Department of Medicine

Featuring key facts and figures from the 2012-2013 fiscal year and selected honors and accomplishments, publications, presentations, appointments and committee memberships.

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Welcome New Physicians

Best wishes to our retired physicians

Medical Critical Care Year-End Review
Chair's Message

Medicine is leading the way at Christiana Care in the delivery of high quality, value-based care across the continuum. We recognize that as we travel this path, partnership and collaboration are necessary. We are committed to engaging in and learning from all of our colleagues, across disciplines and departments, who participate in the care of patients in the Medicine Service Line.

Highlights of our accomplishments, reported here for FY13, illustrate the many ways Medicine is working to achieve our goals. Our efforts continue to earn recognition nationally and at home.

I am proud to commend the Internal Medicine Faculty Practice and the Adult Medicine Office, in conjunction with the Wilmington Health Center Pediatrics Practice, for earning certification as a multisite, Level 2 Patient-Centered Medical Home (PCMH). This designation from the National Committee for Quality Assurance (NCQA) makes our Wilmington Health Center internal medicine and pediatrics practices the first certified multicenter PCMH in Delaware. The result of outstanding teamwork by the residents, faculty and staff of the three offices, the designation of PCMH proves that we are truly providing comprehensive, coordinated care to our patients. What a phenomenal achievement!

For the fifth year in row, according to U.S. News and World Report, Christiana Care ranks among the nation’s best hospitals; one of just 147 to make the list among some nearly 5,000 evaluated. We are recognized as a high performing hospital in 11 adult specialties, including the Medicine specialties of Cancer, Cardiology, Diabetes and Endocrinology, Gastroenterology, Geriatrics, Nephrology, Neurology, and Pulmonary Medicine. We also earned an “A” in hospital safety from the Leapfrog Group for the third consecutive time.

Christiana Care’s “Bridging the Divide” model for coordinated, cost-effective care for patients with chronic heart disease was one of only 107 projects chosen to receive a prestigious $10 million Centers for Medicare & Medicaid Innovation Grant. We have earned commendation from the American Heart Association and American Stroke Association for implementing a higher standard of care for heart disease and stroke. Recognition continues for our many quality and safety initiatives, including Project Engage, eCare, Alcohol Withdrawal Risk Evaluation and Treatment guidelines, unit-based clinical leadership models and more.

To facilitate innovation that will result in transformation, we continue to encourage participation in structured educational courses that offer residents, faculty and interdisciplinary staff opportunities to collaborate for Juran Green Belt certification and training in Lean/Six Sigma methodologies and leadership. In addition, we have begun discussions about how Medicine can incorporate “Choosing Wisely” concepts into our care.
Our highly successful Advanced Safety and Quality Performance Improvement Program has welcomed a second class of learners who want to become more effective teachers of patient safety and quality principles and stronger leaders of change. The course was developed internally by an interdisciplinary team in collaboration with the Christiana Care Value Institute Academy. Members of the first class are already applying the principles of patient safety and quality to projects involving multiple aspects of patient care.

Our residency programs remain strong, supported by nationally known educators who serve as faculty and mentors. Fellowship programs in Cardiology and Nephrology are flourishing. The work of our administrative fellow in Patient Safety and Quality was chosen for presentation at the annual meeting of the American College of Medical Quality last winter.

We continue not only as a Clinical Campus for Jefferson Medical College, but we also train students from medical schools around the country. Research and scholarly activities are supporting our vision and goals in multiple ways. Congratulations to all of our teaching and research award winners, our Focus on Excellence Award winners and all those who have represented the Department and themselves with distinction on both local and national levels of leadership and service.

As always, heartfelt thanks to the many physicians in the Department and our nursing colleagues who have contributed countless hours of service to Christiana Care in support of our mission. Thanks also to the interdepartmental services on which Christiana Care Medicine relies as we 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 approximately 441 attending physicians oversee 595 of the 1,222 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.

**Graphs**

FY13 Medicine accounted for 48 percent of all inpatient discharges and 32 percent of all OBS discharges.

Meet our **Leadership Team and Section Chiefs**

Meet our **New Physicians**
Clinical Transformation

Christiana Care Medicine is building a culture of continuous improvement in quality and patient safety, driven by habitual excellence and supported by value. We are developing and supporting champions of performance improvement across disciplines and departments. Medicine physicians, nurses, care managers, social workers, informational technology specialists, operational excellence leaders and our experts in Patient Safety and Quality all serve as members of our high performing teams.

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

1. **Synchronized Wilmington Admission Team (SWAT)** is improving patient outcomes, enabling effective communication and care coordination, while reducing hospital length of stay (LOS). This model for interdisciplinary care brings to the patient’s bedside in the Emergency Department an experienced provider(s), clinical pharmacist, nurse, social worker and case manager, students and residents, to admit patients to a Medicine unit. Collaboration among team members ensures that the patient is admitted to the correct level of care and that evidence-based, safe care, that includes medication reconciliation, prophylaxis for hospital acquired blood clots, and discharge care planning, is provided consistently from the beginning of a patient’s care.

   SWAT admissions for more than 1,000 patients at Wilmington Hospital have reduced LOS by nearly 0.5 days, lowered readmission rates, and cut the number of Rapid Response Team calls to less than one percent in the 24-hours post admission. SWAT was launched at Christiana Hospital with our two hospitalist groups and already is credited with reducing LOS by 0.33 days and reducing readmissions by 4 percent.

2. **eCare’s partnership with Chicago-based Advocate Health Care** has enhanced critical care services in our eCare tele-ICU program. Intensivists from the two health systems are sharing responsibilities for monitoring critical care patients on both the Christiana and Wilmington campuses, via eCare’s remote capabilities. The collaboration promotes exchange of ideas about critical care protocols and best practices to benefit the care of critically ill patients at both institutions.

3. **Project Engage connects with ED patients.** Medicine’s rapidly expanding substance abuse program, Project Engage, is now reaching out to patients in the Emergency Department at both Wilmington and
Christiana hospitals. Project Engage puts specially trained intervention counselors onsite to work one-on-one with patients addicted to drugs or alcohol while they are in the hospital and to link them with resources in the community that can put them on the path to wellness. As many as 30 percent of participants follow through with treatment, a significant increase in what has been seen with previous models.

4. Delaware's first multisite Patient-Centered Medical Home, consisting of the Wilmington Hospital Center's Adult Medicine Office, the Internal Medicine Faculty practice, and the Pediatrics practice, is Level 2 certified by the National Committee for Quality Assurance (NCQA). A patient-centered medical home is a model of care that emphasizes care coordination and communication, transforming primary care into what patients want and deserve as active participants in their own health. Physician-led care teams provide and coordinate all aspects of preventive, acute and chronic care needs using evidence-based guidelines. Medical homes meet the benchmarks of patient-centered care, including open scheduling, expanded hours and appropriate use of proven health information systems. Medical home standards are aligned with those established by the American College of Physicians, the American Academy of Family Physicians, the American Academy of Pediatrics and the American Osteopathic Association.

5. “Choosing Wisely” promotes conversations between physicians and patients to choose the right care for the right patient at the right time. Restricting overuse of health care resources is an important aspect of providing safer, high quality care for the greatest value. In line with the American Board of Internal Medicine Foundation’s “Choosing Wisely,” campaign, the Department of Medicine is actively seeking ways to empower providers and patients to choose care that is supported by evidence; that does not duplicate other tests or procedures already performed; that will not harm the patient; and that is truly necessary. Here are examples underway.

- **Telemetry for the right patient at the right time** reflects a commitment to reduce use of non-intensive care cardiac telemetry for appropriate patients. Following national guidelines endorsed by the American Heart Association, Christiana Care’s new telemetry order set through PowerChart predetermines the duration of cardiac telemetry according to clinical indications and provides a checklist to facilitate the bedside nurse’s discontinuation of telemetry in stable clinical conditions. In February 2013 the Society of Hospital Medicine included non-intensive care cardiac telemetry as one of the five frequently ordered tests or procedures to merit scrutiny under Choosing Wisely guidelines. The ABIM has requested that Christiana Care Medicine physician leadership share the results of our Care’s redesign initiative, launched in September 2012.

- **Improving the value of treating Community Acquired Pneumonia** is a pilot project championed by Medicine and Information Technology. Efforts are underway to develop a dashboard that measures adherence to clinical guidelines and looks at outcomes across the continuum of care for Community Acquired Pneumonia (CAP). The Department of Medicine has identified CAP as an area of significant opportunity to adopt care standards, reduce variation in care delivery, and improve the quality and safety of care provided; this may also decrease unnecessary costs.
6. Unit-Based Value Improvement Teams (UBVIT) represent the next level in patient-centered, value-based care delivery. Evolved from our unit-based clinical leadership model, these teams form the foundation for numerous transformative and award winning Focus on Excellence projects. UBVITs are multidisciplinary and include nurses, patient care techs, social workers, pharmacists, and environmental services personnel, who are led by a unit-based medical director and a nurse manager. The team works with value improvement associates who have received performance improvement training from the Departments of Operational Excellence and Quality and Patient Safety. Value improvement projects may be unit-specific or much broader “collaboratives,” that feature multiple units working together on projects that potentially could impact the entire Medicine Service Line or health system. The hard work of these teams has raised the bar on providing value-based care on our patient care units, as evidenced by an improvement from C to B+ in the Medicine Service Line Value Scores over the past 15 months.

Here are two examples of Medicine collaboratives underway:

- **Patient (and family) Centered Interdisciplinary Rounds (PCR)** have improved quality and safety, efficiency and physician/nurse communication on multiple units at Christiana Hospital and in the Wilmington Hospital ICU. Physician led PCRs occur daily at the patient’s bedside and include the family, bedside nurse, charge nurse, clinical pharmacist, respiratory therapist, case manager, social worker and residents. The entire team participates in the discussion, which encompasses the plan of care and preparations to meet the target discharge date, enhancing safe transitions out of the hospital. Using Institute for Healthcare Improvement guidelines, the team is developing mechanisms for incorporating key components of interdisciplinary rounding with essential elements of teamwork, SBAR (Situation Background Assessment Recommendation) communication and data collection to track outcomes.

- **Medicine’s Readmission Collaborative** is facilitating safe post-hospital transitions of care and reducing 30-day readmission rates. Unit-based value improvement teams at Christiana and Wilmington hospitals are working to incorporate consistent use of the 30-day readmission list during daily rounds to increase recognition of patients at high-risk for readmission and increase appropriate referrals to home health services and to Independence at Home care management.

7. Juran Green Belts leverage “lean process” design skills to drive system-wide improvements that impact health care efficiency and affordability. The Christiana Care Value Institute’s Center for Operational Excellence has partnered with the Juran Institute to offer onsite training and mentorship to system change leaders. The program is co-led by more than a dozen service line leaders across the
organization. By the close of 2013 48 “Green Belt” certified operational excellence practitioners are projected to be embedded in these service lines.

The Juran Green Belt certification program teaches leaders and teams how to leverage improvement science using Lean/Six Sigma methodology for rapid cycle improvements to work smarter and speed up transformation. Medicine’s Juran/Lean Six Sigma initiatives include:

- **Reduce ALOS for COPD by 10 percent.** Standardizing and improving the process of care for patients with chronic obstructive pulmonary disorder (COPD) on 3D Pulmonary Stepdown will not only reduce associated hospital LOS but will also have secondary benefits of improving transitions of care measures, such as appropriate outpatient care placement and readmission rates.

- **Reduce PRBC transfusions not meeting clinical practice guidelines by 50 percent.** Closer adherence to clinical practice guidelines will reduce the number of unnecessary Packed Red Blood Cell (PRBC) transfusions in the MICU. PRBC transfusions may be indicated for patients with acute coronary syndrome, acute hemorrhage or as early goal directed therapy in septic shock. However, health risks associated with PRBC transfusions include infection, multi-organ failure, SIRS, increased ICU and hospital LOS and mortality. Limiting PRBC transfusions to when clinically indicated will improve value-added care for ICU patients and reduce unnecessary costs.

8. **Advanced Quality and Safety Improvement Science Program** builds performance improvement skill sets. Medicine’s train-the-trainer initiative graduated its inaugural class in May 2013. An interdisciplinary team participating in the National Initiative III of the Alliance of Academic Medical Centers developed AQSISP in collaboration with the Christiana Care Value Institute Academy. During a nine-month curriculum, 11 participants focused on becoming effective teachers and stronger leaders to support Medicine’s efforts to embed quality and patient safety across the continuum of physician development and throughout the patient care setting. The course combined self-directed, didactic and experimental learning with coaching and mentoring among learners, faculty and course directors. Important to the overall learning experience was the application of skills through performance improvement projects. AQSISP faculty welcomed a new class of learners in August 2013. [Read more](#) about the course offerings.
Research

Medicine is committed to conducting research and scholarly activity that will improve the quality, safety, and value of care delivered to our patients. We have formalized our RSA process, under the direction of Associate Chair of Research Daniel Elliott, M.D., MSCE, to strengthen our vision of becoming a national model for independent academic medical centers. Our goal is to develop a “balanced portfolio” of well-designed research projects that supports our mission and fosters the critical thinking that leads to innovation.

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

Physician investigators

Medicine physicians pursue a broad array of research and scholarly activity as investigators in federal or state supported, industry sponsored, or locally initiated studies, as well as with the Christiana Care Center for Outcomes Research (CCOR). Physician investigators serve as mentors to fellows, residents and medical students who pursue their own research interests in a variety of specialties. Many of these projects have earned national awards and have provided learners with the opportunity to present on national and international platforms.

Clinical research nurses are essential team members, who have comprehensive knowledge of governmental and institutional 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.
Selected Medicine Research Projects

The table provides a representative snapshot of current research and scholarly projects in the Department of Medicine.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Internal / Investigator Initiated</th>
<th>External</th>
<th>Totals by Specialty</th>
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<tbody>
<tr>
<td></td>
<td>*HCD/PI/QI</td>
<td>Faculty</td>
<td>Resident</td>
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<tr>
<td>Addiction Medicine</td>
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<td>3</td>
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<td>Critical Care</td>
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<td>-</td>
<td>1</td>
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<td>Diabetes/Metabolic</td>
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<td>Hospitalists</td>
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<tr>
<td>Infectious Disease</td>
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</tr>
<tr>
<td>Nephrology</td>
<td>-</td>
<td>1</td>
<td>-</td>
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<tr>
<td>Primary Care/Pop. Health</td>
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<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>-</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Other / Unclassified</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Total Active Projects</td>
<td>2</td>
<td>23</td>
<td>8</td>
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</table>

*health care delivery/performance improvement/quality improvement*
Research Highlights

**Bridging the Divide - CMS Innovation Grant**

Christiana Care is one of only 107 projects chosen last year to receive a Center for Medicare and Medicaid Services (CMS) Innovation Grant, aimed at providing better health and better healthcare at lower cost.

Under “Bridging the Divide” partnerships with the University of Delaware, the American College of Cardiology, our cardiology practices and software consultants have facilitated the development of a “Patient Care Hub” that will be supported by a state-of-the-art information system. The hub went live in April and more than 600 patients are now receiving care through the program.

**Gowns and Gloves study to reduce contamination**

In partnership with Infection Prevention, Christiana Care’s Surgical Critical Complex was one of 20 ICUs nationwide participating in the multicenter, randomized, Benefits of Universal Gown and Glove (BUGG) Study. Results showed that gowning and gloving for all patient care activities reduced contamination of health care worker’s clothing by 70 percent, compared to standard practices. Health care worker clothing contamination may be one mechanism which transfers disease-causing agents between patients. The study suggests that gowns provide additional benefit to gloves when used universally. Marci Drees, M.D., MS, FACP, DTMH, Christiana Care’s infection prevention officer and hospital epidemiologist, was a principal investigator on the study, funded by Agency for Healthcare Research and Quality.

**Does physician workload impact clinical outcomes?**

A retrospective study of more than 15,000 patients admitted to the care of hospitalists at Christiana Hospital over a three year period (2/1/08-1/1/11) found that higher hospitalist workload is associated with longer hospital length of stay (LOS), but that association varies across levels of hospital occupancy. Although hospitalists often face demands for increased productivity, the study implies that emphasis on hospitalist productivity may conflict with hospital goals for efficiency. Findings suggest that hospitals and hospitalists should develop incentive structures and subsidies that incorporate shared productivity, efficiency and quality goals to balance needs during times of fluctuations in patient volumes. Associate Chair of Research Daniel Elliott, M.D., MSCE, FACP, FAAP, co-director, Ambulatory Medicine Research and Clinical Outcomes, was the principal investigator, collaborating with Robert Young, M.D., MS, (Northwestern University Feinberg School of Medicine), Paul Kolm, Ph.D., Ruth Aguiar, Joanne Brice, M.D., the Christiana Medical Group and the Center for Outcomes Research.
Education

Residency Programs

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

Christiana Care trains residents to fulfill our mission to provide medical treatment that is safe and effective, timely and reliable, patient-centered and value-based. Teaching value is an integral part of our educational curriculum and 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 2012-2013

<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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<tr>
<td>Emergency Medicine/Internal Medicine</td>
<td>15</td>
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<td>Transitional Year</td>
<td>9</td>
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<tr>
<td>Direct Pathway</td>
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<tr>
<td><strong>TOTAL Residents</strong></td>
<td><strong>82</strong></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 unique, nationally recognized curriculum allows residents to focus on their outpatient rotations and ambulatory electives without competition from the demands of inpatient care. Our teaching practices also reflect our status as a Level II patient-centered medical home (PCMH) model. Four resident representatives from the Wilmington Hospital Clinic were on the teams that submitted applications for PCMH certification.

In our program, residents learn to become effective partners on multidisciplinary teams, hone their “hands on” skills in a state-of-the-art simulation center, and practice the elements of performance improvement in an award winning, quality improvement/patient safety course. Unique optional training for residents includes a leadership track, global health studies, and combined residency training with an MBA and other master’s degree programs in cooperation with the near-by University of Delaware.

A newly formalized research and scholarly activity track places the clinical experience into the broader context of population health and advances the resident’s investigational interests in line with the Department’s mission and goals. Our success in imbedding quality and safety into the residency curriculum prepares residents not only to practice the science of medicine with the necessary skills for patient care but also with the skills to improve both the science and the practice of medicine.

Selected Quality/Process Improvement Projects with Residents Through the Adult Medicine Office

<table>
<thead>
<tr>
<th>Project</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Screening in Primary Care</td>
<td>Zepeda C, Prater C.</td>
</tr>
<tr>
<td>Mini-MBA Program</td>
<td>Patel V, Sprott C.</td>
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<tr>
<td>Patient-Centered Medical Home</td>
<td>Billig-Figura K. Divatia H.</td>
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<tr>
<td>Project Name</td>
<td>Authors</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
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<tr>
<td>Oral Fluoride Varnish</td>
<td>Chen D, Daya S, Uzelac G.</td>
</tr>
<tr>
<td>Peds Development Screening</td>
<td>Silverman B, McCarther M, Patel V, Gaukler E.</td>
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<tr>
<td>Colorectal Assistance Screening Program</td>
<td>Prendergast C, Troiano M, Guarino S, Gauntt J.</td>
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<tr>
<td>Telemetry Transformation Project</td>
<td>Dryer M.</td>
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<td>Good Catch Resident Reporting</td>
<td>Dryer M.</td>
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<tr>
<td>DOM Case Review</td>
<td>Dryer M.</td>
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<tr>
<td>Reducing Unnecessary Transfusions in the MICU</td>
<td>Choudhry U, Slack D.</td>
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<td>MICU and Floor E-Sign-out System</td>
<td>Slack D, Ragozine-Bush H.</td>
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<td>MICU Handwashing Compliance</td>
<td>Slack D, Ragozine-Bush H, Deitchman A.</td>
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<td>Others: Hypertension Management, Diabetes</td>
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<td>Management and Breast Cancer Screening</td>
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<td>Achieving Competency Today (ACT) Presentations</td>
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<tr>
<td><strong>Time To Call for Patient Satisfaction</strong></td>
<td>Guarino S, Hamid SA.</td>
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<td><strong>Journey to Family Medicine Center</strong></td>
<td>Gross M, Baig MK.</td>
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<td><strong>The Color Purple</strong></td>
<td>Lammly AS, Patel V.</td>
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<td><strong>Never TMI Provider to Provider Transfer from MICU Initiative</strong></td>
<td>Choudhry U, Divatia HR, Maru P.</td>
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<td><strong>Putting the CAP on Antibiotics: Antimicrobial Stewardship at CCHS</strong></td>
<td>Bauza A, Douglas L, John J.</td>
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<tr>
<td><strong>Daily Labs: Draw What Matters</strong></td>
<td>Williams C, Dryer M.</td>
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<tr>
<td><strong>Join the MO2vement</strong></td>
<td>Chen YG, Hurst AD, Malodiya A, Uzelac G.</td>
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<tr>
<td><strong>More Than Just a Number: Addressing Effective Nurse-Physician Communication</strong></td>
<td>Chen D, Connors D, Fasanmi F, Okafor A.</td>
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</table>
World-class medicine, close to home
As many as 40 percent of Internal Medicine graduates choose to continue their career paths in Delaware. The chart below shows next steps for this year’s 26 graduating residents from the Internal Medicine, Medicine-Pediatrics and Emergency Medicine/Internal Medicine programs.

Resident Pathways After Graduation
2012-2013

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

Several of our Medicine-Pediatrics leaders advocate on behalf of their specialty in both local and national leadership positions. Med-Peds Residency Program Director and Section Chief Allen Friedland, M.D., FACP, FAAP, is chair of the American Academy of Pediatrics (AAP) Med-Peds Section, the second largest AAP section with over 2,000 members.

Highlights of our Med-Peds residency curriculum include the opportunity to train in our nationally recognized Transitions Care Practice for young adults with complex medical conditions and special health needs; our popular mini MBA and mini MPH series; global health initiative; and community health programs through area schools and neighborhoods.

Most graduates of our Med-Peds program work with family medicine physicians, internists and pediatricians in multi-specialty practices. Many enjoy teaching and remain associated with teaching
institutions. Increasingly, Med-Peds graduates choose to become hospitalists or work internationally, while others pursue subspecialty training in internal medicine, pediatrics or combined fellowships.

**Fellowships**

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

![Image](image-url)

*Christiana Care Medicine offers an Administrative Fellowship in Quality and Patient Safety as part of its clinical transformation efforts.*

**Administrative Fellowship in Quality and Patient Safety**

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

A capstone process improvement project is one highlight of the fellowship experience. The project completed by our 2012-2013 fellow, Marylou Dryer, M.D, CMQ, *Resident Good Catch Reporting: Increasing Participation through Education, Tiered Recognition and Closing the Feedback*, disseminated...
the CCHS Good Catch program to medicine residents and faculty. The project won “Best Poster” at the American College of Medical Quality annual meeting in February 2013.

Good Catch encourages all providers to report and correct unsafe situations that have the potential to cause harm. The program supports our five-year goal to become a national leader in quality and safety by achieving top decile performance in the AHRQ Survey on Patient Safety Culture.

Due to Dr. Dryer’s project, in FY13, 28 percent of residents submitted at least one “good catch” report. The collective resident effort now averages six new reports each month and draws attention to potential areas for improvement in both the inpatient and outpatient settings.

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

Five general cardiology fellows and one interventional cardiology fellow graduated from the program this year, and successfully passed the following board exams: ABIM Cardiovascular Disease, NBE Echocardiography, CBNC Nuclear Cardiology, and ABVM Vascular Medicine. The program matched an incoming class of four new trainees, including two graduating residents from Christiana Care residency training programs. The program also welcomed an incoming fellow into the newly created, ACGME accredited, Heart Failure Fellowship program.

**Nephrology Fellowship**

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

**Clinical Campus**

Christiana Care has served as a Clinical Campus for Jefferson Medical College, since 2010. Students in their third and, subsequently, fourth years can choose to do all their clinical rotations with us.

**Medical Students**

The Department of Medicine is an integral part of the Jefferson Medical College student program. In FY13, 38 “Introduction to Medicine” second-year students, 71 third-year students, and 73 fourth-year students rotated through the Department. In addition to Jefferson, students from seven other medical schools throughout the United States completed fourth-year medicine elective rotations.

Fourth year students compete in the annual Delaware American College of Physicians (ACP) poster and abstracts competition. Students have the opportunity to prepare a poster/abstract on one of their patient cases for the competition. We are proud that the ACP has continued to select the work of these students for presentation at its annual meeting.
Third-year students from Jefferson Medical College are assigned to Internal Medicine at Christiana Hospital. Students can also choose to be part of the Clinical Campus and do all their third and fourth year rotations at Christiana Care.

Christiana Care also hosts third-year medical students from Philadelphia College of Osteopathic Medicine who spend time rotating through Cardiology and other specialties through the year.

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

**Undergraduate Medical Scholars Program**

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

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### Cardiology — directed by the Heart and Vascular Service Line

Christiana Care cardiologists and vascular specialists are among the nation's leading experts in the treatment and prevention of heart disease, stroke and other diseases that affect the heart and blood vessels. The Center for Heart & Vascular Health is one of the most technologically advanced cardiovascular care centers in the United States, earning the highest rating for heart surgery from the Society of Thoracic Surgeons and the American College of Cardiology Foundation’s Gold Performance Achievement Award for 2013.

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

### FY13 Highlights:

**Value Improvement Teams (VITs) aim high**

We are raising the bar for successful heart attack outcomes with the acute myocardial infarction (AMI) team, led by Brian Sarter, M.D., and Henry Weiner, M.D. AMI is one of the key diagnoses charted for quality outcomes and value-based purchasing by the Centers for Medicare and Medicaid Services (CMS).

The AMI Value team has addressed all facets of care and data collection including: care in the ED (i.e., emergency angioplasty within 90 minutes of arrival); response time by an interventional cardiologist; appropriate coding; and streamlining/coordinating discharge medications. These efforts have improved outcome metrics and raised our Christiana Care Value Scorecard from B to A-. Targeted measures for the coming year include mortality, length of stay, and direct costs.
Similarly, the Heart Failure team, led by Mitch Saltzberg, M.D., delivered dramatic improvements, raising its Value Score from C+ to A- in one year. CMS core measure compliance improved to the 95th percentile and remained at these levels month to month. In addition, the mortality rate for heart failure patients dropped by greater than 70 percent, while hospital length of stay and readmission rates significantly improved.

**Short-Stay Unit opens**
Cardiology’s new Short Stay Unit opened in March, supervised by Medical Director Lawrence Narun, M.D. This 10-bed unit is dedicated to providing coordinated, streamlined care for patients experiencing chest pain or other cardiac diagnoses, while optimizing both quality and length of stay performance.

**LVAD program qualifies for Joint Commission certification**
Cardiac teams performed the tenth implant of a left ventricular assist device (LVAD) to qualify for Joint Commission VAD Certification, with a site visit scheduled for July 2013. Christiana Care’s LVAD program is the only one of its kind in the state of Delaware. Short of a heart transplant, this mechanical heart pump implanted inside or connected outside of the body, offers the most advanced technology for the treatment of heart failure with excellent outcomes. More than 120 patients were referred to the program for evaluation last year.

**Setting the standard for tomorrow’s heart medicine**
Cardiovascular research includes both investigator initiated studies as well as multiple major trials of 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 FY13, approximately 180 new patients joined more than 170 in follow-up, participating in studies that included the following:

- **Antiplatelet drug studies.** Cardiology has contributed to three different studies for Cangrelor, an experimental drug shown to be significantly more effective at preventing blood clots and reducing heart attacks and stroke (by up to 22 percent) during coronary stenting compared to the anti-clotting agent now typically used. The most recent phase 3 trial took place at the Center for Heart & Vascular Health, one of 153 centers worldwide. PI: Stillabower M.
- **CUPID Phase 2b.** Christiana Care is part of an elite group conducting groundbreaking studies to see if gene replacement therapy can dramatically slow the progression of heart failure. This is the largest study of its kind and the first-ever cardiac genetic trial in Delaware. PIs: Saltzberg M. and Hopkins J.
- **ROSE HF and others.** Christiana Care was the leading enroller in our region and participates in one of only nine research centers nationally involved in these NIH Heart Failure Network 2.0 trials. Saltzberg M.
- **GLORIA.** Studying anticoagulation strategies in patients with atrial fibrillation. PI: Leidig G.
- **ABSORB III.** Testing a drug-eluting bioresorbable stent to treat patient with coronary artery disease. Qureshi W and Weiss SA.
- **IN-PACT.** Testing a drug-eluting balloon to treat peripheral artery disease. Christiana Care was the top enroller. Qureshi W.
- **AnalyzeST.** Evaluation of dynamic monitoring of ST segments for early evidence of acute coronary syndrome events in patients with an implantable cardioverter defibrillator (ICD) and
the Multipoint Pacing trial evaluating the benefit of pacing from multiple poles in the left ventricle. Kerzner R.

- **SPRINT.** Economic analysis of this nine-year, multicenter trial to determine whether lower blood pressure goals cut the risk of heart and kidney diseases, stroke and age-related cognitive decline. PI: Weintraub WS.

### National Cardiac Rehabilitation Registry launched

Christiana Care Cardiac Rehabilitation has partnered with the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) to launch a national Cardiac Rehabilitation (CR) registry. The first of its kind in the U.S., the registry tracks patient outcomes and program performance in meeting evidenced-based goals for secondary prevention of heart and vascular disease. It provides cardiac rehabilitation programs with national outcomes data for benchmarking and demonstrates the positive impact of cardiac rehab on morbidity, mortality, physical function and quality of life for cardiac patients. The registry currently has 537 patients enrolled. Christiana Care, the only program in Delaware participating, has an enrollment rate among the highest at 60 percent, well above the national average of 20 percent.

### Dermatology

**Saving our skins**

Since 1990, Christiana Care and the Academy of Dermatology have conducted free screenings for skin cancer through the Melanoma Monday campaign to help people get diagnosed early, when the disease is highly curable. Patients also are educated on ways to prevent skin cancer. This year, 185 people were screened at the event, held May 22–23 at the Helen F. Graham Cancer Center and staffed by Christiana Care dermatologists and other volunteers, the Delaware Diamond Chapter of the Oncology Nursing Society, Delaware Technical Community College students and the Delaware Chapter of the Academy of Dermatology.

### Endocrinology and Metabolic Diseases

Christiana Care is ranked among America’s best hospitals for the treatment of diabetes and other endocrinologic and metabolic diseases.

**Discovering better treatments**

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

Two new studies are underway:

- A pilot study to evaluate two proteins involved in bone production (*osteoprotegerin* and *undercarboxylated osteocalcin*) and their association with coronary artery calcification in Type 2 Diabetes. Lenhard MJ and Maser RE.
A pilot study to investigate the role of the bone forming protein, osteocalcin, in patients before and after surgical correction of primary hyperparathyroidism, a disease that causes high levels of calcium in the blood that can lead to heart and other health problems. Lenhard MJ and Maser RE.

Gastroenterology

Christiana Care Gastroenterology is ranked among the nation’s top performers providing 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 FY13, GI Labs performed more than 8,000 procedures at Christiana and Wilmington hospitals.

New protocol to treat persistent bacterial infections

Members of the GI and Infectious Disease sections are developing a new, potentially life-saving treatment protocol for recurrent infections caused by the bacterium, Clostridium difficile (C.Diff). Upon protocol approval, within the next year, Christiana Care will become one of only a few centers in the Mid-Atlantic region to offer fecal microbiota transplantation (FMT). Recurrent C. Diff infections and antibiotic treatment can upset the balance of microbial diversity in the intestine. Transplanting stool samples from healthy donors can restore microbial balance and stop the infection from recurring. FMT may be used to treat other gastrointestinal diseases including inflammatory bowel disease, irritable bowel syndrome, chronic constipation and a variety of non-GI disorders.

Managing patients at high risk for GI bleeding

Gastroenterology collaborated with the Emergency Department, Critical Care, Anesthesia and Surgery to implement a hospital wide protocol for the management of patients with high risk GI bleeding requiring emergent intervention. The protocol defines guidelines for care coordination among interdisciplinary providers for the safest, most effective and expeditious care.

GI Lab continues Rapid Process Improvement

The GI Lab at Christiana Hospital is a recognized regional endoscopy referral center, specializing in advanced techniques. In FY13, the lab employed a 90-day Rapid Process Improvement (RPI) cycle to increase “on-time” starts for GI cases, address space constraints and improve patient flow to reduce wait-times.

New Endoscopy Lab opened

In October 2012, as the first Phase of our New Endoscopy Lab, eight prep and recovery bays opened at Christiana Hospital to meet the growing demand for complex GI interventions in our region. Phase II, completed in June 2013, added four new endoscopy procedure rooms. A state-of-the-art ERCP room opens in September along with one additional procedure room, making the suite ready to accommodate all bronchoscopy and advanced pulmonary procedures.

After hours endoscopy pilot

Multidisciplinary collaborations ensure a safe environment for all patients requiring endoscopy
procedures, including those performed in the Operating Room. Approximately 63 percent of endoscopies that previously would have been performed in the Emergency Room are now being done in the Operating Room with Anesthesia support and the assistance of the Endoscopy nurse on call.

**General Internal Medicine**

The section of General Internal Medicine is the largest section in the Department of Medicine. More than 150 internists in the section are committed to providing excellent, coordinated, patient-focused care on our inpatient medicine services, in our offices throughout the hospital system and in the community. Christiana Care has Internal Medicine practices in the Wilmington Health Center (Adult Medicine Office, Transitions Practice and Internal Medicine Faculty Practice), the Annex at Wilmington Hospital (HIV practice) and at various sites in the region (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 is focused on quality and value in providing care to all the communities we serve. Conduits to this effort are the application of continuous performance improvement, enhancement of clinical care and original research. Here are some examples:

- **Level 2 Certification as Delaware’s First Multi-Site Patient-Centered Medical Home,** by the National Committee for Quality Assurance (NCQA) for both the Adult Medicine Office and the Internal Medicine Faculty Practice, in collaboration with the Department of Pediatrics.
- **Advanced Safety and Quality Performance Improvement Program.** Numerous faculty participated in this locally developed, year-long course designed to build skill sets for teachers and leaders of performance improvement, Medicine participants included J. Silverstein, T. Salam, J. Jordan, C. Upchurch, K. Eldridge, R. Singh-Patel, S. Schenck, E. Ewen, A. Patel, J. Deutsch.
- **Performance Improvement.** Multiple clinical areas were targeted, including controlling blood sugar and hypertension, promoting screening mammography and colonoscopy in appropriate populations, and lowering the number of Rapid Response Team calls in the hospital.
- **Simulation.** Exercises for resident and nursing education enhanced teamwork in collaboration with the University of Delaware.
Division of Addiction Medicine

Reaching out with Project Engage
Project Engage, in which recovered addicts and alcoholics serve as peer counselors in the hospital, reached a milestone last fall, counseling its 1,000th hospital patient. Project counselors are now available to provide substance abuse intervention services with patients in the Emergency Departments at both Wilmington and Christiana hospitals, moving the threshold of contact even closer. Read more.

Alcohol withdrawal research draws national interest
Addiction Medicine collaborated with the University of Pennsylvania to show the validity of the AUDIT-PC screening tool to predict alcohol withdrawal in patients and presented their findings at the annual meeting of the Society of General Internal Medicine. The Journal of General Internal Medicine (JGIM) has accepted a manuscript for publication which describes this program.

First Addiction Medicine Symposium a success
Addiction Medicine’s first symposium, “Addressing Substance Use in the Hospital: Building Bridges to Community Treatment,” featured internationally renowned experts at the John H. Ammon Medical Education Center in April 2013. The one-day conference was organized in partnership with Delaware’s Division of Substance Abuse and Mental Health and the National Institute on Drug Abuse’s Clinical Trials Network.

Division of Hospital Medicine

Providers from the Division of Hospital Medicine (DoHM) care for 75 percent of 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 the Medicine Service Line, hospitalists serve as unit-based medical directors on 43 percent of the units, driving up performance improvement metrics and shepherding changes in key areas including length of stay, transitions to post-acute care, VTE prophylaxis, pain management and the use of Clinical Institute Withdrawal Assessment (CIWA) scores to predict alcohol withdrawal.
- Hospitalists actively partner in the performance and evolution of Patient and Family Centered Rounding and serve as the anchors for innovative models of value-added care.
Hospitalists are key to the SWAT (Synchronized Wilmington Admission Team) process that is reducing length of stay, readmission rates and rapid response team (RRT) calls 24-hours post admission. Division members are contributing to the implementation of best practices, teamwork and multidisciplinary collaborations to ensure timely and appropriate admissions from the ED to Medicine Units, as well as facilitating discharges from the Emergency Department for patients who required extra assistance or follow-up in order to ensure safe disposition.

Care co-management is another important hospitalist initiative that is helping to improve care transitions and to standardize and expand the use of unit-based care delivery models. Currently, hospitalists collaborate in the co-management of trauma patients and serve as valuable resources to the trauma team, particularly in terms of medication reconciliation and discharge planning.

Hospitalists research activities
Outcomes research is an important facet of the hospitalists' roles in providing safe, effective, efficient, and value-based care.

- **Trauma co-management project.** A study to assess the impact on LOS, readmissions, etc., of hospitalist participation on the team providing care for trauma patients, including tracking outcomes of interventions such as contact with outpatient providers and “Choosing Wisely” guidance to avoid unnecessary tests or procedures.
- **PCR/PCA “SWAT” study:** Understanding the additive benefits of interdisciplinary patient-centered admissions and rounding across the Medicine Service Line at Christiana Hospital.
- **Nurse Navigator/Transitions of Care.** A study to determine whether the assistance of a nurse navigator in patient care will decrease readmission rates.

Geriatric Medicine

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

Recognized for exemplary elder care

Christiana Care is one of only eight hospitals in the United States to achieve “Exemplar” status for care of the elderly under the NICHE (Nurses Improving Care for Health system Elders) program. Exemplar, the highest of four status levels, recognizes Christiana Care’s “ongoing, high-level dedication to geriatric care and preeminence in the implementation and quality of system-wide interventions and initiatives that demonstrate organizational commitment to the care of older adults,” according to NICHE.
Following NICHE guidelines, Christiana Care established the We Improve Senior Health Program (WISH) in 2001. Under the leadership of program coordinator Denise Lyons, GCNS, and medical director Patricia Curtin, M.D., WISH is a collaborative effort to improve care to senior patients in all settings. The program has trained more than 1,600 health care providers to join the Senior Health Resource Team, serving as unit-based resources for senior care. Specially designated, inpatient Acute Care for the Elderly (ACE) units at Christiana and Wilmington hospitals continue to show good outcomes in terms of LOS, zero restraints, falls, Foley catheter usage, pressure ulcers, and delirium management. There are now 168 Christiana Care nurses who are certified in geriatrics — a 30 percent increase over last year.

Swank Memory Care Center celebrates 2nd anniversary

The Swank Memory Care Center celebrated its second anniversary in April 2013. The Center is the first of its kind in our area. It offers 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. An interdisciplinary team of geriatricians, neurologists, psychiatrists, and a social worker expanded this year to include a nurse practitioner and the support of two additional, part-time geriatricians.

- A new “TGIF” program for early onset dementia, in collaboration with Rehabilitation and the Volunteer Department, promises to be a unique and welcome addition to a full line of services.
- A new caregiver support group convenes weekly at the Swank Memory Care Center and New Castle Senior Center.

A collaborative of the Departments of Medicine, Family and Community Medicine and Psychiatry, the Swank Memory Care Center has provided health care services, education and support during more than 700 patient visits and arranged community referrals for more than 550 patients.

Helping seniors stay independent at home

Christiana Care is one of only 16 sites chosen nationally to participate in the Independence at Home (IAH) demonstration project. The goal of this three-year, Centers for Medicare and Medicaid Services program is to determine whether providing primary care services at home improves outcomes and reduces costs for patients living with multiple chronic illnesses. Christiana Care is a top enroller with 290 patients currently participating. So far, the program has improved medication reconciliation with compliance at 94 percent within 48 hours for patients who either entered the Emergency Department or were discharged from the hospital. In addition, the percentage of patients contacted by IAH program staff within 48 hours of hospital admission increased to 97 percent. This timely communication supports proper discharge planning and helps ensure a successful transition from hospital to home.
Medications conference tailored for APNs
At Christiana Care’s first APN Pharmacology Update in March, 165 advance practice nurses earned credits required for state licensing and learned more about regulations and practices in writing prescription medications. Geriatric Clinical Nurse Specialist Denise French MSN, GCNS-BC, who co-chairs the APN Council, was instrumental in initiating the Pharmacology in-services for APNs.

Hematology

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

An active clinical research program affords patients opportunities to participate in carefully selected pharmaceutical industry clinical trials as well as those supported by the National Cancer Institute such as NCI’s Clinical Trials Cooperative Group Program (CCOP) that includes studies from the Cancer and Acute Leukemia Group B (CALGB) and the Eastern Cooperative Oncology Group (ECOG). Clinical trial opportunities also come from the National Marrow Donor Program (NMDP), The Center for International Blood and Marrow Transplant Research (CIBMTR) and the Blood and Marrow Transplant Clinical Trials Network.

Important investigational studies that may alter currently accepted management of patients with hematologic cancers include:

- **CALGB 10701**, testing how well dasatinib followed by stem cell transplant works in treating older patients with newly diagnosed acute lymphoblastic leukemia.
- **E2906**, comparing clofarabine vs. standard induction therapy for patients, 60 and older, with acute myeloid leukemia (AML).
- **CALGB 100801**, adding azacitadine to reduced-intensity conditioning prior to allogeneic stem cell transplantation for myelodysplasia and/or older patients with AML.
- **ECOG E1411**, a four-arm trial of different initial therapies for older patients (≥ 60) with mantle cell lymphoma.

Bone Marrow/Stem Cell Transplant Program
Christiana Care’s Bone Marrow/Stem Cell Transplant Program celebrated its 17th anniversary in August. It is recognized by the National Marrow Donor Program as a performance leader and accredited as an Apheresis Collection Center, Bone Marrow Collection Center and Bone Marrow Transplant Center. Since 1997, the program has earned continuous accreditation by the Foundation for the Accreditation of Cellular Therapy (FACT). Accreditation demonstrates adherence to rigorous standards for adult allogeneic (matching donor) and autologous (self-donated) hematopoietic progenitor cell transplantation, marrow and peripheral blood cellular therapy product collection, and cellular therapy product processing.
### Key performance measures:

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<thead>
<tr>
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<th>2011 – 2012</th>
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<td>Autologous Transplants</td>
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</tr>
<tr>
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</tr>
<tr>
<td><strong>Total Transplants</strong></td>
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<td>40</td>
</tr>
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*Also accredited by the American Association of Blood Banks and the College of American Pathologists*

Program Director Frank Beardell, M.D. continues as principal investigator on numerous CALGB and ECOG community-based protocols for bone marrow transplants and other treatments for hematological cancers. The team is also working with the A.I. duPont Hospital for Children to facilitate harvesting from adult donors for children who need a stem cell or bone marrow transplant.

**Maximizing stem cell harvests**

Stem cell mobilization is a process used to stimulate stem cells out of the bone marrow and into the blood stream so they can be collected, frozen and stored for transplant. The Bone Marrow/Stem Cell Transplant team has developed a protocol to identify which donors would benefit most from stem cell mobilization with a drug called mozobil, to maximize harvests. The new protocol has helped to reduce the number of stem cell collection days from 3 or 4 down to just 1, making the process more cost-effective and less stressful for donors.

**Infectious Diseases**

Some 10,000 hospital patients as well as thousands more on an outpatient basis benefit each year from consultations with our Infectious Diseases team. Section members provide much of the care for HIV patients in Delaware through Christiana Care’s HIV Program. Student and resident education remains priority that strengthens the 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.

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

**Infectious Diseases symposium draws national attention**

The 50th annual William J. Holloway Infectious Disease Symposium featured world-renowned infectious diseases experts, focusing the national spotlight on Christiana Care. The symposium, “Holloway 50: Past, Present and Future,” convened May 7 at the John H. Ammon Medical Education Center, where an enthusiastic audience welcomed some of the most influential experts in their fields. The program
featured a review of some of history’s most notorious diseases including smallpox, tuberculosis, legionella and HIV, complete with ensuing controversies, vaccinations and antibiotic usage.

The director of the World Health Organization’s global smallpox eradication campaign, D.A. Henderson, gave the keynote address. Speakers paid tribute to William J. Holloway, M.D., who founded the symposium in 1963. Infectious Diseases section members planned and hosted the event: David M. Cohen, M.D., was program chair, and Stephanie Lee, M.D., Anand Panwalker, M.D., Omar Khan, M.D. and Paula Barnes served on the Planning Committee. The Wall Street Journal profiled the event.

**Targeting “zero” hospital acquired infections**

Healthcare associated infections are major contributors not only to patient morbidity and mortality but also to increased length of stay and billions in annual 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.

Efforts to reduce the risks of device-associated infections have steadily fallen over the last five years. Central line associated blood stream infections (CLABSI) in the ICUs, step-down units and other inpatient units under surveillance have dropped by 57 percent since 2010. Multidisciplinary and unit specific strategies to prevent ventilator-associated pneumonia (VAP) have produced a sharp decline in VAP of nearly 70 percent between 2010 and 2012. In January 2013, the surveillance definition was broadened to include ventilator-associated complications other than pneumonia.

![CCHS Central line-associated Bloodstream Infections (CLABSI) - all ICUs](chart.png)

Interventions to decrease the risk of catheter associated urinary tract infections (CAUTI) helped drive down the rate of infection in the ICUs and stepdown units by 15 percent since 2010. Revision of
accepted indications for Foley catheter use and close monitoring resulted in decreased catheter use, improved catheter care, and timely removal of non-essential catheters. The utilization of Foley catheters in the ICUs in particular has declined dramatically, which puts fewer patients at risk for CAUTI.

The Antibiotic Stewardship Committee is collaborating with Perioperative Services, Anesthesia and the surgical departments to implement standardized protocols for administering preventive (prophylactic) antibiotics prior to surgery. Their combined efforts have helped reduce the number of surgical site infections per 1000 patients by 26 percent in the last two years. Prophylactic antibiotics are most effective when administered one hour prior to surgery. In the last few years the percentage of patients meeting the one-hour goal has risen to 98 percent or better. The use of antibiotics longer than 24 hours after surgery can be problematic for the patient. In the last year, post-operative teams have discontinued antibiotics within 24 hours for 100 percent of patients.

This one really “cleans up”
A pilot for increasing the use of Tru-D, an innovative robotic infrared disinfection device, was introduced on the Medicine units at Christiana Hospital in April 2013. The Tru-D Smart UVC™ system is one tool in the arsenal against the spread of bacteria such as Clostridium difficile (C Diff), methicillin-resistant Staphylococcus aureus (MRSA and other hospital acquired infections.

Vaccinations rate climbs to top national benchmarks
A comprehensive flu vaccination campaign has sustained an employee vaccination rate of greater than 90 percent through two influenza seasons. During the 2011-12 flu season, 92 percent of employees were vaccinated for influenza. For 2012-2013, that number climbed to 94 percent. Currently an electronic discharge alert helps ensure that eligible inpatients are offered the vaccine prior to leaving the hospital, and the inpatient vaccination rate rose to 92.1 percent in 2012-2013. This progress puts Christiana Care even closer to reaching our goal of a 95 percent inpatient vaccination rate, which will position us among the top 10 percent of America’s teaching hospitals.

HIV/AIDS care exceeds national benchmarks
The Christiana Care HIV Program is a top provider of HIV medical services throughout the state of Delaware and a high-ranking performer among key clinical indicators measured by the U.S. Health Resources and Services Administration (HRSA) for all Ryan White HIV/AIDS program grantees.

HIV Medical Home
In addition to comprehensive medical care for HIV infection, the HIV Program provides a “medical home” and is the sole source of medical care and treatment for 76 percent of our patients. Eight clinical sites (five in New Castle County, two in Kent and one in Sussex Counties) are integrated into the communities with the highest rates of HIV infection. Collaboration with Westside Health provides HIV medical management to patients accessing primary care at Westside’s Dover location.

A number of nested programs in the HIV program 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. 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.
Experts in HIV care management
The staff of the HIV Program is recognized statewide as experts in HIV management. In addition to presenting a monthly HIV lecture series, members of the HIV Program are faculty of the Pennsylvania Mid-Atlantic AIDS Education and Training Centers (AETC) and for the Institute for Healthcare Improvement (IHI). 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.

In FY13, the program provided care to 1,630 HIV-positive individuals and 188 new patients. The number of clinical visits at all sites was 11,939, comparable to last year.

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. All active patients are screened for tuberculosis, hepatitis B and C, and sexually transmitted infections. 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 illustrates, the lost to follow up rate fell to 3 percent, far below national benchmarks, and the mortality rate was 1.5 percent.

The ability to provide care for this number of patients is commendable when considered in the context of a program wide conversion to electronic medical record keeping. The program went live with Centricity on July 10, 2012, and implementation of all satellites proceeded through the fall. Conversion to electronic medical records has sparked clinical quality improvement initiatives and facilitated tracking of clinical performance measures. The successful conversion was truly a team effort.
Rapid HIV Testing expands
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. In FY13, 500 individuals were tested. An experienced HIV counselor/tester is available weekdays onsite. The screening provides a preliminary indication of HIV infection within 20 minutes. Positive results must be confirmed by Western blot testing.

With telepsychiatry the doctor is always in
Rural HIV patients seeking mental health services can now have a clinical visit via video cam with a psychiatrist in Wilmington without having to travel from their home community. This innovative program at the Georgetown, DE satellite office optimizes value for our patients and enhances our ability to provide chronic disease management of both HIV infection and mental health comorbidities.

Initiated through a Christiana Care Community Service and Education grant, the program operates in collaboration with Christiana Care Behavioral Health and the Georgetown clinical team. Participating psychiatrists are Michael Marcus, M.D. and Sandeep Gupta, M.D. Sam Salfi, LCSW and Linda Dean, FNP provide clinical support onsite in Georgetown. Currently, the team offers two sessions monthly, seeing two to three patients each session.

Holistic program for opioid dependence
More than 30 percent of all AIDS cases in the United States are linked directly or indirectly to drug use. More than 60 percent of HIV-positive patients experience at least one mental illness, and many struggle with co-occurring substance use. To address this problem, the HIV Program is piloting medication-assisted treatment (MAT) for opioid dependence, a holistic approach that combines pharmacotherapy with counseling and behavioral health.
Patients will be treated at the Wilmington Hospital Annex by a multidisciplinary team under the direction of Susan Szabo, M.D., and William Mazur, M.D., who are certified in the administration and management of buprenorphine, a semi synthetic opioid that prevents withdrawal symptoms. Research has demonstrated that MAT reduces illicit opiate use, increases engagement in HIV care and treatment, improves adherence to antiretroviral therapy, and enhances HIV treatment outcomes. Team members include Larry Yurow, LCSW, Kelly Cantwell McNelis, Pharm D, Dorothy Minor, BSN, and social worker Darrell Sparks.

Medical Oncology – directed by the Oncology Service Line

Delaware’s cancer burden decreasing, but the work is not over. Christiana Care is home to one of the most advanced cancer programs in the country, where multidisciplinary teams of professionals in private practice and at the Helen F. Graham Cancer Center, an NCI-selected Community Cancer Centers Program, are advancing cancer diagnosis, treatment and survivorship care with best practices and the latest research. In June the Graham Center received three-year reaccreditation with commendation from the American College of Surgeon’s Commission on Cancer.

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

FY13 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. Christiana Care’s CCOP is a top recruiter to some 120 active clinical trials. Our 24 percent patient enrollment rate is well above the national average of 4 percent.

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). In FY13 a Christiana Care Oncology Professional Excellence Committee was established. An important ongoing initiative is to finalize a Goals of Care quality metric to further ensure that cancer care delivery meets the highest standards of clinical excellence.

Here are some interesting examples of the latest cancer research:

- **CALGB 70604** is the largest ever cancer control trial (ZOMETA) conducted by the CALGB, The study closed in April with full accrual of 1,758 patients. PI: Andrew Himelstein, M.D.
- A study with **Immunomedics** of a novel antibody-drug conjugate in epithelial cancers.
- **HSP90 Inhibitor AT13387** used alone and in combination w/Crizotinib in the treatment of non-small cell lung cancer.

NIH funds search for throat cancer breakthroughs
Robert Witt, M.D., chief of the Multidisciplinary Head and Neck Oncology Clinic at the Helen F. Graham Cancer Center, and Swati Pradhan Bhatt, Ph.D., director of Tissue Engineering, are recipients of a prestigious National Institutes of Health research project grant of $2.5 million to continue groundbreaking work into the creation of artificial salivary glands at the Center for Translational Cancer Research at Christiana Care.

Cancer Center aids landmark breast cancer study
The Helen F. Graham Cancer Center is among an elite group of institutions that provided tumor samples for groundbreaking research hailed as the largest, most comprehensive breast cancer genomic study ever. Emerging discoveries, published in the October issue of Nature, identify four genetically different subtypes of breast cancer, and within those, the genetic drivers of many different types of cancer. The tissue samples were prepared at the Christiana Care Tissue Procurement Center and shipped to the Cancer Genome Atlas project.

Testimony on reimbursement for cancer drugs
Medical oncologist Stephen Grubbs, M.D. testified before the Delaware General Assembly on HB265, also known as the Delaware Cancer Treatment Access Act. The Act amends Title 18 by requiring health insurance companies to make equal reimbursement for oral and intravenous anticancer medications. The bill was approved unanimously by the Delaware Senate and House and signed into law by Governor Markell. Dr. Grubbs was an original member of the Institute of Medicine (IOM) committee which penned the recommendations “Implementing a Clinical Trials System for the 21st Century.” He is also a member of the Board of Directors of the American Society of Clinical Oncology (ASCO) and participated in the IOM/ASCO workshop held February 11-12 in Washington, D.C.

Radiation Oncologists, P.A., honored for clinical trials
Radiation Oncologists, P.A. at the Helen F. Graham Cancer Center are one of only seven community oncology research programs in the country to receive a Clinical Trials Participation Award from the Conquer Cancer Foundation of the American Society of Clinical Oncology (ASCO). The award recognizes Radiation Oncologists P.A. for its work on improving cancer care through its high-quality clinical trials program.

New 4D tumor tracking radiation software installed
The Department of Radiology is one of only 10 sites in the U.S. to offer 4D treatment planning software. RayStation® is used to plan treatment for cancers of the head and neck, allowing far greater control for tumor targeting while sparing normal tissue.
Our program is rated among the nation’s top performers in neurology and neurosurgery by *US News and World Report.*

**Stroke program earns the “Gold-Seal” again**

Christiana Care’s award winning Stroke Program ranks among the best in the country for excellence in stroke care. The team has earned continued Gold Seal of Approval for recertification as a Primary Stroke Center by The Joint Commission, a leading accreditor of health care organizations in America. The next challenge is to achieve Joint Commission comprehensive stroke center designation, which encompasses capabilities for neuro-interventional procedures and neuro-ICU care for the most complex stroke patients.

Nationally, Christiana Care remains a high-volume stroke center. Last year, more than 1,000 patients were treated in the hospital for ischemic stroke, a 20 percent increase over FY12. There were approximately 1,950 total admissions in FY13, including patients with TIA, hemorrhagic stroke and ischemic stroke. This represents a 6 percent increase over FY12. Stroke program evaluation, treatment and rehabilitation are all designed to help patients make the most complete stroke recovery possible.

A designated Stroke Treatment and Recovery Unit (STAR) brings specialists from many disciplines together into a comprehensive stroke treatment and recovery team. A screening process for stroke-specific depression was newly implemented at both admission and discharge. The new Stroke Prevention and Recovery Center provides outpatient services for stroke patients who require ongoing vascular neurology consultations.

Stroke hospitalist Jonathan Raser-Shramm, M.D. joined the team this year. Dr. Raser-Shramm is board-certified in neurology and completed his fellowship in vascular neurology at the Hospital of the University of Pennsylvania in 2011.

**“On-Target” for emergency stroke care**

Christiana Care is the only hospital in Delaware and one of a few in the Philadelphia region named to the Target: Stroke Honor Roll by the American Heart Association/American Stroke Association. The honor roll recognizes hospitals that treat at least half of eligible patients with the clot-busting drug tissue plasminogen activator (tPA) within an hour of their arrival to the emergency department (known as “door-to-needle” time). Making the list places Christiana Care among the fastest in the nation for life-saving care.

In Christiana Care emergency rooms nearly twice as many patients admitted for ischemic stroke were given tPA in FY13 than in the previous year. If given intravenously in the first three hours after the start of stroke symptoms, tPA can significantly reverse the effects of stroke and reduce permanent disability. The median door-to-needle time for tPA administration, a second key metric in quality of stroke care, diminished from 90 minutes in FY12 to an average of 61 minutes in FY13. This difference translates to a 4 percent lower predicted mortality rate and gives patients a better than 4 percent greater chance of
walking independently at discharge and a better than 3 percent greater chance of being discharged home rather than to an institution.

**Back-to-back “Gold Plus” quality awards**
For the second consecutive year the Stroke Program has earned the AHA/ASA Get With The Guidelines Stroke Gold Plus Quality Achievement Award. “Gold Plus” recognizes Christiana Care’s commitment and success in implementing a higher standard of stroke care in line with nationally accepted standards. To receive the award Christiana Care achieved at least 12 consecutive months of 85 percent or higher adherence to all Get With The Guidelines-Stroke Quality Achievement indicators and at least 75 percent or higher compliance with six of 10 Get With The Guidelines-Stroke Quality Measures during that same period of time. Both sets of indicators measure quality of care.

**Sleep Disorders Center**
The Sleep Disorders Center provides expert, multidisciplinary diagnosis and care for every kind of sleep disorder. The center offers the latest technologies such as autoSV therapy to manage complicated sleep-disordered breathing patients. Services are offered at five accredited labs in Wilmington, Newark and Smyrna, DE and two satellite locations in Middletown and Millsboro. A Sleep Medicine specialist provides follow-up for sleep disorder patients tested in the laboratory. Center staff performed 1,548 polysomnograms (sleep studies) and 19 multiple sleep latency tests.

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 FY13, the lab performed a total of 2,573 EEG procedures at Christiana and Wilmington hospitals, noting increases in the number of routine, neonatal, 24-hour video and under 4-hour video EEGs.

**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 for both inpatients and outpatients. 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.

The EMG Lab served 1,077 patients in FY13. Patient satisfaction scores continue 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. The section has consistently earned re-accreditation in nuclear medicine, nuclear cardiology, PET, and PET/CT after undergoing rigorous review by the Intersocietal Accreditation Commission (IAC).

New tool for diagnostic brain imaging
Nuclear Medicine offers a new tool to aid in the diagnosis of Parkinson’s disease and other conditions. DaTscan is an imaging technology that uses small amounts of a radioactive drug (ioflupane iodine-123) to help determine how much dopamine is available in a person’s brain. This information helps doctors distinguish essential tremor and other conditions from Parkinsonian syndromes. Nuclear Medicine, in collaboration with the Pharmacy Department, instituted all the necessary safeguards to use this particular imaging agent, classified as a controlled substance by the FDA, to meet requests by area neurologists and neurosurgeons for this type of brain imaging capability.

“Strong Bones” initiative has legs
The Bone Health Advisory Committee (BHAC) chaired by Nuclear Medicine Section Chief Timothy Manzone, M.D., JD, is close to launching its comprehensive system-wide “Strong Bones” program to promote bone health and reduce the occurrence of fragility fractures. A Chair’s Leadership Council grant will fund the addition of a bone health nurse coordinator. BHAC membership spans nearly a dozen sections/departments, whose innovative bone health initiatives garner national recognition.

Efforts to date include the implementation of a system-wide fracture liaison service, HIP-FIT, supported by quality DXA services, and participation in the national Own the Bone registry that provides data to primary care physicians and specialists about risks of fragile bone fractures and ways to treat them. Additionally, 11 units at Christiana Care are participating in a pilot to ensure patients coming to the Emergency Department with fragility fractures know what type of injury they have and how to reduce their risk of a second one. The BHAC project for secondary prevention of fragility fractures won a Silver Value Award in 2012.

New Cardiac PET scans offered
In collaboration with the Cardiovascular Laboratory, Nuclear Medicine has introduced stress myocardial perfusion Positron Emission Tomography (PET) scans, a technology that produces high-quality images that will make it easier to diagnose coronary artery disease. Patients receive 82Rubidium chloride, a radioactive tracer that is injected into the bloodstream. A PET camera detects the tracer as it flows through cardiac vasculature to create high-quality pictures of the heart. The program is initially focusing on patients who are obese or women who have large breasts, conditions that make it difficult to achieve accurate results with traditional stress tests. The test takes only about an hour, compared with three or four hours for a traditional stress myocardial perfusion scan using Single Photon Emission Computed Tomography. In addition, there is less radiation exposure for patients and staff.
Research collaborations
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 90Yttrium hPAM4. Additional cancer-related research includes a study using radioimmunotherapy to treat non-Hodgkin’s lymphoma.

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 timelier hospice referrals, fewer inappropriate resuscitative efforts (codes) and fewer ethics consults, thus improving overall quality of care. The Pain Management/Palliative Care Service provided 2,156 patient consults in FY13 at Christiana and Wilmington hospitals, under the direction of John Goodill, M.D. Section members continue their leadership in the statewide Prescription Drug Action Committee to address prescription drug abuse in our state.

Oncology Rehabilitation provides palliative care and symptom management, through bedside and unit-based therapies for cancer patients and to outpatients at the Helen F. Graham Cancer Center, under the direction of Theresa Gillis, M.D., medical director of Oncology Pain and Symptom Management and Rehabilitation Services at the Helen F. Graham Cancer Center.

Dr. Gillis was recognized in FY12 as a Computerworld Honors Program Laureate award winner for her role in developing “Insight” software that allows patients to use their iPads to indicate the severity of their symptoms and their effect on quality of life. Ongoing projects under her direction include the Insight Patient Self-Reported Symptom Assessment, which gathers symptom intensity and distress data for patients, and The Insight Patient Self-Reported Data Cancer Center Navigation Project, which assesses patient distress, severe symptoms, and psychosocial concerns to facilitate cancer treatment planning and coordinate care.

Hospice unit opens at Christiana Hospital
Palliative Care collaborated with Seasons Hospice to open a new inpatient unit on 6D at Christiana Hospital. The unit features 12 private rooms with amenities, where patients benefit from expert end-of-life care and families can stay in a home-like setting with their loved ones 24 hours a day. Hospital-community partnerships like this one are a win-win for all because they expedite and expand access to a continuum of high quality palliative care services for patients and provide greater access to professional community-based bereavement services for families, while facilitating appropriate reimbursement for palliative care and hospice patients.
Physical Medicine and Rehabilitation Services

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.

Tightening the belt on safety
The Center for Rehabilitation at Wilmington Hospital reduced the rate of patient falls by 29 percent in FY13, the result of multiple strategies including implementation of non-disposable and easy-to-clean gait belts. Use of the belt has expanded throughout Christiana Care to over 19 units. This well received safety intervention earned the team a Christiana Care Nursing Excellence award and a podium presentation at next year’s American Nursing Association conference in Arizona.

The Center’s Injury Prevention/PEEPS team had zero staff injuries in 18 months through improved safe patient handling using repositioning slings. Patients’ cognitive and motor skills also improved. The program has expanded to other Christiana Care units and also earned a Nursing Excellence Award. Incidence of hospital acquired pressure ulcers remained at zero for a three-year period ending June 30, 2013.

Outpatient physical therapy has a new name
Christiana Care Physical Therapy (PT) Plus locations at Springside, Wilmington Hospital, and Middletown have a new name, “Christiana Care Rehabilitation Services.” The name change reflects the move last year to bring outpatient therapy facilities under the Rehabilitation Services umbrella and better reflects the comprehensive, multi-disciplinary services available at these locations. The remaining PT plus sites will adopt the name change in Fall 2013.

Pulmonary & Critical Care Medicine

Safety and quality of care drive section initiatives that have earned us national recognition as top performers in our specialty.

Pulmonary Medicine:

Respiratory care teams activated
Our team-based model for respiratory care expanded this year when dedicated cardiac, women’s health and children’s teams joined Emergency Department, medical and surgical teams already in place. The respiratory care team model is now activated at both Christiana and Wilmington hospitals as well as at the Middletown CareCenter. Respiratory Care now provides every-day, 24-hour coverage to the Middletown ED.

Respiratory Care continues to refine an integrated electronic dashboard displaying clinical metrics and patient outcomes for each dedicated team. Sporting a new look and feel, the dashboard allows frontline
staff to easily focus on performance opportunities such as ventilator weaning activities that have
chorted the time patients remain on ventilators and decreased the incidence of ventilator associated
pneumonia (VAP) in all adult ICUs. Since 2010, the average adult ventilator LOS has dropped by 18
percent. This translated into 3,500 fewer ventilator days last year compared with the previous year, and
ventilator associated pneumonia rates dropped an impressive 62 percent.

Elite status for respiratory care
Once again for the 11th year in a row, Respiratory Care earned
recognition from the American
Association of Respiratory Care (AARC) as a Quality Respiratory Care institution for 2013. Only 15
percent of hospitals earn this designation.

Respiratory Care provides services to all inpatient and outpatient areas at both Christiana and
Wilmington hospitals. The Respiratory Care staff provide a range of treatment 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 FY13 Respiratory Care
performed a total of 672,000 procedures. In addition, it broadened its presence on over 25 unit-based
committees and workgroups dedicating energy to improving care coordination and care delivery.

The team also introduced new technology to support patient care, including the Drager V500 ventilator
and Respironics V60, non-invasive ventilation technology. New protocols are in place for lung protection
in all adult ICUs and bronchial hygiene for high-risk patients outside the ICU. On-going performance
improvement efforts include partnering with MICU teams to promote early mobility for ICU patients;
optimizing post-operative ventilation for cardiac patients; collaborating with Neonatology to implement
a Neonatal ICU protocol for daily weaning trials, resulting in a 1.5 day reduction in average ventilator
length of stay for neonates in the first quarter of 2013; and collaborating with the Department of
Medicine to reduce inpatient COPD related LOS by 10 percent.

Listening to the patient’s voice
The Pulmonary Hypertension team presented a timely safety-first intervention at the July 2013 “No
Harm Intended” nursing forum. “Pulmonary Hypertension: The Value of the Patient’s Voice” featured
the experiences of a patient on IV Remodulin and the consequential safety intervention instituted by the
team. Pulmonary hypertension is a rare but serious condition characterized by abnormally high blood
pressure in the blood vessels of the lungs. It is a chronic disease that affects people of all ages and ethnic
backgrounds. Now, when a patient requiring IV or subcutaneous pulmonary hypertension medication
comes to the Emergency Department, an automatic electronic page via Powerchart goes out to the
Pulmonary Hypertension team to assist in the management of that patient. Prescribers and ED nurses
can also refer to Powerchart for an appropriate “Powerplan” and algorithm of care to ensure these
patients receive the highest standards of care. The Value Institute’s “No Harm Intended” series offers a
forum for health system professionals to share lessons learned from actual occurrences. A selected
team relates a patient care story, followed by a facilitated discussion that incorporates high-reliability
concepts.
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 1,000 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 11,039 procedures:

<table>
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<tr>
<td>Pulmonary Function Testing</td>
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<tr>
<td>Bronchoscopy</td>
<td>411</td>
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<td>Exercise Testing</td>
<td>578</td>
</tr>
<tr>
<td>Interventional Procedures</td>
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</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 guidelines.

Ongoing performance improvement is part of the reason Christiana Care is recognized as an (AARC) Quality Respiratory Care institution. In the last year the pulmonary function lab updated its emergency protocol for patients who experience fainting or a sudden loss of consciousness, which included enhancing their “code blue” protocol and adding new patient lift devices and a mobilizer chair. Working with the IV Pharmacy, the lab improved the dosing schedule for methacoholine, a drug used to test for asthma and other lung diseases, in line with American Thoracic Society recommendations, which now makes it easier to determine airway responsiveness.

New bronchoscopy room to open
All bronchoscopies including interventional bronchoscopy will be performed in the new Bronch Room scheduled to open in September 2013 in the new Endoscopy Suite at Christiana Hospital. This state-of-the-art facility will make scheduling procedures for both inpatients and outpatients easier and more convenient.

Saving more lives through research
Pulmonary/Critical Care Medicine facilitates pathways to innovative, best practice care through multiple, ongoing research collaborations. Current projects include the following:

- **B-MEGA**: A multicenter trial to compare the efficacy and safety of Tiotropium, a drug used to treat chronic obstructive pulmonary disease (COPD via the Respimat inhaler vs. the Handihaler. Rizzo A.
- **InterMune Multicenter Trial**: Studying the efficacy and safety of Pirfenidone, an oral drug for the treatment of idiopathic pulmonary fibrosis (IPF). Rizzo A.
- **PRO**: Protocol for the development of a quality patient reported outcome (PRO) instrument for pulmonary arterial hypertension. O’Brien G.
• **QUERI**: Pulmonary Arterial Hypertension Quality Enhancement Research Initiative Extension Program: O’Brien G.

• **Reducing VAP**. A system-wide project to evaluate the impact of subglottic suction oral endotracheal tubes on ventilator-associated pneumonia rates among surgical patients.

• **TOKTOME trial**: Respiratory care is investigating a speech enhancement device that will be used during non-invasive positive pressure ventilation (also called BiPAP or CPAP).

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**Critical Care Medicine**:

**Earlier extubations drive down pneumonia rates**

A 90-day, rapid performance improvement (RPI) effort reduced the number of days ICU patients remained on ventilators and cut the rate of ventilator associated pneumonia by half. The study, led by Vijay Jayaraman, M.D., in concert with Respiratory Care, was presented as an abstract at the Society of Critical Care Medicine 42nd Critical Care Congress, January 2013. During the project, a respiratory therapist joined a dedicated rounding team of a nurse and doctors to help identify patients ready for extubation earlier in the day, prior to morning rounds. The consequential drop in the rate of ventilator-associated pneumonia is particularly notable and not reported in previous similar studies.

**MICU teams drive early mobility**

Efforts to bring early mobility to critical care patients in the MICU are producing outstanding results by incorporating early and aggressive physical therapy into their treatment plans. This success story is featured in the May 23, 2013 issue of *Advance for Physical Therapy and Rehab Medicine*.

The MICU mobility team incorporated a multi-layered set of interventions that include education across disciplines, mobility screening criteria into the daily ICU checklist and development of an identification system to facilitate safe and efficient initiation of PT interventions. The addition of a rehabilitation aide and specialized equipment improved efficiency and allowed for more complex services.

Consequently, the number and percentage of MICU patients receiving PT services increased from 16 to 37 percent. This increase was associated with a reduction in MICU length of stay (LOS) from 4.3 days to 2.7 days and hospital LOS from 12.3 days to 11.2 days.

Early ICU mobility has tremendous potential for improving outcomes for mechanically ventilated or non-invasively ventilated patients. Working in partnership with Respiratory Care, the MICU mobility team saw a reduction in mechanical ventilator LOS from 5.4 to 4.3 days.

**Delirium assessment in high gear**

Critically ill patients in the ICU are at great risk for developing delirium, a predictor for prolonged hospital stays and medical complications that can increase mortality. Early recognition of delirium is key to improving outcomes. Ongoing efforts have produced a 700 percent increase in the number of delirium assessments conducted for ventilated Medical ICU patients and a 4800 percent increase in delirium assessments in non-ventilated ICU patients. The results of these efforts were presented at the Society of Critical Care Medicine Meeting in February 2013.
Medical ICU is also a selected site for a multinational, Phase 3 drug study designed to test the safety and efficacy of ART-123 to treat patients with severe sepsis and bleeding disorders. PI: Depietro, M.

**Sepsis Collaborative now a Value Improvement Team**

Christiana Care’s award-winning Sepsis Collaborative has earned institutional support to become the fifth diagnosis-based Value Improvement Team (VIT). Historically, Christiana Care has excelled at caring for those with the most severe forms of sepsis. Part of the mission of the Sepsis VIT will be to continue to improve outcomes for those with septic shock, as well as to focus on earlier recognition of less severe forms of sepsis and the provision of the appropriate clinical support for front line providers. Vinay Maheshwari, M.D., FCCP, director of Medical Critical Care and medical director of Respiratory Therapy leads the initiative.

**Reducing multiple critical care alerts**

The intensivist members of Christiana Care Pulmonary Associates (CCPA) have designated a “roaming ICU intensivist” to rapidly assess and manage care for unstable patients throughout the hospital during a “code blue” or rapid response team (RRT) alert. This has led to a 45 percent drop in the rate of patients requiring multiple RRTs. Additionally, this physician is specifically assigned to the cardiac intensive care unit (CICU) at Christiana Hospital. Partnership with the CICU nurses to develop a Daily Goals Checklist and standardized patient rounds has contributed to a dramatic drop in central line and catheter associated infections on the unit. Mechanical ventilator LOS has also dropped from 3.3 days to 2.9 days.

**Wilmington Hospital transitions to a “Closed ICU” model**

In July 2013 board-certified critical care specialists will provide care exclusively for all non-surgical patients in the Wilmington Hospital ICU. This follows the WICU’s transition to a “closed” model of care for critically ill patients. The move is designed to facilitate care delivery that meets best practice standards to all patients at all times. Studies have demonstrated that patients who receive care in a closed unit have lower ICU length of stay, lower mortality rates and fewer overall complications. The WICU also has 24-hour in-house coverage by critical care physician assistants who are under the direct supervision of Christiana Care Pulmonary Associates intensivists.

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

**Rheumatology**

Christiana Care Rheumatology specializes in the care, diagnosis and treatment of all types of non-surgical joint diseases, offering expertise in diagnosis, including the use of musculoskeletal ultrasound, and management. The practice has infusion services on site. Under the Christiana Care Medical Group umbrella, the practice serves as the region’s tertiary care center for Rheumatology, with patient care offices in both Wilmington and Newark. Members actively participate in teaching, leadership and public education, dedicated to making Christiana Care a center of excellence in musculoskeletal health.

**Bracing against secondary fragility fractures**

Rheumatology is part of an eleven unit collaborative pilot program, led by the Bone Health Advisory
Committee, to ensure that patients coming to the Emergency Department with fragility fractures know what type of injury they have, why a fragility fracture is important and how to reduce risk. The new initiative will relay similar information to the patient’s primary-care provider. The follow-up rate for fragility fractures resulting from unchecked osteoporosis in the U.S. is only around 20 percent, so the program is intended to raise physician and patient awareness, lead to increased diagnostic testing with dual X-ray absorptiometry (DXA) tests, and ultimately reduce the rate of fractures, potentially by as much as 25 to 35 percent. This project is supported by a Christiana Care Community Service and Education grant.

Renal & Hypertensive Diseases

Christiana Care nephrologists, rated among the nation’s top performers, 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 FY13 these labs performed more than 7,000 total 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.

Nephrology research and safety initiatives
Efforts to improve the quality and safety of hemodialysis care include participation in various national initiatives and research clinical trials.

Three nephrology trials are underway:

- **EUPHRATES.** Testing the safety and efficacy of a new dialyzer to clean toxic substances out of the blood in patients with septic shock.
- **TEGO.** Testing whether a new type of needle free access device is associated with fewer catheter-related infections and to assess catheter blood flow rates compared to the current standard.
- **TULIP Needle Trial.** Designed to decrease incidents of needle-stick injury.

Ongoing quality and safety initiatives include continued focus on “zero” catheter-associated bloodstream infections, continuity of antibiotic administration for outpatients, anemia management to ensure appropriate use of erythropoietin stimulating agents.

The Wilmington Hospital Hemodialysis team has earned all five diamonds awarded by the Renal Network in their 5-Diamond Patient Safety Program.

Kidney transplant program
Christiana Care is one of only 250 hospitals in the United States performing kidney transplants, and the only hospital in Delaware that performs adult kidney transplants. The program is certified by the United Network for Organ Sharing to perform both living donor and deceased donor kidney transplants.
Data based on calendar year. 2013 data through November 8, 2013

An experienced, multidisciplinary team provides optimal care for these complex patients and offers medication management post-transplant and living donor education. Patient Satisfaction scores remain high above the 90th percentile. Overall graph survival at one year post-transplant is 97 percent.

The team also provides education sessions at Christiana Care’s two dialysis units and presentations for hospital staff and the community, including targeted annual symposia for patients, donors and health
care providers. A satellite office in Lewes, DE will open in summer 2013, to allow pre-transplant patients and living donors from the central and southern counties in Delaware to be seen more easily by team members. A post-transplant clinic is planned to open at the site in 2014.

Building a bridge for transplant patients
Christiana Care’s Kidney Transplant team and Visiting Nurse Association (VNA) are bridging the gap to provide care, education, and support for renal transplant patients in the critical first weeks after discharge from the hospital. A dozen specially trained VNA nurses provide care for about 30 patients over the course of a year. During regular home visits, these nurses provide follow-up education, monitor for signs of transplant rejection or infection and verify that patients are following established transplant protocols. They are trained to perform wound care, venipunctures, and infusion therapy and to identify other services patients might need such as in-home physical therapy. VNA nurses also offer support and reassurance at a critical time for the patients and their families, helping to ensure a smoother transition from hospital to home.

Symposium provides education and insights
The third annual transplant educational symposium took place in October 2012, reaching out to 120 nurses and ancillary staff who provide care for patients with chronic kidney disease. The focus of this year’s symposium was kidney donation from living donors. Christiana Care’s Kidney Transplant team members were featured speakers.
Honors, Awards & Kudos

Teaching Awards

Brian Aboff, M.D., is a Learning Institute Center Exemplar for Transforming Leadership at Christiana Care.

Matthew Burday, D.O., won the Leon A. Peris Memorial Award 2013, for excellence in clinical teaching and patient care at Jefferson Medical College.


Lauren Douglas, M.D., an Internal Medicine resident, was recognized for her contributions to the Jefferson Medical College class of 2014 during the 2012-2013 academic year.

Lanny Edelsohn, M.D., was voted “Attending Teacher of the Year” by the Jefferson Medical College class of 2014. These medical students are the second class to study full time at Christiana Care, the college’s Delaware Branch Campus established in 2011.

Daniel Elliott, M.D., was voted a Christiana Care Research Rising Star for 2013.

Mithil Gajera, M.D., received the Leonard Lang Award (Teacher of the Year) selected annually by the Internal Medicine residents.

Jennifer LeComte, D.O., won the 2013 Mark W. Maxwell Award voted by Medicine residents for the attending who best demonstrates the characteristics of devotion to patients, compassion, humility, and extraordinary enthusiasm. She also won the 2013 Educator Rising Star award.

Gilbert Leidig, M.D., was voted “Teacher of the Year” for the Cardiovascular Fellowship program.

Erin Meyer, D.O., was voted Medical Student Teacher of the Year 2013 by 3rd and 4th year medical students.
Clinical Pearls
Congratulations to our 9th annual Clinical Pearls speakers:
Kunal Bhagat, M.D.
Mithil Gajera, M.D.
Anand Panwalker, M.D.
Ehsanur Rahman, M.D.

Focus on Excellence Awards

2012 President’s Award
Medicine Unit 5B: Improving VTE Prophylaxis: One Unit’s Journey

2012 Financial Strength Award
Medicine Unit 5D: Does the Physician Know About the Telemetry Monitor?

2012 Clinical Excellence Silver Award
Medicine Unit 3D: Mapping Your Way Through PAH

2012 Think of Yourself as a Patient Silver Award
Medicine Unit 5D: Improving Patient Discharge with 24-Hour Interdisciplinary Planning

2012 Safety First Honorable Mention
Medicine Unit 4N: Seven Mother’s Day Flowers Video

2012 Resident’s Award
Leaning Towards Patient-Centered Teaching Rounds

Nursing Award - Structural Empowerment
Medicine Unit 4E: Improving Patient’s Flow: The Transition of Thrombolytic Patients

2012 Nursing Gold Award – Exemplary Professional Practice –
Rehabilitation: Tightening the Belt on Safety: Safe Patient Handling

2012 Nursing Award – New Knowledge, Innovations and Improvements
Rehabilitation: Show That We Care Campaign: Working Smarter Using State of the Art Technology

2012 Clinical Excellence Gold Award
Christiana Care Hospitalist Partners, Christiana Care Cardiology Consultants, and the Emergency Department: A Collaborative Study on Reducing Length of Stay for Chest Pain Patients
Christiana Care Way Learning and Research Award Winners

**Researcher Awards:**
Deborah Ehrenthal, M.D.
Daniel Elliott, M.D.
Cancer Research Team

**Educator Awards:**
John Donnelly, M.D., *Academic Affairs Award*
Tamekia Thomas, RN
Jennifer LeComte, D.O.
Jennifer Painter, RN
ONS Chemotherapy Education team
Culture of Responsibility Education Work Team

**Exemplar Awards:**
Brain Aboff, M.D., Loretta Consiglio-Ward, RN, and Robert Mulrooney
Bridget Remel, RN
Jennifer Czerwinski
Carol K. Moore, RN
Thea Eckman, RN

**Other Awards**

**Jefferson Award Winners**
Reynold S. Agard, M.D., and Vinod Kripalu, M.D., are winners of the 2013 Jefferson Awards, celebrating the talent and dedication of Christiana Care employees who contribute countless volunteer hours in their communities. Founded in 1972, the Jefferson Awards honor public service in America at both the national and local level.

**Nursing Excellence Award Winners**
This year, 44 Department of Medicine Nurses earned recognition from the Christiana Care Professional
Nurse Council for their commitment to nursing excellence and leadership. Well done to all our nursing excellence winners!

Muhammad Khurram Baig, D.O., is the 2013 Lawlor Resident Award winner from the American College of Gastroenterology (ACG). His paper, “Statewide Retrospective Review of Familial Pancreatic Cancer in Delaware and Frequency of Genetic Mutations in Pancreatic Cancer Kindreds,” will be presented at the ACG’s 78th Annual meeting in October.

Kunal Bhagat, M.D., FACP, won the American College of Physicians Delaware Chapter 2013 Excellence in Hospital Medicine Award.

David Biggs, M.D., was awarded the National Cancer Institute’s Platinum Certificate of Excellence for being the investigator with the highest patient accruals to CCOP’s cancer clinical trials.

David Cohen, M.D., was selected Christiana Care Family Practice Specialist of the Year.

Mary Ciechanowski, RN, APN, stroke advanced practice nurse, received the 2013 Circle of Excellence Award from the American Association of Critical Care Nurses (AACN), for achieving excellent outcomes in the care of acutely and critically ill patients and their families.

Marylou Dryer, M.D., is certified in Medical Quality by the American Board of Medical Quality 2013.

Congratulatons to our new Fellows

American College of Physicians
Reynold S. Agard, M.D., FACP
Frank V. Beardell, M.D., FACP
Kunal P. Bhagat, M.D., FACP
Joanne C. Brice, M.D., FACP
Jennifer LeComte, D.O., FACP
Michael W. Lankiewicz, M.D., FACP
Erin Meyer, D.O., FACP
James A. Piacentine, D.O., FACP

Society of Hospital Medicine
Mohammad Ali, M.D., FSHM
James Piacentene, D.O., FACP, FSHM

Lanny Edelsohn, M.D., was honored as an “Outstanding Alumni Mentor” by Drexel University College of Medicine in May 2013.

T. Horton, M.D., is a diplomate of the American Board of Addiction Medicine.

Timothy J. Hennessy, M.D., is a Christiana Care “Rising Star.”
Sharon Jones, RN, MSN, had an article accepted for publication in *Advances in Pulmonary Hypertension*.

Michael Stillabower, M.D., received the Medical-Dental staff’s Commendation for Clinical Excellence Award.

Mitchell T. Saltzberg, M.D., and the Heart Failure team earned the Get With The Guidelines® – Heart Failure Gold Plus Quality Achievement Award from the American Heart Association.

James Shepherd, social worker at the Smyrna Wellness Center, received the Ryan White Award from the Delaware HIV Consortium.

Karen Swanson, RNC, BSN, received the 2013 Sister Dolores Macklin Guardian Angel Red Ribbon Award from the Delaware HIV Consortium.

Wilmington Hospital ICU team under the leadership of medical director Michael Benninghoff, D.O. won a first place 2013 HAI Watchdog Award from the Kimberly Clark Foundation for reducing the incidence of central line associated blood stream infections (CLABSI).

William Weintraub, M.D., was named Science Advocate of the Year by the American Heart Association. He is serving his second year as president of the AHA’s Great Rivers Affiliate.
Appointments

**Jefferson Medical College**

Christian Colletti, M.D., FAAEM, is a clinical assistant professor of Emergency Medicine and Internal Medicine.

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

**Inside Medicine**

Tony Bianchetta, M.D., is clinical leader for the Christiana Care Health Care Center.

Daniel Elliott, M.D., is the course director for “Introduction to Biostatistics and Evidence-Based Medicine” for the Christiana Care Internal Medicine Residency Program.

Jennifer LeComte, D.O., is the assistant medical director of the Adult Medicine Office.


Linda Sydnor, MSN, GCNS, BC, NP, Geriatric Clinical Nurse Specialist, completed her nurse practitioner training and certification exam and is now assigned as a nurse practitioner on the 6A – ACE (Acute Care for the Elderly) unit.

Karla Testa, M.D., is a Medicine Mentor for the Global Health Track.

Sarah Torregiani, M.D., attending physician with Nephrology Associates, was named as associate program director for the Nephrology Fellowship. She has served as continuity clinic mentor to the fellows since the program’s inception.

Wasif Qureshi, M.D., was appointed medical director of the Structural Heart Disease Program.
Local, State and National Appointments

Brian Aboff, M.D., FACP, chairs the Transitional Year Review Committee for the Accreditation Council for Graduate Medical Education (ACGME) and is a councilor for the Association of Program Directors of Internal Medicine.

Barry Bakst, D.O., is vice president of the American Osteopathic College of Physical Medicine and Rehabilitation and a member of the Delaware Board of Medical Licensure and Discipline.

Frank Beardell, M.D., is a member of the Board of Trustees of the Delaware Chapter of the Leukemia Lymphoma Society.

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. He also serves on the Medical Society of Delaware School Health Committee.

David Britchkow, M.D., was appointed to the Society of Hospital Medicine regional Executive Board and the IPC National Advisory Board.

Mathew Burday, D.O., was selected to serve on the Clerkship Directors in Internal Medicine (CDIM) Program Planning Committee for the Alliance for Academic Internal Medicine.

Donna Casey, BSN, MA, RN, FABC, NE-BC, director, Patient Care Services, Cardiovascular/Critical Care and co-chair of the ethics committee, was appointed to the American Nurses Association Ethics & Human Rights Advisory Board for the two-year period 2012-2014.

David Chen, M.D., serves on the Medical Society of Delaware School Health Committee.

Christian Coletti, M.D., FAAEM, chairs the National EM/IM Section, American College of Emergency Medicine.

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

Patricia M. Curtin, MD, FACP, CMD serves on the State of Delaware Alzheimer’s Disease Task Force and co-chairs the Education/Training workgroup.

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

Michael Depietro, M.D., was reappointed to the American College of Chest Physicians (ACCP) Council of Governors as a Region III governor for Delaware and serves on the ACCP Chest Medicine Affairs Committee. He is an abstract reviewer for the Society of Medical Decision Making and the American College of Chest Physicians and was appointed a Webmed faculty in Critical Care Medicine and scholarly
reviewer for new online open access medical journal: Webmed Central

Delaware Top Nurses: Wilmington Hospital’s 4-North Nurse Manager Bonnie Osgood, MSN, RN-BC, NE-BC and Medical Critical Care Nurse Specialist Maureen A. Seckel, RN, APN, MSN, ACNS-BC, CCNS, CCRN, CNS are two of Delaware Today's Top Nurses for 2013. Eight of the top 18 nurses are from Christiana Care. To see the complete listing, including short biographical sketches of the top nurses, visit Delaware Today.

Himani Divatia, D.O., is secretary of the National Med-Peds Resident’s Association, 2012-2014. She is also a representative to the National Med-Peds Residents’ Association and a program resident representative of the American Academy of Pediatrics Residents’ Association.

Christina Edwards, C-TAGME, Internal Medicine Residency and Transitional Year Residency Program Coordinator, was selected to serve on the Training Administrators in Graduate Medical Education (TAGME) certification committee.

Daniel Elliott, M.D., is Advocacy chair for the Delaware American College of Physicians; chair of the American College of Physicians State Delegation and key contact for the Governor’s Executive Council. 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. He is a senior fellow of the Thomas Jefferson University School of Population Health. He serves on the Society of Internal Medicine’s Evidence-Based Medicine National Task Force and was a poster session judge at the Society’s Mid-Atlantic Regional Meeting. He was also a member of the Program Planning Committee, the Regional Meeting Workshop Committee chairman, Institutional Champion, Regional Meeting chair and host. He served on the Advisory Council, CNA Health ACTION Partnership (AHRQ “Accelerating Change and Transformation in Organizations and Networks” Partnership) and was a member of the Agency for Healthcare Research and Quality Regional Experts Panel.

Michael Eppehimer, MHSA, is a fellow of Leadership Delaware’s Class of 2013.

Kelly Eschbach, M.D., is a member of the Executive Board of the Medical Society of Delaware and the only Delaware Delegate to the American Medical Association’s House of Delegates.

Hung Q. Dam, M.D., was elected as the vice chair of the Joint Review Committee on Educational Programs in Nuclear Medicine Technology. Dr. Dam was also appointed as chair of a Society for Nuclear Medicine & Molecular Imaging (SNMMI) working group developing new guidelines for GI bleeding scintigraphy.

John Donnelly, M.D., is a member of the E-Learning Association of Program Directors of Internal Medicine.
Allen Friedland, M.D., is chair of the American Academy of Pediatrics Med-Peds section and serves on the Pediatric Education Committee. He also serves on the Medical Society of Delaware School Health Committee.

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

Erin Grady, M.D., was elected to the Board of Directors for the Academic Council and vice chair of the Young Professionals Committee of the Society of Nuclear Medicine & Molecular Imaging. She was also appointed as chair to the 3rd party reimbursement subcommittee of the SNMMI coding & reimbursement committee and appointed to the SNMNI government relations committee. In this capacity she was invited to the White House for a quarterly meeting on domestic supply of Molybdenum-99. She is editor-in-chief of the Scanner, the newsletter of the American College of Nuclear Medicine, and associate editor of e-learning for the Nuclear Medicine section of the American College of Radiology. Dr. Grady has recently joined the Legislative Policy Group of the Medical Society of Delaware. She is also a member of the American Board of Nuclear Medicine, Board of Directors and the ACGME Board of Appeals Panel for Nuclear Medicine.

Stephanie Guarino, M.D., is the first resident physician participant to Leadership Delaware 2012-2013. She also serves on the Graduate Medical Education Committee at Jefferson Medical College.

Theresa Gillis, M.D., is the Christiana Care Cancer liaison to the American College of Surgeons Commission on Cancer. She is also a member of the Medical Society of Delaware’s Physician Advisory Committee for Controlled Substances.

Terry Horton, M.D., served on the Steering Committee of the National Institute on Drug Abuse, Clinical Trials Network Taskforce: Translating Chronic Illness Management Concepts into Addiction Treatment. The group produced a white paper on integration of substance abuse into primary care.

Timothy Manzone, M.D., was elected to the Board of Directors for the General Clinical Nuclear Medicine Council of the Society of Nuclear Medicine & Molecular Imaging (SNMMI) and the Drexel University College of Medicine Alumni Association, Board of Directors.

Vishal Patel, M.D., was elected Treasurer of the National Med-Peds Residents’ Association.

Mitchell T. Saltzberg, M.D. serves on the Heart Failure Society CME Subcommittee.

J. Silverstein, M.D., serves on the Membership Committee for the Association of Chiefs and Leaders in General Internal Medicine.

R. Bradley Slease, M.D., FACP, is governor for the Delaware Chapter of the American College of Physicians.

Linda Sydnor, MSN, GCNS, BC, NP, serves on the Alzheimer Association’s Education Committee that facilitates the annual Dementia Conference in November and "The Walk to End Alzheimer's" committee.
Jennifer LeComte, D.O., was appointed by the Governor to co-chair the Medical State Transition Task Force for Emerging Adults with Disabilities and Special Health Needs. She also is the co-chair of the newly formed Society of General Internal Medicine Transition Task Force and co-chairs the State Transition Task Force Health Work Group. She earned a TEACH Certificate in 2012-2013 from the Society of General Internal Medicine. She is a member of the AAP Committee Medical Home Resident Education Initiative Working Group.

Gilbert Leidig, M.D., is a member of the Nominating Committee for the Medical Society of Delaware.

Bonnie S. Osgood, MSN, RN-BC, NE-BC, nurse manager of 4 Medical at Wilmington Hospital, was elected to serve on the American Nurses Association Congress on Nursing Practice and Economics.

Vishal Patel, M.D., is treasurer of the National Med-Peds Resident’s Association 2013-2014.

Andrea Read, D.O., completed her term as President of the Medical Society of Delaware Residents and Fellows in 2012.

Gia Uzelac, M.D., serves on the Planning Committee of the Delaware Chapter of the American College of Physicians. She also serves on the Medical Society of Delaware School Health Committee.

William S Weintraub, M.D., is director of the Bridging the Divides grant from the Centers for Medicare and Medicaid (CMR). He is a Christiana Care co-principal investigator (PI) for the Delaware Center for Translational Research, funded by the National Institute of General Medical Sciences and PI of the Coordinating Center for the CMR registry funded by the National Heart Lung and Blood Institute.

Jessica White, M.D., was appointed to the Board of Trustees of the American College of Medical Quality.
Selected Publications


Burke PA, Malebranche L, Gakhal M, Rahman E, Saltzberg M. Sustained improvement of cardiac function with immunosuppressive therapy in a case of acute lymphocytic myocarditis secondary to allopurinol induced Stevens-Johnson syndrome. Delaware Medical Journal 2012; 84(12):381-3.


Elliott DJ, Robinson EJ, Herrman JA, Sanford M, and Riesenber LA. "Systemic Barriers to Diabetes Management in Primary Care: A Qualitative Analysis of Delaware Physicians." *American Journal of Medical Quality*. July/August 2011 26: 284-290


Friedland A, Salam HA, Kaelber DC. Combined Internal Medicine-Pediatrics Program Directors’ Professional Activity. *Delaware Medical Journal* May 2013;85 (5); 141-144


Friedland A. Transitioning Patients with Chronic Conditions. *The Hospitalist* February 2012.


Grady EC, O’Malley J. SNMMI Basic pulmonary scintigraphy web-based module (in press).


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


Pisani MA, Bramley K, Vest MT, Akgun KM, Arauio KLB, Murphy TE. Patterns of Opiate Benzodiazepine and Antipsychotic Drug Dosing from an Observational Study of Older Patients in a Medical Intensive Care Unit. *American Journal of Critical Care* accepted for publication.


Romond EH...Biggs, DD, Atkins JN, Tan-Chiu E, Zheng P. Seven-Year Follow-Up Assessment of Cardiac Function in NSABP B-31, a Randomized Trial Comparing Doxorubicin and Cyclophosphamide Followed by


Sedlis SP, Jurkovitz CT, Hartigan PM, Kolm P, Goldfarb DS, Lorin JD, Dada M, Maron DJ, Spertus JA, Mancini GBJ, Teo KK, Boden WE, Weintraub WS for the COURAGE study investigators. Health Status and Quality of Life in Stable Coronary Artery Disease Patients with Chronic Kidney Disease Treated With Optimal Medical Therapy or Percutaneous Coronary Intervention (Post Hoc Findings from the COURAGE Trial). *Am J Cardiol* (in press).


Selected Abstracts, Posters & Presentations


Beadell F. “Acute Leukemia and Stem Cell Transplantation for Hematological Malignancies,” presented at Macedonia Missionary Baptist Church, Wilmington, DE. Patient Services of the Delaware Chapter of the Leukemia Lymphoma Society.


Dam HQ, Manzone TA, Grady EC, Slama AL, Culver AG. Is 18F FDG and PET/CT imaging used appropriately for initial staging of breast carcinoma? J Nucl Med 2013; 54(Supplement 2):1462. Presented at Society of Nuclear Medicine & Molecular Imaging annual meeting, Vancouver BC.


Donnelly J. Residency Training for Long Term Careers. Association of Program Directors of Internal Medicine Annual Spring Meeting. 2012


Dryer MM, Dressler R. “Good Catch Safety Event Reporting: Integrating Proactive Safety and Quality Reporting With the Internal Medical Residency Training Program at Christiana Care Health System.” American College of Medical Quality, 2013.

Dryer MM, Dressler R. “Integrating Proactive Safety and Quality Reporting into the Internal Medicine Residency
Training Program at Christiana Care Health System; Increasing Participation through Education, Tiered Recognition, and Closing the Feedback Loop” American College of Medical Quality Best Poster 2013; “Top Ten” award winner, Alliance of Independent Academic Medical Centers annual meeting 2013.


Elliott DJ. “The Ins and Outs of General Internal Medicine: An Evidence-Based Update.” Delaware ACP Annual Meeting, Newark, DE. February 2012.

Elliott DJ and Bennett W. Comparative Effectiveness 101: Practical Pearls from Researchers”. Society of General Internal Medicine Mid-Atlantic Regional Meeting 2011, Baltimore, MD.


Friedland A. Northeast Regional Med-Peds Meeting, “Med-Peds: Something for Everyone. From the Match to Milestones to Transition Care”; University of Maryland 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.


Gauntt J. “Cyclical Urticaria Due to Breastfeeding Anaphylaxis”. Delaware American College of Physicians Poster Presentation 2013. Poster Presentation First Place.


Grady EC, Dam HQ, Manzone TA. Novel vocal cord artifact on 18F FDG PET/CT imaging caused by Radiesse® augmentation. *J Nucl Med* 2013;54 (Supplement 2):1296. Presented at Society of Nuclear Medicine & Molecular Imaging annual meeting, Vancouver BC.


Grady E. The Economy’s Effect on Imaging and NM Coding and Reimbursement Updates. Invited lecture to the Fall 2012 SNMMI Central Chapter meeting, Wisconsin Dells, WI October 2012.


Grubbs S. “Statewide Colorectal Cancer Disparity Elimination in Delaware.” presented at the American Association for Cancer Research meeting on October 30, 2013.


Johnson EJ. “Improving bed management by utilizing early interdisciplinary discharge planning” Poster, Association of American Medical Colleges Integrating Quality 2013 Meeting. June 6-7, Rosemont, IL.

Jones S. Pulmonary Hypertension Team will presentation at the Pulmonary Hypertension Professional Network Symposium: The Power of Teamwork, September 2013, Arlington, VA.

Kao RL, Justice EM, Belleh E, Easterby-Gannett, S, Elliott DJ. “Faculty-Librarian Collaboration on an Evidence-Based Medicine Block Curriculum in Internal Medicine Residency.” Poster Presentation at the
Society of General Internal Medicine Mid-Atlantic Regional Meeting, March 2012, Newark, DE; and Society of General Internal Medicine National Meeting, April 2012, Orlando, FL.


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

LeComte J. “The Internist Perspective: navigating a bumpy road.” Pediatric Kaleidoscope, Nemours duPont Hospital for Children. May 2013


LeComte J. Down Syndrome Association of Delaware, (2012) “Effective Health Care Transition of Young Adults” Wilmington, DE.


Lee E. Donnelly J. “A Rare Cause of Neck Pain.” Delaware American College of Physicians Annual Poster Session: February 2012.


Lyons D. “Implementing a Comprehensive Functional Model of Care in Hospitalized Older Adults,” National Gerontological Nursing Association (NGNA) 2012 Annual Convention, Baltimore, MD, October 5, 2012. Also presented at the 31st Annual Gerontological Advanced Practice Nurses Association (GAPNA) Conference in Las Vegas, NV on September 20, 2012. The presentation was selected for an in-brief oral presentation and won the 2012 GAPNA Research & Clinical Project Presentation award.


Masters G. et.al. CALGB 30504, “Cisplatin or Carboplatin, and Etoposide With or Without Sunitinib in Treating Patients with Extensive-Stage Small Cell Lung Cancer” (accepted 2013 ASCO abstract co-authorship).


Mohammed A. “Data on surgery for left main coronary disease which on follow-up angiography appeared to originally be coronary spasm,” presented at SCAI.


Nauaghton MJ... Grubbs SS. Quality of life (QOL) and toxicity among patients in CALGB 80405. ASCO Annual Meeting, J Clin Oncol 31, 2013 (suppl; abstr 3611).


Patel, V. “Is This Another Angioedema flare-up?” Delaware American College of Physicians Poster Presentation 2013. Poster Presentation First Place.


Prokesh RC, Adams JS, Bacon AE, Brachman P, Van Anglen. “Outcomes Comparison of Intravenous Antibiotics provided in a Physician’s Office Infusion Center (POIC) vs Traditional Home Care services (HC),” presented at the Infectious Disease Society of America annual meeting 2012 San Diego, abstract #793.

Read A. “From Cattle to Patients: A Case of Disseminated Mycobacterium Bovis”. Delaware American College of Physicians 2012 First Place.


Ritz K. Association of Women’s Health, Neonatal and Obstetric Nurses annual convention 4-hour preconference workshop entitled “Women and Obesity: Promoting Healthy Weight Across the Lifespan”, 2012, National Harbor, MD.


Scherer T. “Navigating the Transplant Patient,” presented at the Academy of Oncology Nurse Navigators National Meeting, Phoenix, AZ.

Slease RB. Lectures on multiple myeloma and hematopoietic growth factors as American College of Physicians (ACP) Ambassador to the Chile Chapter of ACP in Santiago and the Uruguayan Society of Internal Medicine in Montevideo in May, 2013.


Shulman LN…Schneider C…et al. “Comparison of doxorubicin and cyclophosphamide (AC) versus single-agent paclitaxel (T) as adjuvant therapy for breast cancer in women with 0-3 positive axillary nodes: CALGB 40101.” ASCO 2013.

Swain SM… Biggs DD, et. al, (2012) NSABP B-38: “Definitive analysis of a randomized adjuvant trial comparing dose-dense (DD) AC→paclitaxel (P) plus gemcitabine (G) with DD AC→P and with docetaxel,
doxorubicin, and cyclophosphamide (TAC) in women with operable, node-positive breast cancer.” ASCO annual meeting 2012.

Szabo S. “HIV/STD/Hepatitis Highlights” presented at 2012 Delaware Health Summit.


Uzelac G. Leadership Day 2013. Capital Hill. Delaware Chapter, American College of Physicians


Vest MT. “Outpaient Care of the Post ICU Patient” presented at the 2012 UNE College of Osteopathic Medicine’s Premier Primary Care Fall weekend Update (CME), October 2013, Biddeford, ME.

Weintraub WS. “Comparative Effectiveness Research at the Japanese Society of Thoracic Surgeons,” the Institute of Medicine and NHLBI and to the European Society of Cardiology.

White J. Lecture on “Basics of Quality” at National Workshop on Quality for Medical Education-Johns Hopkins University/Armstrong Institute.


Zinzella-Cox H, Mathew T. “Care transitions and palliative care are becoming increasingly important in the delivery of care.” Presented at the Society of Hospital Medicine Annual Conference, May 2013, Washington, DC.


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 the Wilmington Hospital Health Center, Physician in Chief, Wilmington Hospital 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

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, Associate Chair for Research & Scholarly Activity

Edmondo Robinson, M.D., MBA, FACP, Physician-in-Chief, Wilmington Hospital

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

David Biggs, M.D., Oncology Section Chief

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

Patricia Curtin, M.D., Geriatrics Section Chief

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

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

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

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

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

Joseph Hacker, M.D., Gastroenterology Section Chief

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

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

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

Thomas Mueller, M.D., Neurology Section Chief

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

Shakaib Qureshi, M.D., Rheumatology Section Chief

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

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

Don Slack, M.D., Assistant Chief of Service

R. Bradley Slease, M.D., Hematology Section Chief
William Weintraub, M.D., Cardiology Section Chief
Frank Beardell, M.D., Member at Large
John Kelly, M.D., Member at Large
Lindsey Slater, M.D., Member at Large
Julie Silverstein, M.D., Medical Director, Wilmington Hospital Health Center
Mike Eppehimer, Medicine Vice President (ex-officio)
Adrian Fedyk, Medicine Finance Manager (ex-officio)

Section Chiefs:

**Allergy & Clinical Immunology**
Greg Marcotte, M.D.

**Cardiology**
William Weintraub, M.D.

**Dermatology**
Peter Panzer, M.D.

**Endocrinology & Metabolic Diseases**
James Lenhard, M.D.

**Gastroenterology**
Joseph Hacker, M.D.

**Geriatrics**
Patricia Curtin, M.D.

**Hematology**
R. Bradley Slease, M.D.

**Infectious Disease**
David Cohen, M.D.

**Internal Medicine**
Virginia Collier, M.D. (interim)

**Hospital Medicine**
Robert Dressler, M.D. (interim)

**Addiction Medicine**
Terry Horton, M.D.

**Medicine-Pediatrics**
Allen Friedland, M.D.
Neurology
Thomas Mueller, M.D.

Nuclear Medicine
Timothy Manzone, M.D.

Oncology
David Biggs, M.D.

Pain & Palliative Care
John Goodill, M.D.
Tom Scott, M.D. (Associate Section Chief)

Physical Medicine & Rehabilitation
Kelly Eschbach, M.D.

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

Renal & Hypertensive Diseases
Ted Saad, M.D.

Rheumatology
Shakaib Qureshi, M.D.

Medicine Unit Based Clinical Leadership Teams

Christiana Hospital
3D: Gerald O'Brien, M.D., Camille Upchurch, 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.,FACP & 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. & Elizabeth Stone, MS, BSN, RN-OCN
6B Oncology: David D. Biggs, M.D. & Courtney Crannell, RN-BC, MSN, 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. & Sandy Wakai, MSN, RN, CCRN
5N: Erin Kavanaugh, M.D. & Michael Knorr, BSN, RN, PCCN
3 West: Dave Maleh, M.D. & Melva Lane, BSN, MBA, RN-BC
ACE Unit: Lindsey O’Donnell, D.O. & Paula Tomanovich, BSN, RN, BC
Committee Membership

**Clinical Research Committee: Meets Monthly**

James Lenhard, M.D., *Co-Chair*
Dan Elliott, M.D., Associate Chair - Research, *Co-Chair*
Alfred Bacon, M.D.
Jerry Castellano, PharmD. (non-voting)
Virginia Collier, M.D., Chair, Department of Medicine, *ex-officio*
Michael DePietro, M.D.
Marcia Drees, M.D.
Deborah Ehrenthal, M.D.
Michael Eppehimer, Medicine Vice President
Ed Ewen, M.D.
Adrian Fedyk, Medicine Finance Manager
Michael Guarino, M.D.
Rubeen Israni, M.D.
Claudine Jurkovitz, M.D.
Debbie Moore, RN, Research Manager
Michael Stillabower, M.D.
William Weintraub, M.D.

**Credentials Committee: Meets Monthly**

Edward McConnell, M.D., *Chair*
Anand Panwalker, M.D., *Vice Chair*
Joanne Brice, M.D.
William Dahms, D.O.
Marciana Filippone, M.D.
Allen Friedland, M.D.
Donald Hayes, M.D.
Ehsanur Rahman, M.D.
James Ruether, M.D.

R. Bradley Slease, M.D.

**Education Committee: Meets Monthly**

Brian Aboff, M.D., *Chair*
Frank Beardell, M.D., Hematology
Kunal Bhaghat, M.D. Hospital Medicine
David Biggs, M.D., Oncology
Matthew Burday, M.D., Associate Prog. Dir. - Competency Assessment
Jeff Cicone, M.D., Nephrology
Virginia Collier, M.D., *ex-officio*
Patricia Curtin, M.D., Geriatrics
Joseph Deutsch, M.D., Assistant Program Director - Inpatient Medicine
John Donnelly, M.D., Associate Prog. Dir. - Ambulatory Medicine
Allen Friedland, M.D., Program Director - Medicine-Pediatrics
Ripu Hundal, M.D., Endocrinology
John Kelly, M.D., Cardiology
Stephanie Lee, M.D., Infectious Diseases
Jason Nace, M.D., Emergency Medicine/Internal Medicine
Badrish Patel, M.D., Critical Care Medicine
Amy Patrick, M.D., Gastroenterology
Shakaib Qureshi, M.D., Rheumatology
Tuhina Raman, M.D., Pulmonary
James Ruether, M.D., Hospital Medicine
Tabassum Salam, M.D., Associate Prog. Dir.- Curriculum Development
Sarah Schenck, M.D., Adult Medicine Office
Jason Silversteen, D.O., Neurology
Donald Slack, M.D., Assistant Chief of Service
Nominating Committee: *Meets Once Every Two Years*

James Loughran, M.D., *Chair*
Reynold Agard, M.D.
Anthony Furey, M.D.
Vinod Kripalu, M.D.
Timothy Hennessy, M.D.
James Piacentine, D.O.

Professional Excellence Committee: *Meets Monthly*

Anand Panwalker, M.D., *Chair*
Kunal Bhagat, M.D., IPC - The Hospitalists Company
Kambiz Butt, M.D., IPC- The Hospitalists Company
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
Don Slack, M.D., Assistant Chief of Service
Badrish Patel, M.D., Pulmonary & Critical Care Medicine
Tabassum Salam, M.D., Associate Residency Program Director
Candace Sprott, M.D., Medicine Administrative Fellow
Welcome New Physicians

We welcomed 32 new physicians to the department in FY13 (through June 30, 2013).

**Medicine/Cardiology**

Hamid Deliri, M.D.
Tri-State Cardiovascular Institute

**Endocrinology**

Kalleen S. Barham, M.D.
Christiana Care Endocrinology Specialists

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

**Internal Medicine**

Courtney Ackerman, M.D.
Consulting Internist, Department of Medicine

Roi Altit, M.D.
Consulting Internist, Department of Medicine

Jennifer B. Brettler, D.O.
Christiana Care Hospitalist Partners

Farhana A. Chowdhury, M.D.
IPC – The Hospitalist Group

Cheryl A. Jackson, M.D.
Internal Medicine Faculty

Sofia F. Kim, M.D.
Christiana Care Hospitalist Partners
Grace Y. Kwon, M.D.
Christiana Care Hospitalist Partners

Jason K. Magargle, D.O.
IPC- The Hospitalist Group

Heather Ragozine-Bush, M.D.
IPC – The Hospitalist Group

**Medicine-Pediatrics**

Raymond E. Carter, M.D.
Medical Group Christiana Care

Samantha A. DeCouto, D.O.
Medical Group Christiana Care

**Neurology**

Valerie E. Dechant, M.D.
Christiana Care Neurology Specialists

David E. Kahn, D.O.
Christiana Care Neurology Specialists

Jonathan M. Raser-Schramm, M.D., Ph.D.
Christiana Care Neurology Specialists

Hiujun Wang, M.D., Ph.D.
Christiana Care Neurology Specialists

**Occupational Medicine**

Ben Hur Mobo, M.D., MPH
Employee Health, Christiana Care Health Services
Pain Management & Palliative Care

Gary E. Applebaum, M.D.
Seasons Hospice & Palliative Care

Jessica Arias-Garau, M.D.
Mid Atlantic Spine & Pain Physicians

Siamak Samii, M.D.
Seasons Hospice & Palliative Care

Pulmonary & Critical Care Medicine

Hakim A. Ali, M.D.
Christiana Care Pulmonary Associates

Christa R. 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

Pulmonary & Critical Care Medicine – Telemedicine

Markandaya Manjunath, M.D.
Advocate Health Care

Nikolich Sanja, M.D.
Advocate Health Care

Sriram Krishnan, M.D.
Advocate Health Care
Renal & Hypertensive Diseases

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

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 FY13.

Internal Medicine

Robert Altschuler, M.D., Bancroft Internal Medicine, PA
Originally appointed on September 25, 1972; Retired on January 1, 2013.

Napoleon Manubay, M.D.
Originally appointed on April 26, 1971; Retired on January 31, 2013.