Department of Medicine

Featuring key facts and figures from the 2011-2012 fiscal year and selected honors and accomplishments, publications, presentations, appointments and committee memberships.

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Chair's Message

Christiana Care Medicine strives to serve our patients, our neighbors, as respectful, expert, caring partners in their health. We do this by creating innovative, effective, affordable systems of care that our neighbors value. This is the Christiana Care Way. This is Medicine’s way.

In our efforts to provide value-based care that is safe, effective, timely, affordable and equitable, the patient experience must be at the center. Four simple statements about quality from the patient’s perspective recently crossed my desk in a communication from the Healthcare Financial Management Association. Their message is simple but powerful.

*I am your patient…*

Help me access care that is available and affordable.

Respect me as a person, not a case.

Keep me safe; don’t hurt me.

Make me better. Improve my outcome.

Highlights of our accomplishments, reported here for FY12, illustrate the many ways Medicine is working to achieve these standards. Our mission, our vision and our projects are aligned with the Christiana Care Five-Year Plan and the Annual Operating Plan.

Supported by clinical leadership and strategic planning, performance improvement initiatives and continuous system learning opportunities, we have the tools and the teams to accomplish our mission. With them we are building a Medicine culture of continuous improvement that minimizes waste, eliminates harm, and provides well-coordinated, evidence-based, patient-centered care across the continuum.

Our efforts continue to earn recognition nationally and at home.

Once again we rank among the nation’s top hospitals according to *U.S. News and World Report*, 2012-2013, recognized nationally for Gastroenterology and with high performance in 11 adult specialties, including the medicine specialties of Cancer, Cardiology, Diabetes and Endocrinology, Geriatrics,
Nephrology, Neurology, and Pulmonary. In *the magazine*’s “Best Metro-Area” rollout, Christiana Care ranked fourth among the 93 Philadelphia metro area hospitals that includes Camden, NJ and Wilmington, DE. We also earned an “A” in hospital safety from the Leapfrog Group.

Medicine shares well-deserved recognition for quality and safety initiatives. The Agency for Healthcare Research and Quality (AHRQ) Innovations Exchange has recognized a variety of programs including the Sepsis Alert Campaign, eCare and Alcohol Withdrawal Risk Evaluation and Treatment guidelines. The Association of American Medical Colleges features our Unit-Based Clinical Leadership Model on MedEdPORTAL®, its peer-reviewed publication and educational resource.

Our residency programs remain strong, supported by nationally known educators who serve as faculty and mentors. Fellowship programs in Cardiology and Nephrology are flourishing, and we continue to train medical students from Jefferson Medical College and other schools around the country. Research and scholarly activities are fully aligned with Departmental clinical, educational and performance improvement efforts that drive advances in healthcare delivery and how we train tomorrow’s providers.

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 who have contributed countless hours of service to Christiana Care in support of our mission. Thanks also to our nursing colleagues, without whom many of our achievements would not have been possible, and to the interdepartmental services on which Christiana Care Medicine relies as we build 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
The Department of Medicine provides excellent medical care to a highly diverse patient population from Delaware and surrounding communities in Pennsylvania, Maryland and New Jersey. Medicine’s 415 attending physicians oversee 575 of the 1,147 beds in Christiana Care hospitals. Collectively, we diagnose and treat a broad spectrum of primary-care diseases, as well as tertiary care medical conditions not routinely encountered in smaller hospital settings.
FY12 Medicine accounted for 45 percent of all inpatient discharges and 30.4 percent of all OBS discharges.

Meet Our Leadership Team and Section Chiefs

2012 Physician Ambassadors

Unit Based Clinical Leaders

Meet Our New Physicians
Clinical Transformation

We in Medicine are transforming our culture —focusing on patient centered care, raising our standards of quality, reliability and safety, and redefining our care processes to achieve measurable value. Our change is driven by interdepartmental efforts which include not only Medicine physicians, but also nurses, care managers, social workers, informational technology specialists, operational excellence leaders and members of the office of Patient Safety and Quality. Medicine Service Line initiatives and Unit Based Clinical Leadership’s transformative projects have already produced positive results. Highlighted here are some that demonstrate the innovation, creativity and flexibility essential to our mission.

1. **MICU Alert Response Team** has improved the process of care for critically ill patients needing care in the Medical ICU. Expanding from pilot to deployment in January 2012, MICU Alert continues to expedite care. The team ensures that acutely ill patients are either transferred rapidly from the Emergency Department (ED) to a Medical Intensive Care Unit (MICU) or stabilized and intensively cared for in the ED by a dedicated MICU team until a bed becomes available. The median MICU Alert team response time to the ED is under 15 minutes and median ED LOS has decreased by 47 percent, freeing up ED beds and staff resources required by critically ill patients. MICU Alert has helped reduce MICU average LOS by 1.5 days.

2. **Unit Based Clinical Leadership** drives performance improvement using health care teams to improve care on inpatient medicine floors. The program builds the individual capacity of medical unit-based nurse managers and physician clinical leaders to effectively lead quality improvement activities on their units with direct benefits to patients. Key elements include a dramatically increased time commitment on the floor by the physician-medical director; structured training and process improvement toolkits for physician and nursing leaders; and embedded support by Christiana Care performance improvement and quality improvement experts (facilitated by Operational Excellence and Quality & Patient Safety staff).

Projects resulting from Unit Based Clinical Leadership teams include:

**Unit Care Redesign on Medicine, 5D** facilitated a team approach in caring for patients on this hospitalist-based medical unit. Christiana Care Hospitalist Partners (CCHP) collaborated with Nursing, Operational Excellence and the Emergency Department to initiate a unit-based staffing system in which CCHP hospitalists see most of their patients in a single geographical location, comprised of 24 dedicated beds on 5D. This process of “cohorting” patients on the unit in the care of a select group of hospitalists has improved communication and cohesiveness with nursing and unit staff and facilitated continuous process improvement to benefit patients.

**Patient (and family) Centered Interdisciplinary Rounds (PCR)** have improved quality and safety, efficiency and physician/nurse communication on 5D. Physician led PCRs occur daily at the patient’s
bedside and include the family, bedside nurse, charge nurse, clinical pharmacist, respiratory therapist, case manager and social worker. The entire team is involved in the discussion, including the plan of care and preparations to meet the target discharge date. Improved communication and teamwork enhance safe and efficient transitions out of the hospital. Unit-based clinical leaders, Surekha Bhamidipati, M.D. & Barbara Marandola, RN, and their team instituted PCRs for non-teaching rounds in November 2011 with impressive results. The project has since expanded to 5C under the leadership of Jomy Mathew, M.D., and IPC Hospitalists of Delaware. Plans include expansion to other units and development of an equally effective model for teaching rounds.

*Inpatient average length of stay on 5D decreased by 21 percent with Cohorting and Patient Centered Interdisciplinary Rounds.*

![Length of Stay](image)

* Average LOS is for inpatients only.

Med-Surg Adjusted LOS is for inpatient and observation patients.

*PCRs and Cohorting on 5D led to a 20 percent drop in 30-day readmission rates.*
3. **Adult Medicine Office (AMO) Initiatives** are improving care for the 4,000 medically complex patients who rely on this outpatient teaching practice for their primary medical services. Many have multiple, chronic conditions and are either underinsured or uninsured. In FY12, the AMO staff provided treatment during 15,000 patient visits.

**Synchronized Rooming** is smoothing the flow for providers and patients during follow-up visits to the Adult Medicine Office. In October 2011, AMO physicians, residents and nursing staff teamed with Operational Excellence to institute key interventions that streamlined visits door-to-door. Now, a resident is ready for the patient upon arrival in the exam room, and is present while the medical assistant takes vitals and updates the patient’s record.

**Precepting in the Room** takes place when the exam is completed. The resident requests the faculty preceptor by phone to join him or her in the exam room and to bring along any necessary scripts or paperwork. In this way, the patient is part of the conversation about the case and is never kept waiting alone. Repositioning printers for easier access and placing a centralized white board in the conference room increased efficiency by listing the daily schedule, documenting who is on deck and other important information for providers. In FY12, patients rated 100 percent satisfaction with the new system and average LOS for follow-up office visits dropped by 20 percent, from 82 to 66 minutes.

**Resident Challenge: Improve Care Management** led to performance improvement in 10 key quality measures for diabetes care and mammogram screenings. During the one-year challenge, residents were divided into seven teams, each led by a faculty advisor. They tracked their progress toward achieving nationally benchmarked goals.

As of June 2012, the teams were at goal for annual HA1c, urine microalbumin, cholesterol levels and eye exams. The rate of mammography screenings completed by patients rose nearly 10 percent in just nine months.
Providing a “medical home” for patients promotes self-management by integrating patients as active participants in their own health and well-being. Physicians lead medical teams that coordinate all aspects of preventive, acute and chronic needs of patients using evidence-based guidelines. Performance improvement plays a crucial role in this journey towards transforming delivery of care. The residents, staff and faculty of the AMO are collaborating with the Internal Medicine Faculty Practice, Pediatric Practice Program and the Transitions Care Practice on a multi-site application to become a National Committee for Quality Assurance certified Level 2 Patient Centered Medical Home.
Research

After a year-long strategic planning project, we have sharpened our focus, activities, and oversight of research and scholarly activity (RSA). Medicine’s vision for RSA is to become a national model for independent academic medical centers. Focused on our vision, we have committed ourselves to the mission of conducting research and scholarly activity to improve the quality, safety, and value of care delivered to our patients. Our goal is to develop a “balanced portfolio” of research activity that includes a significant number of studies directed at improving health care delivery, system design and clinical innovation.

Medicine physicians pursue a broad array of research as principle investigators in federal or state supported, industry sponsored, or locally initiated studies, as well as with the Christiana Care Center for Outcomes Research (CCOR). They are supported by our team of clinical research nurses who have comprehensive knowledge of governmental and Christiana Care research rules and guidelines. All clinical research nurse coordinators within the Department of Medicine are certified by the Society of Clinical Research Professionals and have earned the designation CCRC. In collaboration with physician investigators, 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.

Medicine physicians also 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 on national and international platforms.

Transitions of Care Initiative Hits a “HOMERUN”

Christiana Care hospitalists are working collaboratively with leaders of hospitalist programs across the country to achieve improvements in transitions of care as collaborators in The Hospital Medicine Re-engineering Network (HOMERUN) initiative. We are among 15 health care systems, fellow members of the Association of American Medical Colleges, who are collaborating in HOMERUN’s first “proof of concept” pilot called “Transitions of Care.”
The project, led at Christiana Care by Edmondo Robinson, M.D., MBA, physician-in-chief of Wilmington Hospital and medical director of Christiana Care Hospitalist Partners, will collect data from Medicine’s discharge records and interview selected patients who are readmitted. The goal is to identify predictors of preventable readmission. The data will be combined with a total of 2,000 patients’ from collaborating institutions to design strategies to better coordinate patient care that ultimately can reduce hospital stays and lower costs. The research will go a step further to try to determine if certain strategies are more likely to be effective in a particular population.

The overall goal of HOMERUN is to bring effective, evidenced based interventions into standard medical practice. Christiana Care hospitalists presented their findings at a HOMERUN meeting in October 2012 in Washington, D.C. Two Christiana Care performance improvement initiatives were presented for consideration as future HOMERUN collaborative projects: 1) A synchronized approach to safer, patient-centered admissions from ED to inpatient unit piloted at Wilmington Hospital in 2009 and expanded to Christiana Hospital in 2012 and 2) Patient (and family) Centered Interdisciplinary Rounds (PCRs) piloted on Medicine Units.

**Beyond RITE—O: Continuing to Improve Transitions of Care from ED to AMO**

This award-winning project led by an interdisciplinary team of residents, enhanced communication between the Emergency Department (ED) and the Adult Medicine Office (AMO). The team successfully increased outpatient follow-up visits, thereby expanding opportunities to address chronic issues, schedule outpatient testing and resolve acute issues. A follow-on intervention project led by Dan Elliott, M.D., Medicine’s acting associate chair of research and a research scholar in the Christiana Care Value Institute, added a nurse navigator to close the gap between ED visit and follow-up primary care.

A nine-month effort connected with just over 100 AMO patients recently seen in the ED and showed benefit to empowering nurse navigators to triage this difficult-to-reach patient population post-discharge. The study also underscored the need for greater community education about available primary care services. As a continuation of the nurse navigator project, Dr. Elliott is collaborating with Emergency Medicine physicians Charles Reese, IV, M.D., FACEP, ED chairman, and John Powell, M.D., FAAEM, on a multicenter grant application to the Agency for Healthcare Research and Quality (AHRQ) ACTION II (Accelerating Change and Transformation in Organizations and Networks), to serve as a clinical site for data collection and analysis to further define ways to improve ED transitions of care.
Education

Residency Programs

Medicine education strives to prepare residents to fulfill our mission to provide medical treatment that is safe and effective, timely and reliable, value-based and patient-centered. Our success in imbedding the principles of value-based care into the residency curriculum is a critical component of training residents to be successful partners in the future delivery of health care to our neighbors.

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 2011-2012

<table>
<thead>
<tr>
<th>Program</th>
<th>Residents</th>
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<tr>
<td>Internal Medicine-Categorical</td>
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<tr>
<td>Internal Medicine-Preliminary</td>
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<td>Medicine-Pediatrics</td>
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<td>Emergency Medicine/Internal Medicine</td>
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<td>Transitional Year</td>
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<tr>
<td>TOTAL Residents</td>
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Internal Medicine

Our residency programs prepare well-rounded graduates who provide high quality, compassionate, cost-effective care as primary care physicians, hospitalists, and specialists. A strong academic curriculum combined with extensive "hands-on" training offers an outstanding residency experience. Development of a research track within the Internal Medicine Residency program will advance research and scholarly activity in line with the Department’s mission and goals. We also have initiated changes in our teaching practices to facilitate our transition to a patient centered medical home model.

As many as 40 percent of Internal Medicine graduates choose to continue their career paths in Delaware. The chart below shows next steps for this year’s 20 graduating residents from the Internal Medicine, Medicine-Pediatrics and Emergency Medicine/Internal Medicine programs.

<table>
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<th>Resident Pathways After Graduation</th>
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<td>2011-2012</td>
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Leadership in Graduate Medical Education

In FY12 Medicine’s Associate Chair for Education and Internal Medicine and Transitional Year Residency Program Director Brian Aboff, M.D., was appointed chair of the Transitional Year Review Committee of the Accreditation Council for Graduate Medical Education (ACGME). The organization accredits residency programs in the United States. Dr. Aboff was also elected to the Association of Program Directors of Internal Medicine (APDIM) Council, which serves as the Board of Directors for the organization.
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.

**Medicine-Pediatrics**

The Med-Peds section has 27 active physician members in New Castle County, twenty of whom are employed either part time or fulltime, within the Christiana Care Health System. Members include primary care physicians, hospitalists, complementary and alternative medicine physicians and specialists (cardiology, gastroenterology, pain and palliative care, pulmonary, research and sports medicine). Many of these physicians are graduates of our residency program.

Approximately 55 percent of our Med-Peds residents choose to pursue primary-care opportunities that allow them to see both adults and children in inpatient and outpatient settings. This year, Med-Peds Residency Program Director and Section Chief Allen Friedland, M.D., FACP, FAAP, was named chair of the American Academy of Pediatrics (AAP) Med-Peds Section, the second largest AAP section with over 2,000 members.

**Nationally recognized Transitions Care Practice**

In Delaware, 17 percent of children have varying degrees of special health care needs. Collaborations with Nemours/Alfred I. duPont Hospital for Children and the University of Delaware Center for Disabilities Studies (UDCDS) ease the transition from pediatric to adult care for young adults who have complex medical conditions and special health care needs. Within Medicine Pediatrics, a primary care transition practice cares for the special health care needs of young adults with conditions that include
cerebral palsy, muscular dystrophy, spina bifida, autism, Down syndrome, diabetes, renal and liver transplants and cystic fibrosis. The program has received notable attention from the Delaware Department of Public Health, the Delaware Health Sciences Alliance and the lieutenant governor’s office.

A research initiative with UDCDS examining the early experiences of patients and families with the transitional care practice is scheduled for publication in 2013. A one-year grant from the New York-Mid-Atlantic Consortium for Genetics and Newborn Screening Services will support efforts to teach medical providers for adults in the region about the care of young adults with special needs.

**Popular Mini MBA Series**

Med-Peds residents launched a popular mini MBA program to introduce topics such as profit and loss statements, physician report cards and models of compensation.

**Global Health Initiative**

Section members and residents secured funding for a hospital wide global health lecture and journal club series.

**Promoting healthy living**

Med-Peds residents and section members travel to Delaware public middle schools, the First State school and the Homeless Cafe to teach about healthy living. They published the results of these talks to middle school students in the September 2011 *Delaware Medical Journal*: Back to School: Using Physicians to Teach Middle School Health. Volume 83 No 9; pages 277-282.

**Fellowships**

Our expanding, accredited fellowships afford physicians the opportunity to further develop the special skills and interests they plan to focus on in their professional careers.

**Cardiovascular Disease Fellowship and Interventional Cardiology Fellowship Program**

The Cardiovascular Disease Fellowship Program welcomed four first year fellows, and the Interventional Cardiology Fellowship program, now in its fourth year, welcomed one new fellow.

**Nephrology Fellowship Update**

The Nephrology fellowship program graduated its second fellow in June 2012. We have seen a resurgence in the use of home dialysis therapies driven by improved outcomes associated with the
opportunity for more frequent hemodialysis with home therapy, convenience and patient preference for home treatments, lower treatment costs, and the introduction of new technologies specifically designed for self-care/home therapy. Recognizing this trend, the curriculum for fellows was revamped to address the need for a more robust education on home dialysis therapies. As a result, our fellows now have a learning experience that few other fellowship programs can offer, including the opportunity to rotate in Delaware’s first stand-alone home dialysis clinic, Fresenius Medical Care Brandywine Home Therapies.

Abstract award

Graduating fellow Waqas Ahmed, M.D., won the Department of Academic Affairs award for “Best Abstract by a Fellow,” for Cardiovascular Implantable Electronic Devices and Chronic Hemodialysis Patients: Prevalence, Device Indications and Rates of Arteriovenous Access Circuit Interventions. Project lead: Theodore Saad, M.D., submitted for publication.

Medical Students

The Department of Medicine is an integral part of the Jefferson Medical College student program. In FY12, 48 “Introduction to Medicine” second-year students, 68 third-year students and 66 fourth-year students rotated through the Department. In addition, students from nine other medical schools throughout the United States and one international medical school completed fourth-year medicine elective rotations.

Undergraduate Medical Scholars Program

This year the Department introduced one undergraduate medical student to clinical medicine through the Medical Scholars Program of the University of Delaware offered in conjunction with Jefferson Medical College. The Internal Medicine practicum emphasizes the psychosocial aspects of patient care.
Section Highlights

Cardiology
Dermatology
Endocrinology and Metabolic Diseases
Gastroenterology
General Internal Medicine
Geriatric Medicine
Hematology
Infectious Disease
Medical Oncology
Neurology
Nuclear Medicine
Pain Management/Palliative Care
Physical Medicine and Rehabilitation Services
Pulmonary & Critical Care Medicine
Renal & Hypertensive Diseases

Cardiology — directed by the Heart and Vascular Service Line

Christiana Care cardiologists are experts in the diagnosis, 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, earning the highest rating for heart surgery from the Society of Thoracic Surgeons and the Gold Quality Achievement Award from the American Heart Association.

Read more about what makes us leaders in cardiovascular care and our entire roster of programs and services.

FY12 Highlights:

One of first sites approved for TAVR

Christiana Care was one of the initial sites approved for implementation of Transcutaneous Aortic Valve Replacement (TAVR) in November 2011, following FDA approval. The first procedure was completed in February 2012, and by June, 48 patients had been evaluated for valve replacement and 9 patients had received the valve. The current average Length of Stay (LOS) for these patients is 4.3 days.
Value care for acute heart attack

The acute myocardial infarction (AMI) team, led by William Weintraub, M.D., Henry Weiner, M.D., and Brian Sarter, M.D is focused on achieving consistently high standards for heart attack outcomes. AMI is one of the key diagnoses charted for quality outcomes and value based purchasing by the Centers for Medicare and Medicaid Services (CMS).

Christiana Care’s Focus on Excellence Report targets eight quality measures for AMI, including emergency angioplasty within 90 minutes of arrival; prescribing recommended discharge medications (i.e., aspirin, beta blocker/ACEI, cholesterol); ED/Cardiology physician collaboration, and accurate coding. Our goal of being in the 90th percentile for these measures demands a focused and dedicated approach.

FY12 performance improvement initiatives included new on-call paging responsibilities for cardiologists; Heart Code team coverage for physician teams; dedicated coding oversight for AMI; supplemental staffing to support ECG within the ED; and physician education on documentation of diagnosis for AMI and education for physicians and nurses on guidelines for discharge medications.

Value Improvement Team raises Heart Failure standard of care

The Value Improvement Team is working to reduce variation and improve the reliability of care for patients with heart failure. Value score cards that track performance showed an 8 percent improvement among core measures. Progress includes more timely identification by nurse navigators of patients requiring specialized heart failure care; increased bed assignments from ED to the dedicated heart failure unit; reduced length of stay; reduced 30-day readmissions (20%); greater patient satisfaction; and stricter compliance with evidence-based standards. Christiana Care’s heart failure program holds the Joint Commission Gold Seal of Approval ™.

Bridging the Divide – Heart patients benefit from CMS grant

Christiana Care is one of only 107 projects picked for CMS Innovation Grants from more than 3,000 applicants nationwide. “Bridging the Divide” is a three-year, system wide initiative to create a Patient Care Hub using existing hospital and office information systems to coordinate care of patients with ischemic heart disease both in the hospital and upon discharge home. The system will help a team of nurses and other health care professionals respond effectively to their patients, enabling them to recuperate in their homes and potentially avoid problems that can result in a costly readmission. Partners include Booz Allen Hamilton, the University of Delaware, the Delaware Health Information Network, The Society of Thoracic Surgeons and the American College of Cardiology.
More on ASCERT study

This landmark study, sponsored by the American College of Cardiology Foundation (ACCF) and The Society of Thoracic Surgeons (STS), compared the effectiveness of PCI and CABG for the treatment of stable coronary artery disease. ASCERT continues to attract both national and local media coverage. Cardiology Chief William Weintraub, M.D., is a co-author on two new papers in Circulation, arising from the study and one in the New England Journal of Medicine. Development of the ASCERT II grant is ongoing.

Setting the standard for tomorrow’s heart medicine

Cardiovascular clinical trials test new drugs and new devices designed to improve and extend the lives of heart patients. At any given moment, the program averages some 20 open, ongoing trials, with an additional 15 or more in follow-up, funded by NIH’s National Heart Lung and Blood Institute (NHLBI) and others. In FY12, some 350 patients participated in studies that included the following:

- **ATTRACT** - Sponsored by the NIH National Heart Lung and Blood Institute to determine the best treatment for blood clots.
- **CTSN(Cardiothoracic Surgical Network)** - Evaluates surgical ablation versus NO surgical ablation for patients with persistent or longstanding atrial fibrillation undergoing Mitral Valve Surgery, sponsored by the National Heart Lung and Blood Institute.

Christiana Care participates in one of only nine elite National Institutes of Health, Heart Failure Clinical Research Centers in the nation, collaborating with Thomas Jefferson and Temple universities in Philadelphia. Heart Failure Network Trials sponsored by NIH include:

- **EXACT HF** - Determines whether chronic inhibition of xanthine oxidase produces clinical benefits in heart failure patients with high serum uric acid levels who have left ventricular systolic dysfunction.
- **ROSE HF** - Examines the benefits and safety of intravenous administration of low dose nesiritide or low dose dopamine in patients with congestive heart failure and kidney dysfunction.
- **Left Ventricular Structural Predictors of Sudden Cardiac Death (SCD)** - Information about the heart's structure obtained from cardiac magnetic resonance imaging combined with a number of other clinical risk factors is examined for characteristics that might better predict patients at risk for SCD.
- **PAPI 2** – Investigates whether patients with certain gene differences have fewer major cardiac events after stent placement if they are given anti-platelet therapy guided by their individual genetic type compared to standard anti-platelet therapy.
Dermatology

Safeguarding our community from skin cancer

Dermatologists Peter Panzer, M.D., Scott Panzer, M.D., Helen Mashek, M.D., Lori Spencer, M.D., Matt Hansen, M.D., Eric Oliet, M.D., and Jonathan Zieff, M.D., volunteered their services to screen 319 individuals for skin cancer at this year’s annual community skin cancer screening event offered by Christiana Care in partnership with the Delaware chapter of the American Academy of Dermatology.

Endocrinology and Metabolic Diseases

The Christiana Care Endocrinology and Metabolic Diseases practice, recognized for quality by the Diabetes Physician Recognition Program of the National Committee for Quality Assurance and the American Diabetes Association, offers comprehensive care for patients with diabetes and other endocrinologic diseases.

Targeting diabetes and its complications

The Diabetes and Metabolic Diseases Research Center actively recruits patients for a variety of multicenter, multinational clinical trials. The center performs phlebotomy, EKG, glucose tolerance tests, mixed meal tolerance tests, autonomic function tests, and others based on study protocol requirements. Autonomic function tests are also performed at the Diabetes and Metabolic Diseases Center.

A number of pharmacology trials are focused on treating both type 1 and type 2 diabetes that include evaluating cardiovascular outcomes, controlling hypertension and treating early or new onset type 1 disease, metabolic and other endocrine disorders. Three new grants, totaling in excess of $100,000, include support from Delaware INBRE (IDeA Networks of Biomedical Research Excellence), which will fund investigations of insulin resistance, cardiovascular complications associated with diabetes treatment and genetic dysfunction in FHHNC, a rare disorder leading to progressive kidney failure.

Ongoing trials include:

- **DUAL I** - Compares the efficacy and safety of three drugs: insulin degludec/liraglutide, insulin degludec and liraglutide in subjects with type 2 diabetes to help manage blood glucose levels.
- **DIA-AID2** - This Phase III study looks at the treatment effect of DiaPep277 on preservation of beta-cell function in newly diagnosed type 1 diabetics. DiaPep277 is a peptide that blocks immune system attacks on insulin producing beta cells.
- **REWIND** - Assesses whether the drug, dulaglutide, can reduce major cardiovascular events and other serious outcomes in persons with type 2 diabetes, when added to their anti-hyperglycemic regimen.
Recently completed:

- **LX4211-2-202 DM** - This phase 2 trial tested the effect on Hemoglobin A1c of different dose regimens of LX4211 in combination with metformin in subjects with type 2 diabetes who had inadequate glycemic control on metformin monotherapy.

**Weight Management Program gains patient satisfaction**

Christiana Care's Weight Management Program offers a wide array of services, including a Bariatric Surgery/Life Skills program, diet and nutrition programs including OPTIFAST Meal Replacement, exercise services including Fit4Life, medical weight management, education and much more.

In FY12, patient visits rose by 3 percent, and patient satisfaction scores consistently averaged above the 95th percentile for program materials, staff and services. Staffed in part by members of the Endocrinology and Metabolic Diseases section, Weight Management has earned accreditation as a Bariatric Center of Excellence from the American College of Surgeons and the American Society for Bariatric and Metabolic Surgery and is designated with “Blue Distinction” from the BlueCross BlueShield Association; a Three-Star Quality Bariatric Center by Cigna and an Aetna Quality Bariatric Surgery Facility.

**Gastroenterology**

Christiana Care Gastroenterology 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. In FY12, GI Labs performed more than 8,000 procedures at Christiana and Wilmington hospitals.

**Managing patients at high risk for GI bleeding**

Gastroenterology collaborated with the Emergency Department, Critical Care, and Anesthesia to develop a hospital wide protocol for the management of patients with high risk GI bleeding requiring emergent intervention. The protocol is designed to improve care coordination and efficacy that will lead to improved patient outcomes. This collaboration has opened opportunities for future improvements in the delivery of care for patients requiring GI interventions after hours and on weekends.

**Endoscopic Ultrasound service expands**

Our endoscopic ultrasound (EUS) service continues to grow with more than 350 cases performed in the last year and an active referral practice from Maryland, downstate Delaware, and New Jersey. Close
coordination with the Christiana Care Helen F. Graham Center has augmented clinical care and collaboration on multiple clinical trials.

**GI Safety Event Committee supports performance improvement**

The GI Section has formed a GI Safety Event Committee to critically review GI related events to enhance safety and quality of care. Three gastroenterologists, two GI Lab nurse managers, one staff nurse, and an anesthesiologist serve on the committee, which meets twice monthly to review referred cases and make recommendations for action or intervention. An Emergency Department physician is available as needed. In the future, the committee will also track endoscopic performance parameters.

**Colorectal screening assistance study**

Gastroenterologist Nathan A. Merriman, M.D., M.S.C.E. is collaborating with Med-Peds Section Chief Allen Friedland, M.D., FACP, FAAP, on a performance improvement project to facilitate rapid colonoscopy referrals from primary care patients with positive fecal immunochemical test (FIT) results. The study is called the Colorectal Assistance Program for Screening (CRAPS).

**New Endoscopy Lab under construction**

The GI Section is actively engaged in the design and planning of the much anticipated Endoscopy Lab under construction at Christiana Hospital. The expansion will meet the growing demand in our region for invasive GI procedures.

**GI Lab enters Rapid Process Improvement**

The GI Lab at Christiana Hospital is a recognized regional endoscopy referral center, specializing in advanced techniques. In FY12, the lab entered a 90-day Rapid Process Improvement (RPI) cycle to increase “on-time” starts for GI cases.

**General Internal Medicine**

A robust group of 152 general internists are committed to providing excellent, coordinated, patient focused care on inpatient medicine services, in our offices at the hospital and in the community. Christiana Care has internal medicine practices in the Wilmington Hospital Health Center (Adult Medicine Office, Internal Medicine Faculty Practice, and Transitional Practice), at the Wilmington Hospital Annex (HIV practice), and at various sites in the county (Medical Group of Christiana).
Currently, there are two divisions within the Section of General Internal Medicine:

- Division of Hospitalist Medicine
- Division of Addiction Medicine

Our clinical faculty are focused on enhancing the value of the care provided throughout our health systems to all the communities we serve. Conduits to this effort are clinical care, performance improvement and original research. Here are some examples:

- Education regarding “Lean” technology and how it applies to medical care. Target: Enhancement of efficiency in the Adult Medicine Office and effective and efficient teaching rounds in the inpatient setting.
- Application of principles of self-management and patient report cards to enhance control of blood sugar and other clinical markers in the care of diabetes mellitus.
- Re-organization and restructuring of teaching practices in anticipation of application for Level 2 National Committee for Quality Assurance (NCQA) recognition as a patient centered medical home.
- Ongoing monthly faculty development seminars.
- Teamwork and use of electronic record systems to enhance the rate of mammography in the outpatient practices.
- Restructuring and revising the approach to research and scholarly activity with the development of a research track in the Internal Medicine Residency and improved collaboration with the team of research nurses.
- Updating the protocols for treatment of patients in alcohol withdrawal, resulting in reduced rates of delirium tremens and use of restraints.
- Improving access to substance abuse treatment for inpatients by expansion of Project Engage to Christiana Hospital.
- Collaborative work with the University of Delaware to use simulation exercises for resident and nursing education to enhance teamwork.

Smoothing care transitions

A highlight of the year was the wine reception Meet n’ Greet, held in May 2012, “Bridging the Gap From Hospital to Home.” This was an opportunity for community internists and hospitalists to share thoughts regarding barriers to safe care transitions. The group spent time brainstorming about solutions and paths forward.

Health Fair at Connections Homeless Café

Internal Medicine residents launched a project with Christiana Care social workers, EM/IM and Med-Peds residents, Pharmacy Services and other staff at the Connections Homeless Café in October 2012. More than 100 people attended the event, which featured “Ask the Doctor” tables, free flu shots, health screenings and information about healthcare access and resources. Connections Café in Wilmington is
sponsored by American College of Physicians Delaware Chapter and Christiana Care Social Work and Community Health Outreach and Education.

Division of Addiction Medicine

Project Engage garners praise and funding support

Project Engage, Medicine’s unique substance abuse intervention program, is gaining national recognition. In September 2012, White House Deputy Director of the Office of National Drug Control Policy, David K. Mineta, MSW, and colleague June Sivilli visited to take a closer look. Also in attendance were Delaware Secretary of Health and Social Services Rita Landgraf and Delaware State Representative Michael Barbieri, highlighting Delaware’s success in nurturing public and private innovation collaboratives.

Led by Terry Horton, M.D., chief of Addiction Medicine and faculty in General Internal Medicine, Project Engage operates in partnership with Brandywine Counseling, Inc. and Delaware Physicians Care. An on-site embedded outreach coordinator from Brandywine Counseling works one-to-one with patients identified as addicted to drugs or alcohol after they arrive at the hospital. Since the program began in 2008, 667 patients have consented to speak with an interventionist. More than 40 percent were successfully admitted to community-based substance use disorder treatment programs. Key to success is engaging patients during those “reachable moments” and identifying barriers to intervention efforts.

A $1.1 million anonymous gift expanded Project Engage in November 2011 from a Wilmington campus-based pilot to a fully funded three-year program now launched at Christiana Hospital. The gift also funds a robust program evaluation conducted in collaboration with the University of Pennsylvania and Christiana Care’s Center for Outcomes Research (CCOR). There is already evidence that patients who received peer-to-peer counseling, are visiting their primary care physicians more and relying less on emergency care.
Alcohol treatment guidelines gain national recognition

On its Innovations Exchange website, the Agency for Healthcare Research and Quality (AHRQ) highlighted alcohol withdrawal risk evaluation and treatment guidelines for patients admitted to medical and surgical units, developed by Christiana Care’s Alcohol Withdrawal Workgroup. The integrated screening, treatment and monitoring algorithms have helped to identify more patients with alcohol withdrawal and to prevent development of delirium tremens (a dangerous, acute episode of delirium caused by alcohol withdrawal). The protocol also improved care for patients with delirium tremens, as evidenced by shorter average length of stay, less use of restraints, and fewer transfers to the intensive care unit. Approved for participation in Christiana Care’s Operational Excellence Rapid Process Improvement Program, the Workgroup is collaborating with unit based clinical leadership at Christiana Hospital to craft innovative monitoring and intervention methods.

Alcohol withdrawal research presented nationally

Addiction Medicine is collaborating with the University of Pennsylvania to study the validity of the AUDIT-PC screening tool to predict alcohol withdrawal as well as performance in both senior and adult populations. Initial results were presented at the Society of General Internal Medicine annual meeting in May 2012.

Division of Hospital Medicine

Fifty-two physicians and eight non-physician providers from the Division of Hospital Medicine (DoHM) provide care for inpatients on the Medicine service. Hospitalists have a key role in Medicine’s clinical transformation initiatives, focused on improving care for medically critical patients and managing transitions of care into and out of inpatient settings.

In FY12 hospitalists discharged 21,561 patients, approximately 71 percent of all patients in the Internal Medicine service line. Adjusted LOS is 4.90 days. Seven-day readmission rates dropped to 5.0 percent and 30-day readmissions to 15.4 percent.

Currently a hospitalist serves as Associate Chief Medical Officer for Christiana Care and as physician-in-chief for Wilmington Hospital. Four hospitalists serve as Unit Based Clinical leaders, driving change in key areas including length of stay (LOS), transitions to post acute care, VTE prophylaxis, pain management and Clinical Institute Withdrawal Assessment (CIWA) updates. In the last year, 26 members of the Division of Hospital Medicine received “Diamond” recognition from their colleagues for their contributions and commitment to excellence.
Geriatric Medicine

The Section of Geriatric Medicine is an interdepartmental section, which includes geriatricians, internists and family medicine physicians with a special interest or additional training in geriatrics, advanced practice nurses, and pharmacists. Currently 63 members are board-certified or associates in Geriatric Medicine. 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.

Section members provide post acute senior services through a variety of avenues: the Senior Center Office Practices in New Castle and Wilmington; 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.

Acute Care for the Elderly (ACE) units

Christiana and Wilmington hospital ACE units continue to model care and improve outcomes for patients age 70 and older. In the last year multidisciplinary teams on these units decreased length of stay by at least one day and lowered the rate of complications associated with geriatric syndromes. Patients over the last year experienced zero restraint use and decreased falls and Foley catheter use and safer medication regimens.

WISH celebrates decade of accomplishments

The We Improve Senior Health (WISH) Program celebrated 10 years of exemplary care to senior patients in September 2011. Led by Program Coordinator Denise Lyons, MSN, GCNS-BC and Medical Advisor and Section Chief Patricia Curtin, M.D., FACP, CMD., WISH is a collaborative program that includes nurses, physicians, pharmacists, rehabilitative therapists, social workers, dietitians and staff from other disciplines. WISH teams have garnered national awards and recognition for their efforts to reduce complications associated with the hazards of hospitalization for older adults, such as adverse drug reactions, delirium, depression, falls prevention, use of Foley catheters and restraints, malnutrition and dehydration. A WISH Program Toolkit, updated annually, details nursing protocols, standardized order sets and other resources.
In the last decade, WISH has trained more than 1,500 health care providers to become Senior Health Resource Team (SHRT) members to promote best practice geriatric care.

In May 2012, WISH offered their sixth Geriatric Review Course for nurses. There are now 130 Christiana Care nurses certified in geriatrics, an increase of 20 percent in the last year.

Annual survey results from November 2011 illustrate WISH impact:

- 98% of staff reported they practice what they learned from WISH to provide best practice care to geriatric patients.
- 91% make suggestions to physicians about patient concerns.
- 97% make suggestions to other team members.
- 91+% reported improvement in 15 senior patient care areas.

WISH is derived from a national initiative called Nurses Improving Care for Healthsystem Elders (NICHE). Christiana Care has been a member since 2001 and was recognized as a model of care by NICHE in 2005 and by the American Geriatrics Society in 2010.

Swank Memory Center Open House

The Swank Memory Care Center celebrated its first Open House and Donor Recognition in October 2011. The Center is the first of its kind in our area to offer essential support, education and guidance from diagnosis through treatment, all in one location to families and patients with Alzheimer’s disease and other forms of memory loss. Since opening in May 2011, the Center’s interdisciplinary team of geriatricians, neurologists, psychiatrists, medical assistant and social worker have provided health care services, caregiver education and support, and community referrals for more than 255 patients. The Center’s “mantra” is “to help manage the journey with the patient and their caregivers.” The Center is a collaborative effort of the Departments of Medicine, Family and Community Medicine and Psychiatry. Dr. Curtin served as interim medical director while Dr. David Simpson was the associate clinical director.

Denise Lyons, RN, MSN, GCNS-BC completes Practice Change Fellowship

Denise Lyons, RN, MSN, GCNS-BC clinical specialist in gerontological nursing, completed a two-year, highly competitive Practice Change Fellowship, sponsored by Atlantic Philanthropies and the John A. Hartford Foundation. As part of the program, Lyons worked with seven other fellows and a team of mentors, including geriatrics professionals and national policy experts, to develop a comprehensive model of care to promote physical function in hospitalized older adults. Her test field was Christiana Hospital’s ACE unit.

Results of this project included a 35 percent reduction in 30-day readmission rates, a 60 percent decrease in the falls rate, and a 0.5 day decrease in average length of stay, with an estimated $200,000
cost savings. She received a $90,000 award to complete the program and is now part of a collegial network of dedicated professionals who share a commitment to improving geriatric care delivery. For more information on the Practice Change Fellows Program, visit www.practicechangefellows.org.

**Hematology**

Hematologists care for patients at Christiana and Wilmington Hospitals and at the Helen F. Graham Cancer Center. They provide direction for several clinical programs and laboratories. An active clinical research program affords patients opportunities to participate in carefully selected pharmaceutical industry clinical trials as well as those supported by the National Cancer Institute. These include 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). Clinical trial opportunities also come from the National Marrow Donor Program and the Blood and Marrow Transplant Clinical Trials Network.

**Bone Marrow/Stem Cell Transplant Program reaccredited**

Christiana Care's Bone Marrow/Stem Cell Transplant Program has earned three year re-accreditation by the Foundation for the Accreditation of Cellular Therapy (FACT), an accreditation it has held since 1997. Accreditation demonstrates adherence to rigorous standards for adult allogeneic and autologous hematopoietic progenitor cell transplantation, marrow and peripheral blood cellular therapy product collection, and cellular therapy product processing. The program is also accredited by the American Association of Blood Banks and the College of American Pathologists.

In FY12 the program performed 32 transplants (23 autologous and 9 donor transplants). Program Director Frank Beardell, M.D., continues as Principle Investigator on numerous CALGB and ECOG community based protocols for bone marrow transplants and other treatments for hematological cancers.

**Recognized for performance**

The National Marrow Donor Program (NMDP) recognized Christiana Care as a national performance leader in the collection of bone marrow for 2011. Christiana Care is an NMDP designated Apheresis Collection Center, Bone Marrow Collection Center and Bone Marrow Transplant Center. The award recognizes excellence in meeting service and quality indicators for donor care, product integrity, data submission and overall service. We have had a total of 168 NMDP donors since the program’s inception in August 1996.
Infectious Disease

The Infectious Diseases Section provides inpatient consultations to some 10,000 patients each year and thousands more on an outpatient basis. Working through the Christiana Care HIV Program, section members provide much of the care for HIV patients in Delaware. Key activities include student and resident education and promotion of best practice standards, particularly through the Section’s acclaimed, bimonthly case management series. Antibiotic stewardship in collaboration with the Pharmacy Department, and infection prevention, facilitated by the work of the Infection Prevention Committee and Infection Response Team, continue to top the list of key initiatives.

Infectious Disease research is pursuing new therapies to treat *Clostridium difficile* (*C. difficile*) infection, yeast and fungal infections, influenza, pneumonia, and more. Other studies include analyzing the potential of Computerized Physician Order Entry (CPOE) to evaluate prescription patterns and restrict over-prescribing of proton pump inhibitors associated with increased risk of community acquired pneumonia and *C. difficile* infection. Section members serve as mentors for student research projects as well as collaborators on national clinical trials.

**Targeting zero hospital acquired infections**

Healthcare associated infections are a major contributor not only to patient morbidity and mortality but also to increased length of stay and increased healthcare costs. Christiana Care’s Infection Prevention team is focused on protecting patients and the community by promoting universal use of evidence based infection prevention and control practices and diligent monitoring and reporting of infection rates. The team’s efforts have spurred progress toward the hospital-wide target of zero healthcare associated infections. Here are some examples:

Hand hygiene compliance climbed in FY12, as teams sustained monthly handwashing goals of 90 percent.
Hospital acquired *C. difficile* infection rates declined at both Wilmington and Christiana Hospitals.

![CH & WH Hospital-acquired C. difficile]

A comprehensive flu vaccination campaign raised the employee vaccination rate to 92 percent. Additionally, a streamlined electronic health records system now ensures that all eligible patients receive seasonal influenza and pneumonia vaccinations.

**Using the CUSP approach**

Christiana Care is part of a national collaborative to address the risks of central line associated bloodstream infections (CLABSI). Using a Comprehensive Unit-Based Safety Program (CUSP) approach, teams achieved a 44 percent decrease in CLABSI. Multidisciplinary and unit specific strategies to prevent ventilator associated pneumonia (VAP) resulted in a 72 percent drop in the last fiscal year. Other initiatives include successful reductions in surgical site infections and catheter associated urinary tract infections (CAUTI).

Methicillin resistant *Staph aureus* (MRSA) prevention strategies implemented in the intensive care unit at Wilmington Hospital (WICU) earned a Certificate of Excellence from the Centers for Medicare & Medicaid Services. The three-year, statewide collaborative project to reduce MRSA ended in July 2011 and included hand-hygiene education and monitoring, educational sessions with staff and new isolation signs. Successful strategies and barriers were shared with collaborating hospitals statewide.
Addressing safety issues statewide

Christiana Care Infection Prevention provides leadership statewide to protect our communities from health care associated infections. Working in collaboration with other facilities, the team developed “Guidelines for Norovirus Prevention and Control in Long Term Care Facilities,” endorsed by the Delaware Division of Public Health (DPH) in November 2011. Team members hold leadership positions on DPH’s Healthcare Associated Infection Advisory Committee (HAIAC) responsible for regulations and public reporting of infections.

Multi-center national collaborations

Christiana Care is one of 200 hospitals collaborating as part of the SHEA (Society for Healthcare Epidemiology of America) Research Network. A project, accepted for publication in Clinical Infectious Diseases, evaluated the implications of a 2008 Centers for Medicare and Medicaid Services policy of not reimbursing for hospital acquired CAUTI. Results showed no evidence of over testing to screen for and document a diagnosis of urinary tract infection on admission.

Gowns and Gloves study

In partnership with Infection Prevention, Christiana Care’s Surgical Critical Complex is one of 20 ICUs nationwide participating in the multicenter, randomized Benefits of Universal Gown and Glove (BUGG) Study to determine whether using gowns/gloves for all patients (not just those in contact isolation for known resistant bacteria) decreases acquisition of the resistant bacteria and health care associated infections. The study is funded by Agency for Healthcare Research and Quality. Data collection began in September 2010 and the intervention in January 2012. The study concludes in October 2012.

Grant award for primary HIV medical care

In August 2012, the U.S. Health and Human Services announced the release of more than $68 million to ensure that women, infants, children, and youth living with HIV/AIDS receive comprehensive primary HIV medical care and support services. The grants, funded through the Health Resources and Services Administration’s (HRSA) Ryan White HIV/AIDS Program, help people who lack sufficient health care coverage or financial resources to manage HIV. Christiana Care, the only organization in Delaware to receive funding, will have $355,509 to spend on those who are most vulnerable such as the newly diagnosed, those who have never been in care and those returning to care after more than a 12-month absence. Christiana Care’s HIV Program provides care to an estimated 65 percent of people in Delaware who are HIV-positive and accessing medical services.
Top notch care for HIV/AIDS patients

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. Seven clinical sites (five in New Castle County, and one each in Kent and Sussex Counties) are integrated into the communities with the highest rates of HIV infection. A number of nested programs address medical and psychiatric co-morbidities 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 (compared to 30 percent just three years ago.) The HIV Program also works closely with the Delaware Department of Corrections (DOC) and on a University of Delaware study to improve linkage to community based medical care following release for prisoners who are identified as HIV positive.

In FY12, the program provided care to 1,640 HIV-positive individuals (a 4 percent jump over the previous year). The number of clinical visits at all sites exceeded 12,000.
Although the majority of patients live well below the federal poverty level, 90 percent of active patients are on HAART (anti-retroviral therapy). Of those, 78 percent have undetectable HIV RNA levels. Sixty-four percent of HIV Program patients are AIDS-defined, which is significantly higher than those patients accessing care in the private sector. As the chart below indicates, lost to follow up rate is 4 percent, far below national benchmarks, and the mortality rate has dropped to 1.4 percent.

**Selected HIV Performance Measures**

Rapid HIV testing available

New HIV infections arise mostly from people who are unaware of their HIV-positive status. To raise awareness of HIV status and link HIV-positive individuals to treatment, the HIV program in collaboration with Beautiful Gate Outreach Center now offers HIV rapid testing to Wilmington Hospital Emergency Department patients over age 18. An experienced HIV counselor/tester is available onsite, weekdays from 10 am to 2 pm. The screening provides a preliminary indication of HIV infection within 20 minutes. Positive results must be confirmed by Western blot testing.

Broadening access to treatment

Leveraging technology affords patients better access to care at the HIV Program satellite offices in Georgetown, DE. Rural HIV patients seeking mental health services can have a clinical visit via video cam with a psychiatrist in Wilmington without having to travel from their home community. This
The telepsychiatry program is made possible through a Christiana Care Community Service and Education grant in collaboration with Christiana Care Behavioral Health.

The HIV Program now provides medical treatment to the residents of Kent County in two locations. In addition to services at the Smyrna Wellness Clinic, residents can now access treatment one morning a week at the Westside Health Center offices in Dover.

Promoting best practice standards

The HIV Program Clinical Oversight Committee, established in December 2011, is working to enhance provider education and provide the latest, standardized, HIV care to patients throughout the state. The multidisciplinary group has statewide representation and meets monthly to discuss topics of interest and to develop evidence based treatment and management guidelines. The HIV Program is Delaware’s only Ryan White Part C and Part D grantee and works collaboratively with the Delaware Division of Public Health and the Delaware HIV Consortium to provide a comprehensive service delivery system.

Medical Oncology – directed by the Oncology Service Line

Our efforts to further reduce the cancer burden in Delaware are paying off with lower incidence and mortality rates reported for all types of cancer. Progress depends on continuing to provide state-of-the-art cancer care driven by best practices and the latest research that comes from multidisciplinary teams of professionals in private practice and at the Helen F. Graham Cancer Center, a select NCI Community Cancer Centers Program. Read more about what makes us a national model for community cancer centers and our entire roster of programs and services.

FY12 highlights:

Top enroller in cancer clinical trials

Medical oncology physician investigators collaborate with pharmaceutical companies, other research sites and the National Cancer Institute (NCI) Community Clinical Oncology Program (CCOP) to streamline clinical pathways to the most promising new anti-cancer therapies. Collectively, NCI cooperative groups enroll some 25,000 patients in clinical trials each year. At 27 percent, Christiana Care’s CCOP is a top enroller among the 3,100 participating institutions, and far above the national average of 4 percent enrollment. Our physicians have leadership roles on multiple NCI cooperative group committees and with the newly formed Alliance of Clinical Trials in Oncology that merges three NCI funded research groups: Cancer and Leukemia Group B (CALGB), North Central Cancer Treatment Group (NCCTG), and the American College of Surgeons Oncology Group (ACOSOG).
Here are some examples of on-going cancer research:

- **T DM-1** – Tests a new drug for a particularly aggressive breast cancer that occurs in 25 percent of cases. The drug, trastuzumab developed by Genentech, is tagged with a cancer killing agent, DM-1, to go directly to the HER-2 positive breast cancer cell with minimal toxicity to the patient.
- **Oncotype DX** - An NCI sponsored study uses this gene expression assay from Genomic Health to determine which patients with node positive breast cancer may not need adjuvant chemotherapy.
- **Yttrium-90** - A study with Immunomedics using this a tagged monoclonal antibody in hard to treat metastatic pancreatic cancer.
- **E1609** – An Eastern Cooperative Oncology Group (ECOG) study examines postoperative treatment with a ipilimumab Anti-CTLA4 therapy or treatment with interferon à-2b to improve disease-free and overall survival in patients with high-risk melanoma that has been surgically removed.

**Oncology practices certified for quality**

The American Society of Clinical Oncology (ASCO) under the Quality Oncology Practice Initiative (QOPI) certified each of the private practices in the Oncology Section this year. QOPI certification is a rigorous assessment of 97 quality measures with the goal to promote excellence in cancer care by helping practices create a culture of self-examination and improvement.

**Neurology**

With 24-hour coverage, the section of Neurology provides more than 5,000 neurology consultations a year including stroke code/alert coverage. Members of the section provide services for and serve as medical directors of the EEG, Sleep and EMG laboratories.

**Gold Plus Quality Award for stroke**

Once again, Christiana Care received an American Heart Association/American Stroke Association Get With the Guidelines Award for treatment of stroke. In 2011, the Gold Plus Quality Award recognized Christiana Care’s commitment and success in implementing excellent care for stroke patients, according to evidence-based guidelines.

**Sleep Disorders Center**

The Sleep Disorders Center provides expert, multidisciplinary diagnosis and care for every kind of sleep problem. Latest technologies such as autoSV therapy are used to manage complicated sleep-disordered breathing patients. This year, the center instituted a new program to facilitate clinical follow-up for sleep disorder patients tested in the laboratory by a Sleep Medicine specialist. Center staff performed 1,497 polysomnograms (sleep studies) and 31 multiple sleep latency tests.
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 FY12, the lab saw a 4 percent increase in the number of EEGs (2,208) performed. These included routine, neonatal, 24-hour video and under 4-hour video EEGs. Outpatient 24-hour ambulatory EEGs increased by 27 percent over the previous fiscal year totals.

Neuromuscular EMG Lab

The EMG Lab conducts a full range of conventional and quantitative electromyography services, motor and sensory nerve conduction studies, and repetitive nerve stimulation testing. Medical Director Enrica L. Arnaudo, M.D., Ph.D., is the Delaware State Liaison for the American Academy of Neuromuscular and Electrodiagnostic Medicine (AANEM), which is the accrediting body for the performance of EMG testing.

Performance improvement activities in FY12 included modifications to optimize EMG scheduling. Improvements were also made to ensure accuracy of EMG transcriptions and complete data reporting. Patient satisfaction scores continued to average between 4.5 and 5, the highest possible score.

Nuclear Medicine

Nuclear Medicine provides a comprehensive range of services at several Christiana Care locations and is active in researching new diagnostic and therapeutic applications.

New and innovative services on board

Newly-introduced procedures include salivary gland imaging, glomerular filtration rate measurement, and 123I-Ioflupane (DaTscan) imaging (to differentiate essential tremor from Parkinsonian syndrome). Anticipated introduction in the coming months of PET myocardial perfusion imaging with 82Rubidium chloride will increase diagnostic accuracy, improve throughput, allow quantitative measurement of myocardial perfusion reserve, and decrease patient radiation exposure.

In FY12 the Section also implemented a structured reporting system for nuclear cardiology in collaboration with Cardiology and Noninvasive Services. This new system, called Pinestar, produces a
combined EKG stress test and myocardial perfusion imaging report as required by accreditation guidelines and improves standardization and report turnaround.

**Leading research in cancer and heart disease**

Nuclear Medicine collaborated with Christiana Care’s Helen F. Graham Cancer Center, the leading enroller nationally, in a multicenter trial to treat inoperable pancreatic cancer using the radioimmunotherapy (RIT) agent $^{90}$Yttrium hPAM4. Christiana Care was the first center in the country to open a new phase of the hPAM4 study (for third-line therapy) and has just treated the first patient on this trial who travelled across the country from California. Additional cancer-related studies include research using radioimmunotherapy for lymphoma and PET imaging with $^{18}$F-FDG and $^{18}$F-sodium fluoride through the National Oncologic PET Registry. The Section has applied for Nuclear Regulatory Commission licensure to administer $^{223}$Radium chloride, the world’s first alpha-emitting radiopharmaceutical which has shown great promise in prostate cancer treatment trials.

In collaboration with Cardiology Research, section members are participating in an important multicenter investigation of the promising PET myocardial perfusion imaging agent, $^{18}$F-flurpiridaz, comparing it to standard SPECT myocardial perfusion imaging using cardiac catheterization as the reference standard.

**Leading bone health initiative**

Nuclear Medicine has taken the lead to improve bone health and reduce fragility fractures. Section Chief Timothy Manzone, M.D., JD, chairs the Bone Health Advisory Committee whose membership spans nine sections/departments. The group is on the threshold of creating a system-wide fracture liaison service supported by a dedicated regional bone health registry and quality DXA services. This multidisciplinary initiative is unprecedented at Christiana Care and elsewhere, and is considered by national leaders in bone health likely to become a model program in the field of system-based disease management. The committee plans to initiate a pilot project of the service in the Emergency Department.

**Pain Management/Palliative Care**

Effective pain management can improve quality of life and shorten hospital length of stay. Evidence suggests that pain and palliative care programs lead to additional and more timely hospice referrals, fewer inappropriate resuscitative efforts (codes) and fewer ethics consults; thus improving overall quality of care.
Treating pain, providing comfort

The Pain and Palliative Care team had 2,000 consults in FY12, providing care to patients at Christiana and Wilmington hospitals. A multidisciplinary team offers evaluation and pain/symptom management, advance care planning, end of life care and referral to hospice, general inpatient hospice care, terminal weans, accelerated bereavement and psychosocial, emotional, and spiritual support for patients and families. The award winning, “No One Dies Alone” program manages volunteers who provide company to hospital patients who are dying but have no family or other visitors. In FY12, the finishing touches were added to the much anticipated inpatient hospice unit slated to open in August at Christiana Care in partnership with Season’s Hospice & Palliative Care of Delaware.

Insightful cancer rehabilitation and pain management

Oncology Rehabilitation provides palliative care and symptom management, through bedside and unit based therapies for cancer patients, including physical therapy, medications, self-directed exercise, counseling and support groups. These services are also provided to outpatients at the Helen F. Graham Cancer Center. Theresa Gillis, M.D., medical director of Oncology Pain and Symptom Management and Rehabilitation Services at the Helen F. Graham Cancer Center, was recognized in FY12 as a Computerworld Honors Program Laureate award winner for her role in developing a unique self-evaluation tool called Insight to help patients discuss symptoms and quality of life with their physicians.

Promoting community health

Section Chief John Goodill, M.D., along with Theresa Gillis, M.D., and Philip Kim, M.D., are working together with public and private organizations allied with the State of Delaware, the Division of Public Health, and Delaware Medical Society to mount a coordinated response to the significant increase in prescription drug abuse in our state. As members of the Prescription Drug Action Committee, they are collaborating to identify best and promising practices to curtail misuse and abuse, to influence policy strategies and recommend measures to assure continued availability of state-of-the-art resources for pain management.

Physical Medicine and Rehabilitation Services

The Center for Rehabilitation at Wilmington Hospital (CRWH) has achieved a maximum three-year re-accreditation from the Commission for Accreditation of Rehabilitation Facilities (CARF) for its Brain Injury, Amputation and Stroke programs and for Comprehensive Adult Inpatient care. This is the first time the Brain Injury program has earned CARF certification, the second consecutive time for Amputation and Stroke, and the sixth consecutive time for Comprehensive Adult Inpatient care. This achievement representing the highest level of accreditation confirms the Center for Rehabilitation offers programs and services that are measurable, accountable and of the highest quality.
The Center for Rehabilitation at Wilmington Hospital is a 40-bed unit that offers a full range of acute rehabilitation services and features the latest in barrier-free and advanced rehabilitation technologies. At 61,000 square feet, the therapy space is one of the largest in the mid-Atlantic region and includes multiple areas that simulate real world environments, including a residential training apartment that allows patients to practice everyday living skills.

First to “Go Live”

Rehabilitation Services is leading the way with conversion to electronic documentation for all acute care and outpatient therapy services. “Go live” for the Center for Rehabilitation at Wilmington Hospital was August 2012, for therapies, nursing, and physicians (including progress notes). Physicians can check on the rehabilitative progress of their patients from any location where they can log into Powerchart.

Outpatient physical therapy services added

Christiana Care Physical Therapy (PT) Plus outpatient therapy services, previously under Health Initiatives, joined Rehabilitation Services in FY12. The move brings the number to 11 outpatient therapy facilities under the Rehabilitation Services umbrella, providing seamless care for patients throughout the continuum.

Pulmonary & Critical Care Medicine

Patient safety and reliable quality care drive section initiatives.

Respiratory care team to the rescue

To ensure adequate resources and continued patient safety, a multidisciplinary team of respiratory therapists and nurses benchmarked targets and developed a new, team-based model for respiratory care. In the last year, medical and cardiac teams joined Emergency Department and surgical teams which had initially been activated during the pilot phase. Respiratory Care also developed an electronic dashboard which displays clinical metrics and patient outcomes for each dedicated team. The team-based model has facilitated positive outcomes including reduced ventilator length of stay and ventilator associated pneumonia; increased extubations and transfers out of ICU; reduced ED readmission rates for asthmatics and COPD patients; improved continuity of care through communication and collaboration among physicians, nurses and therapists; timely medication delivery; and increased patient satisfaction. Teams for Women and Children’s health services will be brought on board in the coming year.
Recognized for quality respiratory care

Christiana Care ranks among a select 15 percent of hospitals recognized by the American Association of Respiratory Care as a Quality Respiratory Care institution. One reason is relying on specially trained respiratory therapists to assist physicians with pulmonary function testing and delivery of respiratory services. Last year the department hosted a fellow from the Czech Republic as part of the American Association for Respiratory Care’s 2011 International Fellowship Program. Respiratory Care provides services to all inpatient and outpatient areas within both Christiana and Wilmington Hospitals.

The Respiratory Care staff carry out all treatment orders providing modalities which include oxygen therapy, aerosolized medication therapy, bronchial hygiene therapy, management of both invasive and non-invasive ventilators in the acute care setting, arterial blood gas draws and non-invasive monitoring of patients respiratory status/oxygenation with various equipment. In FY12, Respiratory Care services performed a total of 793,000 procedures.

Saving more lives with newer technology

In FY12, Respiratory Care took the lead to implement capnography to assess oxygen absorption during code blue responses, bringing Christiana Care into compliance with American Heart Association national guidelines. The team also introduced new technology to support patient care, including the Drager V500 ventilator, LTV 1200 advanced ventilatory support in the MIR suite, and a humidifier platform on all respiratory care equipment. On-going performance improvement efforts include participation in a system-wide project to evaluate the impact of subglottic suction oral endotracheal tubes on ventilator associated pneumonia rates among surgical patients and evaluation of the impact of a breath actuated nebulizer in the Christiana ED patient population.

Pulmonary Function Lab helps patients breathe easier

The Christiana Care 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 nearly 1,400 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; measuring respiratory muscle strength; supplemental oxygen evaluation and high altitude simulation testing (HAST); asthma diagnosis and evaluation, and cardio pulmonary exercise stress testing.
In FY12, The Pulmonary Function lab performed 16,752 procedures:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary Function Testing</td>
<td>10,460</td>
</tr>
<tr>
<td>Bronchoscopy</td>
<td>559</td>
</tr>
<tr>
<td>Exercise Testing</td>
<td>743</td>
</tr>
<tr>
<td>Interventional procedures</td>
<td>271</td>
</tr>
<tr>
<td>Other Tests: Laryngoscopy, HAST, Nitric Oxide Admin, Nebulizer Tx, Pentam, Sputum Induction, Metabolic Cart.</td>
<td>4,719</td>
</tr>
</tbody>
</table>

The Pulmonary Function Laboratory is accredited by the College of American Pathologists (CAP) and the Clinical Lab Improvement Amendments (CLIA) and follows American Thoracic Society.

**Interventional Pulmonology offers leading-edge treatments**

- Interventional Pulmonary encompasses a broad range of diagnostic and therapeutic pulmonary procedures to manage diseases of the lung and the lining of the lungs or pleura. These procedures include bronchoscopy, pleuroscopy, thoracentesis, tracheostomy and placement of pleural catheters and drains.
- Pulmonary and Critical Care Physicians from the departments of Medicine and Surgery routinely employ both basic and advanced bronchoscopic skills as part of routine care. All bronchoscopies performed outside of the operating room fall under the purview of the Interventional Pulmonary service and Department of Respiratory Care.
- In FY12, the service performed 1046 bronchoscopic procedures, a 12 percent increase over FY11. Of these, 45 percent were performed in the ICU, including broncho-alveolar lavage to collect secretions for microbiologic analysis, to clear blocked airways and to support percutaneous tracheostomy, a minimally invasive alternative to traditional tracheostomy. Diagnostic bronchoscopic procedures totaled 764 in FY12. The most common procedure was broncho-alveolar lavage (39%). An endobronchial lesion was found in 47 patients during endobronchial biopsy, and 49 patients had fluoroscopic guided transbronchial biopsies.
- The Surgery and Procedure Unit (SPU) at Christiana Hospital handles bronchoscopies that require conscious sedation. Half of these are outpatient procedures. Bronchoscopies at the Surgi-Center are performed under the care of an anesthesiologist and with total intravenous anesthesia (TIVA).
Bronchoscopy by location

<table>
<thead>
<tr>
<th>Location</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU</td>
<td>208</td>
</tr>
<tr>
<td>SPU</td>
<td>212</td>
</tr>
<tr>
<td>Surgicenter</td>
<td>208</td>
</tr>
<tr>
<td>CHR Main OR</td>
<td>32</td>
</tr>
<tr>
<td>Wilm GI Lab</td>
<td>15</td>
</tr>
<tr>
<td>Wilmington OR</td>
<td>1</td>
</tr>
</tbody>
</table>

Interventional bronchoscopy uses advanced diagnostic and therapeutic modalities including:

- **Endobronchial Ultrasound (EBUS)** for guided lymph node biopsy.
- **Electro-magnetic Navigational Bronchoscopy** for lymph node biopsy and placement of markers for stereotactic radiation surgery (Cyberknife).
- **Rigid bronchoscopy (RB)** to treat endobronchial tumors, place stents or remove a foreign body from the airway.
- **Indwelling Bronchial Valve (IBV)** placement to treat bronchopleural fistula, an abnormal passage that can develop in the lungs.

**Interventional Bronchoscopy**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBUS</td>
<td>166</td>
</tr>
<tr>
<td>Electro-magnetic NB</td>
<td>76</td>
</tr>
<tr>
<td>Rigid Bronchoscopy</td>
<td>18</td>
</tr>
<tr>
<td>Fiducial Placement</td>
<td>35</td>
</tr>
<tr>
<td>Stent Placement</td>
<td>2</td>
</tr>
<tr>
<td>IBV insertion</td>
<td>2</td>
</tr>
<tr>
<td>IBV removal</td>
<td>1</td>
</tr>
<tr>
<td>Balloon Bronchoplasty</td>
<td>6</td>
</tr>
</tbody>
</table>

**MICU wins prestigious Beacon Award – Again!**

Congratulations to the Medical Intensive Care Unit at Christiana Hospital, recipients of the Silver Beacon Award for Critical Care Excellence from the American Association of Critical Care Nurses. Christiana Care is one of only 40 hospitals nationwide and the only hospital in Delaware to receive this honor for the 2012-2015 period. The Beacon Award recognizes the Medical Intensive Care Unit at Christiana Hospital for the highest standards in patient outcomes, nurse recruitment and retention, staff training and a healthy work environment. Christiana Care also received the award for 2009-2010.
AHRQ recognizes innovations from Sepsis Alert Campaign

Christiana Care’s award-winning Sepsis Alert Program again earned recognition for “high reliability,” featured on the Agency for Healthcare Research and Quality (AHRQ) Innovations Exchange Website in August 2012. This care management program incorporates a number of initiatives, including use of screening criteria, an antibiotic recommendation sheet, a treatment order set and protocol, and a medication kit, to support the prompt identification and treatment of patients who have sepsis. According to a retrospective analysis that compared a control group of severe sepsis/septic shock patients with those treated after program implementation, results through November 2011 showed the following:

- 53 percent reduction in overall sepsis related mortality.
- 63 percent reduction in the incidence of sepsis-related organ dysfunction for acute respiratory distress syndrome.
- 65.7 percent drop for acute renal insufficiency/failure.
- Average LOS for sepsis patients (excluding 70-day outliers) decreased from 18.2 to 9.3 days.
- Number of patients discharged from ICU to home increased by 199 percent, suggesting that fewer patients experienced a decline in health status from a prolonged ICU stay.
- Compliance with Institute for Health Improvement’s acute sepsis resuscitation bundle increased from 28.6 percent to 45 percent of patients.

Results also showed quicker fluid resuscitation and initial improvement in administration of antibiotics.

Overall the initiative supports continuous improvement with positive clinical outcomes for sepsis patients with associated health care cost savings through early, goal directed therapy.

MICU fosters multidisciplinary research collaborations

Christiana Care’s Medical Intensive Care Unit is focused on bringing innovative, best practice care to critically ill patients. By measuring the vast amounts of data generated through new initiatives as well as routine care, MICU research is improving patient management and adding to the body knowledge in this specialty. A number of studies are underway, including sedation and delirium management as part of a national multidisciplinary effort; early mobilization of ICU patients, and a planned project for ICU nutrition support. The entire patient care team, including nursing, pharmacy, respiratory therapy and nutrition shares important roles in advancing these projects.

In the pipeline: Data collection is nearing completion on 200 patients undergoing a hypothermia protocol to study factors influencing survival rates and neurologic outcomes. A collaboration with Delaware’s INBRE program, supported by the Christiana Care Value Institute, will identify patients with
pre-morbid conditions associated with low benefit to MICU admissions; and a prospective study in collaboration with the University of Delaware will assess outcomes for obese ICU patients.

**Transitioning care for adults with cystic fibrosis**

The Adult Cystic Fibrosis (CF) Program facilitates the transition of care for young adults with cystic fibrosis in affiliation with 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 PC provider.

In FY12 two clinics averaged 8 patient visits a month, offering patients spirometry in collaboration with the Pulmonary Function Lab. The program contributes patient data to the Cystic Fibrosis Foundation data base and, through the CF Treatment Development Network, offers patients the opportunity to participate in the latest clinical trials of new drugs and new treatments. Currently one patient is on the newly approved medication, Kalydeco, to treat a rare form of CF in patients age 6 and older who have a specific G551D mutation in what is called the Cystic Fibrosis Transmembrane Regulator (CFTR) gene.

**Renal & Hypertensive Diseases**

Christiana Care nephrologists provide hemodialysis for patients with chronic and acute kidney disease at two Joint Commission accredited labs. Located at both Christiana and Wilmington hospitals, the labs provide inpatient and outpatient kidney dialysis and continuous ambulatory peritoneal dialysis (CAPD). In FY12 these labs performed a total of 10,370 procedures. The capability to offer sustained low efficiency daily dialysis (SLEDD) enables acute renal failure patients who once had to be connected 24/7 to reduce their time on dialysis to as little as 10 hours a day.

**Fighting catheter associated infections**

Using the Comprehensive Unit-Based Safety Program (CUSP) approach to identifying and learning from defects, hemodialysis successfully reduced occurrence of blood stream infections associated with insertion of femoral catheters to 1 percent. The team developed a new bedside dialysis catheter insertion kit and catheter insertion protocol check list. On-going monitoring showed a sharp rise in the use of the check list from 30 percent to 90 percent compliance. Other continuous performance improvement projects include participation in an outpatient antibiotic administration continuity program, the Christiana Care Five-Diamond patient safety program, and institution of an anemia management protocol to ensure appropriate use of an expensive medication called Epogen.

**Nephrology research in progress**

- Retrospective review of combined tunneled hemodialysis catheters and central venous catheters; procedure technique, outcomes, complications.
- Study of stent-grafts or bare-metal stents vs. angioplasty for treatment of venous outflow stenosis in upper-arm basilic and cephalic arteriovenous fistulae; outcomes, complications, patency, and rates of intervention.
- Study of chronic hemodialysis patients with pacemakers or implantable defibrillators; prevalence of cardiovascular implantable electronic devices and impact on arteriovenous hemodialysis access. Submitted for publication by Theodore Saad, M.D. and Waqas Ahmed, M.D.

Renal and Hypertension Symposium held

On April 28, 2012, Nephrology Associates, P.A. sponsored the fifth annual Renal and Hypertension Symposium on the Christiana Hospital campus in Newark, DE. A diverse audience of physicians, nurses and advanced practitioners from Delaware and surrounding areas learned about some of the latest topics in nephrology and hypertension tailored for the primary care community with the opportunity to earn continuing educational credits.

Kidney transplant program turns five

Christiana Care’s nationally recognized kidney transplant program, marked its fifth anniversary performing adult kidney transplants in Delaware. Initiated in January 2006, the program is certified by the United Network for Organ Sharing to perform both living donor and deceased donor kidney transplants. An experienced, multidisciplinary team provides optimal care for these complex patients and offers medication management post-transplant and living donor education.

![Number of Transplants by Transplant Type](image)
A second transplant clinic in Lewes allows patients from the central and southern counties in Delaware to be seen more easily by members of the team.

In response to new Centers for Medicare and Medicaid guidelines for Quality Assessment and Performance Improvement (QAPI), the kidney transplant team upgraded their performance dashboard with embedded QAPI indicators based on their overall strategic plan to maximize patient outcomes and achieve high reliability. The dashboard facilitates timely transplantation, safety monitoring, adherence to regulatory requirements, and identifying ways of assisting patients to transition through the various phases of care.

Leaders in organ donation

Of the 130 hospitals in the tri-state region served by the Gift of Life Donor Program, Christiana Care ranks first in the number of families that have chosen to donate organs. In 2011, 45 donors and their families gave 141 patients the lifesaving gift of a heart, lung, liver, pancreas or kidney. Another 94 donated bone, skin, cornea and heart-valve tissue, potentially saving the lives of or assisting more than 6,000 patients. This represents record participation from the communities Christiana Care serves facilitated by strong collaborative support from both transplant and critical care teams and Gift of Life staff.
Honors, Awards & Kudos

Congratulations to Medicine’s “Top Docs” featured in Delaware Today Magazine’s Top Doctors 2012. A total of 64 physicians from the department were selected by their peers.

Teaching Awards

Matthew Burday, D.O., FACP and Virginia Collier, M.D., MACP, joined The Jefferson Academy of Distinguished Educators (JADE), a service organization dedicated to promoting faculty teaching excellence; recognizing and rewarding excellence in teaching; and making contributions to the educational mission, promoting scholarship in medical education, and fostering a community of scholars. Dr. Burday is also a member of the “Promoting Teaching Excellence” Working Group.

Matthew Burday, D.O., FACP, received the 2012 Volunteer Faculty Award from The Jefferson Medical College Chapter of Alpha Omega Alpha. The award recognizes a community physician who contributes, with distinction, to the education and training of clinical students.

Arun Malhotra, M.D., was voted “specialist of the year” for 2012 by the Family Practice Residents.

Clinical Pearls

Congratulations to our 9th annual Clinical Pearls speakers:

David Cohen, M.D., Infectious Disease; Wesley Emmons, M.D., Infectious Disease; Michael Lankiewicz, M.D., Hematology; Erin Meyer, D.O., Internal Medicine; Badrish Patel, M.D., Pulmonary/ Critical Care Medicine; and Ehsanur Rahman, M.D., Cardiology.

Focus on Excellence Awards

2011 Value Award
Impact of a Dedicated Respiratory Team: Liberating Patient from Ventilation

2011 Clinical Excellence Gold Award
SOS! Standardized Order Sets Answer a Distress Call for Inpatient Chemotherapy

2011 Clinical Excellence Silver Award
Improving Processes for Vaccine Compliance

2011 Clinical Excellence Bronze Award
Individual Discharge Assessment: Identification of Patients at Risk for Readmission
2011 Safety First Silver Award
Post Event Debriefs: “Facts as Known”

2011 Resident Award
Hemoglobin and Lead Screening

2011 Excellence in Community Health – Honorable Mention
Improving Therapeutic Time in Range for the AMO Anticoagulation Patients

2011 People’s Choice Award
Safe At Home Base: Improving Discharge Medication Reconciliation

2011 Operational Improvement Gold Award
Heart and Vascular Interventional Services: Redesigning a System for Success

Other Awards

Frank Beardell, M.D., received the 2012 Man of the Year Award for the Delaware Leukemia and Lymphoma Society, having raised nearly one-quarter of the total dollars in the fundraising competition honoring local blood cancer survivors.

Arlene Bincsik, RN, director of the HIV Program, received the Sister Dolores Macklin Red Ribbon Guardian Angel Award from the Delaware HIV Consortium for her efforts to improve the overall health and quality of life for individuals with HIV/AIDs.

Shirley Brogley, ACHPN, APN-BC, received the Delaware End-of-Life Coalition (DEOLC) Excellence in Palliative Care Award.

Center for Rehabilitation at Wilmington Hospital is among the “Best of 2012” for comprehensive rehabilitation programs selected by Rehab Management Magazine.

Virginia U. Collier, M.D., MACP, Hugh R. Sharp Jr. Chair of Medicine, is a Master of the American College of Physicians.

Patricia Curtin, MD, FACP, CMD, was recognized in October 2011, at the Annual Medical-Dental Staff Dinner for receiving the Healthcare Hero Spirit of Women Award for her work in Geriatrics and in Haiti. She was also recognized by Jefferson Medical College as a “woman of distinction” for her role as the first woman alumni trustee (1988-1993), and as a “First Responder” hero during Catholic Schools Week.
Christy Edwards, Internal Medicine & Transitional Year Program Coordinator, is now certified by the National Board of Certification for Training Administrators of Graduate Medical Education (TAGME). Certification provides a national standard and recognition for GME training administrators. This qualification sets her apart as a high level administrator with the knowledge, skills, and expertise that leads to effective management of the day-to-day activities of our program.

Allen Friedland, M.D., received the 2012 Bridges to Excellence Award for Diabetes Care and Christiana Care’s 2011 Rising Star Award.

Teresa Gillis, M.D., and Mitchell Saltzberg, M.D., along with IT’s Mike Bledsoe, Jon Reynolds, John DiGiovanni, and Catherine Burch are 2012 Computerworld Honors Laureates for developing Insight, software that offers patients a unique self-assessment tool to evaluate their symptoms as a basis for meaningful dialogue with their doctors.

Patricia Lincoln, RN, BSN, ACRN received the Association of Nurses in AIDS Care’s (ANAC) HIV Educator Distinguished Service Award 2011.

Denise Lyons, RN, MSN, GCNS, BC, received the 2012 Christiana Care APN Nursing Excellence Award.

Medicine Unit 5A earned the 2012 Nursing Certification Award with the highest percentage of certified nurses (59%) among units with 50-100 nurses at Christiana Care.

Respiratory Care received the 2012 AARC Quality Respiratory Care Recognition for providing quality respiratory care services to their patients and community.

Maureen A. Seckel, RN, ACNS-BC, CCRN, CCNS, Medical Critical Care Pulmonary clinical nurse specialist, received the Delaware Excellence in Nursing Advanced Practice Award 2011.

Linda Sydnor, MSN, GCNP, BC, won the 2011 Jefferson Award for excellence in community and public service in geriatrics and Alzheimer’s care.

Karla Testa, M.D., earned a 2011 National Med-Peds Residents Association (NMPRA) International Travel Grant.

Wesly Emmons, M.D., was appointed to the Board of Directors of AIDS Delaware.

Marci Drees, M.D., MS, is the first recipient of a $20,000 inaugural grant, the Epi Project Award, from the Society for Healthcare Epidemiology of America (SHEA). Her research focuses on defining variability of infection control practices for multi-drug resistant Gram-negative organisms.
Stephanie Lee, M.D., FACP, won the Leonard P. Lang Award from the Delaware Chapter of the American College of Physicians in February 2012, honoring her as an outstanding internist.
Deborah Ehrenthal, M.D., is promoted to associate professor of Medicine with a secondary appointment as associate professor of Obstetrics & Gynecology.

Vinay Maheshwari, M.D., is appointed clinical assistant professor of Medicine.

Jennifer Brettler, D.O., completed her residency with Christiana Care and joined the department as an inpatient medicine faculty member.

Matt Burday, D.O., is the associate residency program director for Competency Assessment and chairs the newly created Clinical Competency Committee. He will continue to serve as the director of Medical Student Programs, as a key teaching faculty member, and a member of the Internal Medicine Faculty Practice.

Hung Q. Dam, M.D., was named chair of a national guideline committee on Gastrointestinal Bleeding Scintigraphy.

Joe Deutsch, M.D., is assistant residency program director for Inpatient Medicine. He continues as a member of CCHP along with precepting and practicing primary care medicine in the AMO.

John Donnelly, M.D., is associate residency program director for Ambulatory Medicine and will continue to precept in the Adult Medicine Office. In addition, he is transitioning his clinical practice from the Health Care Center to a combined position as an inpatient faculty member with Christiana Care Hospitalists Partners (CCHP) and Christiana Care Pediatric Hospitalists.

Erin Grady, M.D., was appointed to the ACGME Nuclear Medicine Milestone Development Working Group for the next accreditation system; editor of the “Scanner” - a publication of the American College of Nuclear Medicine; chair of the 3rd Party Payer Subcommittee of the Coding & Reimbursement Committee; and to the Choosing Wisely effort to lower radiation exposures in the United States. She was also elected to the Audit Committee 2012-2014 for the Society of Nuclear Medicine & Molecular Imaging.

Stephen Keiser is director of Inpatient Practice Operations responsible for management oversight of The Medical Group of Christiana Care’s managed inpatient practices (CCHP-Hospitalist Partners, CCNS-Neuro-hospitalists and CCPA-Intensivists).
Jen LeComte, M.D., is the assistant medical director for the Adult Medicine Office. A former Christiana Care Med-Peds resident, she will continue as a Transitions Practice faculty member and will develop her own Med-Peds practice at the Wilmington Hospital Health Center.

Anand Panwalker, M.D., replaces Dr. Julie Silverstein as chair of Medicine’s Professional Excellence (Peer Review) Committee. He is assistant Infection Prevention Officer and will co-chair the Antibiotic Stewardship Program. In addition to student and resident teaching, he will serve as a department representative in patient safety and other briefings.

Tabassum Salam, M.D. is associate residency program director for Curriculum Development and will continue to coordinate Medical Grand Rounds, resident core lectures and the Medical Knowledge Boot Camp. She is a faculty hospitalist with Christiana Care Hospitalist Partners (CCHP) and a member of the Internal Medicine Faculty Practice.

Lauren Salmon, D.O., joined the department as an inpatient medicine faculty member.

Julie Silverstein, M.D. is the new medical director of the Wilmington Hospital Health Care Center. She continues as associate chair of Ambulatory Medicine and chief of the Section of General Internal Medicine, and will continue to care for patients in the Internal Medicine Faculty Practice and as an inpatient attending on the Wilmington Hospital Inpatient Service.

Cardiology appointments

Robin Horn, M.D., FACC, is medical director for Non-Invasive Cardiology.

Brian Sarter, M.D., FACC, FHRS, is associate chief of Cardiology for Operations.

Roger Kerzner, M.D., FACC, is medical director for Electrophysiology.

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

Ronald Lewis D.O., FACC, is medical Director for 4E.

Henry Weiner, M.D., FACC, is associate chief of Cardiology for Quality & Safety.

Sandra Weiss, M.D., is medical director of Cardiology Fellowship Research.
Local, State and National Appointments

Tony Bianchetta, M.D., is chair of the Planning Committee for the Annual Meeting 2013, of the Delaware Chapter of the American College of Physicians.

Dr. Bianchetta, David Chen, M.D., Allen Friedland, M.D., and Gia Uzelac, M.D., are members of the School Health Committee, Medical Society of Delaware.

Barry Bakst, D.O. is a trustee for the American Osteopathic College for Physical Medicine and Rehabilitation. He also completed the 300-hour Helms Medical Acupuncture Course.

David Biggs, M.D., is a member of the Breast Steering Committee of the National Surgical Adjuvant Breast and Bowel Project.

Mark J. Corso, MD, FACG was re-elected governor of the State of Delaware for the American College of Gastroenterology to serve a second three-year term.

Patricia Curtin, M.D., FACP, CMD, is a participant in the University of Notre Dame Haiti Program Medical mission trips supplying mobile clinics/nursing home visits, geriatric clinic. She also served as honorary chair of the Christiana Care Junior Board Medicine Ball in April 2012.

Himani Divatia, D.O., is a National Med-Peds Residents Association Representative.

John Donnelly, M.D., is chair of the Planning Committee for the Annual Meeting 2012 of the Delaware Chapter of the American College of Physicians, and a member of the E-Learning Committee of the Association of Program Directors of Internal Medicine.

Daniel Elliott, M.D., is a clinical scholar of the Christiana Care Value Institute and senior fellow in the School of Population Health, Thomas Jefferson University. He is a member of the AHRQ Regional Experts Panel and the Advisory Council of the CNA Health ACTION Partnership. He serves the American College of Physicians as state delegation chair, key contact, advocacy chair and is a member of the Governor’s Executive Council. He is also a member of the Annual Meeting Program Planning Committee for the Delaware Chapter. He was a poster session judge for the Society of General Internal Medicine Mid-Atlantic Regional Meeting and served as a member of the program planning committee, as workshop committee chairman, institutional champion, regional meeting chair and host. He is also senior policy analyst for the Health Services Policy Research Group, Center for Community Research and Service, University of Delaware, and a member of the Delaware Valley Institute for Clinical and Translational Studies.
Kelly Eschbach, M.D., serves as Delaware Delegate to the American Medical Association’s House of Delegates, the AMA’s policy making body. She serves on the Executive Board of the Medical Society of Delaware and on the Board of the Delaware Academy of Medicine.

Allen Friedland, M.D., is chair, American Academy of Pediatrics, Med-Peds Section 2012. He also serves on the AAP Committee on Pediatric Education.

Jenn Gauntt, M.D., is a National Med-Peds Residents Association representative.

Theresa Gillis, M.D., serves on the Physicians Advisory Committee for Controlled Substances (PACCS), Medical Society of Delaware and is a Cancer liaison physician for the Commission on Cancer.

Erin Grady, M.D., is the first recipient of the Society of Nuclear Medicine (SNM) Robert E. Henkin Fellowship and a an SNM Academic Council Intern.

Stephen S. Grubbs, M.D., was appointed to the Alliance of Clinical Trials in Oncology Board of Directors, Executive Committee and Community Oncology Committee and to the Alliance Foundation Board and Executive Committee. He is chair of the Audit Committee and Compliance Officer. He is a member of the American Society of Clinical Oncology (ASCO) Board and serves on several ASCO committees. He is a member of the Governing Council of the State of Delaware Cancer Consortium and chair of the Early Detection and Prevention Committee.

Michael J. Guarino, M.D., is a member of the Alliance of Clinical Trials in Oncology, a board member of Academic and Community Cancer Research United and a member of the Colorectal Committee and the Foundation Research Program Business Advisory Committee of the National Surgical Adjuvant Breast and Bowel Project.

Stephanie Guarino, M. D., is a member of the Graduate Medical Education Committee, Jefferson Medical College.

John Goodill, M.D., serves on the Physicians Advisory Committee for Controlled Substances (PACCS), Medical Society of Delaware.

Andrew L. Himelstein, M.D., is a principal investigator and member of the Symptom Intervention and Concept Review committees of the Alliance of Clinical Trials in Oncology.

Terry Horton, M.D., is a member of the State of Delaware: Education Subcommittee of the Prescription Drug Action Committee; the Delaware Academy of Medicine: Substance Abuse Committee and Physician Advisory Committee on Controlled Substances; and served as a grant reviewer on RFA DA-12-008, National Institute on Drug Abuse. “Integration of Drug Abuse Prevention and Treatment in Primary Care Settings (R01),” March 2012.
Jennifer LeComte, D.O., was appointed to the Delaware State Transition Task Force Design Committee 2012 and co-chair of the Health Workgroup. She is also a member of the American Academy of Pediatrics Committee on Medical Home Resident Education Initiative Working Group.

James Lenhard, M.D., is a member of the Professional Practice Committee of the American Diabetes Association (ADA) (2012) and president of the ADA DelMar Chapter.

Gregory A. Masters, M.D., is a member of the Respiratory Committee of the Alliance of Clinical Trials in Oncology; a member of the Respiratory Committee and a co-investigator for the Radiation Oncology Clinical Trials Group; and a member of the Thoracic Malignancy Steering Committee of the National Cancer Institute and a member of the Communications Committee and chair of the Fellows Test Material Development Committee of the American Society of Clinical Oncology.

Andrea Read, D.O., is president, 2010-2012 of the Medical Society of Delaware Resident and Fellows.

Albert A. Rizzo, M.D., is chair of the American Lung Association National Board of Directors.

Mary Stahl, RN, MSN, ACNS-BC, CCNS-CMC, CCRN, is board president of the American Association of Critical-Care Nurses 2012.

Maureen Seckel, RN, ACNS-BC, CCRN, CCNS, is secretary of the Board of Directors of American Association of Critical-Care Nurses 2011-2012.

Linda Sydnor, MSN, GCNS, BC, was chairperson for the “Walk to End Alzheimer’s” (Alzheimer’s Association) and team captain for the “ACE Angels.” She is a member of the Alzheimer’s Association Education Committee.

William Weintraub, M.D., is the 2012 President of the American Heart Association Great Rivers Affiliate Board of Directors.
Selected Publications


Friedland A, Bianchetta T, Elliott D. Back to School: Using Physicians to Teach Middle School Health. *Delaware Medl J* September 2011; 83 (9); 277-28.


Gopal R, Lenhard MJ, Maser RE. Which RAAS blocker should I choose for my patient with diabetes?* Practical Diabetology 2011 (March); 30 (1); 14 – 23.


Maron DJ, Boden WE, Spertus JA, Hartigan PM, Mancini GBJ, Sedlis SP, Kostuk WJ, Chaitman BR, Shaw LJ, Berman DS, Dada M, Teo KK, Weintraub WS, O’Rourke RA for the COURAGE Trial Research Group. Impact of metabolic syndrome and diabetes on prognosis and outcomes with early


Pecoraro A. Ewen E, Horton T. Early Data from Project Engage: A Program to Identify and Transition Medically Hospitalized Patients Addictions Treatment. *Addiction Science & Clinical Practice*. Accepted for publication.


Selected Abstracts, Posters & Presentations

Abraham N, DiSabatino A, Murphy, Dooley A. Effort to decrease the door to balloon time might increase the incidence of unnecessary emergency cardiac catheterization and delay appropriate care. American College of Cardiology ACC12 Expo.

Ackerman C. An unusual case of Prosthetic Valve Endocarditis: culture negative? Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Casey D, Benninghoff M. The Road Less Traveled: An adult combined medical and surgical Intensive Care Unit’s journey to integrate patient and family into the health care team. The 5th International Conference on Patient and Family-Centered Care June 2012.

Choy HE, Kao RL, Weinberg J, Mueller T. One and a half syndrome. Delaware Chapter American College of Physicians Scientific Meeting February 2012.

Society for General Internal Medicine (SGIM) Annual Meeting and Alliance of Independent Academic Medical Center (AIAMC) March 2012 Annual Meeting.


Dam HQ. Hahnemann University Hospital and Thomas Jefferson University Hospital Nuclear Medicine Board Review.

Donaldson JM, Meyer E. Antibiotic Resistance and Therapeutic Restraint. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Fasnammi F. Limbic Encephalitis Masquerading as Heat Stroke Delirium. Delaware Chapter American College of Physicians Scientific Meeting February 2012.

Friedland A. Transition of Adolescents and Young Adults with Special Health Care Needs from the Pediatric Oriented to Adult Oriented Medical Home. Society of General Internal Medicine Annual Meeting Workshop May 2012.
Friedland A. A Happy Internist is a Healthy Internist. American College of Physicians Annual Meeting April 2012.


Gillis TA. NCCCP Palliative Care Workgroup Best Practices presentation April 2011.

Grady EC. Technologist Categorical Seminar Nuclear Medicine 101—Back to Basics Thyroid 101: Benign and Malignant Thyroid Disease.” Society of Nuclear Medicine, Annual Meeting June 2012.

Grady EC. Society of Nuclear Medicine Knowledge Bowl. Society of Nuclear Medicine, Annual Meeting June 2012.


Gross M, Collins D. Asymmetric atypical amyloid. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Hamid S, Ma R, Getto L. Meckel’s Diverticulum Causing Obscured Significant Gastrointestinal Bleed in an Adult Male. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Hurd J, Maheshwari V. SUGAR(Sulfonylurea Use Gone AwRy). American College of Physicians Internal Medicine April 2012 and Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Ku M, Ruether J. Freon gas toxicity: more than just respiratory symptom. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Lee B, Donnelly J. A Rare Cause of Neck Pain. Delaware Chapter American College of Physicians Scientific Meeting February 2012.

Li I, Hausman SP, Trochimowicz M, Wright H, Cluff K, Kosc E, Cooper D. Christiana Care’s House Call Program: Further success in home visit medicine with a multi-disciplinary tea. Selected “Poster of the Year” by the American Academy of Home Care Physicians. Poster Presentation: 2012 American Geriatrics Society Annual Scientific Meeting.


Lyu DS, Rheinhardt JF. Chlamydia pneumoniae pneumonia-associated acute respiratory distress syndrome (ARDS). Delaware Chapter American College of Physicians Scientific Meeting February 2012.


McGill KL, Neilan BA. A Case of Progressive Multifocal Leukoencephalopathy after Receiving a Monoclonal Antibody. American College of Physicians Internal Medicine April 2012 and Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Monsaert R. Lessons to be Learned from Clinical Outcome Trials for Diabetes and Cardiovascular Disease. Annual meeting of the Pennsylvania Osteopathic Medical Association May 2012.
Morrone D, Marzilli M, Weintraub WS. Trials In Ischemic Heart Disease do not Represent the Ischemic Universe. 2011 AHA Scientific Sessions.

Morrone, D; Kolm, PG; Xu, X; Jurkovitz, CT; Ehrenthal, D; Ehsanur, R; Weintraub, WS; Radiation exposure is increased through the last ten years. 2011 AHA Scientific Session.


Palli V, Piacentine J. Presentation of Sarcoidosis Disguised as Pneumocystis Jiroveci Pneumonia. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Prendergast C, Buonocore A. Ironing Out a Potentially Grave Cause of Fatigue. American College of Physicians Internal Medicine April 2012 and Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Read A, Drees M, Piper J. From Cattle to Patients: A case of Disseminated Mycobacterium Bovis. Delaware Chapter American College of Physicians Scientific Meeting February 2012 (First Place).

Rollyson M, Patel B. Migraine Medication induced encephalopathy? The inevitable physician headache. Delaware Chapter American College of Physicians Scientific Meeting February 2012.

Rose H, Ewen E. Arthritis as the initial presentation of hepatitis C: utility of screening in suspected rheumatoid arthritis. Delaware Chapter American College of Physicians Scientific Meeting February 2012.

Saad TF. Patency & Intervention Rates for AV Fistula Treated with Stents or Stent-Grafts Following Failed Angioplasty at the Cephalic Arch or Basilic Vein Swing-Point. Vascular Access for Hemodialysis XIII Symposium May 2012.

Saad TF. Delaying Onset of Dialysis: 4th Annual Hemodialysis Access Symposium, The Cardiovascular Care Group and Overlook Medical Center April 2012.


Salmon L. EBV Negative Post-transplant lymphoproliferative disorder. Delaware Chapter American College of Physicians Scientific Meeting February 2012.


Zhu D, Mustafa NG, Hoban A, Murphy D, King S, Albert M, Weintraub WS, Rahman E. Comprehensive strategy including exclusive involvement of interventional cardiologist in the decision making process decreases door-to-balloon time in STEMI. ACC 2011.


Medicine Leadership

Leadership Committees

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. It consists of the vice chair, all associate chairs, the medical director of Christiana Care Hospitalist Partners, and the Medicine vice president. When relevant, other departmental leaders with expertise in the topic(s) under discussion are invited to attend.

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 will be critical from these department leaders, who serve as liaisons and representatives of the private and employed physicians in their sections.

Medicine Leadership Team

Virginia U. Collier, M.D., MACP, Hugh R. Sharp, Jr., Chair of Medicine

Robert M. Dressler, M.D., MBA, FACP, Vice Chair

Julie Silverstein, M.D., FACP, Associate Chair, Ambulatory Medicine, Section Chief, General Internal Medicine, Medical Director, Wilmington Hospital Health Care Center

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

Michael Eppehimer, MHSA, Vice President

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

Edmondo Robinson, M.D., MBA, FACP, Physician-in-Chief, Wilmington Hospital and Medical Director, Christiana Care Hospitalist Partners
Executive Committee

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

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

Kunal Bhagat, M.D., Member At Large

David Biggs, M.D., Oncology Section Chief

Joanne Brice, M.D., Chief, Division of Hospital Medicine

Matthew Burday, D.O., Member At Large

Patricia Curtin, M.D., Geriatrics Section Chief

Anthony Cucuzzella, M.D., Chair, Department of Medicine Credentials Committee

Robert Dressler, M.D., MBA, Vice Chair of Medicine

Michael Eppehimer, MHSA (ex officio), Medicine Vice President

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

Marciana Filippone, M.D., Gastroenterology 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

Robert Kopecki, D.O., Member At Large

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

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

Thomas Mueller, M.D., Neurology Section Chief
Anand Panwalker, M.D., Infectious Disease Section Chief, Chair, Professional Excellence Committee

Shakaib Qureshi, M.D., Rheumatology Section Chief

Heather Ragozine-Bush, M.D., Assistant Chief of Service

Albert Rizzo, M.D., Pulmonary & Critical Care Medicine Section Chief

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

Julie Silverstein, M.D., Associate Chair, Ambulatory Medicine, Section Chief, General Internal Medicine, Medical Director, Wilmington Hospital Health Care Center and Ambulatory Medicine Committee

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

William Weintraub, M.D., Cardiology Section Chief

Section Chiefs:

Greg Marcotte, M.D. Allergy & Clinical Immunology

William Weintraub, M.D. Cardiology

Peter Panzer, M.D. Dermatology

M. James Lenhard, M.D. Endocrinology and Metabolic Diseases

Marcianna Filippone, M.D. Gastroenterology

Patricia Curtin, M.D. Geriatrics

R. Bradley Slease, M.D. Hematology

Anand Panwalker, M.D. Infectious Disease

Julie Silverstein, M.D. Internal Medicine

Joanne Brice, M.D. Division of Hospital Medicine

Terry Horton, M.D. Division of Addiction Medicine
Allen Friedland, M.D. Medicine-Pediatrics

Thomas Mueller, M.D. Neurology

Timothy Manzone, M.D. Nuclear Medicine

David Biggs, M.D. Oncology

John Goodill, M.D. Pain & Palliative Care

Kelly Eschbach, M.D. Physical Medicine & Rehabilitation

Albert Rizzo, M.D. Pulmonary & Critical Care Medicine

Theodore Saad, M.D. Renal & Hypertensive Diseases

Shakaib Qureshi, M.D. Rheumatology

Meet Medicine’s Unit Based Clinical Leadership Teams

Unit Based Clinical Leadership models a partnership between medical unit-based nurse managers and physician clinical leaders to effectively lead quality improvement activities on their units with direct benefits to patients.

**Christiana Hospital**

3D: Gerald O’Brien, M.D. & Sonya Stover, RN, MSN, CCRN

5A: James E. Ruether, M.D. & Suzanne Heath, MS, BSN, RN-BC

5B: James A. Piacentine, D.O. & Bonnie Fantini, MS, BSN, RN-BC

5C: Jomy Mathew, M.D. & John McMillen, MBA, MS, BSN, RN, NE-BC

5D: Surekha Bhamidipati, M.D. & Barbara Marandola, MBA, RN

MICU: Badrish J. Patel, M.D. & Carol Ritter, BSN, RN-CCRN

ACE Unit: Patricia Curtin, M.D. & (interim) Elizabeth Stone, MS, BSN, RN-OCN

6B Oncology: David D. Biggs, M.D. & Elizabeth Stone, MS, BSN, RN-OCN
6E: James E. Reuther, M.D. & Connie Jordan, RN-BC

**Wilmington Hospital**

4 North: Timothy J. Hennessy, M.D. & Bonnie Osgood, MSN, RN-BC, NE-BC

WICU: Michael Benninghoff, D.O. & Donna Casey, RN, BSN, MA, NE-BC, FABC

5N: TBN & Michael Knorr, BSN, RN, PCCN

3 West: Dave Maleh, M.D. & Melva Lane, BSN, MBA, RN-BC

ACE Unit: Ina Li, M.D. & Paula Tomanovich, BSN, RN, BC
Committee Membership

Clinical Research Committee: Meets Monthly

M. James Lenhard, M.D. – Co-Chair

Daniel Elliott, M.D., Acting Associate Chair, Research & Scholarly Activity – Co-Chair

Jerry Castellano, PharmD. (non voting)

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

Michael DePietro, M.D.

Marci Drees, M.D.

Deborah Ehrenthal, M.D.

Michael Eppehimer, Medicine Vice President

Ed Ewen, M.D.

Adrian Fedyk, Medicine Finance Manager

Orsolya Garrison, MPH, Medicine Administrative Director

Michael Guarino, M.D.

Rubeen Israni, M.D.

Claudine Jurkovitz, M.D.

Debbie Moore, RN, Research Manager

Heather Ragozine-Bush, M.D., Assistant Chief of Service

Michael Stillabower, M.D.

Doriel Ward, Director of Research, Academic Affairs

William Weintraub, M.D.
Credentials Committee: *Meets Monthly*

Anthony Cucuzzella, M.D. - Chair

Edward McConnell, M.D. - Vice Chair

Joanne Brice, M.D.

William Dahms, D.O.

Marciana Filippone, M.D.

Allen Friedland, M.D.

Donald Hayes, M.D.

Anand Panwalker, M.D.

Ehsanur Rahman, M.D.

R. Bradley Slease, M.D.

Education Committee: *Meets Monthly*

Brian Aboff, M.D. - Chair

Program Director, Internal Medicine & Transitional Year, Associate Chair, Education

Frank Beardell, M.D., Hematology

Kunal Bhaghat, M.D., Christiana Medical Group, P.A.

Matthew Burday, M.D., Associate Program Director and Competency Assessment

Jeff Cicone, M.D., Nephrology

Virginia Collier, M.D., Hugh J. Sharp, Jr. Chair of Medicine, ex officio

Patricia Curtin, M.D., Geriatrics
Joseph Deutsch, M.D., Associate Program Director, Inpatient Medicine

John Donnelly, M.D., Associate Program Director, Ambulatory Medicine

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

Ripu Hundal, M.D., Endocrinology

John Kelly, M.D., Cardiology

Stephanie Lee, M.D., Infectious Disease

Amy Patrick, M.D., Gastroenterology

Badrish Patel, M.D., Critical Care Medicine

Shakaib Qureshi, M.D., Rheumatology

Tuhina Raman, M.D., Pulmonary

Heather Ragozine-Bush, M.D., Assistant Chief of Service

Jim Ruether, M.D., Hospital Medicine

Tabassum Salam, M.D., Associate Program Director, Curriculum Development

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

Jason Silverstein, D.O., Neurology

Julie Silverstein, M.D., Section Chief, General Internal Medicine and Associate Chair, Ambulatory Medicine

Pamela Simpson, M.D., Oncology
Nominating Committee: *Meets Once Every Two Years*

James Ruether, M.D. – Chair
Valerie West, M.D.
Reynold Agard, M.D.
James Loughran, M.D.

Professional Excellence Committee: *Meets Monthly*

Anand Panwalker, M.D. – Chair
Kunal Bhagat, M.D., Christiana Care Medical Group, P.A.
Kambiz Butt, M.D., IPC Hospitalists of Delaware
John Donnelly, M.D., Medicine Faculty
Robert Dressler, M.D., Medicine Vice Chair
Wes Emmons, M.D., Infectious Disease
Malik Gilani, M.D., Community GIM
Vandana Long, M.D., Gastroenterology
Elizabeth Muth, M.D., Christiana Care Hospitalist Partners
Badrish Patel, M.D., Pulmonary & Critical Care Medicine
Heather Ragozine-Bush, M.D., Assistant Chief of Service
Physician & Nurse Ambassadors 2012

Physician and Nurse Ambassadors exemplify "the very best" performers on their side of the physician-nurse relationship. Nurses are nominated and selected by their physician colleagues and vice versa. Physician and Nurse Ambassadors promote excellence in patient care while fostering a collegial and supportive working environment structured on evidence-based clinical excellence, patient satisfaction and shared governance. They are department members in good standing, highly visible on the units and frequently caught practicing Christiana Care core values.

2012 Physician Ambassadors
Tony Bianchetta, M.D. – WHHC Pediatrics Program

David Biggs, M.D. – 6B Oncology

Kambiz Butt, M.D. – 5B Medical

Juan Maria Cabrera, M.D. – 6A ACE unit and EAU

William Chasanov, D.O. – CDU and 5D Medical

Patricia Curtin, M.D. – WISH program

Joseph Deutsch, M.D. – WHHC Adult Medicine Office

Kelly Eschbach, M.D. – Wilmington Hospital Rehab

Mathodi Faisal, M.D. – Hemodialysis

Marciana Filippone, M.D. – GI Lab

Matthew Grove, M.D. – Wilmington Intensive Care Unit

Timothy Hennessy, M.D. – 4 North & 4W, Wilmington Hospital

Roger Kerzner, M.D. – EP Lab

Azbar Khan, M.D. – 5 North, Wilmington Hospital

Vinod Kripalu, M.D. – 6E Medical

Michael Lankiewicz, M.D. – Bone Marrow Transplant Unit

Gilbert Leidig, M.D. – Cath Lab

James Loughran, M.D. – Joint Replacement Center
Jomy Mathew, M.D. – 5C Medical
Michael McCurdy, M.D. – eCare
Brooke Mobley, M.D. – MICU
Lawrence Narun, M.D. – 5E Heart Failure
Joseph Pennington, M.D. – HVIS Prep and Holding
James Ruether, M.D. – 5A Medical
Mitchell Saltzberg, M.D. – CICU
Ragu Sanjeev, M.D. – 3D Pulmonary Stepdown
Julie Silverstein, M.D. – Internal Medicine

2012 Nurse Ambassadors
Constance Absher, RN – 6B Oncology
Patti Allegretto, RN – WHHC Adult Medicine Office
Mellissa Craig, RN – 6A Medical
Francine Dominelli, RN – GI Lab
Gregory Fisher, RN – 5C Medical
Kerry Fulton, RN – 5A Medical
Joanne Garcia, RN – WICU
Margaret Greenfield, RN – CICU
Caroline Harkins, RN – Wilmington Hospital ACE Unit
Katie Heller, RN - 4N & 4W, Wilmington Hospital
Jennifer Hemple, RN – 6C
Sarah Hinkle, RN – MICU
Katherine King, RN – Wilmington Rehab
Lorraine Lockard, RN – 5D Medical
Amanda McGrady, RN – 5B Medical
Megan Merrill, RN – 5 North, Wilmington
Jean Niziolek, RN – WHHC Adult Medicine Office
Christopher Otto, RN – 5E Heart Failure
Kendall Scott, RN – EAU
Eva Smith, RN – 6E Medical
Lisa Wallace, RN – WHHC Internal Medicine Faculty Practice
Desiree Wilson, RN – CDU
John Wood, RN – Hemodialysis
Kerri Zippe, RN - eCare
Welcome New Physicians

We welcomed 35 new physicians to the Department in FY2012 (through July 30, 2012).

**Medicine/Cardiology**

Andra M. Popescu, M.D.,
Kamen Cardiology

Vincent Varghese, D.O., Christiana Care Heart & Vascular Clinic

Sandra A. Weiss, M.D., Christiana Care Cardiology Consultants

**Medicine/Dermatology**

Dawn E. Hirokawa, M.D., MPH, Christiana Medical Group, P.A.

**Medicine/Endocrinology**

Eyob M. Makonnen, MD, PHM, Christiana Care Endocrinology Specialists

**Medicine/Gastroenterology**

Christine M. Herdman, M.D., Mid-Atlantic GI Consultants

**Medicine/Infectious Disease**

William P. Mazur, M.D., Christiana Care HIV Community Program

**Medicine/Internal Medicine**

Courtney D. Ackerman, M.D., Consulting Internist

Mohammed Ali, M.D., IPC Hospitalists of Delaware

Roy Altit, M.D., Consulting Internist

Anuradha Amara, M.D., IPC Hospitalists of Delaware
Efua Asamoah-Odei, M.D., Christiana Care Hospitalist Partners

Deepthi K. Bommadevara, M.D., MPH, Christiana Medical Group, P.A.

Kathleen F. Eldridge, M.D., Christiana Care Hospitalist Partners

Ajeetpal S. Hans, M.D., Christiana Care Hospitalist Partners

Farman U. Khan, M.D., Christiana Medical Group, P.A.

Sharath Kharidi, M.D., Christiana Care Hospitalist Partners

Awele N. Maduka-Ezeh, M.D., MPH, Christiana Care Hospitalist Partners

Stefan V. Neagu, M.D., Christiana Medical Group, P.A.

Sajid A. Noor, D.O., IPC Hospitalists of Delaware

Lauren E. Salmon, D.O., Christiana Care Hospitalist Partners

Camille N. Upchurch, M.D., Christiana Care Hospitalist Partners

Jessica A. White, M.D., Christiana Care Hospitalist Partners

**Medicine/Medicine Pediatrics**

Samantha A. DeCouto, DO., Medical Group/Christiana Care

Roshni T. Guerry, M.D., Christiana Care Hospitalist Partners

**Medicine/Neurology**

Jonathan M. Raser-Schramm, MD, PhD., Christiana Care Neurology Specialists

**Medicine/Nuclear Medicine**

Erin C. Grady, M.D., Nuclear Medicine Physicians PA

**Medicine/Pulmonary & Critical Care**

Christa Fistler, M.D., Christiana Care Pulmonary Associates
Mithil J. Gajera, M.D., Christiana Care Pulmonary Associates

Michael T. Vest, D.O., Christiana Care Pulmonary Associates

**Medicine/Renal & Hypertensive Diseases**

Piyaporn Apivatanagul, M.D., Nephrology Associates

Manthodi Faisal, M.D., Nephrology Associates

Dhruval H. Patel, M.D., Nephrology Consultants, PA

**Medicine/Rheumatology**

David P. Michel, M.D., Medical Group/Christiana Care

Eric M. Russell, D. O., Medical Group/Christiana Care

**Best Wishes to Our Retiring Physicians**

Two physicians retired from the Department in FY 2012.

**Medicine/Internal Medicine**

Bruce Turner, M.D., Originally appointed on August 27, 1978; Retired on September 30, 2011.

**Medicine/Nephrology**

Joseph A. Kuhn, M.D., Originally appointed on May 22, 1978; Retired on June 30, 2012. Dr. Kuhn was awarded Honorary status in recognition of his years of service to the Department of Medicine and Christiana Care as Section Chief, Renal & Hypertensive Disease from 1987-1999.