

Curriculum Vitae
Gretchen M. Ray, PharmD, PhC, BCACP, CDCES

Licensure and Certification

Expiration Date

- New Mexico Pharmacist License # RP00006890 5/31/22
- New Mexico Pharmacist Clinician #PC00000148 5/31/22
- Basic Life Support (CPR & AED) 1/28/21
- NM Prescriptive authority of vaccinations 5/31/22
- Board Certified Pharmacotherapy Specialist (BCPS) 12/31/15
- Board Certified Ambulatory Care Pharmacist (BCACP) 12/31/28
- Certified Diabetes Care and Education Specialist (CDCES) 12/31/25

Title

Associate Professor of Pharmacy Practice 7/14-present
University of New Mexico College of Pharmacy

Director: PGY2 Ambulatory Care Residency 7/12-present
University of New Mexico College of Pharmacy

Previous Appointments

Assistant Professor of Pharmacy Practice 7/08-7/14
University of New Mexico College of Pharmacy

Education

Doctor of Pharmacy May 2006
University of New Mexico (UNM) College of Pharmacy

Post Graduate Training

PGY2 Cardiovascular Pharmacotherapy Residency 7/07-7/08
University of New Mexico College of Pharmacy
Albuquerque, NM
Director: Joe R. Anderson, Pharm.D., BCPS

PGY1 Pharmacy Practice Residency 7/06-7/07
University of New Mexico Hospitals
Albuquerque, NM
Director: Lisa Anselmo, Pharm.D., BCOP

Clinical Service

Diabetes/CV risk reduction clinics 1/09-present
University of New Mexico North Valley Clinic: Pharmacy Risk Reduction Clinic (3 half day clinics/week)

University of New Mexico Family Medicine Center: Risk Reduction Clinic (1 half day clinic/week)

- Responsibilities: Managing patients with diabetes, hypertension, dyslipidemia, or other cardiovascular risk factors under a pharmacist clinician protocol

TeleECHO Endocrinology Clinic

10/14-Present

University of New Mexico ECHO clinic center (2 hours every Wednesday)

- Responsibilities: pharmacy consult to an interdisciplinary team providing consults on various diabetes and other endocrinology related cases via teleconference to providers throughout the state of NM.

Transdisciplinary Evaluation and Support Clinic (TEASC)

6/09-present

University of New Mexico Family Practice Center (4 hours/ 2nd and 4th Thursdays each month)

- Responsibilities: Provide pharmacy consult and drug review for an interdisciplinary team providing services to patients with intellectual or developmental disabilities

TeleECHO Diabetes and Cardiovascular Risk Reduction Clinic (D/CRRC) 9/11-9/13

University of New Mexico ECHO clinic center (1.5 hours every Wednesday)

- Responsibilities: Pharmacy consult to an interdisciplinary team providing consults via teleconference to providers throughout the state of NM

Heart Protection Clinic- Secondary risk reduction clinic

6/06- 7/08

University of New Mexico Hospital

- Responsibilities: staffing patients with a history of coronary artery disease and cardiovascular disease risk factors.

Chief Resident

7/07-7/08

University of New Mexico Hospital Pharmacy

- Responsibilities: resident journal club scheduling, residency committee member

Teaching Experience

University of New Mexico Health Sciences Center

Instructor of Record: UNM College of Pharmacy

Spring 2009-2014

Pharmacotherapy I (Pharm 739) 6 credit hours

Aspects of Patient Care Lab IV (Pharm 833L P2 students)

2017-present

UNM College of Pharmacy Lectures

Interpretation of Biomedical Literature in Clinical Practice

Fall 2014

Pharm 728 (1.5 hour lecture)

Diabetes Cases

Spring 2009-2016

Pharmacotherapy I, Pharm 739 (2 hour lecture)

Type 2 Diabetes

Fall 2007-Spring 2016

Pharmacotherapy I, Pharm 751, 739 (4 hour lecture)

<i>Macrovascular Complications of Diabetes</i> Pharmacotherapy I, Pharm 739 (2 hour lecture)	Spring 2009-2016
<i>Microvascular Complications of Diabetes</i> Pharmacotherapy I, Pharm 739 (2 hour lecture)	Spring 2010-2016
<i>Type 1 Diabetes</i> Pharmacotherapy I, Pharm 739 (4 hour lecture)	Spring 2009-2016
<i>Obesity</i> Pharmacotherapy I, Pharm 739 (2 hour lecture)	Spring 2009-2016
<i>Peripheral Artery Disease</i> Pharmacotherapy I, Pharm 739 (2 hour lecture)	Spring 2008-2012
<i>Diabetic Ketoacidosis</i> Pharmacotherapy II, Pharm 751 (2 hour lecture)	Fall 2009,2010
<i>Diabetes Clinical Correlation</i> Mechanisms of Drug Action III, Pharm 732 (1 hour lecture)	Spring 2008-Spring 2013
<i>Chronic Kidney Disease</i> Pharmacotherapy I, Pharm 739 (4 hour lecture)	Spring 2009
<i>Adrenal/Pituitary Disorders</i> Pharmacotherapy I, Pharm 739 (2 hour lecture)	Spring 2009
<i>Stroke and TIA</i> Pharmacotherapy I, Pharm 751 (2 hour lecture)	Fall 2007, Spring 2008
<i>Headache Disorders: Primary Headache</i> Pharmacotherapy II, Pharm 752 (2 hour lecture)	Spring 2007
<i>Coronary Artery Disease and Stroke</i> University of New Mexico Dental Hygiene School (1 hour lecture)	Fall 2006
<i>COPD</i> Pharmacotherapy I, Pharm 751 (2 hour lecture)	Fall 2006

Additional UNM College of Pharmacy Presentations/Trainings

Diabetes/CV Disease Screening Training 9/10-2019
Training for all COP students who will be participating in community screenings throughout the year

Presented to PharmD students at the Rho Chi Speakers Series

Residency Research 9/09
Presented to 4th year PharmD students during their career week

Residency Timeline and the Match 11/08
Presented to ASHP student society members preparing to apply for residencies

UNM School of Medicine

UNM Family Medicine Resident School
Diabetes Pharmacotherapy Updates 2017, 2020
Diabetes Device Demonstrations 2020

Diabetes Updates (2 lecture hours every 8 weeks) Spring 2010-present
Presented to Phase 3 medical students during their Family Medicine Clerkship

Obesity (1 lecture hour every 8 weeks) Summer/Fall 2010
Presented to Phase 3 medical students during Family Medicine Clerkship

The Pharmacology of Diabetes (2 hour lecture) 9/2011, 10/2012, 12/2013
Presented during phase I Endocrinology and Human Sexuality & Reproduction Block

UNM School of Medicine Physician Assistant Program

Course Co-Coordinator of Pharmacology I-IV and Pharm portion of SCPE exams: 0.25
FTE Salary Support 2017-present

Physician Assistant Program Lectures Given:

Type 1 and Type 2 Diabetes
Intro to Biopharmaceutics and dosage forms
Drug Dosing in Special Populations
Intro to Drug Databases

UNM Family Medicine Residency Program Didactic Presentations

<i>Insulin Initiation and Titration</i>	1/11
<i>Oral Medications for Type 2 Diabetes and how to choose between them</i>	3/11
<i>Vitamin D Overview</i>	4/11
<i>Opioid Initiation and Conversions</i>	5/11
<i>Do not be afraid of insulin: starting, stopping...</i>	9/11
<i>GLP-1 Agonists</i>	12/11
<i>Blood Pressure Monitoring Technique</i>	1/12
<i>ADA/EASD Consensus Statement on Management of Hyperglycemia</i>	5/12
<i>New Pharmacologic Agents for Obesity</i>	8/12
<i>Practical Considerations when choosing pharmacologic agents for Type 2DM</i>	9/12
<i>Diabetes Update 2013</i>	2/13

<i>Drugs for Tobacco Cessation</i>	3/13
<i>Statins</i>	5/13
<i>Drugs for Triglyceride Reduction</i>	6/13
<i>Insulin Initiation and Titration</i>	8/13
<i>Oral Diabetes Medication Review</i>	9/13
<i>Inhaler Clinical Pearls</i>	11/13
<i>Inhaler Review</i>	11/14
<i>Diabetes medication update</i>	12/14
<i>COPD Medications</i>	12/15
<i>Statins and Statin intolerance</i>	5/16
<i>Inhaler Use</i>	10/16
<i>Diabetes Device Demonstrations</i>	10/20

Experiential Teaching: UNM College of Pharmacy

Preceptor: Ambulatory Care-Doctor of Pharmacy Clinical Clerkship. Pharmacy 770

2020-2021: 7 rotation months (8th year PharmD students and 5 resident rotations)

2019-2020: 7 rotation months (9th year PharmD students and 4 resident rotations)

2018-2019: 7 rotation months (9th year PharmD students and 4 resident rotations)

2017-2018 7 rotation months (9th year PharmD students and 4 resident rotations)

2016-2017 6 rotation months (8th year PharmD students and 4 resident rotations)

2015-2016 9 rotations months (15th year PharmD students and 3 resident rotations)

2014-2015 4 rotation months (7- 4th year PharmD students and 3 resident rotations)

2013-2014 9 rotation months (16- 4th year PharmD students and 3 resident rotations)

2012-2013 10 rotation months (16- 4th year PharmD students and 3 resident rotations)

2011-2012 9 rotation months (17- 4th year PharmD students)

2010-2011: 9 rotation months (18- 4th year PharmD students)

2009-2010: 10 rotation months (18- 4th year PharmD students and one PGY1 resident)

2008-2009: One rotation month (1- 4th year PharmD student)

Case-Based Course Teaching: UNM College of Pharmacy

Facilitator: Pharmaceutical Care Lab Pharm765L. Case-based learning group.

Spring 2010: 9 students/class (1.5 hours/week x 8 weeks)

Facilitator: Doctor of Pharmacy Program, University of New Mexico. 3rd year Pharm.D. candidates. Student-Centered Problem Based Learning, Pharm 741 (6 hours/week x 8 weeks), Fall 2006, Fall 2007 (8 students/class)

Post-Graduate Mentoring:

PGY2 Ambulatory Care Residency: Program director for the following residents

- 2020-2021: Craig Yon, PharmD
- 2019-2020: Ngoc-Yen Pham, PharmD
- 2018-2019: Kelsea Gallegos, PharmD
- 2017-2018: Luis Gonzalez, PharmD
- 2016-2017: Jessica Kerwin, PharmD
- 2015-2016: Cheyenne Newsome, PharmD
- 2014-2015: Juliann Horne, PharmD

- 2013-2014: John Togami, PharmD
- 2012-2013: Jessica Conklin, PharmD

PGY1 Pharmacy Practice Residency: Primary faculty preceptor for the following residents

- 2011-2012: Jessica Conklin, PharmD
- 2010-2011: Stan Snowden, PharmD
- 2009-2010: Jihye Kim, PharmD

Portfolio Mentoring

E-Value Portfolio Mentor: 10 PharmD students in the class of 2013 2009-2012

Research Involvement

Assessing patient perceptions of how the COVID-19 pandemic has impacted their diabetes self-management

- Principal Investigator: **Gretchen Ray, PharmD**
- Resident Investigator: Craig Yon, PharmD
- Faculty Co-Investigators: Kelsea Aragon, PharmD, Melissa Roberts, PhD

Cardiovascular and metabolic effects of anti-retroviral medications: a retrospective chart review

- Principal Investigator: Kelsea Aragon, PharmD
- Resident Investigator: Mark Cinquegrani, PharmD
- Faculty Co-investigators: **Gretchen Ray, PharmD**, Renee Mercier, PharmD, Bernadette Jakeman, PharmD, Jeremy Snyder, PA-C

Description, awareness, and perception of advanced practice pharmacists in New Mexico: cross-sectional surveys of pharmacist clinicians and other health care providers

- Principal Investigator: **Gretchen Ray, PharmD**
- Resident Investigators: Ngoc-Yen Pham, PharmD, Craig Yon, PharmD
- Faculty Co-Investigators: Joe Anderson, PharmD, Melanie Dodd, PharmD, Sophie Yang, PharmD, Melissa Roberts, PhD

Health Fair Participants Willingness to Pay for Community Pharmacist Clinical Services in New Mexico

- Principal Investigator: **Gretchen Ray, PharmD**
- Student Investigators: Wesley Browder and Jason Martinez
- Co-Investigator: Joe Anderson, PharmD

A Description of Availability of Community Pharmacist Provided Clinical Services in New Mexico and Barriers to Implementation

- Principal Investigator: **Gretchen Ray, PharmD**
- Student Investigator: Carmelita Coca
- Faculty Co-investigators: Joe Anderson, PharmD, Patty Marshik, PharmD

Retrospective cohort study describing rates of adherence to CV risk reduction guidelines in a single HIV specialty clinic in NM with an embedded pharmacist clinician providing chronic disease state management

- Principal Investigator: Jessica Conklin, PharmD
- Resident Investigator: Kelsea Gallegos, PharmD
- Faculty Co-investigators: **Gretchen Ray, PharmD**, Joe Anderson, PharmD, Bernadette Jakeman, PharmD

Awareness, Perceptions and Attitudes toward Outpatient Clinical Pharmacist Services - A Survey Comparison of Community Pharmacy Patients versus Health Fair Participants

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Resident Investigators and study coordinators: Luis Gonzalez, PharmD, Nathan Duran, PharmD
- Faculty Co-investigators: Joe Anderson, PharmD, Tracy Hunter PharmD, Patty Marshik, PharmD, John Togami, PharmD

Evaluation of acceptance rates of interventions made by pharmacists in a call center vs. pharmacists with prescriptive authority providing face to face disease state management

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Co-Investigator and study coordinator: Jessica Kerwin, PharmD
- Faculty co-investigators: Melissa Roberts, PhD, Melanie Dodd, PharmD, Larry Georgeopolous, PharmD

Assessment of Health Literacy Among Pharmacy Students

- Principal Investigator: **Gretchen M Ray, PharmD**
- Co-Investigator and study coordinator: Cheyenne Newsome, PharmD

Evaluation of Association Between Health Literacy and Diabetes Control in a Pharmacist-Run Medication Management Clinic

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Co-Investigator and Study Coordinator: Cheyenne Newsome, PharmD

Health Fair Participants Perceptions of Pharmacists

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Student Investigators: Luis Gonzalez, Luke Neff
- Co-investigator: Joe Anderson, PharmD

Insulin Pen Knowledge and Experience: Surveying New Mexico Community Pharmacists

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Resident Investigator: John Togami, PharmD

Care Transitions Service: Description of a pharmacy-driven medication reconciliation program through the continuum of care

- Principal Investigator: **Gretchen M. Ray, PharmD**

- Resident Investigators: John Togami, PharmD and Jessica Conklin, PharmD
- Co-Investigators: Allison Burnett, PharmD and Melanie Dodd, PharmD

Pharmacist Clinician Co-Management of Patients with Diabetes in a Family Medicine Clinic

- Principal Investigator: **Gretchen M. Ray, PharmD**
- PGY1 Resident Investigator: Jessica Conklin, PharmD
- Co-Investigator: Chris McFarland, PharmD

Epigenomic Changes in the Progression of Pre-Diabetes to Diabetes

- Principal Investigators: Julie Broyles, MD and Raj Shah, PhD
- Role: Co-Investigator
 - UNM School of Medicine research mentor for students Quyhn-Ahn Bui MS2 and Joan Goldsworthy MS2

Pharmacists Assisting at Routine Medication Discharge (PHARMD)

- Principal Investigator: **Gretchen M. Ray, PharmD**
- Pharmacy Practice Resident Investigators: Pree Sarangarm, PharmD, Christian Sanchez, PharmD, Stanley Snowden, PharmD, Tom Dilworth, PharmD, Matt London, PharmD, and Lisa Koselke, PharmD
- Co-Faculty Investigators: Patricia Marhsik, PharmD, Rucha Bond, PharmD, Rich D'Angio, PharmD, Melanie Dodd, PharmD, Bernadette Johnson, PharmD, Peggy Beely, MD

Attitudes, Experience and Use Regarding Complementary and Alternative Medicines and Therapies (CAMT) in People living in New Mexico

- Principal Investigator: Patricia Marshik, PharmD
- Collaborative survey study conducted by numerous faculty at the UNM College of Pharmacy
- Role: Co-Investigator

Comparison Between Obese and Non-obese Patients in Achieving Target Vancomycin Concentrations

- Principal Investigator: Renee-Claude Mercier, Pharm.D.
- Resident research project for Jihye Kim, Pharm.D.
- Role: Co-Investigator

Evaluating Student Pharmacists Counseling Services at Healthcare for the Homeless

- Principal Investigator: **Gretchen M. Ray, Pharm.D**
- Student project under APhA-ASP Project Chance Grant
- Faculty co-investigator: Aaron Gibson, Pharm.D., MS
- Student investigators: Ali Grubbs, Adrean Flores, Christian Sanchez, Eddie Ortega
- Evaluation of patient satisfaction with student pharmacist counseling services at Health Care for the Homeless in Albuquerque, NM

*Differences Between Traditional and Guideline-Driven
Blood Pressure Measurements in an Ambulatory Clinic*

- Principal Investigator: James J. Nawarskas, Pharm.D.
- Co-Investigator: Joe R. Anderson, Pharm.D.
- University of New Mexico Hospital
- Residency research project
- Responsibilities: Protocol development, patient recruitment, data analysis, data presentation

*Health and Economic Outcomes Associated with a Cardiovascular
Risk Reduction Clinic*

- Principal Investigator: Joe R. Anderson, Pharm.D.
- University of New Mexico
- Prospective evaluation of a pharmacist run cardiovascular risk reduction clinic
- Responsibilities: Study subject recruitment, study subject clinical follow-up

*Adherence to National Guidelines in the Management
Of Acute Coronary Syndromes in a University Based
Hospital*

Albuquerque NM

- Principal Investigator: Joe R. Anderson, Pharm.D.
- Co-investigators: Michael A. Faithe, Pharm.D. candidate 2006, Retu Saxena, MD
- Pharm.D. research project University of New Mexico
- Retrospective chart review of 178 patients with acute coronary syndromes admitted to the University of New Mexico Hospital
- Responsibilities: Data collection and analysis, data presentation

Publications

Refereed Journals (* indicates corresponding author)

Pham NYT, Yon CM, Anderson JR, Dodd MA, Roberts MH, Yang SM, **Ray GM***. Awareness and perceptions of advanced practice pharmacists among health care providers in New Mexico. *JAPhA*. 2021;61(1):101-108

Aragon KG, Elmaoued AA, Pham NYT, Conklin JR, **Ray GM***. Long-acting basal insulins: a review of the more recently approved agents. *Cardiology in Review*. 2019 Sept/Oct;12(5):260-66

Ray GM*, Rodriguez C, Schulman SM, Sarangarm P, Bardack M, Bouchonville MF. Empagliflozin induced diabetic ketoacidosis unmasking a type 1 diabetes diagnosis. *Clin Pract Cases Emerg Med*. 2019;3(2):140-43

Newsome C, Mallawaarachchi I, Conklin J, **Ray G**. Health literacy of student pharmacists. *Curr Pharm Teach Learn*. 2018 Mar;10(3):340-343

Hamidovic A, Khafaja M, Brandon V, Anderson J, **Ray G**, Allan AM, Burge MR. *Molecular Psychiatry*. 2017;22:1413-21

Newsome C., Mallawaarachchi I., Garcia J., **Ray G**. (2016). Association between health literacy and diabetes control in a pharmacist-run disease state management clinic. *Cogent Medicine*. 2016; 6;3(1)

Marshik PL, Kharat AA, Jakeman B, Borrego ME, Dodd MA, Bachyrycz A, Anderson JR, Bond R, Deming P, Mercier RC, Nawarskas JJ, **Ray G**, Salazar K. Complementary and Alternative Medicine and Therapy Use in a Diverse New Mexican Population. *J Altern Complement Med*. 2016 Jan; 22(1):45-51. Epub 2015 Nov 5.

Conklin JR, Togami JC, Burnett A, Dodd MA, **Ray, GM***. Care Transitions Service: A pharmacy-driven program for medication reconciliation through the continuum of care. *American Journal of Health System Pharmacy*. 2014;71:802-809

Sarangarm P, London MS, Snowden SS, Dilworth TJ, Koselke LR, Sanchez CO, D'Angio R, **Ray G**. Impact of pharmacist discharge medication therapy counseling and disease state education: Pharmacist Assisting at Routine Medical Discharge (Project PhARMD). *American Journal of Medical Quality*. 2013 Jul-Aug;28(4):292-300

Chuang L-T, Glew RH, Li C-C, VanderJagt DJ, Broyles JS, **Ray GM**, Shah VO. Comparison of the fatty acid composition of the serum phospholipids of controls, prediabetics, and adults with type 2 diabetes. *Journal of Diabetes Mellitus*. 2012;2(4):393-401

Johnson B, **Ray G**, Sarangarm P, D'Angio R. Letters: Collaborating on a residency research project. *American Journal of Health System Pharmacy*. 2012 August;69:1362-63.

Ray GM*, Nawarskas JJ, Anderson JR. Alteration in blood pressure monitoring techniques impacts hypertension treatment. *Journal of General Internal Medicine*. 2012 June;27(6):623-9.

Ray GM*. Antiretroviral and statin drug-drug interactions. *Cardiology in Review*. 2009;17(1):44-47.

Ray GM, Nawarskas JJ, Frishman WH. The paclitaxel-eluting stent in percutaneous coronary intervention Part II: Comparison with the sirolimus-eluting stent, economics, and unanswered questions. *Cardiology in Review*. 2006;14:143-150.

Book Chapters

Anderson JR, **Ray, G**. 2017. Mechanisms of drug-induced cardiovascular toxicity: Cardiotoxicity associated with diabetes medications. In: McQueen, CA. Comprehensive Toxicology, 3rd Edition. Cardiovascular Toxicology. Elsevier, The Boulevard, Langford Lane, Kidlington, Oxford, OX5 1GB, UK

Ray, GM, Anderson JR. (2010) Cardiotoxicity associated with thiazolidinediones. In: Charlene A McQueen, *Comprehensive Toxicology*, 2nd Edition. Cardiovascular Toxicology, vol 6, pp 403-411 Oxford Elsevier: Academic Press.

BCACP Continuing Education Programs

ASHP Literature Review Series. *Credence Trial*. Question Author. 2020

ACSAP Reviewer. Antiplatelet use for secondary prevention. 2020

Manuscript Reviewer

American Journal of Health System Pharmacy

9/11- Present

Annals of Pharmacotherapy

8/07-Present

Grant Funding

Description, awareness, and perception of advanced practice pharmacists in New Mexico: cross-sectional surveys of pharmacist clinicians and other health care providers

PPAS Pilot Project Award 9/16/19-9/16/20

Direct costs: \$1931.00

Principal Investigator: **Gretchen Ray, PharmD**

Co-Investigators: Ngoc-Yen Pham PharmD, Melissa Roberts PhD, Melanie Dodd PharmD, Joe Anderson PharmD, Sophia Yang PharmD, Craig Yon PharmD

Retrospective cohort study describing rates of adherence to cardiovascular risk reduction guidelines in a single HIV specialty clinic in NM with an embedded pharmacist clinician providing chronic metabolic disease state management.

PPAS Pilot Project Award 9/5/18-10/5/19

Direct costs: \$4100

Principal Investigator: Jessica Conklin, PharmD

Co-Investigators: **Gretchen Ray, PharmD**, Joe Anderson PharmD, Bernadette Jakeman, PharmD, Carlos Marquez, Adan Mascarenes, Dustin Mayberry

Relationship of HbA1c and platelet aggregation response to aspirin with type 2 DM

Signature Program in Cardiovascular and Metabolic Diseases – Pilot Project Award

9/1/13-6/30/14

Direct costs: \$7000

Principal Investigator: James Nawarskas, PharmD

Co-Investigators: Stanley Snowden, PharmD, Joe R. Anderson, PharmD, Bina Ahmed, MD, Matt Bouchonville, MD, **Gretchen Ray, PharmD**

Gut microbiome and diabetes

Signature Program in Cardiovascular and Metabolic Diseases – Pilot Project Award

9/1/13-6/30/14

Direct costs: \$7000

Principal Investigator: Vallabh Shah, PhD

Co-Investigators: Julie Broyles, MD, **Gretchen Ray, PharmD**

NACDS Million Hearts Community Health Fairs Grant (\$1000)

August 2012

- Role: Primary faculty contact
- Co-written with Caroline Small, PharmD Candidate 2014

Relationship of HbA1c and platelet aggregation response to aspirin with type 2 diabetes mellitus.”

Clinical & Translational Science Center (CTSC) Pilot Project Award.

#CTSC027-3 12/01/2012 – 3/31/2013

Direct costs: \$14,873

Principal Investigator: James Nawarskas, PharmD

Co-Investigators: Stanley Snowden, PharmD, Joe R. Anderson, PharmD, Bina Ahmed, MD, Matt Bouchonville, MD, **Gretchen Ray, PharmD**

Grants Submitted-not funded

Impact of interprofessional team-based learning in a physician assistant pharmacology course

Scholarship in Education Allocations Committee Award: \$6346

Use of Complementary and Alternative Medicines and Therapies in People in NM

UNM Health Sciences Research Allocation Committee: \$10,000

Abstract Poster Presentations

Yon C, Aragon K, Roberts M, **Ray G**. Assessing patient perceptions of how the COVID-19 pandemic has impacted their diabetes self management. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Virtual due to COVID-19. December 2020 [national]

Cinquegrani M, Jakeman B, Mercier RC, **Ray G**, Snyder J, Aragon K. Cardiovascular and metabolic effects of antiretroviral medications: a retrospective chart review. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Virtual due to COVID-19. December 2020 [national]

Martinez J, Browder W, Pham NYT, Anderson J, **Ray GM**. Health fair participants willingness to pay for community pharmacist clinical services. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Las Vegas, NV. December 2019 [national]

Gallegos Aragon, K, **Ray G**, Jakeman B, Anderson J, Marquez C, Magallanes A, Mayberry D, Conklin J. Integration of a pharmacist clinician to provide metabolic management to patients living with HIV to improve disparities in care. Presented at the American College of Clinical Pharmacy Annual Meeting. New York, NY. October 2019 [national]

Gallegos K, **Ray GM**, Anderson JR, Ward KL. RxWellness: Promoting resiliency, wellbeing, and reducing burnout in student pharmacists. Presented at the American Academy of Colleges of Pharmacy Annual Meeting. Chicago, IL. July 2019 [national]

Coca C, Gonzalez L, Marshik P, Anderson J, **Ray G**. A description of availability of community pharmacist provided clinical services in New Mexico and barriers to

implementation. Presented at the American Pharmacist Association Annual Meeting. Seattle, WA. March 2019 [national]

Gallegos K, **Ray G**, Jakeman B, Anderson J, Marquez C, Magallanes A, Mayberry D, Conklin J. A retrospective cohort describing adherence rates to cardiovascular risk reduction guidelines in a single HIV clinic with an embedded pharmacist clinician providing metabolic disease management. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Anaheim, CA. December 2018 [national]

Gonzalez L, Hunter T, Anderson J, Duran N, **Ray G**. Awareness, perceptions, and attitudes toward outpatient clinical pharmacist services: a survey comparison of community pharmacy patients versus health fair participants. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Orlando, FL. December 2017 [national]

Gonzalez L, Neff L, Anderson J, **Ray, G**. An Assessment of Patient Knowledge and Perception Of Pharmacist Services in New Mexico. Presented at the American Pharmacist Association Annual Meeting. San Diego, CA. March 2015 [national]

Horne, J, **Ray G**, Anderson J. Integration of a pharmacist into interprofessional telehealth teams. Presented at the American Society of Health System Pharmacists Mid-Year Clinical Meeting. Anaheim, CA. December 2014 [national]

Conklin C, Togami J, Burnett A, Dodd M, **Ray G**. Care Transitions Service: a pharmacy driven medication reconciliation program through the continuum of care. Presented at the American College of Clinical Pharmacy annual meeting. Albuquerque, NM. October 2013 [national]

Togami J, Conklin C, **Ray G**, Burnett A, Dodd M. Care Transitions Service: An Inpatient-Driven Medication Reconciliation Service. Presented at the American College of Clinical Pharmacy annual meeting. Albuquerque, NM. October 2013 [national]

Conklin J, Togami JC, Burnett A, Dodd M, **Ray GM**. Care Transitions Service: description of a pharmacy-driven medication reconciliation program through the continuum of care. Presented at the American Society of Health Systems Pharmacy mid-year clinical meeting. Las Vegas, NV. December 2012 [national]

Conklin J, **Ray GM**. Additional diabetes disease management by a pharmacist clinician and effects on A1C. Presented at the American Society of Health System Pharmacists mid-year clinical meeting. New Orleans, LA. December 2011[national]

Shah V, Vanderjagt D, Morgan M, Broyles J, **Ray G**, Bowden D, Talavera G, McCarthy J. Genome-wide DNA methylation analysis in progression of pre-diabetes to diabetes. Presented at the American Diabetes Scientific Sessions. San Diego, Ca. June 2011[national]

Kim J, **Ray G**, Boyd N, Mercier R. *Comparison between obese and non-obese patients in achieving their target vancomycin concentrations*. Presented at the American Society for

Health Systems Pharmacists mid-year clinical meeting. Anaheim, Ca. December 2010 [national]

Ray G, Silverblatt H, Seeger K, Thaler G, Beery P, Donsbach E. *The answer is never simple: Experiences of a transdisciplinary team*. Presented at the International Association for the Scientific Study of Intellectual Disabilities (IASSID) conference. Rome, Italy. October 20, 2010 [international]

Grubbs AM, Flores AL, Ortega EA, Sanchez CO, Gibson AP, **Ray GM**. *Evaluating student pharmacist counseling services at healthcare for the homeless*. Presented at the American Pharmacists Association Annual Meeting. San Antonio, TX, April 5, 2009 [national]

Ray GM, Anderson JR, Nawarskas JJ. *Alteration in blood pressure monitoring technique affects hypertension treatment*. Presented at the American Heart Association Scientific Sessions. New Orleans, LA, November 9, 2008 [national]

Ray GM, Anderson JR, Nawarskas JJ. *Do differences in blood pressure measurements result in differences in differences in hypertension treatment?* Presented at the American Society of Health System Pharmacists Mid-Year Meeting. Las Vegas, NV, December 5, 2007 [national]

Ray GM, Anderson JR, Nawarskas JJ. *Differences between traditional and guideline-driven blood pressure measurements in an ambulatory clinic*. Presented at the American College of Clinical Pharmacy Annual Meeting. Denver, CO, October 16, 2007 [national]

Ray GM, Faithe MA, Saxena R, Anderson JR. *Adherence to national guidelines for the management of acute coronary syndromes in a university-based hospital*. Presented at the Pharmacy Student Research Conference-Western Region. Denver, CO, June 3-4, 2005 [regional]

Invited Presentations/Lectures

Advanced Pharmacy Practice Models-Practical Advocacy for the Front-Line Practitioner. Panel Speaker. "Insights from the Advanced Practice Pharmacy Model". Presented at the American College of Clinical Pharmacy (ACCP) Annual Meeting Dallas, TX (virtual due to COVID-19), October 2020 [National]

"Blood pressure monitoring technique: Why is it important?"

Presented at UNM Endocrinology teleECHO February 2020 [state]

Presented at UNM Improving Perinatal Health teleECHO August 2020 [state]

"Type 2 Diabetes management in 2019: A patient centered approach to selection of pharmacotherapy" CME Program

Co-presented with Juliann Horne, PharmD

Presented at the NM Advances in Primary Care Conference

Albuquerque, NM April 2019 [state]

“Demystifying insulin: a review of the available insulin products and their place in therapy” CME Program

Presented at the NM Academy of Physician Assistants Fall Primary Care Conference
Albuquerque, NM September 2018 [state]

“Clinical Pharmacist Panel:

How Ambulatory Care Pharmacists Improve Care for Patients with Cardiovascular Disease” Webinar Panel

Co-Presenter for Million Hearts LAN Webinar Series
September 2018 [national]

“Diabetes and the elderly: Medication considerations when determining benefits and risks” CME program

Presented at the NM Diabetes Advisory Council Quarterly Meeting
Albuquerque, NM September 2018 [state]

“Semaglutide formulary review”

Presented to Ventegra P&T Committee. CA. February 2018 [regional]

“Type 2 Diabetes: Latest drug approvals and use of the newer agents a 2018 update” CME Program

Presented at the NM Academy of Family Physicians Winter Refresher Meeting
Albuquerque, NM February 2018 [state]

“What’s new in Type 2 Diabetes: A 2018 Update” ACPE Program

Presented at the NMPhA Mid-Winter Meeting
Albuquerque, NM January 2018 [state]

“Type 2 Diabetes: Latest drug approvals and use of the newer agents” ACPE Program

Presented at the NMSHP Annual Balloon Fiesta Symposium
Albuquerque, NM October 2017 [state]

“Prescription writing tips” CME Program

Presented to the Endocrinology ECHO Clinic
Albuquerque, NM October 2017 [state]

“Clinical considerations when selecting drug therapy for type 2 diabetes” CME Program

Presented to the Cardiology ECHO Clinic
Albuquerque, NM December 2016 [state]

“GLP-1 Agonists” CME Program.

Presented to the Endocrinology ECHO Clinic
Albuquerque, NM May 2016 [state]

“Insulin Update 2016” ACPE Webinar Presented for the Collaborative Education Institute
Clinical Pearls Series May 2016. [national]

“Toujeo and Tresiba: Formulary Review”

Presented to the Ventegra Formulary Committee. CA. March 2016 [regional]

“What’s new in type 2 diabetes: New drug approvals and guideline updates” ACPE Program.

Presented at the New Mexico Pharmacists Association Mid-Winter Meeting. Albuquerque, NM January 2016 [state]

“Prescription Writing Tips for Insulin and Testing Supplies” CME Program.

Presented to the Endocrinology ECHO Clinic. Albuquerque, NM October 2015[state]

“Applying the intricacies of the new hypertension guidelines to your patients” CME Program.

Presented at the NM Academy of Physician Assistants Primary Care Conference
Albuquerque, NM September 2015 [state]

“SGLT2 Inhibitors: Formulary Review”

Presented to the Ventegra Formulary Committee. CA. March 2015

“Type 2 Diabetes Pharmacotherapy Update 2014” CME Program

Presented at the New Mexico Academy of Physician Assistants Primary Care Conference
Albuquerque, NM September 2014 [state]

“Primary Care in Chronic Diseases- The Role of the Clinical Pharmacist”

Presented at the 3rd International Colloquium: Challenges and Innovations in Pharmaceutical Research.
Cuernavaca, Morelos, Mexico
May 2014 [international]

“Diabetes: Initiating and Managing Pharmacologic Therapy” CME Program

Presented at the NM Nurse Practitioners Conference. Albuquerque, NM
April 2014 [state]

“Insulin Pen Devices: What our patients need to know” ACPE Program

Presented at the NMPhA Mid-Winter Meeting. Albuquerque, NM
Co-presented with John Togami, PharmD
January 2014 [state]

“Type 2 Diabetes Update 2013” CME Program

Presented at the First Choice Clinics Provider Meeting. Albuquerque, NM
May 2013 [local]

“Type 2 Diabetes Update” ACPE Program

Presented at the NMPhA Mid-Winter Meeting. Albuquerque, NM.
January 2013 [state]

“Insulin Overview” CME Program

Presented at the UNM Diabetes/Cardiovascular Risk Reduction ECHO telehealth clinic.
December 2012 [regional]

“Practical Considerations when Selecting Pharmacotherapy Options and Conducting a Medication History in a Patient with Type 2 Diabetes” CME Program

Presented at the UNM Diabetes/Cardiovascular Risk Reduction ECHO telehealth clinic.
September 2012 [regional]

“DPP-IV Inhibitors: an Update” CME Program Presented at the UNM
Diabetes/Cardiovascular Risk Reduction ECHO telehealth clinic. May 2012 [regional]

“GLP-1 Agonists: an Update” CME Program Presented at the UNM
Diabetes/Cardiovascular Risk Reduction ECHO telehealth clinic. January 2012 [regional]

“Current and Emerging Pharmacotherapy Options for Obesity” ACPE Program

Presented at the New Mexico Pharmacists Association Annual Meeting. Albuquerque, NM.
June 2011[state]

“Medications and Developmental Disabilities: An Overview” Presented at the DDHS
quarterly metro training. Albuquerque, NM. March 2011[local]

“Current and Emerging Pharmacotherapy Options for Obesity” CME Program

New Mexico Osteopathic Medical Association: Summer Medical Symposium.
Ruidoso NM. June 2010 [regional]

“The Art of Patient Counseling” ACPE Program

Supervised presentation given by students at the New Mexico Pharmacists Association
Mid-Winter Meeting. Albuquerque NM. January 2010 [state]

“Obesity and Portion Size” CME Program

Presented to the UNM Hepatitis C ECHO Clinic. Albuquerque, NM. December 2009
[regional]

“Diabetes Limbo: Does Intensive Glycemic Control Prevent Cardiovascular Events?” ACPE Program.

New Mexico Pharmacists Association Annual Meeting.
Albuquerque, NM. June 2009 [state]

“Diabetes Update 2009” CME Program

Presented to the UNM Hepatitis C ECHO Clinic. Albuquerque, NM. March 2009 [regional]

“Initiation of Diabetes Medication in the Patient with Hepatic Dysfunction” CME Program

Presented to the UNM Hepatitis C ECHO Clinic. Albuquerque, NM. March 2009 [regional]

“The Power of Patient Counseling” ACPE Program

Supervised presentation given by students at the New Mexico Pharmacists Association
Mid-Winter Meeting. Albuquerque NM. February 2009 [state]

“Effects of Intensive Glycemic Control on Cardiovascular Outcomes”

Translational research journal club for the New Mexico Society of Student Physician Scientists. Albuquerque NM. November 2008 [local]

“Diabetes Medication Overview”

UNM Employee Health Promotion Program: Patient education
Albuquerque NM. May 2008 [local]

“Management of the Patient with Type 2 Diabetes” ACPE Program

NM Prescription Improvement Coalition: MTM Collaborative Learning Session.
Albuquerque NM. November 2007 [state]

“Management of the Heart Failure Patient with Diabetes” ACPE Program

Rx Plus Pharmacies Annual Meeting. Denver CO. August 2007 [national]

“Management of the Heart Failure Patient with Diabetes” ACPE Program

New Mexico Pharmacists Association Annual Meeting. Albuquerque NM. June 2007 [state]

“Patient Counseling Demonstration” ACPE Program

New Mexico Pharmacists Association Mid-Winter Meeting. Albuquerque NM. January 2006. [state]

UNM College of Pharmacy Service

- UNM COP Clinical Initiatives Committee 4/11-present
- PPAS Faculty search committee Psych/Onc position 11/18-11/19
- COP Residency and Fellowship Development Committee 8/14-6/15
- Patient Care Lab Task Force 11/13-5/14
 - Co-Chair
- Faculty Development Committee 11/12-12/13
- Pharmacy Practice Manager Search Committee 4/12
- Ambulatory Care Faculty Search Committee 12/11-6/12
 - Committee Chair
- UNM Organization, Evaluation & Planning Committee (OPEC) 9/09-7/10
- UNM Scholarships and Awards Committee 9/08-9/11
- APhA-ASP UNM Chapter Faculty Advisor 8/08-6/20
 - Volunteer to supervise numerous health screenings for the APhA-ASP students

UNM Hospital Committee Service

- UNM Pharmacy Residency Committee 7/09-present

UNM Health Sciences Center Committee Service

- Diabetes Care Process Model Work Group 10/20-Present
- UNM Medical Group Credentialing Committee 11/16-2/17
- Allied Health Care Provider Credentialing Committee 8/12-12/14

State Professional Service Involvement

- NMSHP Education Committee member 2014-2019
- Immediate Past President-New Mexico Society of Health System Pharmacists (NMSHP) 10/2013-10/2014
 - 2013-2014 NMSHP Committee membership
 - Membership Committee
 - Education/Balloon Fiesta Meeting Committee
 - NMSHP-SSHP Mentor
- President- NMSHP 10/2012-10/2013
 - 2012-2013 NMSHP Committee membership
 - Education Committee
 - Membership Committee
 - Bylaws Committee
 - Pharmacy Practice Model Initiative (PPMI) Committee
- President Elect- NMSHP 10/2011-10/2012
- New Mexico Pharmacists Association (NMPhA) Executive Council: NMSHP representative 2013
- NM Prescription Improvement Coalition advisory board member 11/2012-present
- New Mexico Health Care Takes on Diabetes (NMHCTOD)
 - Active member, COP representative, contact for health screening requests

National Professional Service Involvement

- New Mexico Delegate: American Pharmacists Association House of Delegates 4/2013

Additional Certifications/Training Completed

- | | |
|---|----------------|
| • Team Based Learning | September 2016 |
| • Medco Diabetes Conversation Maps Training | December 2010 |
| • UNM COP Pharmacy Teaching Certificate Program | March 2011 |
| • NMPhA Immunizations Train the Trainer Program | October 2009 |

Awards and Honors

- | | |
|---|------|
| • UNM College of Pharmacy Faculty Preceptor of the Year | 2018 |
| • UNM College of Pharmacy Emerging Leader Award | 2016 |
| • NMSHP Pharmacist of the Year | 2015 |
| • Phi Delta Chi Fraternity Honorary Faculty Member Inductee | 2014 |
| • UNM PharmD Class of 2012 Preceptor of the Year | 2012 |
| • UNM PharmD Class of 2011 Preceptor of the Year | 2011 |
| • UNM PharmD Class of 2011 Teacher of the Year | 2011 |
| • UNM PharmD Class of 2010 Teacher of the Year | 2010 |

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|--|------|
| • Rho Chi Honor Society Gamma Beta Chapter | 2005 |
| • Phi Lambda Sigma Pharmacy Leadership Society-
Gamma Alpha Chapter | 2003 |

Professional Organization Memberships

- | | |
|---|---------------|
| • American Society of Health System Pharmacists | 2/03-present |
| • American Pharmacists Association | 8/02-present |
| • New Mexico Society of Health System Pharmacists | 2/03-present |
| • New Mexico Pharmacists Association | 8/08-present |
| • American College of Clinical Pharmacy | 2/07-present |
| • American Heart Association | 8/08-present |
| • American Diabetes Association | 12/08-present |