

Family Medicine Research



Carolinas HealthCare System

Patient-Centered Outcomes Research

Institute—PCORI Grant



Hazel Tapp, PhD

Asthma affects 25 million people in the United States, half of whom experience at least one asthma attack each year. Poor outcomes related to asthma result in part from the difficulty of implementing new ways of care delivery such as shared decision making into clinical practice. Researchers from The Department of Family Medicine led by Dr. Hazel Tapp, have been awarded a three-year, \$2.1 million grant from the Patient-Centered Outcomes Research Institute (PCORI) to study the dissemination of shared decision making, designed to improve how caregivers interact with patients with chronic asthma to increase their understanding and management of their condition.

Despite rapid advances in medical knowledge, significant gaps remain in our ability to rapidly translate new evidence into everyday practice. Indeed, the most common dissemination technique is passive diffusion which includes journal publications, didactic presentations at conferences, and educational material distribution. This process often fails to produce timely or sustainable practice level changes. The existing network of Primary Care practices across the state of North Carolina provide an ideal venue to examine the effectiveness of new more effective methods of dissemination. For this study, we will leverage a partnership between the statewide Medicaid network and the state-wide consortium of research networks to identify best practices for dissemination of an evidence-based shared decision making toolkit for asthma management. The asthma toolkit development was funded by the Agency for Healthcare Research and Quality (AHRQ) and tested across a regional network of Pediatric, Family Medicine, and Internal Medicine ambulatory practices in Mecklenburg County North Carolina. The initial results have showed marked improvement in patient outcomes (improved medication adherence and decreased asthma exacerbations) with increased patient involvement in the creation of the care plan.

During this study, key principles of community based participatory research were used engaging providers and patients to develop a facilitator-led participatory approach to dissemination that provided an ideal framework for rapid dissemination of the toolkit across 6 practices. This study will test this novel method for dissemination on a larger scale by randomizing 30 practices to one of three arms: (1) Control with No dissemination; (2) Traditional Dissemination with one didactic session and distribution of educational material; and (3) Facilitator-Led Participant Owned (FLOW) participatory approach to dissemination. The primary outcome measures will be: reduction in asthma exacerbations and patients' perceptions of involvement in their asthma care decisions. Secondary outcome measures will include: beta agonist overuse, controller medication use, and reported practice level use of the SDM toolkit. This study will provide crucial data to support a novel method for dissemination of an evidence-based toolkit into primary care practices.

The mission of the Department of Family Medicine's Division of Research is to *pursue applied research that expands access to care, improves patient oriented outcomes, and ultimately drives change in the broader healthcare system.*

Our research portfolio is divided into four areas:

- Clinical Trials
- Community Research and Engagement
- Implementation Science;
- Population Health and Informatics.

This newsletter provides up to date information on the diverse and exciting research activities within the Department of Family Medicine .

If you are interested in learning more about a specific study or becoming involved, please contact our office for more information at [704-304-7100](tel:704-304-7100).

Announcements

- Carolinas Healthcare System recently named **Dr. Michael Dulin** the Chief Clinical Officer for Analytics and Outcomes Research within the Dickson Advanced Analytics Group (DA²). In this new position, Dr.



Dulin will provide clinical leadership to DA² and will work directly with Allen Naidoo, PhD, to jointly lead the System's analytics function.

- He also received the 2013 Pinnacle Award
- The Asthma Comparative Effectiveness (ACE) study team launched their new website: asthma.carolinashealthcare.org. The site provides an online asthma action plan generator, a shared decision making toolkit and links to helpful asthma resources.

Active Research Studies & Community Projects

Clinical Trials	
AstraZeneca Dementia	Pilot study to assess the memory/cognitive complaint of patients using a telephone interview administration of scales
TECOS	Placebo controlled trial to evaluate cardiovascular outcomes after treatment with Sitagliptin"Januvia" with Type 2 Diabetes patients
ACCORDION	Observational study to evaluate those with cardiovascular risk who have diabetes & participated in the Accord trial
SPRINT	Evaluate the effects of intensive blood pressure lowering of systolic blood pressure on preventing cardiovascular disease
Population Health and Informatics	
Adjusted Clinical Groups (ACG) for Social Determinants	Research that applies the ACG risk groups to patient populations from the Social Determinants grant to identify and compare their risk profiles
PCORI Asthma SDM	State-wide Dissemination study of an asthma shared decision making intervention
Newborn Adiposity Project	Collaborative research to assess the relationship between newborn adiposity and childhood weight and health
ArcGIS Server Implementation	Implementation and application of Geographic Information Systems software to leverage mapping and geographic analytics for reporting and population health across CHS
Community-based Research and Engagement	
Social Determinants of Health	Improve health outcomes of the Hispanic immigrant populations utilizing community-based participatory research framework
CHOICES/OPCIONES	Sub-site, testing of preventive health education materials in primary care setting
Heart of a Champion	A multidisciplinary project that provides pre-participation screening exams to high school athletes, monitors for the prevalence of conditions that place athletes at risk for sudden cardiac death and assesses the best approach to screening athletes.
Implementation Science	
Virtual PCMH	Pilot study to implement virtual/telehealth for mental health
Implementing Personal Health Records to Promote Evidence-Based Cancer Screening	Collaboration with Virginia Commonwealth University to evaluate an interactive patient health record for promoting cancer screening

EXSCEL

Our upcoming clinical research trial is called **Exenatide Study of Cardiovascular Event Lowering (EXSCEL)**. Exenatide is a medication that has been approved by the United States Food and Drug Administration (FDA) under the trade name BYETTA to be given twice a day injectable as treatment for type 2 diabetes mellitus. Exenatide once weekly injection (EQW) is a new formulation of Exenatide that is administered once weekly rather than twice daily. This once-weekly formulation is now also FDA-approved, trade name BYDUREON®.

The purpose of this research study is to test the safety and effectiveness of the study drug, Exenatide, once weekly. Additionally, to compare the likelihood of having a cardiovascular event while on typical treatment for type 2 diabetes mellitus that does not include Exenatide with the likelihood of having a cardiovascular event while on typical treatment for type 2 diabetes mellitus that includes Exenatide. For the EXSCEL trial, we expect to follow up for all qualified subjects for at least 4 to 7 years. Stay tuned as we will soon open this study for patient referral and recruitment.

Cerner Asthma Action Plan Tool

The Cerner-based Asthma Action Plan Tool (eAAP) went live on August 1, 2013. This tool was designed to provide decision support around asthma treatment based on the most recent evidence-based management guidelines (2007 National Asthma Education and Prevention Program, NIH). It provides: (1) Rapid determination of peak flow expectations, (2) Assessment of asthma severity or control, (3) The ability to satisfy asthma appropriate care expectation, (4) Provision of guideline-based decision support, (5) Electronic prescribing, (6) Generation of an individual asthma action plan patient handout to support self-management.

For additional information, view the web-based training video:

http://peopleconnect.carolinas.org/wbt/is_eLearning/RepositoryofClasses/Ambulatory/AsthmaActionPlanTool/AsthmaActionPlanTool.htm