# Medicine Annual Report

2014



# **Medicine 2014 Annual Report**

Featuring key facts and figures from the 2013-2014 fiscal year and selected honors and accomplishments, publications, presentations, appointments and committee memberships.

Chair's Message Honors, Awards & Kudos

Medicine Facts & Figures **Appointments** 

**Clinical Transformation Selected Publications** 

**Quality & Patient Safety** Selected Abstracts, Posters & Presentations

**Education** Medicine Leadership

Research & Scholarly Activity Committee Membership

**Clinical Trials** Welcome New Physicians

Section Highlights Best Wishes to our Retired Physicians



# Chair's Message

As Medicine continues to pursue its vision of delivering value based care to our patients across the continuum, we have embraced every opportunity for collaboration, while proactively seeking and developing clinical initiatives that are high performing and quality driven. Collaboration is particularly important as our health system transitions toward a more patient centered, population-focused model of care. One example of this commitment is the inauguration of our new hospital-based GI consultation service in partnership with Gastroenterology Associates and Mid-Atlantic GI Consultants. This initiative provides appropriate, around the clock consultative services at both Christiana and Wilmington hospitals while facilitating office based consultations for those requests that can be accomplished in outpatient settings. Both community-based private practices are participants in the Christiana Care Quality Partners network.



We continue to introduce Choosing Wisely concepts and projects into our care and to provide opportunities for residents, faculty and interdisciplinary staff to collaborate for Juran Yellow, Green and Black Belt certification. To date more than 16 Medicine faculty and staff have completed or are in the process of achieving Lean Six Sigma Green Belt or Black Belt certification. These leaders are now using their new knowledge to improve the quality and safety of the care we provide.

Our multipronged approach to teaching the principles of patient safety and quality earned national recognition this year from the American College of Physician Executives, which selected Christiana Care as the winner of its 2014 Leape Ahead Award. The annual award honors a medical school or teaching hospital that is making extraordinary strides to promote a culture of leadership, professionalism, communication and teamwork among medical students and residents. We could not have achieved this prestigious award without the enthusiastic participation of Medicine, Medicine-Pediatrics and Medicine-Emergency Medicine residents and faculty.

Congratulations to our telemetry redesign team, which earned the prestigious ECRI Institute 2014 Health Devices Achievement Award. Led by Dr. Drew Doorey of Christiana Care Cardiology Consultants and Dr. Rob Dressler, the team developed a guideline driven protocol which reduced by 43 percent the number of weekly telemetry patients, and achieved an estimated annual savings of \$4.8 million dollars without adversely impacting clinical outcomes.

For the sixth year in row, Medicine specialties are among the few (top 3%) honored as the nation's top performers, according to U.S. News and World Report. In 2014, Christiana Care ranked among America's top 50 hospitals for Endocrinology and Diabetes care by U.S. News and World Report. Christiana Care also achieved high rankings in 7 other adult medicine specialties, including Cancer, Cardiology, Gastroenterology, Geriatrics, Nephrology, Neurology, and Pulmonary Medicine. Recognition continues for our many quality and safety initiatives, including Project Engage, eCare, Alcohol Withdrawal Risk Evaluation and Treatment guidelines, unit-based clinical leadership models and more.

Medicine teaching programs and research continue to be central to our mission and to make significant contributions to Christiana Care. Our medicine residency program is nationally known for its innovative curriculum. This year, a day long medicine faculty strategic planning retreat focused on ways to foster individualized training and to support continued innovation. Dr. Dan Elliott, Medicine's Associate Chair of Research, has played a key leadership role in our \$10,000,000 CMMI Research Innovation grant, which is forming the foundation for a virtual care management model to support population health.

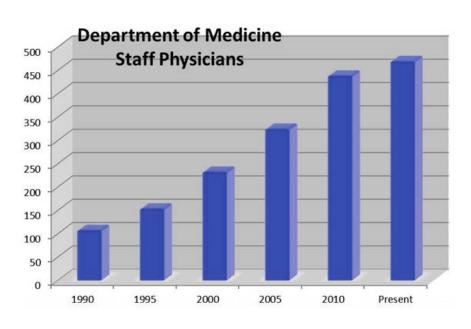
Congratulations to all of our teaching and research award winners, our Focus on Excellence Award winners and all those who have represented the Department and themselves with distinction on both local and national levels of leadership and service.

As always, heartfelt thanks to the many physicians in the Department and our nursing colleagues who have contributed countless hours of service to Christiana Care in support of our mission. Thanks also to the interdepartmental services on which Christiana Care Medicine relies as we partner to construct the care models of the future.

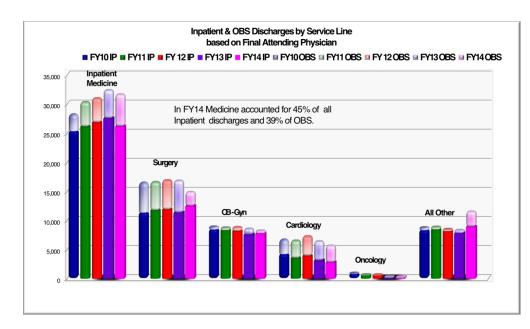
Virginia U. Collier, M.D., MACP Hugh R. Sharp Jr. Chair of Medicine **Professor of Medicine, Jefferson Medical College** 

# **Medicine Facts & Figures**

Medicine physicians provide excellent medical care to a highly diverse patient population from Delaware and surrounding communities in Pennsylvania, Maryland and New Jersey. There are 470 active physicians credentialed through the Department. Collectively, they diagnose and treat a broad spectrum of primary-care diseases, as well as tertiary care



medical conditions not routinely encountered in smaller hospital settings. The Medicine Service Line oversees 407 of Christiana Care's 1,196 licensed beds.



FY12 Medicine accounted for 45 percent of all inpatient discharges and 30.4 percent of all OBS discharges.

Meet our Leadership Team

Meet our **New Physicians** 

# **Clinical Transformation**

Medicine's transformation continues as our champions of performance improvement drive toward efficiency, quality, safety and value with our collaborators across disciplines and departments. Physicians, nurses, care managers, social workers, informational technology specialists, operational excellence leaders and our experts in Patient Safety and Quality all serve as members of our high performing teams.

Service line initiatives and transformative projects undertaken by our Unit-Based Clinical Leadership and Value Improvement Teams are producing positive results. Highlighted below are just a few of the many that demonstrate the innovation, creativity and flexibility essential to our mission.

# Delaware's first multisite "medical home" for complex primary care patients

Delaware's first multisite Level 2, Patient Centered Medical Home continues to serve more than 4,800 patients, many with complex medical needs and limited or no insurance. The Wilmington Hospital Adult Medicine Office (AMO), along with the Internal Medicine Family Practice and the Pediatrics Practice, earned this certification last year from the National Committee for Quality Assurance (NCQA). Since then, the office has opened a secure portal for patients and practice providers to have direct, confidential, electronic communications. This upgrade will speed the application for Level 3 certification, the highest level.



Staff gather to celebrate designation of Delaware's first Patient-Centered Medical Home.

(From June 2014 Medicine Brief)

In the AMO a new multidisciplinary program launched in FY14 aims to educate both patients and prescribers about safe and effective management of chronic pain. Under the direction of AMO Assistant Medical Director Jennifer LeComte, D.O., FACP, the program's goal is to have fewer patients on unsafe medications and more patients functional in their environments.

A secondary goal is to teach residents how to discern patients who might be at risk for misusing pain medication as well as those who may not benefit from controlled substances. This initiative utilizes national guidelines and regulations on safe opioid prescribing, patient and prescriber education and the use of alternative therapies.

# "Rock Solid" foundation supports innovative hospitalist care

The Division of Hospital Medicine has adopted three pillars of excellence as the foundation for its vision to transform the patient care experience. Its model leverages the Division's organizational structure, internal collaboration and clinician expertise to create innovative, effective, affordable systems of care that our neighbors value. The three pillars: Care Coordination, Education and Quality & Patient Safety, in support of both Christiana Care and Annual Operating Plan goals, provide a pathway for the Division to achieve national recognition for innovative models of patient centered care and interprofessional education through collaboration and research.

Here are some broad objectives:

# **Quality & Safely Pillar Team**

- Reduce patient harm.
- Develop an IT infrastructure to support improved value and population health.
- Enhance value and improve financial results for Medicare / Medicaid patients.
- Improve quality and reduce costs for the top Medicare DRGs Pneumonia, Congestive HeartFailure, Sepsis, and COPD.

#### **Care Coordination Pillar Team**

- Implement a clinically integrated network that engages physicians throughout the community.
- Enhance value and improve financial results for Medicare / Medicaid patients.
- Reduce average LOS for Medicine patients by 10%.
- Support ED/Critical Care efforts to reduce unnecessary admissions.
- Improve the Value-Based Purchasing domain scores for HCAHPS and Process of Care measures, including Team Based rounding (SWAT/PCR); Palliative Care; and Transitions of Care (ED, PCP, SNF).

#### **Education Pillar Team**

- Foster strong physician leadership.
- Continue to recruit, grow and develop diverse talent in our workforce and further a culture of inclusivity.
- Teach the next generation of providers.

# Multidisciplinary Pain Management & Palliative Care

A newly expanded Pain Management & Palliative Care team has increased the number of annual consults to nearly 3,000 and broadened the range of interventional pain management options. A continuous quality/patient safety initiative is the result of a multidisciplinary collaboration to measure and reduce harm attributable to opioid use and to minimize exposure to opioids by maximal use of multimodality pain management techniques. Working with Christiana Care's Office of Medication Safely, the Value Institute and IT, the team developed a new set of automatic metrics to assess the magnitude of patient harm from opioid or benzodiazepine exposure. The team plans to pilot a trigger tool to use these novel metrics to help identify patients at risk for harm.

By the end of 2014, there will be two separate services: Acute Pain Management under the direction of Thomas Scott, M.D. and Palliative Care under John Goodill, M.D. A successful transition to this new model will result in better use of both pain management and palliative care consult services as specialty care rather than primary care.

# **Project Engage improves patient outcomes**

Medicine's nationally acclaimed substance abuse program, Project Engage, is improving access to care for patients addicted to drugs or alcohol while they are in the hospital and linking them with resources in the community to put them on the path to wellness. A recent outcomes analysis, completed in partnership with the Value Institute, revealed a 27 percent transfer rate into community-based treatment and a two-fold reduction of 30-day readmissions for non-mentally ill patients in the program. These results were presented by invitation to the White House's Office of National Drug Control Policy in September 2014. Under the direction of Addiction Medicine Chief Terry Horton, M.D., Project Engage assists more than 2,000 patients a year through peer counselors onsite in the Emergency Departments and inpatient settings at both Christiana and Wilmington hospitals. A second-generation model, Project Engage Plus, was launched in January, placing a peer counselor into the community to act as a recovery coach for patients initially seen in the Emergency Department or inpatient settings.

# **Driving system-wide improvements**

Juran Green Belt and Black Belt projects leverage "lean process" design skills to drive system-wide improvements that impact health care efficiency and affordability. The Christiana Care Value Institute's Center for Operational Excellence has partnered with the Juran Institute to offer onsite training and mentorship to leaders in multiple departments and service lines. These programs teach leaders and team members how to leverage improvement science using Lean/Six Sigma methodology for rapid cycle improvements, how to work smarter and to speed up transformation.

Here are examples of Medicine-led or sponsored projects:

# **Green Belt Projects**

## MICU "Transfusions: It's Bloody Easy"

Team Leaders: Christy Barnett, PA-C, MICU, physician assistant and Adrian Fedyk, Medicine Finance program manager.

Goal: Decrease the number of pRBC transfusions not meeting clinical practice guidelines from 3.8 to 1.9 transfusions per week (50% decrease) by July 31, 2013.

Outcome: The MICU Team results exceeded the 50 percent goal with a 77 percent reduction in non-guideline pRBC transfusions going from 3.8 to 0.9 units per week, showing annualized cost savings of more than \$117,000.

### **COPD Care Improvement**

Team Leaders: Marykay Ennis, MBA, Medicine Administrative Manager, and Fran Gott, MBA, RRT, Director, Respiratory Care.

Goal: Reduce the total associated length of stay (ALOS) for COPD patients (in diagnosis-related groups 190, 191, 192) that pass through 3D Pulmonary Stepdown by 10 percent (0.58 days) by November 12, 2013. Target = 5.2 days. Excess LOS impacts patient safety, quality of care, patient satisfaction and results in increased costs.

Outcome: ALOS reduced to 4.5 days.

#### Reduce COPD 30-Day Readmissions

Team Leaders: John Emberger, BS, RRT, Critical Care Coordinator, Respiratory Care, Lisa Hall, RN, CCM, MSM, Director, Case Management and Meredith Kydd-Hindelang MHA, CCHP Practice Operations Manager.

Goal: Reduce 30-day readmission rates for COPD patients by 20 percent (21% to 16.8%). COPD is among the top three "diagnosis-related groups" (DRG 190, 191, 192) by volume, cost of care and 30-day readmission rates at Christiana Care. In FY13, CCHS had 1,252 cases of COPD with and average 30-day readmission rate of 21 percent. The national average is 20 percent. In 2015, the impact is either reduced or no reimbursement for readmitted COPD cases.

Outcome: Project ongoing.

# Improve Recognition of Sepsis

Team Leaders: Stew Constance, PA-C, Chief Physician Assistant, Critical Care, Badrish Patel, MD, unit-based medical director, Christiana Hospital MICU and Pat Wessell, RN, nurse manager, eCare.

Goal: To increase physician documentation of sepsis cases on 5A from 17 to 50 percent. The absence of physician documentation negatively impacts patient care and ability to accurately code and bill sepsis, which translates into \$23,122 in lost revenue per case.

Outcome: Project ongoing.

# **Black Belt Projects**

#### Interunit Transfers

Team Leaders: Michelle Collins, MSN, RN-BC, ACNS-BC, Director Nursing Professional Development & Education and Adrian Fedyk, Medicine Finance Program Manager.

Goal: Decrease the mean patient transfer time from bed assigned to arrival on unit from 155 to 108 minutes. Target: 30 percent reduction, equivalent to 101 patient days. Two high acuity units, 3D Stepdown and MICU, account for nearly a quarter of all patient transfers. The delay in moving patients to other floors equates to 336 patient days. This creates a lag in patient flow that impacts the requesting and receiving unit and thereby extending LOS.

Outcome: Project ongoing.

#### Bed Request to Bed Ready

Team Leaders: John Emberger, BS, RRT, Critical Care Coordinator, Respiratory Care and Susan Mascioli, MS, BSN, RN, CPHQ, NEA-BC, Manager, Nursing Quality and Safety.

Goal: Reduce the mean time from initial admission order to bed ready in the Christiana Emergency Department by 30 percent from 227 to 159 minutes. Delays significantly impacts boarding, the ability to admit patients in a timely manner and patient safety.

Outcome: Project ongoing.

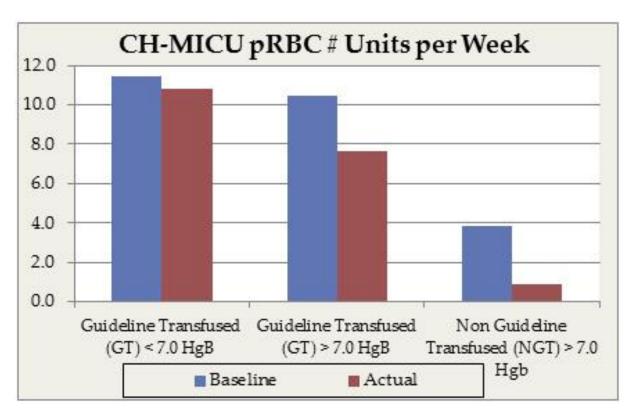
# **Quality & Patient Safety**

Christiana Care Medicine is building a culture of continuous improvement in quality and patient safety, driven by habitual excellence and supported by value.

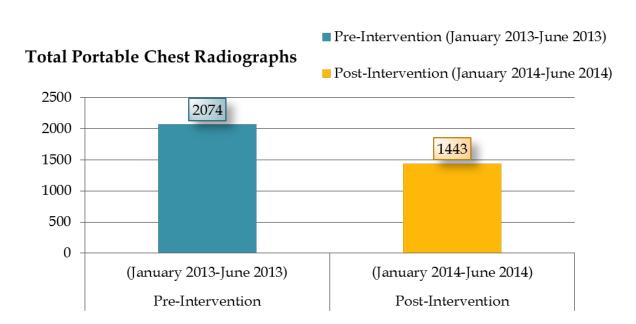
# **Choosing Wisely campaign**

Several initiatives are underway to improve patient care and reduce patient harm, while reducing unnecessary costs. In line with the American Board of Internal Medicine Foundation's "Choosing Wisely" campaign, the Department of Medicine is actively seeking ways to empower providers and patients to choose care that is supported by evidence; that does not duplicate other tests or procedures already performed; that will not harm the patient; and that is truly necessary.

Stick with the guidelines for pRBC transfusions. A Juran Green Belt initiative prompted closer adherence to clinical practice guidelines and reduced the number of unnecessary packed red blood cell (pRBC) transfusions by 77 percent for ICU patients. These results translate directly into lowering the risk for patient adverse events and the cost of transfusions while contributing to lower ICU and total hospital length-of-stay rates.

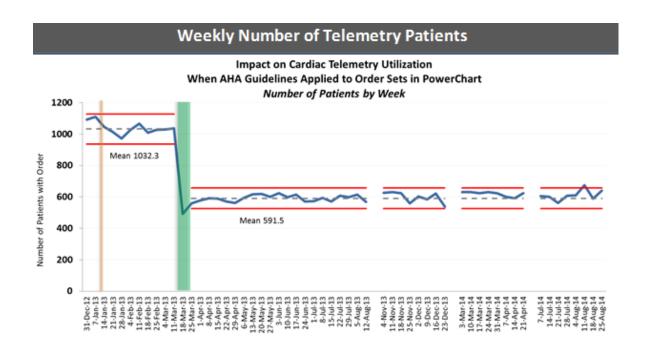


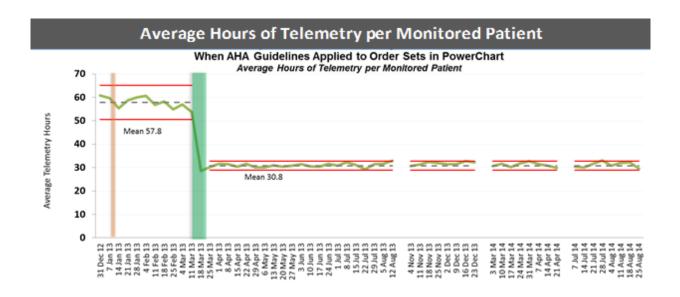
Eliminate unnecessary chest X-rays. Efforts to optimize orders for chest X-rays and other imaging modalities at the point of care are helping to eliminate unnecessary testing and consequent over exposure to radiation. Christiana MICU and the Wilmington Hospital ICU worked to change practice for routine daily ordering of chest x-rays to "On Demand" ordering based on clinical appropriateness. During the study period portable CXR utilization dropped by 30 percent as a result of this initiative, equating to an annualized cost reduction of \$66,000.



Order telemetry for the right patient at the right time. Following national guidelines endorsed by the American Heart Association, Christiana Care's new telemetry order set through PowerChart predetermines the duration of cardiac telemetry according to clinical indications and provides a checklist to facilitate the bedside nurse's discontinuation of telemetry for patients with stable clinical conditions. This redesigned ordering process resulted in:

- 43% reduction in the number of weekly telemetry orders
- 47% reduction in the average telemetry hours per monitored patient
- 70% reduction in the daily telemetry census
- An estimated \$4.8 million savings





The American Board of Internal Medicine (ABIM) requested that Christiana Care Medicine physician leadership share the results of our redesign initiative.

# **Incorporating strategies for Team-Based Care**

Medicine's clinical leadership team is working closely with service line leaders to coordinate, standardize and ultimately to enhance patient flow from admissions to discharge. The team is designing a model potentially adaptable institution-wide to raise the bar for safe and efficient unit-to-unit transfers and goal directed, discharge focused plans of care for our patients.

An essential element for success is the continued evolution of our team-based care model. Interdisciplinary primary care teams provide care for patients in the ED and on Medicine inpatient units. Using Team STEPPS methodology and rapid cycle testing, these teams are transforming into high performance groups to improve patient outcomes, enable effective communication and care coordination and reduce hospital length of stay.

Nationally, our models of patient and family centered rounding have earned recognition and were presented at the Society of Hospital Medicine and Society of Critical Care Medicine.

# **Enhancing the Patient Experience**

Aggressive efforts are underway to improve all aspects of the patient experience in the Medicine Service Line. In collaboration with the Office of the Vice President for Patient Experience, Medicine is designing a comprehensive program to address opportunities for improvement across all units, including using national, evidence-based, best practices like AIDET (Acknowledge others, Introduce yourself, Duration, Explanation, Thank you), a tool for communicating with patients, families and colleagues, and iRounds, a tablet tracking tool for patient needs and feedback. Key to this process is the work of our Unit-Based Value Improvement Teams.

## **Unit-Based Value Improvement Teams (UBVIT)**

evolved from Medicine's unit-based clinical leadership model and form the foundation for numerous transformative and award winning Focus on Excellence projects. Each UBVIT is multidisciplinary and includes nurses, patient care techs, care managers, social workers, pharmacists, and environmental services personnel, who are led by a unit-based medical director and a nurse manager. The hard work of these



teams has raised the bar on providing value-based care on our patient care units, as evidenced by universal improvement in the Medicine Service Line Value Scores.

In FY14, the Medicine Service Line's 13 patient care units began presenting monthly updates on top opportunities, goals and initiatives to our Unit-Based Clinical Leadership.

# Value Improvement Team Opportunities and Goals

<ul> <li>3D Pulmonary Stepdown</li> <li>Patient Centered Rounds</li> <li>Infection Prevention</li> <li>Reduce Restraint Usage</li> <li>Reduce Catheter Associated Urinary Tract Infections (CAUTI) and Unit Acquired Pressure Ulcers (UAPU)</li> </ul>	<ul> <li>6B Hematology/Oncology</li> <li>Methotrexate Toxicity</li> <li>Fall Prevention</li> <li>Infection Prevention</li> <li>Goals of Care</li> <li>Sepsis Trigger Pilot</li> </ul>
3E MICU  Standardization of Interprofessional rounds Hand Hygiene Central Line Associated Bloodstream Infection (CLABSI) Reduction	<ul> <li>6E Medical</li> <li>Fall Prevention</li> <li>Hand Hygiene</li> <li>Reduction in Proton Pump Inhibitor (PPI)</li> </ul>
<ul> <li>5A Medical</li> <li>Video Surveillance</li> <li>Noise Reduction</li> <li>Cohorting Teaching with Patient Centered Rounds</li> </ul>	<ul> <li>4 North</li> <li>30 Day Readmission Reduction</li> <li>Patient Experience Improvement</li> <li>Patient Falls Reduction</li> </ul>
<ul> <li>5B Medical</li> <li>Hand Hygiene</li> <li>Hospital Acquired Infection (HAI) Prevention</li> <li>Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)/Patient Experience</li> </ul>	<ul> <li>5W ACE Unit</li> <li>Patient Centered Rounds</li> <li>Cleaner Catches</li> <li>Team Engagement</li> <li>Maximizing Meal Time</li> <li>Fall Reduction</li> </ul>
<ul> <li>5C Medical</li> <li>Hand Hygiene</li> <li>Falls</li> <li>Patient Experience</li> <li>Extended Care Facility Discharge Process</li> <li>Physician Communication</li> </ul>	<ul> <li>6 South Stepdown</li> <li>Alcohol Withdrawal Cohorting</li> <li>Interdisciplinary Rounds</li> <li>Improve Patient Safety, including the Christiana Early Warning System and ED- 6S Hand-Off Project</li> </ul>
<ul> <li>5D Medical</li> <li>Hand Hygiene</li> <li>Fall Reduction</li> <li>Patient Centered Rounds Checklist</li> </ul>	Reduce Patient Harm, including the ABCDE(F)     Bundle and C-Diff Surveillance and Prevention     Reduce ICU Length of Stay     Patient Experience/ No Pass Zone Initiative
<ul> <li>6A ACE Unit</li> <li>Fall Prevention</li> <li>Infection Prevention</li> <li>Readmission Rate</li> </ul>	

# Leadership in Quality/Safety Education

In 2014, Medicine collaborated with multiple Christiana Care departments to earn a top safety education award from The American College of Physician Executives (now the American Academy of Physician Leadership). The Leape Ahead Award 2014 recognizes Christiana Care's multipronged approach to teaching medical students, residents and faculty the principles of patient safety and quality.



Representing the Leape Ahead Award winning team at the American College of Physician Executives annual meeting: Quality & Safety Education Specialist Loretta Consiglio-Ward, MSN, RN; Department of Family and Community Medicine Medical Director Margot Savoy, M.D., Medicine Resident Usman Choudhry, D.O.; Hugh R. Sharp Jr. Chair of Medicine Virginia U. Collier, M.D., MACP; and Medicine Vice Chair Robert Dressler, M.D., MBA, FACP. Read the article and see the video for more information.

Medicine continues to facilitate innovation toward transformation by encouraging participation in structured educational programs for residents, faculty, students and interdisciplinary staff.

Advanced Quality and Safety Improvement Science Program (AQSISP). Medicine's train-the-trainer initiative helps participants become effective teachers and stronger leaders in the drive to embed quality and patient safety across the continuum of physician development and throughout the patient care setting. An interdisciplinary team participating in the National Initiative III of the Alliance of Academic Medical Centers developed AQSISP in collaboration with the Christiana Care Value Institute Academy. A nine-month curriculum combines self-directed, didactic and experimental learning with coaching and mentoring among learners, faculty and course directors. Important to the overall learning experience is the application of skills through performance improvement projects.

# Resident Quality/Performance Improvement Projects

Our success in embedding quality and safety into the residency curriculum prepares residents to practice high quality patient care with the skills to improve both the science and the practice of medicine.

Several Quality/Performance Improvement projects were undertaken by Medicine and Med-Peds residents through the Adult Medicine Office (AMO) under the guidance of their preceptors. Efforts to improve the quality and safety of care delivery extend to broader inclusion in these learning opportunities by other residents, hospitalists and attendings who participate.

# Resident Quality/Performance Improvement Projects

# Promoting excellence in diabetes care

Diabetes mellitus is a common chronic disease affecting about 20 percent of the AMO's adult patient population. The AMO developed and continues to refine a comprehensive and multidisciplinary diabetes management program that has twice earned the Christiana Care President's Award for Excellence, most recently in 2014. Efforts of the attending physicians, residents, nurses and embedded diabetes educators continue to improve patient outcomes for a number of key measures, most significantly by controlling blood sugar (HA1c) among these patients. Over a one-year period, 25 percent of patients achieved good glycemic control with a mean reduction in HA1c of 0.6 percent (p=0.005). During that time, the overall rate of glycemic control increased from 63.7 to 70.8 percent. Additionally, performance improvement was achieved in 6/7 diabetic measures including two important intermediate outcomes (glycemic and LDL control goals).

#### New evidenced-based guidelines target hypertension

The team developed its own unique, evidenced based algorithm for managing hypertension and standardizing care among patients whose blood pressures averaged 160/100 or greater over the previous year. The program incorporates patient education and blood pressure home monitoring with cuffs provided by the AMO; medical management to identify and treat underlying, secondary problems; medication reconciliation with the aid of a clinical pharmacist; and motivational interviewing to help patients adhere to their medical regimen. In FY14 more than 170 patients were part of the hypertension education and monitoring program.

#### Nothing beats a good huddle

The Huddle is a daily, scheduled, informal meeting between the provider and the medical assistant to prepare for the needs of patients during an upcoming clinical visit to the AMO. A standardized huddle checklist/form promotes greater process uniformity and efficiency. Since the Huddle was instituted, both the number of diabetic foot exams completed and pneumonia vaccination rates have increased, showing significant increases in the rate of improvement each month. The team presented a poster on the Huddle at the Society for General Internal Medicine annual meeting in April 2014.

#### **Colorectal Assistance Program for Screening (CRAPS)**

By increasing the use of fecal occult blood tests (iFOBT/POCT) the Med-Peds practice at Wilmington Hospital Health Center contributed to an improved colorectal cancer screening rate (60%) with a goal to reach 75%, the current Delaware average. Future plans include collaboration with Christiana Care labs to facilitate distribution of iFOBT take home kits for patients.

#### Fluoride Varnish Program

Pro-active scheduling of dental appointments by the Primary Care Practice at the Wilmington Hospital Health Center led to increased numbers of fluoride applications (198 fluoride applications from July 2013 to June 2014) and to establishing a dental home for 27 children. A target goal is to help at least 50 percent of children without a dental home to visit a new dentist and to expand participation in the program to other Christiana Care primary care practices with pediatric patients.

#### **HIV Screening**

The Adult Medicine Office increased the rate of HIV screening in adult patients from 21 to 34 percent. There have been 4 new cases of HIV detected. Among these, 48 adolescents were screened for HIV (about 105). Target goals are to increase the screening rate in adults to 50 percent and in adolescents to 25 percent.

# **Developmental (PEDS) Screening**

With a goal to capture 100 percent screening for autism (M-CHAT) and pediatric general development (PEDS) with appropriate referrals for abnormal findings, the Med-Peds residents have used these tools to perform 576 autism screenings (with 5.4% abnormal) and 318 PEDS screenings (41% abnormal).

#### **Mammograms**

Promoting the availability of "walk-in" appointments and bilingual services is designed to increase the rate of screening mammograms for women. Currently, the screening rate for women over age 50 at the Wilmington Hospital Health Center is 53% (73% nationally). Efforts continue to expand access to mammogram appointments.

#### Diabetic Retinopathy (new project)

Since implementation in March 2014, more than 50 diabetic patients have been seen at the Wilmington Eye Clinic. Efforts are underway to coordinate complete data entry for these patients for access by the Primary Care Practice.

#### Pain Management (new project)

The purpose of this program is to educate residents and attending physicians about the care of patients with chronic, non-cancer pain and to develop a team approach to pain management. A number of AMO patients are managed on prescription opiate medication at high doses (>100 mg of morphine sulfate equivalent). Residents are collecting data for analysis on patient responses to the program as well as provider attitudes about treating chronic pain.

# **Education**

# **Residency Programs**

Christiana Care trains residents to fulfill our mission to provide safe, innovative, effective, and affordable care that our patients value. One constant is that patients and their families remain at the center of our focus.

A strong academic program and nationally recognized faculty prepare residents for leadership in today's changing world of medicine. Several faculty hold leadership roles in graduate medical education including Medicine's Associate Chair for Education Brian Aboff, M.D., MMM, who leads the Accreditation Council for Graduate Medical Education (ACGME) Transitional Year Review Committee and sits on the Association of Program Directors of Internal Medicine (APDIM) Council.

The Department sponsors the Categorical Internal Medicine Residency Program, along with two combined programs (Medicine-Pediatrics and Emergency Medicine-Internal Medicine), a one-year Preliminary Medicine program, and a Transitional Year program. Well over 100 faculty and volunteer attending physicians are committed to training the next generation of clinicians and physician leaders in both inpatient and outpatient settings.

#### Class of 2013-2014

Program	Residents
Internal Medicine-Categorical	39
Internal Medicine-Preliminary	6
Medicine-Pediatrics	17
Emergency Medicine/Internal Medicine	15
Transitional Year	9
TOTAL Residents	86

# **Internal Medicine**

Our residency programs prepare wellrounded graduates who provide high quality, compassionate, cost-effective care as primary care physicians, hospitalists, and specialists. Our 2014 match experience with the National Resident Matching Program was highly successful, and our Categorical Medicine program had a 100 percent board pass rate this year.



Medicine's innovative, nationally recognized curriculum reflects an institutional priority to build a culture of learning that emphasizes patient safety, professionalism, collaboration, transparency and the important contribution each individual learner can make to the successful delivery of high quality health care to our neighbors. A unique scheduling algorithm allows residents to focus on their outpatient rotations and ambulatory electives without competition from the demands of inpatient care. Our teaching practices also reflect our status as a Level II patient-centered medical home (PCMH) model.

Residents also have the opportunity to practice the elements of performance improvement in an award winning, quality improvement/patient safety course, a leadership track, global health studies, and combined residency training with an MBA and other master's degree programs in cooperation with the near-by University of Delaware.

# Global Health Track

The goal of "global health" is to improve health for all people in all nations by promoting wellness and eliminating avoidable diseases, disabilities and deaths. Practitioners combine clinical care at the individual level and population-based measures to promote health. Interest in global health is growing at Christiana Care, with the first three residents electing the Global Health Track graduating in June 2014. Nine more residents are currently enrolled.

Under Dr. Aboff's leadership, the Internal Medicine Residency Program instituted an innovative curriculum redesign that gained national recognition, allowing residents to focus on their outpatient rotations and ambulatory electives without competition from the demands of inpatient care. As a Review Committee chair, appointed by the ACGME Executive Committee and confirmed by the Board of Directors, Dr. Aboff's role has potential impact on healthcare improvement nationally as he works to advance the quality of resident education throughout the country through the ACGME's exemplary accreditation process.

Learning opportunities in the last two years led two residents to travel to England to study aspects of the British National Health System at the University of Plymouth. In 2014, one of these residents also traveled to Nicaragua to work in a sustainable clinic for the underserved and now works in a Federally Qualified Health Center in Baltimore, focusing on refugee health. In 2013, a third resident spent time in Nigeria working with a Delaware-based medical mission at a Nigerian medical school.

# **Resident Research Track**

A newly formalized research and scholarly activity track places the clinical experience into the broader context of population health and advances the resident's investigational interests in line with the Department's mission and goals. Five residents graduated from the research track in June 2014, and ten residents are currently participating. Their body of work focused on multiple topics: i.e., outcomes of ventilator associated events; familial pancreatic cancer in Delaware; results from the Universal Gown and Glove study; cardiovascular risks associated with childhood type 2 diabetes; and infectious disease surveillance tools. Their work was presented in eight poster/oral presentations and one publication. For complete citations see Selected Publications and Selected Abstracts, Posters & Presentations at the end of this report.

Our residents also have the opportunity to participate in Achieving Competency Today (ACT). This 12 week, graduate level course offered by the Christiana Care Value Institute Academy provides learning opportunities through rapid cycle testing; teaches systematic application of improvement science; and promotes interprofessional learning through diverse teamwork scenarios. The ACT course fulfills multiple requirements of the Accreditation Council for Graduate Medical Education clinical learning environment requirements for resident physicians.

## Resident ACT Team projects for 2013 – 2014:

Sleep Satisfaction from A to ZZZZZZZ. Team developed nightly sleep rounds checklist to be used by nurses on 3D with positive results when comparing partially completed to fully completed sleep rounds.	Gina Capitoni, D.O., Emily Gaukler, M.D., Amit Patel, M.D., Gwendolyn Grant, D.O., Shaun Hanson, M.D., and Jennifer Papi RN, BSN, PCCN, Teri Foy, M.Ed., R.T.(R), facilitator.
Supersize ThisBMI≥ 30? Refer! Team implemented interventions at the AMO to improve communication between internal medicine residents and their patients with BMI≥30.	Tara Edwards-Booker, D.O., Matthew Lunser, D.O., ATC, Nirmol Pearl Philip, M.D., MPH, Dennis Shaw, PA-C, Evalyne Mwangi, BSN, PCCN nd Jun Kim, MSN, CRNI, LaRay Fox, M.Ed., CNMT, facilitator.

"Patients" is a Virtue – Improving the Patient Experience. Team designed an intervention to increase patient involvement in bedside shift report from 61 to 89 percent, on 6E.	Erica Heilman, M.D., Matthew McCarter, M.D., Laura Methvin, BA, Joshua Okon, M.D., Kim Travis, RN, BSN, CCRN, Kenneth Mack, BSN, RN, Loretta Consigio-Ward, RN, MSN and Felicia Kelly- Trent, MS, MLS, facilitators.
Got Status? The team worked closely with nurses and physicians to improve communication of Do Not Resuscitate status at the beginning of all Rapid Response Team encounters.	Chris Batchelor, M.D., Jiadi Cook, M.D., Tracie Sellers, Pharm.D., Ben Silverman, M.D., Lauren Wheeler, PA-C, Teri Foy, M.Ed., R.T.(R), facilitator.
What we've got here isfailure to communicate. Team designed and implemented changes to increase ordering of GetWell Network videos by residents.	Kristen Facciolo, D.O., MPH, Michele Handzel, Pharm.D., Mo Haque, M.D., Elise Hogan, M.D., MPH, Elyse Schneck, Bs, MT(ASCP), Alissa Werzen, BA, LaRay Fox, M.Ed., CNMT, facilitator.
When Your Blood is Thin, We all Win.  Team worked to improve adherence to medication to reduce the risk of venous thrombolembolism on two Medicine patient	Denise French, MSN, RN, GCNS-BC, Lauren Karel, Pharm.D, Felicia Kell-Trent, BS, MS, MLS, Tresa Mascarenhas, MBBS, Vasu Palli, D.O., Neha Vora, M.D., Loretta Consiglio-Ward, RN, MSN,

# **Programming for the Future**

units.

With the inauguration of its "Next" Accreditation System (NAS), the Accreditation Council for Graduate Medical Education (ACGME) is shifting toward a more outcomes-oriented assessment for institutions that train tomorrow's physicians. A key component of NAS is the Clinical Learning Environment Review or CLER Program.

facilitator.

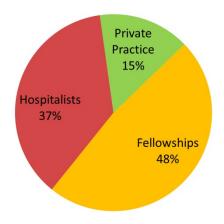
Looking to the future, Medicine is preparing our residents and faculty for upcoming CLER visits that focus on six key areas: patient safety, quality improvement, transitions in care, resident supervision, duty hours oversight, including fatigue management and mitigation; and professionalism.

In FY14, with CLER goals in mind, Medicine faculty and administrators held a strategic planning retreat, which identified six areas of focus over the next three years:

- Create an optimal clinical learning environment that incorporates a robust evaluation system where achievement is accurately assessed against national benchmarks and that promotes resident growth and competency in CLER focus areas.
- Emphasize multidisciplinary, team-based care delivery that is focused on value, population health and patient and family centered care. This includes training in chronic disease management; the opportunity to learn to become an effective team member; and the opportunity to develop leadership skills for practicing in both inpatient and outpatient environments including in a Patient Centered Medical Home.
- Leverage simulation technology for learning and evaluation in Christiana Care's state-of-the art lab where residents learn to become effective partners on multidisciplinary teams and hone their "hands on" skills.
- Achieve a three-year, first time, 100 percent pass rate on the American Board of Internal Medicine exam by employing a highly effective core curriculum and one-on-one mentoring for residents whose performance falls below the 35th percentile on the in-training exam.
- Solidify a core group of key faculty, who are engaging, expert educators who create a spirit of inquiry and are skilled in evaluation and feedback and provide them with training needed to achieve required competencies.
- Foster resident career development with curriculum schedules that allow residents to individualize their training to meet their learning needs and career plans.
- Facilitate resident participation in programs that support Christiana Care and the Department of Medicine's Annual Operating Plan goals.

#### World-class medicine close to home

As many as 40 percent of Internal Medicine graduates choose to continue their career paths in Delaware. The chart below shows what our categorical medicine residents do after graduation.





Academic/Fiscal Year 2014 graduating Medicine Residents

# **Medicine-Pediatrics**

The Med-Peds section has 34 active attending physician members in New Castle County who take students and residents into their practices. Members include primary care physicians, hospitalists, complementary and alternative medicine physicians and other specialists (cardiology, gastroenterology, pain and palliative care, pulmonary and sleep medicine, research and sports medicine). Many of these physicians are graduates of our residency program.

Several of our Medicine-Pediatrics leaders advocate on behalf of their specialty in national leadership positions. For example, Med-Peds Residency Program Director and Section Chief Allen Friedland, M.D., FACP, FAAP, was re-elected to chair the American Academy of Pediatrics (AAP) Med-Peds Section, the third largest AAP section with over 2,800 members. Daniel Elliott, M.D., MSPE, FACP, FAAP, serves on the Society of General Internal Medicine Evidence-Based Medicine National Task Force; John Donnelly, MD, FACP, FAAP, is part of the Association of Program Directors in Internal Medicine E-Learning Committee; and Jennifer LeComte, D.O. FACP, FAAP, serves as co-chair of the Society of General Internal Medicine Task Force on Longitudinal Care for Patients with Child Onset Conditions.

Highlights of our Med-Peds residency curriculum include the opportunity to train in our nationally recognized Transitions Care Practice for young adults with complex medical conditions; our popular mini MBA and mini MPH series; global health track; and community health exposure at area schools. Many residents participate in a leadership elective, lead award winning performance improvement projects and receive teaching awards. Residents are active in Delaware legislative and community issues including gun violence prevention, Hill Talks and American Medical Association initiatives.

# **Fellowships**

More than a third of our Internal Medicine residents pursue fellowships in subspecialties after graduation. Christiana Care's own expanding number of accredited fellowships afford residents the opportunity to further develop the special skills and interests they plan to focus on in their professional careers.

#### **Administrative Fellowship in Quality and Patient Safety**

Under the direction of Vice Chair Robert Dressler, M.D., MBA, who is also Medicine's director of Patient Safety and Quality and Christiana Care's associate patient safety officer fellows develop their clinical, analytical, change management and leadership skills so they can leverage these talents to drive continuous improvement in clinical practice, system design and education. At the end of the program, fellows have completed a portfolio of scholarly activity and are expected to sit for Board Certification in Medical Quality through the American College of Medical Quality.



A capstone process improvement project is one highlight of the fellowship experience. The project completed by our 2013-2014 fellow, Candace Sprott, M.D., "Bridging the Gap: Practical Application of Patient Safety and Quality Improvement Principles at the Frontline," was presented as a poster at the Alliance of Independent Academic Medical Centers (AIAMC) Annual Meeting in March 2014.

The study investigated the barriers to resident engagement in reporting patient safety events using the safety first learning report (SFLR) system and assessed the impact of the implementation of targeted interventions. Findings showed that interventions were successful in teaching the current process for event reporting, but insufficient to overcome the barriers of time constraints or relevance of for IM residents. Future initiatives include continued measurement, evaluation of the sustained value of embedding a patient safety and quality expert where residents carry out tasks, addressing the barrier of time constraints for IM residents and identifying opportunities to demonstrate and improve the relevance of SFLR to IM residents.

#### **New Palliative Care Fellowship**

The Section of Pain Management & Palliative Care has established a new Hospice and Palliative Care (HPC) fellowship under the direction of Roshni Guerry, M.D., director of Palliative Care Education. The fellowship, through its collaboration with Nemours/Alfred I. duPont Hospital for Children, allows for both an adult and pediatric-focused curriculum. Fellows who participate acquire expertise in advanced symptom management and are prepared to become leaders in palliative care. During this one-year fellowship, they experience varied rotations at the two main sponsoring institutions, at inpatient hospice units and home visits, in perinatal palliative care and long-term care, and at an outpatient longitudinal palliative care clinic. They also have the opportunity for an individualized scholarly activity. The first fellow, Carly Levy, M.D., is a clinical assistant professor at the Thomas Jefferson University in Philadelphia and an attending physician at Nemours/A. I. duPont Hospital for Children.

#### **Nephrology Fellowship**

The Nephrology fellowship program graduated its third fellow in June 2013, and two new fellows joined the program in July of 2013. The current fellows will be the first class to rotate through a newly created pediatric nephrology elective at Nemours/A.I. duPont Children's Hospital to learn more about the genetic basis of kidney disease.

# **Cardiology Fellowship Programs**

Four general cardiology fellows and two interventional cardiology fellows graduated from their respective fellowship programs this year. Of those graduates, two are remaining at Christiana for further fellowship training, and four are starting their professional careers in Delaware (three in New Castle County and one near Lewes, DE). Also, the inaugural fellow graduated from our ACGME accredited Congestive Heart Failure Fellowship program and will be joining the Christiana Care Heart Failure program as the second attending.

Cardiology Fellows presented 14 abstracts in the last year and had five manuscripts published in peerreviewed journals. Fellows gave seven presentations at the American College of Cardiology in March 2014 in Washington, D.C. and one, presented by Lionel Malebranche, M.D., won Best Poster in the 'Fellow-in-Training' division. The Section continues to expand the role of cardiology fellows in leading the daily care of patients in Cardiovascular Critical Care (CVCC). Christiana Care's CVCC is the first Intensive Care Unit to introduce this role for fellows, who consistently rate it the most valuable of their fellowship experience.

# **Clinical Campus**

Christiana Care has served as a Clinical Campus for the newly named Sidney Kimmel Medical College at Thomas Jefferson University since 2010. Students in their third and fourth years can choose to do all their clinical rotations at Christiana Care.

#### **Medical Students**

The Department of Medicine is an integral part of the Sidney Kimmel Medical College student program. In FY14, 46 "Introduction to Medicine" second-year students, 75 third-year students, and 74 fourth-year students rotated through the Department. In addition to the students from Sidney Kimmel, students from 14 other medical schools throughout the United States completed fourth-year medicine elective rotations.



Fourth year students compete in the annual Delaware American College of Physicians (ACP) poster and abstracts competition. Students have the opportunity to prepare a poster/abstract on one of their patient cases for the competition. We are proud that the ACP has continued to select the work of these students for presentation at its annual meeting.

# Student posters presented at the Delaware Chapter Meeting of the American College of Physicians in February 2014

"A Complication of Chronic Salmonella Carriage: Aortitis."	Dyer R, University of New England College of Osteopathic Medicine; Ruether J.
"Not Your Typical Chest Pain."	Kogut J, Philadelphia College of Osteopathic Medicine.
"Upper extremity deep vein thrombosis in a 41-year-old treated for rheumatoid arthritis and military tuberculosis."	Lee BA, Jefferson Medical College; Magargle J, Moosavy F.
"Unusual Presentation and Source of Atypical Pneumonia."	Margiotta M, Jefferson Medical College; Meyer E, McCarter M.
"A case of Acyclovir-Resistant, severe Herpes Simplex Virus Type 2."	Penn E, Jefferson Medical College; Cohen D.

Third year students from the Sidney Kimmel Medical College are assigned to Internal Medicine at Christiana Hospital. Christiana Care also hosts third-year medical students from Philadelphia College of Osteopathic Medicine who spend time rotating through Cardiology and other specialties through the year.

In the fall of the year, second-year students come to Christiana and Wilmington hospitals to learn how to perform a full history and physical exam. For continuity, two to four students are grouped with one preceptor for four learning sessions over approximately four months.

#### **Undergraduate Medical Scholars Program**

This year the Department introduced three undergraduate medical students to clinical medicine through the Medical Scholars Program of the University of Delaware, offered in conjunction with Sidney Kimmel Medical College. Students spend time on the inpatient units with residents and attendings. They also spend time in a private office learning basic physical exam skills and observing in the outpatient setting. They are exposed to hospital floor nurses, social workers, visiting nurses, laboratory personnel and others. The Internal Medicine practicum emphasizes the psychosocial aspects of patient care.

# **Research & Scholarly Activity**

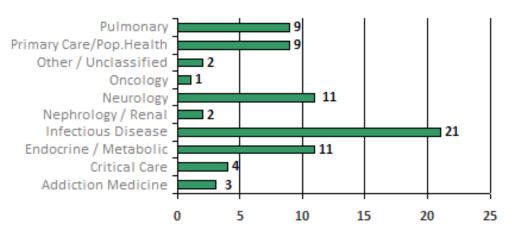
Medicine is committed to conducting research and scholarly activity that will improve the quality, safety, and value of care delivered to our patients. Our RSA process, under the direction of Daniel Elliott, M.D., MSCE, associate chair for Research, promotes a "balanced portfolio" of well-designed research projects that supports our mission and fosters the critical thinking that leads to innovation.

An important contributor to the RSA process is the Clinical Research Committee (CRC). Members meet monthly to review research proposals from residents and faculty for scientific merit, validity and alignment with Medicine and Christiana Care's goals, considering design, timeline, recruitment, budget, and statistical power to fairly allocate available funds to the greatest number of applicants with the strongest ideas. The CRC offers its support to investigators throughout the research process from protocol development to Internal Review Board approval through start-up and completion.

Medicine physicians pursue a broad array of research and scholarly activity as investigators in federal or state supported, industry sponsored, or locally initiated studies, as well as with the Christiana Care Value Institute. A sampling of ongoing clinical trials is included in this report. Physician investigators serve as mentors to fellows, residents and medical students who pursue their own research interests in a variety of specialties. Many of these projects have earned national awards and have provided learners with the opportunity to present nationally.

Essential to the RSA process are the clinical research nurses who are certified by the Association of Clinical Research Professionals (ACRP). In collaboration with our physician investigators, Medicine's certified clinical research nurses coordinate all study activities, including study submissions for review, education, and supervision of essential staff (lab, pharmacy, hospital staff, physicians/residents, etc.), dissemination of information, data collection, and distribution of study product, as appropriate.

# Current Projects by Disease / Focus



The following table provides a representative snapshot of the broad research focus within the Department of Medicine.

### **Bridging the Divide (Bridges) - CMS Innovation Grant**

Christiana Care is among a handful of recipients of a Center for Medicare and Medicaid Innovation (CMMI) grant aimed at providing better health and better healthcare at lower cost. At Christiana Care, the program is an active partnership among the Department of Medicine, Section of Cardiology, Information Technology (IT), Population Health, and the Value Institute. Since launching in April 2013, a newly implemented Care Management Program (Care Link Services) has served more than 2,000 patients post-myocardial infarction and revascularization.

The program offers intensive case management to patients with heart disease who are likely to encounter obstacles to recovery at home after hospital procedures. It is designed to improve care transitions and longitudinal care of these patients, which will correspondingly decrease emergency room visits and avoidable hospital readmissions.

This Christiana Care model program uses software with analytic capabilities that enable more coordinated care management. The system incorporates data from inpatient systems and from Cardiology Consultants, and will soon include clinical information from private cardiology practices and the Delaware Health Information Network. Tracking progress, including both process and outcome measures, has shown improvements in transitional care and a high level of patient satisfaction with the process. The program is serving as the foundation for Population Health programming at Christiana Care.

#### Medicine's Research Clinical Trials Group

Clinical trial opportunities for patient participation in the Department of Medicine come from multiple specialties. The Research Clinical Trials Group (CTG) continued support in the sub-specialties of Endocrinology, Neurology, Infectious Disease, Pulmonology and Critical Care for FY14. Nine principal investigators, five certified clinical research coordinators and a program assistant are responsible for the conduct of the trials.

This year, 14 Phase II-IV trials were added to the ongoing 19 trials from the previous year. Neurology has championed our patient recruitment efforts in the areas of multiple sclerosis and Alzheimer's disease and contributes to 70 percent of the overall total patient enrollment. Endocrinology trials included new treatment modalities for type 1 and type 2 diabetes with additional focus on nephropathy and cardiovascular outcomes. Infectious Disease trials focused on C-diff, sepsis and hospital acquired infections. Pulmonary Medicine continued its involvement with pulmonary hypertension and COPD. As clinical trials have become more complex and require interdisciplinary collaboration, initiatives are underway to help support research efforts in the departments of Emergency Medicine Research, Cardiovascular Research, Surgical Critical Care Research and Maternal Fetal Medicine Research.

# **Clinical Trials**

The following is a sampling of clinical trials and studies underway spring boarding from Medicine's RSA platform as well as investigative efforts in Cardiology, directed by the Heart and Vascular Service Line, in Medical Oncology, directed by the Oncology Service Line, in Nuclear Medicine and in Renal and Hypertensive Diseases.

## **Endocrinology and Metabolic Diseases**

Onset®1. Testing the efficacy and safety of FIAsp (a mealtime, faster-acting, insulin aspart injection) compared to insulin aspart (a short-acting, synthetic insulin solution), both in combination with insulin detemir (a long-lasting insulin formula) in adults with type 1 diabetes.

SONAR. A multicountry/center, randomized, double blind, parallel, placebo-controlled study of diabetic nephropathy with atrasentan to evaluate the effects of this drug on renal outcomes in people with type 2 diabetes and nephropathy who are randomized to receive the drug or placebo.

DECLARE. A multicenter, randomized, double blind, placebo-controlled trial to evaluate the effect of one 10 mg dose/per day of dapagliflozin on the incidence of cardiovascular death, heart attack or stroke, in patients with type 2 diabetes.

SWITCH2. A randomized, double blind crossover trial comparing the safety and efficacy of a new generation, ultra-long acting injectable insulin formula called insulin degludec with another longacting formula called insulin glargine, taken with or without oral anti-diabetic medications (OADs) in people with type 2 diabetes.

LixiLan-L. A randomized, 30-week, active-controlled, open label, 2-treatment arm, parallel-group, multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine with or without metformin in patients with type 2 diabetes.

ALPHA 1. A multicenter, randomized, partial blinded, placebo-controlled study to evaluate the safety and efficacy of a human plasma-derived alpha-1-proteinase inhibitor in subjects with newonset type 1 diabetes.

PARATHYROID. A pilot study to evaluate osteocalcin and heart rate variability in primary hyperparathyroidism.

TERIPARITIDE. Evaluating the effects of teriparatide on osteocalcin, insulin resistance, and cardiovascular autonomic function.

# **Geriatrics**

Dementia. An investigator initiated study surveying patient and caregiver knowledge of dementia diagnosis and treatments via a survey tool at start of care.

# **Infectious Diseases**

MODIFY-1. A phase III, randomized, double blind, placebo-controlled, study testing the efficacy, safety, and tolerability of a single infusion of human monoclonal antibody MK-3415 (to C-diff toxin A), MK-6072 (to C-diff toxin B), and MK-3415A (to C-diff toxins A and B) in patients with C-diff receiving antibiotic therapy.

CUBIST C-DIFF. A randomized, double-blinded, active-controlled study of a drug, Cb-183,315 vs. oral vancomycin in patients with *C-diff* associated diarrhea.

INHALED AMIKACIN. A prospective, randomized, double blind, placebo-controlled, multicenter study is evaluating the safety and efficacy of BAY 41-6551 as adjunctive therapy in intubated and mechanically-ventilated patients with gram-negative pneumonia.

FLOSSI. A double blind, randomized, stratified, multicenter trial is evaluating conventional and high dose oseltamivir in the treatment of immunocompromised patients with influenza.

**MEDIMMUNE.** Study to characterize the immune response to serious respiratory bacteria, by collecting whole blood samples from up to 30 healthcare personnel (nurses, environmental service technicians, physicians, and respiratory therapy technicians,) who may be exposed to serious bacterial respiratory pathogens by coming in frequent contact with patients or equipment used in an ICU setting or on step down units.

ART-123. A randomized, double blind, placebo-controlled, phase 3 study to assess the safety and efficacy of ART-123 in subjects with severe sepsis and impaired blood-clotting ability.

# Neurology

ALLOW. An open-label, two-arm, randomized study to characterize flu-like symptoms in relapsing multiple sclerosis patients transitioning from current interferon beta therapies to BIIB017.

ASSESS. A 12-month, randomized, rater and dose-blinded study to compare the efficacy and safety of fingolimod 0.25 mg and 0.5 mg administered orally once daily with an immunomodulator drug called glatiramer acetate 20 mg administered subcutaneously once daily in patients with relapsingremitting multiple sclerosis.

**ESTEEM.** A multicenter, global, observational study to collect information on safety and to document the drug utilization of Tecfidera™ (dimethyl fumarate) to treat multiple sclerosis. The primary objective of the study is to determine the incidence, type, and pattern of serious adverse events, including but not limited to infections (including opportunistic infections), hepatic events, malignancies, and renal events, and of events leading to treatment discontinuation in patients with MS treated with DMF.

STRATIFY-2. A multicenter study testing for the presence of the JCV antibody in patients with relapsing multiple sclerosis who are receiving or considering treatment with Tysabri®.

STRIVE. A multicenter, observational, study of Tysabri® in early relapsing-remitting multiple sclerosis in anti-JCV antibody negative patients.

**LZAO.** Continued efficacy and safety monitoring of solanezumab, an anti-amyloid  $\beta$  antibody in patients with Alzheimer's disease.

LZAX. Studying the effect of passive immunization on the progression of mild Alzheimer's disease: solanezumab (LY2062430) vs placebo.

**TRANSITION.** A two-year observational study to evaluate the safety profile of fingolimod in patients with multiple sclerosis who switch from natalizumab to fingolimod.

PASSAGE. Long-term, prospective, observational, multinational, parallel-cohort study monitoring safety in patients with MS who are newly started with fingolimod once daily or are treated with another approved disease-modifying therapy.

# Pulmonary/Critical Care Medicine

INHALE-1. Evaluating an aerosol medication (amikacin inhalation solution) vs. placebo to treat intubated and mechanically ventilated patients who have gram-negative pneumonia.

GRIPHON-302. A multicenter, double blind, placebo-controlled phase 3 study assessing the safety and efficacy of an oral medication called selexipag (ACT-293987) on morbidity and mortality in patients with pulmonary arterial hypertension.

GRIPHON-303. Long-term single-arm open-label study, to assess the safety and tolerability of ACT-293987 in patients with pulmonary arterial hypertension.

IKARIA iNO. A phase 2, placebo-controlled, double blind, randomized clinical study to determine safety, tolerability and efficacy of pulsed, inhaled nitric oxide (iNO) vs placebo as add-on therapy in symptomatic subjects with pulmonary arterial hypertension (PAH).

**ROF-MD-37.** A 52-week, double blind, randomized, placebo-controlled, parallel-group study to evaluate the effect of roflumilast 500 µg on exacerbation rate in patients with chronic obstructive pulmonary disease (COPD) treated with a fixed-dose combination of long-acting beta agonist and inhaled corticosteroid (LABA/ICS). PROSPECT. A registry to prospectively describe use of epoprostenol for injection ("RTS Epoprostenol") in patients with pulmonary arterial hypertension.

LAC-MD-32. A long-term, randomized, study of the safety and tolerability of a fixed-dose combination of aclidinium bromide/formoterol fumarate compared with formoterol fumarate in patients with moderate to severe, stable chronic obstructive pulmonary disease (COPD). PRO-TOOL. Qualitative development of a patient reported outcome (PRO) instrument for pulmonary arterial hypertension (PAH), to assess pulmonary arterial hypertension (PAH) symptoms relevant to patients with PAH and the impacts of these symptoms on patients' lives.

QuERI. Pulmonary Arterial Hypertension Quality Enhancement Research Initiative Extension Program, to improve the management of PAH patients through an evidence-based approach aimed at achieving optimal WHO functional class (defined as: 1) improvement of FC III or IV to FC II; 2) improvement of FC II to FC I; or 3) maintaining FC II or I).

# Cardiology

#### Electrophysiology

AnalyzeST. Evaluation of dynamic monitoring of ST segments for early evidence of acute coronary syndrome events in patients with an implantable cardioverter defibrillator (ICD).

Multipoint Pacing. A trial evaluating the benefit of pacing from multiple poles in the left ventricle. **ProMRI.** Evaluation of an MRI safe pacemaker.

#### **Heart Failure**

FIGHT. Systolic heart failure patients are randomized to receive Liraglutide or placebo, as part of a seven-year grant from the NIH Heart Failure Network 2.0.

**CUPID.** Christiana Care was one of the top ten enrollers in groundbreaking studies to see if gene replacement therapy can dramatically slow the progression of heart failure. This is the largest study of its kind and the first-ever cardiac genetic trial in Delaware. Results are anticipated in fall 2014. INBRE. A project in collaboration with Nemours/A.I. duPont Hospital for Children to examine the ultra structural elements of normal and diseased hearts. An abstract on this work won the American College of Cardiology top research award in 2014.

### **Interventional Cardiology**

**ABSORB III.** Testing a drug-eluting bioresorbable stent to treat patient with coronary artery disease. IN-PACT. Christiana Care was the top enroller in this trial testing a drug-eluting balloon to treat peripheral artery disease.

**DURABILITY PAS.** A post-approval study to confirm the long-term safety and effectiveness of the EverFlex™ Self-Expanding Stent System for the treatment of atherosclerotic superficial femoral artery (SFA) and proximal popliteal arteries.

#### Non-Invasive

Echo evaluation. In house collaboration between Pulmonary Medicine and the Echo Lab evaluating echo parameters as predictors of pulmonary pressure in patients in the Pulmonary Hypertension Clinic.

Cardiovascular Critical Care. Multiple studies are underway including aromatherapy; catheter comparisons for central venous pressure (CVP) monitoring; compassion fatigue; non-invasive blood pressure monitoring; and tracking CABG patients enrolled in CareLink, a CMS longitudinal care program.

Additional cardiovascular clinical trials include those sponsored by the Cardiothoracic Surgical Trials Network (CSTN); NHLBI's Cardiovascular Inflammation Reduction Trial (CIRT); ATTRACT to determine the best treatment for blood clots; a Johns Hopkins University sponsored trial on Left Ventricular Structural Predictors of Sudden Cardiac Death; the FOURIER study to reduce LDL cholesterol; HEAT, testing a new type of coil to treat endovascular aneurysms; and Nellix, testing a new endovascular aneurysm sealing system for treatment of abdominal aortic aneurysm (AAA).

ACCESS-PTS. Evaluating the use of guided ultrasound and a clot-busting medication to remove blood clots in patients with chronic deep vein thrombosis (DVT) and post-thrombotic syndrome (PTS). Mark Garcia, MD, medical director of the Christiana Care Center for Comprehensive Venous Health, is the national lead investigator of this Ekos Corporation study.

# **Medical Oncology**

Breast Cancer. A pilot study on the effect of exercise intervention in breast cancer patients taking aromatase inhibitors who are experiencing joint pain and stiffness. The overall objective is to improve patient compliance with medication and improve clinical outcomes.

Myeloid Cell Defects. The Helen F. Graham Cancer Center and Research Institute collaborates the The Wistar Institute in Philadelphia on a number of translational research projects. In one such project, The Tissue Procurement Center is providing precisely prepared protocol driven samples of peripheral blood and cancer tumors to Wistar investigators for the study of cancer related myeloid cell defects.

Multiple ongoing, National Cancer Institute cooperative group trials, including: ECOG **\$1211.** A randomized, phase I/II study of optimal induction therapy of bortezomib, dexamethasone and lenalidomide with or without elotuzumab (NSC-764479) for newly diagnosed high risk multiple myeloma (HRMM).

# Nuclear Medicine/Cancer

Metastatic Prostate Cancer. With support from Cancer Research, Nuclear Medicine is participating in two multicenter clinical trials studying 223Radium (223Ra) dichloride in metastatic prostate cancer. One trial will study 223Ra alone and in combination with new prostate cancer drugs, abiraterone and enzaluamide. A second, double-blinded trial will evaluate abiraterone with and without added 223Ra with the radioactive drug (or placebo) delivered by Nuclear Medicine.

Gallbladder study. A study comparing the accuracy of functional gallbladder imaging using a "fatty meal" protocol with the standard protocol using intravenous sincalide, a cholecystokinin (CCK), is being continued by a student researcher in the wake of a national shortage of IV sincalide, with funding support from the Delaware IDeA Network of Biomedical Research (INBRE).

# **Renal and Hypertensive Diseases**

CKD Management. A retrospective database study of CKD management in a large nephrology practice comparing CKD management parameters in patients with and without congestive heart failure.

EUPHRATES. Evaluating the Use of Polymyxin B hemoperfusion in a randomized controlled trial of adults treated for endotoxemia and septic shock.

Chronic Kidney Disease. A retrospective study investigating outcomes and complications associated with simultaneous placement of tunneled venous hemodialysis catheters with small-bore central venous catheters.

# **Section Highlights**



David Britchkow, M.D., Nathan Merriman, M.D. and James Ruether, M.D., discuss the Progress Note and dictation capabilities of Christiana Care's newly upgraded PowerChart system, which is the software that supports electronic medical records for patients at the hospital. The upgrades are reducing the time it takes for physicians to update and maintain accurate medical records.

# Cardiology — directed by the Heart and Vascular Service Line

Christiana Care cardiologists and vascular specialists are among the nation's leading experts in the treatment and prevention of heart disease, stroke and other diseases that affect the heart and blood vessels. The Center for Heart & Vascular Health is one of the most technologically advanced cardiovascular care centers in the United States.

Recently, the National Cardiovascular Data Registry recognized Christiana Care with the ACTION Registry-"Get with the Guidelines" Gold Performance Achievement Award for the treatment of acute heart attack, scoring 90 percent or better on performance measures for eight consecutive quarters through 2013. Section performance leadership teams earned three Christiana Care Focus on Excellence Awards (FOE) this year. Read more about what makes us leaders in cardiovascular care and our entire roster of programs and services.

# **FY14 Highlights:**

## **Safeguarding a Million Hearts**

Delaware Christiana Care is spearheading Million Hearts Delaware, a public-private statewide effort to advance the goal of the national initiative to prevent 1 million heart attacks and strokes by 2017.

The Million Hearts Delaware initiative aligns the efforts of hospitals, government, major employers and health care providers throughout the state to combat cardiovascular disease through public awareness and clinical prevention, connecting individuals who need treatment with health care providers.

Edward Goldenberg, M.D., medical director of Cardiovascular Prevention and Elisabeth Bradley, APN, clinical leader of the Cardiovascular Prevention Program in Christiana Care's Center for Heart & Vascular Health, initiated Million Hearts Delaware and are co-chairs. The coalition has expanded to include all major hospitals and 50 partners throughout the state who have reached out to 20,000 Delawareans in person and more than 450,000 with media messaging. The program won a Christiana Care 2014 Focus on Excellence Silver Award for "Excellence in Community Health." Their website, millionheartsde.com, offers information, connection and support to both health care providers and the public

#### Cardio Critical Care Nurses are pure gold

Once again, the Cardiovascular Critical Care Unit (CVCC) earned the Beacon Gold Award for Excellence from the American Association of Critical Care Nurses for 2013-2016. The award, earned by only 1 percent of intensive care units in the United States recognizes individual hospital units that distinguish themselves by improving every facet of patient care, and provides a road map and tools to assist hospital units on their path to excellence. The CVCC was the only Christiana Care ICU to earn this designation.

Performance excellence on the unit included decreasing Central Line Associated infection (CLABSI) rates to ZERO for 19 consecutive months. The team won two Christiana Care Focus On Excellence Awards: Silver for reducing for catheter associated urinary tract infection (CAUTI) rates and Gold for their role in the Ventilator Associated Pneumonia (VAP) Collaborative to drive down VAP rates and other ventilatorassociated complications.

#### A Delaware first for familial high cholesterol disorder

The Center for Heart and Vascular Health Prevention Program, in partnership with the Ambulatory Infusion Center at Christiana Hospital, offers patients with familial hypercholesterolemia (FH) the option for treatment closer to home. FH is a rare genetic disorder characterized by high levels of low-density lipoproteins (LDL), commonly known as bad cholesterol. If not treated, as many as 50 percent of patients develop cardiovascular disease by age 55. Many suffer a stroke or heart attack at an even younger age.

The Apheresis Center, the first of its kind in Delaware, was set up to treat people who do not respond to statins, traditionally used to control FH. Much like dialysis, apheresis is used to remove bad cholesterol from a patient's blood. FH patients can rely on apheresis as a long-term treatment or as a bridge until more effective medications are developed.

#### Ambassadors for healthy blood pressure

Blood Pressure Ambassadors are active in the African-American community and increase awareness about the risks of hypertension. The 25 volunteers, focusing on medically underserved neighborhoods in the city of Wilmington and surrounding areas, have reached some 1,800 individuals, screened more than 1,600 for hypertension and offered provider referrals to 100 percent of individuals who did not have one.

#### Excellence in heart failure care

The Heart Failure Program at Christiana Care is the only heart-failure program in Delaware to achieve Joint Commission advanced certification in heart failure and is consistently recognized for quality achievement by the American Heart Association. A newly opened outreach clinic in Lewes expands services to southern Delaware residents. A grant from the American College of Cardiology will allow the program to increase the number of nurse navigators to provide guidance and support for heart failure patients and their families.

In July 2013, the program earned the Joint Commission Gold Seal of Approval for Ventricular Assist Device Destination Therapy. Short of a heart transplant, this mechanical heart pump implanted inside or connected outside of the body, offers the most advanced technology for the treatment of heart failure with excellent outcomes.

In partnership with Palliative Care, the Heart Failure team launched an a pilot project on 5E – the Heart Failure unit at Christiana Hospital, to identify heart failure patients at high risk for mortality, to discuss goals of care, and when appropriate, to offer receptive patients end-of-life counseling and services. Data collection and analysis for this project is ongoing in collaboration with the Christiana Care Value institute.

#### Cardiac Rehab exercise prescription redesign

Christiana Care Cardiac Rehabilitation has upgraded both its Exercise Prescription and Individualized Treatment Plans to reflect the most current standards of practice recognized by the American College of Sports Medicine, the American Heart Association and the American Association of Cardiovascular and Pulmonary Rehabilitation. Patient overall satisfaction scores with the program remain high at 98.6 percent. The move from PMRI to its new and more spacious Lancaster Pike location ensures consistent physician coverage by imbedded Christiana Care cardiologists and primary care providers. All three outpatient Cardiac Rehab locations (including the Glasgow Medical Center and the Christiana Care Healthcare Center) are certified independently by the AACVPR every three years. These sites offer heart failure nutrition education, taught monthly by a registered dietician in partnership with Christiana Care **Nutrition Services.** 

#### **Short-Stay Unit fast-tracks cardiac patients**

The 10-bed Cardiology Short -Stay Unit opened in March 2013 to provide coordinated, streamlined care for patients experiencing chest pain or other cardiac diagnoses, while optimizing both quality and length of stay (LOS) performance. Average LOS for chest pain observation (OBS) patients is 18 hours during the week and 20 hours on weekends, which is 62 percent lower than OBS patients admitted to other units. The unit has also implemented a Direct Admit Protocol with emergency services to expedite transfer of Chest Pain patients. Studies show that CSSUs can reduce unnecessary hospital admissions and for ED patients, having more beds available means timelier care.

Read more about <u>cardiovascular research in progress</u>.

# **Dermatology**

For the past 24 years, Christiana Care dermatologists, in partnership with the Academy of Dermatology, have offered free skin cancer screenings to help people get diagnosed early, when even deadly melanoma can be highly curable. The events also teach participants about ways to prevent skin cancer, such as applying liberal amounts of sunscreen once every two hours and avoiding tanning beds. During a two-day event in May 2014, 214 people were screened, with 96 referred for a follow-up visit to further examine suspicious spots on the skin. Outreach workers also connected patients without insurance with health care resources for follow-up care.

# **Endocrinology and Metabolic Diseases**

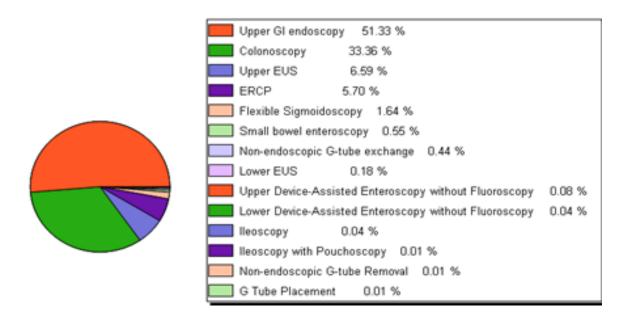
In 2014, Christiana Care ranked among America's top 50 hospitals for Endocrinology and Diabetes care by U.S. News and World Report.

Our board-certified endocrinologists, certified diabetes educators, nutrition counselors and support staff provide comprehensive, expert care for patients with diabetes and other metabolic and endocrine disorders, including thyroid diseases, osteoporosis, metabolic bone disease, menopause, and pituitary/other glandular problems.

The Diabetes and Metabolic Diseases Research Center pursues new and better ways to understand and treat these conditions by participating in a variety of multicenter, multinational clinical trials. The center also performs phlebotomy, EKG, glucose tolerance tests, mixed meal tolerance tests, autonomic function tests, and others based on study protocol requirements.

# Gastroenterology

Christiana Care Gastroenterology is ranked among the nation's top performers by U.S. News & World Report and provides a comprehensive array of diagnostic, therapeutic and consultative gastrointestinal services. These include therapeutic ERCP (endoscopic retrograde cholangiopancreatography), endoscopic ultrasound, impedance esophageal manometry, Barrett's ablation therapy and balloon enteroscopy. Completion of two new state-of-the-art endoscopy suites at Christiana and Wilmington hospitals makes scheduling complex GI interventions faster and more convenient for our patients. From September 2013 – September 2014 our GI labs performed 7,311 procedures.



## **Performance and Value Improvement Teams**

Multidisciplinary Endoscopy Performance (ECPI) and Value Improvement (ECVI) Teams, composed of GI physicians, nurses and anesthesia providers, are focused on monitoring and improving patient safety and value of care in the Endoscopy Suites at Christiana and Wilmington hospitals. Juran "lean process" improvement projects target on-time starts for procedures and anesthesia induction, standardization of procedure room set up and equipment, and efficient physician block scheduling to improve utilization of the endoscopy suites. The ECPI Team is monitoring overall endoscopy suite complication rates and endoscopy quality markers.

#### New treatment for recurrent *C-diff* infections

Christiana Care gastroenterologists collaborated on a powerful new treatment protocol for recurrent infections caused by the bacterium Clostridium difficile (C-diff), one of the most common and serious hospital-acquired infections. A select team from Gastroenterology and Infectious Diseases now performs fecal microbiota transplantation (FMT), only available at a handful of centers on the East Coast. Studies have shown that transplanting stool samples from healthy donors can restore balance to the intestinal microbial environment upset by recurrent C-diff infections and the antibiotics administered to treat them. In almost all cases (90%), FMT can relieve years of suffering and restore the patient to good health.

## **General Internal Medicine**

The section of General Internal Medicine is the largest section in the Department of Medicine. More than 150 internists in the section are committed to providing excellent, coordinated, patient-focused care on our inpatient Medicine services, in our offices throughout the hospital system and in the community. Christiana Care has employed Internal Medicine practices in the Wilmington Health Center (Adult Medicine Office, Transitions Practice and Internal Medicine Faculty



Practice), the Annex at Wilmington Hospital (HIV practice) and at various sites in the region (The Medical Group of Christiana). In addition, a large number of private practicing internists are members of Christiana Care Quality Partners.

Currently, there are two divisions within the Section of General Internal Medicine:

- Division of Hospitalist Medicine
- Division of Addiction Medicine

Our clinical faculty is focused on high quality and value in providing care to all the communities we serve. Conduits to this effort are the application of continuous performance improvement, enhancement of clinical care and original research. Many examples may be found at the beginning of this document in our Clinical Transformation, Patient Quality and Safety, Education and Research and **Scholarly Activity** Sections of this report.

#### **Division of Addiction Medicine**

Ongoing work continues in support of the Division's mission to improve care for people with alcohol and substance use disorders in Delaware and neighboring communities.

#### **Project Engage saving lives and money**

Addiction Medicine's innovative substance abuse program has touched the lives of more than 3,000 patients since its inception in 2008. Project counselors provide substance abuse intervention services for patients in the Emergency Departments at both Wilmington and Christiana hospitals and in inpatient settings. A recent outcomes analysis completed in partnership with the Value Institute revealed that 27 percent of Project Engage clients transferred into community-based treatment and 30-day readmissions for non-mentally ill patients were reduced two-fold. The Project Engage team presented these results at the White House's Office of National Drug Control Policy in September.

In January 2014, Project Engage Plus was launched, embedding a peer counselor into the community to act as a recovery coach for patients and to assist with case management. A newly formed "community stakeholders" group of former Project Engage patients meets quarterly to offer feedback on their experiences and assist with program design moving forward. The Project Engage team will be working with the University of Pittsburgh Medical Center to assist them in developing and implementing Project Engage at three of their hospitals. Outreach efforts continue to build partnerships to bring Project Engage services to broader segments of the community.

#### New resident elective

The Division of Addiction Medicine partnered with the Department of Family Medicine to offer their residents an elective opportunity to learn about addiction and early engagement methods, including motivational interviewing by working with Project Engage peer counselors. The rotation is now also available to Medicine residents.

#### Alcohol withdrawal research draws national interest

Addiction Medicine collaborated with the University of Pennsylvania to show the validity of the AUDIT-PC screening tool to predict alcohol withdrawal in patients. Their findings were published in the The Journal of General Internal Medicine (JGIM) and have been adopted by several other hospital systems for the care of their inpatients.

## Second annual Addiction Medicine Symposium

Addiction Medicine's second annual symposium, "Breaking Down Barriers," featured a number of internationally renowned experts at the John H. Ammon Medical Education Center in May. Speakers included the First Lady of Delaware, Carla Markell and Secretary of Health and Social Services Rita Landgraf. The one-day conference was organized in partnership with Delaware's Division of Substance Abuse and Mental Health and the National Institutes on Drug Abuse Clinical Trials Network.

# **Geriatric Medicine**

Currently 46 percent of Christiana Care inpatients (about 20,000 annually) are over age 65. The Section of Geriatric Medicine, recognized among the nation's top performers by U.S. News and World Report, is an interdepartmental section, with up to 63 physicians who are board-certified or associates in Geriatric Medicine. Section members provide post-acute senior services through a variety of avenues: the Senior Center Office Practices in New Castle and Wilmington; the Swank Memory Care Center; Home Visit and Geriatric Assessment programs; affiliations with local nursing homes; Christiana Care Pain and Palliative Care and inpatient hospice services; and the Christiana Care Visiting Nurse Association (VNA). For several, a commitment to improving clinical excellence in geriatrics includes serving as faculty and mentors for our graduate medical education programs. All are focused on providing integrated, expert health care and services for senior patients who live independently or require hospitalization, assisted living or long-term care.

# WISH recognition for exemplary elder care

For the second consecutive year, the WISH (We Improve Senior Health) program has earned "Exemplar" status for elder care from NICHE (Nurses Improving Care for Health System Elders). Christiana Care is the only hospital in Delaware and one of just 23 nationwide to achieve this award. NICHE is the premier designation indicating a hospital's commitment to excellence in the care of patients age 65 and older. Exemplar status recognizes Christiana Care's "ongoing, high-level dedication to geriatric care and preeminence in the implementation and quality of system-wide interventions and initiatives that demonstrate organizational commitment to the care of older adults."

The WISH team has trained more than 2,000 health care providers to become members of the Senior Health Resource Team (SHRT). They serve as resources to other Christiana Care providers regarding the care of seniors on hospital patient care units, the VNA, the Adult Day Program and in various other settings. In addition to WISH training, nine Geriatric Nursing Certification Review courses have helped prepare and secure geriatric certification for 225 nurses.

#### **ACE Unit milestones**

Christiana Care operates two ACE (Acute Care of the Elderly) Units: a 39-bed unit at Christiana Hospital and a newly expanded 21-bed unit at Wilmington Hospital. As they approach their 10th and 7th year anniversaries, respectively, both units continue to show good outcomes regarding hospital length-ofstay, falls and pressure ulcer prevention, limited use of Foley catheters and zero restraints, and delirium and medication management. Leveraging technology, a video surveillance project was instituted on 5A to guard against falls and other injuries. Medication alerts and other interventions, including a bundle for High Risk for Injury, were implemented with no deaths related to a fall (as of June 30, 2014) since the implementation of the post-fall algorithm and order set. A Lean Six Sigma project demonstrated that the most effective intervention was Purposeful Rounding, which continues to expand to other units. The Wilmington ACE Unit team won a Focus on Excellence Award in 2013 for its "Cleaner Catches" project to improve collection and accuracy of urine specimen results.

## Swank Center kicks off Alzheimer's campaign

In February, 2014, the Swank Memory Care Center was the place to be when Delaware Governor Jack Markell and Delaware Health and Social Services Secretary Rita Landgraf unveiled Delaware's plan to address Alzheimer's disease and related disorders." Read the entire article.

The Swank Memory Care Center celebrated its 3rd anniversary and served 1,000 patients in FY 2014. In addition to clinical care and counseling, The Center also offers a monthly TGIF (Thank Goodness It's Friday) program for patients with early or mild dementias, providing experiences with singers, magicians, occupational therapists, historians, museum programs, arts and crafts, games and refreshments.

Proceeds from the 2013 Medicine ball sponsored by the Christiana Care Junior Board will support the Center's caregiver education (caregiver series and materials), community education (community educator and presentations), respite care (both in the home and at the center for caregivers), and expansion of the resource library.

# Hematology

The Hematology Section has a unique role at Christiana Care, with members having dual responsibilities in the Departments of Medicine and Pathology. Hematologists care for patients at Christiana and Wilmington hospitals and at the Helen F. Graham Cancer Center, with onsite chemotherapy infusion services. They provide direction for several clinical laboratories (e.g., Hematology and Coagulation, Flow Cytometry, Stem Cell Processing, Blood Bank), the Hemophilia Program and the Christiana Care Bone Marrow/Stem Cell Transplant Program.

An active clinical research program affords patients opportunities to participate in carefully selected pharmaceutical industry clinical trials as well as those supported by The Center for International Blood and Marrow Transplant Research (CIBMTR) and the National Cancer Institute such as NCI's Clinical Trials Cooperative Group Program (CCOP) that includes studies from the Cancer and Acute Leukemia Group B (CALGB) and the Eastern Cooperative Oncology Group (ECOG). These include lab based tissue sample acquisition and banking for research. Our clinical trial participation has contributed to advances in the field, which have dramatically improved the lives of patients with hematologic disorders.

For example, patients with Hemophilia A and B now have the option of receiving prophylaxis with longacting Factor VIII or Factor IX preparations that decrease the frequency of infusions and, potentially, the severity of bleeds. Patients with chronic lymphocytic leukemia and other B-cell lymphoproliferative disorders may now be treated with two new, very promising agents that affect the B cell receptor signaling pathway: ibrutinib, a bruton kinase inhibitor, and idelalisib, a PI3K inhibitor.

Similarly, patients with acute promyelocytic leukemia, which in the past was among the deadliest subtypes of AML, now enjoy an expected cure rate of up to 90 percent using differentiation agents (tretinoin and arsenic trioxide) alone with no cytotoxic chemotherapy requirement. The management

of multiple myeloma has improved dramatically with the use of proteasome inhibitors and immunomodulating agents, and new investigational agents such as elotuzumab, a monoclonal antibody directed at the plasma cell-specific antigen CS-1. We are currently participating in an **ECOG** trial for high-risk myeloma patients.

# Blood and bone marrow stem cell transplant program

Delaware's only adult stem cell transplant program celebrated its 18th anniversary in August. Christiana Care's Blood and Bone Marrow Stem Cell Transplant Program is accredited by the National Marrow Donor Program as an Apheresis Collection Center, Bone Marrow Collection Center and Bone Marrow Transplant Center, with transplant referrals throughout Delaware and the surrounding region.

Since 1997, the program has earned continuous accreditation by the Foundation for the Accreditation of Cellular Therapy (FACT). Accreditation demonstrates adherence to rigorous standards for adult allogeneic (matching donor) and autologous (self-donated) hematopoietic progenitor cell transplantation, marrow and peripheral blood cellular therapy product collection, and cellular therapy product processing. A new collaboration with Nemours/A.I. duPont Hospital for Children provides for the collection of peripheral blood and marrow from adult donors for pediatric transplant recipients.

Total Transplants	40	36
NMDP T-Cell Collections	1	1
NMDP Marrow Donor Collections	1	1
NMDP Apheresis Donor Collections	8	12
Allogeneic Related Transplants	6	3
Matched unrelated Transplants	4	5
Autologous Transplants	30	28
Key performance measures:	2012	2013

Also accredited by the American Association of Blood Banks and the College of American Pathologists

Our experienced transplant nursing team provides specialized care for inpatients within our 40-bed hematology/oncology unit at Christiana Hospital. A health psychologist and support teams actively seek innovative strategies for patient education, evaluation and counseling pre- and post transplant. Clinical trial opportunities also come from the National Marrow Donor Program (NMDP), The Center for International Blood and Marrow Transplant Research (CIBMTR) and the Blood and Marrow Transplant Clinical Trials Network.

# **Infectious Diseases**

Some 10,000 hospital patients as well as thousands more on an outpatient basis benefit each year from consultations with our Infectious Diseases team. Section members provide much of the care for HIV patients in Delaware through Christiana Care's HIV Program. Student and resident education remains a priority that strengthens the promotion of best practice standards, particularly through the Section's acclaimed, "standing room only" bimonthly case management series. In collaboration with the Pharmacy Department and the infection prevention team, antibiotic stewardship programs continue to top the list of key initiatives.

Active infectious disease clinical trials include pursuing new therapies to treat Clostridium difficile (Cdiff)infection and trials which address antimicrobial resistance, pneumonia, influenza, device associated infections, and more. Section members serve as mentors for student research projects as well as collaborators on national clinical trials.

#### Fighting recurrent C-diff infections

Infectious Diseases is collaborating with Gastroenterology to offer patients with recurrent C. difficile infections a promising new treatment. Christiana Care is among a handful of centers on the East Coast performing fecal microbiota transplantation (FMT). Studies have shown that transplanting stool samples from healthy donors can restore balance to the intestinal microbial environment upset by recurrent C-diffinfections and the antibiotics administered to treat them. Though currently for patients with recurrent disease, in the future therapy may also be offered to patients with severe infection. In almost all cases (90%), FMT can relieve years of suffering and restore the patient to good health. Efforts by Infection Prevention, Hand Hygiene, and Antibiotic Stewardship Committees have all contributed to decreased C. difficile infection rates system wide. Increased awareness and attention to detail (hand washing, antibiotic durations of therapy, etc.) are likely the common threads responsible for the reduction.

#### **Antibiotic stewardship collaborations**

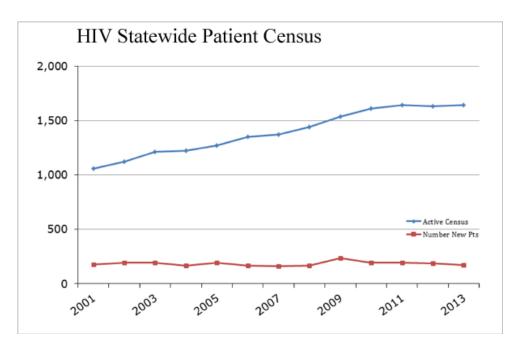
Guidelines for the management of urinary tract infections, pneumonia, intra-abdominal infections, and diabetic foot infections are in place as Infectious Diseases works in collaboration with the Division of Hospital Medicine to promote safe and appropriate use of antibiotics for both diagnostic and therapeutic purposes. In line with this goal, an antibiotic stewardship website is in the planning stages.

## Strategic care model for HIV/AIDs

The Christiana Care HIV Program is the largest provider of HIV medical services in Delaware, providing care to approximately 65 percent of all HIV patients in the state. A chronic care model focused on patient-centered care and disease management is improving outcomes for key clinical indicators measured by the U.S. Health Resources and Services Administration (HRSA) for all Ryan White HIV/AIDS program grantees.

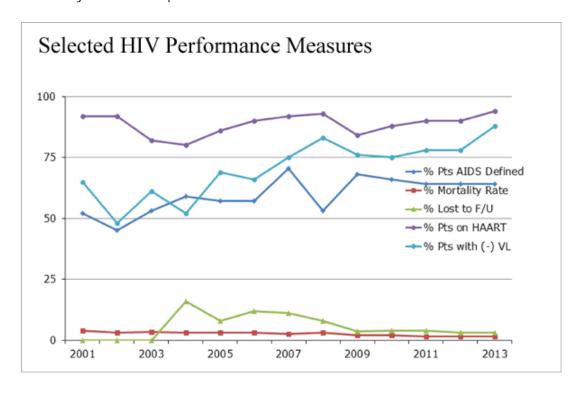
In addition to comprehensive medical care for HIV infection, the HIV Program provides a "medical home" and is the sole source of medical care and treatment for 76 percent of our patients. Eight clinical sites (five in New Castle County, two in Kent and one in Sussex Counties) are integrated into the communities with the highest rates of HIV infection. There was a slight rise in clinical visits last year to 12,000. A number of nested programs in the HIV program address medical and psychiatric comorbidities and women's health. It is important to note that these nested programs currently account for 50 percent of the visits attended by our patients.

In FY14, the program provided care to 173 new patients bringing the total to 1,641. Sixty-four percent are AIDS-defined, which is significantly higher than those patients accessing care in the private sector.



HIV Program staff are certified in their specialty and recognized statewide as experts in HIV management. In addition to presenting a monthly HIV lecture series, members of the HIV Program are faculty members of the Pennsylvania Mid-Atlantic AIDS Education and Training Centers (AETC) and provide clinical training opportunities to medical and pharmacy students and residents. HIV Program members serve with the Institute for Healthcare Improvement and the Delaware State Quality Management team.

Although the majority of patients live well below the federal poverty level, 94 percent of active patients are on HAART (anti-retroviral therapy). Of those, 88 percent have undetectable HIV RNA levels. The overall retention in care is 97 percent, which compares to a national rate of 56 percent. All active patients are screened for tuberculosis, hepatitis B and C, and sexually transmitted infections. As the chart below illustrates, the lost to follow up rate fell to 3 percent, far below national benchmarks, and the mortality rate was 1.5 percent.



The HIV Program collaborates with the Delaware Division of Public Health and the Delaware HIV Consortium to improve healthcare for Delawareans living with HIV/AIDS. Clinical initiatives include the following:

Rapid HIV Testing. To raise awareness of HIV status and link HIV-positive individuals to treatment, the HIV program offers HIV testing to patients accessing Women's Health services at the Wilmington Hospital. This year 75 women were tested with no positive results. The program was established originally to offer testing to Wilmington Hospital Emergency Department patients over age 18, in collaboration with Beautiful Gate Outreach Center. At this site more than 1,000 individuals were tested, with 9 persons identified as HIV positive and all but one linked successfully into treatment.

Treatment for opioid dependence. The HIV Program offers comprehensive medication-assisted treatment for opioid dependence that combines pharmacotherapy with counseling and behavioral health. Patients are treated at the Wilmington Hospital Annex by a certified, multidisciplinary team under the direction of Susan Szabo, M.D. and William Mazur, M.D.

Hepatitis C therapy. HIV patients who are infected with hepatitis C (HCV) may qualify for HCV treatment. The HIV program screens all patients for hepatitis A, B, and C infections following national treatment guidelines. The rate of co-infection for hepatitis C is approximately 28 percent.

# Medical Oncology – *directed by the Oncology Service Line*

In 2013, the Helen F. Graham Cancer Center & Research Institute celebrated 10 years of transformative cancer care delivery to our community. Over that time, Delaware cancer rates have declined, thanks in part to both new cancer treatment protocols and technological advances.

Read more about what makes us a national model for community cancer centers and our entire roster of programs and services.

# **FY14 highlights:**

### Research a large part of our mission

Our research program is one of the largest in the country among community-based hospitals with some 120 active clinical trials in every kind of cancer. As many as 20 percent of patients with a new cancer diagnosis are enrolled in a clinical trial. That is well above the national average of 2 percent. In addition, many of our physician investigators serve in leadership roles with top national and state cancer research groups including the NCI Alliance for Clinical Trials in Oncology, the American Society of Clinical Oncology, and the Delaware Cancer Consortium.

Besides being top enrollers in National Cancer Institute cooperative group trials, our physician investigators have formed collaborations with research scientists at major centers in our region who are working to solve research riddles in the lab that translate into better treatments for cancer patients here and everywhere. In-house, the Center for Translational Cancer Research and the Tissue Procurement Center support leading edge investigations that include new diagnostic and treatment targets for colorectal cancer; mechanisms for developing artificial salivary glands for patients who suffer from radiation complications; pathways to new therapies for aggressive forms of breast cancer, and the development of genetic tools for customized drug screening and analysis.

#### **Radiation Oncology Physics Residency**

In August 2013, the Christiana Care residency program in Radiation Oncology Physics earned accreditation. The program to train medical physicists is one of only a few in the country and is operated in affiliation with the Thomas Jefferson University.

#### Exemplary care in our 40-bed hematology/oncology unit

Christiana Hospital offers 24-hour care and support for cancer patients on 6B and includes a specialized unit for inpatients in our Bone Marrow/Stem Cell Transplant Program. The oncology nurses on the inpatient unit helped Christiana Care obtain Magnet status, recognition of outstanding patient care. In addition, the Helen F. Graham Cancer Center & Research Institute scored highest in patient experience for the quality of cancer care among six U.S. centers in a July 2013 Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey report issued by the Mayo Clinic and the American Institutes for Research and sponsored by the Agency for Healthcare Research and Quality and the National Cancer Institute. Ongoing performance excellence initiatives on the unit include a pilot project to ensure Goals of Care are documented for each patient admission and that 100 percent of chemotherapy orders have appropriate documentation/signed approvals. Two new patient care facilitators on the unit have helped enhance patient rounding with Christiana Care hospitalists, with early signs of improvement in lengthof-stay and seven-day readmission rates.

# Neurology

Once again, in 2014, our program was rated among the nation's top performers in neurology and neurosurgery by US News and World Report.

Comprehensive Stroke Center certification — *directed by the Heart & Vascular Service Line* 

Christiana Hospital joins fewer than 80 hospitals nationwide to earn certification as a Comprehensive Stroke Center from The Joint Commission and the American Heart Association/American Stroke Association. The designation affirms that Christiana Hospital offers the medical expertise and state-ofthe-art infrastructure necessary to successfully treat the most complex stroke cases. The program was also recognized for its coordination of patient-centered care transitions and follow-up care, patient education and community outreach on stroke prevention.

Christiana Care is considered a high-volume stroke center, ranked seventh nationally, handling more than 1,700 stroke/cerebrovascular cases last year. The medical team is comprised of physicians with expertise in multiple areas of stroke and cerebrovascular disease, including stroke neurologists, neurosurgeons, neurocritical care specialists and interventional neuroradiologists, who perform advanced procedures for diagnosis and treatment. The comprehensive certification acknowledges that Christiana Hospital has that specialized expertise available 24/7.

In FY14, the Stroke team responded to 686 stroke alerts, recording a 33 percent increase in the administration of tissue plasminogen activator (t-PA) and neurovascular interventional procedures for acute stroke. The Stroke Clinic, under the direction of Jonathan Raser-Schramm, M.D., Ph.D., medical director of the Stroke Program and Stroke Treatment and Recovery Unit (STAR), offers stroke patients an extended care continuum after discharge with ongoing follow-up care and education for 400 outpatients.

Christiana Hospital partners with the Wilmington Hospital Primary Stroke Center (recertified in FY14) to provide resources and expertise to treat complex strokes.

#### **New Neuro Critical Care Unit**

Patients with serious neurovascular injuries and illnesses have the greatest chance of survival in the state-of-the-art, 18-bed Neuro Critical Care Unit, recently opened at Christiana Hospital. The only one of its kind in Delaware, the Neuro Critical Care Unit is solely devoted to patients with immediate lifethreatening problems affecting the brain, spinal cord or peripheral nerves. It is staffed by neuro critical care physician specialists, certified nurses and nurse practitioners who are expert in treating serious neurovascular illnesses and injuries. The unit is expected to treat more than 650 acute-stroke cases a year.

Named for Lanny Edelsohn, M.D., who served as Neurology section chief from 1987 to 2010, and funded by \$1.3 million in contributions from donors and trustees, the unit is home to cutting-edge electroencephalogram technology for more advanced neuromonitoring, fundamental to preventing irreversible neurological damage, severe disability or death. This innovative technology also will improve the evaluation and treatment of seizure disorders for the many patients who rely on Christiana Care for high-quality treatment close to home.

#### **Excellence in treating multiple sclerosis**

Our Comprehensive Multiple Sclerosis Center is under the direction of a fellowship trained neurologist who specializes in the diagnosis and treatment of MS and who works in close collaboration with a neuropsychology specialist. The center's coordinated-care approach includes individual care plans to maximally improve functioning and quality of life. In FY14 the center followed 10,000 patients and offered the opportunity for the latest treatment options through participation in eight active clinical trials. Recently the center was named a "partner in MS care" by the National MS Society, and center staff continue working toward earning "Center of Excellence" designation.

#### Promoting safe and restful sleep

The Sleep Disorders Center provides expert, multidisciplinary diagnosis and care for every kind of sleep disorder. If appropriate, a polysomnography (sleep study) may be ordered to monitor and record brain waves, heart rate, blood oxygen level, breathing and eye movements in a natural sleeping environment. Recently, the staff launched a home Sleep Study program. The center offers the latest technologies such as autoSV therapy to manage complicated sleep-disordered breathing patients, Multiple Sleep Latency Tests (MSLT), Maintenance of Wakefulness Tests (MWT), CPAP titration, and services to improve treatment such as the Mask Desensitization Clinic. A sleep medicine specialist in collaboration with Neurology or Pulmonary Medicine provides follow-up for sleep disorder patients tested in the laboratory.

#### Delaware's only accredited EEG lab

Christiana Care's Electroencephalography (EEG) lab is accredited by the American Board of Registration of Electroencephalographic and Evoked Potential Technologists (ABRET), the national credentialing board for EEG technologists. ABRET's lab accreditation process evaluates technical standards, the quality of the laboratory's output and lab management issues. Successful accreditation means the EEG lab has met strict standards and is recognized as a place where patients and physicians can have confidence they are receiving quality diagnostics.

In FY14, the lab expanded continuous EEG monitoring of critical care neurological, neonatal and trauma patients to aid in the diagnosis and treatment of status epilepticus and non-convulsive seizures. This service line has seen a 148 percent increase over the last fiscal year and an overall 310 percent increase from FY12-14. In the last year, the lab performed a total of 2,892 EEG procedures at Christiana and Wilmington hospitals. These included both inpatient and outpatient EEGs, neonatal, 24-hour video, evoked potential and under 4-hour video EEGs.

### **Nuclear Medicine**

A fully accredited nuclear medicine program offers a comprehensive range of services at several Christiana Care locations and is active in researching new diagnostic and therapeutic applications. This year Nuclear Medicine worked with Cardiology/Noninvasive Services to integrate the former Cardiac Diagnostic Center nuclear labs into the Christiana Care Health System and to offer services at the Concord Health Center, Concord Township, PA, in addition to locations in Smyrna and Middletown, DE. Collaboration with Noninvasive Services also introduced PET myocardial perfusion imaging (MPI) using <sup>82</sup>Rubidium chloride. PET MPI offers improved diagnostic accuracy, rapid protocols, and reduced radiation exposure.

#### A new class of agents for targeted therapy

Nuclear Medicine has introduced treatment with <sup>223</sup>Radium dichloride (Xofigo<sup>®</sup>, Bayer), the first alphaemitting radioisotope approved for medical use in the United States, representing a new class of targeted nuclear medicine therapy agents with very few side effects. In European trials, <sup>223</sup>Ra showed a clear survival benefit in men with metastatic prostate cancer resistant to medical or surgical treatment. Therapy with Xofigo, approved in May 2013, consists of six treatments delivered over six months.

#### Targeted treatment for liver cancer

Nuclear Medicine collaborated with Interventional Radiology to offer <sup>90</sup>Yttrium (<sup>90</sup>Y) microsphere radioembolization for liver cancer under the auspices of the Hepatobiliary Multidisciplinary Disease Center at the Helen F. Graham Cancer Center & Research Institute. This treatment modality takes advantage of the vascular supply to liver tumors to deliver microscopic glass or resin spheres containing radioactive <sup>90</sup>Y directly to the lesion. The microspheres block blood vessels to the tumor while delivering targeted radiation for maximum benefit.

Pain Management & Palliative Care

Christiana Care's Pain and Palliative Care program helps patients and their families deal with complex illness through individual and comprehensive care designed to relieve pain, increase functional ability, give comfort and improve quality of life. The team works collaboratively with a multidisciplinary group of specialists to offer the latest therapies and techniques for treating chronic and acute pain as well as to provide spiritual, psychosocial, and emotional and community support services.

Members of the Section are active in medical education and advocacy on behalf of patients and the specialty. For example, Drs. Tom Scott and John Goodill serve on the state Prescription Drug Action Committee (PDAC), charged by the governor to address the state's prescription drug abuse problem in collaboration with law enforcement and insurance payors. Dr.Goodill has worked diligently to lobby state lawmakers to pass the legislation for a DMOST (Delaware Orders for Scope of Treatment) form, to help align medical care in the final phase of life with a person's wishes/preferences.

#### **PPC Consult Service grows**

Consults by the Pain Management and Palliative Care team have increased four-fold, from 170 visits per month in FY12 to more than 700 per month by May, 2014. Team members are now on-call for consultations, 24-hours a day, seven days a week, at both Christiana and Wilmington hospitals. Cancer patients may also access palliative care and symptom management services at the Helen F. Graham Cancer Center, under the direction of Theresa Gillis, M.D., medical director of Oncology Pain and Symptom Management and Rehabilitation Services.

The team continues to explore multidisciplinary pain management options, including the use of interventional therapies to relieve pain and shorten hospital length of stay. In collaboration with the Department of Anesthesia, physicians are expanding the use of regional anesthesia and, in particular, regional catheters for patients with intractable and post-operative pain. Patients may go home with these catheters or be managed on the floor as inpatients with improved pain control, in some cases even without the use of opioid medications, and with improved satisfaction.

#### **Reducing patient harm**

In line with national guidelines and best practices, the Pain Management & Palliative Care team, collaborating with the Christiana Care Office of Medication Safety, rolled out new initiatives to prevent adverse patient events attributable to opioid use. While effective in relieving pain, opioids are also recognized as one of the most dangerous medical treatments for their potential to cause life threatening respiratory depression. Efforts by the team are ongoing to measure and reduce harm and potential harm from opioid medications, while continuing to broaden options to aggressively treat severe pain by non-opioid means.

The PASERO sedation scale, a new national standard, helps nurses better appreciate when opioids may no longer be safe to give to patients, independent of their pain score. Following a large educational initiative presented to all non-ICU nurses at Christiana Care, the PASERO scale is now being used to monitor all patients receiving opioids outside of the ICU.

New set of automatic metrics was developed and will now be used to assess situations that could lead to patient harm from opioid or benzodiazepine exposure. Whereas harm metrics have traditionally been gathered through voluntary self-reporting or sentinel events, this style of reporting often underestimates the magnitude of patient harm. In pilot testing, the automatic metrics set far exceeded (by about 30-fold) the capability of self-reports in capturing potentially harmful events. By automatically measuring harm, we can identify more opportunities to reduce it.

#### Nurses as leaders in pain management

This year 27 nurses from units from all over the health system took a course to become Pain Ambassadors, resource leaders in pain management. The annual program, held in January 2014 and led by section members of Pain Management and Palliative Care, includes 7.5 hours of lectures and group sessions. Section members also offer an "Introduction to Pain Management/Palliative Care" during new nurse orientation at Christiana Care.

# **Pulmonary & Critical Care Medicine**

U.S. News and World Report ranks Christiana Care as a high performing hospital in Pulmonology. Safety and quality of care drive section initiatives that have earned us recognition as top performers in our specialty.

# **Pulmonary Medicine:**

The American Association for Respiratory Care has designated Christiana Care a "Quality Respiratory Care" institution. Only about 15 percent of hospitals nationwide earn this award for relying on specially trained therapists to deliver respiratory services and following other national standards recommended by the association.

#### Helping patients breathe easier

Our accredited Pulmonary Function Lab offers a full range of tests to assist doctors in evaluating all aspects of pulmonary disease. The lab performs a combined average of more than 900 procedures a month at Wilmington and Christiana hospitals. These include spirometry to evaluate air flow when exhaling; lung volumes and airway resistance; bronchoscopy and thoroscopy to inspect inside the lungs and airways; arterial blood gas analysis to measure oxygen and carbon dioxide levels; measurement of respiratory muscle strength; supplemental oxygen evaluation and high altitude simulation testing (HAST); asthma diagnosis and evaluation, and cardiopulmonary exercise stress testing.

In FY14, The Pulmonary Function lab performed 11,025 procedures:

Pulmonary Function Testing	9,817	
Bronchoscopy	586	
Exercise Testing	864	
Interventional Procedures	344	

The Pulmonary Function Laboratory is accredited by the College of American Pathologists (CAP) and the Joint Commission and follows American Thoracic Society guidelines.

#### Two new bronchoscopy rooms

A new endoscopy suite opened in October 2013 at Christiana Hospital. This spacious, state-of-the-art procedure space offers a full range of services including standard bronchoscopy, advanced interventional bronchoscopy, diagnostic and therapeutic rigid bronchoscopy and pleuroscopy. The Pulmonary Function Lab worked collaboratively with the Department of Anesthesia, the GI Lab and support staff to open the new suite, making scheduling procedures for both inpatients and outpatients easier and more convenient.

In March 2014, a new bronchoscopy room opened in the PACU on the third floor of Wilmington Hospital. The new space can accommodate both inpatient and outpatient bronchoscopy with adequate space for transbronchial biopsy procedures with Anesthesiology and specialized endoscopy nursing onsite. The Pulmonary Lab staff handles scheduling, room and patient prep and assists the pulmonologist during procedures.

## Transitioning care for adults with cystic fibrosis

The Adult Cystic Fibrosis (CF) Program, staffed by a nurse practitioner, a medicine pediatrics trained in pediatric pulmonology and a second Christiana Care pulmonologist, facilitates the transition of care for young adults with cystic fibrosis from Nemours/A.I. duPont Hospital for Children. The team also works closely with Christiana Care's Primary Care (PC) Transitions Care Practice to ensure CF patients have a primary care provider.

Currently the Wilmington Hospital based clinic follows between 20-25 patients, averaging about 8 patient visits a month. Services include vaccinations, pulmonary function tests, X-ray/CT scans, sputum analyses, routine labs and PICC line placements. The program contributes patient data to the Cystic Fibrosis Foundation database and, through the CF Treatment Development Network, offers patients the opportunity to participate in the latest clinical trials of new drugs and new treatments. The team continues to support local and regional fundraising efforts and hosted CF Family Day in January 2014.

#### **Critical Care Medicine:**

### Wilmington's "closed ICU" provides a higher level of care

Since July 2013, board-certified critical care intensivists provide care exclusively for all non-surgical patients in the Wilmington Hospital ICU. The intensivists work in close collaboration with Cardiology to manage patients with cardiac conditions. For surgery patients efforts are underway to ensure that within 24 hours of admission, patients will have a consult with either a pulmonary critical care intensivist or a surgical critical care intensivist. Studies have demonstrated that patients who receive care in a closed unit have lower ICU length of stay, lower mortality rates and fewer overall complications.

Several initiatives are underway to improve patient care and reduce patient harm, while reducing unnecessary costs. Consistent with "Choosing Wisely" concepts promoted by the American Board of Internal Medicine Foundation, a Juran Green Belt initiative prompted closer adherence to clinical practice guidelines and reduced the number of unnecessary blood transfusions for ICU patients. Efforts to optimize orders for chest X-rays and other imaging modalities at the point of care are helping to eliminate unnecessary testing and consequent over exposure to radiation. The team is also in the process of standardizing both sedation and delirium scoring algorithms for more accurate assessment and medication management. Award winning efforts to control hospital-acquired infections continue

with a new strategy under discussion with the Antibiotic Stewardship Committee to institute stop dates for antibiotics upon transfer from the ICU.

Improving patient flow. At Wilmington Hospital, clinical leadership from both the WICU and Stepdown are working closely with the Emergency Department to improve patient transfers. The award-winning WICU alert process and Stepdown's personalized patient handoffs initiative are helping to decrease the amount of time a patient spends in the emergency room when he or she needs ICU care or in the WICU when they are ready for Stepdown care. Evidence shows that inperson, bedside handoffs between medical teams improve communication, reduce errors and limit ED or ICU length of stay, while moving patients more quickly and efficiently to the level of care they need. The team is designing a model potentially adaptable institution-wide to raise the bar for safe and efficient unit-to-unit transfers.

Helping patients "wake up and breathe." The WICU team is working with Respiratory Care and eCare on several initiatives in line with national, evidence-based protocols to improve sedative weaning and decrease time on mechanical ventilators. Research shows that spontaneous awakening trials where sedation is suspended, coupled with daily spontaneous breathing trial assessment, can get patients off ventilators earlier. Along with efforts toward early mobilization of patients on ventilators, reduced sedation and daily spontaneous breathing trial assessment are designed to reduce the length of intubation, to prepare patients for transfer from the ICU earlier, and to lower the likelihood of complications, including ventilator associated pneumonia.

#### eCare means "extra care" for ICU patients

Christiana Care's tele-ICU program, eCare, allows health care experts to continually watch over our critical care patients. The program provides an important extra layer of support to physicians and nurses on the ICU floor and at the bedside. Partnership with the Chicago-based Advocate Health System enables continuous after hours intensivist coverage for both hospital medical ICUs as well as Cardiovascular Critical Care and the newly opened Neurocritical Care Unit at Christiana Hospital. Christiana Care's critical care nurses, 72 percent of whom carry specialty-nursing certification, provide round the clock nursing coverage.

In FY14, the professional collaboration between Advocate physicians and Christiana Care Pulmonary Associates resulted in enhanced implementation of best practices and initiation of new programs to assess care and outcomes and improve workflow. Over the last 14 months, eCare has transitioned to an in-house program which no longer provides outreach services to external hospitals. This new model has allowed for an increased integration of eCare physicians and nurses into the daily clinical efforts of the bedside ICU teams.

# **FY14 highlights:**

Eyes on you.

### New nursing guidelines.

eCare has successfully implemented greater than 80 percent (targeting 100%) of the new guidelines issued by the American Association of Critical-Care Nurses (AACN), specifically for the emerging subspecialty of tele-ICU nursing practice. Contributing to this success is the transition of eCare to the Department of Nursing, resulting in improved integration between eCare and bedside nursing practice.

eCare now uses the Eye, a Web-based access database introduced by Advocate Health Care, for patient information including diagnosis, history, continuous infusions, active problems and items concerning follow-up/hand-offs. The Eye also affords the opportunity to document interventions. From October 15, 2013 through May 31, 2014, eCare RN's documented 1,114 "great saves and good catches" regarding important patient care and safety issues, including protocol adherence, medication safety, order accuracy, documentation and patient surveillance.

#### WICU Alert Team support.

In May 2014, eCare began using an eMobile Cart to monitor and provide support for patients boarding longer than 1½ hours in the Wilmington Emergency Department. This helps ensure a smooth transition to the ICU.

### RASS/Delirium work group.

Participation in the Richmond Agitation Sedation Scale (RASS) and Delirium work group is intended to reinvigorate a Sedation-Agitation-Delirium protocol.

#### eCare nurse mentoring program.

In collaboration with the Nursing Education Department, eCare initiated a nurse-mentoring program for new graduates of the Critical Care Nurse Residency Program.

#### Sepsis advisory.

In partnership with the Sepsis Advisory Team, eCare has the responsibility to contact the bedside nurse to confirm receipt of the Sepsis Advisory and to ensure follow-up by the provider. In addition, eCare is collecting data related to the timeliness of response as well as actions taken and reasons for failure to act.

Read more about Medical Critical Care

# Rheumatology

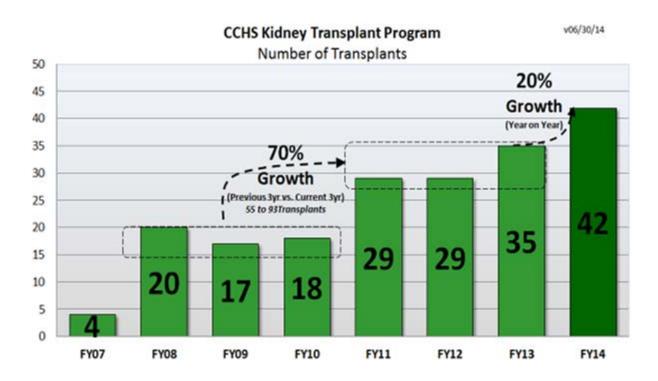
Christiana Care Rheumatology specializes in the diagnosis and treatment of all types of non-surgical joint diseases, including the use of musculoskeletal ultrasound. The practice has infusion services on site. Under the Christiana Care Medical Group umbrella, the practice includes four board-certified rheumatologists who provide 24-hour coverage as the region's tertiary care center for Rheumatology, with patient care offices in both Wilmington and Newark. Members actively participate in teaching, leadership and public education, dedicated to making Christiana Care a center of excellence in musculoskeletal health.

Rheumatology is part of the Osteoporosis Work Group and participates in the "Strong Bones" collaborative chaired by the Bone Health Advisory Committee led by Nuclear Medicine Medical Director Timothy Manzone, M.D., JD, CCD, to promote bone health and reduce the rate of fragility fractures.

# **Renal & Hypertensive Diseases**

Christiana Care nephrologists, rated among the nation's top performers by U.S. News and World Report, provide hemodialysis for patients with chronic and acute kidney disease at two Joint Commission accredited labs. In FY14, 7,022 dialysis treatments were performed at two labs located at both Christiana and Wilmington hospitals. Laboratory services include inpatient and outpatient kidney dialysis, continuous ambulatory cycler peritoneal dialysis (CAPD), where treatment settings can be programmed and performed automatically, and sustained low efficiency daily dialysis (SLEDD), which enables acute renal failure patients to reduce their time on dialysis to as little as 10 hours a day. A robust research program contributes to the collective knowledge on best practices and affords patients access to promising new therapies through participation in selected clinical trials. Delaware's only adult kidney transplant program

Christiana Care is one of only 250 hospitals in the United States performing kidney transplants, and the only hospital in Delaware that performs adult kidney transplants. The program is certified by the United Network for Organ Sharing to perform both living donor and deceased donor kidney transplants. In FY 14 the program saw a 20 percent growth in the number of kidney transplants with high patient satisfaction rates.



An experienced, multidisciplinary team provides optimal care for these complex patients and offers medication management post-transplant and living donor education. The team actively manages the "transplant readiness" and health to as many as 400 wait-listed patients annually.

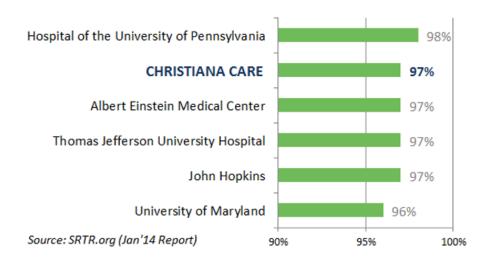
A newly opened satellite office in Lewes, DE has expanded services to patients on the transplant wait list in Kent and Sussex counties as well as those in nearby Maryland and Virginia. This makes care more convenient for pre-transplant patients, which improves engagement and appointment adherence, and reduces time and costs of transportation. The Kidney Transplant Program will expand this service to post-transplant patients in 2014.

Since overall graft outcomes are substantially better with Living Donor kidneys and the national benchmark is 40 percent, the Transplant Program is committed to developing materials and a campaign to increase Living Donor recruitment for our wait-listed patients. Currently Living Donor transplants account for 7 percent of total transplants down from 23 percent in FY13.

Key projects this year included the 4th Annual Kidney Transplant Symposium for Nurses and Dialysis Technicians offering information about the present and future of transplant and providing educational resources. This year's symposium examined topics including racial disparity in kidney disease, drug therapy and ethical dilemmas in transplantation. S. John Swanson, M.D., chief of Transplant Surgery, explained the signs, symptoms and treatment of rejection.

Patient Satisfaction scores remain high at 85 percent. Overall graph survival at one year post-transplant is 97 percent.

# Patient Survial 1-year



# Honors, Awards & Kudos

# **Teaching Awards**

Michael Benninghoff, M.D., was selected as "Specialist of the Year," by the Family Medicine residents, for the second year in row.

Mathew Burday, D.O., FACP, was voted "Teaching Attending of the Year," by the Sidney Kimmel Medical College Delaware branch campus students.

Jenaro J. Hernandez, M.D., was selected by the third-year class of Jefferson Medical College to receive the Humanism and Excellence in Teaching Award from the Arnold P. Gold



Jenaro J. Hernandez, M.D.

Foundation, for his "commitment to teaching and compassionate treatment of patients and families, students and colleagues." Each year the class selects a resident from the core clinical clerkships to receive this award.

David Chen, M.D., MPH, won the Mark W. Maxwell Award voted by Medicine's residents as the individual who best demonstrates "devotion to patients, compassion, humility and extraordinary enthusiasm."

Ajeet Hans, M.D., won the Leonard Lang Teacher of the Year Award, voted by Internal Medicine residents for his exceptional contribution to medical education.

Neeta Milasincic, M.D., Ajeet Hans, M.D., and Erin Meyer, D.O., were voted "Medical Student Teacher of the Year 2014" by 3<sup>rd</sup> and 4<sup>th</sup> year medical students.

Sneha Daya, M.D., Colin Zepeda, M.D., Tara Edwards-Booker, D.O., Jason Stankiewicz, M.D., and Amit **Patel, M.D.**, were voted "Resident Teacher of the Year" by 3<sup>rd</sup> and 4<sup>th</sup> year medial students.

Wasif Qureshi M.D., was voted teacher of the Year 2013-2014 by Christiana Care Cardiology Fellows.

## Congratulations to our Clinical Pearls speakers!

Ehsanur Rahman, M.D. Kate Eldridge, M.D. David Cohen, M.D. Ajeet Hans, M.D.

### **Focus on Excellence Awards**

These awards represent the work of Medicine in its broadest sense, recognizing the accomplishments of the Medicine Service Line, the Department of Medicine, Residency Programs and Medicine colleagues. Medicine had the lion's share of entries in this year's competition, 55 of 144 submissions. Read more

#### President's Award

#### Improving Glycemic Control in the Adult Medicine Office

Team: Medicine faculty, AMO Staff, Ammon Diabetes Care & Prevention Program.

#### Value Award - Gold

#### Applying Evidence-Based CPOE to Telemetry

Team: Broad-based multi-disciplinary team including Medicine, Cardiology, Nursing, Information Technology and Data Acquisition & Measurement.

#### Value Award - Silver

### Improving the Health of Our Most Vulnerable Neighbors

Team: Medical Home Without Walls.

#### Value Award – *Bronze*

#### Strategies to Reduce 30 day Heart Failure Readmissions

Team: Heart & Vascular, Heart Failure Steer Committee, Data Acquisition & Measurement.

#### Value Award - Honorable Mention

#### Respiratory Redesign - An Evaluation of Post Implementation Impact

Team: Respiratory Care

#### Clinical Excellence - Gold

#### Improving early Mobilization of Critically III Patients in the MICU

Team: Broad-based multi- disciplinary team including MICU staff, MICU physician assistants, Physical Therapy, Respiratory care, and Nursing

#### Clinical Excellence - Silver

#### **Urgent Treatment for Inpatients' Ischemic Strokes**

Team: Broad-based multidisciplinary team including Inpatient Stroke Alert Committee, RRT teams, Neurology, Neuroradiology, Pharmacy, Vascular Access Nursing and residents.

#### Clinical Excellence - *Bronze*

#### SAD in the MICU

Team: MICU, eCare, and Respiratory Care.

#### Safety First – *Gold*

#### **Ending VAP with Real-Time Feedback**

Team: VAP Collaborative Team, VAP Access Database Team, and PowerChart VAP Prevention PI Tool Team.

## Safety First – Silver

#### Interdisciplinary Approach to Fall Reduction

Team: Center for Rehabilitation.

## Think of Yourself as a Patient – *Gold*

# **Improving Patient Satisfaction Using Multimodal Communication Tools**

Team: 5D and Christiana Care Hospitalist Partners.

# Think of Yourself as a Patient - Silver

**Life History: The Patient Story** 

Team: ACE units, Center for Rehabilitation, Volunteer Services and Patient Relations.

# Nursing Excellence – Empirical Outcomes – Gold

**Cleaner Catches** 

Team: Wilmington Hospital ACE unit.

## Nursing Excellence – New Knowledge – *Gold*

#### **Patient Care Unit Dashboards Drive Excellence**

Team: Data Acquisition & Measurement Team, Medicine, Information Technology, and Nursing.

# Learning Excellence – Silver

#### **Collaborative Model for Excellence in Stroke Care**

Team: Broad-based multidisciplinary team including Center for Rehabilitation, 6C STAR unit, Physical Therapy, Speech Therapy and Occupational Therapy.

# Excellence in Community Health – *Silver*

#### Million Hearts® Delaware: A First State Coalition to Prevent Heart Attack and Stroke

Team: Center for Heart & Vascular Health

#### Resident's Award - Gold

#### **Never TMI**

Team: Internal Medicine, Medicine-Pediatrics and Transitional Year residents, Laboratory, Anesthesia and Wilmington Hospital ACE unit.

#### Resident's Award – Silver

#### **ColoRectal Assistance Program for Screening (CRAPS)**

Team: Medicine-Pediatrics Residency Program.

Research – *Gold* 

**Empowering Patients: A Safer Interdisciplinary Approach** 

Team: Center for Rehabilitation.

Research - Silver

Transfusions, It's Bloody Easy

Team: Medicine Lean Six Sigma green belt project including MICU physician assistants, Hematology and Blood Bank.

# **Academic and Scholarly Activity Awards**

# **Christiana Care Academic Jaw Bowl Winners**

Pranav Kansara, MBBS, Cardiology Fellow, overall winner for his abstract entitled, "Evaluation of High Density Lipoprotein-Cholesterol as a Risk Factor for Stent Thrombosis."

Muhammad Baig, D.O., Internal Medicine Resident, won for "Statewide Retrospective Review of Familial Pancreatic Cancer in Delaware and Frequency of Genetic Mutations in Pancreatic Cancer Kindreds."

Vishal Patel, M.D., Med-Peds Resident, won for "Suboptimal Longitudinal Risk Factor Control Following Coronary Revascularization in a Community Setting."

# **American College of Physicians Poster Winner**

Medicine's 2013-2014 winners presented their posters at both the Delaware and national ACP meetings.

Adrian Hurst, D.O., (Medicine, PGY-3) is this year's grand prizewinner with mentor David Cohen, M.D., section chief, Infectious Diseases. Dr. Hurst gave a podium presentation of his abstract, "A Horse of a Different Color: Rhodococcus equi Infectious Endocarditis in an immunocompetent Host," at the ACP Delaware meeting in February and a poster presentation at the ACP national meeting in April.

Kelly Lyons, a 4th year medical student from LECOM, gave an podium presentation on a rare case of fusobacterium necrophorum bacteremia caused by endocarditis, entitled, "The bottom line – IVDA is bad for you?"

# **Winners for Best Resident Posters**

Jennifer Gauntt, M.D., First Place Khurram Baig, D.O., Second Place Vishal Patel, M.D., Second Place Adam Lammly, D.O., Second Place Peter Burke, D.O., Third Place

# **Winners for Best Clinical Vignettes**

Akash Sethi, D.O., First Place Joseph Santora, D.O., Second Place J.J. Hernandez, D.O., Second Place Seema Niphadkar, D.O., Third Place Shaun Hanson, M.D., Third Place

# **Resident Winners in the Cost-Conscious Category**

M Khurram Baig, D.O. Jennifer Gauntt, M.D. Vishal Patel, M.D.

# Resident Winner in Quality Improvement/Patient Safety

Peter Burke, D.O.

# More Awards

Mathew Burday, D.O., FACP, is the 2014 winner of the Laureate Award, the Delaware American College of Physicians highest award.

Sneha Daya, M.D., is the National Conference and Exhibition Scholarship recipient from the American Academy of Pediatrics for 2013.

Himani Divatia, M.D., earned the Gary Onady Award, the top resident award from the National Med-Peds Resident's Association, in recognition of her extraordinary, lasting contribution to the success of the NMPRA and Med-Peds on a regional/national level.

Edward Goldenberg, M.D., received the American Heart Association/American Stroke Association, Great Rivers Affiliate Distinguished Achievement Award.

John Goodill, M.D., was recognized by the Drexel University College of Medicine with the "Outstanding Clinician Award" in May 2014.

Stephanie Guarino, MD is the American Academy of Pediatrics Leadership Conference Scholarship recipient, Delaware AAP, 2014.

Daniel Hess, M.D., EM/IM resident, received the 2013 Leadership Excellence Award in October from the Emergency Medicine Resident's Association.

Joni Miller, RNC, BSN, received the 2014 Sister Dolores Macklin Guardian Angel Red Ribbon Award from the Delaware HIV Consortium.

Project Engage, Addiction Medicine's early intervention substance abuse program earned recognition from the Professional Nurse Council at their Nursing Excellence Awards Ceremony in May 2014, at the John H. Ammon Medical Education Center Auditorium. Each year during Nurses Week, the Council honors one program chosen for "contributing significantly to the care of our patients and that supports nursing."

Ehsanur Rahman, M.D., received the 14<sup>th</sup> Annual Christiana Care Medical-Dental Staff Commendation for Excellence for contributions to the community through clinical, scholarly, and educational" activities.

Dr. Rahman and Dr. Panwalker at the 14th Annual Medical-Dental Staff dinner. Photo from March 2014 Medicine Brief

Linda Sydnor, MSN, GCNS-BC, ANP and Patricia Curtin, M.D., FACP, CMD, received the Alzheimer's **Association Corporate Appreciation** and Recognition Award, for raising awareness and participation in the Walk to End Alzheimer's in May 2014.



Heart and Vascular Innovations Award. Christiana Care received the Intelligent Hospital Award for Most Innovative Use of Business Intelligence for the Heart and Vascular Interventional Services' Patient Tracking System.

Pediatrics Video Award. "Transition video series for young adults with special healthcare needs" won a 2014 Genetic Alliance Impact Award. The videos, made possible by a grant from the New York/Mid-Atlantic Consortium for Genetics and Newborn Screening Services, are the result of a collaboration between Christiana Care Pediatrics and Nemours A.I. duPont Hospital for Children, Wilmington, DE.

Deborah Zarek, M.D., FACP, won the 2014 Leonard P. Lang Award from the Delaware Chapter of the American College of Physicians, recognizing her for exemplifying the qualities of an outstanding internist.

# Medicine's Nurse-Physician Partners

Close partnership between nurses and physicians improve care for patients and families. Nurse-Physician Partner Awards recognize the positive impact their collaborative work has made on Christiana Care and the neighbors we serve.

<b>Neuro Critical Care</b> Patricia Fenimore, RN	<b>4 Medicine</b> Adam Ashby, RN	HCCC Physicians Catherine Moxham, RN
David E Kahn, D.O.	Thomas Mueller, M.D.	D. Hirokawa, M.D., MPH
3E Medical ICU	6 South Stepdown	Infection Prev.
Carol Ritter, RN	Alyssa Zuka, RN	Kathleen Wroten, RN
Badrish Patel, M.D.	Arun Malhotra, M.D.	
5A Stepdown	Rehabilitation	Nursing
Brittney Henning, RN	Nancy Pahnke, RN	Donna Casey,RN
H Ragozine-Bush, M.D.	Kelly Eschbach, M.D.	V. Maheshwari, M.D.
5B Medical	Wilmington ICU	Pulmonary Outpt
Robert Onyango, RN	Karen Ellis-Brisbon, RN	Sharon Jones, RN
James Piacentine, D.O.	M. Benninghoff, D.O.	Gerald O'Brien, M.D.
5C Medical	AIDS Care	Pain & Palliative Care Practice
Heather Powell, RN	Arlene Bincsik, RN	Shirley Brogley, RN
Thomas Mathew, M.D.	Susan Szabo, M.D.	David Amato, D.O.

<i>5D Medical</i> Barbara Marandola, RN V.S. Bhamidipati, M.D.	Cancer Care Mgt. Tina Scherer, RN Mihir Thacker, M.D.	VAD Program D. Dougherty, RN Mitchell Saltzberg, M.D.
<b>5E/Heart Failure</b> Martha Drejka, RN Meenakshi Bhalla, M.D.	Cardiology Consult. Mary Zita Guest, RN Lawrence Narun, M.D.	WHHC Medical Ser. Crystal Pollock, RN Sarah Schenck, M.D.
<i>6A ACE</i> Linda Sydnor, RN Patricia Curtin, M.D.	Hemodialysis Penny Miller, RN Jeffrey Cicone, M.D.	WHHC Medicine Lisa Wallace, RN Julie Silverstein, M.D.
6C Medical Erin D'Amore, RN Jonathan Raser-Schramm, M.D., Ph.D.	Electrophysiology S. Drummonds, RN Roger Kerzner, M.D.	WISH Denise Lyons, RN Patricia Curtin, M.D.
<i>6E Medical</i> Carol Hart, RN Kambiz Butt, M.D.	<i>GI Lab</i> Jean Fitzpatrick, RN M. Keobounnam, M.D.	

# **Medicines Top Docs**

Voted "Delaware Top Docs" by their peers, these Medicine physicians appeared in the October 2014 issue of Delaware Today.

# **Addiction Therapy**

Seth L. Ivins, M.D.

#### **Adolescent Medicine**

Allen Friedland, M.D.

# Allergy-Immunology

Gregory Marcotte, M.D. Quan C. Nguyen, M.D.

### **Cardiac Electrophysiology**

Brian Sarter, M.D. Henry L. Weiner, M.D.

### Cardiology

Anthony Furey, D.O. Gilbert A. Leidig, Jr. M.D. George D. Moutsatsos, M.D. Ehtasham A. Qureshi, M.D.

#### **Cardiovascular Disease**

Michael Banbury, M.D. Gilbert A. Leidig, Jr. M.D.

#### **Critical Care Medicine**

Michael Benninghoff, M.D. Vinay Maheshwari, M.D. Badrish J. Patel, M.D.

#### **Dermatology**

Dawn E. Hirokawa, M.D.

#### Electromyography

Enrica Arnaudo, M.D. Richard Fischer, M.D.

#### **Endocrinology**

Ripundaman S. Hundal, M.D. J. James Lenhard, M.D. Prakash Seshadri, M.D. Valerie A. West, M.D.

#### Gastroenterology

Warren G. Butt, M.D. Mark J. Corso, M.D. Vandana R. Long, M.D. Nathan A. Merriman, M.D.

#### Hematology

Frank V. Beardell, M.D. Scott W. Hall, M.D. R. Bradley Slease, M.D.

## **Hospital Medicine**

Robert Brus, D.O. Erin M. Meyer, D.O.

#### **Infectious Disease**

David M. Cohen, M.D. Wesley W. Emmons, M.D. John F. Reinhardt, M.D.

#### **Internal Medicine**

Timothy Hennessy, M.D. James Loughran, M.D. David J. Maleh, M.D. Alexia C. Moutsatsos, M.D.

#### **Nephrology**

Rubeen K. Israni, M.D. Arun V. Malhotra, M.D. Lindsay Slater, M.D.

#### Neurology

Paula Melnick, M.D. Jason M. SIlversteen, D.O.

#### Oncology

David D. Biggs, M.D. Michael J. Guarino, M.D. Andrew Himelstein, M.D.

#### **Physical Medicine – Rehabilitation**

Barry L. Bakste, D.O.Kelly S. Eschbach, M.D. Rachael Smith, D.O.

#### **Pulmonary**

Mark D. Jones, M.D. Gerald M. O'Brien, M.D.

### Rheumatology

Shakaib Qureshi, M.D.

# Delaware Today's *Top Nurses 2014*

Denise French, RN, MSN, APN, GCNS-BC, Geriatrics Mary Jones Gant, RRT, RN, MSN, CNS, CCM, APRN-BC Jessey Jennings, RN, MSN, FNP-BC, Acute Care Bonnie Osgood, RN-BC, MSN, NE-BC, Patient & Staff Management Kathryn W. Davidson, RN-BC, MSN, Education and Mentorship

# Philadelphia Magazine's Top Doctors 2014

Nominated by their peers as the best docs in the region.

### Gastroenterology

David R. Beswick, M.D. Scott M. Meyerson, M.D.

### Hematology

R. Bradley Slease, M.D.

#### **Internal Medicine**

David Maleh, M.D.

#### **Medical Oncology**

David D. Biggs, M.D.

Gregory A. Masters, M.D.

# **Appointments**

Sidney Kimmel Medical College at Thomas Jefferson University

Hakim Ali, M.D., Clinical Assistant Professor of Medicine

Tuhina Raman, M.D., Clinical Assistant Professor of Medicine

Michael Vest, D.O., Assistant Professor of Medicine

Zugui Zhang, M.D., Research Assistant Professor of Medicine

Philadelphia College of Osteopathic Medicine

Michael Benninghoff, D.O, Assistant Clinical Professor

Congratulations American College of Physicians Fellows

Karla Testa, M.D., FACP

Justin Eldridge, M.D., FACP

### Inside Medicine

Rob Heinle, M.D., is the Pediatric Pulmonary Diseases Fellowship director.

Michael Kostal, M.D., is the new Cardiology Fellowship program director.

Michael Vest, D.O., is Christiana Care medical director for Flex Care and chair of the Blue Code Committee, effective July 2014.

# Local, Regional and National Appointments

Frank Beardell, M.D. served on the planning committee and as a panelist for the Bone Marrow Transplant Info Net Regional Conference in September 2013, in Rutherford New Jersey.

Tony Bianchetta, M.D., and Daniel Elliott, M.D., serve on the Governor's Advisory Council of the American College of Physicians Delaware Chapter. Dr. Bianchetta chaired the Planning Committee for the 2013 Annual Meeting.

Tony Bianchetta, M.D., David Chen, M.D., and Allen Friedland, M.D., serve on the School Health Committee of the Medical Society of Delaware.

Hung Q. Dam, M.D., serves as chair of the Society for Nuclear Medicine & Molecular Imaging (SNMMI) committee revising international consensus guidelines for GI bleeding scintigraphy, and is vice chair of the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

Samantha DeCouto, D.O., and Justin Eldridge, M.D., serve on the American College of Physicians Delaware Chapter Council of Early Career Physicians.

Himani Divatia, D.O., is secretary of the National Med-Peds Resident's Association, 2013-2014. She is also Christiana Care's Resident Council secretary. She is a representative to the National Med-Peds Resident's Association and a resident representative to the American Academy of Pediatrics.

John Donnelly, M.D., is a member of the E-Learning Committee of the Association of Program Directors of Internal Medicine.

Christina B. Edwards, C-TAGME, Internal Medicine Residency and Transitional Year Residency Program Coordinator accepted an invitation to serve a two-year term on the APDIM Program Administrators Program Planning Committee.

Daniel Elliott, M.D., serves on the Society of General Internal Medicine Evidence-Based Medicine National Task Force. He is a member of the Delaware Valley Institute for Clinical and Translational Studies and a senior policy analyst with the Health Services Policy Research Group at the University of Delaware's Center for Community Research and Service. He is the American College of Physicians State Delegation chair, key contact and Advocacy chair for the Delaware Chapter and a member of the Governor's Executive Council and Annual Meeting Program Planning Committee. He is a member of the Agency for Healthcare Research and Quality Regional Experts Panel and served on AHRQ's Advisory Council for CAN Health ACTION Partnership.

Ed Ewen, M.D., FACP, clinical informaticist in the Department of Medicine, and Terri Steinberg, M.D., chief medical information officer for Christiana Care, are among the first physicians in the nation to earn certification by the American Medical Informatics Association. They join 453 first-ever diplomates in the subspecialty of clinical informatics to receive notice of their board certification in December. AMIA intends for the creation of the new subspecialty to help standardize clinical informatics training programs, increase the number of training opportunities available, and provide an immediately recognized credential for organizations hiring informaticians.

Allen Friedland, M.D., is a 2014 Christiana Care Learning Institute "Distinguished Mentor" and completed the "Transforming Leadership" course. He serves on the Advisory Board of the Center for Health Care Transition Improvement funded by the maternal and Child Health Bureau, 2013. He was re-elected to chair the American Academy of Pediatrics (AAP) Med-Peds Section.

Jennifer Gauntt, M.D., is a representative to the National Med-Peds Residents Association and an American Academy of Pediatrics Program resident representative.

Edward Goldenberg, M.D., was appointed to the Governor's Council on Health Promotion and Disease Prevention. He was also elected secretary/treasurer of the Northeast Lipid Association.

Melissa Morgan-Gouveia, M.D., attained ABIM Board Certification in Geriatric Medicine and was appointed a part-time, assistant professor of Medicine in Division of Geriatrics, Dept of Medicine, Johns Hopkins University School of Medicine.

Erin Grady, M.D., serves on the Board of Directors for the American Board of Nuclear Medicine, the American College of Nuclear Medicine and the Academic Council of the Society of Nuclear Medicine & Molecular Imaging (SNMMI). She chairs the 3rd Party Payer Reimbursement committee for the SNMMI, serves as vice chair of the SNMMI Young Professionals and is a committee member of the Coding & Reimbursement, Government Relations and Mo-99 Supply Committees of the SNMMI. She also serves as vice chair of the Nuclear Medicine ACR e-learning committee.

Dr. Grady represented the Society for Nuclear Medicine & Molecular Imaging (SNMMI) in an invited lecture to the National Nuclear Security Administration Topical Meeting in June 2014 on the clinical necessity of Mo-99. This meeting included representatives from the White House and other government agencies, as well as representatives from the European Union and other countries. She also gave testimony to the Department of Energy/National Science Foundation Nuclear Science Advisory Committee concerning the importance of domestic supply/production of <sup>99</sup>Molybdenum in February 2014 on behalf of the SNMMI. For the 5th year, she has written/hosted the SNMMI Knowledge Bowl and lectured during the Colorectal Cancer Breakout Session at the SNMMI annual meeting in a lecture entitled, "Colon Cancer Imaging & Molecular Therapies: State of the Art & Future Directions."

Stephanie Guarino, M.D., is the 2013 Resident/Fellow chair for the Medical Society of Delaware. She is the first resident to serve on the Society's Membership Committee, and also serves on the Graduate Medical Education Committee for the Sidney Kimmel Medical College.

James Hopkins, M.D., is president-elect of the Christiana Care Medical Staff.

Roger Kerzner, M.D., was appointed the assistant medical director for Specialty Services for the Medical Group of Christiana Care.

Jennifer LeComte, D.O., serves on the Advisory Board of the Center for Health Care Transition Improvement funded by the Maternal and Child Health Bureau. She also co-chairs the Health Work Group for the Delaware State Transition Task Force, the Task Force for Emerging Adults with Disabilities and Special Health Needs. She is a member of the AAP Committee Medical Home Resident Education Initiative Working Group.

M. James Lenhard, M.D., FACE, marks his 20th year as president of the American Diabetes Association DelMar Chapter.

Denise L. Lyons, MSN, RN, AGCNS-BC was conferred a Fellow by the National Gerontological Nursing Association (NGNA). Fellow status recognizes outstanding leadership in gerontological nursing and distinguished contributions to the field through practice, teaching, research, administration and/or consultation. She is also elected to the Board of Directors for the NGNA as director-at-large for a twoyear term beginning in October 2014.

Arun V. Malhotra, M.D., was elected president of the Delaware Academy of Medicine.

Timothy Manzone, M.D., serves on the board of the General Clinical Nuclear Medicine Council of the Society of Nuclear Medicine and Molecular Imaging, is an application reviewer for the Intersocietal Accreditation Commission, and was recently elected to a second term on the Board of Directors of the Alumni Association of Drexel College of Medicine. He organized the session "Scintigraphic Evaluation of the Alimentary System: Beginning, Middle and End" at the SNMMI 2014 Annual Meeting, and presented on salivary gland scintigraphy.

Erin Meyer, D.O., is the assistant medical director of Clinical Integration for Christiana Care Hospitalists Partners. She is also the Trauma Co-Management project leader, and member of multiple performance improvement teams.

Linsey O'Donnell, D.O., and Seema Dattani, M.D., co-chaired the Annual CCHS Geriatric Medicine Symposium. Newark, DE, in December 2013.

Vishal Patel, M.D., is treasurer of the National Med-Peds Resident's Association 2013-2014. He was invited to display a poster at the national meeting in October 2014 in San Diego.

Albert Rizzo, M.D., was appointed chair of the American Lung Association's Lung Cancer Expert Medical Advisory Committee, a group of nationally recognized researchers and clinicians who will help guide policy and research decisions that concern lung cancer on behalf of the American public.

Shakaib Qureshi, M.D., was a PIMS guest speaker in collaboration with the Fulbright program at the U.S. Embassy in Islamabad, Pakistan.

Edmondo Robinson, M.D., MBA, FACP, physician-in-chief for Christiana Care Wilmington Hospital, was selected by the Society of Hospital Medicine to join its Leadership Committee. The committee is charged with developing a strategic plan and curriculum for leadership development training and to provide educational resources to support hospitalists as both institutional and organizational leaders.

Theodore F. Saad, M.D., served as program director for the Vascular Access for Hemodialysis XIII Symposium in Dallas, Texas, May 3-4, 2014.

Mitchell T. Saltzberg, M.D., was appointed to the Membership Committee for the Heart Failure Society of America for three years.

R. Bradley Slease, M.D., was appointed the American College of Physicians representative to the Board of Directors of COLA, a nationwide laboratory accreditation organization. He also serves on the steering committee for the newly-established "Myeloma Rounds", a Leukemia & Lymphoma Societysponsored quarterly educational program for multiple myeloma specialists in the Philadelphia region.

Candace Sprott, MD, MBA earned the ACT Facilitator Training Program certificate of completion.

Gia Uzelac, M.D., is a member of the Governor's Advisory Council of the American College of Physicians, Delaware Chapter and serves on the School Health Committee for the Medical Society of Delaware.

William Weintraub, M.D., MACC, was appointed Master of the American College of Cardiology.

### **Selected Publications**

Acharjee S, Boden WE, Hartigan PM, Teo KK, Maron DJ, Sedlis SP, Kostuk W, Spertus JA, Dada M, Chaitman BR, Mancini J, Weintraub WS. Low levels of high-density liporotein cholesterol and increased risk of cardiovascular events in stable ischemic heart disease patients. J Am Coll Cardiol. 2013;62:1826-1833.

Auerbach A, Patel M, Metlay J, Schnipper J, Williams M, Robinson E, Kripalani S, Lindenauer P. The Hospital Medicine Reengineering Network (HOMERuN): A Learning Organization Focused on Improving Hospital Care. Academic Medicine. March2014. PMID: 24448050.

Barrett M, Reinhold N, Dressler R, Laskowski-Jones L, Adarve L, Elliott DJ. Barriers to and Facilitators of Interprofessional-Interdepartmental Interventions: Unearthing Departmental Culture. American Journal of Medical Quality. January 2014.

Bhatt NS, Solhpour A, Balan P, Barekatain A, McCarthy JJ, Sdringola S, Denktas AE, Smalling RW, Anderson HV. Comparison of In-Hospital Outcomes With Low-Dose Fibrinolytic Therapy Followed by Urgent Percutaneous Coronary Intervention Versus Percutaneous Coronary Intervention Alone for Treatment of ST-Elevation Myocardial Infarction. Am J Cardiol. 2013 March 10 [Epub ahead of print] PMID: 23490028.



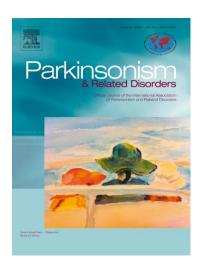
Blanco P, Nomura J. An Atypical Misplacement of a Temporary Pacing Catheter Diagnosed and Resolved by Ultrasound. Am J Emerg Med. Mar 2014. PMID: 24736126.

Boltz M, Capezuti E, Shuluk J, Brouwer J, Carolan D, Conway S, DeRosa S, LaReau R, Lyons D, Nickoley S, Smith T, Galvin JE. Implementation of geriatric acute care best practices: Initial results of NICHE sites self-evaluation. Nursing & Health Sciences. 2013.

Block L, Morgan-Gouveia M, Levine RB, Cayea D. We could have done a better job: a qualitative study of medical student reflections on safe hospital discharge. J Am Geriatr Soc. 2014;62:1147-54.

Chahine LM, Kauta SR, Daley JT, Cantor CR, Dahodwala N. Surface EMG Activity During REM Sleep in Parkinson's Disease Correlates With Disease Severity. Parkinsonism & Related Disorders. July 2014; 20(7):766-71.

Chakrabarti AK, Grau-Sepulveda MV, O'Brien S, Abueg C, Ponirakis A, Delong E, Peterson E, Klein LW, Garratt KN, Weintraub WS, Gibson M. Angiographic validation of the American College of Cardiology



Foundation-The Society of Thoracic Surgeons Collaboration on the Comparative Effectiveness of Revascularization Strategies (ASCERT) study. Circulation: Cardiovascular Interventions. (In press)

Chen D. "Hard Stories". What's Up Doc. Delaware American Academy of Pediatrics Newsletter, July 2013.

Deer TR, ...Kim P, et al. Polyanalgesic Consensus Conference 2012: Recommendations for the Management of Pain by Intrathecal (Intraspinal) Drug Delivery: Report of an Interdisciplinary Expert Panel. Neuromodulation 2012: 15:436-366.

Drees M, Pineles L, Harris AD, Morgan DJ. Variation in Definitions and Isolation Procedures for Multidrug-Resistant Gram-Negative Bacteria: A Survey of the Society for Healthcare Epidemiology of America Research Network, Infection Control and Hospital Epidemiology. April 2014.

Drees M, Tambourelli B, Denstman A, Zhang W, Zent R, McGraw P, Ehrenthal D. Sustained High Influenza Vaccination Rates and Decreased Safety Concerns among Pregnant Women During the 2010-2011 Influenza Season. Vaccine. January 2013; PMID: 23146674.

deJongh B, Locke R, Mackley A, Emberger J, Bostick D, Stafano J, Rodriguez E, Shaffer T. Work of breathing indices in infants with respiratory insufficiency receiving high-flow nasal cannula and nasal continuous positive airway pressure. Journal of Perinatology. Jan 2014.

Denicoff A, Stevens W, Grubbs S, et al. The National Cancer Institute—American Society of Clinical Oncology Cancer Trial Accrual Symposium: Summary and Recommendations. Journal of Oncology Practice, 9(6): 267-276, 2013.

Dressler R, Eppehimer M, Jasani N, Consiglio-Ward L. Leadership Development in Integrating Quality and Academic Training Programs; The Ochsner Journal. Spring 2014.

Dressler R, Consiglio-Ward L, Moore C, Savoy M, Aboff B, Salam T, Jordan J, Collier V. Safety Science as second nature: Training residents to use best practices instinctively to keep patients safe. Physician Exec. May 2014. PMID:24964553.



Dressler R, Dryer M, Coletti C, Mahoney D, Doorey A. Altering Overuse of Cardiac Telemetry in non-Intensive Care Unit Settings by Hardwiring American Heart Association Guidelines. JAMA Intern Med. Online September 22, 2014. doi:10.1001/jamainternmed.2014.4491.

Edwards FH, Shahian DM, Grau-Sepulveda MV, Grover FL, Mayer JE, O'Brien SM, DeLong E, Peterson ED, McKay C, Shaw RE, Garratt KN, Dangas GD, Messenger J, Klein LW, Popma JJ, Weintraub WS. Composite outcomes in coronary bypass surgery versus percutaneous intervention. Ann Thorac Surg. 2014;97: 1983-90.

Elliott DJ, Young RS, Brice J, Aguiar R, Kolm P. Effect of Hospital Workload on the Quality and Efficiency of Care; JAMA Internal Medicine. May 2014; PMID:24686924.

Elliott DJ. Effect of Hospital Workload on the Quality and Efficiency of Care. JAMA Internal Medicine. March 2014.

Elliott DJ, Sonnad S, Xu X, Anthony K, Robinson E, Aguiar R, Barron J, Stillman P, Fendrick A. "Factors Associated With Employee Participation in a Value-Based Insurance Design Initiative. Am J Pharm Benefits. Dec 2013.

Ewen E, Willey V, Kolm P, McGhan W, Drees M. Antibiotic Prescribing by Telephone in Primary Care; Pharmacoepidemiology and Drug Safety. Jul 2014. PMID: 2507929.

Eze-Nliam C, Zhang Z, Weiss S, Weintraub W. Cost-effectiveness assessment of cardiac interventions: determining a socially acceptable cost threshold. Interventional Cardiol 2014;6:45.

Fanari Z, Weiss SA, Weintraub W. Comparative effectiveness of revascularization strategies in stable ischemic heart disease: current perspective and literature review. Expert Rev Cardiov Therap. (Accepted for publication)

Fanari Z, Kennedy KK, Lim MJ, Laddu AA, Stolker JM. Comparison of In-Hospital Outcomes for Beta-Blocker Use Versus Non-Beta Blocker Use in Patients Presenting With Cocaine-Associated Chest Pain. Am J Cardiol. 2014 Mar 15.

Fanari Z, Weiss SA, Weintraub WS. Routine Nuclear Stress Testing and Subsequent Revascularization in Asymptomatic Patients Following Coronary Revascularization. International Circulation. 2054 No. 116.

Friedman A, Hassan NC, Grady E, Matsuoka DT, Jacobson AF. Efficacy of thyroid blockade on thyroid radioiodine uptake in 123I-mIBG imaging. J Nucl Med 2014; 55:211–215. Gauntt J. Drug induced eosinophilic pneumonia. ACP Hospitalist. November 2013.

Goldsack J, Robinson E. The Impact of Health Information Technology on Staffing. Journal of Nursing Administration. Feb 2014. PMID: 24451450.

Goldsack JC, DeRitter C, Power M, Spencer A, Taylor C, Kim S, Kirk R, Drees M. The clinical, psycho-social and cost impacts of performing active surveillance on known MRSA+ patients admitted to medicalsurgical units. American Journal of Infection Control. 2014. (In press)

Grubbs SS, Polite BN, Carney J, Bowser W, Rogers J, Katurakes N, Hess P, Paskett ED. Eliminating Racial Disparities in Colorectal Cancer in the Real World: It Took A Village, Journal of Clinical Oncology, 10.1200/JCO.2012.47.8412, Vol. 13, 2013.

Harris A, Pineles L, Belton B, Johnson J, Shardell M, Loeb M, Newhouse R, Dembry L, Braun B, Perencevich E, Hall K, Morgan D. Benefits of Universal Glove and Gown (BUGG) Investigators, Shahryar S, Price C, Gadbaw J, Drees M, Kett D, Muñoz-Price L, Jacob J, Herwaldt L, Sulis C, Yokoe D, Maragakis L, Lissauer M, Zervos M, Warren D, Carver R, Anderson D, Calfee D, Bowling J, Safdar N. Universal glove and gown use and acquisition of antibiotic-resistant bacteria in the ICU: a randomized trial. JAMA. October 2013; PMID: 24097234.

Hendel RH, Bozkurt B, Fonarow GC, Jacobs JP, Lichtman J, Smith EE, Tcheng JE, Wang T, Weintraub, WS. ACCF/AHA 2013 Methodology for Developing Clinical Data Standards: a report of the American College of Cardiology Foundation and American Heart Association Task Force on Clinical Data Standards. In press, J Am Coll Cardiol. 2013.

Homer L, Edelsohn L, Gakhal M. Yoga induced acute ulnar nerve compression by a ganglion cyst in Guyon's canal. *Del Med J.* 2013 Dec;85(12):369-73.

Kaminsky LA, Arena R, Beckie T, Brubaker P, Church T, Forman DE, Franklin B, Gulati M, Lavie CJ, Myers J, Patel MJ, Pina I, Weintraub WS, Williams M. The Importance of Cardiorespiratory Fitness in the U.S.: The Need for a National Registry. *Circulation 2013*;127:652-662

Kansara P, Czer L, Awad M, Arabia F, Mirocha J, De Robertis M, Moriguchi J, Ramzy D, Kass RM, F. Esmailian F, Trento A, Kobashigawa J. Heart Transplantation With and Without Prior Sternotomy: Analysis of the United Network for Organ Sharing Database. Transplant Proc. 2014;46:249. Khan O, Derman R, Testa K. Why We Should Care About Global Health. Del Med J. February 2014; 86 (2);

Kauta SR, Keenan BT, Goldberg L, Schwab RJ. Diagnosis and Treatment of Sleep Disordered Breathing in Hospitalized Cardiac Patients-A Reduction in 30-Day Hospital Readmission Rates. Journal of Clinical Sleep *Medicine.* (Accepted for publication)

Kim C, King E, Stein J, Robinson E, Mohammad S, O'Leary K. Unit-based interprofessional leadership models in six US hospitals. Journal of Hospital Medicine. Article first published online: May 5, 2014. Read <u>it here.</u>

Lakkireddy D, Atkins D, Pillarisetti, J, Ryschon K, Bommana S, Drisko J, Vanga SR, Dawn B. Effect of Yoga on Arrhythmia Burden, Anxiety, Depression and Quality of Life in Paroxysmal Atrial Fibrillation: The 'YOGA My Heart' Study. J Am Coll Cardiol. 2013. (in press)

Lenhard MJ, Kinsley BT. Insulin Therapy for the Treatment of Type 1 Diabetes During Pregnancy. The Journal of Maternal-Fetal & Neonatal Medicine. (In press)

Lewis R, Pearl M, Nomura J, Baty G, Bengiamin R, Duprey K, Stone M, Theodoro D, Akhtar S. CORD-AEUS Consensus Document for the Emergency Ultrasound Milestone Project. Acad Emerg Med. Jul 2013. PMID: 23859589.

Lyons D. Implementing a Comprehensive Functional Model of Care in Hospitalized Older Adults. MEDSURG Nursing. (Accepted for publication)

Lyons D, Painter J, Crannell C, Mooney R, Bucher L. Joseph R, Schwandt C, Siano S, Marandola B, Keiser S, Bayne L. The people in your neighborhood: Impact of Physician Cohorting on nursing units. MEDSURG Nursing, 22(5) 281-289. 2013.

Maron DJ, Hartigan, PM, Neff DR, Weintraub WS, Boden WE for the COURAGE Trial Investigators. Impact of adding ezetimive to statin to achieve low-density lipoprotein cholesterol goal in the clinical outcomes utilizing revascularization and aggressive drug evaluation (COURAGE) trial. Am J Cardiol. 2013;111:1557-1562.

Maser R, Lenhard J, Sneider M, Pohlig R. Osteoprotegerin is a Better Serum Biomarker of Coronary Artery Calcification Scores than Osteocalcin in Type 2 Diabetes. Endocrine Practice. August 2014 (ePub). PMID: 25100392.

Matukaitis J, Eckman T, Baxter K, Bradley E, Hawrylack H, Johnson S, Mooney R, Papanicolas D, Briggs P. INSPIRING CHANGE: Sleepless in Stepdown: HTPJuly/Nursing 2014 (www.Nursing2014.com). Mohammed AA. Doorey AJ. Patient with left main coronary artery vasospasm inadvertently undergoing coronary artery bypass grafting surgery. J Am Coll Cardiol. 2013. (In press)

Melson, J., Kane, M., Mooney, R., Williams, J., Horton, T. Improving Alcohol Withdrawal Outcomes in Acute Care, The Permanente Journal, 2014 Spring;18(2):e141-e145. Read it here.

Michalee B, Reinhold N, Dressler R, Laskowski-Jones L, Adarve L, Elliott D. Barriers and Facilitators to Interprofessional-Interdepartmental Interventions: Unearthing Departmental Culture. American Journal of Medical Quality. (Accepted for publication)

O'Donnell L, Carson L, Forciea MA, Kinosian B, Shea J, Yudin J, Miller RK. What students experienced: a narrative analysis of essays written by first-year medical students participating in a geriatrics home visit. J Am Geriatr Soc. 2013 Sep;61(9):1592-7. doi: 10.1111/jgs.12405. Epub 2013 Jul 26.

Pecoraro A, Ewen E, Horton T, Mooney R, Kolm K, McGraw P, Woody G. Using the AUDIT-PC to Predict Alcohol Withdrawal in Hospitalized Patients. Journal of General Internal Medicine, Vol. 29, issue 1, January 2014, pp.34-40.

Powell J, Mink J, Nomura J, Levine B, Jasani N, Nichols W, Reed J, Sierzenski P. Ultrasound Can Reduce Adverse Events During Femoral Central Venous Cannulation. J Emerg Med. Apr 2014. PMID 24462032

Prendergast C, JS Rana, A McMahan, H McGill, J Carr et al. Prediction of coronary artery and abdominal aortic calcium in middle-aged adults using the Pathobiological Determinants of Atherosclerosis in Youth (PDAY) risk score: The Cardia Study, Circulation. 2014; 129: A31.

Prendergast C, Gidding S. Cardiovascular Risk in Children and Adolescents with Type 2 Diabetes Mellitus. Current Diabetes Report. January 2014; PMID: 24402326. Resident Research Track

Pisani MA, Bramley K, Vest MT, Akgün KM, Araujo KLB, Murphy TE. Patterns of Opiate, Benzodiazepine and Antipsychotic Drug Dosing from an Observational Study of Older Patients in a Medical Intensive Care Unit, American Journal of Critical Care. 2013 22 (5): e62-e69

Saad TF, Ahmed W, Davis K, Jurkovitz C. Cardiovascular Implantable Electronic Devices in Hemodialysis Patients: Prevalence and Implications for Arteriovenous Hemodialysis Access Interventions. Semin Dial. 2014 May 27. doi: 10.1111/sdi.12249. (Epub ahead of print)

Safdar N, Anderson D, Braun BI, Carling P, Cohen S, Donskey C, Drees M, Harris A, Henderson D, Huang S, Juthani-Mehta M, Lautenbach E, Linkin D, Meddings J, Miller L, Milstone A, Morgan D, Sengupta S, Varman M, Yokoe D, Zerr D. Research Committee of the Society for Healthcare Epidemiology of America; The Evolving Landscape of Healthcare-Associated Infections: Recent Advances in Prevention and a Road Map for Research. Infection Control and Hospital Epidemiology. May 2014. PMID: 24709716.

St. Germain D, Denicoff AM, Dimond EP, Carrigan A, Enos RA, Gonzalez MM, Wilkinson K, Mathiason MA, Duggan B, Einolf S, McCaskill-Stevens W, Bryant DM, Thompson MA, Grubbs SS, Go RS. Use of the National Cancer Institute Community Cancer Centers Program screening and accrual log to address cancer clinical trial accrual. Journal of Oncology Practice. (In press)

Salam T, Saylor JL, Cowperthwait AL. Attitudes of Nurse and Physician Trainees Toward an Interprofessional Simulated Education Experience on Pain Assessment and Management. Journal of Interprofessional Care. Posted online on August 25, 2014.

Sanborn TA, Tcheng JE, Anderson HV, Chambers CE, Cheatham SL, DeCaro MV, Durack JC, Everett AD, Gordon JB, Hammond WE, Hijazi ZM, Kashyap VS, Knudtson M, Landzberg MJ, Martinez-Rios MA, Riggs LA, Sim KH, Slotwiner DJ, Solomon H, Szeto WY, Weiner BH, Weintraub WS, Windle JR. ACC/AHA/SCAI 2014 Health Policy Statement on Structured Reportingfor the Cardiac Catheterization Laboratory, J Am Coll Cardiol. 2014.

Sear M, Guillen U, Elliott D, Roettger L, Zukowsky K. The use of role play for interdisciplinary teaching of palliative care communication skills. Journal of Palliative Medicine. Aug 2013; PMID: 23746228.

Stathopoulos I, Kossidas K, Panagopoulos G, Garratt K. Cardiac tamponade complicating coronary perforation during angioplasty: short-term outcomes and long-term survival. J Inv Cardiol. 2013;25:486.

Swain SM, Tang G, Geyer CE, Rastogi P, Atkins JN, Donnellan LF, Azar CA, Robidoux A, Polikoff JA, Brufsky AM, Biggs DD, Levine EA, Zapas JL, Provencher L, Northfelt DW, Paik S, Costantino JP, Mamounas EP, Wolmark N. Definitive results of a phase III adjuvant trial comparing three chemotherapy regimens in women with operable, node-positive breast cancer: the NSABP B-38 trial. Journal of Clinical Oncology, 10.1200/JCO.2012.48.1275, August 2013.

Tiwari D, Jurkovitz, CT, Zhang Z, Bowen J, Kolm P, Wygant G, Weintraub WS. Risk factors for cardiovascular events and bleeding complications following non-cardiac surgery or procedure in patients with drug eluting stent placement. Heart Asia. 2014;6:69-75.

Weintraub W, Mandel L, Weiss SA. Antiplatelet Therapy in Patients Undergoing Percutaneous Coronary Intervention: Economic Considerations. *PharmacoEconomics*. 2013; 31:959. Wilson FP, Yang W, Machado CA, Mariani LH, Borovskiy Y, Berns JS, Feldman HI. Dialysis versus nondialysis in patients with AKI: a propensity-matched cohort study. Clin J Am Soc Nephrol. 2014; 4:673-81.

Wilson FP, Yang W, Schrauben S, Machado C, Lin JJ, Feldman HI. Sundays and mortality in patients with AKI. Clin J Am Soc Nephrol. 2013; 8:1863-9.

Wimmer NJ, Spertus JA, Kennedy KF, Anderson HV, Curtis JP, Weintraub WS, Singh M, Rumsfeld JS, Masoudi FA, Yeh RW. Clinical prediction model suitable for assessing hospital quality for patients undergoing carotid endarterectomy. *J Am Heart Assoc.* 2014:2:e000728.

Zubrow MT, Urie J, Jurkovitz C, Jiang Xiaozhang J, Bowen JR, DiSabatino A, Weintraub WS. Asymptomatic Deep Vein Thrombosis in Patients Undergoing Screening Duplex Ultrasonography. Journal of Hospital Medicine. (In press)

# **Selected Abstracts, Posters & Presentations**



Aboff B. "Update in Internal Medicine Graduate Medical Education: Systematic Literature Review of High Quality Medical Education Research in 2013." Association of Program Directors in Internal Medicine (APDIM) Spring Meeting, April 2014.

Asamoah-Odei, E. "Improving HCAHPS Communication with Doctor Scores." Poster session presented at Association of American Medical Colleges Integrating Quality Meeting: 2014 June: Chicago, IL.

Asamoah-Odei, E. "Improving Patient Satisfaction Using Multimodal Communication Tools. Poster session presented at Mid-Atlantic Society of General Internal Medicine; 2014 March 14; New York, NY.

Auerbach A, Mourad M, Maselli J, Sehgal N, Lindenauer P, Kim C, Robinson E, Ruhnke G, Metlay J, Herzig S, Vasilevskis E, Kripalani S, Williams M, Fletcher G, Critchfield J, Schnipper J. "Preventability of Readmissions In A National Sample Of Patients: Preliminary Results From The Hospital Medicine Reengineering Network (HOMERuN). Poster at Hospital Medicine, March 2013.

Baig K, Catts Z, Petrelli N, Guarino M. "Statewide retrospective review of familial pancreatic cancer in Delaware and frequency of genetic mutations in pancreatic cancer kindreds." Winner Cost-Conscious Category at the Delaware American College of Physicians Meeting, Feb 2014, and presented at the CCHS Grand Rounds Resident Research Day, May 2014. Also a poster at American Gastroenterology Association meeting, Oct 2013. Resident Research Track

Baig M, Butt W, Slease R. "Rituximab – A Friend or Foe in Ulcerative Colitis?" Poster at the Delaware ACP Meeting, February 2014.

Baker AM, Ruether J, Collins M, Heath S, McMillen J. Webinar: "Patient and Family Engagement Series IV - Patient-and-Family-Centered Care at the Bedside." America's Essential Hospitals, Mar 6, 2014. Access here. (Requires registration)

Baker M, Huang S, Letourneau A, Kaganov R, Peeples J, Drees M. "How Do Hospitals Detect Outbreaks?" Poster at ID Week, October 2014.

Bley B. "Musculoskeletal Ultrasound: A Clinical and Research Focus." University of Delaware Workshop, Department of Kinesiology and Applied Physiology Biomechanics and Movement Science Program, March 2014.

Bley B. "Musculoskeletal Diagnostics for Pediatricians: Upper Extremity Injuries in Kids." Presentation at the American Academy of Pediatrics National Conference and Exhibition, October 2013.

Bonis K, Emberger JS, Brown II J. "Comparison of two volume targeted neonatal algorithms when switching between triggered and non-triggered breaths." AARC Congress, Nov. 16-19, 2013, Anaheim, CA.

Bradley, E. "Hypertension." In S. L. Lewis, S. R. Dirksen, M. M. Heitkemper, L. Bucher, (Eds.) Medical-Surgical Nursing, Assessment and Management of Clinical Problems (9th ed.), St. Louis, MO:Elsevier Mosby.

Burke PA Jr, Deutsch J, Vest M, Hemant Kher. "Better Team Dynamics Result in Improved Medical Decision Making in Simulated Rapid Response team Calls Led by Medical Residents." Medical Society of Delaware Spring CME Symposium, March 2014. Third Place winner in the American College of Physicians Delaware Chapter competition. Winner: Quality Improvement/Patient Safety Category.

Burke PA Jr, Malebranche Lj, Gakhal M, Rahman E, Saltzberg M. "Sustained improvement of cardiac function with immunosuppressive therapy in a case of acute lymphocytic myocarditis secondary to allopurinol induced Stevens-Johnson syndrome M." Del Med J. 2012 Dec; 84(12):381-3.

Chen D. "The Inner City Environment and Intersections with Health. "Medicine Grand Rounds at the Christiana Care Health System, May 2014.

Comer D, Elliott D, and Harris D. 'Policy Implications of Linked Pharmacy Claims to Improve Electronic Health Record Interoperability." Academy Health, April 2014.

Comer D, Couto J, Aguiar R, Wu Elliott D. "A New Frontier: Using Pharmacy Claims within the EHR to Conduct Medication Reconciliation in Primary Care Practice." Abstract at the ISPOR Annual Meeting, May 2014.

Copeland K, Wang J, Malodiya A, Weintraub W, Rahman E. "Occulostenotic reflex in action in STEMI patients with multivessel disease returning for staged PCI." SCAI 2014, Las Vegas, NV

Dam H, Grady E, Bais T, Decena-Shepherd L, Manzone T, Poster, "Is 18F-FDG PET imaging used appropriately for staging of esophageal carcinoma?" J Nucl Med 2014; 55(Supplement 1): 1884. Society of Nuclear Medicine & Molecular Imaging annual meeting, St Louis, MO, June 2014. Deitchman A, Fistler C, Bartoshesky L. "Persistent lactic acidosis after treatment of Diabetic Ketoacidosis

 A common metabolic derangement or something more insidious?" Poster at the Delaware ACP Meeting, February 2014.

DiSabatino A, Squire A, Tsuda T. ?Enhanced Bioactive TGF Levels in the Myocardium Suggests Early Pathological Transition in Asymptomatic Severe Mitral Regurgitation." American College of Cardiology 2014, Washington DC. Won top research award.

Donnelly J, Ragozine-Bush H, Burday M, Slack D. "From Simon Cowell to FATCOWS: Taking Feedback from Awful to Awesome." 2014 APDIM Chief Residents Meeting Presentations; Apr 2014.

Donnelly J, Jordan J. "Synchronized Admissions as a Tool for Multi-disciplinary Team Leading and Direct Observation," and "From Simon Cowell to FATCOWS: Taking Feedback from Awful to Awesome." APDIM Spring Meeting, April 2014.

Donnelly J. "Yes, No, Maybe So: Clinical Reasoning and Cognitive Influence in Pediatric Medical Decision Making." Pediatrics Grand Rounds, Christiana Care Health System, 2013.

Donnelly J. "Putting Recent Literature into Practice." American College of Physicians Delaware Annual Meeting, February 2014.

Donnelly J, Khan O, Testa K, Prater C, Merriam A. "A Shared Global Health Curriculum at an Independent Academic Medical Center." American Public Health Association Annual Meeting, Boston MA, November 2013.

Dressler R, Jasani N. "Building the Next Generation of Medical Quality and Patient Safety Leaders: A Multi-Pronged GME Approach." AIAMC 2014 Annual Meeting, March 2014.

Drees M, Silverman B, Protokowicz N, Adkins L, Freeman L, Briody C, Wroten K, DePietro M. "Implementation of New Ventilator-associated Event Surveillance in a Community-based Academic Healthcare Center." Poster at ID Week Meeting, October 2013. Resident Research Track Drees M, Pineles L, Harris AD, Morgan DJ. "Variation in Definitions and Isolation Procedures for Multidrug-resistant Gram-negative Bacilli: a Survey of the SHEA Research Network." Poster at ID Week Meeting, October 2013.

Drees M, Brown J, Gillin T, Protokowicz N, Fagraeus L, Panchisin T, Booker B, Dombroski G, Emberger J, Dressler R. "Toward a Better Ventilator Bundle." Poster at Alliance of Independent Academic Medical Centers Annual Meeting, March 2014.

Drees M, et al. "Optimization of PEEP as a Strategy to Reduce Ventilator-Associated Event." Poster at ID Week, October 2014.

Drees M. "Implementing Behavior Change in Healthcare Institutions: A Practical Conceptual Model Approach." Lecture at Alliance of Independent Academic Medical Centers Annual Meeting, 2014.

Drees M. "Multidrug-resistant Gram-negative Bacteria." Lecture at the Delaware Health & Social Services Nursing Leadership Conference, 2013.

Drees M. "Clostridium difficile: a Continuing Challenge." Lecture at the Delaware Health & Social Services Nursing Leadership Conference, 2013.

Drees M. "From VAP to VAE." Invited lecture at the 8th Annual Concepts in Respiratory Critical Care Conference, 2014.

Dryer M, Dressler R, Salam T. "Good Catch! Enhancing Quality and Safety Education in the Internal Medicine Residency Program by Optimizing Proactive Safety Event Reporting." Poster at Academic Internal Medicine Week Meeting, October 2013.

Dryer MM, Salam T. "Good Catch! Enhancing Quality and Safety Education in the Internal Medicine Residency Program by Optimizing Proactive Safety Event Reporting." Alliance for Academic Internal Medicine Week, October 2013.

Elliott D. "Health Care Reform: A Nation in search of Value." Leadership Delaware, Newark, DE, June 2013.

Elliott DJ, Young RS, Kolm P, Aguiar R, Brice J. "Hospitalist Physician Workload: Does it Matter?" Society of General Internal Medicine National Meeting, Denver CO, April 2013.

Elliott D, Williams K, Wu P, Kher H, Michalec B, Coletti C, Reinbold N, DePietro M, Dressler R. "A Novel Intervention Improving Patient Transitions from the Emergency Department to the Medical Intensive Care Unit." Academy Health Annual Research Meeting, June 2014.

Elliott D, Patel V, Kolm P, Bowen J, Kerzner R, Jurkovitz C, Weintraub WS. "Suboptimal Longitudinal Risk Factor Control Following Coronary Revascularization in a Community Setting. "Poster at the American Heart Association, Scientific Sessions, November 2013.

Elliott D, Fanari Z, Kolm P, Weintraub W. Predicting Readmission Risk Following Coronary Revascularization." Poster at AHA Quality of Care and Outcomes Research, June 2014.

Elliott D. "Metrics and Early Findings in Bridging the Divides." Invited lecture at Center for Medicare and Medicaid Innovation, April 2014.

Elliott D. "Readmission Risk Prediction in Bridging the Divides." Invited lecture at Christiana Care Value Institute Scholars Meeting, January 2014.

Elliott D. "Quality and Safety Operating System v 3.0 – Moving to Population Health Perspective." Invited lecture to the Christiana Care Presidents Cabinet, March 2014.

Elliott D. "Overview and Early Findings in Bridging the Divides." Invited lecture Delaware Healthcare Forum, April 2014 and at the Christiana Care Value Institute Scholars Meeting, September 2013.

Emberger JS, Brown II JM, Gott III F, Bonis K, Murphy M, Maheshwari V, Fulda G. "Rapid process improvement to increase surveillance for patients ready for extubation around the clock." AARC Congress, Nov. 16-19, 2013, Anaheim, CA.

Emberger JS, Brown II JM, Bonis K. "Initial experience with an airway management catheter to clear partial endotracheal tube obstructions." AARC Congress, Nov. 16-19, 2013, Anaheim, CA.

Emberger JS, Brown II JM, Gott III F, Bonis D, Murphy M, Maheshwari V. "Extubation outcomes for patients receiving more than one spontaneous breathing trial (SBT) per day." AARC Congress, Nov. 16-19, 2013, Anaheim, CA.

Emberger J. "A Live Look Inside the Lungs: Experience with Electrical Impedance Tomography." FOCUS Spring National Conference, May 2014; International Respiratory Congress, November 2013; Blue Ridge Symposium, October 2013.

Emberger J. "How to Ventilate the Premature Infant - What is the Evidence." FOCUS Spring National Conference, May 2014 and International Respiratory Congress, November 2013.

Emberger J. "Anesthetic Agents for Status Asthmaticus: Methods, Evidence and Therapist's Role." International Respiratory Congress, November 2013.

Emberger J. "Ventilator Induced Lung Injury." Blue Ridge Symposium, October 2013.

Emberger J. "Evidence-Based Ventilation of the Premature Infant. Concepts in Neonatal Respiratory Care." August 2013.

Emberger J. "Extubation Outcomes for Patients Receiving More Than One Spontaneous Breathing Trial (SBT) Per Day." Poster at the International Respiratory Congress, November 2013.

Emberger J. "Initial Experience with an Airway Management Catheter to Clear Partial Endotracheal Tube Obstructions." Poster at the International Respiratory Congress, November 2013.

Emberger J. "Comparison of Two Volume Targeted Neonatal Algorithms When Switching Between Triggered and Non-Triggered Breaths." Poster at the International Respiratory Congress, November 2013.

Emberger J. "Rapid Process Improvement to Increase Surveillance for Patients Ready for Extubation Around the Clock." Poster at the International Respiratory Congress, November 2013.

Ewen E. "PC Improving Glycemic Control in the AMO." Christiana Care President's Cabinet, March 2014.

Ewen E, Schenk S, Donnelly J. "Embracing the Huddle in a Resident Teaching Clinic." Society of General Internal Medicine regional meeting in New York, March 2014 and national meeting in San Diego, April 2014.

Facciolo K, Piper J. "Group A Streptococcus: An Infrequent, but Deadly Killer." Poster at the Delaware ACP Meeting, February 2014.

Facciolo K, Briody C, Drees M. "Sensitivity, Specificity, Positive and Negative Predictive Values of National Health Safety Network (NHSN) LabID Surveillance and Coding Data, Compared to Traditional Infection Prevention Surveillance." Presentation at ID Week, October 2014. Resident Research Track Fanari Z, Qureshi W. "Traumatic Myocardial Infarction in a young athlete patient after a sport injury." J Am Coll Cardiol. 2014;63(12\_S): A 170.

Fanari Z, Qureshi W. "Percutaneous Angioplasty and stenting of subclavian stenosis in a patient with obstructive coronary artery disease, occluded saphenous venous grafts and left main artery with the aid of impella percutaneous cardiac support device." Am Coll Cardiol. 2014;63(12 S): A 157.

Fanari Z, Weiss S, Zhang W, Weintraub WS. "Drug-Eluting Stenting in Patients With Multivessel Coronary Artery Disease: A Meta-Analysis of Six Randomized Controlled Trials." American Heart Association 2013, Dallas, TX.

Fanari Z, Weiss S, Zhang W, Weintraub WS. "Meta-Analysis of Three Randomized Controlled Trials Comparing Coronary Artery Bypass Grafting With Percutaneous Coronary Intervention Using Drug-Eluting Stenting in Patients With Diabetes." American Heart Association 2013, Dallas, TX.

Friedland A. "The Nuts and Bolts of Successful Transition to Adult Care Services for Youth with Disabilities." American Academy of Pediatrics National Conference and Exhibition, Adolescent Medicine Section Meeting, October 2013.

Fulda K, Fulda G, Dam H, Grady E, Manzone T. "Use of radioisotope blood volume analysis to determine the cause of hyponatremia in neurocritical care patients." J Nucl Med. 2014; 55(Supplement 1): 1613. Society of Nuclear Medicine & Molecular Imaging annual meeting, St Louis, MO, June 2014. Fulda K, Rajendran V, Kahn D, Manzone T, Fulda G. "Evaluation of blood volume analysis in the diagnosis of cerebral salt wasting versus SIADH." Poster at the Society of Critical Care Medicine 43rd Annual Congress, San Francisco, CA, January 2014.

Gaukler E. Upchurch C. "Confusing Case of Confusion. Hyperammonemia without Hepatic Failure." Delaware ACP Meeting, 2014.

Gauntt J, Chasanov W, Hundal R, Bennett J. "Giant Bilateral Adrenal Masses in a Man with Untreated 21hydroxlase deficient congenital adrenal hyperplasia." Delaware ACP Meeting, 2014.

Gauntt J. "Extremes Of Body Mass Do Not Affect Outcomes In Critically Injured Children." American Pediatric Association regional meeting 2014; poster at Pediatric Academic Societies, May 2014 and Christiana Care Medical Grand Rounds Resident Research Day 2014.

Gauntt J. "Extremes Of Body Mass Do Not Affect Outcomes In Critically Injured Children; Striving for Excellence in Research and Critical Thinking: A Symposium for Pediatric Residents." April 2014.

Gauntt J, Prendergast C, Guarino S, Troiano M, Friedland A. "High Value/Cost Conscious Care. "ColoRectal Assistance Program for Screening (CRAPS)." 2014 Delaware American College of Physicians Abstract and Poster Competition Winner, High-Value/Cost-Conscious Category. Also a poster at the National ACP meeting, April 2014.

Gauntt J. "Extremes Of Body Mass Do Not Affect Outcomes In Critically Injured Children." Poster at the American Pediatric Association, March 2014.

Goldenberg E, Bathina J. "The Adipocyte: Friend or Foe?" Lipid Spin. 2013/2014; v12 issue 1 p 17-19.

Goldenberg E. "Let's Not Confuse Health Care Costs and Health." Lipid Spin. 2013/2014; v 12 Issue 1 p9.

Goldenberg E. "Million Hearts Delaware: Primum Non Nocere." Delaware Medical Journal. v85, December 2013, 12 p375.

Guarino J, et al., "Bullosis Diabeticorum: A Case Presentation." Consultant. 2013. 53(12):874.

Guarino J. "Advance Care Planning in the Outpatient Setting" and "Dementia with Behavioral Disturbances in a Retired Secret Service Agent." Poster presentations at the American Geriatrics Society Annual Conference. Orlando, Florida. May 2014.

Guarino MJ. "Feasibility and results of a randomized phase 1b study of fractionated soY-clivatuzumab tetraxetan in patients with metastatic pancreatic cancer having two or more prior therapies." Poster presentation at the American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Guarino MJ. "Activity of IMMU-130 anti-CEACAMS-SN-38 antibody-drug conjugate (ADC) on metastatic colorectal cancer (mCRC) having relapsed after CpT-'l 1: phase 1 study." Poster presentation at the American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Guarino MJ. "IMMU-'132, an SN-38 antibody-drug conjugate (ADC) targeting Trop-2, as a novel platform for the therapy of diverse metastatic solid cancers: Clinical results." Poster presentation at the American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Guerry R. "Management of Acute and Chronic Pain in Inpatient Settings." Presentation at Delaware Pain Initiative Conference, April 2014.

Grady E, Manzone T, Dam H. "Comparison of quantitative cholescintigraphy techniques raises more questions than answers." Best poster at the American College of Nuclear Medicine annual meeting/Society of Nuclear Medicine & Molecular Imaging Midwinter meeting in February 2014. Grady E, Swanson SJ, Gilibert S, Manzone TA, Dam HQ. "Spectrum of kidney transplant complications: a multidisciplinary overview." J Nucl Med 2014; 55(Supplement 1): 1290. Educational exhibit at the Society of Nuclear Medicine & Molecular Imaging annual meeting, St. Louis, MO, June, 2014. Greyson S, Harrison J, Kripalani S, Metlay J, Robinson E, Meltzer D, Vasilevskis E, Schnipper J, Auerbach A. "Understanding Patient Centered Readmission Factors: A Multi-site, Mixed-Methods Analysis of 1,086 Readmitted Patients." Poster at Hospital Medicine, March 2013.

Greyson S, Kripalani S, Robinson E, Metlay J, Sarkar U, Auerbach A. "Internet Use for Post-Discharge Tasks Among Readmitted Patients." Poster at Hospital Medicine. March 2013.

Grubbs SS. "The clinical trial assessment of infrastructure matrix tool (CT AIM) to improve the quality of research conduct in the community." The American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Horton T. "Alcohol Withdrawal", Grand Rounds, Trinitas Regional Medical Center, Elizabeth, New Jersey, September 18, 2014.

Horton T. "Project Engage," The White House Office of National Drug Control Policy, Washington D.C., September 5, 2014.

Horton T. "The Problem of Prescription Opioid Drug Abuse." Delaware Pain Initiative, Medical Society of Delaware, Apr 25, 2014.

Horton T. Webinar, "Addressing Substance Use Disorders in a Hospital." CMS Adult Quality Measures Project: Integrating Physical and Behavioral Health Care for Individuals with Substance Use Treatment Needs, Center for Health Care Strategies. Jan 1 and Mar 3, 2014.

Horton T. "Helping Hospital Systems Care About Substance Abusers – Lessons from Delaware." Presentation at (ARDIS) Discussion Series, February 2014.

Horton T." Project Engage, A Bridge from the Hospital to Community-based Drug and Alcohol Treatment." Presentation at the SBIRT Summit, August 2013.

Horton T. "Implementing SBIRT in a Hospital Setting," Screening, Brief Intervention & Referral to Treatment (SBIRT): Implementation in Social Work Practice." NIDA sponsored pre-session of Society for Social Work Leadership in Health Care, 2013 Annual Conference, Philadelphia, October 2013.

Hurst A. "A Horse of a Different Color: Rhodococcus equi Infectious Endocarditis in an Immunocompetent Host." Poster at the National American College of Physicians meeting, April 2014.

Jordan J and the Patient Centered Synchronized Admission Team. INNOVATIONS category. Society of Hospital Medicine Annual Meeting, Mar 24-27, 2014 in Las Vegas.

Jimenez J, Drees M, Loveridge-Lenza B, Eppes S, delRosario F. "Exposure to Gastric Acid-Suppression Therapy is Associated with Healthcare-Associated and Community-Associated C. difficile Infection in Children." Poster at ID Week, October 2014.

Jurkovitz J, Kolm P, Elliott D, Bowen J, Weintraub W. "Decrease of Glomerular Filtration Rate at 30-day Readmission after Percutaneous Coronary Intervention." Abstract at the American Society of Nephrology National Meeting, November 2013.

Khan OA, Evert J, Loh LC, Melby M, Prater CW, Lin HC. "Beyond 'medical missions' - impact-driven Short-Term Experiences in Global Health (STEG): Principles and Recommendations for Learners and Practitioners." Consortium of Universities for Global Health (CUGH) Annual Conference, May 2014, Washington DC.

Kansara P, Jackson K, Dressler R, Weiner H, Kerzner R, Weintraub W, Doorey A. "Clinical Utility and Impact of Revised Continuous Cardiac Telemetry in Identifying Life Threatening Arrhythmias." QCOR 2014, Baltimore, MD.

Kansara P, Vanga SR, Weiss S, Weintraub WS, Rahman E. "What is the Impact of New or Presumed New Left Bundle Branch Block on In Hospital Mortality Compared to Known Left Bundle Branch Block in Patients Presenting with Suspected Acute Coronary Syndrome?" American College of Cardiology 2014, Washington, DC.

Kansara P, Rajamanickam A, Weiss S, Rahman E. Hopkins J, Goldenberg E, Kostal M, Stillabower S, Weintraub WS. "Understanding the Pathophysiology of Apical Ballooning Syndrome, A step closer!" American College of Cardiology 2014, Washington, DC.

Kansara P, Vanga SR, Weiss S, Weintraub WS, Rahman E. "How Often Is Left Main or Left Anterior Descending Artery the Culprit Vessel in Patients Presenting with New or Presumed New Left Bundle Branch Block and Suspected Acute Coronary Syndrome?" American College of Cardiology 2014, Washington, DC.

Kansara P, Czer L, Patel J, Mirocha J, Kittleson M, De Robertis M, Moriguchi J, Chang D, Ramzy D, Kass R, Esmailian F, Trento A, Kobashigawa J. "Early Mortality and Morbidity in Heart Transplant Recipients with Prior History of Cardiac Surgery: Analysis of United Network for Organ Sharing Database." American College of Cardiology 2013, San Francisco, CA.

Karanam K, Slater L, Gilibert S. "Autosomal Dominant Interstitial Kidney Disease." Poster at the National Kidney Foundation Spring Clinical Meeting, April 2014.

Karanam K, Mehring C. "Inferior Mediastinal Leak on Peritoneal Dialysis." Poster at the National Kidney Foundation Spring Clinical Meeting, April 2014.

LeComte J. "SGIM Announces the Formation of the Adults with Complex Conditions Origination in Childhood Task Force." SGIM Forum, Nov 2013.

LeComte J. "Best Practices in Transition Care for Young Adults with Special Health Care Needs." Autism Delaware, June 2014.

LeComte J. "Caring for Adult Survivors of Childhood Cancer." Delaware State Osteopathic Medical Society, April 2013.

LeComte J. 'Becoming an Adult. Transitioning to Adult Services." Presentation at the University of Delaware Career and Life Studies, 2014.

LeComte J. "Successful Transition Models. Pediatrics to Adult Medicine." Presentation at Mid Atlantic Consortium for Genetic and Newborn Screening Services, May 2014.

Leech S, Nomura J, Lewiss R, Adhikari S, Geria R, Davison J, Huang R. "SonoRoundtable – A Live Online Academic Educational Series for Ultrasound Fellowships." Presentation at the Academy of Emergency Medicine 2014.

Lenhard MJ, Maser R, Sneider MB. "Osteoprotegrin trumps osteocalcin in association with arterial calcification in diabetes." Poster presentation at the 74th Scientific Sessions of the American Diabetes Association, San Francisco, CA, and published in *Diabetes* 2014: 63, Suppl. 1, A112. Lenhard MJ. "Train the Trainers in Diabetes." Syposium for internists in Surabaya, Indonesia, March 2014.

Li, Jurkovitz C, Laughery T, Zhang Z, Bucher G, Hughes V, Bittner-Fagan H. "A Collaborative Model for Physician Practices and Home Care Agencies." Poster presentation in "Models of Geriatric Care" category at the Annual American Geriatrics Society Conference. Orlando, Florida, May 2014. Also awarded American Alliance of Healthcare Providers (AAHCP) Poster Award. Lyons D. "The Role of the GRN", 17th Annual NICHE Conference, San Diego, California, Apr 6, 2014.

Malebranche LJ, Malodiya A, Dang D (MSIII), Bathina J, Mahoney D, Hoban A, Kolm P, Weintraub WS, Rahman E. "In the era of primary percutaneous coronary intervention, is emergent coronary angiography increasingly necessary to rule out STEMI before a diagnosis of acute pericarditis can be made?" European Society of Cardiology 2013, Amsterdam, The Netherlands.

Malebranche LJ, Horne A, Morrone D, Aguiar R; Kolm P, Zhang W, Resar J, Riesenberg LA, Jurkovitz C, Weintraub WS. "Bayesian Meta-analysis of Percutaneous Coronary Intervention Compared to Optimal Medical Therapy in Patients With Stable Ischemic Heart Disease or Post-Acute Myocardial Infarction." European Society of Cardiology 2013, Amsterdam, Netherlands and QCOR 2013, Baltimore, MD.

Malebranche LJ, Malodiya A, Dang D (MSIII), Bathina J, Mahoney D, Hoban A, Kolm P, Weintraub WS, Rahman E. "In the era of primary percutaneous coronary intervention, is emergent coronary angiography increasingly necessary to rule out STEMI before a diagnosis of acute pericarditis can be made?" American College of Cardiology 2013, San Francisco, CA.

Malodiya A, Copeland K, Wang, J, Weintraub W, Rahman E. "How reliable is the EKG in detecting stent thrombosis after successful primary PCI in acute ST elevation myocardial infarction." SCAI 2014, Las Vegas, NV.

Maser RE, Lenhard MJ. "Vitamin D insufficiency and autonomic nerve function in type 1 vs. type 2 diabetes." Poster presentation at the 74th Scientific Sessions of the American Diabetes Association, San Francisco, CA, and published in *Diabetes* 2014: 63, Suppl.1, A191.

Maser RE, Lenhard MJ. "Osteoprotegrin is associated with cardiovascular autonomic nerve function in type 2 diabetes." Poster presentation at the 74th Scientific Sessions of the American Diabetes Association, San Francisco, CA, and published in Diabetes 2014: 63, Suppl. 1, A146. Masters GA. "Final results of a phase I study of amrubicin and cyclophosphamide in patients with advanced solid organ malignancies: HOG LUN 07-130." Poster presentation at the American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Masters GA, Guarino MJ, Misleh JG. "A randomized double-blind phase II trial of platinum (P) plus etoposide (E) with or without concurrent 2D6474 (Z) in patients (pts) with previously untreated extensive stage

(ES) small cell lung cancer (SCLC): Hoosier Oncology Group LUN06-113." The American Society of Clinical Oncology (ASCO) meeting, Chicago, May-June 2014.

Meyer E. "High Altitude Sickness." American Osteopathic Association Sports Medicine Conference, April 2013.

Moosavy F. "Pulmonary Embolism as part of immune reconstitution syndrome following cessation of infliximab." Poster presented at the American College of Physicians Delaware Chapter meeting, February 2014.

Morgan-Gouveia M. "To Drive or Not to Drive: How to approach this discussion." Edmund G. Beacham 41<sup>st</sup>Annual Current Topics in Geriatric Medicine, Johns Hopkins Geriatrics Division, Baltimore, MD, February 2014.

Niphadkar S, Hanson S. "Varadarajan R Will you Kiss and Tell? EBV-associated Hemophagocytic Lymphohistiocytosis." Poster at Delaware ACP Meeting, February 2014. Nomura J. "Transcranial Doppler: Diagnostic and Therapeutic." Invited lecture at Christiana Care Health Systems Neurovascular Grand Rounds, Oct 2013.

Nomura J. "GME: Why Milestones Plus Residents Equals Social Media and Simulation." Invited lecture at American Institute of Ultrasound in Medicine Annual Convention, April 2014.

Nomura J. "Emergent Stratification of Patients with Acute Neurologic Deficits." Invited lecture at Christiana Care Health System Annual Neurovascular Symposium, April 2014.

Nomura J. "From Twitter to Tenure: Use of Social Media to Advance Your Academic Career." Invited lecture at Society for Academic Emergency Medicine Annual Meeting, May 2014.

Nomura J. "Controversies in Emergency Ultrasound II: The Debate Rages On." Society for Academic Emergency Medicine Annual Meeting, May 2014.

Nomura J. "FOAM, Social Media and the Community Academic Practice." Invited lecture at Society for Academic Emergency Medicine Annual Meeting, May 2014.

Nomura J. "Customized Swallow Screening Tool to Exclude Aspiration Pneumonia Risk in Acute Stroke Patients." Presentation at the Society for Academic Emergency Medicine Annual Meeting, May 2014.

O'Donnell L. "Osteoarthritis in the Elderly". CCHS Annual Orthopedics Symposium. Newark, DE. 2013.

Palli V, Melnick P. "Not Your Usual Case of Ambulatory Dysfunction." Poster at Delaware ACP Meeting, Feb 2014.

Patel V. "Not all abdominal pain is constipation." PEMpix submission – Peds ER case competition, Oct 2013.

Patel V, Weintraub W, Robinson E, Kerzner R, Salam T, Elliott D. "Factors contributing to readmissions for ischemic heart disease." SGIM regional meeting in New York, March 2014, and national meeting in San Diego, April 2014. First Place Winner Health/Innovations Category in SIGM's regional poster competition. Also presented at Christiana Care Resident Research Day Grand Rounds, May 2014.

Patel V, Sprott C, Friedland A. "Implementing Business of Medicine into Residency Education." SGIM regional 2014 and Winner, American College of Physicians (ACP) Delaware: Cost-Conscious Category. Patel V, Lammly A, Merritt N. "The Color Purple: Maintaining Patients' Wishes." SGIM regional and national meetings and 2014 American College of Physicians Delaware First Place Abstract and Second Place Poster competition winner. Also a poster at the National ACP meeting, April 2014. Patel V. "Factors contributing to readmissions for ischemic heart disease." Medicine Grand Rounds. Christiana Care Health System. May 2014.

Pecoraro A, Mooney R, Horton T, Woody G. "Nurses' Screening and Referral Behaviors and Opinions about Brief Interventions Before and After Implementation of Project Engage." Presentation at the 76rd Annual Scientific Meeting of the College on Problems of Drug Dependence (CPDD), June 2014.

Persad K, Guarino M. "Ipilimumab-induced Hypophysitis Precipitating Chronic Hormone Replacement." Poster at Delaware ACP Meeting, February 2014.

Prater C. "Universal Healthcare: Reflections on a Stroll through the United Kingdom's National Health Service." Poster at the Christiana Care Global Health Series, July 2013.

Prendergast C, Rana JS, McMahan A, McGill H, Carr J, et al. "Prediction of coronary artery and abdominal aortic calcium in middle-aged adults using the Pathobiological Determinants of Atherosclerosis in Youth (PDAY) risk score: The Cardia Study." AHA Scientific Session Poster, November 2014; oral presentation at AHA Epidemiology NPAM, March 2014; and Medicine Grand Rounds, Christiana Care Health System. May 2014. Resident Research Track

Power M, Misra S, Funyak J, Chavez B, Stefano J, Tuttle D, Drees M. "Ultraviolet Light for Terminal Disinfection of Neonatal Incubators." Poster at ID Week, October 2013.

Power M, Goldsack J, DeRitter C, Spencer A, Taylor C, Kim S, Kirk R, Drees M. "The clinical, psycho-social and cost impacts of performing active surveillance on known MRSA+ patients admitted to medicalsurgical units." Poster at ID Week, October 2014.

Rajamanickam A, Fanari Z, Kansara P, Goldenberg E, Rahman E, Hopkins J, Kostal M, Stillabower M, Weintraub WS. "Broken Heart Syndrome-Not so rare anymore." QCOR 2013, Baltimore, MD.

Rajamanickam A, Fanari Z, Kansara P, Hopkins J, Goldenberg E, Rahman E, Stillabower M, Kostal M, Weintraub WS. "Takotsubos Cardiomyopathy-Troponin and Treatment Trends." QCOR 2013, Baltimore, MD.

Rajamanickam A, Zhang Y, Aguiar R, Bradley E, Weintraub WS, Goldenberg E. "Real world Lipid Control for secondary prevention of CAD in patients undergoing repeat percutaneous coronary intervention." QCOR 2013, Baltimore, MD; National Lipid Association 2013, Las Vegas, NV.

Ransford GL, Silverman P, Taylor D. "Partnership evaluation of Million Hearts" Delaware using the Wilder Survey and National Association of County and City Health Officials Tools." PHAP, April 3, 2014. Rizzo AA. "Lung Cancer 101." National webinar for the American Lung Association, Apl 2014.

Rizzo AA. "Update on Lung Cancer." National Lung Association meeting, Atlanta, Dec. 2013.

Rizzo AA. Public comment on "Lung Cancer Screening with Low Dose Computed Tomography." Medicare Evidence Development & Coverage Advisory Committee, Baltimore, MD, Apr. 30, 2014.

Rizzo AA. "Our experience with tele-ICU." Mid-Atlantic Telemedicine Resource Center Summit, Fredericksburg, VA, Mar. 31, 2014.

Rizzo AA. "Lung cancer: the number one cancer killer of women." American Lung Association Lung Force Campaign Kick Off. New York City.

Robinson E. "Geographic Cohorting: A Real World Case Study." Presentation at the Society of Hospital Medicine, Chapter Meeting, June 2013.

Saad T, et al. "Fistula Balloon Maturation: Facts & Fiction: Vascular Access Society of the Americas Dialysis Access Symposium XIV." Grapevine, TX, May 31, 2014.

Saad T, et al. "Update on the RENOVA Trial." American Society of Diagnostic and Interventional Nephrology, 10th Annual Scientific Meeting. Phoenix, AZ, Feb. 23, 2014.

Saad T, et al. "Dealing with Venous Rupture." American Society of Diagnostic and Interventional Nephrology, 10th Annual Scientific Meeting, Phoenix, AZ, Feb. 22, 2014.

Saad T, et al. Results of RENOVA Trial." AIM-Veith Symposium, New York, NY, Nov. 19, 2013.

Saad T, et al. "Stent Grafts and Bare Metal Stents in 2013." Cincinnati Vascular Access Symposium, Cincinnati, OH, Sept. 28, 2013.

Saad T, et al. "Debate: Love Them or Hate Them, Can't Live Without Them: Catheters Are Not That Bad." Cincinnati Vascular Access Symposium, Cincinnati, OH, Sept. 27, 2013.

Santora J, Hernandez J, Saltzberg MT. "Atrioventricular Block in a Young Man with a History of Ulcerative Colitis." Poster at the Delaware ACP meeting, February 2014.

Scherer T. "Preadmission Transplant Teaching: A Team Approach." Poster presentation at the Academy of Oncology Nurse Navigators, in Orlando, September 2013.

Seigfried RJ, Corbo T, Saltzberg MT, Reitz J, Bennett DA. "Deciding which drugs get onto the formulary: a value-based approach." Abstract in *Value Health*. 2013 Jul-Aug;16(5):901-6.

Sethi A, Lenhard J. "What Goes Around, Comes Around – A Case of Cyclical Cushing's Syndrome." Poster at the Delaware ACP Meeting, February 2014.

Sethi A. "Pulmonary Tumor Thrombotic Microangiopathy." Presentation at CHEST, October 2014.

Silverman B, Drees M, et al. "Implementation of New Ventilator-Associated Event Surveillance in a Community-based Academic Healthcare Center." Infectious Disease Week 2013. Second Place Poster winner at the Medical Society of Delaware Spring CME Symposium, March 2014. Silverman B, Drees M. "Outcomes of Ventilator Associated Events (VAE) at a Large Academic Community Health Care Center." Poster at Medical Society of Delaware Spring Symposium, March 2014. Resident Research Track

Smith B, Aung K, Beyth R, Kaatz S, Elliott D. "Eyes Wide Open: Guidance on Guidelines when they Guide Differently." Workshop at the National Society of General Internal Medicine meeting, Apr 2014. Simmon R, Plumb J, Donnelly J, Martin P, Brody C, Todd T. "Experiential Global Health Education for the Health Professions: Lessons Learned from Experience-Based Learning for Students, Residents and Healthcare and Population Health Professionals." Consortium of Universities for Global Health National Meeting, May 2014.

Sprott C, Dressler R. "Bridging the Gap: Practical Application of Patient Safety and Quality Improvement Principles at the Frontline," Poster at the AIAMC Annual Meeting, March 2014.

Testa K. "Developing Global Health Tracks" and "How do I find a Residency which Prepares me for Global Health." Delaware Health Science Alliance, June 2014.

Testa K, Prater CW, Khan OA, Donnelly J, Barney R, Sahu N, Gaukler E. "Utilizing a Shared Curriculum to Foster Specialty-Specific Global Health Tracks at an Independent Academic Medical Center." Consortium of Universities for Global Health (CUGH) Annual Conference, May 2014, Washington DC.

Thomas H, Heaney T, Blackson T, Ciarlo J, Coffey Zern S. "The role of acoustic reflectometry in evaluation of endotracheal tube patency: an in-vitro comparison of assessment techniques used to evaluate airway resistance caused by endotracheal tube biofilm formation." AARC Congress, Nov. 16-19, 2013, Anaheim, CA.

Thomas T. "Telemetry Transformation .... Promoting Best Practice for Cardiac Telemetry Utilization." Poster at the 2014 ANCC Board Certification Nursing Conference, March 2014.

Vanga SR, Malodiya A, Vanga S, Moussavi F, Moutsatsos G, Doorey A, Hosmane V, Weintraub W, Rahman E. "Survival of patients presenting in cardiac arrest with STEMI on post-resuscitation ECG in dependent on the initial arrest rhythm." SCAI 2014, Las Vegas, NV.

Vanga SR, Kansara P, DiSabatino A, Weiss S, Weintraub WS. "Prevalence and Outcomes of STEMI Patients Who Were On Chronic Vitamin K Antagonist Therapy at the Time of Presentation." American College of Cardiology 2014, Washington, DC.

Vest MT et al. "Unexpected Cause of Pulmonary Infiltrates." Co-authored presentation at the American College of Chest Physicians Annual Meeting, Chicago, October 2013.

Vest MT et al. "Successful Treatment of Adenovirus-Induced ARDS with Cidofovir and IVIG." Co-authored presentation at the American College of Chest Physicians Annual Meeting, Chicago, October 2013.

Vest MT, O'Brien G, et al. "Coexisting Relapsin Polychondritis and Pulmonary Sarcoidosis." Co-authored presentation at the American College of Chest Physicians Annual Meeting, Chicago, October 2013.

Vest MT. "Lessons Learned as a Battalion Surgeon in Iraq." Delaware Academy of Medicine Military Medicine Symposium, April 2014.

Williams C, McGraw P, Schneck E, Murray D, Jacob J, Moreno D, Zervos M, Cubillos F, Kett D, Estrella D, Morgan D, Harris A, Drees M. "Universal Gowning and Gloving Reduces Health Care Worker Clothing Contamination." Poster at ID Week Meeting, Oct 2013. Resident Research Track

# **Medicine Leadership**

### Christiana Care Medicine Leadership Team (MLT)

The MLT meets weekly and advises the Hugh R. Sharp, Jr. Chair of Medicine on operational and strategic issues pertaining to Christiana Care Medicine.

# Medicine Leadership Team

Virginia U. Collier, M.D., MACP, Hugh R. Sharp, Jr., Chair of Medicine (Ex-Officio for all committees)

Robert M. Dressler, M.D., MBA, FACP, Vice Chair of Medicine for Patient Safety and Quality

LeRoi S. Hicks, M.D., MPH, Vice Chair and Chief, Section of General Internal Medicine

Brian M. Aboff, M.D., MMM, FACP, Associate Chair, Education, Program Director, Internal Medicine and Transitional Year Residency Programs

Dan Elliott, M.D., MSCE, Associate Chair for Research & Scholarly Activity

Julie Silverstein, M.D., FACP, Medical Director, Wilmington Hospital Health Center

Anand Panwalker, M.D., Chair, Medicine Professional Excellence Committee and Associate Chair, **Medical Affairs** 

Michael Eppehimer, MHSA, Vice President

Marykay Ennis, MBA, Administrative Manager

#### **Executive Committee**

The Executive Committee serves an important decision-making and advisory role. Members are section chiefs, elected departmental representatives, and other senior leaders who meet monthly. As the pace of change increases at Christiana Care in response to health care reform, input from these department leaders, who serve as liaisons and representatives of the private and employed physicians in their sections, is critical.

### **Executive Committee Members**

Virginia U. Collier, M.D, MACP - Chair

Brian Aboff, M.D., Associate Chair, Education and Program Director, Internal Medicine & Transitional Year. Education Committee Chair

David Biggs, M.D., Oncology Section Chief

David Cohen, M.D., Infectious Disease Section Chief

Patricia Curtin, M.D., Geriatrics Section Chief

Robert Dressler, M.D., MBA, Vice Chair of Medicine for Patient Safety and Quality

Dan Elliott, M.D., Associate Chair, Research & Scholarly Activity

Kelly Eschbach, M.D., Physical Medicine & Rehabilitation Section Chief

Allen Friedland, M.D., Medicine-Pediatrics Section Chief and Program Director, Medicine-Pediatric Residency Program

John Goodill, M.D., Pain & Palliative Care Section Chief

Joseph Hacker, M.D., Gastroenterology Section Chief

Daniel Hess, M.D., Assistant Chief of Service

LeRoi Hicks, M.D., Vice Chair and Chief, Section of General Internal Medicine

M. James Lenhard, M.D., Endocrinology Section Chief and Chair, Department of Medicine Clinical Research Committee

Vinay Maheshwari, M.D., Medical Director of Critical Care

Timothy Manzone, M.D., Nuclear Medicine Section Chief

Edward McConnell, M.D., Chair, Credentials Committee

Thomas Mueller, M.D., Neurology Section Chief

Anand Panwalker, M.D., Chair, Professional Excellence Committee

Shakaib Qureshi, M.D., Rheumatology Section Chief

Albert Rizzo, M.D., Pulmonary Medicine Section Chief

Theodore Saad, M.D., Renal and Hypertensive Diseases Section Chief

R. Bradley Slease, M.D., Hematology Section Chief

William Weintraub, M.D., Cardiology Section Chief

Frank Beardell, M.D., Member at Large

John Kelly, M.D., Member at Large

Lindsey Slater, M.D., Member at Large

Mike Eppehimer, Medicine Vice President (ex-officio)

Adrian Fedyk, Medicine Finance Manager (ex-officio)

Julie Silverstein, M.D. (ex-officio)

# **Committee Membership**

Clinical Research Committee: *Meets Monthly* 

James Lenhard, M.D., Co-Chair

Dan Elliott, M.D., Associate Chair - Research, Co-Chair

Alfred Bacon, M.D.

Jerry Castellano, PharmD. (non-voting)

Virginia Collier, M.D., Chair, Department of Medicine, ex-officio

Marcia Drees, M.D.

Michael Eppehimer, Medicine Vice President

Ed Ewen, M.D.

Michael Guarino, M.D.

Rubeen Israni, M.D.

Claudine Jurkovitz, M.D.

Debbie Moore, RN, Research Manager

Michael Stillabower, M.D.

Michael Vest, D.O.

William Weintraub, M.D.

Sandra Weiss, M.D.

### Credentials Committee: Meets Monthly

Edward McConnell, M.D., Chair

Anand Panwalker, M.D., Vice Chair

Virginia Collier, M.D., ex officio

William Dahms, D.O.

Marciana Filippone, M.D.

Allen Friedland, M.D.

Donald Hayes, M.D.

LeRoi S. Hicks, M.D.

Erik Marshall, M.D.

Albert Rizzo, M.D.

James Ruether, M.D.

R. Bradley Slease, M.D.

### Education Committee: *Meets Monthly*

### Clinical Competency Committee

Matthew Burday, D.O., Chair, Associate Prog. Dir., Competency Assessment

Brian Aboff, M.D. – Chair, Internal Medicine and Transitional Year Residency Program Director

Dorrian Barnes, RN, Nurse, Unit 5B

Joseph Deutsch, M.D., Associate Residency Program Director

John Donnelly, M.D., Associate Pro. Director for Ambulatory Medicine

Christina Edwards, C-TAGME, Internal Medicine and Transitional Year Residency Program Coordinator

Allen Friedland, M.D., Medicine Pediatrics Residency Program Director

Suzanne Heath, RN, Nurse Manager, Unit 5A

Brittney Henning, BSN, Patient Care Facilitator

Dan Hess, M.D., Medicine Assistant Chief of Service

Cheryl Jackson, M.D., (Clerkship Director, 4th Year Medical Students

Jennifer LeComte, D.O., Assistant Medical Director AMO

Jason Nace, M.D., Emergency Medicine

Badrish Patel, M.D., MICU Medical Director

Sarah Schenck, M.D., Medical Director, Adult Medicine Office

### Program Evaluation Committee

Brian Aboff, M.D., Chair

Frank Beardell, M.D., Hematology

Kunal Bhaghat, M.D. Hospital Medicine

David Biggs, M.D., Oncology

Matthew Burday, M.D., Associate Prog. Dir. - Competency Assessment

Jeff Cicone, M.D., Nephrology

Virginia Collier, M.D., ex-officio

Patricia Curtin, M.D., Geriatrics

Joseph Deutsch, M.D., Assistant Program Director - Inpatient Medicine

John Donnelly, M.D., Associate Prog. Dir. - Ambulatory Medicine

Allen Friedland, M.D., Program Director - Medicine-Pediatrics

Daniel Hess, M.D. Medicine Assistant Chief of Service

Ripu Hundal, M.D., Endocrinology

John Kelly, M.D., Cardiology

Stephanie Lee, M.D., infectious Diseases

Jason Nace, M.D., Emergency Medicine/Internal Medicine

Badrish Patel, M.D., Critical Care Medicine

Christine Herdman, M.D., Gastroenterology

Shakaib Qureshi, M.D., Rheumatology

Tuhina Raman, M.D., Pulmonary

James Ruether, M.D., Hospital Medicine

Sarah Schenck, M.D., Adult Medicine Office

Jason Silversteen, D.O., Neurology

### Nominating Committee: Meets Once Every Two Years

James Loughran, M.D., Chair

Reynold Agard, M.D.

Anthony Furey, M.D.

Vinod Kripalu, M.D.

Timothy Hennessy, M.D.

James Piacentine, D.O.

### Professional Excellence Committee: Meets Monthly

Anand Panwalker, M.D., Chair

Kunal Bhagat, M.D., IPC - The Hospitalist Company

Kambiz Butt, M.D., IPC- The Hospitalist Company

Joseph Deutsch, M.D., Associate Residency Program Director

John Donnelly, M.D., Medicine Faculty

Robert Dressler, M.D., Medicine Vice Chair

Wes Emmons, M.D., Infectious Disease

Roshni Guerry, M.D., Pain and Palliative Care

Danile Hess, M.D., Assistant Chief of Service

Jared Hossack, M.D., Gastroenterology

David Maleh, M.D., Internal Medicine

Elizabeth Muth, M.D., Christiana Care Hospitalist Partners

Badrish Patel, M.D., Pulmonary & Critical Care Medicine

Carlos Emilio Reyes, M.D., Internal Medicine

Tabassam Salam, M.D., Internal Medicine

# Welcome New Physicians



We welcomed 58 new physicians to the Department of Medicine in FY14 (through June 30, 2014).

## Medicine/Cardiology

Meenakshi A. Bhalla, M.D.

**Christiana Care Cardiology Consultants** 

Avinash Chandra, M.D.

**Christiana Care Cardiology Consultants** 

Antony L. Innasimuthu, M.D.

Heart & Vascular Clinic

### Leon Shao, M.D.

**Christiana Care Cardiology Consultants** 

### Yuanyuan Zhang, M.D., Ph.D.

**Delaware Cardiovascular Associates** 

### Gastroenterology

Dinu Cherian, M.D.

Gastroenterology Associates, PA

Fedele J. DePalma, M.D.

Gastroenterology Associates, PA

### **Geriatric Medicine**

Melissa D. Morgan-Gouveia, M.D.

**Internal Medicine Faculty** 

### **Infectious Disease**

Chad J. Duffalo, M.D.

**Infectious Disease Consultants** 

### **Internal Medicine**

Sonia Adnan, M.D.

Christiana Care Hospitalist Partners

Peter A. Burke, D.O.

**Christiana Care Hospitalist Partners** 

Christy L. Dolinay, M.D.

Christiana Care Hospitalist Partners

### Subramanian Gnanaguruparan, M.D.

Christiana Care Hospitalist Partners

Anuj Goel, M.D.

IPC – The Hospitalist Company

#### Jennifer N. Goldstein, M.D.

**Internal Medicine Faculty Christiana Care Hospitalist Partners** 

### LeRoi S. Hicks, M.D., MPH

Vice Chair, Department of Medicine **Christiana Care Hospitalist Partners** 

### Rejy Joseph, M.D., MRCP

IPC – The Hospitalist Company

#### Poonam Maru, D.O.

Adult Medicine Office/Medicine Faculty Wilmington Hospital Health Care Center

### Varadarajan Subbiah, M.D.

Christiana Care Hospitalist Partners

#### Abhinav K. Tiwary, M.D.

IPC – The Hospitalist Company

### Akash Varshney, M.D.

IPC – The Hospitalist Company

### **Medical Oncology**

#### Jenia Jenab-Wolcott, M.D.

Regional Hematology Oncology

### **Medicine Pediatrics**

#### Kelly E. Billig-Figura, M.D.

Concord Medicine and Pediatric

### Candace I. Sprott, M.D., MBA

Christiana Care Hospitalist Partners

### **Neurology**

Richard K. Choi, D.O.

**Neurocritical Care** 

### Center for Heart & Vascular Health

Shilpa R. Kauta, M.D.

**Christiana Care Neurology Specialists** 

Alison L. Potter, D.O.

**Christiana Care Neurology Specialists** 

### Pain Management & Palliative Care

Chengyu Liu, M.D., Ph.D.

Seasons Hospice & Palliative Care

### **Physical Medicine & Rehabilitation**

Vaishali S. Vora, D.O.

The Medical Group of Christiana Care

### **Pulmonary & Critical Care Medicine**

Audreesh Banerjee, M.D.

Christiana Care Pulmonary Associates

Lynnae D. Duffalo, M.D.

Christiana Care pulmonary Associates

# Pulmonary & Critical Care Medicine - Telemedicine

Mohamed S. Afifi, MBBS

Advocate Health Care

Nimit K. Aggarwal, M.D.

Advocate Health Care

### Asif Anwar, M.D.

Advocate Health Care

#### **Naveed Bari, MBBS**

Advocate Health Care

### Naishadh Brahmbhatt, M.D.

Advocate Health Care

### Basheeruddin M. Farooki, M.D.

Advocate Health Care

### Bruce D. Goldenberg, M.D.

Advocate Health Care

### Hesham A. Hassaballa, M.D.

Advocate Health Care

#### Argyro S. Hatseras, M.D.

Advocate Health Care

#### James J. Herdegen, Jr., M.D.

Advocate Health Care

### Jyothi Jolepalem, M.D.

Advocate Health Care

### Richard D. Kern, M.D.

Advocate Health Care

Janice R. Klich, M.D.

Advocate Health Care

### Vassyl A. Lonchyna, M.D.

Advocate Health Care

#### Stewart R. Mann, M.D.

Advocate Health Care

#### Kamana E. Mbekeani, M.D.

Advocate Health Care

#### Sajid Mehmood, M.D.

Advocate Health Care

### Nureain M. Mirza, M.D.

Advocate Health Care

#### Sammy I. Nawas, M.D.

Advocate Health Care

### Sanja Nikolich, M.D.

Advocate Health Care

### Subhash R. Patel, M.D.

Advocate Health Care

### Michael H. Ries, M.D.

Advocate Health Care

### Alexander J. Sauper, M.D.

Advocate Health Care

#### Krishnan Sriram, M.D.

Advocate Health Care

### Leo Taiberg, M.D.

Advocate Health Care

## **Renal & Hypertensive Diseases**

### Feroz Abubacker, MBBS

Nephrology Associates, PA

### Carlos A. Machado, M.D.

Nephrology Associates, PA

# **Best Wishes to Our Retired Physicians**

Six physicians retired from the Department in FY14.

## Cardiology

Kenneth Corrin, M.D., Honorary Staff, retired December 31, 2013

### **Endocrinology**

Ronald Monsaert, M.D., retired June 30, 2014

### Internal Medicine

Susan Jonas, M.D., retired April 11, 2014

Helen Ting, M.D., retired February 2, 2014

### **Medical Oncology**

Timothy Wozniak, M.D., retired May 30, 2014

# **Pharmacology**

Elinor Miller, M.D., retired June 30, 2014