

## APhA Contributed Papers Program

The APhA Contributed Papers Program is designed to challenge practitioners, researchers, and students by providing a forum in which to share practice information, disseminate research findings, and educate colleagues. Abstracts were solicited from all pharmacy practice areas, including practitioners, scientists, residents, and students.

### Author Index

An Author Index and map of the Contributed Paper poster presentations is located in the poster hall. You may also click on the Poster icon on the APhA2018 App.

### Abstract Categories

Investigators were invited to submit abstracts on topics relevant to pharmacy practice and pharmacy-focused scientific research in one of four abstract categories:

- ◆ Contributed Research Papers
- ◆ Innovative Practice Reports
- ◆ Reports on Projects in Progress
- ◆ Encore Presentations

Abstracts were accepted as poster presentations or podium sessions.

### Adherence and Persistence

1—Effects of Medication Access and Adherence on Acute FEV1 Decline in Adult Patients with Cystic Fibrosis. [Avila K](#), Wang J, University of Southern California

2—Improving Medication Adherence Study in Response to Rising DIR Fees. [Canankamp J](#), Bennett J, Becker A, Massey D, Fruth Pharmacy

3—Pharmacist-Initiated Interventions for Medication Adherence in High-Risk Disease States. [Castrogiovanni T](#), CHAS Health

4—Implementation of a Community Pharmacy Workflow Process to Identify and Follow Up on Prescription Abandonment. [Chancy P](#), Rhodes L, Marciniak M, University of North Carolina, Branham A, Clifton C, Moose J, Moose Pharmacy, Hayes H, South University

5—Utilizing Indian Health Service (IHS) Counseling Techniques in an Independent Community Pharmacy to Improve Adherence Rates Among Patients with Diabetes, Hypertension, or Hyperlipidemia. [Colvin N](#), South University, Mospan C, Wingate University, Buxton J, Cape Fear Clinic, Waggett J, King B, Brown W, Tyndall B, Seashore Discount Drug

6—Characteristics of Patients Who Adhere to the Pneumococcal Vaccination Schedule. [Dunton C](#), Momary K, Mercer University, Chapman L, The Kroger Company

7—Evaluation of a Mobile Pharmacy Service to Improve Medication Adherence of Long-Acting Injectable Antipsychotic Therapies. [Galanto M](#), Wong F, University of Colorado, Tang M, Two Trees Consulting

### Abstract Topics

Authors were asked to select a topic area that best fits their abstract. Abstracts are grouped by topic to allow attendees to easily view similar topic areas.

### Poster Presentations

Posters are displayed in Exhibit Hall D of the Music City Center during the following hours:

Saturday, March 17 9:00 am–6:00 pm  
Sunday, March 18 9:00 am–3:00 pm

### Meet the Researchers

For a chance to talk with the researchers about their projects, attend the “Meet the Researchers” session on Saturday, March 17, 12:30 pm–2:30 pm, in the poster presentation area in Exhibit Hall D. Earn 1 or 2 CPE credits!

### Podium Presentations

Papers selected for podium presentations will be presented during the Day of Science on Friday, March 16. Podium presentations are scheduled in 20-minute intervals. See pages 35, 36 and 38 for details.

8—Pharmacist-Led Discharge Medication Counseling and Its Corresponding Impact on Medication Adherence Rates. [Gethmann A](#), Kinsey J, Mercer University, Schnepf A, Walgreens

9—Assessing Willingness of Patients Older Than Age 65 to Use Mobile Application for Antihypertensive Medications Taught by a Community Pharmacist: A Survey Intervention. [Hadesman A](#), Safeway, Gurney M, Midwestern University

10—Relationship Between Perceived Medication Adherence Barriers and Incentive Preference. [Hohmann N](#), Hastings T, Jeminiwa R, Qian J, Hansen R, Garza K, Auburn University

11—Impact of a Telephone Follow-Up Service to Improve Antibiotic Use in Pediatric Patients. [Jacob T](#), Michel N, Cincinnati Children's Hospital Medical Center, Messinger N, University of Cincinnati, Puening E, Kroger Pharmacy

12—Impact of an Adherence Monitoring Program on Patient Adherence and Star Ratings Measures in a Large Community Pharmacy Chain. [Johnson K](#), Frede S, Kirby J, Kayse A, Brookhart A, The Kroger Company, Hincapie A, University of Cincinnati

13—Comparing Adherence Rates for Targeted Chronic Disease State Medications Before and After Enrollment in an Appointment-Based Medication Synchronization Program. [Jones S](#), Mercer University

14—The Impact of Patient Contact on the Rate of Primary Non-Adherence to Electronically Prescribed Medications in a Community Pharmacy Setting. [LePoiré A](#), Wenstrom K, DeVuyst-Miller S, Ferris State University, Dettloff R, Pfizer

### Awards

The APhA Contributed Papers Program includes the opportunity for papers to be evaluated for two award programs:

#### APhA-APPM Presentation Merit Award

Open to posters presented under the Practitioner category (or Resident/Student category if appropriate), this award recognizes presentations made on practice-related subjects in the contributed research, innovative practice, and current residents category.

#### APhA-APRS Postgraduate Best Paper

Open to graduate students, residents, fellows, and postdoctoral scholars who are the principal authors of papers presented under Basic Sciences; Clinical Sciences; and Economic, Social, and Administrative Sciences (ESAS).

Complete abstracts of all accepted papers will be published online in the May/June edition of the *Journal of the American Pharmacists Association (JAPhA)* at [www.japha.org](http://www.japha.org).

15—Assessing Adherence Barriers to Glaucoma Ophthalmic Drops. [Levander L](#), Kraayenbrink E, Otting R, Smith J, Feldman J, Mercy Family Pharmacy, Witry M, Veach S, University of Iowa

16—Impact of a Pharmacist-Administered Long-Acting Injectable Antipsychotic Program in a Supermarket-Based Community Pharmacy on Medication Adherence. [Lin C](#), Albertsons Companies, Kroon L, University of California

17—Exploring Pharmacy Technicians' Roles in Implementation of an Appointment-Based Medication Synchronization Program Within a Large National Supermarket Chain Pharmacy. [Ly L](#), Fisher C, Wasson M, Cardoso L, Henson L, Kroger, Hohmeier K, University of Tennessee

18—Retrospective Cohort Study of Medication Use in Adults with Cerebral Palsy and Spina Bifida. [Manzor Mitrzyk B](#), Farris K, Erickson S, Cook M, Godley E, Marshall V, University of Michigan

19—Characteristics of Pharmacies That Self-Identify as Providing Medication Synchronization Services. [McCaughey L](#), Fuesting M, Szakacs M, Abdelwahab N, Lantaff W, Snyder M, Zillich A, Purdue University

20—Exploring Primary Nonadherence in a Hospital Medication Discharge Program. [Myers J](#), Zillich A, Jaynes H, Lantaff W, White N, Snyder M, Purdue University, Davis H, Indiana University

21—Study to Measure the Impact of Pharmacists and Pharmacy Services on Medication Nonadherence: Clinical and Humanistic Outcomes. [Pinto S](#), Simon A, The University of Toledo, Osundina F, Bristol-Myers Squibb Foundation Inc., Rocha R, The Pharmacy Counter, Jorda M, U.S. Air Force

22—Impact of Community Pharmacy Practice Interventions on Medication Nonadherence: A Retrospective Analysis. [Proux A](#), [DeVuyst-Miller S](#), Ferris State University, [Dettloff R](#), Pfizer, [Wenstrom K](#), [Meijer](#)

23—Association of the Pharmacist-Patient Relationship with Two Prescription Refill Adherence Measures. [Rickle N](#), University of Connecticut, [Young G](#), Northeastern University, [Luo C](#), University of Connecticut Health Center, [Dangi A](#), Carnegie Mellon University

24—Implementation of Face-to-Face Patient Encounters Utilizing an Abbreviated DRAW Tool Through Pharmacy Dispensing Workflow and its Effect on Patient Adherence. [Roberts T](#), [Veach S](#), [Witry M](#), University of Iowa

25—Impact of Integrating Technology for Improving Medication Adherence in College Students. [Kramer K](#), [Sarver C](#), [Pezzano N](#), Wilkes University

26—Awareness of Adherence Indicator in Improving Medication Adherence. [Uhl K](#), [Lee S](#), [Schwartzman E](#), [Law A](#), Western University

27—Management of Chronic Disease Conditions by Pharmacists vs. Other Health Care Providers in the Veterans Affairs Healthcare Administration System. [Unni E](#), [Lawrence P](#), Roseman University

28—Are Cognitive and Social Factors Protective Against Barriers to Asthma Medication Use? [Young H](#), [Ali A](#), [Rawal S](#), [Cobran E](#), University of Georgia

29—Assessing Medication Adherence through Inclusion of Treatment Indication on Prescription Label in a Community Pharmacy. [Zelinski A](#), University at Buffalo, [Lindenau R](#), Middleport Family Health Center

## Cardiovascular Care

30—Pharmacist Intervention Utilizing Clinical Automated Blood Pressure Kiosks to Improve Hypertension Management. [Bonzagni A](#), [Shcherbakova N](#), [Capoccia K](#), Western New England University

31—Examining Predictors of Heart Failure Self-Care: Differences in Knowledge, Cognition, Depression, and Self-Efficacy in Patients by Health Literacy Level. [Chen A](#), [Harper N](#), Cedarville University, [Yehle K](#), [Plake K](#), Purdue University, [Rathman L](#), The Heart Group of Lancaster General Health

32—Measuring Clinical and Economic Outcomes in a Community Pharmacy Hypertension Management Program. [Cicccone C](#), Sullivan University, [Cooper K](#), Walgreen Company

33—Evaluation of Prasugrel Use When Contraindications Are Present on an Inpatient Cardiovascular Surgery Stepdown Unit. [Conroy G](#), Butler University, [Czosnowski L](#), Indiana University Health Methodist Hospital

34—Clinical Evaluation for Potential Use of Sacubitril/Valsartan in Heart Failure Treatment at Long Island Jewish Medical Center. [Fung M](#), [Liu V](#), [Seo J](#), [Saad M](#), [Maisch N](#), St. John's University

35—Effects of a Targeted Approach to Transition Veterans to Statin Monotherapy for Hyperlipidemia. [Hamilton E](#), [Sheldon C](#), [Kurtkaya N](#), [Chandler O](#), [Ralph H](#), Johnson VA Medical Center

36—Pharmacist-Led Educational Appointments About Hypertension: Evaluating the Impact in an Underserved Population. [Kadakia N](#), [Brown B](#), [Sneed G](#), University of Cincinnati, [Burns J](#), City of Cincinnati Health Department

37—Fondaparinux Sodium Compared with Low-Molecular-Weight Heparins for Thromboprophylaxis Among Patients with Orthopedic Immobility: A Systematic Review and Meta-Analysis. [Kumar A](#), [Farley J](#), University of Minnesota, [Wu W](#), [Talwar A](#), St. John's University

38—Pharmacist-Led Community Stroke Education and Screening Program. [Marvanova M](#), North Dakota State University School, [Henkel P](#), University of Eastern Finland

39—Evaluation of Medication Therapy in Cryptogenic Stroke Patients Diagnosed with Atrial Fibrillation Following Loop Recorder Implantation. [Marzella E](#), [Welton M](#), [Abou-Eid M](#), [Choi M](#), University of Arizona, [Salek F](#), [Calkins L](#), Northwest Medical Center

40—Impact of Pharmacist-Led Heart Failure Self-Management Tool Kits on Patients in the Ambulatory Care Setting. [Pape Z](#), [Hale G](#), [Joseph T](#), Nova Southeastern University

41—Impact of a Medication Synchronization Program on Blood Pressure Levels in a Community Pharmacy. [Pattin A](#), [Chen T](#), [Hunold R](#), [Kirwen A](#), [Minnich S](#), [Panak R](#), [Blazewski L](#), The University of Toledo, [El-Khatib H](#), Toledo Family Pharmacy

42—Motivational Interviewing as a Strategy to Impact Outcomes in Patients with Heart Failure: A Systematic Review of the Literature. [Poudel N](#), [Kavookjian J](#), [Scalese M](#), Auburn University

43—Evaluation of a Community Pharmacist-Led Anticoagulation Clinic vs. a Referring Primary Care Practice. [Stewart A](#), [Roark A](#), [Schomberg R](#), [Luebchow A](#), [Yoder V](#), Wake Forest Baptist Health

44—Evaluation of ACE Inhibitor/ARB and Beta-blocker Reinitiation Post-Hospitalization of Acute Decompensated Heart Failure. [Whitaker A](#), [Beckett R](#), Manchester University, [Rodeffer K](#), [Quick S](#), Lutheran Hospital

45—Dual versus Mono Anti-Platelet Therapy in Ischemic Stroke. [Zaki A](#), [Neuliep A](#), [Andonje G](#), [Borghol A](#), [Onor I](#), Xavier University

46—Protocolized CT After Thrombolysis for Stroke Study. [Zaki A](#), [Shafiqan S](#), [Zaubrecher H](#), [Borghol A](#), Xavier University, [Janz D](#), Louisiana State University

## Collaborative Practice

47—Pharmacist-Operated Hypertension Clinic Within a Federally Qualified Health Center Utilizing Telemedicine Technology. [Boswell S](#), [Clawson K](#), Cherokee Health Systems

48—Establishing a Collaborative Practice Agreement Within an Employer-Based Health Care Center. [Brockington P](#), [Fabel P](#), University of South Carolina, [McEvoy A](#), Premise Health

49—Establishing Community Pharmacy Connections to Clinic Electronic Medical Records (EMRs). [Evans W](#), [Doucette W](#), University of Iowa

50—The Role of QuantaFlo in Early Screening and Treatment of Peripheral Artery Disease. [Fernandez D](#), [Phan H](#), [Zhang C](#), [Kumar K](#), [Hale G](#), [Steinberg J](#), Nova Southeastern University

51—Large-Group, Asynchronous, Interprofessional Simulation: Improving the Nurse-Pharmacist Line of Communication. [Kinsey J](#), [Bartlett J](#), Mercer University

52—Integrating Community Pharmacists into Team-Based Care: Perspectives of Community Pharmacists, Prescribers, and Nurse Care Managers. [Liu Y](#), [Ferreri S](#), [Yon C](#), [Patti M](#), University of North Carolina, [Renfro C](#), University of Tennessee

53—Patient Perceptions of Pharmacist-Directed Asthma and COPD Care Through a Collaborative Practice Agreement. [Melillo E](#), University of Houston, [Shafer E](#), [Walgreens](#)

54—Proton Pump Inhibitors: Avoiding Future Side Effects. [Odenhal D](#), [Walgreens](#), [Philbrick A](#), [Harris I](#), University of Minnesota

55—Establishing a Collaborative Care Approach Toward Improving Pediatric Asthma Management Within a Federally Qualified Health Center. [Petrie J](#), University of Colorado

56—Assessing Provider Perspectives on Integration of the Community Pharmacist into an Ambulatory Care Team. [Riggins S](#), [Abode A](#), [Arrants S](#), [Holland C](#), [Realo Discount Drugs](#), [Rhodes L](#), [Marciniak M](#), University of North Carolina

57—Physician Perception of the Role of Community Pharmacists at Comprehensive Primary Care (CPC) and Comprehensive Primary Care Plus (CPC+) Sites in Ohio. [Rowley L](#), [Hall L](#), Ohio State University, [Hoyt C](#), Uptown Pharmacy

58—Evaluation of Community Pharmacists' Impact on Patient Outcomes in Hepatitis C-Infected Individuals. [Schenkelberg S](#), [Walgreens](#)

59—Pharmacists' Role in Chronic Disease Management from Physicians' Perspective. [Shah A](#), [Pfund T](#), [Jay A](#), [Fred Meyer](#), [Akers J](#), Washington State University

60—Evaluation of a Community Pharmacy-Based Travel Clinic on Patient Understanding and Satisfaction. [Wilkinson E](#), University of Kansas

61—Gap Analysis of Interprofessional Communication Between Pharmacists and Oral Health Care Providers in Community Practices. [Woodworth K](#), [Sanders K](#), University of North Carolina

## Communication/Patient Education

62—Assessing Adult Perceptions of Services and Tools to Assist Caregivers of Adults Aged 50 and Older in the Grocery Store Pharmacy. [Abrahams B](#), [Frontino M](#), [Melissen P](#), [ACME Sav-on Pharmacy](#), [Zupec J](#), University of the Sciences

63—An Analysis of Meningitis B Vaccine Internet-Based Media Messages Using the Health Belief Model. [Aref H](#), Auburn University, [Garza K](#), Auburn University

64—Pharmacist-Led Medication Intervention for Patients with Asthma and COPD Within a Primary Care Setting. [Bookser M](#), [Drennen C](#), [Leonard E](#), [McConaha J](#), Duquesne University

65—Exploring Barriers That Prevent Health Care Professionals from Counseling Patients on Their Medications: A Systematic Review. [Calcamuggio J](#), [Gurich L](#), [Pinto S](#), University of Toledo

66—Preparing Pharmacists to Interact with Suicidal Patients: A Review of Training Policies and Programs. [Carpenter D](#), [Roberts C](#), University of North Carolina, [Lavigne J](#), [Zacher J](#), US Dept Veterans Health Affairs

67—Identifying Barriers That Prevent Use of Health Information Exchange in Ohio. [Carpenter E](#), University of Toledo

68—Determining the Impact of Patient Education About Statin Therapy on Electronic Quality Improvement Platform for Plans and Pharmacies (EQuIPP) Scores in an Independent Community Pharmacy. [Clark S](#), [Garofoli G](#), [Elswick B](#), West Virginia University

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69—Medication: A Randomized Controlled Trial of an Online Educational Video Intervention to Improve Glaucoma Eye Drop Technique and Adherence. [Davis S](#), Carpenter D, Blalock S, Sleath B, Budenz D, University of North Carolina, Lee C, Polyglot Systems, Muir K, Duke University, Robin A, Glaucoma Specialists

70—Impact of PASS and Sync Programs in Four Community Pharmacies: An Analysis of Pharmacist Interactions and Geriatric Anticoagulant Outcomes. [Dupont L](#), Sherr L, Dang Y, University of Maryland, Twigg G, Apple Discount Drugs

71—Exploring US Consumers' Knowledge of, Attitudes Toward, and Practices with OTC Medications. [Saab A](#), Fawaz S, White K, Bach A, Chapman University

72—Retrospective Study of a Longitudinal IPPE Rotation Focused on Oral Anticoagulant Counseling at an Academic Medical Center. [Gooch A](#), Snider E, University of Missouri

73—Practitioner Perceptions of the Roles and Responsibilities Associated with Medication Counseling: A Systematic Review. [Gurich L](#), Calcamuggio J, Pinto S, University of Toledo

74—Evaluating the Impact of Medication Product Attributes on Sound-Alike, Look-Alike Medication Confusion Propensity. [Her Q](#), Toh D, Harvard Pilgrim Health Care Institute

75—Effect of Regulatory Focus on Statin Medication Adherence. [Iaconi A](#), [Farris K](#), Erickson S, Dorsch M, Bagozzi R, Piette J, University of Michigan

76—The Impact of Smoking Cessation Education on Long-Term Care Pharmacy Employees' Willingness to Quit. [Kang E](#), Plue R, Sakel J, McCabe A, Oser T, CVS Health, Lengel A, University of Toledo, Sakel K, Bowling Green State University

77—Impact of Pharmacist-Patient Education on Asthma Control. [Kruger Howard A](#), Morgan J, Tsoukleris M, Seung H, University of Maryland

78—Evaluating the Effectiveness of Medication Administration Videos Translated into American Sign Language. [Kuenstler E](#), Ferguson M, Southern Illinois University, [Kramer S](#), St Louis College

79—Pharmacists Reducing Hypoglycemia Adverse Drug Events Through Collaboration with FDA, CMS, Kaiser Permanente, and Mayo Clinic. [Lee C](#), U.S. Food and Drug Administration, Shah N, Mayo Clinic, Powell C, Office of the Assistant Secretary of Health, Karter A, Kaiser

80—Pharmacist-Led Community Hepatitis C Initiative. [Melikian L](#), McCracken J, Albanese G, Burley C, Duquesne University

81—Innovative Activities Used to Educate High School Students on Preventing the Spread of Sexually Transmitted Infections. [Miller S](#), [Serratore C](#), Sullivan University, Spencer C, University of Louisville Hospital

82—Evaluation of College Freshman Medication and Health Knowledge and Practices. [Miller V](#), Warren M, Bentley S, Liles A, University of Mississippi

83—Patient Education on Sleep Hygiene and Medication Safety and Its Effectiveness on Insomnia Outcomes. [Owens E](#), University of North Carolina

84—Assessing the Quality of Drug-Drug Interaction Information in Patient Medication Leaflets. [Panic J](#), Gooden A, University of Arizona

86—On the MEND: A New Pharmacy Service in a Predominantly Hispanic Community (Mental Health and Education in Diabetes). [Patel S](#), Navarrete J, Sias J, Lunares L, University of Texas, Elizondo K, Aboud S, Valenzuela E, Centro de Salud Familiar La Fe, Inc.

87—Analyzing the Use of Survivorship Resources in Patients with Lymphoma. [Salvatore A](#), Favatella N, Pomponi S, Toscani M, Rutgers University

88—Patient-Pharmacist Communication Techniques. [Shah K](#), University of Rhode Island

89—Medication Education Provided to Young Adults: A Systematic Review. [Singh R](#), [Milano V](#), Fox L, University of Wyoming, Guirguis L, University of Alberta, Bond I, Massachusetts College

90—Development and Evaluation of an Online Short Course to Help Train Student Pharmacists to Communicate Effectively with Youth. [Sleath B](#), [Bailey S](#), [Carpenter D](#), [MacAllister C](#), [Wayman B](#), [Annis I](#), University of North Carolina, Gilmartin-Thomas J, Smith F, Monash University, Chater A, University of Bedfordshire, [Pyzik O](#), University College London

91—Relationships Among Specific Elements of Patient-Provider Communication, Trust, and Motivation Across White, African American, and Hispanic Patients with Asthma. [Ali A](#), Rawal S, Young H, University of Georgia

### Diabetes

92—FDA Science of Engagement: Qualitative Exploration of Unstructured FDA Data Sources and Diabetes Communication on Facebook. [Beasley D](#), Lee C, Merenda C, U.S. Food And Drug Administration, Toebe T, University of Florida, Boudreaux J, Xavier University

93—Familial Perception and Knowledge of Diabetes Following Diagnosis of a Loved One. [Borcherding K](#), Moblely-Bukstein W, Drake University

94—Implementing an Accredited Diabetes Education Program in a Grocery Store Community Pharmacy. [Cloutier S](#), Big Y Pharmacy & Wellness Center, Kalista T, Capoccia K, Western New England University

95—Diabetes Under Control: Evaluation of a Community Group Diabetes Educational Program at a Federally Qualified Health Center. [Dietle A](#), Bear M, Bartlett D, Massey C, Massachusetts College

96—Impact of Provider Accepted (vs. Unaccepted) Pharmacist-Initiated Interventions on A1C Outcomes in Underserved Populations Disproportionately Affected by Diabetes. [Eaton D](#), Brown B, University of Cincinnati, Bailey L, Espel M, Curington R, Saint Vincent de Paul Charitable Pharmacy

97—Motivational Interviewing-Trained Pharmacists: Clinical and Humanistic Outcomes in a Diabetes Worksite Wellness Program. [Ekong G](#), Kavookjian J, Auburn University

98—Impact of Pharmacist Intervention on Patient Health Outcomes in a Diabetes Prevention Program. [Floyd C](#), Bunk E, Higginbotham S, Duquesne University

99—Evaluation of Pharmacist Management of Patients with Diabetes to Established Standards of Care After Implementation of a Specialized Diabetes Training Program. [Hang E](#), Multicare Health System

100—The Development and Implementation of a National Diabetes Prevention Program at a Rural Community Pharmacy. [Hoak M](#), Gross B, Lipscomb University, Kirby J, Perkins Drugs

101—Evaluating the Presence of Comorbid Conditions and Characterizing the Risk Factors Included in the Amputation Risk Boxed Warning of Canagliflozin Compared With Other SGLT-2 Inhibitors in a Large Outpatient Population. [Horn B](#), [Byrd J](#), Kuhl D, Michaels M, Union University

102—Evaluating Employee Knowledge of Prediabetes, Prediabetes Risk Level, and Interest in a Diabetes Prevention Program (DPP). [Hubbard K](#), Lake L, Madison N, The Kroger Company, Gonzalvo J, Purdue University

103—Impact of an Employer-Sponsored, Community Pharmacist-Managed Diabetes Coaching Program on Patient-Reported Behaviors and Hemoglobin A1C. [Lahn A](#), Malone C, Jewel-Osco Pharmacy, Winkler S, Harpe S, Midwestern University

104—Diabetes Outcomes Associated with Clinical Pharmacy Specialist Clinic. [Lasic D](#), University of South Carolina, Worrall T, Malcolm R, Ralph H, Johnson VA Medical Center

105—Improving Diabetes Outcomes by Embedding Academic Clinical Pharmacists in a Patient-Centered Medical Home Model in a Community Health Center System. [Gabriella C](#), Ball J, [Lavigne J](#), St John Fisher College, Abu-Baker A, Irma Lerma, Texas A&M University, Tschappat D, Bliss A, Jordan Health, Inc.

106—Diabetes Shared Medical Appointment (DM SMA) Benefits Sustained After Return to Usual Care. [Leung A](#), Lee D, Phoenix VA Health Care System

107—Clinical Response to Insulin R U-500 Based on Total Daily Insulin Dose Prior to Conversion from U-100 Insulin Concentrations. [Longyhore D](#), Wilkes University, Williams S, St Luke's University Health Network

108—Evaluation of a Novel, Personalized, Multidisciplinary Community Pharmacy Diabetes Care Program. [Mathis T](#), Heaton P, University of Cincinnati, Kirby J, Frede S, Kroger

109—Diabetes Outreach/Outcomes for Thrifty White Employees. [Minihan P](#), Seda E, Thrifty White Pharmacy

111—Perceptions of the Impact of Caregivers' Attendance of Diabetes Education Classes on Achievement of Diabetes-Related Goals. [Moses M](#), Olenik N, Purdue University

112—What's Your Type? A Community Pharmacist's Approach to Diabetes Education and Its Impact on Health-Related Outcomes in a Rural Community. [O'Saile C](#), Gross B, Lipscomb University, Randolph R, Marcrom R, Marcrom's Pharmacy & Wellness Center

113—Evaluation of Supermarket Employees' Perception of and Willingness to Attend a Prediabetes Employee Wellness Program by Pharmacists. [Reed S](#), Capehart K, West Virginia University, Gooden S, Kroger Pharmacy

114—Evaluation of a Pharmacist-Physician Co-Managed Diabetes Service: An Extension Study. [Shubert K](#), Rodenberg B, Martin J, Smith K, Rosselli J, Lynch J, Southern Illinois University

115—Use of a Health Risk Screening to Influence Enrollment in the CDC Diabetes Prevention Program at a Grocery Store Pharmacy Chain. [Snodgrass C](#), [Oprinovich S](#), Kuehl P, University of Missouri, Applegate A, Balls Food Stores

116—Medication Utilization Evaluation of Metformin Appropriateness Before and After FDA Warning Update. [Sones K](#), Kempa K, Shah V, Wilkes University

117—Diabetes Medication Management Clinic in an Isolated Population of American Indians. [Steen M](#), Ness F, Lannoye T, Quentin N, Burdick Memorial Health Care Facility

118—Pharmacists and Diabetes Self-Management Education and Training (DSME/T) Programs. [Thakur T](#), University of Wisconsin, Galt K, Syracuse M, Fuji K, Bramble J, Kaufman T, Creighton University

119—Impact of Professional Continuous Glucose Monitoring for Older Adults with Type 2 Diabetes in a Pharmacist-Driven Ambulatory Care Setting. [Travis C](#), University of North Carolina

120—Medicare Part D Coverage Gap Optimization: Measuring Improvements in Patient Understanding Through Pharmacist-Led Education and Medication Interventions. [Varahabhatla A](#), University of North Carolina, [Dresback C](#), Mission Hospital

121—Effectiveness of a Monitoring Program for Patients Using Continuous Blood Glucose Monitors. [Yoss M](#), [Gattas N](#), St Louis College, [Karpman L](#), [Dunn P](#), [Badger K](#), [Elam B](#), [Fuchs S](#), Schnucks Markets, Inc.

122—Impact of Targeted Diabetes Management Interventions Made by Community Pharmacists in an Enhanced Service Network. [Wilcox K](#), [Lindenau R](#), Middleport Family Health Center, [Daly C](#), University at Buffalo

123—Electronic Tool to Aid Community Pharmacists in Optimizing Care for Persons with Diabetes. [Williams S](#), [Rhodes L](#), [Marciniak M](#), University of North Carolina, [Nunemacher C](#), [Holland C](#), Realo Discount Drugs

124—Effects of Pharmacy-Based Interventions on the Control and Management of Diabetes: A Systematic Review and Meta-Analysis. [Yaghoubi M](#), [Mansell K](#), [Farag M](#), [Vatanparast H](#), [Steeves M](#), University of Saskatchewan, [Zeng W](#), Brandeis University

## Educating the Educators

125—Creation and Integration of Pharmacy Practice Simulations Within an Experiential Curriculum. [Alexander K](#), [Mueller K](#), [Crowe S](#), East Tennessee State University

126—IPPE or APPE? Community Pharmacy Preceptor Perceptions of Where to Incorporate Specific Rotation Activities. [Daisy B](#), [Gattas N](#), St Louis College, [Logan T](#), [Rolwing E](#), [Logan R](#), L&S Pharmacy

127—Impact of a Wellness Course on Incoming First-Year College Students to Develop Proper Health and Wellness Habits. [Fanous A](#), [Rush M](#), [Kier K](#), Ohio Northern University

128—Assessment of a Multiyear Investigation to Develop the Interprofessional Skills of Health Profession Students. [King S](#), [Schwindt V](#), Union University, [Rogers E](#), Tenova Healthcare

129—Global Health Impact of Student Pharmacist-Led Health Care Worker Training Programs in Interprofessional Clinics in Emkumfi, Ghana. [Lee R](#), University of Washington

130—Passing the Last Test: Correlation of Advanced Pharmacy Practice Experiential (APPE) Rotations to North American Pharmacist Licensure Examination (NAPLEX) Scores. [Patel S](#), [Mansukhani R](#), [Woodward D](#), [Feudo D](#), [Volino L](#), Rutgers

131—Student Pharmacist Perceptions of Community Advanced Pharmacy Practice Experiences and the Impact on Professional Development. [Phan V](#), [Frontino M](#), [Melissen P](#), ACME Sav-On Pharmacy, [Barros M](#), Temple University

132—Innovative Learning in Pharmacy Practice: Perceived Benefits and Barriers to a Layered Learning Practice Model. [Prescott D](#), [Barnes K](#), [Coffey C](#), Ohio State University

133—Student Perceptions of Skills, Satisfaction, and Experiences Gained in P3 Introductory Pharmacy Practice Experience (IPPE) Community Rotations. [Soucie K](#), [Brauner M](#), [Rodis J](#), Ohio State University

134—Impact of an Interprofessional Education Session for Second-Year Pharmacy and Medical Students. [Wheeler S](#), [Sevin Valentino A](#), [McCuley J](#), [Liston B](#), Ohio State University

## Emerging Topics

135—In Vitro Assessment of the Anticancer Efficacy of Low-Dose Erlotinib in Combination with Piperlongumine in Pancreatic Cancer Cells. [Alharbi Y](#), MCPHS, [Andey T](#), [Almutairy B](#), Massachusetts College

136—More than Sticker Price: Assessing the Social Return on Investment of a Postgraduate Year One (PGY1) Community-Based Pharmacy Resident. [Brewster S](#), [Rhodes L](#), [Marciniak M](#), University of North Carolina, [Branham A](#), [Clifton C](#), [Moose J](#), Moose Pharmacy, [Hayes Jr H](#), South University

138—Utilizing Big Data Analyses in a Pharmacist-Led Integrated Medical Care Program to Manage Multiple Chronic Diseases in Taiwan. [Chen Y](#), [Chen S](#), China Medical University Hospital

139—Characterizing Posttraumatic Seizure Prophylaxis in Patients with Traumatic Brain Injuries at a Level 1 Trauma Center. [Galanto M](#), University of Colorado, [Carpenter S](#), [Swartwood C](#), St Anthony Hospital

140—Pharmacists' Perceptions of Rapid Diagnostic Testing in Community Pharmacies: A Diffusion of Innovations Approach. [Hoevermann E](#), [Holmes E](#), [West-Strum D](#), University of Mississippi

141—Retrospective Evaluation of the Economic and Clinical Impact of Community Pharmacist-Driven Pharmacy Benefit Management Services. [Jackson D](#), [Rhodes L](#), [Marciniak M](#), University of North Carolina, [Michaels N](#), [Bruder E](#), Sona Pharmacy and Clinic

142—Evaluation of the Uptake of Amyloid Beta1-42 by LRP1 in HepG2 Cells. [Jakowenko N](#), [Rondon-Ortiz A](#), [Pino-Figueroa A](#), Massachusetts College, [Mamani-Apaza L](#), [Cruz-Torres P](#), Universidad Catolica de Santa Maria, [Pryde A](#), King's College

143—Use of Antidiabetic Drugs Among Childless Adults Experiencing Medicaid Coverage Expansion in Wisconsin. [Kim N](#), [Look K](#), University of Wisconsin

144—Assessment of Community Pharmacists' Confidence, Foundational Knowledge, and Coordination of Care Activities in Patients with Cancer as a Chronic Condition. [Lahrman R](#), University of Cincinnati

145—Calcium Gluconate-Mediated In Situ Gelling of Alginates for Ocular Drug Delivery. [Lankford M](#), [Teague G](#), [Graham W](#), [Bentley S](#), [Pricher S](#), [Lassiter C](#), [Reed K](#), Belmont University

146—Trends in Adverse Event Reporting Received Through Social Media. [Mao Y](#), [Hanna M](#), Rutgers University, [Emanuel S](#), [Schaufelberger B](#), [Johnson & Johnson Consumer Inc.](#)

147—Significant Brand-to-Generic Cost Savings Achieved by Population Health Clinical Pharmacist. [Militello K](#), Hackensack Meridian Health, [O'Shea T](#), Horizon Blue Cross Blue Shield of New Jersey

148—Ginsenoside Rg1 Facilitates Neuronal Polarization Via cAMP-LKB1-MARK2 Pathway. [Pan Z](#), [Huang P](#), Zhejiang Cancer Hospital

149—Extent and Role of Pharmacists in Expedited Partner Therapy in the United States. [Park S](#), [Elias N](#), [Wong A](#), University of Maryland, [Coleman J](#), Johns Hopkins University

150—Does Changing the Day Supply Impact Medication Adherence? A Study from the ACO Research Network, Services, and Education (ACORNSEED). [Pauyo J](#), [Cabral M](#), [Balcacer R](#), [Franco P](#), [Nazef L](#), Nova Southeastern University

151—Stability of Compounded Ursodiol Suspensions in PCCA Base, SuspendIt. [Pramar Y](#), [Graves R](#), [Bostanian L](#), [Mandal T](#), [Nguyen A](#), [Miller V](#), Xavier University

152—Analysis of Disease Burden vs. Time to FDA Regulatory Approval. [Shpilfogel N](#), [Borden P](#), [Sapirstein A](#), [Toscani M](#), Rutgers University

153—Student Perceptions on Utilizing Advanced Placement Course Credit in Preparation for Prepharmacy and Pharmacy Curriculums. [Smith S](#), [Olenak J](#), Wilkes University

154—Controlling the Release of Antibodies Using a Bioaffinity Hydrogel System. [Spigelmyer A](#), [Liu W](#), [Gawalt E](#), [Meng W](#), Duquesne University, [Giannoukakis N](#), [Fan Y](#), Allegheny-Singer Research Institute

155—Medical Cannabis: Student Perceptions and Opinions on the Role of the Pharmacist. [Stark N](#), [Ulrich E](#), Drake University

156—Use of High Acyl Gellan to Form Insoluble Hydrogels. [Thomas R](#), [Firek M](#), [Arthur S](#), [Oehlers C](#), [Reed K](#), Belmont University

157—Activation of PPAR $\gamma$  by Macamides and Macamide Analogs Obtained from *Lepidium Meyenii* (Maca). [Yun N](#), Massachusetts College

158—Effects of Vancomycin Use in Patients Hospitalized with Pneumonia. [You A](#), [Fukunaga B](#), The Daniel K Inouye College

159—Continuing Professional Development Needs: Pharmacy Policy and Advanced Practice. [Zaghab R](#), [Dury K](#), [Noel J](#), [Rodriguez de Bittner M](#), University of Maryland

160—A Strategy for Investigation of the Human Serum Albumin Binding of the Components in Chinese Herbal Injection. [Zhu J](#), [Huang P](#), Zhejiang Cancer Hospital

## Geriatrics and Long-Term Care

161—Assessment of the Effect of Bio-K+ Probiotic on Antibiotic-Associated Diarrhea in Community-Dwelling Older Adults. [Kaminski S](#), [CareKinesis Inc.](#), [Bain K](#), [Michaud V](#), [Turgeon J](#), Tabula Rasa HealthCare

162—Medication Use Evaluation: Appropriateness of Donepezil Use in a Specified Health System. [DiGuiseppe L](#), [Shah V](#), Wilkes University

163—Medication Discrepancies Identified by a Pharmacist Completing Postdischarge Transitions-of-Care Medication Reconciliation in Older Adults. [Jenniches K](#), [Mansour D](#), [Ricciuti D](#), [Ruby C](#), University of Pittsburgh

164—Perceived Treatment Burden in Older Adults with Multiple Chronic Conditions. [Joseph D](#), University of Pennsylvania

165—Retrospective Study of Older Adult Patients Taking Nonbenzodiazepine Sedative Hypnotics. [Knpper S](#), [Walker M](#), Duquesne University

166—Comparing Antimicrobial Start Benchmarks in Large and Small Long-Term Care Facilities. [Neukirch A](#), [Klepser D](#), [Bergman S](#), University of Nebraska

167—Consultant Pharmacist in Assisted Living Facilities to Improve Diabetic Outcomes: A Retrospective Chart Review. [Patel K](#), [Hohmeier K](#), [Honeycutt M](#), University of Tennessee, [Summers K](#), Mac's LTC Solutions

168—Facilitators and Barriers to Implementing a Deprescribing Service for Older Adults with Type 2 Diabetes. [Vonderhaar J](#), [Coe A](#), [Remington T](#), [Sarah K](#), University of Michigan

## APhA Contributed Papers Program

### Health Disparities and Cultural Issues

169—Medication Use Behavior and Perceptions Among Muslim Patients with Diabetes Regarding Collaboration with Pharmacists During Ramadan. [Barner J](#), Alshehri A, Barner J, Brown C, Ford K, Rascati K, University of Texas, Atif S, Muslim Children Education and Civic Center

170—Relationship Between Muslims' Perceptions of Islamophobia and Perceived Health Care Barriers. [Alshehri A](#), Barner J, Brown C, Ford K, Rascati K, University of Texas, Atif S, Muslim Children Education and Civic Center

171—Cost Savings Associated with Utilization of Donated Medication Program in the Hospital Outpatient Pharmacy Setting. [Blackburn H](#), Dispensary of Hope, [Neu D](#), Bennett A, Saint Thomas Health

172—Identifying Key Factors Associated with High-Achieving Chain Pharmacy Teams Delivering Quality Care for Patients in Medically Underserved Areas. [Cho K](#), Coley K, Berenbrok L, McGivney M, University of Pittsburgh, McGrath S, Hopper A, Gilmore L, McCullough J, Rite Aid

173—Providing Student-Led Medication-Related Services Within a Homeless Shelter. [Hurst B](#), Leachman B, Ngo T, Fletcher S, [Borja-Hart N](#), University of Tennessee, Finchum J, Matthew 25

174—Language Resources at Pittsburgh Community Pharmacies in Refugee-Concentrated Areas. [Taylor A](#), [Ingram J](#), University of Pittsburgh

175—Inclusion of Racial and Ethnic Minorities in Asthma Clinical Trials. [Merenda C](#), US Food and Drug Administration, Sims J, Southern Illinois University

176—Developing Cultural Competency Education Materials to Improve Cultural Awareness in an Accelerated Health Care Program. [Nguyen T](#), Bermundo R, Chakraborty A, Roseman University

177—Importance of a Pharmacist on Interprofessional Global Medical Brigades. [Rumanowski A](#), [Nardolillo J](#), Eisenhower C, Charpentier M, Ingemi A, University of Rhode Island

178—An Interprofessional Feasibility Trial of Telehealth for Patients with Parkinson Disease in Two Rural States. [Singh B](#), [Milano V](#), Fox L, University of Wyoming, Guirguis L, University of Alberta, Bond I, Massachusetts College

179—Asthma and Health-Related Quality of Life in Late Midlife Adults. [Urbstonaitis R](#), Deshpande M, Arnoldi J, Southern Illinois University

180—Evaluation of Student Pharmacists as Patient Care Extenders in Medically Underserved Community Pharmacies. [White N](#), Galt K, Skrabal M, Jones R, Creighton University, Ridgway J, University of Nebraska

181—Are Self-Efficacy and Knowledge Associated with Medication Adherence and Asthma Control in Hispanic Adults with Asthma? [Rawal S](#), Ali A, Young H, University of Georgia

### Health Literacy

182—Examining the Impact of Appointment-Based Model and Education on Prescription Label Comprehension and Pillbox Fill. [Lee S](#), Kim E, Hata M, [Law A](#), Western University

183—Health Literacy and Readiness to Initiate Treatment for Osteoporosis in an At-Risk Sample of US Women. [Miller M](#), Texas A&M University, Danila M, Mudano A, Rahn E, Saag K, Outman R, University of Alabama

184—Global Regulatory Dissonance: Examining How FDA and EMA Approach Product Labeling of New Drugs. [Motamedi B](#), Chawla R, [Pacifci E](#), University of Southern California

185—Assessment of Patient Medication Literacy. [Rust C](#), Dougherty T, South College

### HIV and Acquired Immunodeficiency Syndrome

187—Impact of Specialty Pharmacy Services on Antiviral Medication Adherence Rates, Viral Loads, and CD4 Counts in Adult Patients with Human Immunodeficiency Virus. [Carrigan C](#), McCall K, University of New England

188—Immunization Rates of Patients Receiving Antiretroviral Therapy in a Community Pharmacy Setting. [Gabeira L](#), Drambarean B, University of Illinois, Malone C, Hamper J, Clough C, Albertsons

189—Adverse Drug Reactions in HIV-Positive and HIV/TB-Positive Patients in the Philippines. [Halza K](#), Lewis B, University of Pittsburgh

190—Efficacy and Safety of Tenofovir Alafenamide vs. Tenofovir Disoproxil Fumarate in HIV-infected, Virologically Suppressed Black and Non-Black Adults Through Week 96: Subgroup Analysis of a Randomized Switch Study. [Ho C](#), Gilead Sciences, Flamm J, Kaiser Permanente, Vanig T, Spectrum Medical Group, Gathe J, Therapeutic Concepts, Kinder C, Wohlfeiler M, AIDS Healthcare Foundation, Para M, Ohio State University, Rashbaum B, Capital Medical Associates, Segal-Maurer S, Shamblaw D, La Playa Medical Group, Young B, Apex Research Institute, Zurawski C, Atlanta Infectious Disease Group PC

191—Discontinuation of Medications for HIV Wasting Syndrome. [Kehl K](#), Schnucks, Gattas N, St Louis College, Karpman L, Gibson N, Badger K, Fuchs S, Elam B, Dunn P, Schnucks Markets, Inc

192—Assessment of HIV-Positive Patients' Perception and Referral Sources for Immunizations Compared to the HIV-Negative Population. [Mills A](#), Arnett S, Miller M, Purdue University

193—Effect of Patient Travel Time to Clinic on Plasma HIV Viral Suppression in Patients Receiving Care at the Nebraska Medicine Specialty Care Clinic. [Pohren L](#), University of Nebraska, Podany A, Klepser D, Havens J, Scarsi K, University of Nebraska Medical Center

194—Patient Perspective of TDF to Non-TDF-Based HIV Medication Switch. [Sassa K](#), Schafer J, Thomas Jefferson University

195—Determining the Effectiveness of a One-on-One HAART Education and Adherence Monitoring Program in a Chain Community Pharmacy Pilot Study. [Younge J](#), Hussein S, Chicago State University Chicago State University

### Immunizations

196—Assessment of Accuracy for Adult Immunization Recommendations by Chain Community Pharmacies in Arizona. [Ahn D](#), [Vraney J](#), Campbell P, University of Arizona

197—Value-Based Model for Incentivizing Adult Immunizations at Community Pharmacies. [Berenbrok L](#), Renner H, Somma McGivney M, Coley K, University of Pittsburgh

198—Pharmacists' Perspectives on Working with Immunizing Technicians. [Bertsch T](#), McKeirnan K, [Frazier K](#), VanVoorhis L, Shin S, Le K, Washington State University

199—Quality Assurance Processes for Immunization Administration in the Community Pharmacy Setting. [Diez H](#), Klein K, Kelling S, [Bazzell B](#), University of Michigan

200—Impact of a Pharmacist-Led Education Program on Rates of Initial Pneumococcal Polysaccharide Vaccination Among Vaccine-Eligible Adults with Asthma and COPD. [Eggers Russell S](#), Trotta K, Johnson S, Campbell University, Wilson N, Walgreens

201—Assessment of Barriers to Patient Acceptance of Pharmacist-Provided Recommendations for International Travel: A Patient Survey. [El-Kurdi R](#), [Rhodes L](#), [Marciniak M](#), University of North Carolina, [Sauls A](#), [Selinger R](#), [Schimmelfing J](#), [Chelminski A](#), [Goodman C](#), [Campus Health Services at Chapel Hill](#)

202—Conducting Pneumococcal and Shingles Vaccine Status Assessment During Targeted Medication Reviews. [Flores L](#), Rhodes L, Marciniak M, University of North Carolina, Hollar A, Mustafa R, Walgreen Company

203—Optimizing Student Pharmacist Placement to Enhance Influenza Vaccinations in Community Pharmacies. [Garofoli G](#), Capehart K, Feng X, Sambamoorthi U, West Virginia University, Kinney O, Kroger Pharmacy

204—Impact of a Multicomponent Immunization Intervention on Pneumococcal and Herpes Zoster Vaccinations: A Randomized Controlled Trial of Community Pharmacies in Two States. [Hohmann L](#), Hastings T, Garza K, Westrick S, Auburn University, Huston S, Ha D, Keck Graduate Institute

205—Effect of Pharmacist Intervention on Herpes Zoster Vaccination Rates in a Federally Qualified Health Center. [Isais J](#), University of Arizona

206—Evaluating the Implementation Process of an Electronic Clinical Alert for Patient Eligibility of the Pneumococcal Polysaccharide Vaccine (PPSV23) in a Regional Grocery Store Chain Pharmacy. [Karabinos J](#), Greco A, Duquesne University

207—Effect of Pharmacist Intervention on Meningococcal Vaccination Rate in HIV-Positive Adults. [Lancaster Z](#), Midwestern University

208—Collaborative Program Using Student Pharmacists to Increase Adult Vaccination Rates for the At-Risk Patient Population Attending Urgent Care Clinics. [Lehman N](#), Koenigsfeld C, Wall G, Drake University, Renner C, Hahn K, Sheesley B, Bjornson A, Veach L, UnityPoint Health

209—Immunogenicity and Safety of an Adjuvanted Herpes Zoster Subunit Vaccine Candidate When Coadministered with a 23-Valent Pneumococcal Polysaccharide Vaccine in Adults 50 Years of Age or Older: A Phase III, Randomized Clinical Trial. [Maréchal C](#), Business and Decision Life Sciences for GSK, Lal H, Pfizer Inc, Poder A, Clinical Research Center, Ferguson M, Colchester Research Group, Enweonye I, Heineman T, Genocsa Biosciences, Hervé C, Wauters D, Oostvogels L, GSK, Rheault P, Medior Research Inc, Talli J, Innomedica Medical Center

210—Assessment of the Potential Herpes Zoster and Postherpetic Neuralgia Case Avoidance with Vaccination in the United States. [Patterson B](#), Buck P, Pawlowski J, GSK, Carrico J, Hicks K, RTI Health Solutions, Curran D, Van Oorschot D, GSK Vaccines, Lee B, Johns Hopkins University, Yawn B, University of Minnesota

211—Herpes Zoster (HZ) Revaccination Strategies: Assessment of the Potential HZ and Postherpetic Neuralgia Case Avoidance in the United States for People Previously Vaccinated Against HZ. [Patterson B](#), Buck P, Pawlowski J, GSK, Carrico J, Hicks K, RTI Health Solutions, Curran D, Van Oorschot D, GSK Vaccines, Lee B, Johns Hopkins University, Yawn B, University of Minnesota

212—Impact of a Pharmacist-Extender Training Program to Improve Noninfluenza Vaccination Rates Within a Single Division of a Large, National Supermarket Chain Pharmacy. [Percy J](#), Crain J, Marchetti M, Atchley D, Rein L, Kroger Pharmacy, Hohmeier K, University of Tennessee Health

213—Evaluation of Immunization Compliance in Kidney Transplant Patients in an Academic Medical Center Pharmacy. [Shum J](#), [Mirzaian E](#), University of Southern California

214—Evaluation of the Most Frequently Administered Immunizations in the Community Pharmacy Setting Within Three Districts of a National Pharmacy Chain. [Tat D](#), Kinsey J, Mercer University, Clark A, Yi Y, Rite Aid Pharmacy

215—Enhancing Adult Immunization Care in Community Pharmacies: A Qualitative Analysis. [Tran M](#), Bacci J, Sy E, Odegard P, University of Washington

216—Impact of a Community Pharmacy Appointment-Based Model on Pneumococcal Vaccination Rates of Age-Indicated Patients. [Vo A](#), [Mirzaian E](#), University of Southern California, Sarino L, Ralphs Grocery Company, Goad J, Chapman University

217—Survey of Awareness, Attitude, and Behavior of University Students Toward Influenza Vaccination. [Waghmare P](#), Siracuse M, Ohri L, Bramble J, Kaufman T, Creighton University

218—National Survey of Pharmacy-Based Immunization Services. [Westrick S](#), Kader M, Rashid M, Auburn University, Patterson B, Buck P, GSK, Rothholz M, American Pharmacists Association

219—Impact of Pharmacist-Delivered Education on Early Parent Awareness and Perceptions Regarding Human Papillomavirus (HPV) Vaccination in the Community Pharmacy Setting in West Virginia. [Wick J](#), Elswick B, West Virginia University, Austin J, Kroge

## Laws and Regulations

220—Survey of Extemporaneous Compounding Utilization and Standards in Minnesota Pharmacies: Comparison of 2017 vs. 2010 Results. [Bastianelli K](#), Broughton J, University of Minnesota

221—Assessment of Drug Lag for Priority Review Drugs Approved in the United States, Europe, and Canada. [Ghazawi K](#), [Egulae T](#), Massachusetts College

222—Pharmacist-Led Initiative to Reduce Opioid Use in an Ambulatory Care Setting. [Hutchinson C](#), [Mickool D](#), University of New England

223—Evaluation of FDA Warnings and Untitled Letters on Social Media Usage and Pharmaceutical Companies' Usage of Twitter Pre- and Post-publication of the 2014 FDA Draft Guidance for Internet/Social Media Platform Usage. [Li C](#), Osunde E, Parikh V, Toscani M, Rutgers Pharmaceutical Industry Fellowship Program

224—Assessing State-Mandated Training Requirements for Naloxone-Dispensing Pharmacists. [Roberts A](#), University of Kansas, [Smith A](#), Creighton University, [Carpenter D](#), University of North Carolina, [Look K](#), University of Wisconsin

225—Analyzing Medical and Recreational Cannabis State Laws—A Pharmacological Perspective. [Wong E](#), Franson K, University of Colorado

## Marketing and Management

226—Evaluation of Marketing Strategies for Diabetes Education Classes in a Community Pharmacy. [Achor K](#), [Smith M](#), University of Arkansas, [Martin J](#), Bryant Family Pharmacy

227—Do Direct-to-Consumer Prescription Drug TV Advertisements Influence Patients' Medication Use? [Allen A](#), Cooper B, Adane E, Ohio Northern University

228—A Process to Meet Quality Indicators and Generate Revenue Using Pharmacy-Based Services. [Mobley Bukstein W](#), [Austin S](#), Drake University

229—Evaluating Sustainability of a Travel Health Clinic in an Independent Pharmacy. [Parrish A](#), [Bourg Rebitch C](#), University of Georgia, [Thurmond C](#), Village Drug Shop

230—Identifying Pharmacy Characteristics Associated with Effective Implementation of a Medicaid Community Pharmacy Care Management Intervention. [Turner K](#), Trogdon J, Weinberger M, Shea C, Ferreri S, Patti M, Ray N, University of North Carolina, [Farley J](#), University of Minnesota, [Renfro C](#), University of Tennessee

## Maternal, Child, and Women's Health

231—Results from the SECURE Trial, a Phase III Study of the AG200-15 Investigational Transdermal Contraceptive Patch. [Chiodo III J](#), Flood L, Garner E, Agile Therapeutics, [Nelson A](#), University of California, [Kaunitz A](#), University of Florida, [Kroll R](#), University of Washington, [Simon J](#), George Washington University, [Poindexter A](#), Baylor College

232—Implementation and Evaluation of Preconception-Focused, Community Pharmacist-Provided Interventions to High-Risk Women of Childbearing Age. [Harris T](#), Frede S, Fuller L, Kroger Pharmacy, [Heaton P](#), Winkle College, University of Cincinnati

233—Opioid Outpatient Prescription Claims Among Pregnant Women, 2013. [Ailes E](#), [Lind J](#), Dawson A, Gilboa S, Center for Disease Control

234—Exploring the Role of Medication Adherence on Health-Related Quality of Life in Women Diagnosed with Polycystic Ovarian Syndrome. [Nguyen T](#), Chapman University

235—Exploring How Knowledge, Attitudes, and Practices Affect Health-Related Quality of Life in Women Diagnosed with Polycystic Ovarian Syndrome. [Nguyen T](#), Chapman University

236—Preconception Care Needs Among Female Patients of Childbearing Age from an Urban Community Pharmacy. [Reidenbach M](#), [Bade L](#), [Ellis A](#), Spartan Nash, [Bright D](#), Ferris State University, [DiPietro Mager N](#), Ohio Northern University

237—Pharmacists' Perspectives on Counseling Adolescents and Young Adults on Sexually Transmitted Infection Prevention and Treatment. [Rubin M](#), University of Pittsburgh, [Abraham O](#), [Feathers A](#), University of Pittsburgh

238—Evaluation of Nonadherent Palivizumab in an Inpatient Setting. [Salah E](#), Rutgers University, [McDonald D](#), [Robinson C](#), Atlantic Health System

239—Findings of Key Differences Between Prescription and Nonprescription Prenatal Vitamins That Might Influence Product Choice. [Saldanha L](#), [Brown L](#), [Dwyer J](#), National Institute of Health

240—Methylergonovine Versus Prostaglandins for Postpartum Hemorrhage: A Systematic Review and Meta-Analysis. [Slowiczek L](#), [Hein D](#), [Lozicki A](#), [Risoldi](#) Cochrane Z, [Gregory P](#), Creighton University

241—Trends in the Prescribing of Risky Medications During Pregnancy or Puerperium in Ambulatory Care Settings. [Weatherless R](#), [Maneno M](#), [Alem G](#), [Daftary M](#), [Wingate L](#), [Ettienne E](#), Howard University

## Medication Reconciliation

242—Creating a Pharmacy-Led Medication Reconciliation Service in an Emergency Department Setting. [Boren H](#), [Bennie B](#), [Willett H](#), [Gross B](#), Lipscomb University

243—Impact of Student Pharmacists Performing a Medication Reconciliation Pilot on General Medicine Floors at a Large Academic Medical Center in Boston. [Tsang A](#), [Katz A](#), [Nguyen T](#), [Mitchell E](#), [Carr L](#), Massachusetts General Hospital

244—Multidisciplinary Approach to Improve Patient Safety Through the Medication Reconciliation Process. [Sourial M](#), Palm Beach Atlantic University

245—Primary Care Medication Reconciliation Workflow Analysis: Opportunities for Community Pharmacist Collaboration. [Stekowych K](#), [Smith M](#), University of Connecticut

## Medication Therapy Management

246—Impact of Short-Term Carbapenem Restriction on the Incidence of Multidrug-resistant Gram-Negative Bacilli in the Intensive Care Unit. [Abdallah M](#), [Mady A](#), [Alharthy A](#), King Saud Medical City

247—Association Between Behaviors and Attitudes of Pharmacy Technicians and Medication Therapy Management (MTM) Completion Rates. [Adeoyo O](#), [Snyder M](#), [Lake L](#), Purdue University, [Lourens S](#), [Morris R](#), Indiana University

248—Impact of Pharmacist-Based Medication Therapy Management (MTM) Services on Clinical, Economic, and Humanistic Outcomes for Patients with Type 2 Diabetes. [AlRasheed H](#), [Bleidt B](#), Nova Southeastern University

249—Retrospective Analysis of Medication Therapy Problems Identified During Medication Synchronization. [Anderson R](#), [Doucette W](#), [Veach S](#), [Witry M](#), University of Iowa, [McDonough R](#), Towncrest Pharmacy

250—The Iowa New Practice Model: Expansion of an Initiative to Enable Pharmacists to Provide More Patient Care Services. [Andreski M](#), Drake University, [Meyers M](#), [Gainer K](#), [Pudlo A](#), Iowa Pharmacy Association

251—Adoption of a Technician-Driven Medication Therapy Management Program in Community Pharmacies. [Burnside T](#), [Scott N](#), [Smith M](#), University of Arkansas

252—Medication Use Evaluation: Concurrent Use of PDE5 Inhibitors and Nitrates. [Campf K](#), [Chmil B](#), [Farucci A](#), [Shah V](#), Wilkes University

253—Comparative Analysis of Prescription Abandonment Rates Between Patients Enrolled in Medication Therapy Management (MTM) Services vs. Patients Who Are Not Enrolled in MTM Services. [Case A](#), [Rebitch C](#), [Stone R](#), University of Georgia, [Grubbs K](#), [Chapman L](#), [Payette C](#), Kroger

254—The Accurate Medication List: A Collaboration Between the Schools of Dentistry and Pharmacy. [Clinard V](#), [Tran J](#), [Stebbins M](#), [Chou A](#), University of California

255—Implementation of a Quality Assurance Process to Evaluate Student-Conducted Comprehensive Medication Reviews. [Felton M](#), [Goessling M](#), Creighton University

256—Implementing a Student Pharmacist-Run Medication Therapy Management Program in a Community Pharmacy. [Hintze T](#), [Wittrock K](#), [McKay K](#), Idaho State University

257—Student Pharmacist-Provided Medication Therapy Management: Factors Associated with Medication and Health-Related Problems. [Imarhia E](#), [Barner J](#), [Hill M](#), [Rush S](#), [Akwarri M](#), [Carmouche P](#), [Jackson V](#), [Brown G](#), University of Texas

## APhA Contributed Papers Program

258—Perceived Information Needs of Community Pharmacist and Support Staff While Completing Medication Therapy Management (MTM). [Knapp K](#), Osborne J, Russ A, Adeoye O, Snyder M, Jaynes H, Purdue University, Doucette W, University of Iowa, Gernant S, University of Connecticut, Phansalkar S, Wolters Kluwer

259—Evaluation of Health Literacy and a Pillbox Fill Test in Heart, Liver, and Lung Transplant Patients in a Veteran Population. [Kuecker C](#), Dederling J, William S Middleton Memorial Veterans Hospital, Margolis A, University of Wisconsin

260—Medication Management in Minnesota Schools: The Need for School Nurse-Pharmacist Partnerships. [Little M](#), Seifert R, University of Minnesota

261—Identifying Drug-Related Problems Through Patient Home Visits. [Frazier K](#), McKeirnan K, Washington State University

262—Incorporation of a 1-Day Medication Therapy Management Certificate Training Program into a Longitudinal Elective Course. [Melody K](#), Philadelphia University, Harris E, Philadelphia University, Grover A, Temple University

263—Developing a Validated Tool for Identifying Patients Who Qualify for Medication Therapy Management Services. [Mobley-Bukstein W](#), Patel S, Drake University

264—Medication Therapy Management: Does Doing More Impact our Patients' Satisfaction? [Morgan A](#), Jeffres M, University of Colorado, Bradley N, King Soopers

265—Pharmacy Student Engagement to Improve Adherence and Star Ratings in Community Pharmacy. [Never J](#), Wedig J, Frede S, Johnson K, Puening E, Kroger Pharmacy, Heaton P, University of Cincinnati

266—Defining the Essential Components of Practice Management for Comprehensive Medication Management. [Pestka D](#), Frail C, Sorge L, Funk K, Sorensen T, University of Minnesota, Roth McClurg M, University of North Carolina

267—Pharmacist-Reported Barriers and Their Association to Completion of Comprehensive Medication Reviews. [Pezzino N](#), Longyshore D, Palko K, Wilkes University

268—Comparison of Adult Drug Dosing Pharmacy Protocols for Frequently Monitored Medications in US Hospitals. [Adane E](#), Platt K, Schroeder D, Ohio Northern University

269—Increasing Comprehensive Medication Management (CMM) Appointments through an Internal Referral System. [Punjabi A](#), University of Minnesota

270—Pharmacist Interventions During a Community Pharmacy MTM Encounter: Identifying Opportunities for Improvement of Care and Outcomes. [Rivera J](#), Mattison M, Capoccia K, Scherbakova N, Western New England University, Vala C, Walgreens Pharmacy

271—Describing the Medical Information Gap Faced by Community Pharmacists during MTM Interventions. [Roberts M](#), Schadler A, Divine H, University of Kentucky, Tracy A, Roberts P, Kroger Pharmacy

272—Factors That Influence the Intent of Pharmacists in the Provision of Medication Therapy Management Services. [Simon A](#), Puffer C, Pinto S, Khuder S, University of Toledo

273—Assessment of Clinical Activities Workflow of Arkansas Community Pharmacy Enhanced Services Network. [Smith M](#), Stafford R, University of Arkansas, Neumann B, Collier Drug Store, Clayton D, Arkansas Blue Cross and Blue Shield, Moore L, Harps Food Stores, Earley A, Harding University

274—Community Chain Pharmacists' Barriers to Providing Medication Therapy Management and Awareness of Pharmacy Quality Alliance Measures. [Fleming M](#), Pourarsalan H, Chao J, Thornton J, University of Houston

275—Impact and Feasibility of Implementing a Systematic Approach for Medication Therapy Management in the Community Pharmacy Setting: Pilot Study Expansion. [Van Boskerck S](#), Barner J, Pope N, Comfort M, Kernodle A, University of Texas, Tillema Murray M, H-E-B Pharmacy

276—Cost Savings and Interventions Made After Pharmacist Comprehensive Medication Review for an Employee Group. [Vaggett A](#), Schreiber E, Hunter N, UnityPoint Health

277—Efficiency of MTM Eligibility Criteria Under ACA and MMA Across Racial and Ethnic Groups in Identifying Medication Utilization Issues Based on Star Ratings. [Wang J](#), [Qiao Y](#), Spivey C, Cushman W, Chisholm-Burns M, University of Tennessee, Shih Y, Wan J, Dagogo-Jack S, University of Texas, Kuhle J, Pharmacy Quality Alliance

278—Comparison of Medication Therapy Management (MTM) Self-Efficacy and Observed Structured Clinical Exam (OSCE) Performance. [Vettergreen S](#), Martin R, Tatachar A, Elrod S, University of North Texas System

279—Noncarbapenems for the Treatment of Urinary Tract Infections Caused by Extended-Spectrum Beta Lactamase-Producing Bacteria. [White W](#), Kyle J, Deas C, Samford University, Campbell J, Tuscaloosa VA Medical Center

### Mental Health

280—Using the Theory of Planned Behavior to Understand Depression Help-Seeking Beliefs and Attitudes Among African American College Students. [Bamgbade B](#), Northeastern University, Barner J, Brown C, Ford K, Burdine K, Lawson W, University of Texas

281—Adherence Differences Between Oral Antipsychotics Versus Long-Acting Injectable Antipsychotics in a Community Pharmacy. [Burleson M](#), Curtis B, Galdo J, Samford University

282—Provider Perceptions of Pharmacists Providing Mental Health Medication-Related Support in Patient-Centered Medical Homes. [Coe A](#), Thompson A, Bostwick J, University of Michigan

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290—Analysis of In-111 Oxine or Chloride Formulations for Liquid-Phase Gastric Emptying Procedures. [Haddock J](#), Galbraith W, Oklahoma University

291—Evaluating the Feasibility of a Virtual Reality Training Simulation for Nuclear Pharmacy Radiation Safety Applications. [Weatherman K](#), Hakimian M, Takahashi G, Purdue University

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### OTC, Self-Care, and CAM

293—Patients as Partners in Healthcare: Empowering Patients to Improve Medication Compliance Through Responsible Management of Adverse Drug Events (ADEs) with Over-the-Counter (OTC) Treatments. [Chang D](#), Mao Y, Toscani M, Rutgers University, Rzendzian R, Janssen Pharmaceuticals

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303—Evaluation of Transdermal Amitriptyline Pain Gels Compounded from Pure Powder or Oral Tablets. [Armstrong S](#), Samford University

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## Patient Attitudes and Behavior

309—Patient Perspectives of Community-Based Pharmacists' Prescribing. [Cid M](#), [Rocafort T](#), [Layson-Wolf C](#), University of Maryland

310—Parents' Perceptions, Confidence, and Knowledge of Prescription Drug Abuse in Adolescents. [Elmore K](#), [Kirby T](#), Southern Illinois University

311—Qualitative Research into the Barriers for Effective Patient Self-Management of Comorbid Diabetes, Obesity, and Asthma. [Feehan M](#), University of Utah, [Feehan R](#), [Kantar Millward Brown](#), [Ranker L](#), [Independent](#), [Montuoro J](#), [Smith's Food and Drug](#), [Litchman M](#), [Allen N](#), [University of Utah](#), [McAdam Marx C](#), [Arkansas University](#)

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313—Contrasting the Public Opinion of Pharmacists Across States with Different Scopes of Practice. [Gaske M](#), [Castro D](#), [Vaitla K](#), [University of Illinois](#), [Leung A](#), [Nguyen M](#), [Ninh S](#), [University of the Pacific](#)

314—Prospective Survey and Assessment of Smoking Cessation Needs in an Adult Homeless Population in North Carolina. [Jones M](#), [Liu Y](#), [Buige A](#), [Nguyen B](#), [Liu I](#), [Rhodes L](#), [Marciniak M](#), [University of North Carolina](#)

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317—Safe Handling and Disposal of Oral Anticancer Chemotherapy - A Pilot Study. [Patel P](#), [Corcoran A](#), [Phan M](#), [Shin E](#), [Haroutunyan A](#), [Huynh T](#), [Chapman University](#)

318—What Are Patients' Attitudes and Perceptions Toward a Community Pharmacy Allergen Immunotherapy Service? [Potter L](#), [Willis R](#), [Farinha T](#), [Hamper J](#), [Albertsons Companies](#), [Ricchetti C](#), [Regis University](#)

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## Patient Care Services

321—Medication Therapy Problems and Vaccine Needs Identified During Appointment-Based Medication Synchronization Enrollment Visits. [Ariyo O](#), Virginia Commonwealth University

322—Implementation of a Community Pharmacy-Led Congestive Heart Failure Clinical Service Within a Hospital Institution. [Babb A](#), [McCants T](#), [Unonu J](#), [Maneno M](#), [Howard University](#), [Bailey J](#), [Walgreens](#)

323—Assessing Use of Pharmacy Services in an Underserved Population. [Bahrey K](#), [Casper K](#), [Ohio State University](#), [Seifert J](#), [Tandon S](#), [Charitable Pharmacy of Central Ohio](#)

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326—Evaluating Patients' Perceived Value and Experience with a Comprehensive Medication Review in an Independent Community Pharmacy. [Buck T](#), [Berenbrok L](#), [Coley K](#), [Renner H](#), [McGivney M](#), [University of Pittsburgh](#), [Firm A](#), [Asti's South Hills Pharmacy](#)

327—Exploring Health Care Setting Specific Barriers that Prevent Health Care Professionals from Counseling Patients on their Medication: A Systematic Review. [Calcamuggio J](#), [Gurich L](#), [Pinto S](#), [University of Toledo College](#)

328—Pilot Community Pharmacy Incentivized-Care Model: Impact of Pharmacist-Monitored Patient Blood Pressure Readings. [Caldas L](#), [Van Tassel B](#), [Fox L](#), [Virginia Commonwealth University](#), [Harrison A](#), [Sloane H](#), [Kroger Pharmacy](#)

329—Impact of a Pharmacist and Student Pharmacists Conducting Home Visits. [Chim C](#), [Joseph V](#), [St. John's University](#)

330—Implementation of Osteoporosis Screening Services for Women at an Outpatient Pharmacy Within a Health System. [Cisek S](#), [Djuric Kachlic M](#), [Babul N](#), [University of Illinois](#)

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333—Patient Access to Care Through Pharmacist-Provided Services for Minor Illnesses and Conditions. [Czapinski J](#), [Akers J](#), [Washington State University](#)

334—Community Pharmacist Intervention of Inhaler Technique Optimization in Patients with Poorly Controlled Asthma/COPD. [Davis H](#), [Mistry A](#), [Machado M](#), [Massachusetts College](#)

335—Pilot Study to Assess Outcomes of a 4-Week Drug Allergy Clarification Program on a General Medicine Floor. [Deas C](#), [White W](#), [Samford University](#)

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338—Evaluating the Early Implementation of Pharmacist-Provided Patient Care Services of a Statewide Pharmacy Network Within a Regional Grocery Chain Pharmacy. [Doong K](#), [University of Pittsburgh](#), [Berenbrok L](#), [Coley K](#), [McGivney M](#), [Antinopoulos B](#), [University of Pittsburgh](#), [Moore C](#), [Richardson R](#), [Giant Eagle Pharmacy](#)

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343—Pharmacy Interns' Perceptions of Knowledge and Skills Required for Patient Care Services Delivery. [Fox L](#), [Nadpara P](#), [Goode J](#), [Virginia Commonwealth University](#), [Harrison A](#), [Kroger](#)

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345—Time and Motion Study of Pharmacist Prescribing of Hormonal Contraceptives in Community Pharmacies. [Frost T](#), [Small D](#), [Doyle I](#), [Pacific University](#), [Klepser D](#), [University of Nebraska](#)

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349—Does Practice Setting Influence the Roles and Responsibilities of Health Professionals When Performing Medication Counseling? [Gurich L](#), [Calcamuggio J](#), [Pinto S](#), [University of Toledo](#)

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352—Training, Implementation, and Evaluation of SBIRT in a Community Pharmacy. [Hirt K](#), [Metzger A](#), [Kim K](#), [University of Cincinnati](#)



## APhA Contributed Papers Program

353—Impact of Implementing a Sports-Focused Supplement Section on Pharmacist-Patient Relationships and Sales in a Community Pharmacy: Phase II. [Howard M](#), [Schroeder M](#), [Powers M](#), [Lengel A](#), University of Toledo, DiDonato K, Janovick D, Azzi A, The Kroger Company

354—Evaluation and Measurement of Patient Experience in Assisted-Living Facilities in Puerto Rico Following a Natural Disaster. [Jimenez-Mangual B](#), Farmacias Caridad Melin K, Jimenez-Ramirez F, University of Puerto Rico

355—The Refill Assist Program: A Proactive Therapy Scheduling Service. [Liebrecht A](#), Ohio Northern University, Summerlin C, University of Maryland, Lengel M, Johns Hopkins Outpatient Pharmacy

356—Perception of Interpretation Services for Patients with English as a Second Language During Pharmacist-Led Chronic Disease State Management Programs. [Litwin L](#), [Ruisinger J](#), [Melton B](#), University of Kansas, Prohaska E, [Steele K](#), Balls Food Stores

357—Healthy Works: Assessment of Hypertension and Diabetes Management Services Currently Provided at Community Pharmacies in San Diego. [Liu L](#), [Han A](#), [Mnatzaganian C](#), [Kuo G](#), University of California

358—The Pharmacist Will See You Now—Point-of-Care Testing in the United States. [Meyers A](#), [Johanson E](#), [Nowling A](#), [Anderson I](#), Roseman University, [Nguyen D](#), Intermountain Health Care

359—Development of an Assessment Tool to Evaluate Pharmacy Technician Engagement and Proficiency in Clinical Services Delivery in the Community Pharmacy Setting. [Moya A](#), [Montuoro J](#), [Ogborn D](#), [Smith's Food and Drug](#), [Unni E](#), Roseman University

360—Using Rapid-Cycle Problem Solving During Initial Implementation of Patient Care Services Within Independent Community Pharmacies Participating in a Statewide Pharmacy Care Network. [Hake K](#), [Cothrel S](#), [Nesmith D](#), [Blazewick A](#), [Rudzik K](#), [Somma McGivney M](#), [Berenbrok L](#), [Carroll J](#), [Coley K](#), [Kozminski M](#), [Antinopoulos B](#), University of Pittsburgh

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362—Point-of-Care Testing—Using Pharmacists to Meet Public Health Needs. [Nowling A](#), [Johanson E](#), [Meyers A](#), [Anderson I](#), Roseman University, [Nguyen D](#), Intermountain Healthcare

363—Development and Optimization of Specialty Pharmacy Clinical Outcome Measures. [Patel K](#), [Canfield S](#), [Nathanson A](#), [Swarthout M](#), [Chim E](#), [Grant J](#), [Wascher M](#), Johns Hopkins Home Care Group

364—Utilization of Pharmacist-Performed Rapid Influenza and Group A Streptococcus Testing and Treatment in the Community Pharmacy Setting: Economic Value and Patient Satisfaction. [Phung E](#), [Mirzaian E](#), University of Southern California, [Arouchanova D](#), CliniCare Pharmacy

365—Development of a Medication Synchronization Common Language Document for Community Pharmacies. [Renfro C](#), University of Tennessee, [Pattie M](#), [Ferrerri S](#), University of North Carolina, [Ballou J](#), University of Mississippi

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367—Ketogenic Weight Loss Clinic in a Rural Ambulatory Care Setting. [Roth C](#), [Bertsch M](#), [Hatchard J](#), [Pavero C](#), Sun Life Family Health Center, [Slack M](#), University of Arizona

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372—Attitudes Toward Student Pharmacist-Delivered Wellness Services for University Employees. [Spyrka K](#), [Barot C](#), [Blum L](#), [Fipps K](#), [Gales K](#), [Sheldon E](#), [Spyrka K](#), [Stelter N](#), [Bottenberg M](#), [Moblely-Bukstein W](#), [Drake University](#)

373—Lessons Learned and Real-World Challenges of Implementing Clinical Pharmacy Services in a Primary Care Office. [Steckowych K](#), [Smith M](#), University of Connecticut

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379—Feasibility of Incorporating a Pharmacist-Prescribed Hormonal Contraception Program into the Workflow of a Community Pharmacy. [Wittrock K](#), [Bautista B](#), [McKay K](#), [O'Connor S](#), Idaho State University

### Personalized Medicine/ Pharmacogenomics

380—The Common Methylenetetrahydrofolate Reductase Genetic Variant 1298A>C (rs1801131) May Be Associated with Response to Antidepressants. [Douglass G](#), [Kamdem L](#), Harding University, [Selby C](#), ARcare

381—How Does Inhibition of Cyclin-Dependent Kinase 7 (CDK7) Affect the Growth of Breast Cancer Cells? [Hennes C](#), [Chang-Uk L](#), [Broude E](#), University of South Carolina, [McDermott M](#), University of California

382—Renin-Angiotensin-Aldosterone System Blockade as a Modifier of Outcomes in an Alzheimer Disease Model. [Jumbo-Lucioni P](#), [Ingram III R](#), [Ramsey N](#), [Smith K](#), Samford University

383—Impact of Pharmacogenetics Education on Prescribers' Knowledge of and Willingness to Recommend Pharmacist-Provided Point-of-Care Pharmacogenetics Testing. [Malesa N](#), [Gould J](#), [Pope N](#), [Brondo J](#), [Brown C](#), University of Texas, [Leckbee G](#), [Comfort M](#), H-E-B Pharmacy

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386—First Molecular Evidence of ABCG5, a Drug Efflux Transporter in Human Urothelial Bladder Cancer Cells. [Rana D](#), [Afeli S](#), Presbyterian College

### Pharmacist Behaviors and Attitudes

387—Tuberculin Skin Test (TST) Administration and Reading in the Outpatient Supermarket Setting: Attitudes and Barriers from Pharmacists and University Faculty and Students. [Acosta J](#), [Safeway](#), [Gurney M](#), [Midwestern University](#), [Marzuki A](#), [Lesser C](#), [Hamper J](#), [Albertsons Companies](#)

388—Evaluating the Implementation Process of a Community Pharmacy-Based Hormonal Contraceptive Prescribing Service. [Akintonde O](#), [Tran D](#), [Layson-Wolf C](#), University of Maryland, [Banjo O](#), [Onuegbu R](#), Safeway Pharmacy

389—Attitudes and Perceptions of Physicians and Nurses Toward the Role of Clinical Pharmacists in Saudi Arabia. [Alsuhebany N](#), [Alfahaid L](#), King Saud Bin Abdulaziz University

390—Effectiveness of a University-Based, Pharmacy-Specific Medical Reserve Corps in Increasing Pharmacy Personnel's Knowledge of and Willingness to Respond to Public Health Emergencies. [Anderson S](#), [Brown D](#), Capital City Pharmacy Medical Reserve Corps, [Frazier R](#), Howard University Medical Reserve Corps

391—Utilization of the Interprofessional Socialization and Valuing Scale for Health Profession Students Engaged in Curricular Programs for the Underserved. [August B](#), [Gortney J](#), [Mendez J](#), Wayne State University

392—Evaluation of Pharmacists' and Pharmacy Interns' Knowledge and Comfort with Dispensing Naloxone Without a Prescription in a Community Pharmacy. [Bachmann D](#), [Groves B](#), [Worley M](#), [Li J](#), [Mehta B](#), Ohio State University

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396—Community Pharmacists' Perceptions and Barriers in Completing the Follow-Up Step of the Pharmacists' Patient Care Process. [Elliot E](#), [Hudspeth B](#), [Grise W](#), [Schadler A](#), [Divine H](#), University of Kentucky

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399—Pharmacy-Based Naloxone Dispensing: Impact of Clinical Resources on Knowledge and Comfort. [Maynard B](#), Dickerson L, Boehringer S, Pharmacist's Letter Therapeutic Research Center, [Davis T](#), Lato K, CVS Health

400—Evaluating Interest in Medical Reserve Corps Volunteerism, Modes of Service, and Time Willing to Commit at a Service-Focused College of Pharmacy. [Sefah K](#), McNulty J, Harding University

401—Assessment of Community Pharmacists' Willingness to Initiate Naloxone Dispensing. [Pflister M](#), Ricchetti C, Regis University, Willis R, Farinha T, Hamper J, Albertsons Companies

402—Beliefs and Attitudes of Pharmacists Toward Naloxone Dispensing in a Community Pharmacy Setting. [Ponce A](#), Franko T, Wilkes University

403—Implementation and Barriers to Furnishing Naloxone in California Community Pharmacies. [Rodriguez J](#), [Mirzaian E](#), [Durham M](#), University of Southern California

404—Pharmacists' Perceptions of Feasibility and Development of a Weight Management Program for Implementation in Community Pharmacies. [Rong Y](#), Rosenthal M, Ward L, University of Mississippi

405—Providing Patient Care Through Board-Authorized Protocols: Perceptions of Independent Community Pharmacists. [Stall C](#), Rippetoe Freeman P, Schadler A, Divine H, University of Kentucky, Hanna C, American Pharmacy Services Corporation

406—Identifying Targeted Continuing Educational Strategies to Help Community Pharmacists Improve Naloxone and Buprenorphine Dispensing in Community Pharmacies. [Thornton J](#), University of Houston, Dwibedi N, Zhao X, Scott V, Ponte C, Sambamoorthi U, West Virginia University, Ziedonis D, University of California

## Pharmacoeconomics and Outcomes

407—Proposed Cost-Benefit Formula for Procalcitonin Monitoring in Pneumonia Infections Within a Health System. [Dong J](#), Covington E, Galdo J, Samford University, Sholar S, Brookwood Baptist Medical Center

409—What Do US Payers Look For When Making Formulary Decisions? [Pensuwan K](#), Hwang M, St. John's University

410—Utilization of Tyrosine Kinase Inhibitors for Chronic Myelogenous Leukemia: A SEER-Medicare Analysis. [Rivera D](#), Mariotto A, Enewold L, Lam C, Warren J, National Cancer Institute, Barrett M, Information Management Services, Inc.

411—Defining Value of Clinical Interventions Made by Pharmacists and Student Pharmacists at a Charitable Pharmacy. [Schmuhl K](#), Casper K, Ohio State University, Seifert J, Fahey H, The Charitable Pharmacy of Central Ohio, Shine J, Newland B, OutcomesMTM

412—Implementation of Indication-Based Hepatitis C Virus Formulary Results in Greater Access to Care and Lower Drug Costs. [Taddei-Allen P](#), Page N, WellDyneRx

413—Do Progressive Pharmacies Serve Less Healthy Patients? [Urick B](#), University of North Carolina, Farley J, University of Minnesota

## Professional Development

414—Guidance on Continuing Professional Development (CPD) Activities for Pharmacy Profession. [Baumgartner J](#), Travlos D, Accreditation Council for Pharmacy Education (ACPE)

415—What Determines the Success of New Practitioners Entering the Pharmacy Workforce? [Janke K](#), [Bechtol R](#), University of Minnesota, Nelson M, Dy-Boarman E, Drake University

416—Cocurriculum Development at an Accelerated Doctor of Pharmacy Program. [Ford H](#), Gentry W, South College, Freeman N, Trent S, University of Tennessee Medical Center

417—Mindfulness Retreat Insights: Development of Leadership Skills in Student Pharmacists. [George D](#), Looper P, Smith M, Wilson J, University of Oklahoma

418—Characteristics Valued by Employers When Hiring a Recently Graduated Pharmacist. [Hammonds W](#), Stockton K, Galdo J, Thomason A, Samford University

419—Educational Board Games Adjunct to Traditional Lectures for Learning Infectious Diseases. [Hu S](#), [Ethredge H](#), Samuel E, Cates D, Philadelphia College

420—Evaluation of Patient Inventions in an Interprofessional Student Clinic for Underserved Populations Using a Patient Intervention Capture Survey. [Jain R](#), Gortney J, Kucemba M, Lang S, Wayne State University

421—Assessment of Professional Growth in Student Pharmacists from the Organizing and Execution of Interdisciplinary Global Medical Mission Trips as an Immersive Extracurricular Activity. [Lee R](#), Pan J, University of Washington

422—Qualitative Assessment of Student Pharmacists' Feedback of a Mentoring Program 10 Years in the Making. [Looper P](#), George D, Amaefule A, Vilimas M, Goetzinger E, Oliphant E, Zhao K, Smith M, Wilson J, University of Oklahoma

423—Continuing Professional Education Practices of Community and Hospital/Clinic Pharmacists in the Upper Midwest: Professional Specialization, Population-Driven Self-Education, or Something Else? [Marvanova M](#), North Dakota State University, [Henkel P](#), University of Eastern Finland

424—Student Kingdomality Profile May Impact the Future Role of a Pharmacist. [McGory R](#), Armayor G, Nappi R, Nova Southeastern University College of Pharmacy

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431—USPSTF Recommendations and the Community Pharmacist: What Are the Current Opportunities to Improve Population Health? [Alexander S](#), DiPietro Mager N, Ohio Northern University

432—Perceptions of Pharmacists Based in Utah About Pain Management and Opioid Dispensing. [Balough M](#), Utah Department of Health, Unni E, Roseman University

433—Pandemic Vaccine Strategic Planning at a Regional Grocery Store Chain Pharmacy. [Gessler C](#), Richardson R, DeJames J, Kovac J, Moore C, Giant Eagle Pharmacy, Hall D, Berenbrok L, [Coley K](#), University of Pittsburgh

434—Student Pharmacist-Led Wellness Screenings for Underserved Populations: Barriers, Opportunities, Lessons Learned. [Davis T](#), [Casper K](#), [Rodis J](#), Brumbaugh J, Ohio State University

435—SSRI/SNRI and Opiate/Opioid Polypharmacy Toxicity Deaths in Cowlitz County in Washington State 2010–2016. [Gallaher P](#), Kaiser Permanente, Cheng S, Benedictine University

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438—Evaluation of Adolescents' Knowledge and Perceptions of Prescription Drug Abuse. [Kirby T](#), Elmore K, [Kerr J](#), Southern Illinois University

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440—Houston Harvey Heroes—Pharmacists Provide Lingering Support for an Unprecedented Catastrophe. [Masilamani S](#), University of Houston College of Pharmacy

441—Implementing Student Pharmacist Tuberculin Skin Test Training Using Team-Based Learning. [Bertsch T](#), McKeirnan K, Panther S, Washington State University

442—Assessing Latent Tuberculosis Treatment and Identifying Barriers in a Medically Underserved Population. [Murphy C](#), Naseman K, Faiella A, Ohio State University

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445—Chemotherapy Drug Shortages and Off-Label Prescribing: Could They Go Hand in Hand? [Patterson G](#), [Strasburger S](#), Rutgers University

446—Development and Implementation of a Student Pharmacist-Led Prescription Drug Abuse Prevention and Education Program (PDAPEP) in Bronx Middle School. [Tran V](#), Duong D, Tsan J, Moore R, Ray D, Friedman M, Touro College, Cope R, The Brooklyn Hospital Center, Sorbera M, Long Island University

## Quality and Safety

447—A Brief Educational Intervention Aims to Improve Pneumococcal Vaccine Practices in a Federally Qualified Health Center (FQHC). [Alqifari S](#), University of Arizona, Rowen M, Carzoli J, Holloway D, Kennedy A, El Rio Community Health Center

## APhA Contributed Papers Program

448—Assessing the Impact of Pharmacists in Improving Quality Measures That Affect Physician Payment. [Anson J](#), Rhodes L, Marciniak M, University of North Carolina, Bentley O, Abubakar A, Rx Clinic Pharmacy

449—Hazardous Drug Policy Update in Preparation for Future Chapter USP Guideline Implementation at a Nonprofit Hospital. [Beachy A](#), [Schwartz W](#), Braxton M, Kulkarni N, Sarasota Memorial Hospital

450—Evaluation of Prescription Class I Drug Recalls and Identification of Best Practices. [Burd E](#), Pratt L, Mathew J, Rutgers University, Toscani M, Rutgers Institute for Pharmaceutical Industry Fellowship

451—Prescription Opioid Safety Education in the Emergency Department (POSE-ED). [Castracane A](#), [Winstanely E](#), West Virginia University

452—Efficacy of Urea vs. Tolvaptan in the Treatment of Hyponatremia. [Downey T](#), Fox L, University of Wyoming

453—Adverse Event Reporting Patterns of Concurrent Botanical Dietary Supplements with CYP3A4 Substrates and Noninteracting Anticancer Drugs in the FDA Adverse Event Reporting System (FAERS). [Fahim S](#), [Qian J](#), Mishuk A, Cheng N, Calderon A, Hansen R, Auburn University

455—Implementation of an Opioid Prescription Monitoring Workflow in Intermountain Healthcare Community Pharmacies. [Gonzales M](#), Compagni K, Intermountain Healthcare

456—Impact of Live Training on Medication Error Rates in a Community Pharmacy Setting. [Grant M](#), Goode J, Remines J, Nadpara P, Virginia Commonwealth University

457—Ciprofloxacin and Levofloxacin: Twitter versus Food and Drug Administration Adverse Event Reporting System. [Harpster E](#), Purdue University, Hultgren K, Center for Medication Safety Advancement

458—Impact of Just Culture on Patient Safety Culture in a Community Pharmacy Setting. [Hatcher T](#), University of Arkansas, Amatullah F, Hiland S, Jones C, Walmart

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461—Identification of Factors Contributing to Poor Blood Glucose Control in ICU Patients. [Kranau I](#), [Jacks M](#), Langreck J, Smith M, University of Iowa

462—Accuracy and Completeness of Patient Allergy Information in a Community Pharmacy. [Krinsky D](#), [Miller C](#), [Webb D](#), Northeast Ohio Medical University

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464—Assessing Long-Term Use of Proton Pump Inhibitors for Patients enrolled in a Multi-Hospital Community Health-System Sponsored Medication Assistance Program. [Lazarevski A](#), Chander M, Papageorgiou R, NorthShore University HealthSystem

465—Pharmacist-Managed Urinary Tract Antimicrobial Stewardship Program for Patients Discharged from the Emergency Department. [Lewis G](#), University of Illinois, McDowell M, Mt Sinai Hospital and Health Systems

466—Impact of Community Pharmacist Intervention on Concurrent Benzodiazepine and Opioid Prescribing Patterns. [Luchen G](#), Prohaska E, Balls Food Stores, Ruisinger J, Melton B, University of Kansas

467—Implementation of Education and Hardwired Protocol for Prevention of Hypoglycemic Events in the Inpatient Setting. [Mohan P](#), Virginia Commonwealth University, [Healy M](#), Inova Loudoun Hospital

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469—Updated Review on Antiviral Therapy for Pregnant Women with Chronic Hepatitis B Virus Infection. [Ooki A](#), Suzuki M, Pacific University

470—Estimating the Health Care Expenditure Burden of Patients with Cancer in the United States. [Park J](#), Look K, University of Wisconsin

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472—Impact of Safety Matters: Executive WalkRounds in Ambulatory and Inpatient Hospital Settings. [Sangave N](#), Ko E, Fiumara K, Desai S, Ulbricht C, Brigham and Women's Hospital, Department of Quality and Safety

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474—Hospital ADEs Due to Anticoagulants, Diabetes Agents, and Opioids: National Trend Analysis. [Sherbeny E](#), Bleidt B, Nova Southeastern University

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480—Time Is Money: Reimbursement for Pharmacist Provision of Point-of-Care Testing. [Anderson L](#), Nowling A, Meyers A, Nguyen D, Johanson E, Roseman University

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485—Impact of a Multidisciplinary School-Based Clinic on Asthma Outcomes. [Barrett C](#), Elliott J, Sossong N, Dewhirst P, Al Ghamedi N, Duquesne University, Gentile D, Pediatric Alliance, Pediatric Care, Morphew T, Morphew Consulting, LLC

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## Transitions of Care

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## Workforce and Manpower

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