-016-0009-9. Epub 2017 Jan 30. PMID: 28367539.

97. \*Agapova M, Bresnahan B, Linna KF, Garrison LP, Higashi M, Kessler L, Devine EB. Using the Analytic Hierarchy Process for Prioritizing Imaging Tests in Diagnosis of Suspected Appendicitis. *Academic Radiology. Acad Radiol*. 2017 May;24(5):530-537. doi: 10.1016/j.acra.2017.01.001. Epub 2017 Mar 28. PMID: 28363670.

98. Korthuis PT, McCarty D, Weimer M, Bougatsos C, Blazina I, Zakher B, Grusing S, **Devine B**, Chou R. Primary Care-Based Models for the Treatment of Opioid Use Disorder: A Scoping Review. *Ann Intern Med*. 2017 Feb 21;166(4):268-278. doi: 10.7326/M16-2149. Epub 2016 Dec 6. PMID: 27919103.

99. Chou R, Korthuis PT, Weimer M, Bougatsos C, Blazina I, Zakher B, Grusing S, **Devine B**, McCarty D. Medication-Assisted Treatment Models of Care for Opioid Use Disorder in Primary Care Settings. Technical Brief No. 28. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2015-00009-I.) AHRQ Publication No. 16(17)-EHC039- EF. Rockville, MD: Agency for Healthcare Research and Quality. December 2016. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). PMID: 28045474.

100. \*Hepp Z, Dodick DW, Varon SF, Chia J, Matthew N, Gillard P, Hansen RN, **Devine EB**. Persistence and switching patterns of oral migraine prophylactic medications among patients with chronic migraine: A retrospective claims analysis. *Cephalgia*. 2017 Apr;37(5):470-485. doi: 10.1177/0333102416678382. Epub 2016 Nov 12. PMID: 27837173.

101. \*Tung A, Hepp, Z, Bansal A\*\*, **Devine EB\*\*** Characterizing healthcare utilization, direct costs, and comorbidities associated with interstitial cystitis: A retrospective claims analysis. *J Manag Care Spec Pharm*. 2017 Apr;23(4):474-482. doi:10.18553/jmcp.2017.23.4.474. PMID: 28345436.

102. \*Wheat CL, Maass M, **Devine B**, Thornton TY, Grembowski D, Ko CW. Educational Needs of Patients with Inflammatory Bowel Disease (IBD) and Non-Adherence to Medical Therapy-A Qualitative Study. *J Inflam Bowel Dis and Disord* 2016;1:106. DOI: 10.4172/2476-1958.1000106.

103. \*Chavez JL, Bradley K, Tefft N, Liu CF, Hebert P, Devine B. Preference weights for the spectrum of alcohol use in the U.S. Population. *Drug Alcohol Depend*. 2016 Apr 1;161:206-13. doi: 10.1016/j.drugalcdep.2016.02.004. Epub 2016 Feb 6. PMID: 26900145.

104. \*Chavez LJ, Liu CF, Tefft N, Hebert PL, Devine B, Bradley KA. The Association Between Unhealthy Alcohol Use and Acute Care Expenditures in the 30 Days Following Hospital Discharge Among Older Veterans Affairs Patients with a Medical Condition. *J Behav Health Serv Res*. 2017 Oct;44(4):602-624. doi: 10.1007/s11414-016-9529-4. PubMed PMID: 27585803.

105. \*Agapova M, Bresnahan BB, Higashi M, Kessler L, Garrison LP Jr, Devine B. A proposed approach for quantitative benefit-risk assessment in diagnostic radiology guideline development: the American College of Radiology Appropriateness Criteria Example. *J Eval Clin Pract*. 2017 Feb;23(1):128-138. doi: 10.1111/epc.12635. Epub 2016 Oct 19. PubMed PMID: 27762080.

106. **Devine EB**, Alfonso-Cristancho R, Yanez ND, Edwards TC, Patrick DL, Armstrong CAL, Devlin A, Symons RG, Meissner MH, Thomason EL, Lavallee DC, Kessler LG, Flum DR, and CERTAIN Collaborative. Patient-Reported Outcomes after Medical versus Revascularization Interventions for Intermittent Leg Claudication. *JAMA Surg*. 2016 Oct 19;151(10):e162024. doi: 10.1001/jamasurg.2016.2024. PubMed PMID: 27760274.

107. \*Wheat CL, Clark-Snustad K, **Devine EB**, Grembowski D, Thornton T, Ko CW. Worldwide Incidence of Colorectal Cancer, Leukemia, and Lymphoma in Inflammatory Bowel Disease: An Updated Systematic Review and Meta-Analysis. *Gastroenterol Res Prac*, 2016;2016:1632439. doi: 10.1155/2016/1632439. Epub 2016 May 16. PMID: 27293427.

108. \*Canestaro WJ, Forrester SH, **Devine EB**. Drug therapy for treatment of idiopathic pulmonary fibrosis: Systematic review and network meta-analysis. *Chest* 2016;149(3):756-66. PMID: 26836914.

109. Eden KB, Totten AM, Kassakian SZ, Gorman PN, McDonagh MS, **Devine B**, Pappas M, Daeges M, Woods S, Hersh WR. Barriers and facilitators to exchanging health information: a systematic review. *Int J Med Inform* 2016 Apr;88:44-51. PMID: 26878761.

110. Hersh WR, Totten AM, Eden KB, **Devine B**, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. Outcomes from health information exchange: Systematic review and future research needs. *JMIR Med Inform*. 2015 Dec 15;3(4):e39. doi: 10.2196/medinform.5215. PMID: 26678413.

111. Hersh W, Totten A, Eden K, Devine B, Gorman P, Kassakian S, Woods SS, Daeges M, Pappas M, McDonagh MS. Health Information Exchange. Evidence Report/Technology Assessment No. 220. (Prepared by the Pacific Northwest Evidence-based Practice Center Under Contract No. 290-2012-00014-I.) AHRQ Publication No. 15 (16)-E002-EF. Rockville, MD: Agency for Healthcare Research and Quality; December 2015. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). PMID: 30307736.

112. \*Puttkammer N, Baseman JG, **Devine EB**, Valles MPJS, Hypolite N, Garilus F, Honore JG, Matheson AI, Sherr K, Yuhas K, Zeliadt S, Cadet JR, Zamor G, Pierre E, Barnhart S. An assessment of data quality in a multi-site electronic medical record system in Haiti. *Int J Med Inform*. 2016 Feb;86:104-16. doi: 10.1016/j.ijmedinf.2015.11.003. Epub 2015 Nov 17. PMID: 26620698.

113. \*Nishimura AA, Shirts B, Salama J, Smith JW, **Devine EB**, Tarczy-Hornoch P. Physician perspectives of CYP2C19 and clopidogrel drug-gene interaction active clinical decision support alerts. *Int J Med Inform*. 2016 Feb;86:117-25. doi: 10.1016/j.ijmedinf.2015.11.004. Epub 2015 Nov 11. PMID: 26642939.

114. Vodicka E, Kim K, \*\***Devine EB**, Gnanasakthy A, Patrick DL. The use of patient-reported outcome instruments in clinical trials. *Contemp Clin Trials*. 2015 Jul;43:1-9. doi: 10.1016/j.cct.2015.04.004. Epub 2015 Apr 18. PMID: 25896116.

115. \*Marangu D, **Devine EB**, John-Stewart G. Diagnostic accuracy of nucleic acid amplification tests in urine for pulmonary tuberculosis: A meta-analysis. *Int J Tuberc Lung Dis*. 2015 Nov;19(11):1339-47. PMID: 26467586. doi: 10.5588/ijtd.15.0209.

116. \*Overby CL, **Devine EB**, Abernethy N, McCune JS, Tarczy-Hornoch P. Making pharmacogenomic-based prescribing alerts more effective: A scenario-based experimental study with physicians. *J Biomed Inform*. 2015 Jun;55:249-59. doi: 10.1016/j.jbi.2015.04.011. Epub 2015 May 7. PMID: 25957826.

117. Chou R, Cuevas C, Fu R, **Devine B**, Wasson N, Ginsburg A, Zakher B, Pappas M, Graham E, Sullivan SD. Imaging techniques for the diagnosis of hepatocellular carcinoma: a systematic review. *Ann Intern Med* 2015;162:697-711. doi:10.7326/M14-2509. PMID: 25984845.

118. Chou R, Turner JA, **Devine EB**, Hansen RN, Sullivan SD, Blazina I, Dana T, Bougatsos C, Deyo RA. The Effectiveness and Risks of Long-Term Opioid Therapy for Chronic Pain: A Systematic Review for a National Institutes of Health Pathways to Prevention Workshop. *Ann Intern Med*. 2015 Jan 13. doi: 10.7326/M14-2559. PMID: 25581257.

119. Gold LS, Lee CI, **Devine B**, Nelson H, Chou R, Ramsey S, Sullivan SD. Imaging Techniques for Treatment Evaluation for Metastatic Breast Cancer. Technical Brief No. 17. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 2902012-00014-I.) AHRQ Publication No. 14-EHC044-EF. Rockville, MD: Agency for Healthcare Research and Quality; October 2014. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). PMID: 25375016.

120. Chou R, Deyo R, **Devine B**, Hansen R, Sullivan S, Jarvik JG, Blazina I, Dana T, Bougatsos C, Turner J. The Effectiveness and Risks of Long-Term Opioid Treatment of Chronic Pain. Evidence Report/Technology Assessment No. 218. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2012-00014-I.) AHRQ Publication No. 14-E005-EF. Rockville, MD: Agency for Healthcare Research and Quality; September 2014. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). PMID: 30313000.

121. Chou R, Cuevas C, Fu R, **Devine B**, Wasson N, Ginsburg A, Zakher B, Pappas M, Graham E, Sullivan S. Imaging Techniques for the Diagnosis and Staging of Hepatocellular Carcinoma. Comparative Effectiveness Review No. 143. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2012-00014-I.) AHRQ Publication No. 14-EHC048-EF. Rockville, MD: Agency for Healthcare Research and Quality; August 2014. [www.effectivehealthcare.ahrq.gov/reports/final.cfm](http://www.effectivehealthcare.ahrq.gov/reports/final.cfm). PMID: 25473698.

122. \*Agapova M, **Devine EB**, Nguyen H, Wolf FM, Inoue LY. Using indirect comparisons to compare interventions within a Cochrane review: a tool for comparative effectiveness research. *J Comp Eff Res*. 2014 Jul;3(4):345-57. DOI: 10.2217/cer.14.29. PMID: 25275232.

123. \*Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**. Adherence to oral migraine preventive medications among patients with chronic migraine. *Cephalgia* 2014 Aug 27. pii: 0333102414547138. [Epub ahead of print]. PMID: 25164920.

124. \*Agapova M, **Devine EB**, Bresnahan BW, Higashi M, Garrison LP. Applying quantitative benefit-risk analysis to aid regulatory decision-making in diagnostic imaging: methods, challenges, and opportunities. *Acad Radiol*. 2014 Sep;21(9):1138-43. DOI: 10.1016/j.acra.2014.05.006.). PMID: 25107866.

125. Van Eaton EG, Devlin AB, **Devine EB**, Flum DR, Tarczy-Hornoch P. Achieving and sustaining automated health data linkages for learning systems: barriers and solutions. *EGEMS (Wash DC)*. 2014 Jul 24;2(2):1069. doi: 10.13063/2327-9214.1069. eCollection 2014. PMID: 25848606.

126. \*Forrester S, Hepp Z, Roth J, Wirtz HS, **Devine EB**. Cost-effectiveness of a computerized provider order entry system in improving medication safety in ambulatory care. *Value Health*. 2014 Jun;17(4):340-9. DOI: 10.1016/j.jval.2014.01.009. Epub 2014 May 5. NIHMS ID: NIHMS 567912. PMID: 24968993.

127. **Devine EB**, Lee CJ, Overby CL, Abernethy N, McCune J, Smith JW, Tarczy-Hornoch P. Usability evaluation of pharmacogenomics clinical decision support aids and clinical knowledge resources in a computerized provider order entry system: a mixed methods approach. *Int J Med Inform*. 2014 Jul;83(7):473-83. doi: 10.1016/j.ijmedinf.2014.04.008. Epub 2014 May 9. PubMed PMID: 24874987.

128. Flum DR, Alfonso-Cristancho R, **Devine EB**, Devlin A, Farrokhi ET, Tarczy-Hornoch P, Kessler L, Lavallee D, Patrick DL, Gore JL, Sullivan SD, for the CERTAIN Collaborative. Implementation of a "Real World" Learning Healthcare System: Washington State's Comparative Effectiveness Research Translation Network (CERTAIN). *Surgery*. 2014 May;155(5):860-6. DOI: 10.1016/j.surg.2014.01.004. PMID: 24787113.

129. Cimino JJ, Overby CL, **Devine EB**, Hulse NC, Jing Xia, Maviglia SM, Del Fiol G. Practical choices for Infobutton customization: Experience from four sites. *AMIA Annu Symp Proc*. 2013 Nov 16;2013:236-45. eCollection 2013. PMID: 24551334. PMID: 24551334.

130. Signorovitch J, Swallow E, Kantor E, Wang X, Klimovsky J, Haas T, **Devine EB**, Metrakos P. Estimating the Comparative Efficacy of Everolimus, Sunitinib and Placebo for Patients with Advanced Pancreatic Neuroendocrine Tumors: A Matching-Adjusted Indirect Comparison of Randomized Trials. *Exp Hematol Oncol*. 2013 Dec 6;2(1):32. DOI: 10.1186/2162-3619-2-32. PMID: 24314093.

131. Mollberg NM, Bennette C, Howell E, Backhus L, **Devine B**, Ferguson MK. Lymphovascular Invasion as a Prognostic Indicator in Stage I Non-Small Cell Lung Cancer: A Systematic Review and Meta-Analysis. *Ann Thorac Surg*. 2014 Mar;97(3):965-71. DOI: 10.1016/j.athoracsur.2013.11.002. Epub 2014 Jan 11. PubMed PMID: 24424014.

132. Lau B, Overby CL, Wirtz HS, **Devine EB**. Use of a clinical decision support tool in the ambulatory setting to improve adherence to national monitoring guidelines for medication-laboratory tests. *Appl Clin Inf* 2013; 4. DOI:10.4338/ACI-2013-06-RA-0041  
PMC3885910. PMID: 24454577

133. \*Sanderson JC, **Devine EB**, Lipton RB, Bloudek LM, Varon SF, Blumenfeld AM, Goadsby PJ, Buse DC, Sullivan SD. Headache-related health resource utilisation in chronic and episodic migraine across six countries. *J Neurol Neurosurg Psychiatry*. 2013 Dec;84(12):1309-17. doi: 10.1136/jnnp-2013-305197. Epub 2013 Jun 29. PMID: 23813744.

134. **Devine, EB**, Capurro D, van Eaton E, Alfonso-Cristancho R, Devlin A, Yanez ND, Yetisgen-Yildiz M, Flum DR, Tarczy-Hornoch P. Preparing Electronic Clinical Data for Quality Improvement and Comparative Effectiveness Research: The SCOAP CERTAIN Automation and Validation Project. *EGEMS (Wash DC)*. 2013 Sep 10;1(1):1025. doi: 10.13063/2327-9214.1025. eCollection 2013. PMID: 25848565.

135. **Devine EB**, Edwards T, Patrick DL, Alfonso-Cristancho R, Yanez ND, Devlin A, Symons R, Flum DR, for the SCOAP CERTAIN Corporate Authorship. A Model for Incorporating Patient and Stakeholder Voices in a Learning Healthcare Network: Washington State's Comparative Effectiveness Research Translation Network (CERTAIN). *J Clin Epidemiol*. 2013 Aug;66(8 Suppl):S122-9. doi: 10.1016/j.jclinepi.2013.04.007. PMID: 23849146.

136. \*Overby CL, Tarczy-Hornoch P, Kalet IJ, Thummel KE, Smith JW, Del Fiol G, Fenstermacher D, **Devine EB**. Developing a prototype system for integrating pharmacogenomics findings into clinical practice. *J Pers Med* 2012;2:241-56 PMID: 23741623. PMID: 23741623.

137. \*Ney JP, **Devine EB**, Watanabe J, Sullivan SD. Comparative efficacy of oral pharmaceuticals for the treatment of chronic peripheral neuropathic pain: Meta-Analysis and indirect treatment comparisons. *Pain Medicine* 2013 May;14(5):706-19. doi: 10.1111/pme.12091. Epub 2013 Apr 22. PubMed PMID: 23691937.

138. \*Gurgle HE, Roesel DJ, Erickson TN, **Devine EB**. Impact of travel to visit friends and relatives on chronic disease management. *J Travel Med*. 2013 Mar-Apr;20(2):95-100. doi: 10.1111/jtm.12010. Epub 2013 Jan 31. PMID: 23464716.

139. \*Wong William, Lin VW, Boudreau DM, **Devine EB**. Statins in the prevention of dementia and Alzheimer's Disease: A meta-analysis. *Pharmacoepidemiol Drug Saf*. 2013 Apr;22(4):345-58. doi: 10.1002/pds.3381. Epub 2012 Dec 6. PubMed PMID: 23225700.

140.\* Lin VW, Ringold S, **Devine EB**. Comparison of ustekinumab with other biologic agents for treatment of moderate-to-severe psoriasis: A Bayesian network meta-analysis. *Arch Dermatol*. 2012 Dec;148(12):1403-10. doi: 10.1001/2013.jamadermatol.238. PubMed PMID: 23069736.

141. \*Overby CL, **Devine EB**, Tarczy-Hornoch P, Kalet IJ. Deriving rules and assertions from pharmacogenomics knowledge resources In support of patient drug metabolism efficacy predictions. *J Am Med Inform Assoc*. 2012 Sep-Oct;19(5):840-50. doi: 10.1136/amiajnl-2011-000405. Epub 2012 Apr 26. PMID: 22539082.

142. \*Gillard, PJ, **Devine EB**, Varon SF, Liu L, Sullivan SD. Mapping from disease-specific measures to health-state utility values in individuals with migraine. *Value Health*. 2012 May;15(3):485-94. doi: 10.1016/j.jval.2011.12.007. Epub 2012 Feb 9. PMID: 22583459.

143. \*Cheng MM, Goulart B, Veenstra DL, Blough DK, **Devine EB**. A network meta-analysis of therapies for previously untreated chronic lymphocytic leukemia. *Cancer Treat Rev*. 2012 Dec;38(8):1004-11. doi: 10.1016/j.ctrv.2012.02.006. Epub 2012 Mar 9. **PMID: 22405931**.

144. \*Cheng MM, Ramsey SD, **Devine EB**, Garrison LP, Bresnahan BW, Veenstra DL. A systematic review of the evidence supporting the clinical and economic value of oncology orphan drugs marketed in the United States. *Am J Manag Care*. 2012;18:47-62 PMID:22435748.

145. \*Overby CL, Tarczy-Hornoch P, Hoath J, Smith JW, **Devine EB**, Fenstermacher D. An Evaluation of Functional and User Interface Requirements for Pharmacogenomic Clinical Decision Support. First IEEE Conference on Healthcare Informatics, Imaging, and Systems Biology. July 27-29, 2011, San Jose, CA. Available from URL:  
[http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?arnumber=6061384](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=6061384)

146. Jansen JP, Fleurence R, **Devine B**, Itzler R, Barrett A, Hawkins N, Lee K, Boersma C, Annemans L, Cappelleri JC. Interpreting indirect treatment comparisons and network meta-analysis for health care decision-making: Report of the ISPOR Task Force on Good Research Practices – Part 1. *Value Health*. 2011 Jun;14(4):417-28. doi: 10.1016/j.jval.2011.04.002. PubMed PMID: 21669366.

147. **Devine EB**, Alfonso-Cristancho R, Sullivan SD. Effectiveness of biologic therapies for rheumatoid arthritis: An indirect comparisons approach. *Pharmacotherapy*. 2011 Jan;31(1):39-51. doi: 10.1592/phco.31.1.39. PMID: 21182357.

148. **Devine EB**, Patel R, Dixon DR, Sullivan SD. Assessing attitudes toward electronic prescribing adoption in primary care: a survey of prescribers and staff. *Inform Prim Care* 2010;18(3):177-87 PMID: 21396241. PubMed PMID: 21396241.

149. **Devine EB**, Williams EC, Martin DP, Sittig DF, Tarczy-Hornoch P, Payne TH, Sullivan SD. Prescriber and staff perceptions of an electronic prescribing system in primary care: a qualitative assessment. *BMC Med Inform Decis Mak*. 2010 Nov 19;10:72. doi: 10.1186/1472-6947-10-72. PMID: 21087524.

150. \***Devine EB**, Chan LN, Babigumira J, Kao H, Drysdale T, Reilly D, Sullivan SD. Postoperative acquired coagulopathy: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes. *Pharmacotherapy*. 2010 Oct;30(10):994-1003. doi: 10.1592/phco.30.10.994. PMID: 20874036.

151. **Devine EB**, Hansen RN, Wilson-Norton JL, Lawless NM, Fisk AW, Blough DK, Martin DP, Sullivan SD. The impact of computerized provider order entry on medication errors in a multispecialty group practice. *J Am Med Inform Assoc*. 2010 Jan-Feb;17(1):78-84. doi: 10.1197/jamia.M3285. PMID: 20064806.

152. Devine EB, Hollingworth W, Hansen RN, Lawless NM, Wilson-Norton JL, Martin DP, Blough DK, Sullivan SD. Electronic prescribing at the point of care: A time-motion study in the primary care setting. *Health Serv Res*. 2010 Feb;45(1):152-71. doi: 10.1111/j.1475-6773.2009.01063.x. Epub 2009 Nov 19. PMID: 19929963.

153. \***Devine EB**, Hoang S, Wilson-Norton JL, Lawless NM, Fisk AW. Strategies to Optimize Medication Use in the Physician Group Practice: The Role of the Clinical Pharmacist. *J Am Pharm Assoc* (2003). 2009 Mar-Apr;49(2):181-91. doi:10.1331/JAPhA.2009.08009. PMID: 19289344.

154. **Devine EB**. The art of obtaining grants. *Am J Health Syst Pharm*. 2009 Mar 15;66(6):580-7. doi: 10.2146/ajhp070320.. PubMed PMID: 19265188.

155. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen RN, Hollingworth W, Fisk AW, Sullivan SD. Implementing an Ambulatory e-Prescribing System: Strategies Employed and Lessons Learned to Minimize Unintended Consequences. In: Henriksen K, Battles JB, Keyes MA, Grady ML, editors. *Advances in patient safety: New directions and alternative approaches*. Vol. 4. Technology and Medication Safety. AHRQ Publication No. 08-0034-4. Rockville, MD: Agency for Healthcare Research and Quality; August 2008 PMID:21249960.

156. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen RN, Haney KK, Fisk AW, Sullivan SD. The impact of an ambulatory CPOE system on medication errors. *AMIA Annu Symp Proc*. 2008 Nov 6:928. PMID: 18999201

157. **Devine EB**, Hopf A, Wittkowsky AK. Adherence to guidelines for the management of excessive warfarin anticoagulation. *J Thromb Thrombolysis*. 2009 May;27(4):379-84. doi: 10.1007/s11239-008-0232-z. Epub 2008 May 9. PMID: 18465088.

158. Wittkowsky AK, Nutescu E, **Devine EB**. Compression stockings to prevent post-thrombotic syndrome: a role for anticoagulation clinics? *J Thromb and Thrombolysis* 2008 26(3):248-50. Epub 2007 Nov 30 PMID:18060364. PMID: 18060364.

159. Hollingworth W, **Devine EB**, Hansen RN, Lawless NM, Comstock BA, Wilson-Norton JL, Tharp KL, Sullivan SD. The impact of e-prescribing on prescriber and staff time in ambulatory care clinics: A time-motion study. *J Am Med Inform Assoc*. 2007 Nov-Dec;14(6):722-30. Epub 2007 Aug 21. PMID:17712088.

160. \***Devine EB**, Cross JT, Kowdley KK, Sullivan SD. The cost of treating ribavirin-induced anemia in hepatitis C: The impact of using recombinant human erythropoietin. *Curr Med Res Opin*. 2007 Jun;23(6):1463-72. Epub 2007 May 17. PMID:17559739.

161. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen RN, Hazlet TK, Kelly K, Hollingworth W, Blough DK, Sullivan SD. Characterization of prescribing errors in an internal medicine clinic. *Am J Health Syst Pharm*. 2007 May 15;64(10):1062-70. PMID:17494906

162. \*Erickson TN, **Devine EB**, O'Young TS, Hanson LJ, French B, Brennan C. Effect of switching medically vulnerable patients with uncontrolled diabetes from isophane insulin human to insulin glargine. *Am J Health Syst Pharm*. 2006 Oct 1;63(19):1862-71. PMID:16990633

163. **Devine EB**, Hakim Z, Greene J. A systematic review of patient-reported outcome instruments measuring sleep dysfunction in adults. *Pharmacoconomics* 2005;23(9):889-912. PMID:16153133

164. **Devine EB**, Beney J, Bero LA. Equity, accountability transparency: Successful use of the contributorship concept in a multi-site study. *Am J Pharm Educ* 2005;69(4): Article 61 (on-line journal)

165. **Devine EB**, Wilson-Norton JL, Lawless NM, Hazlet TK, Hansen R, Kelly K, Te S, Wong C. Preparing for Ambulatory Computerized Prescriber Order Entry by Evaluating Preimplementation Medication Errors. In: Henriksen K, Battles JB, Mark ES, Lewin DI, eds. *Advances in patient safety: from research to implementation*. Vol. 2, Concepts and methodology. AHRQ Publication No. 05-0021-2. Rockville, MD: Agency for Healthcare Research and Quality; Feb. 2005 PMID:21249833. PMID: 21249833.

166. Wittkowsky AK, **Devine EB**. Frequency and causes of overanticoagulation and underanticoagulation in patients treated with warfarin. *Pharmacotherapy*. 2004 Oct;24(10):1311-6. PMID: 15628828

167. \*Wittkowsky AK, Whitely KS, **Devine EB**, Nutescu E. Effect of age on international normalized ratio at the time of major bleeding in patients treated with warfarin. *Pharmacotherapy* 2004;24(5):600-605 PMID: 15162894

168. **Devine EB**, Smith KL, Stehman-Breen C, Patrick DL. Health-related quality of life assessment in chronic kidney disease. *Expert Rev Pharmacoecon Outcomes Res*. 2003 Feb;3(1):89-100. doi: 10.1586/14737167.3.1.89.

169. Sullivan SD, Lew DP, **Devine EB**, Hakim Z, Reiber GE, Veenstra DL. Health state preference assessment in diabetic peripheral neuropathy. *Pharmacoeconomics* 2002;20(15):1079-1089. PMID:12456202

170. Beney J, \*\***Devine EB**, Chow V, Ignoffo RJ, Mitsunaga L, Shahkarami M, McMillan A, Bero LA. Effect of telephone follow-up on the physical well-being dimension of quality of life in patients with cancer. *Pharmacotherapy*. 2002 Oct;22(10):1301-11. PMID:12389880

171. **Devine EB**, Kowdley KV, Veenstra DL, Sullivan SD. Management strategies for ribavirin-induced hemolytic anemia in the treatment of hepatitis C: clinical and economic implications. *Value Health*. 2001 Sep-Oct;4(5):376-84. PMID:11705128. DOI: 10.1046/j.1524-4733.2001.45075.x. PMID: 11705128.

172. Brethauer B, **Devine EB**, Jue M, Quan D, Louie C. Cost-benefit analysis of a clinical pharmacist's presence on a post-liver transplant service. *Hospital Pharmacy*. 2000;35(11):1197-1202.

173. Wilson L, **Devine EB**, So K. Direct medical costs of chronic obstructive pulmonary disease: chronic bronchitis and emphysema. *Respir Med*. 2000 Mar;94(3):204-13. PMID:10783930.

174. Carmichael JM, O'Connell MB, **Devine B**, Kelly HW, Ereshefsky L, Linn WD, Stimmel GL. Collaborative drug therapy management by pharmacists. ACCP Position Statement. *Pharmacotherapy*. 1997 Sep-Oct;17(5):1050-61. PMID:9324201

175. Weber JH, **Devine-Arntsen B**, Beauclair T, Kanyer D. A study of ibuprofen prescribing for ambulatory patients. *Hospital Formulary*. 1980;15:892-900

#### Government Reports (not peer reviewed)

1. Baldwin Z, Jiao B, Basu A, Roth J, Bender MA, **Devine B**. *Medical and non-medical costs of sickle cell disease, treatments and related complications: A Systematic Review and Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
2. Jiao B, Baldwin Z, Basu A, Roth J, Bender MA, **Devine B**. *Estimates of the Cost-effectiveness of Screening and Treatments for Sickle Cell Disease: A Systematic Review and Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
3. Jiao B, Baldwin Z, Basu A, Roth J, Bender MA, **Devine B**. *Health State Utilities for Sickle Cell Disease: A Systematic Review and Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
4. Baldwin Z, Jiao B (co-primary authors), Basu A, Roth J, Bender MA, **Devine B**. *Burden of Sickle Cell Disease: A Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
5. Jiao B, Baldwin Z (co-primary authors), Basu A, Roth J, Bender MA, **Devine B**. *Treatments for Sickle Cell Disease: Patterns, Effectiveness, Complications, and Burden: A Landscape Analysis*. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI)
6. Quach D, Jiao B, Basu A, Roth J, Bender MA, **Devine B**. Gene therapies for Sickle Cell Disease: A Landscape Analysis of ClinicalTrials.gov. NHLBI CureSickle Cell, Clinical and Economic Impact Analysis Consortium. May 2020. (internal to NHLBI).

#### Blog Post

Saldarriaga EM, **Devine B**. Lessons from a meta-analysis in the presence of statistical heterogeneity. A case study of SARS-CoV-2 detection window. Incremental Thoughts, The CHOICE Institute Student Blog. February 2022. Available at: <https://choiceblog.org/2022/02/>

#### Invited Commentaries and Editorials

1. David SP, **Devine B**, Palaniappan L, Houwink EJ. Editorial: State of the science of pharmacogenomics implementation in healthcare systems and communities. *Front Pharmacol*. 2024;15:1463384. doi: 10.3389/fphar.2024.1463384. eCollection 2024. PubMed PMID: 39114360; PubMed Central PMCID: PMC11303329.
2. **Devine B**. Assessing the value of remote patient monitoring solutions in addressing challenges in patient care. *Value Health*. 2022 Jun;25(6):887-889. doi: 10.1016/j.jval.2022.03.020. Epub 2022 May 6. PubMed PMID: 35527164. (Editor's Choice)

3. **Devine B.** Concordium 2016: Data and Knowledge Transforming Health. EGEMS (Wash DC). 2017 Apr 20;5(2):9. doi: 10.13063/2327-9214.1306. PubMed PMID: 29881751; PubMed Central PMCID: PMC5983075.

4. **Devine EB.** The Value of Computerized Provider Order Entry: Is It time for the debate to be over? *Jt Comm J Qual Patient Saf.* 2015;41(8):339-40. **PMID: 26215522.**

5. **Devine B.** Bad writing, wrong medication [Spotlight]. *AHRQ WebM&M* [serial online]. April 2010. Available at: <http://www.webmm.ahrq.gov/case.aspx?caseID=215>

**Non Peer-Reviewed Publications**

1. **Devine B**, Louie C. A plan for optimizing medication use in physician group practices: the UCSF Pharmacy Faculty Practice Consortium. MBA thesis. University of San Francisco, May 1999. US Copyright Number TXu 901-838, August 24, 1999.
2. **Devine B**, Chow V. A continuity of care, pharmaceutical care model for HIV patients. *California Journal of Health-System Pharmacy* 1996; 8 (1): 6-9
3. **Devine B.** Successful models in pharmaceutical care. Summary report of video and continuing education project. *California Journal of Health-System Pharmacy*. 1995;7:12-14
4. **Devine B.**, The year of the amazing journey. Report of the president and the board of directors to the 1994 CSHP house of delegates. *California Journal of Health-System Pharmacy*. 1995; 7(1): 8-9
5. **Devine B.** The gateway to our future. president-elect's message. *California Journal of Health-System Pharmacy*. 1994; 6 (1): 24-5

**Book Author and Editor**

**Devine EB**, Boyce R, Wiisanen K (eds). Clinical Decision Support for Pharmacogenomic Precision Medicine: Foundations and Implementation. Elsevier, 2022. ISBN 978-0-12-824-453-1.

**Book Chapters/Contributions**

1. Boyce RD, Camacho J, Liang W, Wiisanen K, **Devine B.** Overview of effective pharmacogenomic clinical decision support In: **Devine EB**, Boyce R, Wiisanen K (eds). Clinical Decision Support for Pharmacogenomic Precision Medicine. Elsevier, 2022. ISBN 978-0-12-824-453-1.
2. Hersh WR, Totten AM, Eden K, **Devine B**, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh M. Part IV: The Value of HIE, Chapter 14 The Evidence Base for Health Information Exchange. In: *Health Information Exchange, Navigating and Managing a Network of Health Information Systems*, edited by Brian E. Dixon. Oxford, UK: Elsevier, Inc., 2016. pp.213-229
3. **Devine EB**, Baradaran S. Chapter 10: Sources of Data for Comparative Effectiveness Research. In: *Comparative Effectiveness Research, Ed. Adrian Levy, Vol. 1, Handbook of Health Services Research*, edited by B. Sobolev. New York: Springer Science + Business Media, March 2016
4. Beney J, **Devine EB**, Bero LA. Effect of Telephone Follow-up on the Physical Well-Being Dimension of Quality of Life in Patients with Cancer. *Pharmacotherapy* 22(10):1301-1311, 2002. Data from our study was used in: Daniel WW (ed.) *Biostatistics: A Foundation for Analysis in the Health Sciences*, 8<sup>th</sup> edition. 2005; John Wiley and Sons, Inc., New York
5. **Devine B.** Alcoholism Case Report. *Workbook for Clinical Pharmacy and Therapeutics, 5th Edition*. Edited by DR Gourley, ET Herfindal and DS Schroeder. Baltimore: Williams and Wilkins (1996)
6. **Devine B.** Alcoholism Case Report. *Workbook for Clinical Pharmacy and Therapeutics, 5th Edition*. Edited by LL. Hart, DR Gourley, and ET Herfindal. Baltimore: Williams and Wilkins (1992)

**Abstracts of Podium and Panel Presentations (n=58)**

\*mentored a student

\*\*co-first or co-senior author

1. Whiting P, Wolff R, **Devine B**, Savovic J, Mallett S. Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Global Evidence Summit, Prague, Czech Republic, September 2024.
- 2., Savovic J, **Devine B**, Whiting P, Mallett S, Wolff R. Presenting "LATITUDES" - A library of assessment tools and instruments used to assess data validity in evidence syntheses. Society for Research Synthesis Methodology, July 5, 2023, Paris, France.
3. **Devine B**, Carlson JJ, Malone D, Seabury S (moderator). How to author/submit peer-reviewed journal articles. Western Pharmacoeconomic Conference, University of Southern California School of Pharmacy, March 2023.

4. **Devine B**, Veenstra DL, Miller A, Patino-Sutton C, Romley J (moderator). How to approach grant funding opportunities for predoctoral, postdoctoral and early-career investigators. Western Pharmacoeconomic Conference, University of Southern California School of Pharmacy, March 2023.

5. \*Ohlsen TJD, Brothers AW, Hrachovec J, Wilkes JJ, **Devine B**, Migita DS. Antimicrobial locks for CLABSI prevention in the inpatient setting: A cost-effectiveness analysis. American Society of Pediatric Hematology/Oncology Conference. May 12, 2023, Fort Worth, TX.

6. Qureshi R, Mayo-Wilson E, Pieper Dawid, Vohra S (Discussant), **Devine B (Chair)**. Compounding complications: Synthesizing harms across the evidence pipeline. A symposium for the Annual International Meeting of the Society for Research Synthesis Methodology, Portland, Oregon, July 2022.

7. De la Cruz-Sánchez E, Moreno-Llamas A, García-Mayor J, Mendiola-Olivares J, Torres-Cantero A, **Devine B**. Estimating the association between Covid-19 sources of information, beliefs, and vaccination rates: Results from an EU-wide survey. II congreso de la Sociedad Murciana de Medicina Preventiva y Salud Pública, Murcia, España, May 20, 2022 (presented in Spanish by De la Cruz)

8. \*Poehler, D., Czerniecki, J., Norvell, D., Henderson, A., & Devine, B. *Comparing Provider Perceptions with Patient Values Around Amputation Level using a Multiple Criteria Decision Analysis (MCDA)*. 2022 National Health Policy Conference, **AcademyHealth**. Theme: Patient Values and Preferences and Inequities in Care Delivery, June 2022

9. \*Poehler, D., Devine, B., Norvell, D., Henderson, A., & Czerniecki, J. *Developing a Multiple Criteria Decision Analysis (MCDA) Framework for Amputation-Level Decision Making*. **2021 Center for Limb Loss and Mobility Young Investigator Symposium**.

10. \*Saldarriaga EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, **Devine B**. Assessment of payers' preferences for real world evidence: A discrete choice experiment. International Health Economics Association (iHEA) Congress. July 2021 (presented by Saldarriaga)

11. \*Chen S, **Devine B**, Basu A. A Bayesian Meta-analysis of the Impact of the Number of Generic Drug Competitors on Drug Prices. SMDM, Montreal, October 2020 (virtual)

12. Beal B, **Devine B**. The REAdi tool: Using R Shiny as a tool for real world evidence evaluation. R/Medicine Conference, August 2020 (delivered virtually)

13. Wilson-Norton J, Chaitesipaseut L, Mikes T, Nguyen H, **Devine B**. Demonstrating the Feasibility of Using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities. Washington State Pharmacists Convention, May 2020 (invited presentation; delivered virtually)

14. \*Woodbury, R. B., Hiratsuka, V., **Devine, B.** *Direct-to-Consumer Genetic Testing among Alaska Native and American Indian People: Preliminary Results on Use, Knowledge and Impacts* [Platform talk]. 2020 NHGRI Research Training and Career Development Annual Meeting, Philadelphia, PA, March 2020 (held virtually) <https://biostat.wustl.edu/dacc2/conference-home/>

15. \***Devine B**, Bounthavong M. Using a Bayesian network meta-analysis to parameterize a cost-utility and value of information analysis of biologics for Moderate-to-Severe Crohn's disease. Society for Research Synthesis Methodology, Chicago, IL, July 2019 (podium presented by Devine)

16. \*Ta JT, Roth J, **Devine B**, Garrison L. "Net Health Benefit" – ASCO vs. ICER Value Frameworks: Are We Talking about the Same Thing? Podium presentation at the ISPOR Health Preference Methods Special Interest Group "Frontiers in Health Preference Research" Forum at ISPOR 2019, New Orleans, LA (May 20, 2019).

17. \*Bounthavong M, Suh K, Christopher MLD, Veenstra DL, Basu A, **Devine EB**. Providers' perceptions of academic detailing on opioid overdose education and naloxone prescribing behavior: A mixed methods study. National Resource Center for Academic Detailing (NaRCAD). Boston, MA, November 2018 (podium delivered by Bounthavong)

18. \*Bounthavong M, **Devine EB**, Christopher MLD, Harvey MA, Veenstra DL, Basu A. Implementation strength of academic detailing on the number of naloxone prescriptions at the Veterans Health Administration. Vancouver Health Economics Meeting (VanHEM), Vancouver, BC, May 2018 (discussant presented manuscript)

19. \*Cizik AM, Babigumira J, **Devine B**, Davidson DJ, Garrison LP. Surgical Treatment Strategies in Soft Tissue Sarcoma: Are Surgeons Good Agents for Patients and Society? Society for Medical Decision Making, Pittsburgh, PA, October 2017 (podium delivered by Cizik)

20. \*Hendrix N, **Devine B**. Deriving utility weights from patient-reported outcomes in epilepsy: a mapping of the QOLIE-31 in the US setting. Vancouver Health Economics Methods Meeting, Vancouver, BC, June 2017 (discussant presented manuscript)

21. \*Hendrix N, Simon N, **Devine B**. Funder effects on reporting of health-state utilities. National Research Service Award (NRSA) Trainees Research Conference, Academy Health Annual Research Meeting, New Orleans, LA, June 2017 (podium delivered by Hendrix)

22. \*Wang WJ, Basu A, Bansal A, White HS, **Devine B**. Meta-Analyzing Count Events over Varying Durations Using the Convoluted Poisson Model: The Case for Post Stroke Seizures. Society for Research Synthesis Methodology, July 2017, Montreal, QB, CA (podium delivered by Wang)

23. \*\***Devine B**, \*\*Chin L, Baradaran S, Keyloun K, Canestaro WJ, Pham J. Characterizing the strength of evidence in FDA Labels for pharmacogenomic biomarker-guided medication use. AMIA 2017 Joint Summits on Translational Science, San Francisco, March 2017 (podium) (\*\*co-primary authors; podium delivered by Devine)

24. \*\*Keyloun KR, Hansen RN, Hepp Z, Gillard, P, Thase ME, \*\***Devine EB**. Adherence and Persistence across Antidepressant Therapeutic Classes: A Retrospective Claims Analysis among Insured US Patients with Major Depressive Disorder. American Society of Clinical Psychopharmacology 2016 Annual Meeting, Scottsdale, AZ, May 2016 (podium delivered by Keyloun)

25. **Devine B**, Khelifi M, Keyloun K, Hendrix N, Mathias P, Bock C, Tarczy-Hornoch P. Characterizing the Frequency of Pharmacogenomic Biomarker-Guided Prescribing for Drugs with Pharmacogenomic Biomarker information in the FDA Labelling: A Pilot Study Using Data from an Electronic Health Record. American Medical Informatics Association Annual Symposium, San Francisco, CA, November 2015 (podium delivered by Devine)

26. Butler M, **Devine EB**, Hamm MP, Kahwati LC, McPheeters ML, Miles JNV, Morton SC, Murad MH, Viswanathan M. Selecting analytic approaches for systematic reviews of complex interventions. Cochrane Colloquium 2015, Vienna, Austria, October 2015 (podium delivered by M. Viswanathan)

27. \*Dhanda D, **Devine EB**. Disease specific patient reported outcome measures in atrial fibrillation: Systematic review and assessment of the measurement properties. Society for Medical Decision Making 37<sup>th</sup> Annual North American Meeting, St. Louis, MO, October 2015 (podium delivered by Dhanda)

28. Patrick DL, Edwards T, Thomason E, Meisner N, **Devine EB**, Lavallee D, Heneghan R, Starnes B, Armstrong C, Flum DR. Rutherford Criteria compared to patient reported claudication severity scoring. Western Washington Annual Vascular Society Meeting, September 2015 (podium delivered by Thomason)

29. \*Lee CJ, Tarczy-Hornoch P, **Devine, EB**. A semantic web-based informatics approach to achieve efficient and precise evidence retrieval for evidence synthesis: Clopidogrel and warfarin pharmacogenomics research as use cases. Annual Meeting of the Society for Research Synthesis Methodology, Nashville, TN, July 2015 (podium delivered by Lee)

30. \*Bounthavong M, **Devine EB**, Veenstra DL. A cost utility analysis of biologics for moderate-to-severe Crohn's disease: Evidence synthesis using a network meta-analysis. Western Pharmacoeconomics Conference, Denver, CO, March 2015 (podium delivered by Bounthavong)

31. \*Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**, Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. American Association of Nurse Practitioners National Conference, Nashville, TN, June 2014 (podium delivered by Hepp)

32. Farrokhi ET, **Devine, EB**, et al. Peripheral artery disease comparative effectiveness research study. Baseline results. Pacific Northwest Vascular Society Annual Meeting. Coeur D'Alene, ID, October 17-18, 2013 (podium delivered by Farrokhi)

33. Alfonso R, **Devine, EB**, et al. Checklist for risk factors for peripheral artery disease. Pacific Northwest Vascular Society Annual Meeting. Coeur D'Alene, ID, October 17-18, 2013 (podium delivered by Alfonso)

34. \***Devine EB**, Cheng MM. Using parametric survival curves to estimate progression-free survival in a network meta-analysis of treatments of chronic lymphocytic leukemia. 8<sup>th</sup> Annual Meeting of the Society for Research Synthesis Methodology, Providence, RI, June 2013 (podium delivered by Devine)

35. \*Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**, Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. American Academy of Neurology. Philadelphia, PA, April 2014 (podium and poster delivered by Hepp)

36. \*Overby CL, **Devine EB**, Abernethy N, McCune JS, Tarczy-Hornoch P. Assessing the effective communication of pharmacogenomic knowledge embedded in the electronic health record for drug therapy individualization. Annual Symposium of the American Medical Informatics Association, Washington DC, November 2012 (podium delivered by Overby)

37. \*Lau B, **Devine EB**, Overby CL. Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines. National Research Service Award (NRSA) Trainees Research Conference, Academy Health Annual Research Meeting, Orlando, FL, June 2012 (podium delivered by Lau)

38. Thompson D, Jansen J, Fleurence R, Itzler R, **Devine EB**. Report of the Task Force on Indirect Treatment Comparisons Good Research Practices. International Society for Pharmacoeconomics and Outcomes Research, Report to the General Membership, ISPOR 15<sup>th</sup> Annual International Meeting, Atlanta, GA, May (panel presentation delivered by all)

39. \***Devine EB**, Chan LN, Babigumira J, Kao H, Drysdale T, Reilly D, McNeely M, Sullivan SD. Acquired Coagulopathy in Post-Surgical Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes. 2009 Annual Meeting, American College of Clinical Pharmacy, Anaheim, CA, October 2009 (podium delivered by Chan)

40. Wolf F, **Devine B**. Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review. Society for Research Synthesis Methodology, Ottawa, Canada, July 2011 (podium delivered by Devine)

41. \*Overby CL, **Devine EB**, Tarczy-Hornoch P, Kalet I. Deriving rules and assertions from pharmacogenomic knowledge resources in support of patient drug response predictions. Workshop on Intelligent Data Analysis in Biomedicine and Pharmacology: Machine Learning in Medical Applications, Annual Symposium of the American Medical Informatics Association, Washington DC, November 2010 (podium delivered by Overby)

42. **Devine EB**. Comparative effectiveness of biologic therapies in rheumatoid arthritis: An indirect comparisons approach. Indirect and Mixed Treatment Comparisons Workshop. University of Leicester, Leicester, England, September 2010 (podium delivered by Devine)

43. \*Patel R, **Devine EB**, Lawless NM, Wilson-Norton JL, Sullivan SD. Perceptions of an ambulatory CPOE system: A survey of community-based primary care prescribers and staff. International Partnership in Health Informatics Education, 2009 Masterclass, Amsterdam, NL, June 2009 (work-in-progress; podium delivered by Patel)

44. **Devine EB**, Wilson-Norton JL, Lawless NL, Hansen RN, Fisk AW, Sullivan SD. The Impact of an Ambulatory CPOE System on Medication Errors. 14<sup>th</sup> Annual National Research Service Award (NRSA) Trainees Research Conference, held in conjunction with Academy Health. Washington DC, June 2008 (podium delivered by Devine)

45. **Devine EB**, Wilson-Norton JL, Lawless NL, Hollingworth W, Hansen RN, Comstock BA, Fisk AW, Sullivan SD. Implementing an ambulatory e-prescribing system: A journey, not a solution. First Annual Meeting of the Agency for Healthcare Research and Quality. Washington DC, September 2007 (podium delivered by Devine)

46. Hansen R, Ferrera T, Wilson-Norton JL, Lawless NL, **Devine EB**, Hollingworth W, Sullivan SD, Tharp KLA. e-Prescribing at The Everett Clinic: The Retail Pharmacy Experience. 2006 Northwest Pharmacy Convention, Coeur d'Alene, ID, June 2006 (podium delivered by Hansen)

47. Hollingworth W, **Devine EB**, Hansen RN, Comstock BA, Wilson-Norton JL, Lawless NM, Fisk AW, Tharp KL, Sullivan SD. The impact of an ambulatory electronic prescribing system on prescriber and staff time: A time-motion study. AHRQ Annual Patient Safety and Health Information Technology Conference. Agency for Healthcare Research and Quality. Washington DC, June 2006 (podium delivered by Devine)

48. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen R, Kelly K, Te S, Wong C, Hazlet TK, Fisk AW, Sullivan SD *Characterizing the Epidemiology of Medication Errors in a Multispecialty Clinic Setting*. American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, NV, December 2005. (podium delivered by Devine)

49. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen R, Kelly K, Te S, Wong C, Hazlet TK, Fisk AW, Sullivan SD. Evaluating prescribing errors pre- and post-CPOE in the ambulatory setting. 2005 Annual Patient Safety and Health Information Technology Conference: Making the Health Care System Safer through Implementation and Innovation. Agency for Healthcare Research and Quality. Washington DC. June 2005 (podium delivered by Devine)

50. Hollingworth W, **Devine EB**, Lawless NM, Hansen R, Wilson-Norton JL, Tharp K, Sullivan SD. Evaluating the Impact of an ACPOE/CDS System on Outcomes: Using a Time and Motion Study to Measure Workload. 2005 Annual Patient Safety and Health Information Technology Conference: Making the Health Care System Safer through Implementation and Innovation. Agency for Healthcare Research and Quality. Washington DC. June, 2005 (exhibit display)

51. **Devine EB**. Keys to Successful ACPOE Implementation. Clinical Pearl Presentation. American Society of Health-System Pharmacists Midyear Clinical Meeting. Orlando, FL. December 2004 (podium delivered by Devine)

52. Wilson-Norton JL, Lawless NM, Fisk AF, Rafoth RJ, **Devine EB**. The use of electronic prescribing technology to impact medication errors. Final project presentation to the members of the Safety Collaborative in the Outpatient Environment (SCOPE) project. American Medical Group Association. New Orleans, LA, November 2003. (podium delivered by Wilson-Norton)

53. **Devine EB**, Sullivan SD, Lew DP, Veenstra DL. Health state preferences in diabetic peripheral neuropathy. *Value in Health*. 2000;3(2):56. (podium delivered by Devine)

54. \*Shahkarami M, Brethauer B, **Devine B**, Louie C, Kayser S. Computerizing a documentation and reporting system for clinical services. *California Journal of Health-System Pharmacy*. 1999;11(6):26. (podium delivered by Shahkarami)

55. \*Chang CY, Bolinger AM, **Devine B**, Matthay K, Wu HT, Zangwill AB. Compliance and outcome associated with pediatric oncology antiemetic guidelines. *Journal of Pediatric Pharmacy Practice*. 1998;3:286. (podium delivered by Chang)

56. \*Chang CY, Bolinger AM, **Devine B**, Matthay K, Wu HT, Zangwill AB. Compliance and outcome associated with pediatric oncology antiemetic guidelines. *California Journal of Health-System Pharmacy*. 1998;10(6):42. (podium delivered by Chang)

57. \*Wong H, **Devine B**, Kelley S. The use of albumin versus crystalloids in complex spinal surgery cases. *California Journal of Health-System Pharmacy*. 1998;10(6):12. (podium delivered by Wong)

58. \*Kroon L, **Devine, B**. Countdown! Preparing for a JCAHO visit - A pharmacy manager's perspective. ASHP Midyear Clinical Meeting. 31(Dec): p MCS-69, 1996. (podium delivered by Devine)

#### Abstracts of Poster Presentations (n=131)

\*mentored a student

\*\*co-first or co-senior author

1. \*Chan HH, **Devine B**. Cost-effectiveness of primary care-based risk assessment and hereditary cancer genetic testing. ISPOR International Meeting, Montreal, Quebec, CA, May 2025.

2. Dhippayom T, Chaiyakunapruk N, **Devine B**. Comparative analysis of non-pharmacological interventions network meta-analyses using the novel TIP (Theme, Intensity, Provider/Platform) Framework. Global Evidence Summit, Prague, Czech Republic, September 2024.

3. **Devine B**, Whiting P, Wolff R, Savovic J, Mallett S. Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Health Technology Assessment International (HTAi), Sevilla, Spain, June 2024. (virtual)

4. \*Kim JR, Park TJ, Agapova M, Blumenfeld A, Smith JH, Shah D, **Devine B**. Healthcare Resource Use and Costs Associated with the Misdiagnosis of Migraine. ENCORE PRESENTATION: Diamond Headache Clinic Research and Educational Foundation - The Revolution & Paradigm Shift in Treatment of Migraine 2024. San Diego, CA, June 2 2024

5. \*Kim JR, Park TJ, Agapova M, Blumenfeld A, Smith JH, Shah D, **Devine B**. Healthcare Resource Use and Costs Associated with the Misdiagnosis of Migraine. American Academy of Neurology, Denver, CO, April 2024

6. Moreno-Llamas A, De la Cruz-Sánchez E, Mendiola Olivares J, García-Mayor J, Torres-Cantero A, **Devine B**. Covid-19 sources of information may affect vaccination intent through individual beliefs: an EU-wide survey analysis. UW Corporate Advisory Board Meeting, Seattle, WA, September 2023

7. \*Baldwin Z, **Devine B**. Incidence of malignancies in Sickle Cell Disease (SCD): A systematic review and meta-analysis. ISPOR Annual International Meeting, Boston, MBA, May 2023.

8. \*Kim J, Park TJ, **Devine B**. Cost Effectiveness of Dual vs. Triple Therapy in Management of Atrial Fibrillation with Percutaneous Coronary Intervention. ISPOR Annual International Meeting, Boston, MBA, May 2023.

9. \*Guo B, Knerr S, Kauffman TL, Mittendorf KF, Keast E, Gilmore MJ, Feigelson HS, Lynch FL, Muessig KR, Okuyama S, Zepp JM, Veenstra DL, Hsu L, Phipps AI, Lindström S, Leo MC, Goddard KAB, Wilfond BS, **Devine B**, on behalf of the CHARM Study team. Risk Management Actions Following Genetic Testing in the Cancer Health Assessments Reaching Many (CHARM) Study: A Prospective Cohort Study. 2023 NHGRI Research Training and Career Development Annual Meeting; April 2023; Salt Lake City, UT

10. Bloudek L, Bloudek B, Pandey R, Migliaccio-Walle K, Campbell D, **Devine B**. Application and Feasibility of Indirect Treatment Comparison of Switch Maintenance and Non-Maintenance Oncology Regimens to Inform HTA Decision-Making. ISPOR Europe 2022; November 2022; Vienna, Austria.

11. \*Baldwin Z, Yan C, **Devine B**. Healthcare Resource Use and Economic Burden of Device-Assisted Therapies in Parkinson's Disease. A Systematic Review. UW Corporate Advisory Board, September 2022, Seattle WA

12. \*Kim Ja, Park TJ, **Devine B**. Characteristics of Diagnostic Setting in Migraine Diagnosis: A Systematic Review. UW Corporate Advisory Board, September 2022, Seattle WA

13. \*Park T, Hansen R, Gillard P, Ferguson W, Piccini J, Romano M, Devine B. Incremental Healthcare Costs for Cardiac Surgery Patients with New-Onset Post-operative Atrial Fibrillation. Heart Rhythm Society 2022; April 2022; San Francisco, CA.

14. \*Park T, Hansen R, Gillard P, Ferguson W, Piccini J, Romano M, Devine B. Incremental Healthcare Costs for Cardiac Surgery Patients with New-Onset Post-operative Atrial Fibrillation. ISPOR 2022; May 2022; National Harbor, MD.

15. Bloudek L, Hepp Z, McKay C, Devine B, Derleth C, Lill J, Lenero E, Wright P, Ramsey SD, Sullivan SD. Systematic literature review (SLR) and network meta-analysis (NMA) of first-line (1L) therapies for locally advanced/metastatic urothelial carcinoma (la/mUC). ASCO 2022 Genitourinary Cancers Symposium.

16. Chua S, Gray S, Todd A, Hughes S, Husband A, Elsisi Z, Huang Y, Smith S, Reeve E, Park TJ, Harris J, **Devine B**. Effectiveness of deprescribing interventions: Methodological challenges when conducting an overview of systematic literature reviews. Society for Research Synthesis Methodology. Bern, Switzerland, June 2021 (virtual)

17. Bloudek L, Hepp Z, McKay C, Devine B, Derleth C, Lill J, Lenero E, Ramsey SD, Sullivan SD. Systematic literature review (SLR) and network meta-analysis (NMA) of first-line (1L) therapies for locally advanced/metastatic urothelial carcinoma (la/mUC). European Society for Medical Oncology, September 2021. (virtual)

18. Chua S, **Devine B**, Todd A, Huang Y, Hughes S, Elsisi Z, Husband A, Gray SL. Effectiveness of deprescribing interventions in older adults: An overview of systematic literature reviews. American Geriatric Society. May 2021. (virtual)

19. \*Baldwin Z, Jiao B, Johnson KM, Basu A, Roth J, Bender MA, Ramsey SD, **Devine B**. Economic impact of Sickle Cell Disease, Treatments and Related Complications. ISPOR , May 2021. (virtual)

20. \*Park TJ, **Devine, B**. Cost-effectiveness of dual versus triple antithrombotic therapy in atrial fibrillation and recent PCI. ISPOR , May 2021. (virtual)

21. \*Cai K, **Devine, B**. A threshold analysis of the cost-effectiveness of adjunctive inclisiran therapy for ASCVD patients with  $LDL \geq 70$  mg/dl on maximally tolerated statin therapy. ISPOR , May 2021. (virtual)

22. Jiang S, Mathias P, Hendrix N, Veenstra D, **Devine B**. Implementation of pharmacogenomic clinical decision support alerts in Learning Health Systems: A cost-utility analysis. ISPOR , May 2021. (virtual)

23. \*Cha A, Chen Y, Rivara M, **Devine B**. Microvascular benefits of new antidiabetic agents: A systematic review and network meta-analysis of renal outcomes. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)

24. \*Jiang J, Hendrix NL, Mathias P, Veenstra DL, **Devine B**. PhaRmacogEnomics Clinical Support Economic VALUE (PRECISE VALUE) for Learning Health Systems. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)

25. \*Park TJ, **Devine B**. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)

26. \*Cai K, **Devine B**. UW Corporate Advisory Board Meeting, Seattle, WA (September 2020; virtual)

27. \*Ta JT, Sullivan SD, Tung A, Oliven D, Gillard P, **Devine B**. Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Antidepressants for Major Depressive Disorder. ENCORE Poster Presentation. AMCP Nexus 2020. (virtual)

28. \*Kim A, Shimeshan E, Campbell J, **Devine B**, Bansal A. Characterizing the healthcare resources utilization and costs in patients with geographic atrophy secondary to age-related macular degeneration stratified by disease severity. ISPOR 2020 (virtual)

29. \*Ta JT, Sullivan SD, Tung A, Oliveri D, Gillard P, Devine B. Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Antidepressants for Major Depressive Disorder. Poster presented at AMCP 2020, Houston, TX (April 21-24, 2020). Gold Medal Award.

30. \*Woodbury, R. B., Hiratsuka, V., & Devine, B. *Direct-to-Consumer Genetic Testing among Alaska Native and American Indian People: Preliminary Results on Use, Knowledge and Impacts* [Poster presentation]. Harvard Annual Bioethics Conference, Boston, MA, March 2020, <https://bioethics.hms.harvard.edu/events/annual-bioethics-conference> (poster; Conference Cancelled)

31. \*Beal B, **Devine B**. CRISPR and the Value of a Cure for Leber Congenital Amaurosis. UW Corporate Advisory Board Meeting, Seattle, WA. September 2019.

32. \*Lee J, **Devine B** Real world evidence for the use of onabotulinum toxin in patients with chronic migraine with migraine-related comorbidities and special populations. UW Corporate Advisory Board Meeting, Seattle, WA. September 2019

33. Vickers A, Nag A, **Devine B**, Sands BE, Panaccione R, Peyrin-Biroulet L, Danese S, Vermeire S, Gorelick KJ, Goetsch M, Hartley L. Induction of endoscopic response: a network meta-analysis of induction studies comparing ontamalimab with other treatments for moderate-to-severe ulcerative colitis. *J Crohn Colitis* 2020;14 Suppl 1:S410–411

34. Vickers A, Nag A, **Devine B**, Sands BE, Panaccione R, Peyrin-Biroulet L, Danese S, Vermeire S, Gorelick KJ, Goetsch M, Hartley L. Induction of response and remission: a network meta-analysis of induction studies comparing ontamalimab with other treatments for moderate-to-severe ulcerative colitis. *J Crohn Colitis* 2020;14 Suppl 1:S327–328.

35. \*Ta JT, Roth J, Devine B, Garrison L. “Net Health Benefit” – ASCO vs. ICER Value Frameworks: Are We Talking about the Same Thing? ISPOR 2019, New Orleans, LA. May 18-22, 2019.

36. \*Kim A, **Devine B**, Rosh JA. 55<sup>th</sup> Annual Meeting, American Society of Clinical Oncology, Chicago, IL May 2019 (online)

37. Hardy VE, Suchsland MLZ, Jarvik JG, Haines R, Brittain A, Kurth D, Rawson JV, **Devine B**, Lavallee DC, Fitzpatrick AL, Thompson MJ. Are patient-centered outcomes reported in the imaging literature? A secondary analysis of the American College of Radiology Appropriateness Criteria. Radiological Society of North America (RSNA) Annual Meeting, Chicago, IL, November 2018

38. \*Hart MG, Devine B. Using real-world pharmacogenomics knowledge resources to guide clinical decision-making. American Society of Human Genetics Annual Meeting. San Diego, CA, October 2018

39. Thompson M, Zigman-Suchsland M, Hardy V, Jarvik J, Fitzpatrick A, **Devine EB**, Lavallee D, Findlay S. Patient-Centered Outcomes of Diagnostic Tests: What Can We Learn from Imaging Testing? Society for Medical Decision Making, Montreal, Quebec, October 2018

40. \*Chin L, Yu J, **Devine EB**. Comparative Effectiveness of Agents Used As Monotherapy for the Treatment of Pulmonary Arterial Hypertension: A Systematic Review and Network Meta-Analysis. Society for Medical Decision Making, Montreal, Quebec, October 2018

41. \*Ta JT, **Devine B**. Impact of Antidepressant Non-adherence and Non-Persistence on Healthcare Resource Utilization and Costs in Major Depressive Disorder: A Systematic Review. UW Corporate Advisory Board Meeting, Seattle, WA. September 2018.

42. \*Kim A, **Devine B**. Clinical and economic burden of geographic atrophy secondary to age-related macular degeneration. UW Corporate Advisory Board Meeting, Seattle, WA. September 2018.

43. Zigman-Suchsland ML, Hardy V, Thompson MJ, Lavallee DC, **Devine BE**, Jarvik JG, Findlay S, Fitzpatrick A. Advancing Patient Centeredness: Which Patient Outcomes are Important for Imaging Tests? AcademyHealth, Seattle, WA, June 2018.

44. \*Bounthavong M, Harvey MA, Christopher MLD, Basu A, Veenstra DL, **Devine EB**. Impact of academic detailing on opioid overdose risk in the U.S. Veterans Health Administration. American Society of Health Economics, Atlanta, GA, 2018

45. \*Bounthavong M, Christopher MLD, Basu A, Veenstra DL, **Devine EB**. Is naloxone prescribing behavior associated with providers' perception with academic detailing and opioid overdose education? AcademyHealth Annual Research Meeting, Seattle, WA, 2018

46. \*Ike C, **Devine B**. Cost-utility analysis of oral ergotamine/caffeine versus oral sumatriptan in the treatment of acute migraine attacks. International Society for Pharmacoeconomics and Outcomes Research 23<sup>rd</sup> Annual International Meeting, Baltimore, MD. May 2018.

47. \*Higa S, **Devine B**. Cost-utility analysis of initial treatment with apremilast versus methotrexate in systematic-naïve patients with plaque psoriasis. International Society for Pharmacoeconomics and Outcomes Research 23<sup>rd</sup> Annual International Meeting, Baltimore, MD. May 2018.

48. \*Hendrix N, Adamson B, Basu A, **Devine B**. Increasing trend toward reporting significant digits in utility weights – behavior implications of “Flat-of-the-Curve” medicine. International Society for Pharmacoeconomics and Outcomes Research 23<sup>rd</sup> Annual International Meeting, Baltimore, MD. May 2018.

49. \*Wang WJ, **Devine EB**, Bansal A, White HS, Basu A. Meta-Analyzing Count Events over Varying Durations Using the Convolved Poisson Model: The Case for Post Stroke Seizures. Society for Medical Decision Making, Pittsburgh, PA, October 2017

50. \*Hendrix N, Simon N, **Devine B**. Funder effects on reporting of health-state utilities. UW Corporate Advisory Board Meeting, Seattle, WA. (September 2017).

51. \*Ike C, **Devine B**. Treatment Patterns, Switching, and Cycling in the Setting of Acute Migraine. UW Corporate Advisory Board Meeting, Seattle, WA. September 2017.

52. \*Higa S, **Devine B**. Psoriasis treatment patterns: a systematic review. UW Corporate Advisory Board Meeting, Seattle, WA. September 2017.

53. \*Bounthavong M, Harvey MA, Lau MK, Christopher MLD, Veenstra DL, Basu A, **Devine B**. Impact of a Veterans Affairs National Academic Detailing Service on Opioid Overdose Education & Naloxone Distribution, and Opioid & Psychotropic Drug Safety Initiatives. UW Corporate Advisory Board Meeting, Seattle, WA September 2017.

54. Mercieca-Bebber R, Langford A, Rutherford C, Busija L, Tinsley M, Tait MA, Roberts N, Vodicka E, **Devine B**. A systematic scoping review of the Australian New Zealand Clinical Trials Registry for trials with patient-reported outcome endpoints. International Society of Quality of Life Research 24<sup>th</sup> Annual Meeting, Philadelphia, PA October 2017

55. \*Holmes JT, Fore ME, Force RW, **Devine B**. Integrated Clinical Telepharmacist Delivered Chronic Disease Management in Rural Primary Care Clinics. Patient-Centered Outcomes Research Partnership, Seattle, WA July 2017

56. \*Hart R. Projected Cost-effectiveness for Two Gene-Drug Pairs using a Multi-Gene Panel for Patients undergoing Percutaneous Coronary Intervention. International Society for Pharmacoeconomics and Outcomes Research 22<sup>nd</sup> Annual International Meeting, Boston, MA May 2017

57. \*Shapouri, S, **Devine B**. Cost-utility analysis of outpatient dalbavancin for acute bacterial skin and skin structure infections (ABSSSI) versus inpatient vancomycin followed by oral linezolid. International Society for Pharmacoeconomics and Outcomes Research 22<sup>nd</sup> Annual International Meeting, Boston, MA May 2017

58. \*Serbin M, **Devine B**. Estimating the economic impact of open-angle glaucoma therapy options: A systematic review. International Society for Pharmacoeconomics and Outcomes Research 22<sup>nd</sup> Annual International Meeting, Boston, MA May 2017

59. \*Wang WJ, Basu A, **Devine B**. Meta-analyzing time-specific events using compound Poisson Process: The case for post-stroke seizures. International Society for Pharmacoeconomics and Outcomes Research 22<sup>nd</sup> Annual International Meeting, Boston, MA May 2017

60. \*Baradaran S, Black DJ, Keyloun KR, Hansen RN, Gillard PJ, **Devine EB**. The Impact of Acute Kidney Injury (AKI) on the Risk of Mortality and Healthcare Utilization Among Patients Treated with Polymyxins for Severe Gram-Negative Infections. American Society for Microbiology, ASM Microbe, New Orleans, LA, June 2017

61. \*Chin L, Yu J, **Devine B**. Comparative Effectiveness of Agents Used as Monotherapy for the Treatment of Pulmonary Arterial Hypertension: A Systematic Literature Review and Network Meta-Analysis. ASHP Midyear Clinical Meeting, Las Vegas, NV, December 2016

62. \*Chin L, Mathias PC, Hendrix N, Wang WJ, Keyloun K, Khelifi M, Tarczy-Hornoch P, **Devine B**. Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use. Academy of Managed Care Pharmacy (AMCP) Nexus, October 2016

63. \*Serbin M, **Devine B**. Estimating the Economic Impact of Open-Angle Glaucoma Therapy Options: A Systematic Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2016

64. \*Shapouri S, Keyloun K, **Devine B**. Prediction Model for 30-Day Hospital Readmissions or Emergency Department Revisits Among Patients with Acute Bacterial Skin and Skin Structure Infections (ABSSSI): A Literature Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2016

65. \*Buckley SA, Wood BL, Othus M, Hourigan CS, Malagola M, Kanakry CG, Ustun C, **Devine B**, Walter RB. The Effect of Measurable Residual Disease at the Time of Allogeneic Hematopoietic Cell Transplantation on Outcomes in Patients with Acute Myeloid Leukemia: a Meta-Analysis. 58<sup>th</sup> American Society of Hematology Annual Meeting and Exposition, San Diego, CA December 2016.

66. \*Baradaran S, Chin L, Keyloun K, Pham J, Canestaro WJ, **Devine EB**. Clinical evidence supporting pharmacogenomic biomarker testing provided in US Food and Drug Administration drug labels. International Society for Pharmacoeconomics and Outcomes Research 21<sup>st</sup> Annual International Meeting, Washington DC May 2016.

67. \*Canestaro WJ, **Devine EB**, Sullivan SD, Bansal A, , Carlson JJ. Predictors of publication bias for biomedical research. International Society for Pharmacoeconomics and Outcomes Research 21<sup>st</sup> Annual International Meeting, Washington DC May 2016

68. \*Hendrix N, **Devine EB**. Deriving utility weights from patient-reported outcomes in epilepsy. International Society for Pharmacoeconomics and Outcomes Research 21<sup>st</sup> Annual International Meeting, Washington DC May 2016

69. \*Tung A, Hepp Z, Bansal A, **Devine EB**. Characterizing health care utilization, direct costs, and comorbidities associated with interstitial cystitis: A retrospective claims analysis. International Society for Pharmacoeconomics and Outcomes Research 21<sup>st</sup> Annual International Meeting, Washington DC May 2016

70. \*Shih V, Campbell J, Devine B. The association between onset of self-reported vision impairment and nursing home residence in an older US population. Association for Research in Vision and Ophthalmology, Annual Meeting, Seattle, WA, May 2016

71. Butler M, **Devine EB**, Hamm MP, Kahwati LC, McPheeeters ML, Miles JNV, Morton SC, Murad MH, Viswanathan M. Selecting analytic approaches for systematic reviews of complex interventions. Cochrane Colloquium 2015, Vienna, Austria, October 2015 (presented by M. Viswanathan)

72. \*Baradaran S, Keyloun K, Chin L, Pham J, Canestaro WJ, **Devine B**. Clinical evidence supporting pharmacogenomic biomarker testing provided in US Food and Drug Administration drug labels: An Update. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2015

73. \*Tung A, Hepp Z, **Devine B**. The Economic Burden of Interstitial Cystitis in the United States: A Literature Review. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2015

74. Vodicka E, Kim K, **Devine EB**, Gnanasakthy A, Patrick DL. The use of patient-reported outcome instruments in clinical trials. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

75. \*Bounthavong M, **Devine EB**, Veenstra DL. A cost utility analysis of biologics for moderate-to-severe Crohn's disease: Evidence synthesis using a network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

76. \*Bounthavong M, Bae Y, Kazerooni R, **Devine EB**. An evaluation of clinical remission and safety among biologics for moderate to severe Crohn's Disease: A network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

77. \*Keyloun KR **Devine EB**. Estimating the cost-effectiveness of vortioxetine versus desvenlafaxine as first-line therapy for mild to moderate major depressive disorder in remitted patients. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

78. \*Shih V, **Devine EB**. Cost-effectiveness of left atrial appendage closure compared to warfarin for stroke prevention in atrial fibrillation. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

79. \*Yep T, Patel V, Sleijko JF, **Devine EB**. Comparing total and disease-specific resource use and healthcare costs for glaucoma patients before and after the index diagnosis: A retrospective claims database analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

80. \*Yep T, Patel V, Sleijko JF, **Devine EB**. Comparing Total and Disease Related Healthcare Cost of Glaucoma Patients by Disease Severity: A Retrospective Claims Database Analysis. Association for Research in Vision and Ophthalmology, 2015

81. \*Canestaro WJ, Forrester SF, Ho L, **Devine EB**. Drug therapy for treatment of idiopathic pulmonary fibrosis: A systematic review and network meta-analysis. International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA, May 2015

82. Li S, **Devine EB**. ITHS certificate in translational team science: enhancing bidirectional communication and collaboration across the translational spectrum. Association for Clinical and Translational Science, Washington DC, April 2015

83. \*Kim DD, **Devine EB**. Estimating preference weights in obesity using the EQ-5D and SF-6D. Society for Medical Decision Making, 36<sup>th</sup> Annual Nort8 American Meeting, Miami, FL, October 2014 (**Lusted Prize finalist**)

84. \*McDermott CL, Lockhart C, Devine EB. Systematic review and meta-analysis of directly observed therapy for treatment of hepatitis C. Society for Medical Decision Making, 36<sup>th</sup> Annual North American Meeting, Miami, FL, October 2014 (**Lusted Prize finalist**)

85. \*Agapova M, **Devine EB**. Quantifying Benefits and Harms of Imaging Tests for Clinical Practice Guidelines. Vancouver Health Economics Meeting, Vancouver, BC, June 2014

86. \*Chavez LJ, **Devine B**, Tefft N, Bradley KA. Heath-related quality of life across the spectrum of unhealthy alcohol use in a US population sample. Academy Health, Annual Research Meeting, San Diego, June 2014

87. Slade IR, Kramer CB, Beck SJ, Cusumano M, Flum DR, Gallagher TH, **Devine EB**. Measuring the impact of interprofessional communication training on inpatient clinical adverse events: The Washington State experience. 2014 Annual Research Meeting, Academy Health San Diego, June 2014

88. \*Tung A, **Devine EB**, Garrison LP. Assessing the likely cost-utility of alemtuzumab versus rabbit anti-thymocyte globulin as induction therapy for high-risk kidney transplant recipients. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014

89. \*Cizik AM, Rice K, Babigumira JB, **Devine EB**, Lee MJ. Risk factors that predict nerve injury following spine surgery. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014

90. \*Forrester, SH, Sullivan SD, **Devine EB**. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014

91. \*Yep TD, **Devine EB**. A cost-utility analysis of CYP2D6 pharmacogenetic guided dosing versus standard dosing of risperidone for treatment of schizophrenia. International Society for Pharmacoeconomics and Outcomes Research, Montreal, QC, Canada, June 2014

92. \*Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**. Persistence and switching characteristics among chronic migraine patient population: A retrospective claims analysis. Submitted to European Headache and Migraine Trust International Congress, Copenhagen, Denmark, September 2014

93. \*Hepp Z, Dodick DW, Varon SF, Gillard P, Hansen R, **Devine EB**, Adherence to oral migraine preventive medications among patients with chronic migraine: analysis of a large US health insurance claims database. Academy of Managed Care Pharmacy, Tampa, FL April 2014

94. \*Agapova M, **Devine EB**, Bresnahan B, Garrison LP Jr. The Challenges of Quantifying Benefits and Risks Associated with Diagnostic Imaging: A Literature Review. International Society for Pharmacoeconomics and Outcomes Research 18<sup>th</sup> Annual International Meeting, New Orleans, LA, May 2013

95. **Devine EB**, Alfonso R. Building the infrastructure for conducting pragmatic trials in a Learning Healthcare System. International Society for Pharmacoeconomics and Outcomes Research 18<sup>th</sup> Annual International Meeting, New Orleans, LA, May 2013

96. \*Cizik AM, **Devine EB**, Wolf FM, Babigumira JB, Lee MJ. Systematic review and meta-analysis of open spine fusion versus minimally invasive spine fusion for the diagnosis and treatment of lumbar spine conditions. International Society for Pharmacoeconomics and Outcomes Research 18<sup>th</sup> Annual International Meeting, New Orleans, LA, May 2013

97. \***Devine EB**, Cheng MM. Using parametric survival curves to estimate progression-free survival in a network meta-analysis of treatments of chronic lymphocytic leukemia. International Society for Pharmacoeconomics and Outcomes Research 18<sup>th</sup> Annual International Meeting, New Orleans, LA, May 2013

98. \***Devine EB**, Lau B, Overby CL. Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines. 34<sup>th</sup> Annual Meeting of the Society for Medical Decision Making, Phoenix, AZ, October 2012

99. Van Eaton E, Yetisgen-Yildiz M, Devlin R, Capurro D, **Devine EB**, Alfonso R, Flum DR, Tarczy-Hornoch P, and the SCOAP CERTAIN Corporate Authorship. Automating clinical data extraction to support comparative effectiveness research. 34<sup>th</sup> Annual Meeting of the Society for Medical Decision Making, Phoenix, AZ, October 2012

100. \*Hepp Z, Forrester S, Roth J, Wirtz HS, **Devine EB**. Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted. UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2012

101. \*Agapova M, **Devine EB**, Nguyen H, Inoue L, Wolf F. Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review UW School of Pharmacy Corporate Advisory Board, Seattle, WA, September 2012

102. Flum DR, Alfonso-Cristancho R, **Devine EB**, Devlin A, Farrokhi E, Kessler L, Patrick D, Sullivan SD, Tarczy-Hornoch P, Van Eaton E, Yanez ND. Developing a Comparative Effectiveness Research Translational Network: CERTAIN. (accepted for presentation at the AHRQ 2012 Annual Conference, Bethesda, MD, September

103. **Devine EB**, Van Eaton E, Yanez ND. Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTN Validation Study. Academy Health Annual Research Meeting, Orlando, FL, June 2012

104. \*Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient Perceptions of Prophylaxis Therapy in Chronic and Episodic Migraine. 17<sup>th</sup> Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Washington DC, June 2012

105. \*Lin VW, Ringold S, **Devine EB**. Comparison of ustekinumab with other biologic agents for treatment of moderate to severe psoriasis: A Bayesian network meta-analysis. 17<sup>th</sup> Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Washington DC, June 2012

106. \*Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient perceptions of prophylaxis therapy in chronic and episodic migraine. 2012 Annual Meeting, American Academy of Neurology, New Orleans, LA, April 2012

107. \*Sanderson JC, **Devine EB**, Bloudek LM, Varon SF, Sullivan SD. Patient perceptions of prophylaxis therapy in chronic and episodic migraine. UW, School of Pharmacy, Corporate Advisory Board Meeting, Seattle, WA, September 2011

108. \*Wirtz HS, **Devine EB**, Overby CL, Lawless NM, Wilson-Norton JW. The impact of stepwise implementation of clinical decision support (CDS) alerts on clinical guideline adherence and clinical outcome laboratory measures. UW, School of Pharmacy, Corporate Advisory Board Meeting, Seattle, WA, September 2009

109. Wolf F, Nguyen H, **Devine B**. Exploring indirect effects of comparative effectiveness in a Cochrane review. 19<sup>th</sup> Cochrane Colloquium, Madrid, Spain, October 2011

110. \*Gillard PJ, **Devine B**, Bloudek LM, Liu L, Varon SF, Sullivan SD. Quality of life among patients suffering from migraine: Health utility by frequency of headache days. 16<sup>th</sup> Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Baltimore, MD, May 2011

111. **Devine EB**, Patel R, Dixon DR, Sullivan SD. A Survey of Attitudes toward e-Prescribing Adoption in Primary Care. AMIA 2010 Annual Sympos Proc; 1024

112. \*Dee A, **Devine EB**, Kenyon K. Evaluation of hemorrhagic complications of post-percutaneous coronary intervention (PCI) patients. American College of Clinical Pharmacy, Austin TX, October 2010

113. \*Alfonso R, **Devine EB**, Sullivan SD. Indirect comparisons of biologic therapies in rheumatoid arthritis. 15 Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Atlanta, GA, May 2010

114. \*Gillard P, **Devine EB**, Varon SF, Maglione G, Sullivan SD. Mapping from Disease-Specific Measures to Health-State Utility Values in Chronic Migraineurs. 15 Annual International Meeting, International Society for Pharmacoeconomics and Outcomes Research, Atlanta, GA, May 2010

115. **Devine EB**, Hollingsworth W, Hansen RN, Lawless NM, Wilson-Norton JL, Martin DP, Blough DK, Sullivan SD. Electronic prescribing at the point of care: A time-motion study in the primary care setting. 2009 AHRQ Annual Conference, Agency for Healthcare Research and Quality, Bethesda, MD, September 2009

116. **Devine EB**, Wilson-Norton JL, Lawless NM, Hansen RN, Fisk AW, Sullivan SD. The impact of an ambulatory CPOE system on medication errors. Washington Patient Safety Coalition: A Program for the Foundation for Health Care Quality. Sea-Tac, Washington, May 2009

117. **Devine EB**, Wilson-Norton JL, Lawless NL, Hollingsworth W, Hansen RN, Fisk AW, Sullivan SD. End-users perceptions of an ambulatory electronic prescribing system. First Annual Meeting of the Agency for Healthcare Research and Quality. Washington DC, September 2007

118. \*Cross JT, **Devine EB**, Kowdley KV, Sullivan SD. The cost of treating ribavirin-induced anemia in hepatitis C: The impact of using epoetin. 11<sup>th</sup> Annual International Meeting. International Society for Pharmacoeconomics and Outcomes Research. Philadelphia, PA, May 2006.

119. **Devine EB**, Hopeff AW, Wittkowsky AK. Adherence to national guidelines for the management of elevated INRs associated with warfarin therapy. 2006 ACCP Spring Practice and Research Forum, American College of Clinical Pharmacy. Monterey, CA, April 2006.

120. **Devine EB**, Wilson-Norton JL, Lawless NM, Fisk AF, Rafoth RJ. Evaluating the Impact of an ACPOE System on Process Outcomes in the Multispecialty Clinic Setting. 2004 Patient Safety Congress of the National Patient Safety Foundation. Boston, MA, May 2004.

121. \*Te S, Wong C, **Devine EB**, Wilson-Norton JL, Lawless NM, Hazlet TK. Characterizing the epidemiology of medication errors pre-implementation of an ACPOE system. ASHP Midyear Clinical Meeting. New Orleans, LA, December 2003.

122. \*Super J, Wittkowsky AK, **Devine EB**. Effect of experience with managing anticoagulant therapy on physician satisfaction with a pharmacist-operated anticoagulation clinic. American College of Clinical Pharmacy. Atlanta, GA, November 2003.

123. Wittkowsky AK, **Devine EB**. Frequency and causes of over- and underanticoagulation in patients taking warfarin. American College of Clinical Pharmacy. Atlanta, GA, November 2003.

124. \*Whately K, Wittkowsky AK, **Devine EB**, Nutescu E. The association between age and INR in patients with warfarin-related major bleeding complications. American College of Clinical Pharmacy. Atlanta, GA, November 2003.

125. **Devine EB**, Beney J, Bero LA. Equity and accountability: successful use of the contributorship concept in a multi-site study. Fourth International Congress on Peer Review in Biomedical Publication. Barcelona, Spain, September 2001.

126. **Devine EB**, Hakim Z, Green J. Selection of instruments for measuring sleep dysfunction. Drug Information Association Eighth Annual Symposium of Contributed Papers "Quality of Life Evaluation". Hilton Head, SC, March 2001.

127. Beney J, **Devine EB**, Bero LA. The effect of clinical pharmacist's telephone follow-up on cancer patients' symptoms and quality of life: a randomized controlled trial. 29<sup>th</sup> European Symposium on Clinical Pharmacy; Basel, Switzerland, October 2000

128. **Devine EB**, Kowdley KV, Sullivan SD, Veenstra DL. Management strategies for ribavirin-induced hemolytic anemia in the treatment of hepatitis C: clinical and economic implications. *Value in Health*. 2000;3(2):121.

129. \*Wu HT, **Devine EB**, Zangwill AB, Bolinger AM. Pediatric pharmacy competency program at the University of California, San Francisco Medical Center. ASHP Midyear Clinical Meeting. 34(Dec): p P-476D, 1999.

130. Louie C, **Devine B**, Koda-Kimble MA, Dong D, Alldredge B. Training Leaders for the New Millennium: Evolution of the Pharmacy Administration Resident. ASHP Midyear Clinical Meeting. 32(Dec): p RES-12, 1997.

131. \*Choy M, Winter ME, **Devine B**. Utilizing a Mass Balance Algorithm and the Phenda Computerized Program to Predict Phenytoin Plasma Levels in the Neurosurgery Patient. ASHP Midyear Clinical Meeting. 28 (Dec):p P-111(E). 1993.

#### **Student Dissertations and Theses, unpublished**

1. Cai K. Healthcare resource use and costs associated with chronic migraines vs. non-migraine controls and episodic migraines vs. non-migraine controls. University of Washington ProQuest Dissertations Publishing, 2021. 28722180 (MS thesis).
2. Ike C. Treatment patterns, discontinuation and switching of acute medications for migraine: A cross-sectional survey. ProQuest Dissertations Publishing, 2018. 10837006. (MS thesis)
3. Lee CJ. A Knowledge-based System for Intelligent Support in Pharmacogenomics Evidence Assessment: Ontology-driven Evidence Representation, Retrieval, Classification and Interpretation. University of Washington, ProQuest Dissertations Publishing, 2016. 10138583 (PhD dissertation)
4. Cizik AM. Variations in Surgeon Treatment Preferences and The Impact on the Cost-Utility of Surgery for Soft Tissue Sarcoma. University of Washington, ProQuest Dissertations Publishing, 2016. 10193942 (PhD dissertation)
5. Shih V, Campbell J, **Devine B**. The association between onset of vision impairment and functional limitations and informal caregiving requirements in older Americans, 2015 (MS thesis)
6. Yep TD. Total and Disease Specific Resource Use and Healthcare Cost of Patients with Glaucoma. University of Washington. ProQuest Dissertations Publishing, 2014. 1567626 (MS thesis)
7. Forrester SH. Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events University of Washington. ProQuest Dissertations Publishing, 2013. 1542367 (MS thesis)
8. Farrokhi E. Building a Learning Healthcare Network: The transition of the Vascular Interventional Surgical Care Outcomes Assessment Program to the Comparative Effectiveness Research Translation Network (VI SCOAP to CERTAIN). University of Washington. ProQuest Dissertations Publishing, 2013. 1542363 (MS thesis)

#### **Continuing Education Monographs**

1. **Devine B**, Eaton M, Lofholm P, Shane R, Shreve M, Simonian R (editors). Expanding pharmacy practice roles: The challenge and opportunity of SB 1759. A continuing education workbook. The Enright Group. Bethlehem, PA, 1996.
2. **Devine B**, Ellis W, Glass S, Maiuro J, Miller TA, Russell W, Vaida A (editors). Successful models in pharmaceutical care. A continuing education workbook and video. Marion Merrell Dow, Inc., 1995.
3. **Devine B**, Chow V. Clinical simulations in pharmaceutical care: the management of HIV disease. University of Missouri-Kansas City School of Pharmacy. Medical Age Publishing. Norwalk, CT. May 1994.

#### **Internal Publications**

1. **Devine EB**, Louie C. UCSF pharmacy faculty practice consortium: A plan for optimizing medication use in physician group practices. MBA thesis. University of San Francisco, McLaren School of Business. May 7, 1999.

2. **Devine B**, Guglielmo BJ, Shahkarami M. (editors) . *Handbook of Antimicrobial Therapy*. The Medical Center at UCSF, UCSF-Mount Zion Medical Center, San Francisco General Hospital, Veterans Affairs Hospital of San Francisco. Developed in collaboration with the Departments of Pharmaceutical Services and the Divisions of Infectious Diseases at each campus, the UCSF and UCSF-MZ Pharmacy and Therapeutics Committee, and the UCSF School of Pharmacy. Published by the UCSF School of Pharmacy, 1999.

3. **Devine B**, Guglielmo BJ, McCart G, Tsourounis C, (editors). *P and T Forum*. Newsletter of the Hospital Pharmacy and the Pharmacy and Therapeutics Committee. The Medical Center at UCSF and UCSF-Mount Zion Medical Center. San Francisco, CA, 1995 – 1999.

4. **Devine B**, McCart G, Tsourounis C (editors). *ADR Alert*. Newsletter on Adverse Drug Reactions of the Hospital Pharmacy and Pharmacy and Therapeutics Committee. The Medical Center at UCSF and UCSF-Mount Zion Medical Center. San Francisco, CA, 1995-1999.

#### Articles in Proceedings

**Devine B**, Kroon L. Preparing for a joint commission survey. Update on quality improvement; A special report from the 31st ASHP Midyear Clinical Meeting, December 1996. *Bayer Quality Network*, 1997;6-7.

#### Reports

1. Lee W, Dayer T, Jiao B, Carlson J, **Devine B**, Veenstra DL. The use of real-world evidence in economic assessments of pharmaceuticals in the US. University of Washington Corporate Advisory Board Meeting, September 2019.

2. Jiao B, Veenstra D, Lee W, Carlson J, **Devine B**. The use of real-world evidence in ICER's scoping process and clinical evidence assessment. University of Washington Corporate Advisory Board Meeting, September 2019.

3. Segal J, **Devine EB**, Garrison LP, Gagnon JP. Curricular Advances for patient-centered comparative effectiveness research: A conference report. Conference Proceedings. Johns Hopkins School of Medicine, UW Pharmaceutical Outcomes Research & Policy Program, Pharmaceutical Research & Manufacturers Association Foundation, 2014.

4. **Devine B** (contributor). Streamlined FDA drug review puts drug information services and P & T committees to the test. *ASHP Specialists' Spectrum*, Summer 1997.

5. **Devine B** (contributor). Update on state prescribing authority. Flanagan ME. *American Pharmacy*. 1995;NS35:13-23

6. **Devine B** (contributor). Obtaining prescribing authority for pharmacists: Lessons learned. Wittenburg ASJ. *Am J Health-System Pharm*. 1995;52:1616-24.

7. **Devine B** (contributor). Pharmacists throughout the U.S. Call for expanded prescribing authority. *Pharmacy Practice News*, September 1994.

#### Letters to the Editor

**Devine, B.** Collaborative drug therapy management in California: Clarification. *ASHP Specialists' Spectrum*, Winter 1997.

#### Invited Interviews

1. HTA requirements of real-world evidence derived from hospital data to be used for policy decision making. EU Horizon funded ONCOVALUE consortium, the Netherlands Cancer Institute leading a work package concerning 'Future-proof HTA framework based on hybrid RWD collection'. PIS: Wim van Harten and Valesca Retèl. The goal of the work package is to empower and guide cancer clinics/hospitals in the collection, harmonization, and real-time analysis of high-quality Real-World Data (RWD), February 2024.

2. Foley KE, Gardner L. What to know about looming FDA decision on first gene-editing therapy. Interview with POLITICO and POLITICO Prescription Pulse. about upcoming FDA decision on approval of exo-cel, the first gene editing therapy for Sickle Cell Disease. November 28, 2023.

3. De la Cruz-Sánchez E, Moreno-Llamas A, García-Mayor J, Mendiola-Olivares J, Torres-Cantero A, **Devine B**. Estimating the association between Covid-19 sources of information, beliefs, and vaccination rates: Results from an EU-wide survey. *Eur J Public Health*. 2023 33:897-904. doi: 10.1093/eurpub/ckad115. The Scientific and Cultural Unit, University of Murcia, Murcia, Spain.

Available at:

<https://www.um.es/web/ucc/-/un-estudio-de-la-umu-pone-de-relieve-que-las-redes-sociales-la-tran-el-exito-de-las-campanas-de-vacunacion-en-europa/1.0?redirect=%2Fweb%2Finvestigacion%2F>. October 17, 2023.

Followed on October 18, 2023 with an interview with dr. De la Cruz Sanchez on Murcia 7, regional televisión: <https://www.la7tv.es/video/informativo-tarde/7-noticias-edicion-tarde-18-10-23/20231019082415026666.html>

4. Devine B. Remote Patient Monitoring. An interview with Hospital Case Management, Relias Media of Raleigh, N.C. June 2022.

5. Wilson-Norton JL, Devine EB. Clinic Launches New e-Prescribing System. AHRQ 411 Podcast. September 26, 2007. <http://healthcare411.ahrq.gov:80/podcast.aspx?id=271>. Accessed November 16, 2007

6. Pizzi R. CPOE and Patient Safety. Healthcare IT News. September 2007 <http://www.healthcareitnews.com:80/story.cms?id=7678>. Accessed November 16, 2007 (EB Devine, interviewee)
7. Devine EB, Wilson-Norton JL. Quality Metrics in the Context of HIT Implementation and Evaluation. An interview conducted by the Center for Information Technology Leadership. August 2007 (no report available)
8. Devine EB, Wilson-Norton JL. Quality Metrics in the Context of HIT Implementation and Evaluation. An interview conducted by the AHRQ National Resource Center. AHRQ National Resource Center for Health Information Technology, July 2007

#### **Lay Press**

1. Revascularization better for peripheral arterial disease. UW Health Sciences NewsBeat and UW Today, August 17, 2016. Available from URL: <http://hsnewsbeat.uw.edu/story/revascularization-better-peripheral-arterial-disease>
2. Effectiveness of a medical vs revascularization intervention for intermittent leg claudication based on patient-reported outcomes. JAMA Network, August 17, 2016. Available from URL: [http://archsurg.jamanetwork.com/article.aspx?articleid=2542658&utm\\_source=jps&utm\\_medium=email&utm\\_campaign=author\\_alert-jamanetwork&utm\\_content=author-author\\_engagement&utm\\_term=1m](http://archsurg.jamanetwork.com/article.aspx?articleid=2542658&utm_source=jps&utm_medium=email&utm_campaign=author_alert-jamanetwork&utm_content=author-author_engagement&utm_term=1m) and Overview of attention for article published in JAMA Surgery, August 2016. Available from URL: <https://jamanetwork.altmetric.com/details/10617752>
3. Effectiveness of medical management vs revascularization for intermittent leg claudication. Science Daily, August 17, 2016. Available from URL: <https://www.sciencedaily.com/releases/2016/08/160817131408.htm>
4. Leg Cramps? Greater gains in QoL after revascularization. MedPage Today, August 19, 2016. Available from URL: <http://www.medpagetoday.com/cardiology/peripheralarterydisease/59774>
5. Medical Rx vs. revascularization in patients with intermittent claudication. Monthly Prescribing Reference, August 18, 2016. Available from URL: <http://www.empr.com/news/medical-rx-vs-revascularization-in-patients-with-intermittent-claudication/article/517017/>
6. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. HIE Requires More Research to Demonstrate Effectiveness. HealthData Management. Monday, December 28, 2015. Available from URL: <http://www.healthdatamanagement.com/news/hie-requires-more-research-to-demonstrate-effectiveness>
7. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. Studies on HIE benefits few and far between. FierceHealthIT. Friday, December 18, 2015. Available from URL: <http://www.fiercehealthit.com/story/studies-hie-benefits-few-and-far-between/2015-12-18>
8. Hersh WR, Totten AM, Eden KB, Devine B, Gorman P, Kassakian SZ, Woods SS, Daeges M, Pappas M, McDonagh MS. HIE use definitely rising; impact less clear. Modern Healthcare. Friday, December 18, 2015. Available from URL: <http://www.modernhealthcare.com/article/20151218/NEWS/151219860>
9. Publication recognized with press release from ISPOR: Forrester S, Hepp Z, Roth J. Wirtz HS, Devine EB. Cost-effectiveness of a computerized provider order entry system in improving medication safety in ambulatory care. Value Health, May 2014
10. May M. 2011 Year in Review. Bioscience Technology. Available at: [www.BioscienceTechnology.com](http://www.BioscienceTechnology.com). December 2011
11. Dash H and Fisk A. A prescription for improving medication safety. (The Everett) HeraldNet. August 5, 2006. Available from URL: <http://www.heraldnet.com/stories/SWPrintIt.cfm?page=http%3A%2F%2Fwww%2Eheraldnet>. (archived)
12. Electronic prescribing at The Everett Clinic. The Everett Clinic Connection. Autumn 2005. page 1
13. Ludington J. Grant enables UW School of Pharmacy to evaluate computer-prescribing technology. The Daily, of the UW. November 29, 2004 page 1
14. Mandt L. Everett Clinic uses grant to reduce prescription mistakes. The Everett Tribune. November 24, 20004. page 6
15. HHS awards grant to study computerized prescribing. iHealthBeat. November 19, 2004. Available from URL: <http://www.ihealthbeat.org/index.cfm?Action=dsplItem&itemID=107521> (archived)
16. School of Pharmacy and Everett Clinic test computerized prescribing. University Week, UW. November 18, 2004. Page 14
17. Salyer S. Clinic pioneers new Rx system. (The Everett) HeraldNet. November 17, 2004 Available from URL: <http://www.heraldnet.com/stories/SWPrintIt.cfm?page=http%3A%2F%2Fwww%2Eheraldnet>. (archived)
18. Schwarzen C. Clinic, school receive federal grant. The Seattle Times. November 17, 2004. page B2.

## INVITED LECTURES, SEMINARS, WORKSHOPS and PODCASTS (1999 – present)

### Podcast

2024 UW *Pharmacy Fridays*. "Pharmacogenomics". Joint recording with Ken Thummel, PhD (UW Department of Pharmaceutics) and Erica Woodahl, PhD (University of Montana, School of Pharmacy) (March)

### Workshops Led

2025 "Beyond the QALY: Alternatives in the US and Implications for EU". With Anirban Basu, Varun Ektare, Jordan Banks.. Workshop at ISPOR Europe 2025-Glasgow (November)

2024 "Addressing Key Challenges in the Setting of Tumor-Agnostic Drugs: Meeting an Unmet Need?" With Dan Ollendorf, Emma Mackay, Yilin Chen. Workshop at ISPOR-Atlanta (May)

2023 & 2024 "CHOICE Executive Series in Conveying Knowledge (CHECK). UW Health Technology Fund Consortium, Corporate Advisory Board Training in Data Science. Workshop led by Anirban Basu, Beth Devine, Aasthaa Bansal. Seattle, WA (September)

2021 "Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment". Genentech Evidence for Access (E4A). (virtual, with Enrique Saldarriaga) (May)

2018 "HTA 3-Day International Training Program". International Society for Pharmacoeconomics and Outcomes Research, Princeton, NJ. 30 attendees. (with Lou Garrison, Finn Børlum Kristensen and Zoltán Kaló) (June)

"Using online real world evidence tools to enhance formulary decision-making". Academy of Managed Care Pharmacy Nexus Meeting, Orlando, FL (October) (with Jennifer Graff, Sophia Yun, Shuxian Chen and Jamie Ta)

2017 "Literature Evaluation and the Comparative Effectiveness Research Collaborative", UW Chapter, Academy of Managed Care Pharmacy, Pharmacy & Therapeutics Competition Workshop (with Lauren Chin, PharmD)

"Curricular Advances for patient-centered comparative effectiveness research".  
A National Invitational Conference.  
Member, Conference Planning Committee (along with Glen Schumock, Simon Pickard, Eleanor Perfetto)  
The Pew Charitable Trust Conference Center, Washington DC (January-February)

2015-2019 "Patient Centered Outcomes Research Partnership (PCORP) - AHRQ R25" (PI: Kessler)  
Faculty Co-Lead (with Kessler, Patrick, Bresnahan, Nelson)  
Weeklong Summer Institute to train junior investigators and clinicians in CER/PCOR  
UW (July)

2014 "Curricular Advances for patient-centered comparative effectiveness research".  
A National Invitational Conference.  
Conference Co-lead (with Jodi Segal, MD, MPH, from Johns Hopkins and Lou Garrison, UW PORPP)  
The Pew Charitable Trust Conference Center, Washington DC (January)

2013 "Methods for Outcomes Research".  
Workshop Leader/ Training Program (unable to participate due to eldercare obligations for one of my parents)  
Sheikh Hamdan bin Rashid Al Maktoum Award for Medical Sciences  
Dubai, United Arab Emirates (November)

2010 "Indirect/Mixed Treatment Comparisons in Comparative Effectiveness Research"  
Workshop Leader/ Training Program (4 hours)  
Bayer HealthCare Pharmaceutical, Inc., Health Economics & Outcomes Research Group, New Jersey (November)

"Indirect/Mixed Treatment Comparisons in Comparative Effectiveness Research"  
Workshop Leader/ Training Program (4 hours)  
Allergan Global Health Outcomes Strategy and Research (GHOSR), Irvine, CA (May)

### Invited Speaker

#### International

2024 **Devine B.** Implementation of pharmacogenomic clinical decision support for health systems: a cost-utility analysis. Pharmacogenomics Global Research Network. (virtual, November)

**Devine B.**, Whiting P, Wolff R, Savovic J, Mallett S. Ensuring Study Validity to Inform Health Technology Assessments Globally: The LATITUDES Network. Department for Evidence-based Medicine and Evaluation, Danube University KREMS, Austria. (virtual, May)

2023	Fulbright Scholar Spotlight on Spain Webinar. Institute of International Education, US Department of State (virtual, May)
2022	“Digital Health, Artificial Intelligence, & Remote Patient Monitoring.” Presentation to Alexion Global Health Economics and Outcomes Research, Astra Zeneca Rare Disease Group. HTA Journal Club. (virtual, August)
	<b>Devine B</b> , Riaz Qureshi, Evan Mayo-Wilson, Dawid Pieper. Compounding complications: Synthesizing harms across the evidence pipeline. Society for Research Synthesis Methodology Annual Meeting, Portland, OR (Moderator; July)
2021	Saldarriaga EM, Hauber B, Carlson JJ, Barthold D, Veenstra DL, <b>Devine B</b> . “Assessment of payers’ preferences for real world evidence: A discrete choice experiment.” Presentation to Pfizer Health Economics and Outcomes Group, New York, NY. (Fall) (Co-presenter with Enrique Saldarriaga)
2016	“Network Meta-Analysis in HTA and CER”. ISPOR National Student Network. (Webinar Speaker, March 2016)
2011	“Methods for Indirect and Mixed Treatment Comparisons: Tools for Assessing Health Technologies in the Absence of Direct Evidence” Workshop Leader/Speaker (with Rafael Alfonso and Ximena Burbano) ISPOR 3rd Latin America Conference, Mexico City, Mexico (Panelist; September)
<u>National</u>	
2023	“Using MCDA methods to compare patient and provider preferences for lower limb amputations”. University of Illinois Chicago, School of Pharmacy. September (in person)  Topic 1: “Introducing the LATITUDES Network: Finding the Right Risk of Bias Tool Fit for Purpose”; Topic 2: “Casual Inference Designs for Non-randomized Studies of Interventions in Systematic Reviews” ARHQ Evidence-based Practice Center Annual Meeting, joint with the US Cochrane Collaboration (May, hybrid)
2022	“The Role of Comparative Effectiveness Research in Drug Pricing” Centers for Medicare and Medicaid Services, Medicare Drug Rebate and Negotiation Group at CMS, tasks with implementing drug price negotiations for Medicare (virtual, November)
2021	“Life-Long Care Costs of SCD”, presenting for the Clinical and Economic Impact Analysis (CEIA). 15th Annual Sickle Cell Disease Research & Educational Symposium and 44th National Sickle Cell Disease Scientific Meeting. Panel 1: The Economic & Financial Impact of Sickle Cell Disease. Virtual (May)
2020	“CuresSCI Clinical and Economic Impact Analysis (CEIA) Consortium, Year 1 Update. Presented to the NHLBI CureSCI Executive Committee, virtual, with Anirban Basu (October)  “Cost-effectiveness Analysis Update”. On behalf of the CuresSCI Clinical and Economic Impact Analysis (CEIA) Consortium. Presented to the NHLBI CureSCI Expert Panel, virtual (September)
	“Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use, historical data analysis”. Clinical Sequencing Evidence Generating Research (CSER 2) Consortium Fall 2020 Virtual Meeting (October)
2019	“Pharmacogenetic testing: The economics of personalized medicine”. Day of Science Keynote Address, American Pharmacists Association Annual Meeting and Exposition, Seattle, WA (March) (with Kristin (Weitzel) Wiisanen)
2014	“Preparing electronic clinical data for quality improvement and research: The CERTAIN validation project.” PCORI Distributed Data Analysis Workshop”, for the PCORI CER Methods and Infrastructure Program, Washington DC (Workshop Speaker, December)  “Toward the Implementation of Pharmacogenomic Care Guidance within Healthcare Settings”. 2014 First Databank & Zynx Health Conference, Miami Beach, FL (Speaker, November)  “Spending Resources Wisely, Lean and Green: Streamlining Your Practice to Reduce Cost in the Era of Environmental Awareness”, panelist with Alseidi A, Paluch T, Klaristenfeld D, Farrokhi E. American College of Surgeons Clinical Congress, San Francisco, CA (Panelist, October)
	“Preparing electronic clinical data for quality improvement and research: The CERTAIN validation project.” Electronic Data Methods Forum of Academy Health, 2014 Annual Research Meeting, San Diego, June 2014 (panel presentation by Devine for the CERTAIN Collaborative)

	<p>“Achieving and sustaining automated health data linkages for learning systems: barriers and solutions.” Electronic Data Methods Forum of Academy Health, 2014 Annual Research Meeting, San Diego, June 2014 (panel presentation by Devlin for the CERTAIN Collaborative)</p> <p>“Preparing a workforce skilled in PCOR and CER. Health Services Research Consortium Breakfast. 2014 Annual Research Meeting, Academy Health, San Diego CA (Panelist, June)</p>
2013	<p>“The CERTAIN Automation and Validation Project.” Academy Health, Electronic Data Methods Forum, Baltimore, MD (panelist; June)</p> <p>“Integrating patient experience in QI efforts” (with Erin Holve and Wilson Pace) 14<sup>th</sup> Annual International Summit on Improving Patient Care in the Office Practice and the Community. Institute for Healthcare Improvement, Scottsdale, AZ (Panelist; April)</p> <p>“Incorporating patient reported outcomes into continuous quality improvement efforts” CMS Measures Forum. Centers for Medicare and Medicaid Services, Quality Measures and Health Assessment Group, Office of Clinical Standards and Quality. Webinar speaker. (Panelist; January)</p> <p>CERTAIN: A Learning Healthcare System Network. EDM Forum Site Visit, Seattle, WA (Speaker; January)</p> <p>CERTAIN: A Learning Healthcare System Network. EDM Forum Steering Committee Meeting, Bethesda, MD (Speaker; January)</p>
2012	<p>“Design of the SCOAP CERTAIN Intermittent Claudication Study: A Case Study”. 4th Annual DEcIDE Methods Symposium: From Efficacy to Effectiveness, Washington DC (Speaker; June)</p> <p>“Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Study” Electronic Data Methods Forum Symposium on Building an Electronic Clinical Data Infrastructure to Improve Patient Outcomes. Academy Health Annual Research Meeting, Orlando, FL (Panelist; June)</p>
2011	<p>“Putting Comparative Effectiveness Research into Practice: What You Need to Know” Facilitator for a Pre-Meeting Workshop at the 46<sup>th</sup> ASHP Midyear Clinical Meeting and Exhibition. New Orleans, LA. Co-sponsored by the College of Pharmacy, University of Arizona and ASHP (Facilitator; December)</p> <p>“Incorporating Patient Reported Outcomes into a Prospective Cohort Study of Intermittent Claudication” EDM Forum Methods Symposium, Academy Health and AHRQ, Washington DC (Speaker; October)</p> <p>“Validation of electronic data for comparative effectiveness research” EDM Forum Methods Symposium, Academy Health and AHRQ, Washington DC (Speaker; October)</p> <p>“Advances in the Use of Electronic Clinical Data for Prospective Patient Centered Outcomes Research” AHRQ Effective Health Care Program Stakeholder Group, Washington DC (Speaker; October)</p> <p>“The SCOAP CERTAIN Story” Beth Devine Webinar Presenter (with Ned Calonge, Erin Holve, Gurvaneet Randhawa, John Steiner, and Adam Wilcox). Advances in the Use of Electronic Clinical Data for Prospective Patient Centered Outcomes Research. Webinar sponsored by the Electronic Data Methods Forum, Academy Health and AHRQ (Panelist; August)</p> <p>“The Surgical Outcomes and Assessment Program Comparative Effectiveness Research Translation Network (SCOAP CERTAIN), CER-Claudication Study and Validation Study” Presenter (with Dave Flum, Erin Holve, Peter Tarczy-Hornoch, Erik van Eaton) Site Visit by the Electronic Data Methods Forum, Academy Health and AHRQ (Speaker; June)</p> <p>“Transitioning from Trainee to Faculty: Building your Mentorship Network” Workshop Presenter (with Jonathan Finkelstein, Sean Sullivan and Jay Berry) AHRQ National Research Service Award (NRSA) Trainees Research Conference, Seattle, WA (June) Academy Health, Seattle, WA (Speaker; June)</p>
2005	<p>“Conducting Quality Practice Research while still Caring for Patients: Doing a Project – How Do I Get Started? ASHP Research and Education Foundation, American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, NV (Speaker; December)</p>

2004	"Conducting Quality Practice Research while still Caring for Patients: Maximizing Available Resources" ASHP Research and Education Foundation, American Society of Health-System Pharmacists Midyear Clinical Meeting. Orlando, FL (Speaker; December)
<u>Regional</u> 2021	"You Have Your 23andMe Results! Now What? Plein Public Lecture, UW School of Pharmacy, virtual (May)  "Interprofessional Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities. UW School of Nursing Ambulatory Care Conference. Speakers: B. Devine, J. Wilson-Norton, K. Trivelli (April)
2020	"Microvascular Benefits of New Anti-Diabetic Agents: A Systematic Review and Bayesian Network Meta-Analysis of Renal Outcomes". UW Clear Center, Seattle, WA, with Ashley Cha and Yilin Chen. (July)  "Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Northwest Pharmacists Association Annual Convention. Speakers: J. Wilson-Norton, T. Mikes, L. Chaitesipaseut (May)
2019	"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Northwest Pharmacogenomics Research Network (August)  "From Evidence Synthesis to National Guidelines and Policy". Center for Health Innovation & Policy Science (CHIPS) Seminar Series, University of Washington (Speaker; April)
	"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Plein Center Symposium, University of Washington, School of Pharmacy (Speaker: March) (on behalf of Wilson-Norton, Raguneau-Majlessi, Argon, and Trivelli)
2014	"Comparative Effectiveness Research". UW ITHS Annual Bootcamp, Seattle, WA (Speaker; September)
2012	"Methods for the CERTAIN Comparative Effectiveness Study in Peripheral Artery Disease" SCOAP Vascular/Interventional Meeting, Foundation for Healthcare Quality, Seattle, WA (Speaker; July)  "SCOAP CERTAIN Spine CER Study" SCOAP Spine Forum, Seattle WA (Speaker; March)
2011	"Evidence Synthesis and Meta-Analysis" Seminar Speaker/Panel Discussant/Workshop Leader (with Fred Wolf, Laurie Anderson, Rafael Alfonso) UW Institute for Comparative Effectiveness Research Training (ICERT) UW CHASE Alliance and the Fred Hutchinson Cancer Research Center (Speaker; approximately 7 hours – September)
2011	"Using Indirect and Multiple Treatment Comparisons Methods To Estimate Comparative Effectiveness of Alternative Treatments" Workshop Presenter (given in absentia; delivered by Rafael Alfonso and Mindy Cheng) ISPOR Western Pharmacoeconomic Conference, UW ISPOR Student Chapter, Seattle, WA (April)
2010	"Using Indirect Treatment Comparisons to Estimate Comparative Effectiveness" Seminar Speaker/ Panel Discussant/ Small Group Facilitator UW Comparative Effectiveness Research Fall Institute: Methods and Applications of Comparative Effectiveness Research UW CHASE Alliance and the Fred Hutchinson Cancer Research Center (Speaker; September)
2009	"Evidence Synthesis and Real-World Outcomes Studies" Workshop Speaker, (with Linda Sturm and Sean Sullivan) GlaxoSmithKline Training Program, Seattle, WA (Speaker; June)
2008	"CPOE and e-Prescribing: What's Here? What's Ahead?" Current Concepts in Drug Therapy. Continuing Education Program for Primary Care Providers. School of Medicine, UW, Seattle, WA (Speaker; May)
2007	"Improving Quality and Safety in the Medication Use Process: The Pharmacist's Role on the Team" Northwest Regional Primary Care Association, Spring 2007 Primary Care Conference, Portland, OR (Speaker; May)
2003	"Enhancing your PharmD" APhA-ASP Regional Midyear Meeting, Portland, OR (Speaker; November)

	<p>"A Unique Contribution: The Pharmacist's Role in Continuous Quality Improvement"        State of Washington Pharmacists' Quality Improvement Initiative: Phase 2, Qualis Health. Sea-Tac, WA (Speaker; March)</p>
2001	<p>"Traversing the World of Pharmacogenomics: Current Trends and Future Applications"        Pharmacy 2001: 16<sup>th</sup> Annual Meeting and Exhibition of the Washington State Society of Health-System Pharmacists, Tacoma, WA (Speaker; September)</p>
<u>Local</u> 2020	<p>"Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment". UW PHENoM Seminar. (virtual, with Enrique Saldarriaga) (December)</p> <p>"Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use, historical data analysis". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (November)</p> <p>"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (November)</p> <p>"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Department of Pharmacy Faculty Meeting 5 in 10. (October)</p> <p>"Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment". UW Corporate Advisory Board Meeting, Health Technology Fund Members. (virtual, with Enrique Saldarriaga) (September)</p> <p>"PhaRmacogEconomics Clinical Support Economic VALUE (PRECISE-VALUE) for Learning Health Systems". UW Precision Medicine Informatics Group, Department of Biomedical Informatics (virtual) (July)</p> <p>"Demonstrating the Feasibility of using Pharmacogenomic-Guided Medication Therapy Management in Retirement Communities". Era Living Leadership, Seattle, WA. June)</p> <p>"The CHOICE Real World Evidence Assessments and Needs Guidance (REAdi) tool". CHOICE Seminar, Seattle, WA, with Brenna Beal and Stanley Wang (Spring)</p> <p>"Developing a Multiple Criteria Decision Analysis (MCDA) in the Context of Critical Limb Ischemia". Program in Health Economics and Outcomes Research Methodologies (PHENoM). Seattle, WA, with Diana Poehler. (May)</p>
2019	<p>"Preferences for transtibial versus transmetatarsal amputation: A Multiple Criteria Decision Analysis. (Seminar Speaker, with Diana Poehler, PhD student in Health Services) The CHOICE Institute Seminar, UW School of Pharmacy, Seattle, WA (February)</p>
2018 -	<p>"Critical Literature Evaluation". AMCP Pharmacy and Therapeutics Committee Workshop, UW School of Pharmacy AMCP Chapter (November) (with Lauren Chin)</p>
2018	<p>"The REAdi (Real-World Evidence Assessments and Needs Guidance) Tool: A Framework for Evaluating Real-World Evidence". Seminar presented to UW School of Pharmacy Corporate Advisory Board, Seattle, WA (September) Project completed with Shuxian Chen, Anirban Basu, Aasthaa Bansal, Josh Carlson)</p>
2017	<p>"Critical Literature Evaluation". AMCP Pharmacy and Therapeutics Committee Workshop, UW School of Pharmacy AMCP Chapter (November) (with Lauren Chin)</p> <p>"Framework for Evaluating Real World Evidence in Health Technology Assessment"        Seminar presented to UW School of Pharmacy Corporate Advisory Board, Seattle, WA (September) Project completed with Shuxian Chen, PhD student; Seminar delivered by Chen</p>
2016 - 2018	<p>"How to Select a Post-PharmD Fellowship"        Seminar presented to UW Academy of Managed Care Pharmacy Student Chapter (Speaker, March/April)</p>
2014	<p>"Results of the CERTAIN Automation and Validation Project"        Summary report presented to the Chief Medical Officer, Chief Informatics Officer, Risk and Quality Managers, Evergreen Hospital and Medical Center, Kirkland, WA (Speaker; May)</p> <p>"Using genetic testing to guide prescribing decisions &amp; prevent adverse drug events: A pilot study to understand whether patients and providers are willing to participate in a cluster randomized trial." WWAMI Practice and Research Network-ITHS Annual Meeting, Seattle, WA (Speaker, March)</p>

	"Methods in Comparative Effectiveness Research". Grants for Lunch series, UW School of Nursing. (Speaker, February)
2013	"UW Comparative Effectiveness Research Center of Excellence: Graduate Certificate in CER" Update for the UW School of Pharmacy Corporate Advisory Board, Seattle, WA (Speaker; September)
2011	"Validation of Electronic Clinical Data for Comparative Effectiveness Research: The SCOAP CERTAIN Validation Project" UW K-12 Scholars Seminar (Speaker; Fall)
2007	"Implementing and Evaluating an Ambulatory e-Prescribing System: A Journey, Not a Solution" UW K-12 Clinical Scholars Seminar, Seattle, WA (Speaker; October)
	"The Intersection of Medication Safety and Human Factors" Washington State Board of Pharmacy, Kent, WA (Speaker; October)
	"The Intersection of Medication Safety and Human Factors" Washington State Board of Pharmacy, Dispensing Error Sanctioning Committee, Seattle, WA (Speaker; September)
2007	"The Impact of Technology on Quality and Patient Safety: A Barrier or a Solution?" Pharmacy Grand Rounds, UW, School of Pharmacy, Seattle, WA (Speaker; April)
2005	"Implementing CPOE in the Ambulatory Setting – The Everett Clinic" Presented to Premera, Mountlake Terrace, WA (Speaker; September)
	"Implementing CPOE in the Ambulatory Setting – The Everett Clinic" Third Pharmaceutical Quality Improvement Conference. UW, PORPP. Seattle, WA (Speaker; June)
	"The Everett Clinic's Perspective on Electronic Prescribing Narcotic Verification" Washington State Board of Pharmacy, Kent, WA. (April) (co-presenter with JL Wilson-Norton and AW Fisk)
2003	"Medication Safety Research: Characterizing the Problem/Evaluating a Solution" Presentation to the UW, Corporate Advisory Board. Seattle, WA (Speaker; October)
2003	"Quality Improvement and Patient Safety in a Medical Group" Pharmaceutical Quality Initiatives Conference, UW, PORPP, Seattle, WA (Speaker; February)
2001	"Selection of Instruments for Measuring Sleep Dysfunction" Pharmaceutical Outcomes Research and Policy Program, UW, Seattle, WA (Speaker; May)
1999	"The Use of Albumin versus Crystalloids in Complex Spine Surgery Patients" Roche Global Pharmacoeconomics Group, Palo Alto, CA (Speaker; February)
	"Creating a Capital Boom to Care for the Baby Boom" Roche Global Pharmacoeconomics Group, Palo Alto, CA (Speaker; February)

#### **Invited Participant**

##### National

2021	Risk-reducing surgery in unaffected women receiving cancer genetic testing in an integrated healthcare system. (with Sarah Knerr and Boya Guo. Clinical Sequencing Evidence-Generating Research (CSER2), Clinical Utility, Health Economics, and Policy Workgroup, virtual (April)
2018	NIH Colaboratory enhanced Pragmatic Clinical Trials (ePCT) Workshop, Duke University, (February) (selected by peer review process)
2015	"Long-term use of opioids for chronic pain" Workshop conducted by the Patient Centered Outcomes Research Institute, Washington DC, (June)
2014	"Harnessing Next-Generation Informatics for Personalizing Medicine" AMIA Annual Health Policy Invitational Meeting, Washington DC (Invited Participant; September)
	"Analytical methods for a learning healthcare system". A collaborative methods project of the Electronic Data Methods Forum. Electronic Data Methods Forum, San Deigo, CA (Participant-member of this collaborative methods project that is developing a white paper on this topic; PI: Stoto M, June)

2013	<p>“Patient Reported Outcome Infrastructure”            Workshop conducted by the Patient Centered Outcomes Research Institute, Atlanta, GA (November)</p> <p>“Pragmatic Clinical Trials Workshop”            Strategic Goal Committee IV            Comparative Effectiveness Research Methods Working Group            Community Engagement Committee            NIH/NCATS Clinical and Translational Science Award (CTSA) Program, Bethesda, MD (November)</p>
2012	<p>“Hospital Transitions in Care Expert Input Forum”.            Merck, Sharp and Dohme, Charlotte, NC (Invited expert participant; April)</p>
<b>Tenure and Promotion Reviews (external, n=6)</b>	
2023	<p>Nathorn Chaiyakunapruk, PharmD, PhD            Review for promotion to Professor with tenure, University of Utah</p>
2021	<p>Ian Saldanha, PhD            Review for promotion to Associate Professor with tenure, Brown University, Providence, RI</p>
2019	<p>Wee Hwee Lin, PhD            Review for promotion to Associate Professor with tenure, Saw Swee Hock School of Public Health, Singapore</p>
2019	<p>Haesuk Park, PhD            Faculty hire, Associate Professor with tenure, University of Texas, Austin, College of Pharmacy</p>
2018	<p>Haesuk Park, PhD            Review for promotion to Associate Professor with Tenure, University of Florida College of Pharmacy</p>
2015	<p>Ethan Balk, MD, MPH            Review for promotion to Associate Professor (Research), Department of Health Services, Policy &amp; Practice, School of Public Health, Brown University, Providence, RI</p>
2007	<p>External Referee for Marie Smith, PharmD,            Review for promotion to Chair, Department of Pharmacy Practice, University of Connecticut</p>
<b>Letters of Support for Colleagues for national and university-wide academic achievement awards</b>	
2019	<p>Almut G. Winterstein, RPh, PhD, FISPE            Professor &amp; Chair, Department of Pharmaceutical Outcomes and Policy            Dr. Robert and Barbara Crisafi Chair for Pharmaceutical Outcomes &amp; Policy (POP)            Director, Center for Drug Evaluation and Safety (CoDES)            College of Pharmacy, University of Florida            for the AACP Paul Dawson Award</p> <p>C. Michael White, Pharm.D., FCCP, FCP (awarded)            Professor and Department Head of Pharmacy Practice            University of Connecticut, Storrs CT            for the University of Connecticut Board of Trustees Distinguished Professor Award (awarded)</p>
2019 & 2018	<p>Mary F. Hebert, PharmD, FCCP            Professor of Pharmacy; Adjunct Professor of Obstetrics and Gynecology            Director, UW Obstetric-Fetal Pharmacology Unit            for the ACCP Russell Miller Award</p>
<b>External Grant Reviewer</b>	
2023	<p>Medical Research Council, Applied Global Health Research Board - MR/Y019679/1, United Kingdom            Author: Professor Mamidipudi Thirumala Krishna &amp; University of Birmingham            “Implementation of a Safe, Equitable and Internationally Standardised Drug Allergy Management System in South Asia”</p>
2019	<p>Activity: Pre-submission review of R-01 grant proposal, intended for NIH/NCI            Wendy Xu, PhD, Assistant Professor            Health Services Management &amp; Policy, College of Public Health, The Ohio State University            “Impacts of State Insurance Benefit Regulations on Cancer Drug Use and Costs”</p>

2017	Medical Research Council, United Kingdom Author: blinded "Inferring relative treatment effects from combined randomized and observational data"
<b>Other Invited Reviews</b>	
2023	"A two-stage meta-regression framework for precision medicine using data from clinical data research." Subject matter expert reviewer for draft research report. Patient-Centered Outcomes Research Institute (Summer)
2017	"Measuring the Context of Healing: Using PROMIS in Chronic Pain Treatment" Manuscript number PCORI-D-17-00035 Patient-Centered Outcomes Research Institute (Spring)
	"Rating the Quality of Evidence in Reviews of Complex Interventions" AHRQ EPC Delphi Panel The RAND Corporation
2013	"CER/PCOR Data Quality Reporting Framework" (PI: Kahn, M) Invited by the PI to provide input into a contract with the Patient Centered Outcomes Research Institute
2011	"Framework for Electronic Presentation of Patient Reported Outcomes Instruments" Invited by Academy Health's Electronic Data Methods Forum to provide input into development of framework

#### **Participation in Research Consortia/Groups**

##### Pharmacogenomics/Genomics:

2018 – 2022	Clinical Sequencing Exploratory Research 2 (CSER2)
2016 – 2024	eMERGE III and IV: EHR and Outcomes Working Groups
2016 – present	Clinical Pharmacogenomics Implementation Consortium (CPIC) Informatics Working Group
2014 – present	UW Precision Medicine Informatics Group

##### Evidence Synthesis

2020-2022	AHRQ Evidence-based Practice Center Observational Studies Methods Workgroup
2016	Cochrane Collaboration Methods Group, Patient Reported Outcomes
2016	Cochrane Collaboration Methods Group, Economics
2016-2017	AHRQ Evidence-based Practice Center Complex Interventions Methods Workgroup

##### Outcomes Research Methods

2020-2021	NHLBI, CureSCI Common Data Elements, Outcomes Workgroup
-----------	---

##### ISPOR Special Interest Groups (SIGs, member)

2018 – Stated Preference SIG, Personalized Medicine SIG, Statistical Methods in Health Economics and Outcomes Research SIG  
As a member of these SIGs, I am periodically invited to review white papers in ISPOR's series on Good Research Methods.

#### **TEACHING AND MENTORING (2001-present)**

##### Didactic – Coursemaster or Co-Coursemaster

###### **Current**

2024 -	Certificate in Data Science in Health Economics and Outcomes Research (HEOR DS 510) Distance Learning Program (~ 10 students per cohort per year) Led by The CHOICE Institute on the UW Professional and Continuing Education Platform Coursemaster
2015 -	Certificate in Health Economics and Outcomes Research, Market Access, and Health Technology Assessment (HECON 530) Distance Learning Program (~ 40 students per cohort per year) Led by The CHOICE Institute on the UW Professional and Continuing Education Platform Co-coursemaster with Sean Sullivan

###### **Former**

2020 - 2023	PHRMCY 514 - Design and Analysis of Medical Studies – (2 credits, core, ~107 PharmD students) Coursemaster (Spring quarter)
2013 - 2023	HEOR 531/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits, core, 15-25 students) Co-coursemaster, with Todd Edwards (Winter quarter)

2012 - 2019	PHARM 592 - Design and Analysis of Medical Studies – (3 credits, core, ~100 PharmD students) Coursemaster (Fall quarter)
2014 - 2016	PHARM 529/ HSERV 529/ MEBI 541/ EPI 541 – Introduction to Systematic Reviews and Meta-Analysis of Evidence (3 credits, elective, 12-25 students) Co-coursemaster, with Fred Wolf (Spring quarter)
2013	PHARM 597 – Graduate Seminar, PORPP– (1 credit; 20 graduate students and post-doctoral fellows; with faculty) Theme: Selected Topics in CER n (Fall quarter)
2012-2013	PHARM 594 – Medication Quality – (2 credits, 80 PharmD students) Co-coursemaster, with Somani (Spring quarter)
2011	PHARM 592 – Design and Analysis of Medical Studies – (3 credits, core, 80 PharmD students) Co-coursemaster, with Dave Blough (Fall quarter)
	PHARM 597 – Graduate Seminar, PORPP– (1 credit; 20 graduate students and post-doctoral fellows; with faculty) Co-Coursemaster, with Regier and Bresnahan; Theme: Selected Topics in Preference Elicitation (Winter quarter)
2010-2011	PHARM 590 – Medication Safety and Pharmacy Practice – (2 credit elective, 30 PharmD students) Co-coursemaster, with Somani (Spring quarter)
2008-2009	PHARM 500 – Evidence-based Medicine I – (2 credits, required; 81-86 PharmD students) Coursemaster (Autumn quarter)
2004	PHARM 597 Graduate Seminar, PORPP – (1 credit; 10 graduate students, 3 post-doctoral fellow; with faculty) Co-Coursemaster with Gardner; Theme: Aspects of Patient Safety – Focus on Outcomes and Policy
2004	PHARM 535/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits; 10 graduate students) Coursemaster (Winter quarter)
2003	PHARM 535/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits; Coursemaster: Donald Patrick, 25 graduate students) In preparation for being course master for this class in the Winter of 2004 Prepared and delivered in-class exercises, administered optional class sessions, delivered two didactic lectures, consulted with students regarding their projects, graded midterm and final papers

#### **Didactic – Guest Lecturer**

2024	HEOR 531/HSERV 584 – Assessing Outcomes in Health and Medicine – (3 credits, core, 15-25 students) Preference Assessment, first online, then in-person workshop (Spring quarter)
2023	PHRMCY 580 - Current Trends in Pharmacy Science PRECISE-VALUE: PhaRmacogEnomics Cllnical Support Economic-VALUE (1 hour, XX students – April)
	BIME 590 - Informatics Grand Rounds PRECISE-VALUE: PhaRmacogEnomics Cllnical Support Economic-VALUE (1 hour, XX students – April)
2022	Fulbright Scholars for Students from the European Union. Servicios de Idiomas. Universidad de Murcia, Murcia, España (May)  Effect Modification and Mediation Analysis. Advanced Epidemiology for MPH students and resident physicians. University of Murcia, Murcia, España (Winter 2022)
2021	Clinical Trials. Epidemiology for MPH students and resident physicians. University of Murcia, Murcia, España.  PHRMRA 535 - Statistical Topics for Biomedical Regulatory Affairs Professionals “Evidence Synthesis: Systematic Literature Reviews (SLRs) and Meta-Analyses (MAs)” (1.5 hours, 12 students – March)
2020	PHARM 540 – Introduction to Systematic Reviews and Meta-Analyses “Comparative Effects of Telemedicine and Face-to-Face Warfarin Management: A Systematic Review and Network Meta-analysis” (1.5 hours; 12 students – April)  PHARM 540 – Introduction to Systematic Reviews and Meta-Analyses “REAdi (Real-World Evidence Assessments and Needs Guidance) Tool” (1.5 hours; 12 students – April)

	PHG 580 Seminar – Institute for Public Health Genetics Graduate Seminar “The Interface of Precision Medicine and Health Economics and Outcomes Research” (1 hour – January)
2018 -	PHARM 597, CHOICE Graduate Seminar Annual research update (1 hour/year; 35 faculty, post-doc and student attendees)
2017 –	PHARM 542, Principles and Practice of Managed Care Pharmacy “Introduction to Comparative Effectiveness Research” (1 hour – October)
2017	PHG 580 Seminar – Institute for Public Health Genetics Graduate Seminar “A Career in Health Economics and Outcomes Research” (1 hour – November)
	PHARM 597, PORPP Graduate Seminar 1. “The Importance of Authorship” (1 hour – September) 2. “Validation of the Grit Scale” (1 hour – November)
	BIME 591 Seminar: Precision Medicine & Informatics “What is Pharmacogenomics?” (1 hour – April)
	BIME 540: Critically Appraising and Applying Evidence in Healthcare (3 credits; 6 students) Led discussion (2 hours – February) Assisted as course coordinator and completed course when coursemaster became unavailable (4 hours – February/March)
2014 -	PHARM 536: Advanced Methods in Cost-Effectiveness Modeling (3 credits; 25 students) “Network Meta-analysis (3 hours - April) “Preference Assessment (3 hours - May)
2014 - 2018	UCONJ 517 Interdisciplinary Clinical Research Methods Seminar (for TL1 pre-doctoral scholars) “Translational and Comparative Effectiveness Research” (1 lecture hour; 1 discussion hour; August)
	Biomedical Informatics and Medical Education, Personalized Medicine Informatics Group, “Using Data from Electronic Health Records to Characterize Preventable Adverse Drug Events: A Pilot Study of Pharmacogenomic Biomarkers and ADEs”, (1 hour - March)
	HSERV 592: Graduate Seminar (2 credits; 25 students) “Pharmacogenomic (PGx) Biomarkers to Guide Drug Therapy Decisions” (2 hours – March)
2013 – 2014	“How to Be a Mentor” UW Pharmacy Teaching Certificate (Dana Hammer, RPh, PhD) (2 hours - May)
2013	MEBI 590 – BHI Informatics Lecture Series (1 credit; 20 students) “The CERTAIN Automation and Validation Study” (1 hour – December)
	UW School of Pharmacy, PharmD students participating in AMCP P & T Competition “Incorporating Comparative Effectiveness Research Evaluations into the AMCP P & T Competition Process” (November)
2012	HECON 520: UW PORPP Certificate in Health Economics and Outcomes Research (distance learning program offered through UW Educational Outreach). Course: Economic Evaluation in Health and Medicine. Lecture 1: “Measuring Health Outcomes: Focus on Patient-Reported Outcomes” (30 minutes; December) Lecture 2: “The Denominator in Cost-Effectiveness Analyses: Methods for Preference Elicitation and QALY Determination” (30 minutes; December)
	PHARM 535/HSERV 584-Assessing Outcomes in Health and Medicine (3 credits – 25 graduate students) “Psychometric evaluation of health outcomes data” (3 hours; February; with Todd Edwards)
	MEBI 590 – Informatics Lecture Series, School of Medicine, (1 credit; 15 graduate students) “A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System” (1 hour – February)

2011-2015	UNITID Fellowship Program in Public Health Management, Health Economics Track University of Nairobi-UW "Measuring Quality of Life Outcomes: The Denominator" – (2 hours; 10 students; February)
2011 - 2014	PHARM 520 P-Introduction to Pharmacoeconomics and Outcomes Research – (2 credits – 13 PharmD students) "Quality of Life Measures" (2 hours – May)
2010-2012	MEBI 541- Introduction to Systematic Reviews and Meta-analysis of Evidence - (3 credits; 15 graduate students) "Indirect and Mixed Treatment Comparisons in Health Technology Assessment and Comparative Effectiveness Research" (2 x 1.5 hours – April; 2 x 1.5 hours - May)
2011	PHARM 597 – Pharmaceutical Outcomes Research and Policy Program Graduate Student Seminar (1 credit; 20 students) "Direct Preference Elicitation" (1 hour – January)
2010	MEBI-541 – Introduction to Systematic Reviews and Meta-analysis of Evidence - (3 credits; 11 graduate students) "CER and Meta-analysis of Observational Studies" (2 hours – May)  MEBI 590-Informatics Lecture Series, School of Medicine, (1 credit; 15 graduate students) "Indirect treatment comparisons of biologic therapies in the treatment of rheumatoid arthritis" (1 hour – March)  PHARM 597-Pharmaceutical Outcomes Research and Policy Program Graduate Student Seminar (1 credit: 20 graduate students) "Indirect treatment comparisons of biologic therapies in the treatment of rheumatoid arthritis" (1 hour – February)
2009	MEBI 590-Informatics Lecture Series, School of Medicine (1 credit; 15 students) "Evaluating the Impact of an Ambulatory CPOE System on Outcomes" (1 hour – January)
2007-2010	PHARM 541 – Pharmacy, Healthcare and Society - (3 credits, 86 PharmD students) Guest Lecturer "Quality Improvement in Healthcare, Patient Safety, Electronic Health Records, Score Cards" (2 hours – February)
2007-	PHARM 534 /HSERV 583 (now HEOR 530) – Economic Evaluation in Health and Medicine – (3 credits; 22 graduate students) Annual Guest Lecturer "Characterizing the Denominator in Cost-effectiveness Analyses: Methods for Preference Elicitation and QALY Determination" (3 hours – October)
2007	PHARM 500 – Quantitative Methods I – (3 units; 86 PharmD students) Guest Lecturer "Research Ethics " (1 hour – November)
2006	PHARM 597 – PORPP Graduate Seminar – (1 credit; 10 graduate students) Faculty presentation "Potential Biases in Studying Hepatitis C Virus Treatment Effects" (1 hour – April)
2005, 2007	PHARM 438 – Gerontological Communication Skills Seminar – (2 credits, 15 PharmD students enrolled in the Geriatric Certificate Program) Guest lecturer "Fundamentals of Grantsmanship" (1 hour – January)
2004,2006	PHARM 541 – Pharmacy, Healthcare and Society - (3 credits, 86 PharmD students)
2004	PHARM 436/PHG 537 – Pharmacoeconomics, Genetics and Health Care – (15 graduate/PharmD students) Guest lecturer: "Measuring Patient Preferences" (2 hours - May)
2003	PHARM 597 Graduate Seminar, UW, PORPP – (1 credit; 10 graduate students) Lecturer: "Current Pharmaceutical Pricing Practices in the US: Are They Optimal?"(1 hour - November)  PHARM 597 Seminar, UW, PORPP – (1 credit; 10 graduate students) Lecturer: "Authorship: Is There a Way to Make it Fair?" (February)
2002 - 2003	HSERV 515/PHARM 541 – Health Care and Society (3 credits – Lafferty W, Sullivan SD, Hagyvary S) Small group facilitator for problem-based learning, 15 PharmD/MD/Nursing students
2002	PHARM 495 - Special Studies in Pharmacy (credits vary; 15 PharmD students) Guest lecturer: "Grantsmanship" (1 hour) (May)

## **Mentoring – Fulbright Scholars**

2024 -	Sonya Hsu, PhD, Associate Professor Mid-career Faculty Fellowship Program, University of Louisiana Lafayette
2023	Antonio Moreno-Llamas, PhD, Visiting Scholar from the University of Murcia, Murcia, Spain. “Inequalities in health and quality of life between the Spanish and US population with chronic disease and medications: A real-world database analysis comparing data from the Spanish National Health Survey (ENSE) and the US National Health and Nutrition Examination Survey (NHANES)” (Autumn)
2018-2019	Teerapon Dhippayom, PharmD, MS, PhD. Assistant Professor, Department of Pharmacy Practice, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok, Thailand. 1) “Comparative Effects of Telemedicine and Face-to-Face Anticoagulation Management: A Systematic Review and Network Meta-analysis” and 2) “Impact of Interventions to Support Self-Management for Patients with Asthma: A Systematic Review and Network Meta-analysis”

## **Dissertation and Thesis Committees**

**PhD:** chair (5), co-chair (2), member (9)

**Graduate Student Representative (GSR) with content expertise:** 8 PhD committees

**MS:** chair (20), member (8)

**Academic Advisor to PhD students (program formalized in 2020):** 2

## **Other Scholars Mentored**

**Junior Faculty:** (3)

**Post-docs:** (1)

**Graduate Students on research projects:** (52)

**Patient-Centered Outcomes Research Training Program for external scholars:** (12)

**PharmD students and Residents:** Dozens

## **Academic Advisor**

2022- 2023 Emma Cousin, PharmD (PhD student, The CHOICE Institute) (Academic Advisor)

2020-2022 Donghoon Lee, MS (PhD student, Department of Health Services). Academic advisor (2 years)

## **Graduated**

2020 - 2023 Boya Guo, MPH in Epi/Applied Biostatistics, (PhD student, Department of Epidemiology. “Applications of Statistical Genetics to Hereditary Cancers” (Member, Dissertation Committee)

2018 - 2023 Christine Korhonen, MS (PhD student, Epidemiology), (GSR with content expertise)

2023 Zach Baldwin, PharmD (MS student, The CHOICE Institute)  
The impact of continuous levodopa enteral suspension on the burden of oral medication use in severe Parkinson’s Disease.

Jae Kim, PharmD, (MS student, The CHOICE Institute)  
Healthcare Resource Utilization and Costs Associated with Misdiagnosis of Migraine

2021 Frank Angelo, (PhD student, Health Services), “Health Care System Distrust in Applied Genomic Sequencing: Prevalence, Prediction, and Impacts on Patient Experiences and Health Behavior Change”. (Chair, Dissertation Committee)

Naomi Schwartz, MS (PhD student, The CHOICE Institute) Dietary Therapy for Pediatric IBD: An Epidemiologic and Economic Analysis. (Chair, Dissertation Committee)

Kimberly Cai, PharmD (MS student, The CHOICE Institute), “Healthcare Resource Use and Costs Associated with Chronic Migraines vs. Non-migraine Controls and Episodic Migraines vs. Non-migraine Controls”(Chair, Thesis Committee)

Tae-Jin Park, PharmD (MS student, The CHOICE Institute), “Evaluating Healthcare Resource Utilization and Associated Costs for Patients with New-onset Post-operative Atrial Fibrillation (Chair, Thesis Committee)

2020 Karen Guo, MS (MS student, The CHOICE Institute), “Family communication tool and cascade testing in Lynch syndrome: Value-of-Information Analysis to Guide Future Research” (Member, Thesis Committee)

	Brennan Beal, PharmD (MS student, The CHOICE Institute), "Characterizing and Comparing the Healthcare Resource Utilization and Costs of Patients with Normal Tension Glaucoma Across Disease Severity Levels: a nationally representative sample of US patients 40 years and older" (Chair, Thesis Committee)
	Jae Lee, PharmD (MS student, The CHOICE Institute). Geographic variation in triptan and opioid use in a US migraine population. (Chair, Thesis Committee)
	Shuxian Chen, MS (PhD student, The CHOICE Institute), "Evaluating Recent Policies to Accelerate Generic Drug Entry". (Member, Dissertation Committee)
	Weize Huang, PharmD (PhD student, Pharmaceutics). (GSR, Dissertation Committee)
2019	Ashley Kim, PharmD (MS student, The CHOICE Institute). "Assessing the Healthcare Resource Utilization and Costs among Patients with Geographic Atrophy". (Chair, Thesis Committee)
	Eddie Neuberger, PharmD (MS student, The CHOICE Institute). "Estimating Prevalence of Multiple Sclerosis using MarketScan Administrative Health Claims Data". (Member, Thesis Committee)
	Jamie Ta, PharmD (MS student, The CHOICE Institute). "Healthcare Resource Utilization and Costs Associated with Non-Adherence and Non-Persistence to Pharmacotherapy for Major Depressive Disorder (MDD)". (Chair, Thesis Committee)
2018-2023	Courtney Segal (PhD student, Health Services), "Determinants and Outcomes of Digital Engagement in Patient Portals". (Member, Dissertation Committee)
2018	Chiemeke Ike, PharmD, MPH (MS student, PORPP), "Treatment Patterns, Switching, and Cycling of Acute Medications of Migraine: A Retrospective Database Analysis". (Chair, Thesis Committee)
	Sara Higa, PharmD, MS (MS student, PORPP), "Treatment Patterns for Psoriatic Arthritis". (Chair, Thesis Committee)
2018	Martha Ragan Hart, MS (PhD student, Public Health Genetics), "Evaluating the Economic Value of Pharmacogenetic Testing". (Chair, Dissertation Committee)
	Bounthavong Mark, PharmD, MPH (PhD student, PORPP), "Evaluating the Effectiveness of the Veterans Affairs Academic Detailing Program on Adherence to Naloxone Guidelines". (Chair, Dissertation Committee)
2017	William Canestaro, MS (PhD student, PORPP), "Calculating the Clinical and Economic Impact of Publication Bias in a Historical Case". (Member, Dissertation Committee)
	Sheila Shapouri, PharmD (MS student, PORPP), "A Prediction Model for 30-Day Hospital Readmissions or Emergency Department Revisits Among Patients with Acute Bacterial Skin and Skin Structure Infections (ABSSSI)". (Chair, Thesis Committee)
	Michael Serbin, PharmD (MS student, PORPP), "Estimating the Economic Impact of Open-Angle Glaucoma Therapy Options". (Chair, Thesis Committee)
2016 - 2017	Moo Hyun Kim (PhD student, Social Work), "Meta-analysis of the Impact of Child Maltreatment on Suicide Behavior" (Member, Dissertation Committee)
2016	Chia-Ju (Cheryl) Lee, MS (PhD student, Biomedical Informatics), "Informatics approaches to pharmacogenomics knowledge representation and maintenance to facilitate clinical pharmacogenomic decision-making". (Co-chair, Dissertation Committee)
	Ian Randall (PhD student, Health Services), "Measuring the effect of the patient-centered medical home on utilization and costs for Veterans with PTSD at the VHA". (GSR with content expertise)
	Amy Cizik, MPH (PhD student, PORPP), "Variations in Surgeon Treatment Preferences and Their Impact on the Cost-Utility of Surgery for Soft Tissue Sarcoma". (Member, Dissertation Committee)
	Baradaran, Sarah, PharmD (MS student, PORPP), "Identification and characterization of nephrotoxicity associated with systemic colistin in the management of severe multidrug-resistant (MDR) gram negative infections". (Chair, Thesis Committee)

	Tung Amy, PharmD (MS student, PORPP), "Characterizing Healthcare Resource Utilization, Direct Costs, & Co-Morbidities Associated with Interstitial Cystitis: A Retrospective Claims Analysis". (Chair, Thesis Committee)
2015	<p>Maria Agapova, MS (PhD student, PORPP), "Quantifying Benefits and Harms of Imaging Tests: The Development of a Framework for Quantitative Method Selection". (Chair, Dissertation Committee)</p> <p>Chelle Wheat, MS (PhD student, Department of Health Services), "Risk Communication for Patients with Chronic Disease Utilizing Inflammatory Bowel Disease (IBD) as a Chronic Disease Model". (Member, Dissertation Committee)</p> <p>Laura Chavez, MPH (PhD student, Department of Health Services), Unhealthy Drinking in Older Adults: 30-day Readmissions, Emergency Care and Health Utility Ratings. (Member, Dissertation Committee)</p> <p>Kate Keyloun, PharmD (MS student, PORPP), "Adherence to Medications for Major Depressive Disorder" (Chair, Thesis Committee).</p> <p>Vanessa Shih, PharmD (MS student, PORPP), "The Association between Onset of Vision Impairment and Functional Limitations and Informal Caregiving Requirements in Older Americans". (Chair, Thesis Committee)</p> <p>Maher Khelifi, PharmD (MS student, Biomedical Informatics), "Design Recommendations for Pharmacogenomics Clinical Decision Support Systems. (Member, Thesis Committee)</p>
2014	<p>Tracy Yep, PharmD (Master's student, PORPP), "Total and disease-specific healthcare cost and resource use of Glaucoma patients by vision loss severity in commercial and Medical Supplemental Patients". (Chair, Thesis Committee)</p> <p>Adam Nishimura (MS student in Biomedical Informatics and Medical Education), "Genomic Medicine in Clinical Practice". (Member, Thesis committee)</p> <p>Diana Marangu, MD (MPH student, Global Health), "Diagnostic Accuracy of Nucleic Acid Amplification Tests in Urine for Pulmonary Tuberculosis: A Meta-analysis". (Member, Thesis Committee)</p>
2013	<p>Zsolt Hepp, PharmD (Master's student, PORPP), "Adherence to Oral Migraine Prophylaxis Medications in Patients with Chronic Migraine". (Chair, Thesis Committee)</p> <p>Sara Forrester (Master's student, PORPP), "Estimating the inpatient and outpatient costs of atrial fibrillation and associated adverse events". (Chair, Thesis Committee)</p> <p>Ellen Thomason Farrokhi, MD, FACS (eMPH student, Department of Health Services), "SCOAP CERTAIN Peripheral Artery Disease Prospective Observational Study". (Chair, Thesis Committee)</p> <p>Nancy Puttkammer, MPH (PhD student, Department of Health Services), "Using Data from a National Health Information System to Strengthen the HIV Care and Treatment Program in Haiti". (GSR with content expertise)</p> <p>Allison Tytell Brenner, MPH (PhD student, Department of Health Services), "Methods and perceptions of algorithm use for tailoring or targeting patient decision support in two disease models". (GSR with content expertise)</p> <p>John Dickerson, MS (PhD student, Department of Health Services), "Role of Patient Adherence in Mental Health Treatment and Prevention". (GSR with content expertise)</p> <p>Susan Hernandez, MPH (PhD student, Department of Health Services), (GSR with content expertise)</p>
2012	<p>Joanna Jaecks Sanderson, PharmD (Master's student, PORPP), "Migraine-specific health resource utilization in chronic and episodic migraine across six countries". (Member, Thesis Committee)</p> <p>Rupa Patel, MS (PhD student, Biomedical &amp; Health Informatics), (GSR with content expertise).</p> <p>Gregory Guzauskas, MSPH (PhD student, Public Health Genetics), "Genotype vs. phenotype; Alternative biomarker guides for optimizing anti-thrombotic therapy". (Member, Dissertation Committee)</p>
2011	<p>Mindy Cheng, MS (PhD student, PORPP), "Oncology Orphan Drugs: A Systematic Review, Indirect Treatment Comparison, and Cost-Utility Analysis". (Member, Dissertation Committee)</p> <p>Casey Overby, MS (PhD student, Biomedical &amp; Health Informatics), "A Microcosm of Personalized Medicine: A Model for Incorporating Pharmacogenomic Information into Electronic Medical Records for Drug Therapy Individualization". (Co-Chair, Dissertation Committee)</p>

2010 Patrick Gillard, PharmD (Master's student, PORPP), "Mapping from disease-specific measures to utility: An analysis of the relationship between the Headache Impact Test Questionnaire and the EuroQual-5D and the Migraine Specific Questionnaire and the EuroQual-5D". (Member, Thesis Committee)

#### **Mentoring – Junior Faculty**

2016-2018 K-12 Faculty mentor  
Nita Khandelwal, MD, MS, Assistant Professor and AHRQ K-12 Scholar  
"Financial Burden at the End of Life"  
UW Department of Anesthesiology and Critical Care Medicine

K-12 Faculty mentor  
Cyndy Snyder, PhD, Research Assistant Professor and AHRQ K-12 Scholar  
"Microaggression in the Primary Care Setting"  
UW Department of Family Medicine

2014 - Faculty Mentor  
Casey Overby, PhD, MBiot, Assistant Professor, Johns Hopkins University

2020-2021 Faculty Mentor, "Patient Centered Outcomes Research Partnership (PCORP)"  
Brian Woodbury, Research Scientist, Southcentral Foundation  
MPH, University of California, Berkeley  
Practicum Project: *"Direct-to-Consumer genetic testing among Alaska Native and American Indian people: Results on use, knowledge and impacts"*

2015-2021 Faculty Mentor, "Patient Centered Outcomes Research Partnership (PCORP)" (n=12)  
Over the 3 year grant cycle, the faculty trained 24 clinician-scholars from four partner organizations (Urban Indian Health Institute, Southcentral Foundation of Alaska, Swedish Medical Center, and the WWAMI Practice and Research Network) in comparative effectiveness research and patient centered outcomes research (CER/PCOR). The goal is to create sustainable collaborations to improve healthcare over a wide area, focusing on reducing health disparities, especially among American Indians, Alaska Natives, and rural populations.  
Primary Faculty mentor for:  
Rebecca Jacobsen, Multicare Health System  
Christopher Chung, PharmD, Southcentral Foundation  
Kathy Eroschenko, PharmD, Clinical Associate Professor, Idaho State University  
Ying Zhang, MD, Assistant Professor, UW Department of Family Medicine  
Bethann Pfluegisen, MS, Med, Research Scientist, Institute for Research and Innovation, MultiCare Health System  
Jin Mou, MD, MSc, MPH, PhD, Senior Research Epidemiologist, MultiCare Health System  
Anne Reedy, Director, Institute for Research & Innovation, MultiCare Health System  
Renee Robinson, PharmD, MPH, Senior Researcher, Southcentral Foundation  
John Holmes, PharmD, Idaho State University, School of Medicine  
Cyndy Snyder, PhD, UW Department of Family Medicine  
Adam Corson, MD, Swedish Medical Center, Seattle, WA

#### **Individual Mentoring – Senior Post-doctoral Fellow**

2016-2017 Primary mentor, Research Advisor, Chia-Ju (Cheryl) Lee, PhD (UW Biomedical Informatics Graduate, 2016)  
"Exploring pharmacogenomic biomarker use in the context of electronic health records" (multiple projects)

#### **Individual Mentoring - Graduate Students and Senior PharmD students (n=52 students)**

(\*='Research Assistant' denotes my project; \*\*='Research Advisor' denotes student initiated project)

2023 \*Bella Vo, Jonathan Luong, Tiffany Tran, Zoe Amaris, Giselle Austine (PharmD students)  
PRECISE-VALUE: The Value of Pre-emptive Pharmacogenomic Clinical Decision Support in Oncology  
(development of NCI grant application)

\*\*Kevin Li (PharmD student)

"Indirect Treatment Comparison of Biologic Treatments in Adolescents with Moderate to Severe Atopic Dermatitis: A Systematic Literature Review and Network Meta Analysis"

2022 - 2023 \*Emma Cousin, PharmD (PhD student in CHOICE), and Spencer Cheng, PharmD (MS student in CHOICE)  
"Principles of Data Science" (unfunded, assistance in developing new course)

2021- \*San Aalbers (PhD student in Public Health Genetics), "EDGE: Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies. (NCI)

	*Woojung Lee (PhD student in CHOICE), "Use of Artificial Intelligence in HEOR. 2 systematic reviews (Health Tech Fund)
2020 -	<p>*Boya Guo (PhD student in CHOICE), "Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use analysis" (NHGRI)</p> <p>**Donghoon Lee, MSc (PhD student in Health Services), "Spillover effects of mental disorders on family members' utility: SF-6D scores from a US sample"</p> <p>**Ashley Cha, PharmD (MS student in CHOICE), "Microvascular Benefits of New Anti-Diabetic Agents: A Systematic Review and Bayesian Network Meta-Analysis of Renal Outcomes"</p>
2020-2021	*Joyce Jiang (PhD student in CHOICE), "EDGE: Randomized trial of genomic testing methods for primary care patients: Cost-effectiveness Comparing two Strategies. (NCI)
2019 -	<p>*Boshen Jaio (PhD student in CHOICE), "Landscape analyses for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)</p> <p>*Zizi Elsisi (PhD student in CHOICE), "Landscape analysis for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)</p> <p>*Enrique Saldarriaga (PhD student in CHOICE), "The Value of Real World Evidence in Healthcare Economic Information Communication to Payers" (UW Corporate Advisory Board Health Tech Fund)</p> <p>*Joyce Jiang (PhD student in CHOICE), "<i>Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)</i>"</p>
2019-2020	<p>*Nathaniel Hendrix (PhD student in CHOICE), "<i>Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)</i>"</p> <p>*Yilin Chen (PhD student in CHOICE), "<i>Pharmacogenomics Clinical Support Economic VALUE (PRECISE-VALUE)</i>"</p>
2019	*Karen Guo (PhD student in CHOICE), "Cancer Health Assessment Reaching Many (CHARM), Healthcare resource use analysis" (NHGRI)
2018 –	*Diana Poehler (PhD student in Health Services), "A Multi-criteria Decision Analysis to compare patient and provider preferences for trans-tibial versus trans-metatarsal amputation for dysvascular disease" (AMP-DECIDE)"
2017	<p>**Shuxian Chen, MS (PhD student in PORPP), "Framework for Evaluating Real World Evidence in Health Technology Assessment" (UW Corporate Advisory Board Health Tech Fund)</p> <p>**Laura Hart, PharmD (MS student in PORPP), Meta-analysis project</p>
2016	<p>**Shirley (Shih-Yu) Chang, PhD Student, Toxicology Program, Department of Environmental and Occupational Health Sciences, School of Public Health for her Capstone Project for the Graduate Certificate in Basic Clinical Research, Department of Epidemiology. "miRNAs for diagnosis of hepatocellular carcinoma: A meta-analysis"</p> <p>* Wei-Jhih Wang, MS (PhD student, PORPP). "Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use"</p>
2015 -	<p>**Nathaniel Hendrix, PharmD (PhD student, PORPP), 1) "Deriving utility weights from patient-reported outcomes in epilepsy: a mapping of the QOLIE-31 in the US setting"; 2) "Funder effects on reporting of health-state utilities"; 3) "Leveraging a Clinical Data Repository to Characterize the Landscape of Pharmacogenomic Biomarker-Guided Medication Use" and "Estimating the Cost-effectiveness of Pharmacogenomic Clinical Decision Support"</p>
2014-2015	<p>**Mark Bounthavong, PharmD, MPH (PhD student, PORPP), "An evaluation of clinical remission and safety among biologics for moderate-to-severe Crohn's disease using a network meta-analysis"</p> <p>**William Canestaro, MS (PhD student, PORPP), "Drug therapy for treatment of Idiopathic Pulmonary Fibrosis: Systematic Review and Meta-Analysis"</p>
2014	**Cara McDermott, PharmD, MS (PhD student, PORPP), "Outpatient directly observed therapy for hepatitis C among people who inject drugs: a systematic review and meta-analysis"

Nicole Weiskopf, PhD student Columbia University.

“Dynamic, evidence-based guidelines to enable electronic health record data quality assessment and reporting for retrospective research” External Mentor: Review of guidelines that comprised dissertation.

\*\*David Kim, MS (PhD student Health Services), “Estimating Preference Weights in Obesity using the EQ-5D and SF-6D”

\*\*Wei-Jhii Wong, MS (MS student, Health Services), “Meta-analysis of Outcomes of Donation after Cardiac Death Liver Transplant”

\*Graham Kim, MS (PhD student, Biomedical Informatics and Medical Education, “The use of patient-reported outcomes in clinical trials”

\*Elisabeth Vodicka, MHA (PhD student, PORPP), “The use of patient-reported outcomes in clinical trials”

\*Kate Keyloun, PharmD student, “Introduction to Health Economics and Outcomes Research”

2013 - 2016      \*\*William Canestaro, MS (PhD student, PORPP), “Drug Treatment of Idiopathic Pulmonary Fibrosis”  
“The impact of anticoagulation monitoring approach on outcomes: A systematic review and meta-analysis”

2012      \*\*Carrie Bennette, MS (PhD student, PORPP), “Lymphovascular invasion of a prognostic indicator in Stage 1 Non Small Cell Lung Cancer: A systematic review and meta-analysis”

\*Sara Forrester, PharmD (MS student, PORPP), “Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted”

\*Zsolt Hepp, PharmD (MS student, PORPP), “Cost-effectiveness of a computerized provider order entry system on medication errors and adverse drug events averted”

\*Bernie Lau, MPH (PhD student, Health Services), “Use of clinical decision support to improve adherence to national drug-laboratory monitoring guidelines”

\*Maria Agapova, MS (PhD student, PORPP), “Comparing Results of Frequentist and Bayesian Approaches to Explore the Comparative Effectiveness of Subgroups in a Cochrane Systematic Review”

2011-2012      \*Chia-Ju (Cheryl) Lee, MS (PhD student, Biomedical Informatics), “Evaluation of Pharmacogenomic Clinical Decision Support Aids and Clinical Knowledge Resources in a Computerized Provider Order Entry System”

2010-2012      \*\*Vincent Lin, PharmD (MS student in PORPP), “Indirect treatment comparisons of biologics for treatment of psoriasis”

2011      \*\*John Ney, MD, MS (Clinical Scholar) “Meta-analysis: Elicitation of utilities for neuropathic pain”

\*Mervin Johnsingh, BS, Engineering in Electronics & Communication (MS student, Information Management, UW Information School), “A Usability Evaluation of Pharmacogenomic Clinical Decision Support Aids in a Computerized Provider Order Entry System”

2010      \*Heidi Wirtz, Pharm D, MS (PhD student, PORPP), “The Impact of Clinical Decision Support Programming on Prescriber Adherence to Laboratory Monitoring Guidelines for Diabetic Patients in the Ambulatory Setting”

\*\*William Wong, PharmD (MS student, PORPP), “Statins in the prevention of dementia and Alzheimer’s Disease: A Meta-Analysis”

2009-2010      \*\*Heidi Wirtz, Pharm D, MS (PhD student, PORPP), “Cost- effectiveness analysis of an Ambulatory Computerized Order Entry System on Adverse Drug Events Averted”

2009      \*Rafael Alfonso, MD, MS (PhD student, PORPP), “Comparative Effectiveness of Biologic Therapies in Rheumatoid Arthritis: An Indirect Comparisons Approach”

\*Joseph Babigumira, MBChB, MS (PhD student, PORPP), “Acquired Coagulopathy in Post-Surgical Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes”

\*Rupa Patel, MSI (PhD student, Biomedical and Health Informatics, School of Medicine), “Clinician’s Self-Assessed Computer Knowledge in the Primary Care Setting”

\*Casey Overby, MS (PhD Student, Biomedical & Health Informatics, School of Medicine), "Using Clinical Decision Support Alerts to Improve Drug-Laboratory Monitoring in the Ambulatory Setting"

2005      \*\*James Cross, MS (PhD Student, PORPP), "The Cost of Treating Ribavirin-induced Anemia in Hepatitis C: The Impact of Using Epoetin"

2002-2003    \*Karen L. Smith, BSPharm (MS student, PORPP), "Health-related Quality of Life Assessment in Chronic Kidney Disease"

2002      \*Sarika Ogale, MS (PhD Student, PORPP), "Interferon alfa-2b/Ribavirin Therapy in the Treatment of Hepatitis C Infection: Adherence Rates, Time to Discontinuation and Dosing Regimens"

              \*Dana Hurley, PharmD (MS student, PORPP), "Global Burden of Illness of Hepatitis B"

**Mentoring for Pharm 534/HServ 583 Projects – Economic Evaluation in Health and Medicine (n=25)**

2022      Jae Kim (CHOICE), Tim Ohlsen, MD, PhD (Seattle Children's Medical Center)

2020      Kim Cai, TJ Park, Zach Baldwin (CHOICE)

2019      Brennan Beal, Yilin Chen, Jae Lee (CHOICE)

2018      Ashley Kim, Jamie Ta (CHOICE)

2017      Sara Higa, Chiemeke Ike (CHOICE), Laura Bender (Health Services)

2016      Iris To (Pharmacy), Abby Rosenberg (Medicine)

2015      Jeff Doornbos, Weize Huang (Pharmacy)

2014      Kate Keyloun, Vanessa Shi (PORPP)

2013      Amy Tung, Tracy Yep, Elisabeth Vodicka (PORPP)

2012      Tanya Karwaki, JD, MS, PhD student (LAW); Bridget Sung (Pharmacy)

2011      Katherine Blondon, MD, PhD (Health Services)

**Individual Mentoring - Pharmacy Residents**

Resident Project Primary Preceptor (n=5)

2009-2010    Co-preceptor with Ken Kenyon, Abigail Dee, PharmD, "Evaluation of Hemorrhagic Complications in Post-Percutaneous Coronary Intervention Patients"

2008-2009    Co-preceptor with Lingtak Neander Chan, Troy Drysdale, PharmD and Henry Kao, PharmD, "Acquired Coagulopathy in Hospitalized Patients: A Pilot Study to Determine the Impact on Clinical and Economic Outcomes" (publication)

2003-2004    Susan Hoang, PharmD, "A Strategic Model for Optimizing Medication Use in Physician Group Practices: The Role of the Clinical Pharmacist" (publication)

              Tiffany Erickson, PharmD, "Efficacy of NPH versus Glargine Insulin in an Adult Medicine Clinic at a County Hospital" (publication)

2002-2003    Stephanie Te, PharmD and Carolyn Wong, PharmD, "Characterizing Medication Errors prior to Implementation of an ACPOE System in a Multispecialty Clinic Setting" (publication)

Resident Project Secondary Preceptor (n=6)

2010-2011    Holly Gurgele, PharmD, "International travel to visit family and friends, Impact on chronic disease management" (publication)

2003-2004    Jennifer Mullins, PharmD, "Outcomes of oral anticoagulant therapy managed by telephone vs. in-office visits in an anticoagulation clinic setting" (publication)

              Jennifer Vogel, PharmD, "Evaluation of Outcomes in Warfarin-treated Patients with Antiphospholipid Antibody Syndrome versus Matched Controls"

2002-2003    Kelly Whitely, PharmD, "Effect of Age on International Normalized Ratio at the Time of Major Bleeding in Patients Treated with Warfarin" (publication)

              Jacqueline Super, PharmD, "Physician Satisfaction Survey with Pharmacist-managed Anticoagulation Clinic Services"

              Ellen Rhinhard, PharmD, "The Effect of Telephone versus In-Person Anticoagulation Follow-up on Patient Satisfaction"

Resident Project Consultant – Consulting with UW/HMC pharmacy residents for residency projects; providing guidance on study design, data analysis and human subjects approval

2013-2014	UWMC-HMC Hospital Pharmacy Residents: Jocelyn Chiang, Travis Foxx-Lupo, Ives Hot, Joong Kim, Madison Lee, Tuvy Pham, Vickie Poremba, Pan Wong; UW Community Pharmacy Residents: Rachel Firebaugh, Becky Schainost, Troy Biornstad
2012-2013	UWMC-HMC Hospital Pharmacy Residents: Anneliese Bodding-Long; Kristina Clyburn; Brian Kopcza, Cathy Lee, Andrea Dickens
2011-2012	UWMC-HMC Hospital Pharmacy Residents: Suraj Devasthali, James Gibson, Matthew Hafermann, Jennifer Knutson, Cathy Lee, Mike Li, Rachel Matthews
2010-2011	UWMC-HMC Hospital Pharmacy Residents: Sarah Balzar, Ilan Chou, Holly Gurgele, Nina Imuro, Mike Li, Emily Min; Community Pharmacy Residents: Carmela Andrada, Kate Choiniere, Jessica Sipe
2009-2010	UWMC-HMC Hospital Pharmacy Residents: Cheryl Hirata, PharmD; Elaine Huang, PharmD, Kristin Harter, PharmD, Randy Knoebel, PharmD, Grace Lin, PharmD, Karen Slezak, PharmD, Terrance Teng, PharmD; Community Pharmacy Residents: Donella Kim, Linda Mach, Grace Navaja, Ashley VanAllen
2008-2009	UWMC-HMC Hospital Pharmacy Residents: Mike King, PharmD; Melanie Petilla, PharmD
2007-2008	UWMC-HMC Hospital Pharmacy Residents: Brooke Baltz, PharmD; Marty Starzewsky, PharmD
2006-2007	UWMC-HMC Hospital Pharmacy Residents: Nancy Lee, PharmD; Fanny Li, PharmD, Amanda Peffer, PharmD, Anna Seto, PharmD; Traci White, PharmD
2004 – 2005	UWMC-HMC Hospital Pharmacy Residents: Carrie Ching Yuan, PharmD, Denise Markstrom, PharmD, Erica Miyamoto, PharmD; and Sara Randolph, PharmD
2002-2003	UWMC-HMC Hospital Pharmacy Residents: Colleen Murray, PharmD

**Individual Mentoring - Pharmacy Students (n=10)**

2020	*Dalyna Quach (PharmD student), "Landscape analysis for Clinical and Economic Impact Analysis of Sickle Cell Disease" (NHLBI)  Zach Baldwin (PS II), "Landscape Analyses of Sickle Cell Disease: Burden of Disease, Treatment Efficacy, Costs"
2019-2020	Harein Im (PS II, III), Comparative Effects of Telemedicine and Face-to-Face Warfarin Management: A Systematic Review and Network Meta-analysis  Tamatha Mikes (PSIII; Plein Scholar), "PGx-Medications Effectively Delivered Safely (PGx-MEDS)"  Lena Chaitesipaseut (PSIII; Plein Scholar), "PGx-Medications Effectively Delivered Safely (PGx-MEDS)"
2015-2018	Lauren Chin, PS II, III, and IV 1) Characterizing the Strength of Evidence in FDA Labels for Pharmacogenomic Biomarker-Guided Medication Use; 2) Leveraging a Clinical Data Repository to Characterize the LanPGxdscape of Pharmacogenomic Biomarker-Guided Medication Use; 3) Network meta-analysis of pulmonary hypertension
2012-2013	Michael Cusumano, PS III, Investigating the impact of interprofessional communication training on communication-sensitive clinical events". A part of the "WA State Collaborative: Communication to Prevent and Respond to Medical Injuries"
2009 - 2011	Lisa Rogers, PS I and II, 1) "An Educational Program to Train the Trainers to Administer Medications in Childcare settings". This project is funded by the American Academy of Pediatrics and is an initiative targeted statewide. 2) "Estimating the Economic Impact of Medication Therapy Management Services in the Ambulatory Setting"
2003 - 2004	Leslie Cole, PS IV, "Creation of Medication Information Educational Material for Low-Literacy Patients"
2002-2003	Kerry Kelly, RPh, UW external PharmD student, "Characterizing Medication Errors prior to Implementation of an ACPOE System in a Multispecialty Clinic Setting"

**Group Mentoring**

2009 - 2014	Seminar leader, UW Community Pharmacy Residents Pharmacy Resident Outcomes Research Enrichment Series (2 hours; 1-2 times per academic year; to assist the residents with their projects)
2006 - 2014	Seminar leader, UW/Harborview Pharmacy Practice Residents (approximately 10 residents per session) Pharmacy Resident Outcomes Research Enrichment Series (2 hours, four times per academic year; to assist the residents with their projects)
2001– 2006	Seminar leader, UW/Harborview Pharmacy Practice Residents (8-10 residents) Seminar in Pharmacoconomics and Outcomes Research (2 hours monthly for 10 months each academic year; equivalent of a 2 credit didactic class)

**Teaching prior to 2001**

Acad Year	Quarter	Course Number and Title	Nature of Contribution	Hrs/Qtr Instruction	Total Enroll/Qtr.
<b>University of California San Francisco</b>					
1997 - 99	Sp	Clinical Pharmacy 134 (core) Pharmacy Administration	Guest Lecturer	2	120
1996 - 99	Sp	Clinical Pharmacy 134 (core) Pharmacy Administration	Oral Examiner	9	35
1995	F	Clinical Pharmacy 135A (core) Pharmacy Administration	Guest Lecturer	2	120
1995 - 99	F,W,Sp,S	Target Drug/DUE (elective) Pharmacy Practice Management Drug Policy, Information and Economics	Preceptor	120	2
1995	Sp	Drug Info. Anal. Service (core)	Preceptor	80	6
1994 - 95	F,W,Sp,S	Clinical Pharmacy 148 (core) General Internal Medicine	Preceptor Mt. Zion	120	2
1993 – 95	F,W,Sp,S	Clinical Pharmacy 185.11 (elective) General Internal Medicine	Preceptor Mt. Zion	120	2
1992 - 99	F,W,Sp	Clinical Pharmacy 135B (core)	Preceptor, Drug Information Paper	10	2
1992	F	Clinical Pharmacy 130 (core) Therapeutics	Teaching Assistant/ Conference Leader	36	13
1991 - 99	F,W,Sp	Clinical Pharmacy 130,131,132 (core)	Oral Examiner Therapeutics	8	6
1991	F	Drug Info. Anal. Service (core)	Preceptor	80	6
1990-92	F,W,Sp,S	Clinical Pharmacy 148 (core) Neurosurgery Service	Preceptor	120	4
<b>University of the Pacific</b>					
1978-79	F,W,Sp	4th year Pharmacy (core) Clerkship Students	Preceptor/ Conference Leader Palo Alto VA Medical Center	54	4
1977	F	Phase I (core) Pharmaceutics	Teaching Assistant University of the Pacific	54	25

**Residents Supervised - UCSF**

1997 - 99	Preceptor, Pharmacy Practice Resident rotation in Drug Policy, Information and Economics (4 annually)
1995 - 99	Preceptor/Second year Resident in Pharmacy Administration (1 annually)
1995 - 99	Preceptor/Second Year Resident in Drug Information (2 annually)
1993 - 95	Preceptor/Oncology Specialty Resident, Mt. Zion rotation (1 annually)
1993 - 94	Preceptor/Home Therapy Resident for TPN rotation, Mt. Zion (1 annually)
1991, 1995	Preceptor/Drug Information Analysis Service (4 per quarter)
1990-92	Preceptor/Neurosurgery Service (7 annually)

**SERVICE****UNIVERSITY SERVICE (2001 – present)****Washington, Wyoming, Alaska, Montana, Idaho (WWAMI) Region (27% of US landmass)**

2013 - 2015	Member, Education Core, UW Institute of Translational Health Sciences, NIH CTSA Lead Faculty, Development of ITHS Certificate in Translational Team Science; led creation of 40 videos
-------------	---

**University-wide**

2017-2018	Chair, Ten Year Program Review of Graduate Program in Laboratory Medicine
2015-2017	Member, UW Diversity Committee
2009-	Member, Graduate Faculty, UW with privileges to chair dissertation and thesis committees
2004 - 2011	Institutional Review Board, Committee B, Human Subjects Division, UW Member and Chair Pro Tem, as needed (position shared with Sheree Miller)

**CHASE Alliance**

2014 -2019	Leadership Faculty, UW AHRQ K-12 Training Grant in PCOR
2012 - 2019	Member, Leadership Team/Steering Committee (with Lou Garrison and Anirban Basu) UW Graduate Certificate in Comparative Effectiveness Research

**School of Public Health**

2024 – 2025	Member, Committee to select Alumnus of the Year Award
2015 - 2023	Associate Director, T-32 Training Program in Health Services Research
2015 - 2019	Leadership Faculty, AHRQ R25, Patient Centered Outcomes Research Program (PCORP)
2014	Member, Search Committee for Research Assistant Professor

**School of Medicine, Department of Biomedical Informatics and Medical Education**

2015-2020	Member, Search Committee for four Assistant/Associate faculty positions related to foundational and applied aspects of Analytics and Clinical Research Informatics/Translational Bioinformatics.
-----------	---

**School of Pharmacy/Department of Pharmacy**

2023-2024	Member, School of Pharmacy Promotion and Tenure Committee
2022-2023	Chair, School of Pharmacy Promotion and Tenure Committee  Member, Search Committee, Assistant/Associate Professor, Department of Pharmacy  Faculty Advisor, Student Chapter Academy of Managed Care Pharmacy
2020 - 2022	Member, School of Pharmacy Promotion and Tenure Committee
2020	Ad Hoc Committee for Dean Sean Sullivan, PharmD/PhD Scholoarship
2017, 2018, 2020 - 2021	Member, Graduate Student and Faculty Mentor Award Committee
2019 – 2020	Lead Faculty for Department of Pharmacy, School of Pharmacy Ten Year Graduate Program Review
2019	Lead Faculty, Department of Pharmacy Graduate Program Strategic Planning

2018-2019	Ad Hoc Committee of Dean Sean Sullivan – School of Pharmacy
2017	Equity and Inclusion Council - School of Pharmacy
2017 - 2023	Local Judge for UW School of Pharmacy, AMCP Pharmacy & Therapeutics Competition
2017	Member, Search Committee, Graduate Program Coordinator (staff position), Department of Pharmacy
2013-2014	Member, Search Committee, Geriatrics faculty member, Department of Pharmacy
2011-2015	Member, Plein Fellowship Grant Review Committee
2011	Member, Search Committee, Chair-Department of Pharmacy
2009-2010	Member, Curriculum Revision Subcommittee, First and Second Years
2004	Participant, Microsoft Project Development Committee
2001-2013	<p>Project consultant, Clinical Pharmacy Faculty</p> <p>Harborview Medical Center Pharmacy Quality Improvement Projects for Hospital Transitions in Care Medication Therapy Management and Reconciliation Laura Hanson, PharmD, CDE, Greta Sweeney, PharmD, Tiffany Erickson, PharmD, Alvin Goo, PharmD (2013)</p> <p>UW Academic Medical Center, Anticoagulation Clinic Ann Wittkowsky, PharmD, CACP (2006-2008)</p> <p>Harborview Medical Center, support and guidance for newly employed Research Pharmacist Sarah Tracy, PharmD (2005-2006)</p> <p>Harborview Medical Center Pharmacy Administration Polypharmacy Quality Improvement Projects Cindi Brennan, PharmD MHA and Steve Riddle, RPh (2005)</p> <p>UW Academic Medical Center Pharmacy Information Technology Study Deborah Frieze, PharmD and Jackie Super, PharmD (2003-2004)</p> <p>Harborview Medical Center Adult Internal Medicine Laura Hanson, PharmD, CDE, Theresa O'Young, PharmD, Greta Sweeney, PharmD (2001-2003)</p>

#### **Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute (2018 - 2024)**

2024	Assisted in creation of Outcomes Methods Preliminary examination for graduate students
2022 - 2023	<p>Associate Director (including development of Data Science Degree Option, MS Fellow Recruitment Webinar, MS fellow webinar, And CHOICE website revision)</p> <p>Member, Search for Assistant Professor, Health Economics and Outcomes Research</p> <p>Member, Curriculum Committee</p>
2020 – 2023	<p>Lead Faculty, Development and Implementation of Data Science Degree Option for PhD Students</p> <p>Development of Data Science Certificate Program Course: Introduction to Data Science</p>
2020	Lead Faculty, Graduation/End of Year Celebration (virtual), with Lizzy Brouwer, Jacinda Tran, Phoebe Wright and Marina Gano
2019 -	Member, Graduate Student Admissions Committee
2018 - 2021	Faculty reviewer, CHOICE student blog post
2018	Chair Graduate Student Admissions Committee
2018-2023	<p>Lead faculty for creation and grading of Outcomes Methods Preliminary examination for graduate students; Second faculty member for creation and grading of Economic Evaluation Methods Preliminary examination for graduate students</p> <p>Faculty Lead, Annual Retreat for Students and Faculty, Talaris Conference Center, Seattle, WA</p>

2015 - 2022	Graduate Program Director Lead, Development of Graduate Option in Data Science (2019-2023) Lead, 10 Year Graduate Program Review, Department of Pharmacy (2019-2021) Lead, Strategic Planning for Graduate Program (2019) Lead, Development of Competencies for PhD Program (2019)
<b>Pharmaceutical Outcomes Research and Policy Program (1999-2017)</b>	
2016-2017	Member, Search Committee, PORPP Assistant Professor Faculty Member(s)
2016 – 2018	Chair, Graduate Student Admissions Committee Assisting in creation and grading of Biostatistics Preliminary examination for graduate students
2014-2015	Member, Search Committee, Director, PORPP
2012	Reviewer, AHRQ K-12 Scholars Research Progress Reports and Plans (Spring)
2012	Member, Search Committee, Biostatistics faculty member, PORPP
2011- 2017	Creation and grading of Outcomes Methods Preliminary examination for graduate students
2011-2015	Creating and grading Biostatistics Preliminary examination for graduate students
2011	Co-lead (with Lou Garrison) creation of Graduate Certificate in Comparative Effectiveness Research  Co-coordinator (with Hansen) UW Marsha L. Landolt Distinguished Graduate Mentor Award Nomination Committee (for Sean Sullivan)
2010 - 2016	Chair, PORPP Curriculum Committee
2010-2015	Member, Graduate Student Admissions Committee
2010	Chair, PORPP MS and PhD Curriculum Revision Working Group
2009 - 2010	Workshop Coordinator, PORPP Retreat for Students and Faculty, Talaris Conference Center, Seattle, WA
2006 -	Faculty Member, UW School of Pharmacy, Corporate Advisory Board, Outcomes Group
2004	Participant in "Campaign UW: Creating Futures" – School of Pharmacy materials for Development efforts  PORPP representative, UW President, Mark Emmert's visit to the School of Pharmacy  Lead, creation and execution, PORPP Poster Presentation for the Corporate Advisory Board Meeting  Co-creator (with Penny Evans), PORPP tabletop display to formalize graduate recruitment efforts at professional meetings  Manager, PORPP section, Department of Pharmacy Research and Publication Bulletin Board displays
2003	Member, Search Committee, senior faculty member, PORPP  Interviewee, "Team Approach for PORPP". <i>Books &amp; Bytes</i> . UW Health Sciences Libraries Newsletter (Spring)
2002 - 2005	Host and Participant, PORPP Annual Dinner at ISPOR
2001 - 2005	Co-Host and member, UW School of Pharmacy Corporate Advisory Board  Project lead (with Penny Evans), PORPP Biennial Report/ Annual Alumni Newsletter  PORPP Lead, <i>Dawg Scripts</i> , UW School of Pharmacy Newsletter (quarterly)
2001-2002	PORPP representative, space planning committee for relocation of space, relative to the partnership with the UW Center for Cost and Outcomes Research (CCOR)
2001 - 2008	Speaker at Annual PharmD Student Orientation

**PROFESSIONAL SERVICE (SCIENTIFIC), NATIONAL/INTERNATIONAL LEVEL**

2025-2028	Presidential officer International Society for Pharmacoeconomics and Outcomes Research (ISPOR)
2025-2026	Co-chair (with Jeroen Jensen), Network Meta-analysis Good Research Practices, International Society for Pharmacoeconomics and Outcomes Research (ISPOR)
2021-2024	Elected member, Board of Directors, ISPOR Committee member, ISPOR Competency Framework (2023-2024) Committee member, ISPOR Governance Committee (2021-through 2025) Committee member, ISPOR Audit Committee (2023 through 2025)
2021-2029	Associate Editor, Value in Health, The Official Journal of ISPOR
2023-2024	Member, Committee to update HEOR Competency Framework, ISPOR
2020 - 2021	Faculty Advisor, UW Student Chapter of ISPOR
2017-2023	Member, appointed by competitive appointment Academy Health Methods Council
2019-2020	Ad hoc member, committee to establish competencies, goals and objectives for PGY 2 residency in Population Health American Society for Health-System Pharmacists
2015	Invited to draft book chapter for AHRQ's Registries for Evaluating Patient Outcomes: A User's Guide. Update to Third edition (advance electronic chapters in preparation for Fourth edition) Chapter on Engaging Patients as Stakeholders throughout the Registry Lifecycle". (declined to participate due to competing priorities)
2013 - 2014	Invited Manuscript Reviewer, Marshall DA, Burgos-Liz L, IJzerman MJ, et al. Applying dynamic simulation modeling methods in health care delivery research—The SIMULATE checklist: Report of the ISPOR Simulation Modeling Emerging Good Practices Task Force. <i>Value Health</i> 2015;18:5-16.
2013 - 2019	Member, CER Advisory Committee of the PhRMA Foundation
2013-2017	Member, External Advisory Committee, University of Maryland Center of Excellence in Comparative Effectiveness Research. PhRMA Foundation funded
2013-2015	Participant in a modified Delphi process to develop guidelines for observational data research "RECORD (REporting of studies Conducted using Observational Routinely-collected Data)" An international initiative of the EQUATOR Network
2012 -2013	Member, Clinical and Translational Science Award (CTSA) Key Function Committees: Comparative Effectiveness Research Methods Working Group Practice-Based Research Network Committee Community Engagement Committee
2010 - 2019	Member, Research Advisory Panel, Research & Education Foundation American Society of Health-System Pharmacists
2009-2010	Member, Task Force on Indirect Treatment Comparisons Good Research Practices, International Society for Pharmacoeconomics and Outcomes Research (ISPOR)
2015 -	Reviewer, ISPOR Good Research Practices Task Force Reports Marshall, et al. Applying dynamic simulation modeling methods in healthcare delivery research – The SIMULATE Checklist: Report of the ISPOR Simulation Modeling Emerging Good Practices Task Force. <i>Value Health</i> . 2015;18:5-16  Crown, et al. Constrained optimization methods in health services research-An introduction: Report 1 of the ISPOR Optimization Methods Emerging Good Practices Task Force. <i>Value Health</i> . 2017;20:310-319  Brazier, et al. Identification, review and use of health state utilities in cost-effectiveness models: An ISPOR Good Practices for Outcomes Research Task Force Report. <i>Value Health</i> . 2019;22:267-275

1999-	<p>Manuscript Reviewer (periodically)</p> <p><i>Annals of Internal Medicine</i> (2005- )  <i>American Journal of Health-System Pharmacy</i> (1999- )  <i>Applied Clinical Informatics</i> (2010- )  <i>BioMed Central Medical Informatics and Decision Making</i>  <i>Clinical Pharmacology and Therapeutics</i> (2014- )  <i>eGEMS</i> (Generating Evidence and Methods to improve patient outcomes) (2013 - 2018)  Knowledge Management Workgroup (2014)  <i>Health Affairs</i> (2010- )  <i>Journal of Biomedical Informatics</i> (2020- )  <i>Journal of Clinical Epidemiology</i> (2012- )  <i>Journal of Clinical Pharmacy and Therapeutics</i> (2010- )  <i>Journal of General Internal Medicine</i> (2006-2016 )  <i>Journal of the American Medical Informatics Association</i> (2006- )  <i>Journal of Managed Care and Specialty Pharmacy</i> (2020- )  <i>Medical Care</i> (2006- )  <i>Medical Decision Making Policy &amp; Practice</i> (2017- )  <i>Pharmacoconomics</i> (1999 - )  <i>Quality of Life Research</i> (2023)  <i>Research Synthesis Methods</i> (2013 - )  <i>The Annals of Pharmacotherapy</i> (2003, 2009- )  <i>Value in Health</i> (2010 - )  <i>Systematic Reviews</i> (2022- )</p> <p>Editorial Boards</p> <p>Associate Editor, <i>Value in Health</i> (2021 - present)</p> <p>Guest editor, theme section on Remote Patient Monitoring, <i>Value in Health</i> (2021)</p> <p>Invited to become editor, <i>American Journal of Health-System Pharmacy</i> (2016-2018); declined due to competing commitments</p> <p>Senior editor, <i>eGEMS</i> (Generating Evidence and Methods to improve patient outcomes).  Electronic journal of the Electronic Data Methods Forum, Academy Health, with support from the AHRQ (2011-2018)</p> <p>Student Editor (by competitive appointment), <i>Journal of the American Medical Informatics Association</i>, (2006-2008)</p> <p>Editor, <i>American Journal of Health-System Pharmacy</i> (2005-2007)</p> <p>Abstract Reviewer</p> <p>NRSA Fellowship Abstracts/AcademyHealth Annual Research Meeting (2019-2020)  AcademyHealth Annual Research Meeting (2018-2019)  AMIA Joint Summits on Translational Science (2017)  ISPOR 21<sup>st</sup> Annual International Meeting (2016)  Academy Health Concordium 2015 (2015)  ISPOR 19<sup>th</sup> Annual International Meeting (2014)  ISPOR 18<sup>th</sup> Annual International meeting (2013)  American Medical Informatics Association (2010-2012)  ISPOR 9<sup>th</sup> Annual European Congress (2006)  ISPOR 7<sup>th</sup> Annual European Congress (2004)</p> <p>Grant Reviewer</p> <p>2023 Implementation of a Safe, Equitable and Internationally Standardised Drug Allergy Management. System in South Asia. University of Birmingham. Medical Research Council Translational Global Science Grant Review Panel (UK)</p> <p>2021 NIH National Center for Complementary and Integrative Health</p> <p>2018 Medical Research Council Translational Science Grant Review Panel (UK)</p> <p>2014 NIH Health Care Systems Research Collaboratory - Demonstration Projects for Pragmatic Clinical Trials Focusing on Multiple Chronic Conditions (UH2/UH3, RFA-RM-13-012)</p>
-------	---

2013 ASHP Research and Education Foundation, American Society of Health-System Pharmacists, "Development of Complexity Score for Drug Therapy Management"

2012-14 PhRMA Foundation Committee on Comparative Effectiveness Research Curricular Training

2012 Patient Centered Outcomes Research Institute

2006 ASHP Research & Education Foundation Unsolicited Grant Program

American College of Clinical Pharmacy, Investigator Development Research Awards

Podium/ Poster Judge  
ISPOR 15<sup>th</sup> Annual International Program (2010)  
ISPOR 10<sup>th</sup> Annual International Program (2005)

Selection Panel, Literature Awards Program,  
ASHP Research & Education Foundation (2005-2006)

Session Moderator  
ASHP Midyear Clinical Meeting (2005)  
ISPOR 8<sup>th</sup> Annual International Meeting (2003)

Focus group member, Board of Pharmaceutical Specialties, Ambulatory Care Specialty,  
ASHP Midyear Clinical Meeting, Las Vegas, NV (2005)

#### **PROFESSIONAL COMMUNITY SERVICE**

2024 – present Member, Advisory Board – ConnectMyVariant,  
an educational health-focused nonprofit organization that supports individuals and families with hereditary disease such as cancer risk, in their early detection and prevention efforts.  
Member, Ashley Doyle Scholarship Selection Committee

#### **PROFESSIONAL ASSOCIATION MEMBERSHIPS AND SERVICE**

##### **Memberships/inductions into Professional Organizations**

ISPOR Health Economics and Outcomes Research (1999 – present)  
Society for Research Synthesis Methodology, elected (2013 – present)  
Society for Medical Decision Making (current)  
Fulbright Alumni Association (2022 - present)  
American Statistical Association (2020-2021)  
AcademyHealth (past)  
American Association of Colleges of Pharmacy (past)  
American College of Clinical Pharmacy, elected (past)  
American Medical Informatics Association (past)  
Beta Gamma Sigma National Business Honor Society (inducted)  
Lambda Kappa Sigma Professional Pharmacy Fraternity (inducted)  
Phi Lambda Sigma Pharmacy Leadership Society (inducted)  
University of Washington Alumni Association (current)  
University of California San Francisco School of Pharmacy Alumni Association (affiliate member)  
University of San Francisco Alumni Association  
University of the Pacific Alumni Association  
Delta Delta Delta Sorority (inducted)

##### **American Society of Health-System Pharmacists (a 20,000 member organization in the year 2000)**

2002 – 2003 Member, Commission on Therapeutics  
Member, ASHP Research & Education Foundation Development Committee  
Chair, Committee on Nominations, Section of Clinical Specialists and Scientists

2001 – 2002 Member, ASHP House of Delegates

2000 – 2003 Office of the Chair, ASHP Section of Clinical Specialists and Scientists

1997 - 2000 Member, Executive Committee, ASHP Section of Clinical Specialists and Scientists

1994 - 1999 Member, ASHP House of Delegates

1994 – 1997 Member, Committee on Public Policy, ASHP Section of Clinical Specialists and Scientists

1992 – 1994 Member, ASHP Council of Educational Affairs

1977 – 2019 Member, ASHP

**California Society of Health-System Pharmacists (a 3,000 member organization in the year 1994)**

1994 Assisted in passage of advanced practice legislation for California pharmacists  
1993 - 1995 President-elect, President, Chairperson of the Board of Directors  
1990 - 1992 Member, Board of Directors  
1988 - 1994 Member - Committee on Membership (1988), Council on Organizational Affairs (1989), Committee on Nominations (1990), Committee on Goals (1993), Committee on Finance (1993-95), California Pharmacy Council (1993-95), Government Affairs Advisory Committee (1996)  
1978 - Member, CSHP

**Regional Chapter Activities, CSHP**

1990 - Member, Golden Gate Society of Health-System Pharmacists  
1987 - 1990 Member and presidential officer, Cuesta Chapter, CSHP  
1978 - 1987 Member, Quatra County Chapter, CSHP