# Carrie McAdam-Marx, MSCI, PhD, RPh

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**Summary**: I am a health services researcher with over fifteen years of experience conducting health outcomes and health services research. My research demonstrates the impact and value of pharmacotherapy-related policies and services on patient and health system outcomes. My research program is built on close collaboration with pharmacy practitioners and other clinicians to generate evidence regarding pharmacist contribution to team-based to patient care. I also address barriers to patient access to medications by demonstrating the impact of pharmacotherapy-related policies on cost, quality, and access to pharmaceutical care.

# I. EDUCATION

Years	<u>Degree</u>	Institution (Area of Study)
1983 - 1988	BS	University of Kansas (Pharmacy) Lawrence, KS
1988 - 1990	Resident	University of Minnesota Hospitals and Clinics (Hospital Pharmacy) Minneapolis, MN
1988 - 1991	MS	University of Minnesota (Hospital Pharmacy Administration) Minneapolis, MN
2003 - 2009	PhD	University of the Sciences Philadelphia (Health Policy) Philadelphia, PA
2010 - 2013	MSCI	University of Utah (Clinical Investigation) Salt Lake City, UT

#### II. CURRENT LICENSES & CERTIFICATES

1989 - Present State License (MN) - Pharmacist

# III. PROFESSIONAL APPOINTMENTS

#### University of Minnesota

- 07/90 02/92 Pharmacy Supervisor, University of Minnesota Hospital and Clinic, Minneapolis, MN
- 02/92 09/93 Pharmacy Programs Account Manager, Diversified Pharmaceutical Services, Minneapolis, MN

# **Diversified Pharmaceutical Services (Purchased by SmithKline Beecham, 1994)**

- 09/93 10/95 Product Development Manager, Diversified Pharmaceutical Services, Minneapolis, MN
- 10/95 12/97 Product and Business Development Manager, Diversified Health Systems International, London, United Kingdom

12/97 - 12/99 Operations Manager, Diversified Health Systems Australia, Melbourne, Australia

# Smithkline Beecham/GlaxoSmithKline

01/00 - 07/01	Business Development Manager, GlaxoSmithKline, Healthcare Management,
	Philadelphia, PA

- 07/01 09/04 Strategic Operations Manager, GlaxoSmithKline, Integrated Healthcare Markets (IHM), Philadelphia, PA
- 09/04 07/05 Strategic Pricing Manager, GlaxoSmithKline, Strategic Pricing & Contract Management, Philadelphia, PA

# University of Utah

10/05 - 07/09	Research Associate, Adjunct Assistant Professor, University of Utah, Pharmacotherapy Outcomes Research Center, Salt Lake City, UT
07/09 - 06/13	Research Assistant Professor, University of Utah, Department of Pharmacotherapy, Salt Lake City, UT
07/11 - 06/12	Interim Director, Post-Doctoral Fellowship Program, Pharmacotherapy Outcomes Research, University of Utah, Salt Lake City, UT
07/13 - 06/14	Research Associate Professor, University of Utah, Department of Pharmacotherapy, Salt Lake City, UT
07/14 - 05/17	Associate Professor, University of Utah, Department of Pharmacotherapy, Salt Lake City, UT
07/12 – 06/14, 07/16 – 05/17	Director of Graduate Studies, University of Utah, Salt Lake City, UT
10/17 – 06/20	Adjunct Associate Professor, University of Utah, Department of Pharmacotherapy, Salt Lake City, UT

# University of Arkansas for Medical Sciences

07/17-12/19 Associate Professor & Director, Pharmaceutical Evaluation & Policy Division, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR

# University of Nebraska for Medical Sciences

1/20-Present Professor & Director of Graduate Studies, Pharmacy Practice & Science, University of Nebraska Medical Center, College of Pharmacy, Omaha NE

# IV. <u>PUBLICATIONS</u>

# A. Peer-Reviewed Research Articles (\*Corresponding Author)

- 1. Asche CV, **McAdam-Marx C**, Shane-McWhorter L, Sheng X, Plauschinat CA (2008). Evaluation of adverse events of oral antihyperglycemic monotherapy experienced by a geriatric population in a real-world setting: a retrospective cohort analysis. *Drugs Aging*, *25*(7), 611-22.
- 2. Asche C, **McAdam-Marx C**, Seal B, Crookston B, Mullins CD (2008). Treatment costs associated with community-acquired pneumonia by community level of antimicrobial resistance. *J Antimicrob Chemother*, *61*(5), 1162-8.

- 3. Asche CV, **McAdam-Marx C**, Shane-McWhorter L, Sheng X, Plauschinat CA (2008). Association between oral antidiabetic use, adverse events and outcomes in patients with type 2 diabetes. *Diabetes, Obesity and Metabolism Online*, *10*(8), 638-45.
- 4. Brixner D, Ghate SR, **McAdam-Marx C**, Ben-Joseph R, Said Q (2008). Association between cardiometabolic risk factors and body mass index based on diagnosis and treatment codes in an electronic medical record database. *J Manag Care Pharm*, *14*(8), 756-67.
- 5. **McAdam-Marx C\***, Ye X, Sung JC, Brixner DI, Kahler KH (2009). Results of a retrospective, observational pilot study using electronic medical records to assess the prevalence and characteristics of patients with resistant hypertension in an ambulatory care setting. *Clin Ther*, *31*(5), 1116-23.
- Brixner DI, McAdam-Marx C, Ye X, Boye KS, Nielsen LL, Wintle M, Misurski D, Fabunmi R (2009). Six-month outcomes on A1C and cardiovascular risk factors in patients with type 2 diabetes treated with exenatide in an ambulatory care setting. *Diabetes, Obesity and Metabolism Online, 11*(12), 1122-30.
- 7. **McAdam-Marx C\***, Bouchard J, Aagren M, Nelson R, Brixner D (2010). Analysis of glycaemic control and weight change in patients initiated with human or analog insulin in an US ambulatory care setting. *Diabetes, Obesity and Metabolism Online*, *12*(1), 54-64.
- 8. **McAdam-Marx C\***, Yu J, Bouchard J, Aagren M, Brixner DI (2010). Comparison of daily insulin dose and other antidiabetic medications usage for type 2 diabetes patients treated with an analog basal insulin. *Curr Med Res Opin*, *26*(1), 191-201.
- 9. **McAdam-Marx C\***, Field RI, Metraux S, Moelter ST, Brixner DI (2010). Physician utilization by insurance type among youth with type 2 diabetes. *Am J Manag Care*, *16*(1), 55-64.
- 10. Said Q, **McAdam Marx C**, Schwartz SJ, Ben-Joseph R, Brixner DI (2010). Impact of Body Mass Index on the Incidence of Cardiometabolic Risk Factors in Ambulatory Care Settings over Five Years or More. *Value Health*, *13*(2), 265-272.
- 11. **McAdam-Marx C\***, Roland CL, Cleveland J, Oderda GM (2010). Costs of opioid abuse and misuse determined from a Medicaid database. *J Pain Palliat Care Pharmacother*, 24(1), 5-18.
- 12. Brixner DI, **McAdam-Marx C**, Ye X, Lau H, Munger MA (2010). Assessment of time to follow-up visits in newly treated hypertensive patients using an electronic medical record database. *Curr Med Res Opin*, *26*(8), 1881-91.
- 13. Asche C, Nelson R, **McAdam-Marx C**, Jhaveri M, Ye X (2010). Predictors of oral bisphosphonate prescriptions in post-menopausal women with osteoporosis in a real-world setting in the USA. *Osteoporos Int*, *21*(8), 1427-36.
- 14. **McAdam-Marx C\***, Bouchard J, Aagren M, Conner C, Brixner DI (2011). Concurrent control of blood glucose, body mass, and blood pressure in patients with type 2 diabetes: an analysis of data from electronic medical records. *Clin Ther*, *33*(1), 110-20.
- 15. LaFleur J, **McAdam-Marx C**, Alder SS, Sheng X, Asche CV, Nebeker J, Brixner DI, Silverman SL (2011). Clinical risk factors for fracture among postmenopausal patients at risk for fracture: a historical cohort study using electronic medical record data. *J Bone Miner Metab*, *29*(2), 193-200.
- 16. Nelson RE, **McAdam-Marx C**, Evans ML, Ward R, Campbell B, Brixner D, Lafleur J (2011). Patent extension policy for paediatric indications: an evaluation of the impact within three drug classes in a state Medicaid programme. *Appl Health Econ Health Policy*, *9*(3), 171-81.

- 17. **McAdam-Marx C\***, McGarry LJ, Hane CA, Biskupiak J, Deniz B, Brixner DI (2011). Allcause and incremental per patient per year cost associated with chronic hepatitis C virus and associated liver complications in the United States: a managed care perspective. *J Manag Care Pharm*, *17*(7), 531-46.
- 18. **McAdam-Marx C\***, Unni S, Ye X, Nelson S, Nickman NA (2012). Effect of Medicare reimbursement reduction for imaging services on osteoporosis screening rates. *J Am Geriatr Soc*, *60*(3), 511-6.
- LaFleur J, McAdam-Marx C, White GL, Lyon JL, Oderda GM (2012). Comparing Medication Adherence Methods in Lipid-Modifying Therapy. *J Pharm Technol*, 28(2), 58-67.
- 20. Jennings BT, **Marx CM** (2012). Implementation of a pharmacist-managed diabetes program. *Am J Health Syst Pharm*, 69(22), 1951-3.
- Kirkness CS, McAdam-Marx C, Unni S, Young J, Ye X, Chandran A, Peters CL, Asche CV (2012). Characterization of patients undergoing total knee arthroplasty in a real-world setting and pain-related medication prescriptions for management of postoperative pain. *J Pain Palliat Care Pharmacother*, 26(4), 326-33.
- 22. Kirkness CS, **McAdam-Marx C**, Unni S, Young J, Ye X, Chandran A, Peters CL, Asche CV (2013). Characterization of patients undergoing total hip arthroplasty in a real-world setting and pain-related medication prescriptions for management of postoperative pain. *J Pain Palliat Care Pharmacother*, 27(3), 235-43.
- 23. Robinson M, Gunning K, Pippitt K, **McAdam-Marx C**, Jennings BT (2013). Team-based approach to addressing simvastatin safety concerns. *J Am Pharm Assoc (2003)*, *53*(5), 539-44.
- 24. Cai B, **McAdam-Marx C** (2014). The Determinants of antihypertensive use and expenditure inpatients with hypertension in the United States. *J Pharm Health Serv Res*, *5*(1), 11-18.
- 25. **McAdam-Marx C\***, Mukherjee J, Bellows BK, Unni S, Ye X, Iloeje U, Brixner DI (2014). Evaluation of the relationship between weight change and glycemic control after initiation of antidiabetic therapy in patients with type 2 diabetes using electronic medical record data. *Diabetes Res Clin Pract*, *103*(3), 402-11.
- 26. **McAdam-Marx C\***, Bellows BK, Unni S, Wygant G, Mukherjee J, Ye X, Brixner DI (2014). Impact of adherence and weight loss on glycemic control in patients with type 2 diabetes: cohort analyses of integrated medical record, pharmacy claims, and patient-reported data. *Journal of Managed Care & Specialty Pharmacy*, 20(7), 691-700.
- 27. Buu J, Mullin S, **McAdam-Marx C**, Solomon M, and Jennings BT (2014). Identifying Barriers to Influenza Vaccination Recommendation Adherence in an Academic Outpatient Primary Care Clinic Setting. *Innovations in Pharmacy*, *5*(3), Article 4.
- 28. Shane-McWhorter L, Lenert L, Petersen M, Woolsey S, **McAdam-Marx C**, Coursey JM, Whittaker TC, Hyer C, LaMarche D, Carroll P, Chuy L (2014). The Utah Remote Monitoring Project: improving health care one patient at a time. *Diabetes Technol Ther*, *16*(10), 653-60.
- 29. **McAdam-Marx C\***, Bellows BK, Unni S, Mukherjee J, Wygant G, Iloeje U, Liberman JN, Ye X, Bloom FJ, Brixner DI (2014). Determinants of glycaemic control in a practice setting: the role of weight loss and treatment adherence (The DELTA Study). *Int J Clin Pract*, *68*(11), 1309-17.

- 30. **McAdam-Marx C\***, Dahal A, Jennings B, Singhal M, Gunning K (2015). The effect of a diabetes collaborative care management program on clinical and economic outcomes in patients with type 2 diabetes. *Journal of Managed Care & Specialty Pharmacy*, *21*(6), 452-68.
- Dahal A, McAdam-Marx C, Smith B, Shane-McWhorter L (2015). Improving Diabetes Care in Underserved Patients through a "Learning Your ABCs" Education and Screening Program. Pharmaceutical Care & Health Systems. *Journal of Pharmaceutical Care & Health Systems*, 2(3), 140.
- 32. Jacquez M, Moorman K, **McAdam-Marx C**, Owen D, Schauerhamer MB, Jennings BT (2016). Identification of medication related problems during medication reviews in a community setting. *Journal of Clinical and Hospital Pharmacy*, 2015;1(2), 9-13.
- 33. Shane-McWhorter L, **McAdam-Marx C**, Lenert L, Petersen M, Woolsey S, Coursey JM, Whittaker TC, Hyer C, LaMarche D, Carroll P, Chuy L (2015). Pharmacist-provided diabetes management and education via a telemonitoring program. *J Am Pharm Assoc* (2003), 55(5), 516-26.
- Kawamoto K, Anstrom KJ, Anderson JB, Bosworth HB, Lobach DF, McAdam-Marx C, Ferranti JM, Shang H, Yarnall KS (2016). Long-Term Impact of an Electronic Health Record-Enabled, Team-Based, and Scalable Population Health Strategy Based on the Chronic Care Model. AMIA Annu Symp Proc, 2016, 686-695.
- 35. Shane-McWhorter L, **McAdam-Marx C**, Lenert L, Petersen M, Woolsey S, Coursey JM, Whittaker TC, Hyer C, LaMarche D, Carroll P, Chuy L (2016). Augmenting Telemonitoring Interventions by Targeting Patient Needs in a Primarily Hispanic Underserved Population. *Diabetes Spectr*, *29*(2), 121-7.
- McAdam-Marx C\*, Nguyen H, Schauerhamer MB, Singhal M, Unni S, Ye X, Cobden D (2016). Glycemic Control and Weight Outcomes for Exenatide Once Weekly Versus Liraglutide in Patients with Type 2 Diabetes: A 1-Year Retrospective Cohort Analysis. *Clin Ther*, 38(12), 2642-2651.
- 37. Humphries MD, Suckow BD, Binks JT, **McAdam-Marx C**, Kraiss LW (2017). Elective Endovascular Aortic Aneurysm Repair Continues to Cost More than Open Abdominal Aortic Aneurysm Repair. *Ann Vasc Surg*, *39*, 111-118.
- 38. Singhal M, Unni S, Schauerhamer M, Nguyen H, Hurd J, **McAdam-Marx C**\* (2017). Real-World Glycemic Control from GLP-1RA Therapy with and Without Concurrent Insulin in Patients with Type 2 Diabetes. *J Manag Care Spec Pharm*, *23*(3), 267-275.
- 39. Biltaji E, Yoo M, Jennings B, Leiser J, **McAdam-Marx C**\* (2017). Outcomes Associated with Pharmacist-Led Diabetes Collaborative Drug Therapy Management in a Medicaid Population. *J Pharm Health Serv Res*, 8(1):59-62.
- Unni S, Wittbrodt E, Ma J, Schauerhamer M, Hurd J, Ruiz-Negrón N, McAdam-Marx C\*. (2017) Comparative Effectiveness of Once-Weekly GLP-1 Receptor Agonists on 6-Month Glycemic Control and Weight Outcomes in Patients with Type 2 Diabetes. *Diab Obes Metab*. 2018; 20(2):468-473.
- 41. Brown K, Fortenberry K, Gren L, Gunning K, **McAdam-Marx C\*.** (2017) Achievement of Adequate Glycemic Control in Patients with Type 2 Diabetes and Comorbid Mental Health Conditions Treated in a Primary Care Setting. *Diabetes Spectrum*, 30(4):277-287.

- Gurgle HE, Schauerhamer MB, Rodriguez SA, McAdam-Marx C. (2017) Impact of Statin Guidelines on Statin Utilization and Costs in an Employer-Based Primary Care Clinic. Am J Manag Care; 2017; 23(12): e387-e393.
- Fritz J, King J, McAdam-Marx C. (2018) Associations Between Early Care Decisions and the Risk for Long-Term Opioid Use in Opioid-Naïve Patients with a New Physician Consult for Low Back Pain and Initiated on Opioid Therapy. *Clin Jour Pain*. 2018 Jun;34(6):552-558.
- Wittbrodt ET, Eudicone JM, Farahbakhshian S, McAdam-Marx C\*. (2018) Comparison of Low-Dose Liraglutide use Versus Other GLP-1 Receptor Agonists in Patients Without Type 2 Diabetes. *Am Jour Manag Care*. 2018 Apr;24(8 Suppl): S156-S164
- 45. Kim K, Unni S, McAdam-Marx C, Thomas SM, Sterling KL, Olsen C, Johnstone B, Mitchell M, Brixner D. (2018) Treatment Intensification and Its Influence on HbA1c in Patients with Sub-optimally Controlled Type 2 Diabetes after Two Oral Antidiabetic Agents. J Manag Care Spec Pharm. 2019; 25(3): 314-322.
- 46 Ruiz-Negrón N, Wander C, McAdam-Marx C, Pesa J, Bailey RA, Bellows BA. (2018). Factors Associated with Diabetes-related Clinical Inertia in a Managed Care Population and its Impact on HbA1c Goal Attainment: A Claims-Based Analysis. *J Manag Care Spec Pharm.* 2019; 25(3): 304-313.
- 47. Kim K, Unni S, Brixner D, Thomas SM, Sterling KL, Olsen C, Sterling KL, Mitchell M, McAdam-Marx C\*. (2019) Longitudinal Changes in HbA1c following Treatment Intensification after Inadequate Response to Two Oral Antidiabetic Agents in Patients with Type 2 Diabetes. Diab Obes Met. 2019; 21(7): 1725-1733
- King J, McAdam-Marx C, McCaleb R, Davis D, Bemberg GB, Johnson JT. (2018) Cost and Utilization Outcomes after Exclusion of Dipeptidyl Peptidase-4 (DPP-4) Inhibitors in a Self-Funded, State Employee, Managed Care Plan. J Manag Care Spec Pharm. 2019; 25(6): 646-651
- 49. **McAdam-Marx C\***, Tak C, Petigara T, Jones NW, Yoo M, Briley M, Gunning K, Gren L. Impact of a Guideline-Based Best Practice Alert on Pneumococcal Immunization Rates in Adults in a Primary Care Setting. *BMC Health Services Research*. 2019; 19(1):474
- 50. Litchman M, Allen NA, **McAdam-Marx C**, Feehan M. Using Projective Exercises to Identify Patient Perspectives of Living with Comorbid Type 2 Diabetes and Asthma. *Chronic Illness.* 2021 Dec;17(4):347-361.
- 51. Bhandari NR, Ounpraseuth ST, Kamel MH, Kent EE, **McAdam-Marx C**, Tilford JM, Payakachat N. Changes in health-related quality of life outcomes in older patients with kidney cancer: A longitudinal cohort analysis with matched controls. *Urol Oncol.* 2020. Nov; 38(11):852-852.
- 52. DeYoung, OA. Boehmer K. Hung D. **McAdam-Marx C\***. A historical cohort study of glycemic control in patients with concurrent type 2 diabetes and substance use disorder treated in a primary care setting. *(2021) Family Practice*, 38(5): 562-568.
- 53. Cui J, Klepser D. **McAdam-Marx C**\*. Short-Term Cost-Effectiveness of Oral Semaglutide for the Treatment of Type 2 Diabetes Mellitus in the United States. *J Manage Care Spec Pharm.* 2021, 27(7): 840-845.
- Bhandari NR, Ounpraseuth ST, Kamel MH, Kent EE, McAdam-Marx C, Tilford JM, Payakachat N. (2021) Association of Health-Related Quality of Life with Overall Survival in Older Americans with Kidney Cancer: A Population-Based Cohort Study. Healthcare. 2021, 9, 1344.

- 55. Bhandari NR, Kamel MH, Kent EE, **McAdam-Marx C**, Ounpraseuth ST, Tilford JM, Payakachat N. Prognostic Value of Health-related Quality of Life on Overall Survival in Older Americans with Kidney Cancer: A Population-based Cohort Study. *Int Urology Nephrology*
- 56. Downes J, Donovan A, **McAdam-Marx C**. Pharmacist-led drug therapy management for Hepatitis C at a federally qualified healthcare center. J Amer Pharm Assoc. 2022 Apr 26:S1544-3191(22)00132-7. doi: 10.1016/j.japh.2022.04.014. Online ahead of print.
- 57. **McAdam-Marx C**, Sullivan J, Tucker J, Ruiz-Negron N. The Effects Patient Out-of-Pockets Costs for Insulin on Diabetes-Utilization and Outcomes in Patients with Commercial Insurance; 2007-2018. J Manag Care Spec Pharm. 2022 28(5):494-506.
- 58. Lui W, D Stewart, Li F, Lui L, Hu Y, **McAdam-Marx C.** Efficacy and safety of metformin compared to insulin in gestational diabetes: a systemic review and meta-analysis of Chinese randomized controlled trials, International Journal of Clinical Pharmacy, 2022. (accepted)
- 59. Salzbrenner S. **McAdam-Marx C\***, Lydette M, Helding B, Scheier L, Wonch-Hill P. Perceptions of Prior Authorization by use of Electronic Prior Authorization Software: A Survey of Providers in the United States. J Manag Care Spec Pharm, 2022 (accepted)

# **B.** Peer-Reviewed Review Articles (\*Corresponding Author)

- 1. Asche CV, Kirkness CS, **McAdam-Marx C**, Fritz JM (2007). The societal costs of low back pain: data published between 2001 and 2007. [Review]. *J Pain Palliat Care Pharmacother*, *21*(4), 25-33.
- 2. Lafleur J, Said Q, **McAdam-Marx C**, Jackson K, Mortazavi M (2007). Problems in studying the association between race and pain in outcomes research. [Review]. *J Pain Palliat Care Pharmacother*, 21(3), 57-62.
- 3. **McAdam-Marx C\***, LaFleur, J, Kirkness C, Asche C (2007). Postmenopausal osteoporosis: Current and future treatment options. [Review]. *P T*, *32*(7), 392-402.
- 4. LaFleur J, **McAdam-Marx C**, Kirkness C, Brixner DI (2008). Clinical risk factors for fracture in postmenopausal osteoporotic women: a review of the recent literature. [Review]. *Ann Pharmacother*, *42*(3), 375-86.
- 5. **McAdam-Marx C\***, Schaaf DT, Holtorf AP, Eng B, Oderda GM (2008). Systematic analysis of outcomes evaluations applied to drug management programs. [Review]. *Am J Manag Care*, *14*(11 Suppl), SP36-45.
- 6. Brixner DI, **McAdam-Marx C** (2008). Cost-effectiveness of insulin analogs. [Review]. *Am J Manag Care*, *14*(11), 766-75.
- Holtorf AP, McAdam-Marx C, Schaaf D, Eng B, Oderda G (2009). Systematic review on quality control for drug management programs: is quality reported in the literature? [Review]. BMC Health Serv Res, 9, 38.
- 8. Young JR, **McAdam-Marx C**\* (2010). Treatment of type 1 and type 2 diabetes mellitus with insulin detemir, a long-acting insulin analog. [Review]. *Clin Med Insights Endocrinol Diabetes*, *3*, 65-80.
- 9. **McAdam-Marx C\***, Gaebler JA, Bellows BK, Brixner DI (2010). Contemporary management of patients with Type 2 diabetes. [Review]. *Expert Rev Cardiovasc Ther*, *8*(6), 767-70.

- Ghate SR, Haroutiunian S, Winslow R, McAdam-Marx C\* (2010). Cost and comorbidities associated with opioid abuse in managed care and Medicaid patients in the United Stated: a comparison of two recently published studies. [Review]. J Pain Palliat Care Pharmacother, 24(3), 251-8.
- Munger MA, Shane-McWhorter L, McAdam-Marx C (2010). Prediabetes: Implications for Managed Care. Am J Pharm Benefits. 2010;2(7):429-441. [Review]. American Journal of Pharmacy Benefits, 2(7), 429-441.
- 12. Bellows BK, Hunter E, **McAdam-Marx C**\* (2011). Exenatide: Review of its Role as Adjunctive Therapy in Patients with Type 2 Diabetes. [Review]. *Clin Med Rev Vasc Health*, 2011(3).
- 13. Lin J, Jiao T, Biskupiak JE, **McAdam-Marx C**\* (2013). Application of electronic medical record data for health outcomes research: a review of recent literature. [Review]. *Expert Rev Pharmacoecon Outcomes Res*, *13*(2), 191-200.
- 14. **McAdam Marx C\*** (2013). Economic implications of type 2 diabetes management. [Review]. *Am J Manag Care*, *19*(8 Suppl), S143-8.
- 15. Bellows BK, Kuo KL, Biltaji E, Singhal M, Jiao T, Cheng Y, **McAdam-Marx C** (2014). Realworld evidence in pain research: a review of data sources. [Review]. *J Pain Palliat Care Pharmacother*, 28(3), 294-304.
- 16. Schauerhamer MB, Gurgle H, **McAdam-Marx C\*** (2015). Once-weekly exenatide as a treatment for Type 2 diabetes. [Review]. *Expert Rev Cardiovasc Ther*, *13*(6), 611-26.
- 17. Gurgle HE, White K, **McAdam-Marx C** (2016). SGLT2 inhibitors or GLP-1 receptor agonists as second-line therapy in type 2 diabetes: patient selection and perspectives. [Review]. *Vasc Health Risk Manag*, *12*, 239-49.
- 18. McAdam-Marx C. (2018) Economic Implications with Newer Agents to Reduce Cardiovascular Risk in Diabetes. [Review] *Am Jour Manag Care.* 24(13 suppl): S279-S285.
- L Hertzog, C McAdam-Marx, LE Happe. Managed Care Pharmacy Research on Inappropriate Opioid Use Interventions. J Manag Care Spec Pharm. 2020; 26(10):1199-1202.
- 20. McAdam-Marx C, Addressing Healthcare Disparities and Managed Care Considerations with Continuous Glucose Monitoring [Review]. Amer J Manag Care. 2022 (in press)

# **Editorials/Commentaries**

- 1. Happe L, Klepser D, **McAdam-Marx C**, McCart MS, Rascati KL, Rupp MT. Racial Disparities in Medication Use: JMCP's Response and Call for Submissions, *J Manag Care Spec Pharm*. 2020; 26(11):1475-1476.
- Schulte A, Donovan AL, McAdam-Marx C. From access to equity: The devil is in "Z" details. J Manag Care Spec Pharm. 2022;28(6):685-687.

# **C. Pending Publications**

- Salzbrenner S, Lydiatt M, Heldin B, Scheier LM, Greene H, McAdam-Marx C. Influence of Prior Authorization Requirements on Provider Clinical Decision Making. 2022. Amer J Manag Care. (Submitted)
- 2. Liu L. Sobeski LM, Cook KM, Shin ET, Klepser DG, Suhbusi D, McAdam-Marx\*. The association between the COVID-19 pandemic and glycemic control in older adults with

diabetes. J Amer Geriat Soc. 2021 (submitted)

- 3. Franck L. Donovan A. **McAdam-Marx C**. Impact on Adherence after Implementation of Health System's Medication Assistance in Patients with Diabetes. JAPhA. (submitted)
- 4. Prescott D. **McAdam-Marx C**. Evaluating the Impact of Interprofessional Remote Patient Monitoring for Diabetes Management. Ann Fam Med. 2021 (submitted)
- 5. Datta, et al. THINC-19: Telemedicine and Health Inequalities during the COVID-19 pandemic. Lancet Regional (submitted)
- 6. Eiland, et al. In-person and Telehealth Provider Access and Glycemic Control for People with Diabetes during the COVID-19 Pandemic. Diabetes Technology and Therapeutics (summitted).

# **D.** Abstracts

- 1. **McAdam-Marx C**, Joish VN, Brixner DI, Arondekar B, Hoblyuk R (2006). A comparison of adherence and cost of sulfonylureas in combination with TZDs or metformin. The American Diabetes Association 66th Annual Scientific Session [Abstract]. Diabetes, 55(1).
- 2. Asche CV, **McAdam-Marx C**, Shane-McWhorter L, Sheng X, Plauschinat CA (2007). Association between oral antidiabetic adverse events and outcomes in a real-world setting. American Diabetes Association 67th Annual Scientific Meeting [Abstract]. Diabetes, 56(1).
- 3. **McAdam-Marx C**, Brixner DI, Metraux S, Moelter S, Field R (2009). *Antidiabetic Treatment* and A1C Testing in Youth with Type 2 Diabetes in an Ambulatory Care Setting. The American Diabetes Association 69th Annual Scientific Session [Abstract]. Diabetes, 58(1).
- 4. Brixner D, **McAdam-Marx C**, Nelson R, Aagren M, Bouchard J (2009). *Analysis of glycemic control and weight changes in patients treated with analog basal insulin in a real-world setting. The American Diabetes Association 69th Annual Scientific Session* [Abstract]. *Diabetes*, 58(1).
- 5. McAdam-Marx C, Brixner DI, Ye X, Misurski D, Fabunmi R (2009). A1C Outcomes at 6 and 18 Months in Insulin Naïve Patients with Type 2 Diabetes Treated with Analog Basal Insulin in an Ambulatory Care Setting. The American Diabetes Association 69th Annual Scientific Session [Abstract]. Diabetes, 58(1).

# V. Poster Presentations (\*Senior Author)

- 1. Brixner DI, Joish VM, **McAdam-Marx C**, Arondekar B, Hoblyuk R (2006). *Evaluation of persistence and outcomes in patients on SU combination therapy with TZDs or Metformin.* Poster session presented at AMCP 18th Annual Meeting, Seattle, WA.
- Asche CV, McAdam-Marx C, Share-McWhorter L, Plauschinat CA (2006). Evaluation of diabetes treatment patterns and adverse events in a usual care setting. Poster session presented at American Society of Health-System Pharmacists 41st Mid-Year Meeting, Anaheim, CA.
- LaFleur J, Asche C, McAdam-Marx C, Alder S, Sheng X (2006). Postmenopausal osteoporosis fracture occurrence and fracture rates by age in a primary-care setting. Poster session presented at American Society of Health-System Pharmacists 41st Mid-Year Meeting, Anaheim, CA.

- 4. Brixner D, Asche CV, **McAdam-Marx C**, Gallwitz W (2006). Value of reducing vertebral fractures in women with post-menopausal osteoporosis with multiple clinical risk factors for fracture based on the TOPS study. Poster session presented at American Society of Health-System Pharmacists 41st Mid-Year Meeting, Anaheim, CA.
- LaFleur J, Asche C, McAdam-Marx C, Alder S, Sheng X (2007). Postmenopausal osteoporosis fracture occurrence and fracture rates by age in a primary-care setting. Poster session presented at 3rd Annual Utah Health Services Research Conference, Salt Lake City, UT.
- 6. **McAdam-Marx C**, Brixner D, Metrau S, Chan V, Field R (2007). *Determinants of race and ethnicity reporting for youth with health data in an electronic medical record database.* Poster session presented at University of the Sciences Scholarly Day, Philadelphia, PA.
- LaFleur J, McAdam-Marx C, Asche CV, Alder S, Sheng X, Brixner D, Silverman S (2007). The risk of clinical vertebral fracture for postmenopausal patients with specific combinations of fracture risk factors in a primary-care setting. Poster session presented at National Osteoporosis Foundation, 7th International Symposium on Osteoporosis: Translating Research into Clinical Practice., Washington, DC.
- LaFleur J, McAdam-Marx C, Asche CV, Alder S, Sheng X, Brixner D, Silverman S (2007). *Clinical risk factors for fracture are additive in postmenopausal women who are at risk for fracture in a primary care setting.* Poster session presented at The American Society of Bone and Mineral Research 29th Annual Meeting, Honolulu, HI.
- 9. Asche CV, Seal B, **McAdam-Marx C**, Crookston B, Svejda R, Mullins CD (2007). *Treatment costs associated with community acquired pneumonia by community level antimicrobial resistance.* Poster session presented at ISPOR 10th Annual European Congress, Dublin, Ireland.
- 10. **McAdam-Marx C**, Brixner DI, Asche C (2008). *Identifying potential adverse events in an electronic medical record database.* Poster session presented at 4th Annual Utah Health Services Research Conference, Salt Lake City, UT.
- 11. Brixner DI, **McAdam-Marx C**, Biskupiak J, Lau HJ, Munger M (2008). Association of adverse events of antihypertensive therapy by age in a physician practice national EMR database. Poster session presented at American Heart Association 9th Scientific Quality of Care in Cardiovascular Disease and Stroke, Baltimore, MD.
- 12. **McAdam-Marx C**, Brixner DI, Ye X, Sung JC, Kahler KH (2008). *Evaluation of resistant hypertension in a usual-care setting.* Poster session presented at 13th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Toronto, Canada.
- Nelson R, McAdam-Marx C, Misurski DA, Nielsen LL (2008). Descriptive analysis of body weight and clinical effectiveness measures associated with type 2 diabetes therapies in a primary care electronic medical record database. Poster session presented at 13th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Toronto, Canada.
- McAdam-Marx C, Brixner DI, Oberg B (2008). Estimation of study population size for effectiveness outcomes at 6 and 12 months via electronic medical records. Poster session presented at 13th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Toronto, Canada.

- 15. **McAdam-Marx C**, Brixner DI, Field R, Metraux S (2008). *Type 2 diabetes in youth: 2002 and 2006 prevalence and obesity in a primary care setting.* Poster session presented at 13th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Toronto, Canada.
- 16. Lafleur J, Nelson R, **McAdam-Marx C**, Brixner D, Ward R (2008). *Patent extension policies for pediatric indications: an evaluation of the impact within one drug class in one state Medicaid program.* Poster session presented at Academy Health 2008 Annual Meeting, Washington, DC.
- 17. Brixner DI, **McAdam-Marx C**, Ye X, Misurski D, Wintle M, Fabunmi R (2009). *18-month A1C and Weight Outcomes of Exenatide Therapy in Patients with Type 2 Diabetes in a Real-World Study.* Poster session presented at 14th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Orlando, FL.
- McAdam-Marx C, Brixner DI, Ye X, Misurski D, Fabunmi R (2009). A1C and Weight Outcomes Following 6 Months of Analog Basal Insulin in Insulin Naïve Patients with Type 2 Diabetes in an Ambulatory Care Setting. Poster session presented at 14th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Orlando, FL.
- McAdam-Marx C, Yu Y, Shankar V, Bouchard J, Brixner D (2009). Daily Average Consumption of Basal Insulin in Patients with Type 2 Diabetes. Poster session presented at 14th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Orlando, FL.
- 20. Fabunmi R, **McAdam-Marx C**, Ye X, Misurski D, Brixner D (2009). *Blood Pressure Outcomes after 6 Months of Exenatide Treatment in Patients with Type 2 Diabetes in a Real-World Study.* Poster session presented at The American Diabetes Association 69th Annual Scientific Meeting, New Orleans, LA.
- 21. **McAdam-Marx C**, Nelson R, Aagren M, Bouchard J, Brixner DI (2009). *Analysis of glycaemic control outcomes vs. baseline in patients treated with analog basal insulin in a real-world setting.* Poster session presented at International Diabetes Federation 20th World Diabetes Congress, Montreal, Canada.
- 22. Brixner DI, **McAdam-Marx C**, Van Den Bos J, Perlman D (2010). *Resource Use for Caregivers vs. Matched Controls One-Year Pre vs. Post Patient Diagnosis for Alzheimer Disease.* Poster session presented at American Geriatrics Society Annual Scientific Meeting, Orlando, FL.
- 23. Brixner DI, **McAdam-Marx C**, Van Den Bos J, Perlman D (2010). *Costs One Year Post Diagnosis for Alzheimer Patients and their Spouses vs. Matched Controls.* Poster session presented at 2010 American Geriatrics Society Annual Scientific Meeting, Orlando, FL.
- 24. Brixner DI, **McAdam-Marx C**, Van Den Bos J, Perlman D (2010). Approach to Matching Patients with Alzheimer's Disease and their Spouse to Control Patients in Spouses in an Administrative Claims Database. Poster session presented at 15th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Atlanta, GA.
- 25. Pepper MJ, Shane-McWhorter, Bellows B, **McAdam-Marx C**, Albright F, Osborne B (2010). *Exercise in Hispanic patients with type 2 diabetes mellitus: can a Spanish exercise DVD help.* Poster presented at American Association of Diabetes Educators Annual Conference, San Antonio, TX.

- 26. **McAdam-Marx C**, Unni S, Nelson S, Ye X, Nickman N (2011). *An evaluation of bone mineral density screening and technology frequency (2005-2008) among US women age 50 and older in a commercial medical claims database.* Poster session presented at 17th Annual Meeting of the International Society of Clinical Densitometry, Miami, FL.
- 27. **McAdam-Marx C**, Bouchard J, Aagren M2, Conner C, Brixner D (2011). *Baseline Characteristics and Antidiabetic Exposure in Patients with Type 2 Diabetes Treated with Liraglutide.* Poster session presented at 15th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Baltimore, MD.
- 28. **McAdam-Marx C**, Jennings B, Sayler M, Gunning K (2011). *An Evaluation of Clinical and Economic Outcomes Associated with a Pharmacist-Coordinated Diabetes Chronic Care Management Program.* Poster session presented at American Association of Colleges of Pharmacy Annual Meeting, San Antonio, TX.
- 29. McAdam-Marx C, Brixner D, Ye X, Unni S, Mukherjee J (2011). Weight Loss, Independent of Drug Class, Predicts HbA1c Goal Attainment in Patients 65 years and Older in a Real-World Setting. Poster session presented at International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Madrid, Spain.
- 30. Mukherjee J. **McAdam-Marx C**. Ye X, Unni S. Brixner D (2011). *Weight loss of 3% or more of baseline body weight in a 12-month period is associated with glycemic control in newly treated type 2 diabetes patients in the usual care setting.* Poster session presented at 47th European Association for the Study of Diabetes Annual Meeting, Lisbon, Spain.
- 31. Robinson MM, Gunning K, Pippitt K, **McAdam-Marx C**, Jennings B (2012). *Bridging the Gap Between FDA Safety Warnings and Patients: Are Pharmacists the Appropriate Messengers.* Poster session presented at APhA Annual Meeting, New Orleans, LA.
- 32. Bellows BK, **McAdam-Marx C**, Unni S, Ye X, Mukherjee J, Brixner DI (2012). *12-month HbA1c and Weight Outcomes by Drug Class in Treatment Naïve Patients with Type 2 Diabetes.* Poster session presented at Academy of Managed Care Pharmacy Annual Meeting, San Francisco, CA.
- 33. Cai B, **McAdam-Marx C** (2012). Using Longitudinal Data to Explain the Impact of Pain on Depression for the General Population. Poster session presented at International Society of Pharmacoeconomics and Outcomes Research (ISPOR) International Meeting, Washington DC.
- 34. Cai B, **McAdam-Marx C** (2012). *Determinants of Pharmaceutical Expenditures for Patients with Hypertension.* Poster session presented at International Society of Pharmacoeconomics and Outcomes Research International Meeting, Washington DC.
- 35. Bellows BK, Ye X, Unni S, Mukherjee J, Iloeje U, **McAdam-Marx C**\* (2012). *Impact of Antidiabetic Drug Selection on Weight Change and HbA1c Outcomes in Treatment Naïve Patients with Type 2 Diabetes.* Poster session presented at American Diabetes Association Scientific Sessions, Philadelphia PA.
- 36. **McAdam-Marx C**, Jennings BT, Dahal A, Gunning K (2012). *Pharmacist-led diabetes chronic care management program improves glycemic control without increasing costs in patients with uncontrolled type 2 diabetes.* Poster session presented at American College of Clinical Pharmacy Annual Meeting, Hollywood, FL.
- McAdam-Marx C, Jennings BT, Dahal A, Gunning K (2012). Pharmacist-led diabetes collaborative drug therapy management program improves glycemic control in patients with uncontrolled type 2 diabetes treated with insulin. Poster session presented at American College of Clinical Pharmacy Annual Meeting, Hollywood, FL.

- 38. McAdam-Marx C, Bellows B, Wygant G, Mukherjee J, Unni S, Ye X, Iloeje U, Brixner D (2012). Weight loss of ≥3% of body weight after initiating new anti-diabetic therapy is associated with glycemic control at 6 months in patients with type 2 diabetes. Poster session presented at International Society of Pharmacoeconomics and Outcomes Research (ISPOR) European Meeting, Berlin, Germany.
- 39. McAdam-Marx C, Bellows B, Wygant G, Mukherjee J, Unni S, Ye X, Liberman J, Iloeje U, Brixner D (2012). Association of a ≥3% loss of body weight and self-reported adherence with glycemic control at 6 months after initiating new anti-diabetic therapy in patients with type 2 diabetes (T2DM) the DELTA Study. Poster session presented at The Conference on Diabetes and Hypertension Europe (CODHy EU), Barcelona, Spain.
- 40. Hays E. Gunning K. **McAdam-Marx C**, Pippitt K (2013). *Pharmacist Intervention to Decrease Risk of Hypoglycemia in Older Patients with Diabetes Mellitus*. Poster session at Society of Teachers of Family Medicine Conference, Baltimore, MD.
- 41. McAdam-Marx C, Bellows B, Wygant G, Mukherjee J, Unni S, Ye X, Liberman J, Iloeje U, Brixner D (2013). Association of ≥5% weight loss and self-reported adherence with 6-month glycemic control in type 2 diabetes mellitus (T2DM): the DELTA Study. Poster session presented at American Diabetes Association Scientific Sessions, Chicago, IL.
- 42. Humphries MD, Suckow BD, Binks JT, **McAdam-Marx C**, Kraiss LW (2013). *EVAR Continues to Cost More than Open AAA Repair.* Poster session presented at Western Vascular Society Annual Meeting, Alberta, Canada.
- 43. Turner K, Gurgle H. Hardcastle A, **McAdam-Marx C** (2013). *Assessment of student pharmacist experience at an interprofessional student-run free clinic.* Poster session presented at American College of Clinical Pharmacy Annual Meeting, Albuquerque NM.
- 44. Spence B. **McAdam-Marx C**, Mullins S, Choudhary K (2013). Association Between Clinically Aligned Pain Assessment and Opioid Use Compared to a Numeric Rating Scale Pain Assessment in Hospitalized Patients. Poster session presented at American Society of Hospital Pharmacist Mid-Year Meeting, Orlando, FL.
- 45. Wong R, **McAdam-Marx C**, Bellows B (2013). *Cost-effectiveness of lorcaserin in treating overweight or obese patients with type 2 diabetes.* Poster session presented at American Society of Hospital Pharmacist Mid-Year Meeting, Orlando, FL.
- 46 Gurgle H, McAdam-Marx C, Biltaji E, Weir P (3013). *Diabetes and cardiovascular risk assessment utilizing a personal health profile in an employer-sponsored family medicine clinic.* Poster session presented at the American College of Clinical Pharmacy Annual Meeting. Albuquerque, NM.
- 47. Winter B, Turner K, **McAdam-Marx C**, Biltaji E, Gunning K (2013). *Survey of smoking cessation practices among pharmacists.* Poster session presented at American Society of Hospital Pharmacist Mid-Year Meeting, Orlando, FL.
- Buu J, Mullin S, McAdam-Marx C. Solomon M, Jennings BT (2014). Developing a Process to Improve Adult Influenza Vaccination Rates and Guideline Implementation in a Clinic Setting. Poster session presented at American Pharmacists Association (APhA) Annual Meeting & Exposition, Los Angeles, CA.
- 49. Jacquez M, Moorman K, **McAdam-Marx C**, Owen D, Jennings B (2014). *The identification of medication related problems from a medication review provided by a clinical pharmacist in a community setting.* Poster session presented at American Pharmacists Association (APhA) Annual Meeting & Exposition, Orlando, FL.

- 50. Shane-McWhorter L. **McAdam-Marx C**. Deka R (2014). *Pharmacist-Provided Diabetes Education and Care Via Telemonitoring: The Utah Remote Monitoring Project.* Poster session presented at 9th Annual Utah Health Services Research Conference, Salt Lake City, UT.
- 51. Ogborn DB, Gunning K, Gibson KL, **McAdam-Marx C**, Lowe M, Jennings BT (2014). *Immunization Rates in Pregnant Women through Quality-Improvement Changes in Electronic Medical Record Processes.* Poster session presented at American Pharmacists Association (APhA) Annual Meeting & Exposition, Los Angeles, CA.
- 52. McAdam-Marx C, Bellows B, Wygant G, Mukherjee J, Unni S, Ye X, Iloeje U, Brixner D (2013). Associations between claims based adherence, weight loss and, glycemic control in patients with type 2 diabetes. Poster session presented at International Society of Pharmacoeconomics and Outcomes Research (ISPOR) International Meeting, New Orleans, LA.
- 53. **McAdam-Marx C**. Biltaji E, Yoo M, PhD, Jennings BT, Gunning K (2014). *Clinical and Economic Impact of a Pharmacist-Led Diabetes Collaborative Drug Therapy Management Program in a Medicaid ACO Setting.* Poster session presented at Academy of Managed Care Pharmacy, Boston, MA.
- 54. Gurgle H, **McAdam-Marx C**, Singhal M, Wier P (2014). *Clinical and economic outcomes of a collaborative diabetes management program in an employer-sponsored family medicine clinic.* Poster session presented at ACCP Annual Meeting, San Antoinio, Tx.
- 55. Gurgle H, **McAdam-Marx C**, Singhal M, Weir P (2014). *Evaluation of diabetes outcomes after implementation of clinical pharmacist services in an employer-sponsored family medicine clinic.* Poster session presented at ACCP Annual Meeting, San Antoinio, Tx.
- 56. Unni S, Nguyen N, Schauerhamer M, Ye X, Cobden D, McAdam-Marx C\* (2015). Achievement of Glycemic Control and Antidiabetic Therapy Changes in Type 2 Diabetes Patients Initiating Glucagon-like Peptide-1 Receptor Agonist Therapy. Poster session presented at Academy of Managed Care Pharmacy Annual Meeting, San Diego, CA.
- 57. Rodriques S, Gurgle H, **McAdam-Marx C**\* (04/07/2015). Cost Impact of Adopting ACC/AHA Cholesterol Guidelines in an Employer Based Primary Care Clinic. Poster session presented at AMCP Annual Meeting, San Diego, CA.
- 58. Singhal M, Nguyen H, Schauerhamer M, Unni S, Cobden D, McAdam-Marx C\* (2015). Effect of Daily or Weekly GLP-1 Receptor Agonists on Glycemic Control in Insulin-Naïve Patients with Poorly Controlled Type 2 Diabetes: A Real-World Study. Poster presented at International Society for Pharmacoeconomic and Outcomes Research (ISPOR) Annual Meeting, Philadelphia, PA.
- 59. Singhal M, **McAdam-Marx C**, LaFleur J, Witt DM, Nelson R, Biskupiak JE (2015). *Role of glycemic control in development of Atrial Fibrillation in patients with Type 2 diabetes mellitus.* Poster session presented at International Society for Pharmacoeconomic and Outcomes Research (ISPOR) Annual Meeting, Washington, DC.
- 60. **McAdam-Marx C**, Nguyen H, Schauerhamer M, Ye X, Singhal M, Cobde D (2015). *Real-World 1-Year HbA1c and Weight Outcomes in Patients Treated with Exenatide Once Weekly or Liraglutide Once Daily.* Poster presented at American Diabetes Association Scientific Sessions, Boston, MA.

- 61. Biltaji E, Brixner D, **McAdam-Marx C**, Schiffman J, Sweeney C, Gligorich K, Bronner M, Stenehjem D (2015). *Characterization of NGS testing at Huntsman Cancer Institute.* Poster session presented at Translating Cancer Epidemiology: from Cells to Clinic and Population Conference, Salt Lake City, UT.
- 62. Tak C, Unni S, Gunning K, **McAdam-Marx C** (2016). 2014 Pneumococcal Immunization Rates by Race and Ethnicity. Poster session presented at 11th Annual Utah Health Services Research Conference, Salt Lake City, UT.
- 63. Kawamoto K, Anstrom KJ, Anderson JB, Bosworth HB, Lobach DF, **McAdam-Marx** C, Ferranti JM, Shang H, Hawblitzel Yarnall KS (2016). *Long-Term Impact* of an Electronic Health Record-Enabled, Team-Based, and Scalable Population Health Strategy Based on the Chronic Care Model. AMIA Symposium 2016, Chicago, IL.
- 64. Singhal M, Schauerhamer MB, Wittbrodt E, Unni S, Hurd J, McAdam-Marx C\* (2017). Achievement of Diabetes-Related Quality Measures in Patients Treated with Exenatide Once-Weekly in a Real-World Setting. Poster session presented at International Society for Pharmacoeconomic and Outcomes Research 22nd Annual International Meeting, Boston, MA.
- 65. Unni S, Schauerhamer MB, Ma J, Wittbrodt E, Hurd J, Ye X, **McAdam-Marx C**\* (2017). *Real-World Glycemic Control after 6 Months of Treatment with Exenatide Once Weekly vs. Dulaglutide or Albiglutide in Patients with Type 2 Diabetes.* Poster session presented at American Diabetes Association 77th Scientific Sessions, San Diego, CA.
- 66. Ruiz-Negrón N, Wittbrodt E, Ma J, Unni S, Hurd J, McAdam-Marx C\* (2017). Real-World A1C and Weight Outcomes with Long-Acting GLP-1 Receptor Agonist Treatment by Insulin Use in Patients with Poorly Controlled Type 2 Diabetes. Poster session presented at American Diabetes Association 77th Annual Scientific Sessions, San Diego, CA.
- 67. Ruiz-Negrón N, Wander C, **McAdam-Marx C**, Pesa J, Bailey RA, Bellows BK (2017). Assessing the Impact of Treatment Intensification vs Clinical Inertia on Follow-up A1C in a Managed Care Population: A Claims-Based Analysis. Poster Session presented at the Association of Managed Care Pharmacists Nexus Meeting, Dallas, Tx.
- Sheehan M, Durante R, Ranker L, Montuoro J, Litchman M, McAdam-Marx C, Allen N (2018). Qualitative Research into the Barriers for Effective Patient Self-Management of Comorbid Diabetes, Obesity, and Asthma. Poster session presented at the American Pharmacist Association 2018 Annual Meeting. Nashville, Tn.
- 69. Kim K, Unni S, McAdam-Marx C, Thomas SM, Olsen C, Johnstone B, Mitchell M, Brixner D. (2018) Treatment intensification patterns and glycemic control outcomes in patients with uncontrolled type 2 diabetes after two oral antidiabetic agents. Poster Session at the Academy of Managed Care Pharmacy Annual Meeting, Boston, MA. Recipient of a Gold Ribbon for Excellence.
- King J, McAdam-Marx C, McCaleb R, Davis D, Bemberg GB, Johnson JT. (2018) Cost and Utilization Outcomes after Exclusion of Dipeptidyl Peptidase-4 (DPP-4) Inhibitors in a Self-Funded, State Employee, Managed Care Plan. (2018) Winter/Spring Virtual Poster Session. American College of Clinical Pharmacy.
- 71. Kim K, Unni S, Brixner D, Thomas SM, Olsen C, Sterlind KL, Mitchell M, McAdam-Marx C\* (2018) HbA1c Trends with Treatment intensification Following Inadequate Response to 2 Oral agents in Patients with Type 2 Diabetes. Poster Session, American Diabetes Association 78<sup>th</sup> Annual Scientific Sessions. Orlando FI.

- 72. **McAdam-Marx C,** Li C, Johnson J. *Trends in Insulin Costs and Utilization in Commercially Insured Patients with Diabetes: 2007-2014.* Poster Session, Academy of Managed Care Pharmacists Nexus Meeting 2018, Orlando, FL.
- 73. **McAdam-Marx C**, Tak C, Petigara T, Jones NW, Yoo M, Briley M, Gunning K, Gren L. (2018) *Impact of a Guideline-Based Best Practice Alert on Pneumococcal Immunization Rates in Adults in a Primary Care Setting.* Poster Presentation, North American Primary Care Research Group 2018 Annual Meeting Chicago, IL.
- 74. Lakkad M, Thiessen K, Hu B, Shaw A, **McAdam-Marx C\***. *All-Cause & Diabetes Related Costs in patients with Type 2 Diabetes and Substance Use Disorders.* Poster Session, Academy of Managed Care Pharmacists Annual Meeting 2019, San Diego, CA.
- 75. Acharya M, Chopra D, **McAdam Marx C**, Fritz JM, Martin B. *Early Care Decisions and the Risk of Long-Term Opioid Use in Patients with Low Back Pain.* Poster Session, International Society for Pharmacoeconomic and Outcomes Research Annual Meeting. May 2020. Virtual.
- 76. Jensen C, Thiessen K, Kaseda D, **McAdam-Marx C**. *Glycemic Control in Patients with Type 2 Diabetes and Depression or Anxiety.* Poster Session, American Society of Health System Pharmacists, Midyear Meeting, Dec 2020. Virtual.
- 77. Cui J, Klepser D, **McAdam-Marx C**. Short-Term Cost-Effectiveness of Oral Semaglutide for the Treatment of Type 2 Diabetes Mellitus in the United States. Poster Session, Academy of Managed Care Pharmacy 2021 Annual Meeting, April 12, 2021. Virtual.
- 78. **McAdam-Marx C**, Ruiz N, Sullivan JM, Tucker JM. *Relationship Between Insulin Out-of-Pocket Costs and Non-Persistence in Medicare Advantage Patients with Type 1 or Type 2 Diabetes.* Poster Session, Academy of Managed Care Pharmacy 2021 Annual Meeting, April 12, 2021. Virtual.
- 79. Trueman CA, Donovan A, **McAdam-Marx C**, Coan C, Chan E. *Pharmacist Impact on Evidence-Based Prescribing of Diabetes Medications in Patients with Clinical Atherosclerotic Cardiovascular Disease (ASCVD).* Poster Session, American College of Clinical Pharmacy, 2021 Virtual Poster Symposium. May 26, 2021.
- 80. **McAdam-Marx C**, Ruiz N, Sullivan JM, Tucker JM. *Relationship Between Insulin Out-of-Pocket Costs and Non-Persistence in Commercially Insured Patients with Type 1 or Type 2 Diabetes.* Poster Session, AcademyHealth Annual Research Meeting, June 14-17, 2021 (Virtual).
- Ruiz N, Sullivan JM, Tucker JM, McAdam-Marx C. Association between Insulin Utilization and Average Out-of-Pocket Cost in Commercially Insured Patients with Diabetes. Poster Session, American Diabetes Association 2021 Scientific Sessions. June 25-29, 2021. (Virtual)
- Ruiz-Negron N, Sullivan JM, Tucker JM, McAdam-Marx C. Association between Insulin Utilization and Average Out-of-Pocket Cost in Medicare Advantage Patients with Diabetes. Poster Session, American Diabetes Association 2021 Scientific Sessions. June 25-29, 2021. (Virtual)
- 83. Donovan A, **McAdam-Marx C**, Downes J, Foster J. *Treatment Rates and Outcomes for Chronic Hepatitis C Upon Implementation of Pharmacist-Led Direct Acting Anti-Viral Management at a Federally Qualified Healthcare Center*. Poster Session, American College of Clinical Pharmacy, Annual Meeting. October 20, 2021. (Virtual)

- 84. Donovan A, **McAdam-Marx C**, Downes J, Foster J. *Screening Rates for Hepatitis C Upon Implementation of Pharmacist-Led Direct Acting Antiviral Management and a Point-of-Care Alert at a Federally Qualified Healthcare Center.* Poster session. Academy of Managed Care Pharmacy Nexus Meeting, October 21, 2021. Denver, CO.
- 85. Tiefenthaler N, Donovan A, Shin E, **McAdam-Marx C**, Coan C. *PCMH Pharmacist Impact* of Quality Care Measures for Patients with Uncontrolled Type 2 Diabetes (T2D). American College of Clinical Pharmacy Virtual Poster Session, 2022.
- 86. Shi Y, **McAdam-Marx C**, Downes J. *Impact of clinic-provided home blood pressure monitors during COVID-19 pandemic on blood pressure in underserved adults over 50 years old*. American College of Clinical Pharmacy Virtual Poster Session, 2022. (Third Place Award, Ambulatory Care PRN Poster Competition.

# VI. ORAL PRESENTATIONS

# A. Research Podium Presentations

- 1. Said Q (presenter), Ghate SR, **McAdam-Marx C**, Brixner DI. Correlation of weight to cardiometabolic risk as identified by ICD-9 diagnosis codes and prescriptions in primary care. (2007) ISPOR 12th Annual International Meeting. Arlington, VA.
- Brixner DI (presenter), Ghate SR, McAdam-Marx C, Maio V. Analysis of Prescribing Patterns of Antihypertensive Agents (AA) Before and After Publication of the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT).
  (2007) International Society of Pharmacoeconomics and Outcomes Research (ISPOR) 1st Latin America Conference. Cartagena, Columbia.
- LaFleur J (presenter), McAdam-Marx C, Asche CV, Alder S, Sheng X, Brixner DI, Silverman S. The risk of clinical vertebral fracture for postmenopausal patients with specific combinations of fracture risk factors in a primary-care setting. (2008) National Osteoporosis Foundation, 7th International Symposium on Osteoporosis. Washington, DC.
- 4. Brixner DI (presenter), **McAdam-Marx C**, Ye XY, Boye K, Fabunmi R, Schroeder B. *Real world six month outcomes of patients initiating exenatide in a primary care electronic medical record database.* (2008) 13th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR). Toronto, Canada.
- McAdam-Marx C, Hane C, Biskupiak J (Presenter), Deniz B, McGarry LI, Brixner DI (2011). Costs Associated with HCV and Related Complications in the United States from a Managed Care Payer's Perspective. Poster session presented at 15th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Baltimore, MD.
- McAdam-Marx C (Presenter), Ye X, Bouchard J, Aagren M, Conner C, Brixner D. Bootstrapping used to provide robust mean and variance estimates for comparing patients treated with liraglutide to a large comparison cohort. (2011) 15th Annual International Meeting International Society of Pharmacoeconomics and Outcomes Research (ISPOR), Baltimore, MD.
- 7. Fortenberry K (presenter), Willis SK, Schauerhamer M, **McAdam-Marx C**, Gren L. *Achieving Glycemic Control in Patients with Type 2 Diabetes Mellitus and Mental Health Conditions.* (2016) APHA Annual Meeting & Expo, Denver, CO.

- McAdam-Marx C (presenter), Ruiz N, Sullivan JM, Tucker JM. Relationship Between Insulin Out-of-Pocket Costs and Non-Persistence in Medicare Advantage Patients with Type 1 or Type 2 Diabetes. Get to the Point: A Managed Care Pharmacy Research Symposium Session. Academy of Managed Care Pharmacy, 2021 Annual Meeting, April 13, 2021. Virtual.
- 9. McAdam Marx C (presenter). *Will Insulin Out-of-Pocket Limits Improve Adherence for Insured Patients?* AMCP Great Plains Affiliate Education Day. Sept 10, 2021. Omaha, Ne.

#### **B. Peer-Reviewed Presentations/Workshops**

- 1. Differences in common medication adherence measurements illustrated through a diabetes outcomes study. European Health Psychology Society (EHPS) conference 2016. August 23-27, 2016. Aberdeen, UK.
- Is There a Pharmacist in the (Medical) Home? The Impact of Pharmacist-Led Diabetes Collaborative Drug Therapy Management on Patient Outcomes. August 14, 2014, Skaggs Biomedical Research Symposium. Missoula, MT
- How do we shape an evidence-based narrative on pharmaceuticals that promotes affordable access for all? Robert Wood Johnson Foundation, RELevent Meeting, January 14, 2021, Peer Consult Roundtable. (virtual)

#### C. Invited Presentations

- 1. Late Phase Development of an Antidiabetic Treatment: A Case Study. Late Phase Drug Development World 2009. December 3, 2009. London, UK
- UK Data The View from the United States, in Symposium Entitled Fast Access to Big National Healthcare Datasets. International Society of Pharmacoeconomics and Outcomes Research, 18th Annual International Meeting. May 22, 2013. New Orleans, LA
- 3. Late Phase Development of an Antidiabetic Treatment: A Case Study. Late Phase Drug Development World Americas 2010. March 26, 2010. Princeton, NJ
- 4. Clinical and Economic Outcomes Associated with a Pharmacist-Coordinated Diabetes Collaborative Care Management Program. Translational Research in Development Seminar, University of Utah Department of Pediatrics. February 6, 2012. Salt Lake City, UT
- 5. Clinical and Economic Outcomes Associated with a Pharmacist-Coordinated Diabetes Collaborative Care Management Program. Seminar with B. Jennings. University of Utah, Department of Pharmacotherapy Faculty. August 20, 2012. Salt Lake City, UT
- 6. Clinical and Economic Outcomes Associated with a Pharmacist-Coordinated Diabetes Collaborative Care Management Program. Utah Health Services Research Conference. February 25, 2013. Salt Lake City, UT
- 7. Population to Patient: How Outcomes Research Can Support Patient-Centered Care. University of Utah Department of Pharmacotherapy, Faculty Seminar. January 13, 2014. Salt Lake City, UT
- 8. Implementation Science in Pharmacy: Mapping the Route from Demonstration to Adoption. University of Arkansas for Medical Sciences, Department of Pharmacy Practice, Department Seminar. January 21, 2014. Little Rock, AR

- 9. Generating Real-World Evidence for Pharmacotherapy Effectiveness: A Case Study in Diabetes. American Association of Pharmaceutical Sciences, Rocky Mountain Discussion Group. Annual Meeting. August 13, 2014. Missoula MT
- 10. Value of Pharmacists on Patient Care Teams. University of Utah College of Pharmacy, Pharmacy Ambassadors Advisory Council. April 15, 2015. Salt Lake City, UT
- 11. Pharmacists Value in Employer-Based Primary Care. Co-Presented with H. Gurgle. University of Utah College of Pharmacy, All College Seminar. April 14, 2016, Salt Lake City, UT
- 12. Training the Next Generation of Pharmacy Administration and HEOR Researchers. University of Nebraska Medical Center College of Pharmacy Seminar. June 12, 2019. Omaha, NE
- 13. Identifying Opportunities to Improve Diabetes Drug Therapy Management in Primary Care. University of Arkansas for Medical Sciences, Division of Health Policy & Management, Faculty/Student Seminar. December 6, 2019. Little Rock, AR.

#### VII. Other non-Peer Reviewed (Commentary/Letters/Editorials/Case Reports/Video/Film)

**McAdam-Marx C** (2012). Commentary: Managed Care Pharmacy Perspective in Evaluating Current Modes for Insulin Delivery and Glucose Monitoring in Patients with Diabetes. *J Manag Care Pharm*, *18*(6), S14.

**McAdam-Marx C**, Ye X, Brixner DI, Fabunmi R, Wintle M, Boye KS, Misurski D, Nielsen LL (2009). Letter: A1C and weight outcomes at 18 months in patients with type 2 diabetes treated with exenatide in an ambulatory care setting [Letter to the editor]. *Diabetes, Obesity and Metabolism Online*, *11*(12), 1173-4.

Schauerhamer M, **McAdam-Marx C**\* (Review Article). The clinical and economic consequences of medication non-adherence in patients with diabetes. *Medicographia*.

**McAdam-Marx C** (08/15/2015). The Scope Radio: There a Pharmacist in the House? [Podcast]. Salt Lake City, UT: University of Utah Health Sciences Radio. Available: <u>http://healthcare.utah.edu/the-scope/shows.php?shows=0\_q3nn2x02</u>.

# VIII. <u>FUNDING</u>

#### A. Active Grants

06/01/22-05/30/23

Continuous glucose monitor use in underserved, primary care patients. Role: Co-Investigator. Principal Investigator: D. Prescott Team Development Award, Great Plains IDeA-CTR

# **B. Pending Grants**

# C. Past Grants/Contracts

1/1/21-12/31/21	Impact on Adherence after Implementation of Health System's Medication Assistance in Patients with Diabetes Role: Co-Investigator/Mentor. Principal Investigator: L. Franck American College of Clinical Pharmacy, Ambulatory Care PRN
11/20/20-6/30/21	THINC-19: Telemedicine and Health Inequalities and the during COVID -19 pandemic: Effects of Rapid Implementation of Telemedicine on Outcomes and Relationship to Determinants of Health Care Inequity/ Role: Co-Principal Investigator Institutional Development Award for Clinical and Translational Research (IDeA-CTR)
1/1/2019-12/31/20	Increases in Patient Out-of-Pockets Costs for Insulin on Diabetes Utilization and Outcomes in Patients with Prescription Drug Coverage; 2007-2018. Role: <u>Principal Investigator</u> Robert Wood Johnson Foundation, Heath Data for Action
1/1/2019-12/31/2020	Pharmacist-Performed Diabetes Distress Screening in Patients with Diabetes Role: <u>Co-Investigator</u> . Principal Investigator: Kaci Theissen UAMS Medical Research Endowment
10/01/18-9/30/19	Secondary analysis of clinical and pre-clinical data to identify treatment and patient-related risk factors in radiation therapy-induced cardiac toxicity. Role: <u>Co-Investigator</u> . Principal Investigators: C Li, M Boerma UAMS College of Pharmacy
10/01/2018-9/30/19	Early Care Decisions and Risk of Long-Term Opioid Use in Patients with Low Back Pain. Role: <u>Co-Investigator</u> . Principal Investigators: B Martin, J Fritz UAMS Translational Research Institute. Interinstitutional CTSA Pilot Award
08/01/16 - 07/31/17	Qualitative Research into the Barriers for Effective Patient Self- Management of Comorbid Diabetes, Obesity, and Asthma Role: <u>Co-Investigator</u> Principal Investigator: Michael Feehan Community Pharmacy Foundation
12/15/16 - 11/07/17	T2DM Treatment Intensification Role: <u>Co-Principal Investigator</u> Sanofi-Aventis
09/01/16 - 08/31/18	Factors Associated with and the Impact of Treatment Inertia on Attainment of HbA1c Quality Measures in a Managed Care Role: <u>Co-Investigator</u> Principal Investigator: Brandon K. Bellows Janssen Pharmaceuticals, Inc.
06/01/16 - 05/31/17	Pre-Doctorate Fellowship in Adherence Research Role: <u>Principal Investigator/Pre-Doctorate Student Mentor</u> PhRMA Foundation

07/01/15 - 06/30/16	Implementation of Shared Medical Appointments and Personalized Diabetes Profiles in an Employer-Based Primary Care Clinic Role: <u>Co-Investigator</u> Principal Investigator: Holly Gurgle Utah Department of Health
12/04/14 - 12/31/18	Improving Pneumococcal Immunization Rates and Series Adherence in the Elderly and High-Risk Adults Role: <u>Principal Investigator</u> Merck & Company, Inc.
12/16/14 - 09/30/17	Glycemic Control and Weight-Loss with Bydureon versus Liraglutide and Dulaglutide Role: <u>Principal Investigator</u> ASTRA-ZENECA
09/01/14 - 12/31/16	Real-World Glycemic Control and Weight Outcomes after 6 months of Treatment with Pramlintide in Patients with Type 1 or Type 2 Diabetes Role: <u>Principal Investigator</u> ASTRA-ZENECA
07/01/14 - 06/30/15	Predictors of glycemic control in patients with type 2 diabetes and mental health conditions Role: <u>Co-Investigator</u> Principal Investigator: Katherine T. Fortenberry University of Utah Funding Incentive Seed Grant
05/05/14 - 04/30/16	Comparative Effectiveness of Long-term Glycemic Control and Weight-loss in Patients Treated with Exenatide QW vs. Liraglutide Role: <u>Principal Investigator</u> ASTRA-ZENECA
01/01/13 - 12/31/15	Pre-Doctorate Training Program in Technology Oriented Comparative Effectiveness Research Role: <u>Co-Investigator</u> Principal Investigator: Diana I. Brixner PhRMA Foundation
07/01/12 - 05/01/17	Analytic and Outcomes Research Support for ARUP Family Medicine Clinic Role: <u>Principal Investigator</u> ARUP Laboratories
09/01/11 - 08/31/12	PORC Novartis Outcomes Research Fellowship Role: <u>Co-Principal Investigator</u> Novartis Pharmaceuticals Corporation
07/01/11 - 06/30/13	PORC-Novartis Analytic Fellowship Role: <u>Co-Principal Investigator</u> Novartis Pharmaceuticals Corporation
05/21/11 - 09/24/11	Glycemia, Weight, and Blood Pressure Outcomes After 6 Months of Liraglutide Treatment in Patients with Type 2 Diabetes in a Real-World Setting Role: <u>Principal Investigator</u> Novo Nordisk Pharmaceuticals, Inc.

04/11/11 - 04/11/12	Glycemia, Weight, and Blood Pressure Outcomes After 6 Months of Liraglutide Treatment in Patients with Type 2 Diabetes in a Real-World Setting; Additional Analyses and Publications Role: <u>Co-Principal Investigator</u> Novo Nordisk Pharmaceuticals, Inc.
01/15/11 - 01/14/12	Patient and Medical Practice Outcomes Associated with a Pharmacist Coordinated Diabetes Chronic Care Management Program: Pilot Data to Support a Program Expansion Demonstration Project Role: <u>Principal Investigator</u> American Association of Colleges of Pharmacy
01/01/11 - 12/31/11	Clinical and Economic Outcomes Associated with Community-Based, Intensive Insulin Management in Patients with Type 2 Diabetes Role: <u>Principal Investigator</u> PhRMA Foundation
11/01/10 - 06/30/11	Glycemia, Weight, and Blood Pressure Outcomes after 3 Months of Liraglutide Treatment in Patients with Type 2 Diabetes in a Real-World Setting Role: <u>Co-Principal Investigator</u> Novo Nordisk Pharmaceuticals, Inc.
10/15/10 - 10/14/11	Frequency of Bone Mineral Density Testing Among Women with Osteoporosis Role: <u>Co-Investigator</u> Principal Investigator: Nancy A. Nickman Novartis Pharmaceuticals Corporation
10/26/09 - 12/31/09	Risk of Thrombotic Events in Clopidogel Patients Treated with a Proton Pump Inhibitor versus Carafate Role: <u>Co-Principal Investigator</u> Axcan Pharma, Inc.
09/01/08 - 02/09/09	Profile of Patients with Hypertension Initiated on Aliskerin: Identification of Patient Characteristics and Prior Treatment Trends Role: <u>Principal Investigator</u> Novartis Pharmaceuticals Corporation
12/21/07 - 03/31/08	Real-World Prevalence of Resistant Hypertension Role: <u>Principal Investigator</u> Novartis Pharmaceuticals Corporation
11/20/07 - 06/30/10	Evaluation of Resistant Hypertension Role: <u>Co-Principal Investigator</u> Novartis Pharmaceuticals Corp

# IX. <u>TEACHING RESPONSIBILITIES</u>

# A. Course Coordination/Program Administration

# University of Utah

2009 - 2016 APPE Clerkship Primary Preceptor, Pharmacotherapy Outcomes Research Elective (PCTH 7538), University of Utah Department of Pharmacotherapy

- 2011 2012 Interim Post Doctorate Fellowship Program Director, University of Utah Department of Pharmacotherapy
- 2011 Course Master, US Healthcare Policy (PCTH 5114), University of Utah Department of Pharmacotherapy, delivered 50% of lectures
- 2012-2017 APPE Clerkship Primary Preceptor, Real World Evidence and Drug Regimen Review (PCTH 7413, PHARM 7762), University of Utah Department of Pharmacotherapy
- 2012 2017 Course Master, Graduate Research Seminar I (PCTH 6890/7890), University of Utah Department of Pharmacotherapy
- 2013 2014 Graduate Program Director, University of Utah Department of Pharmacotherapy
- 2013 2015 Course Master, Special Problems in Pharmacotherapy P&T Competition Preparation Elective (PCTH 6960), University of Utah Department of Pharmacotherapy, delivered 10% of lectures
- 2016 2017 Graduate Program Director, University of Utah Department of Pharmacotherapy
- 2016 Co-Course Master, Drug Literature Review & Evaluation I (PHARM 6240), University of Utah Department of Pharmacotherapy, delivered 25% of lectures

# University of Arkansas for Medical Sciences

- 2017 PEP Graduate Seminar Coordinator (PSGP 5109), UAMS PEP Division.
- 2018-2019 Course Coordinator, Law & Ethics (PHPR 5532), UAMS
- 2018-2019 Primary Preceptor, Pharmacy Practice Elective: Evaluation & Application of Real-World Evidence (PHPR 7417)
- 2019 Course Coordinator, Applied Health Technology Assessment & Market Access (PSGP 5112)

# University of Nebraska Medical Center

- 2021-Current Course Coordinator, Independent Study in the Evaluation and Application of Real-World Evidence (PHPR 697)
- 2023- Course Coordinator, Contemporary Use of Medicines, UNO/UNMC BSPS Program (PHSI 4210)

# B. Other Courses Taught/Lectures Provided

# University of Utah

- 2009 2014 PCTH 5114 US Healthcare Policy, Various Lectures per yearly syllabus (2009, 2010, 2011, 2014): FDA/Drug Approval, US Healthcare Reform, Right to Try Legislation, Cost of Specialty Drugs (2-16 hours)
- 2011 2013 PCTH 7150 Introduction to Outcomes Research, Cost Benefit Analysis (2 hours)
- 2011 2017 PCTH 5112 Profession of Pharmacy, Careers in Outcomes Research (1 hour)
- 2011-2014 PCTH 7950: Independent Study, 2 students, University of Utah Department of Pharmacotherapy

- 2012-2017 PCTH 6970: Thesis Research (MS), University of Utah Department of Pharmacotherapy
- 2013-2017 PCTH 7970: Thesis Research (PhD), University of Utah Department of Pharmacotherapy
- 2015 2017 PHARM 7140 Foundations of Patient-Centered Care, US Healthcare System & Policy, and Quality Improvement (4 hours)
- 2016 MDCRC 6960: Research Project University of Utah, Center for Clinical & Translational Sciences
- 2016 PCTH 7820 Journal Club. Historical Cohort Analysis Journal Club (1 hour)

# **University of Arkansas for Medical Sciences**

- 2017-2019 PSGP 5116 Foundations of Pharmaceutical Evaluation and Policy Research Methods: Health Services Research; Operationalizing Research; and Medication Adherence Measures (4.5 hours)
- 2018-2019 PhPr7102 US Health Care System for Pharmacists, Healthcare Quality, Health Economics, Healthcare Reform, and International Healthcare Systems (7 hours)

# University of Nebraska Medical Center

- 2020-current PHPR 622: Drug Literature Evaluation: Pharmacoeconomic Studies (2 hours), Systematic Review/Meta Analyses (2 hr), Harm & Quality of Life Studies, plus labs (6 hr)
- 2020-current PHPR 643: Managed Care Pharmacy Elective: MTM/Disease Management, Specialty Pharmaceuticals, Pharmaceutical Reimbursement Methods, Health IT, Pharmacoeconomics, Outcomes Research. (5 hours)
- 2020-current PHPR 795: Pharmacy Practice Research APPE (~3 student/yr, 5-week rotation)
- 2020-current PHPR 560: Pharmacy & Healthcare: Medicaid (1.5 hour)
- 2022-current PHSI 1010: Introduction to Pharmaceutical Sciences (1.0 hour), UNO/UNMC BSPS program

# C. Small Group Teaching/Facilitation

# University of Utah

- 2010 2017 PHARM 7200 PharmD Seminar Evaluate 6 Student Seminars per year
- 2016 2017 PHARM 7151 Year 1 Recitation Facilitate 1 Session per semester

# University of Arkansas for Medical Science

2017 - 2018 UAMS College of Pharmacy Small Group Discussion Faculty Advisor/Facilitator, 1 session per semester

# D. Mentoring and Trainee Supervision

Faculty

2012 - 2016	Advisor/Mentor, Vanessa Stevens, University of Utah. Pharmacotherapy Faculty
	Mentor. Current Career Activities: Assistant Professor, Division of Epidemiology

- 2012 2017 Advisor/Mentor, Holly Gurgle, University of Utah. Pharmacotherapy Faculty Mentor. *Current Career Activities:* Clinical Assistant Professor
- 2016 2017 Advisor/Mentor, Elizabeth Unni, Roseman University of Health Sciences. PhRMA Foundation Health Outcomes Research Starter Grant; Research Mentor. *Current Career Activities:* Faculty, Roseman University of Health Sciences
- 2020- Research Mentor, Logan Franck, UNMC Department of Pharmacy Practice & Science, Research Starter Grant, ACCP Ambulator Care PRN.

Fellow/Resident

- 2011 2013 Advisor/Mentor, Arati Dahal, University of Utah. Pharmacotherapy Outcomes Research Post-Doctorate Fellow. *Last Known Career Activities:* Outcomes Researcher, Truven Health Analytics
- 2011 2012 Supervisor, Junji Lin, University of Utah. Analytics Post-Doctorate Fellow, Outcomes Research, Fellowship Director/Advisor. *Current Career Activities:* Scientist, Pharmerit International
- 2011 2012 Supervisor, Beilei Cai, PhD. University of Utah Outcomes Research Post Doctorate Fellow; Fellowship Director. *Current Career Activities:* Outcomes Researcher, Novartis Pharmaceuticals
- 2020-current Supervisor, Anthony Donovan, PharmD, University of Nebraska Medical Center, Post-Doctoral Fellow in Pharmacy Outcomes Research and Population Health. Major Project: The association between team-based diabetes care including pharmacist-led medication management in the primary care setting and total costs of care.
- 2020-current Research Advisor, Caressa Trueman, Nebraska Medicine PCMH PGY2 Resident. Patient Centered Medical Home Team-Based Care Alignment with the American Diabetes Association (ADA) Guidelines for Glucose-Lowering Medications in Patients with Clinical Atherosclerotic Cardiovascular Disease (ASCVD)
- 2021-current Research Advisor, Natalie Tiefenthaler, Nebraska Medicine PCMH PGY2 Resident. PCMH Pharmacist Impact on Quality Care Measures for Patients with Uncontrolled Type 2 Diabetes.

#### **Undergraduate**

- 2013 Advisor/Mentor, Brian Spence, University of Utah. PharmD Student Project Mentor: Association Between Clinically Aligned Pain Assessment and Opioid Use Compared to a Numeric Rating Scale Pain Assessment in Hospitalized Patients. *Current Career Activities:* Clinical Pharmacist, University of Utah Hospitals & Clinics
- 2013 2014 Advisor/Mentor, Brad Winter, University of Utah. PharmD Student Project Mentor: Survey of Smoking Cessation Practices among Pharmacists. *Current Career Activities:* Ambulatory Care Clinical Pharmacist, Intermountain Health Care

2013 - 2014	Advisor/Mentor, Kyle Turner, University of Utah. Assessment of student pharmacist experience at an interprofessional student-run free clinic. <i>Current</i> <i>Career Activities:</i> Clinical Assistant Professor, University of Utah Department of Pharmacotherapy
2014	Advisor/Mentor, Greg Hadlock, University of Utah. Diabetes Control in Patients with Diabetes and Mental Health Conditions. <i>Current Career Activities:</i> Clinical Pharmacist, Albuquerque, NM
2015	Advisor/Mentor, Simon Rodriquez, University of Utah. PSURF Program - Predicting Statin Use after the New ACC/AHA Guidelines for Primary Prevention in a Self-Funded Employer Family Medicine Clinic. AMCP Nexus 2015 Best Student Poster Award. <i>Current Career Activities:</i> PharmD Student (2017 Candidate), University of Utah
2016	Advisor/Mentor, Sarah Kanell, University of Utah. ACCESS Program Mentor. <i>Current Career Activities:</i> Pre-Nursing, University of Utah.
2017	Research Advisor, Jarrod King, UAMS, PGY1 Managed Care Resident. Cost and Utilization Outcomes After Exclusion of Dipeptidyl Peptidase-4 (DPP-4) Inhibitors in a Self - Funded Managed Care Plan. <i>Current Career Activities:</i> Clinical Program Manager, MedImpact.
2018	Research Advisor Arthur Shaw, UAMS PharmD Summer Research Fellow. Characterizing patients with diabetes and substance use disorder treated in a primary care setting. <i>Current Career Activities</i> : PharmD Student (2021 class), UAMS College of Pharmacy.
2018-2019	Research Advisor, Oktawia DeYoung, UAMS PharmD Student. Glycemic Control Outcomes in Patients with Type 2 Diabetes and Substance Use Disorder. Current Career Activities: Clinical Pharmacist, EBRx, UAMS.
2018-2019	Mentor, Andrew Wall, UAMS PharmD Student, Mentee. Current Career Activities: PharmD Students (2021 Class), UAMS College of Pharmacy.
2019-2020	Mentor, Research Advisor, Catherine Jensen, UAMS PharmD Student. Pharmacy Student Awareness & Interest in a Career in Managed Care Pharmacy. Diabetes and Mental Health Conditions. Current Career Activities: PharmD Student (2021 Class), UAMS College of Pharmacy.
2020-2021	Research Advisor, Jiayu Cui, UNMC PharmD Student. Cost Effectiveness Analyses of Oral Semaglutide for Treatment of Type 2 Diabetes. Current Career Activities: PharmD Student (2021 Class), UNMC College of Pharmacy.
2020-Current	Research Advisor, Bridgett Hann, UNMC PharmD Student. Managed Care Related Research (2023 Class), UNMC College of Pharmacy.
2021-Current	Research Advisor, Ligang Lui, UNMC PharmD Student. The impact of the COVID-19 pandemic on glycemic control of older adults with diabetes relative to the pre-COVID period. Current Career Activities: PharmD Student (2022 Class), UNMC College of Pharmacy.
2021-Current	Research Advisor, Yufei Shui. Impact of clinic provided home blood pressure monitors during COVID-19 pandemic on self-monitoring and control of blood pressure in adults with elevated blood pressure. Current Career Activities: PharmD Student (2022 Class), UNMC College of Pharmacy.

# E. Graduate Student Committees

- 2009 2016 Chair, Weijia Wang, University of Utah, Masters Committee. Thesis Title: Outcomes Evaluation of Statin Treatment in Primary Prevention for Cardiovascular Disease with Time-Dependent LDL-C Goal Attainment. Defense Date: September 19, 2016. *Current Career Activities*: HEOR Manager, Boehringer-Ingelheim.
- 2010 2012 Member, Matt Higley, University of Utah, Masters Committee. Patients' Perception of the Communication about Medicines Dimension on the HCAHPS Survey Tool. (Pending, research incomplete). *Current Career Activities:* Internal Process Control Manager, Central Office at Intermountain Healthcare.
- 2011 2013 Member, Jason Braithwaite, University of Utah, Masters Committee. Defining the impact of a central fill pharmacy on outpatient pharmacies in an integrated delivery network using time and motion methodology. Defense Date: June 2013. *Current Career Activities*: Division Director, Clinical Pharmacy Services at Hospital Corporation of America
- 2012 2016 Chair, Mukul Singhal, University of Utah, PhD/Doctorate Committee. Co-Chair. Thesis Title: Role of Glycemic Control in Development of Atrial Fibrillation in Veterans with Type 2 Diabetes Mellitus. Defense Date: August 16, 2016. *Current Career Activities*: Research Scientist, HealthCore, Wilmington, DE
- 2013 2019 Chair, Marisa Schauerhamer, University of Utah, PhD/Doctorate Committee. Thesis Title: The Effect of Value-Based Insurance Design on Diabetes Medication Adherence, Glycemic Control and Medical and Pharmacy Costs in Patients with Diabetes in an Employer-Insured Population. Recipient PhRMA Foundation Pre-Doctorate Thesis Award, 2016-17. Defense Date: May 7, 2019. *Current Career Activities:* Research Pharmacist, SCAN Health Plan, Long Beach, CA
- 2013 2016 Chair, Eman Biltaji, University of Utah, PhD/Doctorate Committee. Thesis Topic: Clinical Utility of Genomic Profiling in Metastatic Colorectal Cancer. Defense Date: August 18, 2016. *Current Career Activities*: Post-Doctorate Fellowship, Pediatrics Pharmacology, University of Utah, Salt Lake City, UT.
- 2014 2016 Chair, Jordan King, University of Utah, Masters Committee. MS Project Title: Cost-Effectiveness of Sacubitril-Valsartan Combination Therapy Compared with Enalapril for the Treatment of Heart Failure with Reduced Ejection Fraction. Defense Date: March 17, 2016. *Current Career Activities*: Research Associate, College of Medicine, University of Utah.
- 2017 2019 Member, Niranjan Kathe, UAMS, PhD/Doctorate Committee. Spillover Effects of the Arkansas Medicaid Expansion Program. Dissertation Defense Date: May 28, 2019. *Current Career Activities*: Senior Consultant, Complete HEOR Solutions.
- 2018 2019 Member, Naleen Bhandari, UAMS, PhD/Doctorate Committee. Burden of Living with Cancer in the Elderly Americans. Defense Date: September 26, 2019, *Current Career Activities*: HEOR Research Scientist, Eli Lilly & Co.
- 2018 2019 Chair, Denise Hung, UAMS MS Student. Topic TBD. Defense Date: October 24, 2019. *Current Career Activities*: MS Student & Graduate Research Assistant, UAMS.

# X. EDITORIAL EXPERIENCE & REVIEWER EXPERIENCE

#### A. Editorial Experience

- 2016 2020 Editorial Advisory Board, Journal of Managed Care & Specialty Pharmacy (Vice-Chair 2017-2018, Chair 2018-2019)
- 2020 Present Section Editor, Perspectives of Value, Journal of Managed Care & Specialty Pharmacy

#### **B. Reviewer Experience**

#### **Peer-Reviewed Journals**

Diabetes Obesity & Metabolism Diabetes Care Diabetes Technology & Therapeutics Journal of Health Care for the Poor and Underserved Journal of General Internal Medicine Journal of Managed Care & Specialty Pharmacy Medical Economics

# **Conference Abstract Reviewer**

2009-2011	ISPOR International Meeting
2016	Academy Health Dissemination & Implementation Conference
2017-current	AMCP Nexus Meeting
2018-current	AMCP Annual Meeting
2018	Academy Health Dissemination & Implementation Conference
2020	American Association of Colleges of Pharmacy Annual Conference

# XI. HONORS AND DISTINCTIONS

# Awards for Research, Teaching or Service

- 2010 American Association of Colleges of Pharmacy New Faculty Award
- 2011 International Society of Clinical Densitometry New Investigator Award
- 2011 2013 Career Development Award in Translational Comparative Effectiveness Research, National Cancer Institute (KM1CA156723-01)
- 2013 National Institute of Health, VA, and Harvard University Training Institute for Dissemination and Implementation in Health Research Conference Participant July 22-25, Boston MA. Competitive process with 45 of 250 applicants selected to attend.
- 2014, 2016, Excellent Peer Review Recognition, Journal of Managed Care Pharmacy –
- 2018-2020 awarded to top reviews
- 2017 American Pharmacists Association, Best Clinical Research Paper for *Pharmacist-provided diabetes management and education via a telemonitoring program.* Shane-McWhorter L, McAdam-Marx C, Lenert L, et al. J Am Pharm Assoc (2003). 2015; 55(5):516-26.

2019 American Association of Colleges of Pharmacy, Academic Leaders Fellowship Program

# XII. SERVICE

# A. University of Utah Health Sciences Center

- 2011 2012 Committee Member, Health Services & Health Behavior Work Group
- 2011 2012 Co-Chair, Patient Centered Outcomes Research Interest Group
- 2012 2014 Committee Member, Center for Clinical Translational Science, MSCI Curriculum Committee
- 2012 Present Advisory Committee Member, Primary Care Research Network
- 2015 2017 Committee Member, Pharmacy Value Initiative, Project Lead Diabetes Medication Management and Adherence Project
- 2016 2017 Executive Committee Member, T-32 Interdisciplinary Training Program in Computational Approaches to Diabetes and Metabolism Research

# B. University of Utah Hospitals & Clinics

2015 - 2017 Committee Member, Pharmacy and Therapeutics Committee, University of Utah Health Plan

# C. University of Utah College of Pharmacy

- 2010 2017 Committee Member, PharmD Mentoring Committee
- 2014 2017 Committee Member, Learning and Teaching Committee

# D. University of Utah Department of Pharmacotherapy

- 2011 2017 Committee Member, Pharmacotherapy, Graduate Program Committee
- 2014 Chair, Pharmacotherapy, Faculty Search Committee, Research Track
- 2014 2015 Committee Member, Population Health Sciences, Population Health Sciences Graduate Program Development Committee
- 2014 2017 Chair, Pharmacotherapy, Graduate Program Committee
- 2015 2017 Committee Member, Pharmacotherapy, Tenure Track Needs Assessment Task Force
- 2016 2017 Committee Member, Population Health Sciences, Graduate Program Admissions
- 2016 2017 Director, Pharmacotherapy, Director of Graduate Programs

# E. University of Arkansas for Medical Sciences, University Level

- 2017 2019 University Research Committee (URC)
- 2019 Member, Search Committee, Library Director

# F. University of Arkansas for Medical Sciences College of Pharmacy

- 2017 2019 College of Pharmacy Executive Committee & Administrative Council
- 2017 2019 Pharmaceutical Sciences Graduate Program Committee
- 2018 2019 Co-Chair, Curriculum 2025 Work Group 6. Member Work Groups 5 and 7.

# G. University of Arkansas for Medical Sciences Department of Pharmacy Practice and Division of Pharmaceutical Evaluation & Policy

- 2017 2019 Pharmaceutical Evaluation & Policy Graduate Program Track Advisory Committee
- 2018 2019 Pharmacy Practice Seminar Committee

# H. University of Nebraska Medical Center

2020-2021	WE-STRIVE Business Vice Chair
2022-current	Great Plains IDeA-CTR Practice Based Research Network, Board of Directors

# I. University of Nebraska Medical Center, College of Pharmacy

2020-current	Faculty Development Committee
2020-current	Grade Appeals Committee
2020-current	Faculty Secretary
2020-2021	Pharmaceutical Sciences Bachelor's Degree Ad Hoc Task Force
2021-current	Pharmaceutical Sciences Bachelor's Degree Program Advisory Committee

# J. Memberships in National and International Societies

2005 - Present Member, Academy of Managed Care Pharmacy (AMCP)

- 2013 2017 Committee Member, AMCP, Schools of Pharmacy Relations Committee
- 2017 2020 JMCP Editorial Advisory Committee (Chair, 2018-2019)
- 2020 2021 Nominations Committee
- 2022 Member, Organizational Affairs Committee
- 2005 2019 Member, International Society of Pharmacotherapy and Outcomes Research
- 2008 2019 Professional Member, American Diabetes Association
- 2009 Present Member, American Association of Colleges of Pharmacy
- 2021 Present Member, American Society of Health System Pharmacists

# K. Offices Held in Professional Organizations

- 2011 2014 Secretary & Treasurer, Utah AMCP Affiliate
- 2014 2015 President-Elect, Utah AMCP Affiliate
- 2015 2016 President, Utah AMCP Affiliate Officer
- 2016 2017 Past President, Utah AMCP Affiliate

# L. Grant Review Committee/Study Section

- 2011 American Association of Colleges of Pharmacy, New Investigator Award
- 2017 2019 University of Arkansas for Medical Sciences, University Research Committee (URC), multiple funding opportunities
- 2019 University of Arkansas Translational Research Institute, Special Populations
- 2019-Current Pharmaceutical Research Manufacturers, Health Outcomes Research Award Scientific Review Committee
- 2021 Graduate Research Scholars Program, University of Nebraska Medical Center Graduate School

# M. Other Professional Service

2018	Plenary Session Moderator, Improving the Use of Real-World Evidence in Formulary Decision-making for Specialty Pharmaceuticals. AMCP Annual Meeting, Boston, MA
2018	Plenary Session Moderator, Using Data to Inform Opioid Legislation, Guidance and Managed Care Strategies. AMCP Nexus Meeting, Orlando FL
2021	Plenary Session Moderator, Research Podium Presentations. AMCP Nexus Meeting, Denver, CO.