



Highlights

2017



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Research Finds Unexpected Results on Medicaid Expansion and Reduction of Disparity in Access

The research team from the MedStar-Georgetown Surgical Outcomes Research Center (MG-SORC) recently published their findings on the mixed effects of pre-ACA Medicaid expansion on access to surgical cancer care at high-quality hospitals.

Published in *Journal of the American College of Surgeons*, "Medicaid Expansion and Disparity Reduction in Surgical Cancer Care at High-Quality Hospitals" was based data from the 2001 New York State Medicaid expansion, considered a precursor to the Affordable Care Act.

David Xiao, a health justice scholar at Georgetown University School of Medicine, is the first author on the study. Xiao's work was sponsored by the MedStar Summer Research Program, under the mentorship of Waddah B. Al-Refaie, MD, FACS. Additional co-authors are Chaoyi Zheng, MS; Manila Jindal, BS; Lynt B. Johnson, MD, MBA, FACS; Thomas DeLeire, PhD; and Nawar Shara, PhD. This research was also presented at the 12th Annual Academic Surgical Congress and nominated for "Outstanding Medical Student Award."

The research identified 67,685 non-elderly adults from the New York State Inpatient Database, who underwent specific cancer surgeries. High-quality hospitals were defined

0.87 percent points per quarter in access to high-volume hospitals and by 0.48 percent points per quarter in access to low-mortality hospitals following Medicaid expansion.

These findings show that the Medicaid expansion reduced the disparity in access to surgical cancer care at high-volume hospitals by payer. However, it was associated with the increased racial disparity in access to high-quality hospitals.

as high-volume or low-mortality hospitals. Disparity was defined in this research as the model-adjusted difference in the percentage of patients operated at high-quality hospitals by insurance type (Medicaid/uninsured vs. privately insured) or by race (African-American vs. white).

The results found that the disparity in access to high-volume hospitals by insurance type was reduced by 0.97 percent points per quarter following the expansion. Medicaid/uninsured beneficiaries had similar access to low-mortality hospitals as the privately insured, showing no significant change was detected around expansion. In contrast, racial disparity increased by

This research follows Dr. Al-Refaie's earlier findings, that New York's Medicaid expansion improved access to cancer surgery for the previously uninsured, but did not preferentially benefit ethnic and racial minorities who are typically the most vulnerable of America's poorest populations.

MG-SORC is a coalition of surgeons, other clinicians, and scientists committed to contributing to the scientific mission of Georgetown University Medical Center and MedStar Health by advancing the efficient and effective delivery of surgical care in the United States.

Journal of the American College of Surgeons, 2017. DOI: 10.1016/j.jamcollsurg.2017.09.012



Research Investigates Differences in Reporting Patient Safety Events

Angela D. Thomas, DrPH, MPH, MBA, presented at a roundtable discussion at the American Public Health Association 2017 Annual Meeting & Expo. Her research investigated potential differences in reported harmful patient safety events among vulnerable populations in a large healthcare system. Dr. Thomas is the Executive Director of the MedStar Health Services Research Network.

“Differences in reported harmful patient safety events in vulnerable populations” sought to identify differences reported harmful events in a Patient Safety Event Management

system and used race as the key independent variable, which was grouped as black, white or other, excluding patients who were listed as unknown or if race data was missing. Other variables included language (English, Other, Unknown), ethnicity (Hispanic, Non-Hispanic, Unknown) and insurance (Medicare, Medicaid, Commercial, Self-pay, Other). The research compared the proportions of vulnerable populations in the PSEMS cohort to the healthcare system cohort.

The research found that there were no notable differences by ethnicity or language.

There was a high rate of reported safety events in those patients who are part of Medicaid and/or Medicare. By race, the research found that there were higher proportions of whites in PSEMS than expected, with lower proportions of “Other” (non-Black) minorities.

System (PSEMS) in relation to the race, ethnicity, insurance, and language of patients included in the electronic medical record.

Previous research has shown that there are disparities in quality of care due to racial and ethnic disparities and that these differences remain after controlling for social factors such as income and education. This research sought to increase our knowledge, as disparities in health outcomes are widely documented but little is known about disparities in patient safety events.

The retrospective analysis focused on MedStar Health’s 10 hospital

All results were significant at $p < .001$. Out of the 10 hospitals, three had lower proportions of Black patients in PSEMS than expected, and one hospital had a higher proportion of Black patients in PSEMS.

The research concluded that while white patients typically had higher event reporting, race differences emerge by location. Further research will need to be done to determine if there may be an actual disparity in harmful events for some Black, low income, and elderly patients. In addition, there may also be an underreporting of harmful events for minority patients in some settings.



Angela D. Thomas, DrPH, MPH, MBA

Researchers Investigate the Effects of Exenatide in Patients with Type-1 Diabetes

Published research from MedStar Health investigators has found the potential for exenatide to possibly reduce the risk of heart attack and stroke in patients with type-1 diabetes in a small study. Exenatide is a glucagon-like peptide 1 analogue (GLP-1), a class of drugs that has been shown to favorably affect the risk for heart disease in patients with type 2 diabetes but its role in patients with type 1 diabetes is unknown. Led by Evgenia A. Gourgari, MD, the research team included Mihriye Mete, PhD; Maureen L. Sampson; Alan T. Remaley, MD, PhD; and Kristina I. Rother, MD, MHSc.

The research published in *Diabetes Care*, "Exenatide Improves HDL Particle Counts and Size Distribution in Patients With Long-standing Type 1 Diabetes", was an ancillary study of a previously published clinical trial. In the initial study, over six months, participants were randomized to receive medication (exenatide) to treat their type-1 diabetes in either



alone or in tandem with other medications (daclizumab). Participants also received nutritional counseling.

The 14 study participants were 50 percent female vs male, with an average age of 37, living with type-1 diabetes for more than 20 years. A total of 11 of 14 patients were on statin treatment. People

who have naturally higher levels of HDL cholesterol are at lower risk of heart attacks and stroke.

They noted that while some of the decreased risks could have been associated with weight loss, other studies have shown that even a single dose of exenatide can improve postprandial lipids in patients with type 2 diabetes, regardless of weight loss.

"Our study shows that exenatide treatment increased total fasting non-HDL cholesterol, fasting large HDL particles (HDLp), and postprandial large and medium HDLp. This finding is important given that large, lipid-enriched HDLp are associated with a decreased cardiovascular disease risk compared with small HDLp," the authors found.

"Our preliminary results suggest that exenatide might improve cardiovascular outcomes in patients with type 1 diabetes by improving large HDLp," the authors concluded. Future studies can seek to validate these results in a larger group and further examine the biological effects of exenatide on HDL function.

Diabetes Care, 2017. DOI: 10.2337/dc16-2602

Comparison Study for Elbow Repair Materials Published by MedStar Health Researchers

A MedStar Health study comparing the load-to-failure and stiffness associated with different surgical techniques in the repair of elbow fractures was published in *The Journal of Hand Surgery*. In "Fixation of Regan-Morrey Type II Coronoid Fractures: A Comparison of Screws and Suture Lasso Technique for Resistance to Displacement," the authors compared the results between screw fixation and suture lasso fixation in cases of coronoid fractures.

The research team at the Curtis National Hand Center at MedStar Union Memorial Hospital included Nicholas P. Iannuzzi, MD; Adrian G. Paez, BS; Brent G. Parks, MSc; and Michael S. Murphy, MD.

Coronoid fractures most commonly occur in tandem with complex elbow dislocations. This type of fracture accounts for less than 2 percent of all elbow fractures but has been identified in 10 percent of elbow

dislocations. In the Regan and Morrey classification system, based on the height of the coronoid fragment, Type II fractures are 50 percent or less.

The study team performed a biomechanical study using 10 pairs of cadaveric elbows, which were randomized to receive either a screw fixation or suture lasso fixation. The load to failure and stiffness were then measured using a material testing machine.

The authors found that screw fixation provided greater strength and stiffness than suture lasso fixation. They concluded that when feasible, screw fixation may provide greater resistance to displacement of the coronoid compared with the suture lasso technique.

While this research was conducted with a small sample, it is clinically relevant, as other researchers have reported a higher rate of failure after screw fixation.

For type II coronoid fractures, screw fixation may provide a stronger fixation construct for fractures of adequate size to support a screw.

Future research may consider the use of multiple, smaller screws for fixation and the role that soft tissue structures, particularly the anterior capsule, have in imparting elbow stability after terrible triad injuries of the elbow. The authors wrote that "where feasible, the improved biomechanical stability imparted by screw fixation supports the use of screws in Regan-Morrey type II coronoid fractures in the setting of unstable fracture dislocations about the elbow."

The Journal of Hand Surgery, 2017.
DOI: 10.1016/j.jhsa.2016.11.003



MedStar Health Researchers Making an Impact on Patient Outcomes

MedStar Health Research Institute chose to plan for the future of research at MedStar Health by launching the “New Investigator Associate Giving Grant Fund” from donations to the Power to Heal campaign by MedStar associates. The New Investigator Grants support scientific research by new MedStar Health investigators, advancing health for patients in the communities we serve and providing seed money that may lead to external grant funding.

The following three studies—all funded through the 2015 Power to Heal campaign—highlight the impact we are making together.

Providing Hope to Patients

Alexander Kroemer, MD, PhD’s research, “The Role of Nuclear Oligomerization Binding Domain-2 in Driving Th17-Mediated Allograft Rejection in Intestinal Transplant Recipients,” is built on previous preliminary work to test the hypothesis that Th17-Mediated immune responses play a major role in the potential for intestinal transplant rejection.



Alexander Kroemer, MD, PhD

“The study we undertook has laid the foundation for unleashing the potential of life-altering intestinal transplant, by understanding risk factors associated with immunologic graft loss at the intersection of the innate and adaptive immune systems and providing insight into future targeted immunotherapies,” said Dr. Kroemer. “This will be a substantial contribution to public health in light of the rising numbers of people with intestinal failure.”

The data from this project played a large role in securing an R01 grant from the National Institutes of Health-National Institute of Allergy and Infectious Diseases (NIH-NIAID). This is the first-ever NIH R01 grant for the MedStar Georgetown Transplant Institute, and the project will run from 2017 to 2022.

Communicating Care



Kathryn Kellogg, MD, MPH

In her study, “Development of a Novel Tool for Interruption Management”, Kathryn Kellogg, MD, MPH, wanted to investigate options to mitigate potential errors in patient care due to interruptions in the clinical setting, specifically in the MedStar Washington Hospital Center Emergency Department.

Few studies have previously examined causes for interruptions in clinical situations or explored ways to manage the negative effects of these interruptions. In order to identify a more appropriate communication tool, this research sought to understand the types of interruptions that occur and create a novel approach for managing interruptions. A web-based tool for communication between emergency nurses and physicians was developed with the input of multiple emergency physicians and tested through simulation studies.

“When delivering care in a complex environment such as the emergency department, communication is essential for patient safety,” said Dr. Kellogg.

“We will be able to strengthen the collaboration between colleagues, ultimately improving patient care with further development and testing of this tool.”

Connecting Clinicians

Shimae Fitzgibbons, MD, MeD’s study, “Understanding Team Familiarity in the Operating Room”, sought to examine the potential impact of operating room team member familiarity with the process and patient safety outcomes. The dataset was limited to six MedStar Hospitals, all consistently using the surgical EMR, and to knee arthroplasty (knee replacement), in order to limit certain confounding. Three approaches to familiarity were used.



Shimae Fitzgibbons, MD, MeD

The research identified that overall core team familiarity is associated with reduced surgery time and patient length of stay in the cases studied. The greater the familiarity amongst operating room team members, the shorter the procedure lasts and the briefer the patient’s hospital stay. Follow-up analyses revealed that these effects were a function of cross-role familiarity rather than within-role familiarity.

Results also suggested that familiarity between the surgeon and the circulator(s) was paramount.

“These results can provide theoretical insight into the mechanisms that underlie the benefits of team familiarity and, in turn, help shape future processes to facilitate those benefits,” said Dr. Fitzgibbons.

Collaborative Research Investigates Use of Wearable Sensors in Contact Sports

A collaborative investigation was undertaken to test the accuracy of wearable sensors during contact sports. "Video Analysis Verification of Head Impact Events Measured by Wearable Sensors" was published in *The American Journal of Sports Medicine*. The research team included Nelson Cortes, PhD; Andrew E. Lincoln, ScD; Gregory D. Myer, PhD, ATC; Lisa Hepburn, PhD, MPH; Michael Higgins, PhD, PT, ATC; Margot Putukian, MD; and Shane V. Caswell, PhD, ATC. The research was completed in collaboration with the Sports Medicine Assessment, Research & Testing (SMART) Laboratory at George Mason University in Manassas, VA.

The goal of this study was to describe the frequency and magnitude of head

The study included a cohort of 30 boys and 35 girls from high school lacrosse teams. Each participant was assigned a unique sensor that was labeled to correspond to his or her jersey number. The girls each had an X-Patch sensor affixed behind the right ear and the boys had a GForce Tracker sensor secured to the inside of the helmet's shell at the crown. To corroborate the data from the sensors, a professional videographer was stationed at a high vantage point over the midfield line. The sensors and video were calibrated before each game to ensure precise date and time information across the multiple instruments.

However, the remaining 35 percent of boys' and 68 percent of girls' head impacts were not verified by video or were not part of the game action,

The study found that "65 percent and 32 percent of all head impacts recorded during boys' and girls' lacrosse games were verified as true game-related head impacts by video analysis, respectively."

impact events recorded by wearable sensors that were confirmed by video analysis. As wearable sensors are increasingly used to quantify the frequency and magnitude of head impact events in contact sports and with the growing concerns about the potential for long-term effects of multiple head injuries, data are needed to verify the quality and quantity of head impact events recorded by wearable sensors.

suggesting a high rate of false-positive impacts and an overestimation of verified head impact events by the wearable sensors.

"Our findings indicate that the wearable sensors are highly sensitive measurement devices that can record and classify head impacts that may not actually be head impacts," the authors said in the article's conclusions. The rate of



Image courtesy of Lacrosse Magazine

false-positives indicated that the sensors were identifying other bodily impacts (e.g., shoulders, torso, arms).

"These findings have practical implications for how sensors should be deployed and the existing data interpreted. Without meticulous procedures during usage, it is plausible that impacts measured during game days can be erroneously elevated because of the excessive false-positive rate," the authors concluded.

The American Journal of Sports Medicine, 2017. DOI: 10.1177/0363546517706703

Research Published on Outcomes of HIV-Positive Pregnancies



Rachel K. Scott, MD, MPH

Researchers from MedStar Health Research Institute, MedStar Washington Hospital Center and National Institute of Health have recently sought to identify outcomes for HIV-positive women during pregnancy.

“Delivery After 40 Weeks of Gestation in Pregnant Women With Well-Controlled Human Immunodeficiency Virus” was published in *Obstetrics & Gynecology*. This research was led by Rachel K. Scott, MD, MPH, scientific director of women’s health research at MedStar Health Research Institute and obstetrician/gynecologist and director of the Women’s Center for Positive Living at MedStar Washington Hospital Center. The research team included Nahida Chakhtoura, MD; Margaret M. Burke, MD; Rachel A. Cohen, MS; and Regis Kreitchmann, MD.

This secondary analysis identified pregnant women with HIV-1, comparing delivery outcomes at 38 to 40 weeks estimated gestational age with outcomes of women who delivered at 40 to 42 weeks estimated gestational age. This research was conducted to fill a gap in formal guidelines for timing of delivery in well-controlled HIV-positive pregnancies. The researchers found that in pregnant women with

well-controlled HIV-1, “the risk of mother-to-child transmission did not differ significantly by estimated gestational age at delivery.”

Dr. Scott also presented two related studies at the International AIDS Society scientific meeting. These abstracts are the result of a DC-Center for AIDS research pilot award to investigate maternal and neonatal pregnancy outcomes of pregnancies complicated by HIV. HIV in these studies, “Neonatal Outcomes of Pregnancies Complicated by HIV: Preliminary Results of a Retrospective Matched Cohort Study from 2004 to 2014” and “Pregnancy Outcomes of Women Living with HIV: Preliminary Results of a Retrospective Matched Cohort Study from 2004 to 2014,” Dr. Scott shared preliminary results from the soon-to-be-completed retrospective matched cohort study of pregnancy outcomes at MedStar Washington Hospital Center. This cohort of HIV-positive pregnancies is the largest single-site matched cohort in the United States. The preliminary findings have demonstrated increased maternal psychosocial and behavioral morbidity and increased proportions of complications for HIV-exposed neonates.

The data suggest that pregnant women with viral loads of 1,000 copies/mL or less can be safely delivered per current obstetric indications.

Obstetrics & Gynecology, 2017. DOI: 10.1097/AOG.0000000000002186

MedStar Health Orthopaedic Investigators Evaluate Subtle Ankle Injury

Researchers at MedStar Union Memorial Hospital have published the results of a laboratory investigation that used a novel diagnostic tool for diagnosing subtle injury to the ankle in cases of an ankle sprain.

“Arthroscopic Correlates of Subtle Syndesmotic Injury” was published recently in *Foot & Ankle International*, the research publication of the American Orthopaedic Foot and Ankle Society. The investigators included Gregory Guyton, MD; resident Kenneth DeFontes, MD; fellow Cameron Barr, MD; laboratory director Brent Parks, MSc; and medical editor and writer, Lyn Camire, MA, ELS.

The purpose of this research was to determine whether the extent of the ankle syndesmosis correlates with an injury to soft tissues in the ankle. Previous studies had assumed that a certain amount of opening in the syndesmosis indicated injury to these tissues, but no study had established that criterion using objective measures. Therefore, surgical decisions were potentially being made based on an unproven assumption.

The study determined that passage of a 3-mm probe into the syndesmosis opening was the most likely criterion upon which further clinical investigation of ligament injury should be based.

The syndesmosis is a slightly movable fibrous joint that joins the tibia and fibula with connective tissue. The opening of the syndesmosis beyond the normal range indicates disruption



of one or more of the surrounding ligaments. Extensive syndesmotic disruption is readily diagnosed using radiography, but the subtle injury is difficult to discern clinically.

injury. Future studies are needed to establish clinical data correlating specific anatomic lesions identified by spherical probe passage.

The Department of Orthopaedics at MedStar Union Memorial Hospital is a growing group of fellowship-trained physicians who specialize in diagnosis and treatment of musculoskeletal pain or injury. These specialists are leading research that will contribute to improvements in patient care now and in the future.

This size of the opening is larger than that previously considered to represent subtle ligament injury. This study represents one step forward in the process of treating syndesmosis

Foot & Ankle International, 2017. DOI:10.1177/1071100716688198

MedStar Health Collaborates with Indivumed to Advance Precision Oncology Research

MedStar Health is pleased to announce a collaboration with Indivumed, GmbH, a Germany-based oncology research company, to individualize anti-cancer medical therapies through state-of-the-art biospecimen collection, preservation, and analysis.

In collaboration with the MedStar Health Research Institute, MedStar's increasing biospecimen collection started nearly a decade ago at Georgetown University's Lombardi Comprehensive Cancer Center.

This international partnership will allow MedStar researchers to access highest quality biospecimens and associated clinical data contributed by consenting patients. In addition, MedStar cancer researchers will have access to samples contributed by more than 30,000 patients within Indivumed's global cancer database operating within Europe, Asia, and the United States.

"By participating in the Indivumed global network, we'll have access to a critical mass of biological samples

and clinical data for use in unique research for our community," said Neil Weissman, MD, president of the MedStar Health Research Institute. "Indivumed is a world leader in tissue collection and preservation and will expand our ability to conduct metabolic, as well as gene-based, cancer research."

Under an initial multi-year agreement, MedStar will collect lung, breast, colorectal, pancreatic and other cancer tissues at its most active cancer programs throughout the system for research and storage according to Indivumed's unique biobanking standard. Tissue collection at Georgetown Lombardi will continue pursuant to Georgetown University's existing agreement with Indivumed.

Over the term of the agreement, the cancer biobank will encompass MedStar's most active cancer programs throughout the system to partner with Indivumed's global annotated cancer biobank of human tumor tissue samples used to develop anti-tumor drugs and personalized medicine for cancer.

MedStar's Cancer Network has recently been granted a three-year accreditation with Commendation from the Commission on Cancer of the American College of Surgeons. In addition, the Georgetown University Lombardi Cancer Center holds the distinction of being a National Cancer Institute-designated Comprehensive Cancer Center, the only cancer center in the Washington area with such distinction. Louis M. Weiner, MD, director of Georgetown Lombardi and Director of MedStar's integrated cancer network stated firmly that, "the MedStar Cancer Network and Georgetown Lombardi are committed to delivering the highest standards of care and providing access to the most current cutting-edge research for our patients suffering from this horrendous disease." Weiner continued, "the Indivumed cancer biobank has been and will continue to be a critical asset to our physicians and researchers in their quest to defeat cancer."



Evaluating Medical Education Confidence in Residents

A team of researchers from the Georgetown University School of Medicine and MedStar Health Research Institute recently evaluated the confidence of residents in terms of milestone training. "Procedural Skills of the Entrustable Professional Activities: Are Graduating U.S. Medical Students Prepared to Perform Procedures in Residency?" was published in the *Journal of Surgical Education*.

The authors were Adrienne N. Bruce, MD, Department of Student Research, Georgetown University School of Medicine; Anagha Kumar, MA, MS, Department of Biostatistics and Biomedical Informatics, MedStar Health Research Institute; and Sonya Malekzadeh, MD, Department of Otolaryngology, MedStar Georgetown and a graduate of the MedStar Teaching Scholars Program.

This research was undertaken to evaluate the efficacy of competency-based medical education. Competency-based medical education has been instituted in graduate medical education through the development of Milestones. A Milestone is a behavioral descriptor that marks



a level of performance for a given competency. These markers are used to better define requirements at key transition points in the growth of physicians throughout their education career, as defined by the Association of American Medical Colleges.

Evaluating members of the MedStar Georgetown resident class through an electronic survey, the researchers sought to identify the residents' confidence in their procedural skills training during medical school and to assess their learning experiences. The responses were compared to examine whether there was a link between respondent confidence and the presence of formal evaluation.

The results showed that most respondents identified that cardiopulmonary resuscitation,

bag/mask ventilation, and universal precautions were evaluated by and important to their medical school.

Results from biostatistical analysis established a significant effect between confidence and evaluation of universal precaution skills.

This result suggested a correlation between the formal evaluation of procedural skills and increased confidence of the learner.

Journal of Surgical Education, 2017. DOI: 10.1016/j.jsurg.2017.01.002

Resident Researchers Present Results of Year-Long Program

The first class of MedStar Surgical Resident Research Program scholars presented the findings of their research in front of their peers and mentors at MedStar Georgetown University Hospital in June.

This program was a joint venture between MedStar Health Research Institute and MedStar Health Academic Affairs, in conjunction with the MedStar-Georgetown Surgical Outcomes Research Center. A research council reviewed the

between high-risk and normal-risk Nipple Sparing Mastectomies. Following the initial analysis into two risk categories, the cohort was reviewed to identify moderate-risk patients. He was mentored by Shawna C. Willey, MD, FACS, Eleni A. Tousimis, MD, FACS, and Troy A. Pittman, MD.

Chris Devulapalli, MD, focused his research on the rates of incisional hernias through a retrospective cohort study. The study, "Incisional

Filipe Carvalho, MD, PhD,

researched the use of neoadjuvant chemotherapy to treat patients with muscle-invasive bladder cancer. Bladder cancer is the fourth most common cancer in American men. The research, "Neoadjuvant Chemotherapy in Radical Cystectomy Outcomes for Bladder Cancer", identified a 5915 patient cohort. The research identified patient-related variables to receiving neoadjuvant chemotherapy, including the location of medical treatment, social-economic class, and geographical location. While neoadjuvant chemotherapy is shown to help increase survival rates for bladder cancer patients, the research showed that nearly 70 percent of patients do not receive it as part of their care. Carvalho was mentored by Keith Kowalczyk, MD, Department of Urology, MedStar Georgetown University Hospital.

"The overall goals of this program are to provide opportunities for our residents to conduct meaningful and structured research experiences and facilitate effective collaboration between MedStar Washington Hospital Center and MedStar Georgetown University Hospital," said Waddah Al-Refaie, MD, director, MedStar-Georgetown Surgical Outcomes Research Center.

proposals for both the resident scholars and faculty mentors prior to the program launch. The residents were all on clinical rotations while completing this work, working with associates from the MedStar Health Research Institute under the guidance of their mentors. The residents worked closely with associates from the Institute Department of Biostatistics and Biomedical Informatics, who were instrumental in the data analysis for all four projects. The focus of each research project was determined and planned during the application process in early 2016.

Michael Sosin, MD, investigated the benefits of nipple-sparing mastectomy in order to fill a gap in clinical knowledge. "Expanding the Safety of Nipple Sparing Mastectomy to High-Risk Patients" was a retrospective cohort review, which identified nearly 500 cases that could be evaluated for comparison

Hernias Following Major Abdominal Cancer Operations," sought to identify predictors of incisional hernias for those patients undergoing one of four procedures. After categorizing patients based on operations, the research showed no statistical difference in repair rates for each group. Following this, the surgeries were categorized with as malignant or benign in order to further track potential risk factors. Parag Bhanot, MD of the Department of Surgery at MedStar Georgetown University Hospital was Devulapalli's mentor for this research.

Conor F. Hynes, MD, sought to fill a gap in knowledge on thoracic cancers, as there is no current literature on the T-cell populations in esophageal cancer. "Optimizing prognostics for thoracic malignancies through analysis of local immune cell contexture", utilized univariate analysis to initially classify the tissue samples, followed by a multi-variable analysis. Hynes was mentored by M. Blair Marshall, MD, Chief of Thoracic Surgery, MedStar Georgetown University Hospital.



Researcher Awarded Funding to Investigate Electronic Health Record-Related Safety

A. Zach Hettinger, MD, MS, Medical Director and Director of Cognitive Informatics at MedStar Institute for Innovation, was awarded funding for his research on health information technology (IT) and its contribution to medical errors. Members of the research team include co-investigators, Rollin (Terry) J. Fairbanks, MD, MS, associate director of the Institute, and Raj Ratwani, PhD, scientific director and senior research scientist at the MedStar Health National Center for Human Factors in Healthcare, along with Joseph Blumenthal; Danielle Mosby, MS; and Daniel Hoffman.

“Context is Critical: Understanding When and Why EHR-Related Safety” will utilize a technology package to capture user interactions with the electronic health records (EHR). This research combines human factors engineering and the analysis of recorded EHR interactions during patient care to demonstrate the context of errors and the contributions of EHR design elements to these errors. As part of MedStar Health’s commitment to innovation and safety, this research will help to develop an understanding of the context and contributing factors that lead to health IT safety hazards as the next necessary step to prevent EHR-facilitated medical errors.

This research has been funded by a grant from the Agency for Healthcare Research and Quality (AHRQ). Dr. Hettinger has previously investigated aspects of improving the use of health IT in the clinical environment through smaller grants. “This has been evolving over the last



five to seven years,” said Dr. Hettinger, “building a team that has focused on the development of a process of event reviews to understand system-based issues and contributing factors.”

This interdisciplinary research builds on previous research on algorithms used to identify medical errors and interventions to combat these errors.

What separates this research is that it is intended to specifically look at why errors occur within EHR systems at the time of the event and to create solutions through human factors engineering.

“This research was made possible by the support system that the MedStar Health Research Institute has for investigators. At another institution, it could take more than eight months to submit a grant application,” said Dr. Hettinger.

“The tightly integrated infrastructure of MedStar Health Research Institute, the MedStar Institute for Innovation, and MedStar Health supports the work of investigators to focus on the science of the research. Having MedStar Health Research Institute associates integrated into our team allows us to build close working relationships in order to take advantage of new opportunities and activate research quickly.”

The MedStar Health Research Institute grant submission team for this research included Angela Thomas, JoAnnette Perez Chacon, and Sarah Wright-Gaul. The MedStar Health Research Institute IRB team included James Foreman and Crystal Bland. Christina Stanger and Akhila Iyer provided additional support for the submission.

MedStar Health Researchers Investigate Hospital-Acquired Pneumonia



Andrew Shorr, MD, MPH

Research led by Andrew Shorr, MD, MPH, in the Department of Pulmonary and Critical Care Medicine Service at MedStar Washington Hospital Center has identified some causes of hospital-acquired infections for patients not on ventilators.

Published in *Respiratory Medicine*, the study, "Viruses are prevalent in non-ventilated hospital-acquired pneumonia", looked at hospital-acquired pneumonia arising in non-ventilated patients (NVHAP) to identify the prevalence of viruses causing NVHAP and to identify any patient characteristics that could be identified as having a viral etiology.

Nosocomial can be acquired by any patient in a hospital, whether or not they are on a ventilator. Most current research focuses on ventilated patients, as it is easier to identify an occurrence within an intensive care unit. "Traditionally, most cases of pneumonia in the hospital, whether they be community-acquired pneumonia, hospital-acquired pneumonia, or ventilator-associated pneumonia are thought to be caused by bacterial pathogens," the authors said.

This retrospective analysis identified the prevalence of a virus as the cause for NVHAP and identified patient characteristics for these infections in 174 cases.

Bacterial pathogens were found in 23.6 percent of patients and viruses were identified in 22.4 percent of patients. Few differences were found between patients for whom cultures were negative for viruses and patients with either viral or bacterial etiologies.

"Our findings are important in that they help to confirm that the etiologic agents of ventilated hospital-acquired pneumonia are generally similar to those in NVHAP," said the authors. While this research does have limitations in scope, as both testing for viral infections and cultures are not conducted for all cases of NVHAP and there are cases of false-negatives for those cultures, it suggests that further research is necessary to verify the conclusions.

Dr. Shorr is Associate Director of Pulmonary and Critical Care Medicine and Chief of the Pulmonary Clinic at MedStar Washington Hospital Center.

Respiratory Medicine, 2017. DOI: 10.1016/j.rmed.2016.11.023

Palmer Foundation Funds MedStar to Study Effects of Massage Therapy on Pain for Palliative Care Patients

MedStar Health Research Institute and MedStar Washington Hospital Center, in partnership with Healwell, are the recipients of a Palmer Foundation grant to study and compare effective dosages of massage therapy on pain and distress relief for hospitalized palliative care patients.

The primary investigator of the grant is Hunter Groninger, MD, FACP, FAAHPM. Dr. Groninger serves as MedStar Washington Hospital Center's director of Palliative Care, where he conducts patient care, teaches, and participates in research activities. The interdisciplinary Palliative Care team takes a holistic approach to care that emphasizes the physical, emotional, social and spiritual needs of patients at any stage of serious illness, and provide services simultaneously with life-prolonging treatments.

The research funded will investigate massage therapy as a cost-effective alternative or supplement to pharmacologic therapy for palliative care patients. Over one year of data collection, the study will seek to measure three strategies of massage therapy for patients. Its aim is to establish metrics for therapeutic massage dosing to reduce palliative care pain and distress, which are also cost-effective. Outcomes will be measured through a comparison of baseline surveys, interventions, and post-intervention surveys, with additional data being collected through a Patient Satisfaction Survey.

"This study builds on existing palliative care research addressing nonpharmacologic supportive care for the seriously ill," said Dr. Groninger.

As a result of increased patient and regulatory demand for integrative nonpharmacologic therapies, healthcare systems are being compelled to investigate optimal dosing of nonpharmacologic symptom-directed interventions, such as massage therapy that provide clinicians viable cost-effective options for pain/symptom distress management."

Healwell is an Arlington, Va.-based non-profit agency whose mission is to improve the quality of life for people affected by acute, chronic, and terminal illness through integrative hands-on therapies, education, and research.

Over the past 25 years, The Palmer Foundation has awarded hundreds of domestic grants to 501(c)(3) nonprofit organizations, primarily in Midwestern and Mid-Atlantic states, as well as international grants to worthwhile organizations working in countries where family members have lived. The Foundation currently focuses its grantmaking in the areas of youth empowerment, the environment, and public health.



Hunter Groninger, MD, FACP, FAAHPM

Collaborative Research Shows Connection Between Hypogonadism and Spinal Cord Injury



Shannon D. Sullivan, MD, PhD

A team of researchers from MedStar Health, the Washington VA Hospital and the University of Miami Miller School of Medicine has collaborated on evaluating the frequency and causation of hypogonadism in men with spinal cord injury.

“Prevalence and Etiology of Hypogonadism in Young Men with Chronic Spinal Cord Injury: A Cross-Sectional Analysis From Two University-Based Rehabilitation Centers” was published in *Physical Medicine and Rehabilitation*. The research authors were Shannon D. Sullivan, MD, PhD (currently at the Center for Drug Evaluation and Research, U.S. Food and Drug Administration and MedStar Washington Hospital Center); Mark S. Nash, PhD, FACSM (University of Miami Miller School of Medicine); Eshetu Tefera, MS (MedStar Health Research Institute); Emily Tinsley, MS (MedStar National Rehabilitation Hospital); Marc R. Blackman, MD (DC VA Medical Center/Georgetown University School of Medicine/George Washington University School of Medicine); and Suzanne Groah, MD (MedStar National Rehabilitation Hospital/MedStar Georgetown University Hospital).

The study participants were men, 18 to 45 years old, with chronic, motor-complete spinal cord injury

(SCI), without the presence of other conditions or use of testosterone therapy. This secondary cross-sectional analysis evaluated participants through the results of standard assays and x-rays.

“Spinal cord injury (SCI) triggers an ‘accelerated aging’ process that may include the development of hypogonadism, even among younger men with SCI; however, few studies have investigated the prevalence or etiology of hypogonadism in men with SCI,” according to this report.

In men, hypogonadism means that the body does not produce sufficient amounts of testosterone. Symptoms can include loss of body hair, fatigue, erectile dysfunction, and infertility. While hypogonadism can develop due to age, the objective of this study was to investigate the prevalence, risk factors, and cause of hypogonadism in otherwise-healthy young men with chronic, motor-complete SCI.

Identifying the prevalence and risk factors for testosterone deficiency in men with SCI is important for their long-term health, as “young men with SCI also are at increased risk for developing metabolic dysfunction after injury, which may be exacerbated” by low testosterone according to the study.

The authors found that “hypogonadism is significantly more common in young men with SCI than in similarly aged men without SCI, suggesting that SCI should be identified as a risk factor for testosterone deficiency and that routine screening for hypogonadism should be performed in the SCI population.”

Physical Medicine and Rehabilitation. DOI: 10.1016/j.pmrj.2016.11.005

Nursing Mobility Poster Recognized as Most Outstanding at Research Symposium

Kathryn Curtin, RN, BSN, and Shannon Walters, RN, BSN, from MedStar Washington Hospital Center presented "Follow the Blue Feet: Nurse Implemented Post-operative MOBILITY Program" at the 2017 MedStar Health Research Symposium. The abstract poster was awarded the most outstanding scientific abstract at the event, selected from the over 400 abstracts submitted to the Symposium.

The poster highlighted the evaluation and effectiveness of a nurse-led post-operative MOBILITY program that was implemented at the Burn Center at MedStar Washington Hospital Center. The program's goal was to increase the understanding for patients and nurses the importance of post-operative movement in the recovery process and in tandem increase patient satisfaction with mobility.

The program was implemented in a 24-bed unit, with nursing staff completing both pre- and post-surveys. The program launched with several components, including nursing education on the program and assessment tools, placing mobility reminders in each patient room, and addressing mobility education during daily huddles on the unit. In addition, blue footprint stickers were placed in the unit hallways every ten feet, in order to empower patients with visual markers and to aid in nurse evaluations of patient mobility.



According to the poster, based on data collected, the objectives were achieved and showed a clear increase with significant percent changes:

233 percent change in the documentation of patient mobility, 60 percent change in patient satisfaction, 38.5 percent change in mobility assessment and 166.7 percent in patient mobility education.

The work was completed as part of the RN Residency Program at MedStar Washington Hospital Center, advised by Hephzibah Sophie Edwin MSN, RN-BC.

Resident Presentations and Perspective at the MedStar Health Research Symposium

The 6th Annual MedStar Health Research Symposium featured for the first time in its history, research posters and oral presentation from residents and fellows across the system. The residents brought a fresh outlook on an array of topics and a peaked passion for advancing the size and scope of health care.

The call for abstracts included an opportunity for residents and fellows to present their findings before an audience of their peers and executive leaders. After careful deliberation, 10 top residents and fellows were chosen from more than 150 resident submissions. First place for the PGY-1 to 3 was Travis Thompson, MD, a 3rd-year Emergency Medicine resident at MedStar Washington Hospital Center and MedStar Georgetown University Hospital. His presented his abstract "Increasing Ultrasound Evaluation in Renal Colic."

The research was a retrospective analysis of ultrasound use in the emergency department. The goal was to increase the number of ultrasounds being used to diagnose kidney stones as a supplement for computerized tomography (CT) scans in an effort to reduce the amount of radiation exposure to patients.

"This research allows us to reduce that exposure as well as time spent and hospital expenses. Being able to advance the practice of medicine to all modalities can benefit all patients coming in," said Dr. Thompson.

The strategy for this research was suggested by Jeffrey Dubin, MD, Chair of Emergency Medicine at MedStar Washington Hospital Center, and tied to the "Choosing Wisely" campaign. "Choosing Wisely" is an American Board of Internal Medicine initiative to increase patient-provider conversations and reduce unnecessary medical tests, treatments, and procedures.

"There were a lot of different projects highlighted and it showed the variety of research that could be done in different health fields as well as how they approached it and found resolve," said Dr. Thompson of the Symposium.

"Especially when people present themselves younger and younger with things like cancer or multiple kidney stones, using CT scans can really add on to the amount of radiation exposure using received over time."



Researchers Examine Effect of Lorcaserin on Pre-existing Valvulopathy

As a supplement to a reduced-calorie diet and increased physical activity, lorcaserin is FDA-approved for chronic weight management in the United States. Lorcaserin is a serotonin receptor subtype 5-hydroxytryptamine 2C (5-HT_{2C}), which regulates satiety and food intake. However, diet pills had a history of causing valvular heart disease. When lorcaserin was approved, there was an extensive analysis to show it was safe and did not cause heart disease.

In this study, led by Neil Weissman, MD, the goal of this research was to evaluate the effects of lorcaserin in patients with pre-existing valvulopathy. In other words, if a patient was prescribed this drug and already had heart disease, would it be safe for them to take this drug and will it cause the valvular heart disease to get worse? Published in *Obesity*, the research was a pooled analysis of data from three Phase III randomized, placebo-controlled, double-blind, multicenter studies.

Valvulopathy is a broad term used for diseases and disorders that affect the heart valves. Valvular abnormalities, including aortic or mitral regurgitation, can be induced by certain drugs. Aortic or mitral regurgitation is leakage of blood backward through the valves of the heart. This leakage can lead to thickening of the heart wall or to the buildup of blood volume and pressure within the heart, resulting in a less effective pump and the possibility of heart failure.

Obesity, 2017. DOI: 10.1002/oby.21695



Neil Weissman, MD

Analyses of the serial echocardiograms obtained at baseline and every six months throughout the study (up to two years) showed that no association was detected between weight loss and valvular regurgitation.

The echocardiograms did show that numerically greater proportions of patients taking lorcaserin compared to the placebo had decreases in aortic (33.0 percent vs. 28.3 percent) or mitral (41.3 percent vs. 36.7 percent) regurgitation. The researchers concluded that lorcaserin does not adversely affect valvular disease in patients with pre-existing valvulopathy.

Dr. Weissman is president of MedStar Health Research Institute, professor of medicine at Georgetown University School of Medicine and co-director of the Cardiovascular Core Laboratories. His research interests include the use of ultrasound in multicenter trials, particularly as they relate to valvular heart disease.

MedStar Researchers Study Pregnancy Outcomes for Women with Type 1 Diabetes



Tetsuya Kawakita, MD, and Elizabeth Coviello, DO, from the Department of Obstetrics and Gynecology at MedStar Washington Hospital Center, have collaborated on a study of the effect of type 1 diabetes mellitus on pregnancy outcomes in relation to prepregnancy weight as classified by body mass index (BMI).

Published in the *American Journal of Perinatology*, "Prepregnancy Weight in Women with Type I Diabetes Mellitus: Effect on Pregnancy Outcomes" was led by Dr. Kawakita. The analysis was conducted with data from the Diabetes in Pregnancy study at the University of Cincinnati (1978 to 1995).

The study cohort consisted of 426 women with type 1 diabetes who were recruited into the study prior to 20 weeks of gestation. The women were categorized by prepregnancy BMI based on self-reported weight prior to pregnancy or as documented in medical records. BMI was calculated as low (<20 kg/m²), normal (20 to <25 kg/m²), or high (>25 kg/m²). This secondary analysis examined participant outcomes, including spontaneous abortion, gestational hypertension, preeclampsia, abruptio placenta, emergent delivery for maternal indications, emergent delivery for fetal indications, and spontaneous preterm delivery.

Obesity is categorized as having a BMI >30 kg/m². Pregnancies carry additional risks for those who are obese, including gestational diabetes, preeclampsia, excessive fetal growth, and an increased risk for cesarean delivery. Type 1 diabetes mellitus also confers risks during pregnancy, including increased odds of fetal macrosomia, preterm delivery, preeclampsia, and primary cesarean delivery. No statistically significant differences were observed in maternal age, age at diagnosis of type 1 diabetes, marital status, or chronic hypertension across the BMI categories.

The results of this study showed that low maternal BMI was associated with preterm delivery. High BMI was associated with emergent delivery for maternal indications.

"Lack of association between high prepregnancy BMI and preeclampsia in our study may be explained by the small number of women with a very high prepregnancy BMI; our population is over-weight rather than obese, with only 21 women with a BMI of 30 kg/m² and above," the study said.

American Journal of Perinatology, 2016. DOI: 10.1055/s-0036-1586506

Research Published on Using Motor Tracking to Assess mTBI

A team of researchers from the MedStar National Rehabilitation Network has published their findings on utilizing an objective method of assessing mild traumatic brain injury (mTBI). Published in *Experimental Brain Research*, the research was led by Alexander W. Dromerick, MD, Vice President for Research at MedStar National Rehabilitation Network, in collaboration with Peter S. Lum, PhD, Chair of the Department of Biomedical Engineering at the Catholic University of America.

A TBI is defined as an injury or disruption of brain function due to an external force. TBI is rated by severity, categorized as mild, moderate, or severe based on the length of loss of consciousness, alteration of consciousness and/or mental state, or post-traumatic amnesia. A mild TBI (mTBI) is clinically synonymous with concussion.

The article, "Dynamic motor tracking is sensitive to subacute mTBI", showed that grip force metrics could provide a more accurate diagnosis of mTBI. Individuals with and without diagnosed mTBI were asked to squeeze a hand dynamometer, and change their grip force to match a variable target force for three minutes. A model of how participants' changed their grip force in response to error classified mTBI with a sensitivity of 87 percent and a specificity of 93 percent, comparable to or better than several standard clinical scales. The same model was also sensitive to time post-injury.

The findings suggest that visuomotor (coordination of movement and visual perceptions) tracking could be an effective supplement to conventional assessment tools to screen for mTBI and track mTBI symptoms during recovery.

"Effective screening for mild traumatic brain injury (mTBI) is critical to accurate diagnosis, intervention, and improving outcomes," the authors said.

The research team also included Anthony J. Metzger, PhD; Alexander V. Libin, PhD; Jill Turner, MedStar Pharmacy; David Milzman, MD from MedStar National Rehabilitation, in addition to Michael S. Fine, from the MITRE Corporation. Additional researchers were Uniformed Services University of the Health Sciences, University of Tennessee Health Science Center, Naval Health Research Center and Naval Medical Research Center.

Dr. Dromerick is also Professor of Rehabilitation Medicine and Neurology and Chairman of Rehabilitation Medicine at Georgetown University Medical Center and a Research Scientist at the Washington DC Veterans Affairs Medical Center. Dr. Lum is also Director the Center for Applied Biomechanics and Rehabilitation Research at MedStar National Rehabilitation Network. He is also a Research Health Scientist at the Washington DC Veterans Affairs Medical Center.



Alexander W. Dromerick, MD

Experimental Brain Research, 2016. DOI: 10.1007/s00221-016-4714-5

This research was funded through the following: Dromerick AW, Lum PS, Tractenberg R, Libin AV: "Grip force control as a diagnostic tool for mild TBI. Naval Health Research Center W911QY-09-D-0041

MedStar Researchers Publish One-Year Outcomes Study on Hysteropexy



Robert E. Gutman, MD

In response to limited data comparing different types of hysteropexy procedures, researchers at MedStar Washington Hospital Center and Georgetown University collaborated to publish "Vaginal and Laparoscopic Mesh Hysteropexy for Uterovaginal Prolapse: A Parallel Cohort Study." Published in the *American Journal of Obstetrics and Gynecology*, this multicenter study compared

The study included women, ages 35 to 80, who desired uterine conservation, were not planning to have children in the future and were undergoing one of the two procedures for stage two to four symptomatic anterior/apical uterovaginal prolapse. Of the patients, 74 received a laparoscopic sacral hysteropexy and 76 received vaginal mesh hysteropexy.

No differences in blood loss, complications, or hospital stay were found for patients in either cohort. One-year outcomes showed consistent results between the cohorts, with 95 percent of patients in each group "very much better" or "much better."

the 1-year efficacy and safety of laparoscopic sacral hysteropexy versus vaginal hysteropexy.

Pelvic floor symptom and sexual function scores improved for both groups.

A hysteropexy is performed to correct prolapse of the uterus. Uterine prolapse occurs when the uterus sags or slips from its normal position due to weakened or ineffective muscles or ligaments. The majority of prolapse repairs are performed with a hysterectomy, even though the uterus is not the cause of the prolapse. Interest in uterine conservation has been increasing for a variety of reasons, including sexual function, sense of identity, fear of complications and preservation of future fertility. Hysteropexy procedures can be done with native tissue or synthetic mesh. In this study, two different minimally invasive surgical procedures were performed utilizing synthetic mesh to lift the uterus. Both procedures were laparoscopic (i.e., performed through keyhole surgery).

"Laparoscopic sacral hysteropexy and vaginal mesh hysteropexy had similar one-year cure rates and high satisfaction," the authors said.

This research was led by Robert E. Gutman, MD, and was presented as a late-breaking abstract awarded Best Surgical Paper at the 2015 annual meeting of the American Urogynecologic Society. It was also a featured article on the American Journal of Obstetrics and Gynecology website.

Collaborators on this research were from the Alpert Medical School of Brown University/Women & Infants Hospital of Rhode Island, Stanford University School of Medicine, University of North Carolina, University of British Columbia, Christ Hospital/University of Cincinnati, Greater Baltimore Medical Center, and Cleveland Clinic.

American Journal of Obstetrics and Gynecology, DOI: 10.1016/j.ajog.2016.08.035

MedStar Union Memorial Hospital to Investigate Alternative to Open Heart Valve Surgery

MedStar Heart & Vascular Institute at MedStar Union Memorial Hospital is one of only 80 cardiac centers in the world, selected by the industry, to participate in a study of an alternative treatment option for surgical aortic valve replacement. The study will evaluate the safety and effectiveness of the transcatheter approach to replacing the aortic valve, known as TAVR, in treating low-risk patients with severe aortic stenosis.

An estimated 2.5 million people over the age of 75 suffer from aortic stenosis, caused by calcium build-up in the aortic valve. The result is a narrowing of the valve which prevents it from opening and closing properly, forcing the heart to work harder to pump blood throughout the body. The reduced blood flow increases pressure within the heart, causing the heart to weaken and function poorly.

The study, which is supported by the MedStar Health Research Institute, will include up to 1200 patients and follow up for up to 10 years.

“Replacing the aortic valve during open heart surgery has been a gold standard in treating aortic stenosis,” said John Wang, MD, MSc, FACC, FSCAI, Chief of the Cardiac Catheterization Laboratory at MedStar Union Memorial and Scientific Research Director for Baltimore Cardiovascular Research. “However, during a TAVR procedure, we can replace the diseased aortic valve using a catheter, through a small incision in the groin. The heart remains beating.

The study will allow us to examine if this option is best for patients who are at a lower risk who could safely undergo the surgical replacement.”

MedStar Union Memorial Hospital is a regional leader in performing TAVR procedures, having completed over 300 of these since it was first introduced in 2012. Presently, the technology is approved only for patients who are high- or intermediate-risk for the surgical replacement of their aortic valve.



John Wang, MD, MSc, FACC, FSCAI (right)

Advancing Palliative Care through Research at MedStar

At the 2016 Center to Advance Palliative Care National Seminar, Christopher Kearney, MD, and Kathryn A. Walker, PharmD, BCPS, CPE, presented two studies and a case series on innovations in palliative care (PC) at MedStar Health. Researchers from across MedStar have collaborated to create the Palliative Telehealth Connecting Hospital to Home (PATCH²) Program, first pilot tested at MedStar Union Memorial Hospital.

The “PATCH² Program, The Creation of a Virtual Palliative Care Clinic” study (by Kathryn Walker, Hunter Groninger, Nicole Graham, Renee M. Holder, Kasey Malotte, Leigh Cervino, Andre D’Souza, and Christopher Kearney) was presented in the category of “Leveraging Technology.”

This project represents a collaboration between palliative care, home health, and telehealth to extend PC outside of the hospital to provide continuity of care,” said Dr. Walker. Through a randomized trial, patients with advanced heart failure received PC either via internet-equipped electronic tablets or over the telephone. The results suggested that the PATCH² program allowed PC teams to effectively extend care for patients after discharge, and the program was associated with decreased hospital readmission rates.

Presented in the category of “Health System Strategies,” the “Field of Dreams: Rapid Expansion of PC in a Health System” poster (by Kathryn



Walker and Christopher Kearney) highlighted the impact of the expansion of PC services within MedStar Health. Beginning with three programs, the MedStar PC program has now been expanded to nine hospitals. “PC has contributed to a decrease in readmission rates across MedStar, with 45 percent [of]

Left-Ventricular Assist Devices (LVADs) enrolled into Palliative Telehealth Connecting Hospital to Home (PATCH²) Program” (by Renee M. Holder, Andre D’Souza, Nicole Graham, Hunter Groninger, Selma Mohammed, and Kathryn A. Walker), the PATCH² program and its outcomes for patients were highlighted.

“Telehealth can provide a link for these patients [that can] provide clinical support without the burden of transportation and energy requirements for in-person clinic visits,” said Andre D’Souza, research intern at MedStar Washington Hospital Center.

all PC consultations resulting in a de-escalation of care and change of goals of care,” said Dr. Walker. Due to the decrease in readmission rates during the two years in which PC was expanded, there was a definable return on investment for MedStar through reimbursement and patient outcomes.

MedStar’s palliative care researchers work collaboratively with physicians, counselors, allied health professionals and spiritual advisors to identify ways to effectively treat chronic illness and increase patients’ quality of life.

In addition to the two posters, a case series was presented at the Seminar. In “Case Study of Initial Patients with

MedStar Health Research to Collaborate to Increase Health Equity in the Community



Through the Association of American Medical Colleges (AAMC), MedStar Health has joined a group of eight institutions committed to bringing together academics, research and clinical activities to advance the health of their communities.

Through a series of workshops over three years, the group will plan and evaluate strategies to produce coordinated systems for community health. The workshop series, Building a Systems Approach to Community Health and Health Equity for Academic Medical Centers, is closely tied to MedStar Health Research Institute's mission to advance the health of our community through research.

Each participating institution will contribute a team of up to six individuals, who will forge enduring collaborations to facilitate health equity in their communities.

Participants have been chosen based on demonstrated evidence of ongoing collaboration across the clinical, research and educational spheres in their communities.

As a community-focused academic health system with a partnership with Georgetown University that allows medical students to train in our diverse hospital settings, MedStar Health stands out in this forum.

“MedStar’s position at the crossroads of a ‘real world’ clinical and academic environments allows us to catalyze innovation and provide the latest advances to our patients,” said Neil Weissman, MD, president of MedStar Health Research Institute.

“With more than 300 sites of care, we are embedded in our diverse community and are committed to our communities’ health.”

The AAMC is a not-for-profit association dedicated to transforming healthcare through innovative medical education, cutting-edge patient care, and groundbreaking medical research. This research is sponsored by a grant from the Agency for Healthcare Research and Quality.

MedStar Health Investigator Recognized for Outstanding Research Contributions



Kenneth D. Burman, MD

Kenneth D. Burman, MD, was recognized at the American Thyroid Association (ATA) annual meeting as the 2016 recipient of the John B. Stanbury Thyroid Pathophysiology Medal.

The John B. Stanbury Thyroid Pathophysiology Medal is awarded annually by the ATA to recognize outstanding research contributions, either conceptual or technical, to the understanding of thyroid physiology or the pathophysiology of thyroid disease, as evidenced by having a major impact on research or clinical practice related to thyroid diseases.

Dr. Burman is the director of the Endocrine Section at MedStar Washington Hospital Center. He joined MedStar Washington Hospital Center in 1994.

Dr. Burman has published more than 250 peer-reviewed articles, including the first comprehensive guidelines for the treatment and management of anaplastic thyroid cancer.

In addition to his commitment to research at MedStar, Dr. Burman has served as the chair of the U.S. Food and Drug Administration’s Endocrine Advisory Committee.

His commitment to treating thyroid disease has led Dr. Burman to serve as the president of the ATA and to be an editorial board member of Thyroid and deputy editor of the Journal of Clinical Endocrinology and Metabolism.

One of the most common disorders of the endocrine system, thyroid disease is estimated to affect 20 million people in the United States. The thyroid gland produces hormones that help to regulate body temperature; control the way the body uses energy; and allow brain, heart, and other muscles and organs to work efficiently and effectively.

The ATA is the leading global organization dedicated to the advancement, understanding, prevention, diagnosis, and treatment of thyroid disorders and thyroid cancer.

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