4th Quarter 2008

The University of Tennessee Medical Center and The University of Tennessee Graduate School of Medicine

Frontiers

Patient Care

The Heart of an
Academic Medical Center



For Alumni and Friends

Lights of Love



Lights of Love is a year-round program that provides a special way to honor or remember a loved one; to recognize a holiday or other special event; to say "thank you" for medical care received at the hospital; or to give a special holiday gift. All donations support the pastoral care program at the University of Tennessee Medical Center.

If you would like to honor or remember an individual with a Lights of Love donation, you may do so online at www.utmedicalcenter.org/lightsoflove or you can request additional forms from the University of Tennessee Medical Center, Office of Development at 865-305-6611 or development@utmck.edu.

THE UNIVERSITY OF TENNESSEE MEDICAL CENTER

Honor or remember someone special with a gift that shines!

A Holiday Tradition Begins















Contents

2 **Welcome**
Words from the heart

3 **The Faces of Quality**
Coming together for the common good

6 **Building from the Heart**
Construction of a new Heart Hospital

10 **There's Nothing Like It**
A family-focused approach to having a baby

12 **A Mirror of Health**
What your mouth says about your overall health

14 **When It Matters Most**
Why a Primary Stroke Center is important

16 **Primary Care Doctor**
The total health connection

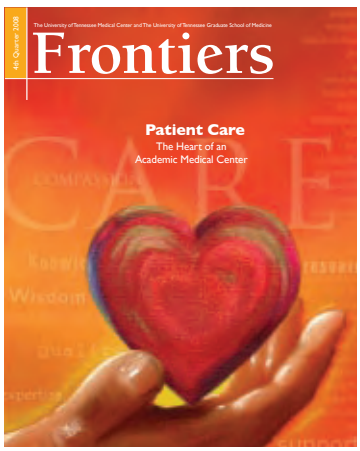
18 **Good Fellows on Your Team**
Specialized expertise equals specialized care

20 **Grassroots Excellence**
Medical Center nurses measure up well

22 **Always Ready**
Assisting patients in times of stress and crisis

24 **Giving Honor Where Honor Is Due**
Recognizing the 100th Guardian Angel

25 **UT CME Course Calendar**
Continuing medical/dental education



About the cover

The cover serves as a visual reminder that patient care requires a personal touch. The Medical Center is revered for its academic standards of excellence, but patient care is at the heart of everything we do.

The University of Tennessee Medical Center and The University of Tennessee Graduate School of Medicine Frontiers

4th Quarter 2008

Editor
Becky Thompson

Publishers
Joseph Landsman
Norman Majors
Jim Neutens

Contributors
Hillari Dowdle
Rachel Greene
Heather Grieve
Wendi Hope Hager
Amanda Johnson
Lea Anne Law
Sandy Oelschlegel
John Sheridan
Susan Wyatt

Design
Asen Marketing & Advertising, Inc.

Frontiers is a magazine produced by The University of Tennessee Medical Center and the University of Tennessee Graduate School of Medicine. This publication was designed to showcase the unique benefits of having an academic medical center in East Tennessee.

Copyright ©2008
The University of Tennessee Medical Center
All Rights Reserved.
EEO/TITLE VI/TITLE IX
Sec. 504/ADA

Send Correspondence to:
Frontiers
1520 Cherokee Trail, Suite 300
Knoxville, Tennessee 37920-2205
Telephone: 865-305-6845
Fax: 865-305-6959
E-mail: frontiers@utmck.edu
Web: www.utmedicalcenter.org
or http://gsm.utmck.edu

THE UNIVERSITY of TENNESSEE GRADUATE SCHOOL OF MEDICINE

THE UNIVERSITY OF TENNESSEE MEDICAL CENTER

Dear Alumni and Friends,



Every day thousands of procedures, evaluations, and tests occur at the University of Tennessee Medical Center. But when all's said and done, everything we do revolves around one core mission—providing our patients and their families with the highest-quality care. Whether you or a member of your family is receiving treatment at our Trauma Center, having a baby, undergoing surgery, getting chemotherapy or radiation treatments, or being treated for a variety of other conditions, you can be assured that our goal is to provide care surpassing all benchmarks and standards of quality.

We work toward this goal by recruiting physicians, nurses, and other health professionals recognized for their patient care skills and expertise, and by providing them with the environment and facilities to deliver care at the highest level to you and your family. At the same time, we fulfill our mission as an academic medical center by passing on this expertise to those who will provide healthcare for our communities in the years ahead. Complimenting the work of our physicians, dentists, nurses, and technicians are the dedicated staff in food services, environmental services, and maintenance who share this same passion for the care and comfort of our patients.

We are challenged every day by new technologies, discoveries, and treatment options. We welcome these challenges, which keep us at the forefront in providing the most comprehensive care in the region to our patients and their families.

I hope you will enjoy this issue of *Frontiers*, which is designed to tell you more about the men and women who are the heart of the University of Tennessee Medical Center and whose efforts are dedicated to the health of our patients.

Sincerely,

Joseph R. Landsman, Jr.
President and Chief Executive Officer
University Health System, Inc.

The title of this issue, Patient Care, is really what we are about. Whether we are talking about education, research, or service, all roads lead to high quality care for those who entrust their lives to us each day. One of the themes throughout the articles is our excellent team approach to medical care. On the educational side, fellows are active participants on our healthcare teams providing specialized care only offered through an academic medical center.

The article entitled "A Mirror of Health" demonstrates how two apparently different health specialties—dentistry and cardiology—are linked through better patient care and research opportunities to improve that care. Having both of these specialties in one setting is very unique, illustrating how the University of Tennessee Medical Center contributes to the healthcare needs of Tennesseans.

The backbone of our team approach, of course, is our people. The first article says it best: "All those involved in our academic program are pushed to be the best they can be, and that yields excellent care and patient outcomes we can measure."

Sincerely,

James J. Neutens, PhD
Dean
UT Graduate School of Medicine

The faces of QUALITY



It's easy

to spot quality when you're buying a car, or shopping for a new home, or even just dining out. You know it when you see it or experience it. But where healthcare is concerned, things get a lot more complicated.

In a medical environment, quality has many dimensions. Quality is being efficient with the use of scarce medical resources. It's creating teams of highly trained specialists to achieve the best outcome for each patient. It's providing systems of care which, above all else, ensures patients are safe. It's being guided by evidence-based medicine as we treat our patients. It's listening to patients' and their families' concerns and providing meaningful answers to their questions. It's increasing surgical successes and eliminating complications. It's delivering the right care to the right person at the right time. It's ethics, procedures, information management, medication administration, process review, and surveillance.

The faces of QUALITY









Quality is the sum total of everything we do every day to minimize risk and optimize outcomes for every patient who comes through our doors.

Five Dimensions of Quality Care

- Safety
- Efficiency
- Timeliness
- Patient Satisfaction
- Effectiveness

Some measures of quality are objective. We can quantify, for instance, how quickly we're able to administer aspirin to a patient who has chest pain. We can know and measure with certainty whether a patient with pneumonia was given the correct antibiotic at the proper time. We have a record of how long it took to get a patient showing evidence of a myocardial ischemic event from the emergency room to the cath lab. We can see whether or not hands are washed and patient identifications are checked and cross-checked.

These are aspects of what we call our core measures—the processes and procedures we monitor every day to ensure compliance with the standards for quality and safety set forth by The Joint Commission, which has awarded our organization its Gold Seal of Approval. Our core measure focus is on five key areas: heart attack care, heart failure care, pneumonia treatment and prevention, surgical care, and prevention of surgical infection.

But meeting quality standards is not enough—we want to exceed them. Our goal is a lofty one: we want the University of Tennessee Medical Center to set the benchmark for quality in all of our services. Our Process Improvement department continually monitors more than 400 hospital functions to see how we're doing—measuring us against hospitals across the community, state, and nation. Data in hand, we then issue feedback to every part of the organization and our medical staff. We regularly report on departmental and individual performance so we can celebrate our success and come together to take advantage of opportunities. Every employee in our organization knows that we're all individually and collectively responsible for ensuring the highest quality of care, and each employee is invested in the process of continuous improvement.

Our Core Measures

- **Heart attack care**
- **Heart failure care**
- **Pneumonia care and prevention**
- **Surgical care improvement**
- **Surgical infection prevention**



We have established more than 30 quality teams throughout the hospital to keep working toward excellence—and we've had measurable success. We have improved on our core measure performance, especially heart attack, pneumonia, and surgical care each year since 2005, ranking better than state and national levels in 24 of the 24 publicly reported indicators.

As an academic organization, we are held to high standards, as we should be.







We have some unique opportunities and challenges in raising the bar for quality. Because we're an educational institution, we are able to attract some of the best minds in medicine—top subspecialists, leading researchers, medical innovators. We can offer services and facilities that are unmatched in the region. And as a result, we attract the very sickest patients—the ones who need the advanced level of care only we can provide. Yet we deal with the not so complicated care required of most patients. We have to be equally effective at both ends of this patient-care spectrum.



We are challenged every day to be at the top of our game, in step with the latest research findings and cutting-edge medicine. It is our charge to teach and practice the best of what we know as high-quality medical care. It is no exaggeration to say that our physicians are outstanding. All those involved in our academic program are pushed to be the best they can be, and that yields excellent care and patient outcomes we can measure.

Much less tangible, but no less important is that for patients, quality is directly connected to personal experience. They consider such questions as these: Did you explain to me why I'm waiting? Did you demonstrate that you're concerned about me and my family? Did you listen to my needs? Did you ask my opinions? Did you allow me to make any decisions for myself? Did you allay my fears?

Patients expect that they'll get the right treatment at the right time, and we certainly have the quality-control measures in place to ensure that they do. But they also expect compassionate care—and those human factors aren't as easy to quantify and focus on.

Nevertheless, we are a patient-centered hospital, and we strive for excellence in care at the human level. We wield the science of medicine, yes, but practice the art of medicine too. Our commitment to excellence underscores every patient experience. In the end, we understand that the faces of quality are those of our healthcare team and of the patients and families who we serve.



The first phase of this expansion, opening in 2010, will include a beautiful atrium area for the front lobby and main entrance.

BUILDING FROM THE HEART

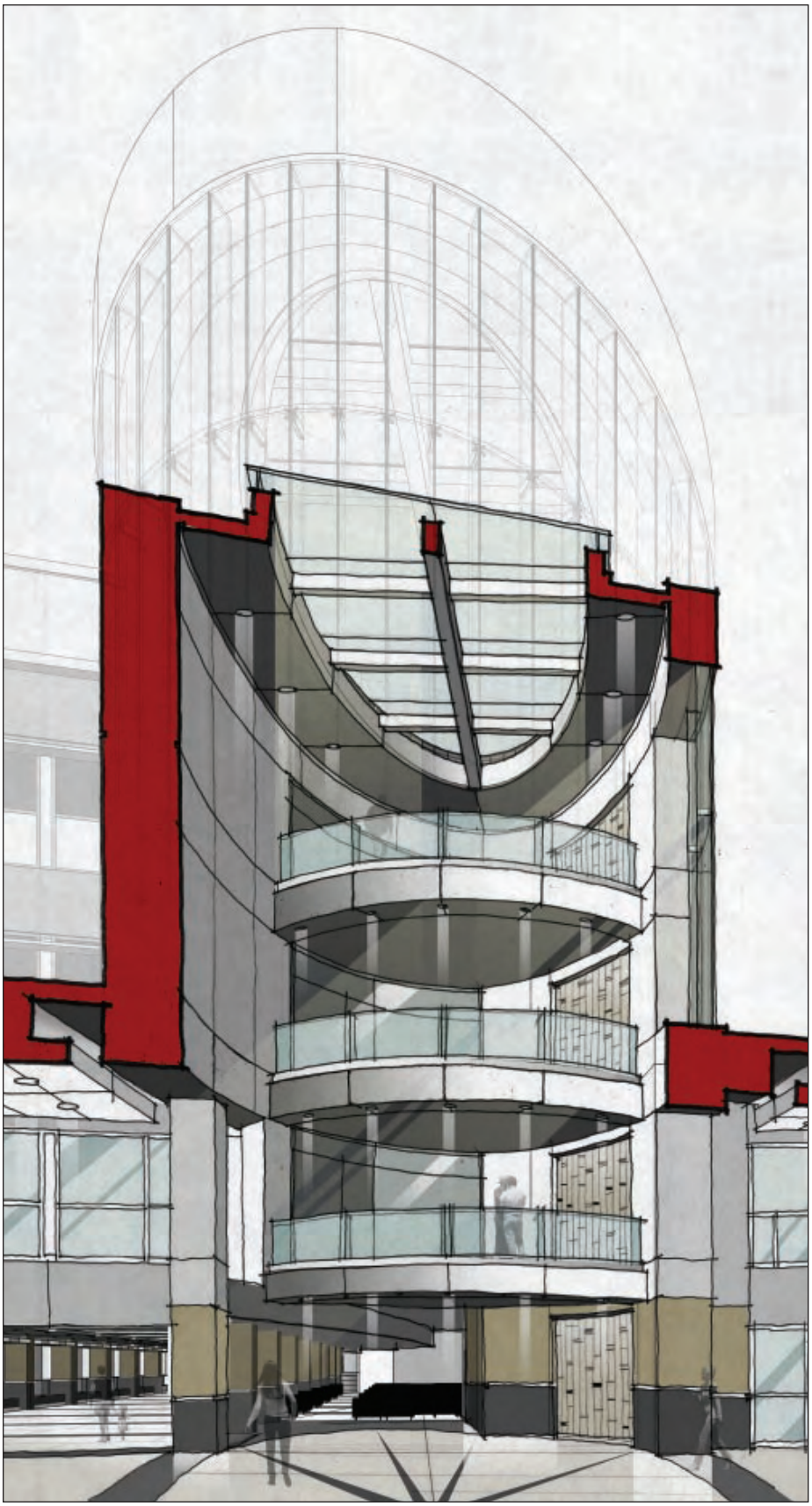
Construction of a New Heart Hospital

The University of Tennessee Medical Center has experienced tremendous growth during the past couple of years, and the need to keep pace with this rapid growth has required us to expand our physical space. The Tennessee Health Services Development Agency has approved a "certificate of need" that will enable the Medical Center to build an additional patient tower. That new structure will be located on the Medical Center's front flag circle and will be called the Heart Hospital, the first of its kind in the region.

Why do we need a dedicated Heart Hospital? The National Center for Health Statistics estimates that one in three American adults have one or more types of cardiovascular disease, accounting for one out of every four hospital admissions. And over the next two decades the number of admissions for heart, lung, and vascular disease is expected to increase substantially. How does Tennessee place? Heart disease is the leading cause of death for Tennesseans and the state ranks third highest in the nation for heart disease-related deaths. That is why the University of Tennessee Medical Center takes seriously the responsibility to expand capacity to continue to meet the needs of the region and to provide the most advanced care available.



The ground breaking ceremony for the Heart Hospital brought together many excited staff and visitors. Pictured above are Teresa Levey; Dale Wortham, MD; Michael Freeman, MD; Bernard Bernstein; Joe Landsman; John Mack, MD; Paul Branca, MD; and Reverend Ben Lewis.



In the Heart Hospital's first phase, the four-story building will include a beautiful atrium area that will serve as the front lobby and main entrance. People entering the lobby will look up at four stories of airy, glass-walled space under a spectacular rotunda, with open balconies marking the three floors above.

To the right they'll find a donor-recognition area; to the left will be access to endoscopy and MRI registration. This first level of the new tower will create a much larger and more efficient state-of-the-art endoscopy department and will also make it possible to renovate the existing space.

Straight ahead will be a hallway or concourse. Patients and visitors will walk a short distance to a new information desk at the intersection



of hallways leading directly to the Emergency Department and to physician office buildings A, B, and C. Displayed along the concourse will be photographs documenting the history and milestones of the Medical Center and images expressing who we are now. A new conference and meeting area as well as space for a patient information center so patients and their families can research health information are also planned.

The second floor of the Heart Hospital will house a new 24-bed private-room cardiovascular intensive care unit (an increase over the 18 beds we currently

have), plus a family area where families are able to be an integral part of the healing process. When visitors step off the elevator, they'll find a new surgery waiting area for families to their left and a new cardiovascular intensive care family lounge almost straight ahead. Centralized core nursing staff along with nursing alcoves located outside each patient room will allow for individualized nursing care.

The cardiovascular intensive care rooms will offer patients' families space to visit and participate in the care of their loved ones. Each room will have bath and restroom facilities and a sofa. The sofa will convert to a one-person bed for overnight stays by a family member. Studies show that private patient rooms are associated with lower incidences of infection, less noise, increased patient privacy, greater patient satisfaction, and faster recovery.

This first phase of the tower, which is expected to be complete early in 2010, will also include two floors of shelled space that can accommodate 32 patient beds per floor. Construction on the project began last month. We're certain that this addition to the Medical Center campus will greatly enhance our ability to serve the people of our region.

The second phase of expansion will provide the Heart Hospital with four more floors and will be completed at a later date. This change to the Medical Center campus will transform the future of healthcare in the region by providing multidisciplinary cardiac care in an atmosphere designed for compassionate patient and family interaction.

Heather Grieve

The Preston Medical Library

Preston Medical Library has served the information needs of the University of Tennessee Medical Center and the East Tennessee region for more than 40 years.







As a department of the UT Graduate School of Medicine, the library supports residency programs and other educational programs of the school—but it serves patient families and the broader community too. In fact, almost a quarter of the information services provided by Preston Medical Library go to community members: patients, patient families, area physicians, and attorneys.

Growing the Preston Medical Library will allow us to expand our services offered to patient families. The new library, to be located next to the Heart Hospital's lobby, will contain all the resources needed by anyone seeking health or medical information. Patients and their families will have more resources at their fingertips to research and learn more about diseases, conditions, and treatments.

Arriving at Preston Medical Library's new consumer library, patients and visitors will find a bright, modern area where a reference librarian will greet them and guide them to the information they need. They'll also be able to connect laptop computers to the building's wireless network in a setting designed for comfort. This dedicated space, offering a large book collection, brochures and pamphlets on specific diseases and conditions, and computers (including some with adaptive technology for the hearing- and sight-impaired), will put valuable health information within easy reach. Most important, professional staff will be available to help locate the desired information and dissect mystifying medical terminology.

Sandy Oelschlegel



There's Nothing Like It!

A Family-Focused Approach to Having a Baby

When Jeanne Cecil and her husband, Jeremy found out they were having a baby, there was no question in their minds about where the birth would take place. Friends who'd recently had babies had told Jeanne great things about the care they'd received at the University of Tennessee Medical Center, so she knew that was where she wanted to go, too. In August of this year, with the assistance of Jeanne's physician Dr. Robert Elder, the staff of the Labor and Delivery department, and members of their family, the Cecils welcomed their little girl, Ava, into the world.

"The support of the Medical Center staff is incredible," says Jeanne. "They were so flexible with family members who wanted to visit during the labor process. My husband has a large family, so it was really nice that they could be with us the whole time and not have to wait until after Ava arrived."

The Labor and Delivery department at the Medical Center practices family-centered maternity care that lets a family participate in the birth of a child. The principle of family-centered care

integrates pregnancy, childbirth, and postpartum and infant care as a normal, healthy life event for families. "It's important to recognize the importance of family support and participation in the birthing process. However, the mother chooses how many and which people will be with her during this special time," says Laura Kerr, RN, nurse manager of Labor and Delivery. "Our department focuses on keeping mother and baby safe and comfortable while making the total birth experience about the mother and her wishes."



Jeanne Cecil and baby Ava

Nurses offer support to mothers and their families and help make the process of labor rewarding. "My nurse was wonderful and was so motivating," Jeanne says. "Everything that was going on was explained to me, which helped me understand why I felt certain things and what to do next."

Each room in the Labor and Delivery area is private and designed to be homelike, peaceful, and quiet. Often the only sounds you hear when you walk down the hall are the first cries of a newborn and the oohs and aahs of excited family members.

Although most people can expect to go through a normal pregnancy and delivery with no complications, sometimes situations arise that require more sophisticated care. Not only does the University of Tennessee Medical Center have highly skilled labor and delivery staff, it also is the region's designated regional perinatal center and only private room Level III (the highest state-designated level) neonatal intensive care nursery. It's just steps away from the Labor and Delivery area.

After recovery in Labor and Delivery, mother and infant are moved to a room in the mother-baby unit, where they're cared for together by a single nurse until they leave the hospital—an approach known as couplet care. Unlike the traditional method of postpartum care, in which new babies are cared for in a separate nursery by dedicated nursery staff, couplet care helps mother, baby, and family begin building relationships immediately. If the new mother needs a little time to rest, her nurse can care for the infant in a small nursery just down the hall from her and her child's room.

"Couplet care has been shown to help with bonding between mother and baby and continues the family-centered care approach," says perinatal clinical nurse educator Beth Weitz, NP. "This is a great opportunity to build relationships within the family and to help prepare them for what to expect when they get home. New parents can ask questions and learn how to care for their infant." Couplet care rooms have extra sleeping accommodations to enable a father or partner to stay with the mother and baby while they're in the hospital.

> "When they lay your baby on your chest and you get to meet the baby for the first time. There's nothing like it."

"I really liked having Ava in the room with me," says Jeanne. "I didn't want to be apart from her. Besides, I'm going to have her with me all the time at home, so it was good to experience what that would be like." And while her stay in the Medical Center was, in her word, "wonderful," when asked about the most memorable moment she replies without hesitation, "When they lay your baby on your chest and you get to meet the baby for the first time. There's nothing like it."



Tonya and Joe Castleman recently experienced family-focused care in the labor and delivery department. Pictured above are the Castleman's with their son, Cooper, and their nurse Caroline.

Heather Grieve

A Mirror of Health:

What your mouth says about your overall health



If the eyes are the mirror of the soul, then the mouth may be the mirror of the heart…and lungs, arteries, kidneys, and other parts of the body.

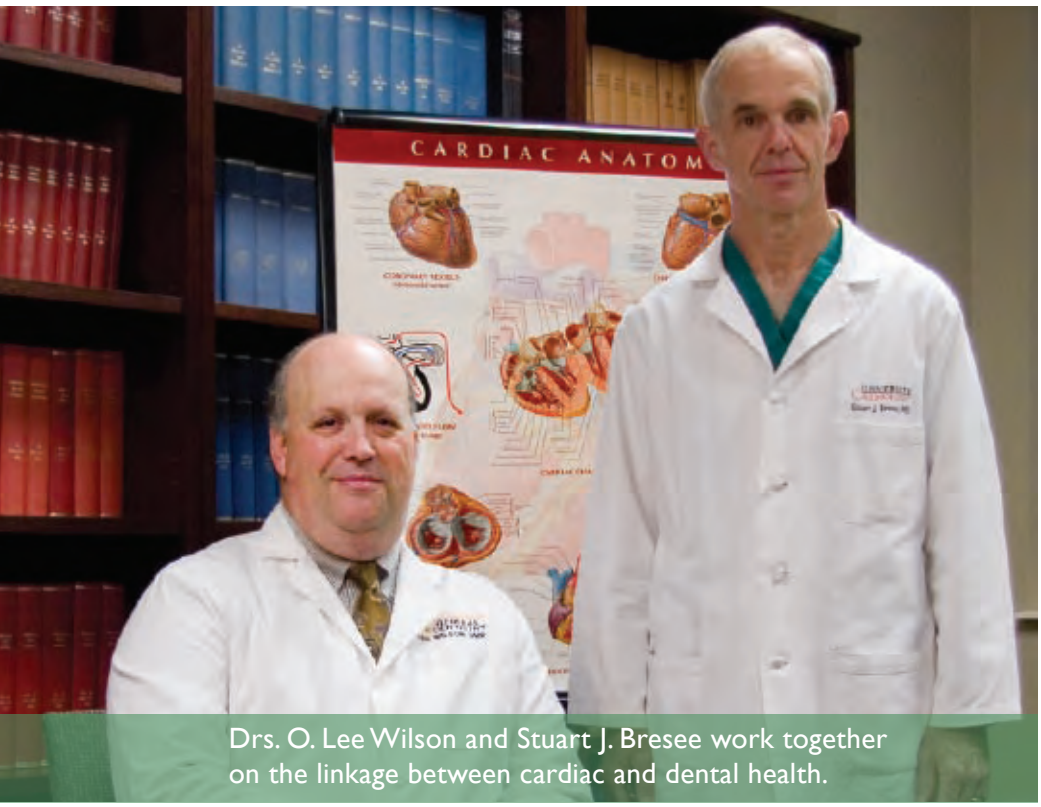
Dental professionals have long seen a correlation between the health of a patient's gums and life-threatening conditions that may later develop. But it was not until 10 years ago that the American Academy of Periodontology (AAP) began educating the public that a person's periodontal, or gum, health can be an indicator of systemic disease, health problems that can affect organs and tissues or the body as a whole.

Today research studies suggest links between periodontal disease and risks for heart disease, stroke, diabetes, premature birth, respiratory disease, and HIV. Studies about the effects of improved oral health on kidney disease are currently under way. According to the AAP, "Infections in the mouth can play havoc elsewhere in the body." This holds true even for healthy young adults who have no other symptoms of disease.

UT Graduate School of Medicine resident dentists and physicians are identifying better ways to recognize signs in the oral cavity that may indicate their patients have problems in other areas of the body. The main cause of periodontal disease is bacterial plaque, a sticky, colorless film that constantly forms on your teeth.

Gum diseases, including gingivitis and periodontitis, are serious infections that if left untreated can lead to tooth loss and even more serious health problems. For instance, oral plaque under the teeth can contain bacteria that release toxins that can destroy bones and circulate through the bloodstream. These toxins can cause atherosclerosis, an inflammatory response in the arteries that can lead to plaque buildup in the arteries.

Associate professor O. Lee Wilson, DMD, director of the General Practice Residency Program in dentistry, says this new understanding places dentists on the front lines of disease detection. "Dentists have been able to see the impact of serious diseases, such as diabetes, based on the condition of a patient's gum health," he notes. "But researchers examining how these signs in the mouth relate to the progress of diseases in the body have helped us understand that some of the first outward signs of disease may appear in the gums early in the disease cycle. This can mean earlier detection of health problems and preventive care for our patients."



Drs. O. Lee Wilson and Stuart J. Bresee work together on the linkage between cardiac and dental health.

Armed with the latest research, the dentists are able to refer patients for follow-up with the appropriate medical expert. Wilson explains: "Previously, dentists using a blood-pressure cuff during our standard pre-examination might discover a patient with a high reading and suggest subsequent medical follow-up. Now, equipped with knowledge of oral-cavity indicators signaling early organ disease, our dentists consider the possible systemic side effects and refer patients directly to the appropriate medical expert."

Stuart J. Bresee, MD, a UT Graduate School of Medicine clinical associate professor and chief of the Department of Medicine's Cardiology Division, explains how studies may link chronic dental disease and inflammation with heart attacks. "We can measure systemic, or body-wide, inflammation using blood tests such as the high-sensitivity C-reactive protein, and we know that inflammation is definitely associated with heart attacks."

Bresee cautions that the correlation between dental disease and heart attacks needs further study. "But what we do know for certain," he says, "is that inflammation is one of the root causes of coronary events that lead to heart attack. Chronic dental disease can contribute to this inflammation throughout the body and promote heart attacks that way."

Bresee and Wilson agree that understanding the relationship between periodontal condition and disease is important to good health care. "After all, there's a whole person underneath the mouth of the patient," says Wilson. "We are emphasizing to our resident dentists the importance of interacting and collaborating with the Medical Center physicians and other healthcare professionals to ensure the best, most proactive patient care we can provide. It's a team effort."

Do You Have Gum Disease?

The link between gum disease and disease throughout the body is so strong that some health plan companies are promoting good dental hygiene by offering to cover additional preventive services for patients who have diabetes, are pregnant, suffer from heart disease, or are considered high risk.

Could you be one of the millions of people who have gum disease and don't know it? To find out, take the free online risk assessment designed by the American Academy of Periodontology at http://www.perio.org/consumer/4a.html#

Lea Anne Law

When it Matters Most
Why a Primary Stroke Center is Important



Ann Giffin, Danielle Reynar, and Jennifer Henry discuss a patient's plan of care.

In an instant, a person's life can be greatly affected by a stroke. No one expects it to happen, but someone suffers from a stroke every 45 seconds and it has no age bias. In fact almost one-third of all people who suffer from stroke are under the age of 65. Now if that person is you or someone you love, you want them to receive the highest quality care available to provide the best outcome. That's what primary stroke center certification means.

The University of Tennessee Medical Center was the first in the East Tennessee region to earn the prestigious Primary Stroke Center Certification from the Joint Commission, the nation's predominant standards-setting and accrediting body in healthcare. The Medical Center demonstrated that its program makes exceptional efforts to follow national standards and guidelines that significantly improve outcomes for stroke patients.

What does that mean for you or your loved ones? It means that the University of Tennessee Medical Center offers the highest level of stroke care. It means that if you have a stroke, you will have a team dedicated to working together for the best outcome to meet your individual needs.

The multi-disciplinary stroke team is made up of physicians, nurses, and therapists who plan, implement, monitor,

and improve the care of patients who suffer from stroke. The stroke team collaborates with emergency medical services, regional emergency rooms, and the community to ensure prompt identification of symptoms and implementation of treatment interventions with the goal of reducing the long-term impact of stroke. Treatment may include medications, surgery, and/or rehabilitation, depending on the type of stroke, its severity, its effects, and how quickly the patient received care.

> "Nearly 700,000 people experience a new or recurrent stroke each year in the United States,"
>
> - Ann Giffin

"Nearly 700,000 people experience a new or recurrent stroke each year in the United States," said Ann Giffin, vice president of the Brain and Spine Institute at the Medical Center. "Stroke is the nation's third leading cause of death and the number one cause of disability, which means we must ensure that our stroke care, prevention measures, and education at the Medical Center are superior."

From the onset of symptoms it is important to have the right team with you every step of the way. "The quality care provided is effectively managed to meet the specialized needs of stroke patients," said Jennifer Henry, stroke coordinator at the University of Tennessee Medical Center. Having a primary stroke center at the Medical Center has the critical elements to achieve long-term success and improve outcomes. The features of a primary stroke center include 24-hour access to neurology, neurosurgery, and neuroimaging, including a CT scanner in the Emergency Department and rapid laboratory response for a timely diagnosis, operating room availability, critical care beds, and a designated unit for stroke care.

The Medical Center is dedicated to reducing the long-term impact of a stroke, offering the latest imaging technology in order to provide minimally invasive treatment. In addition, the center also focuses on early identification of rehabilitation needs and public education, including stroke prevention and the detection of early warning signs of stroke. Superior stroke care, prevention measures, treatment, and education all are practiced within the entire organization in order to significantly improve outcomes for patients and potential stroke patients. The best chance for recovery from a stroke is to receive treatment within the first three hours after the onset of symptoms. Thus symptoms of stroke should be treated with the same urgency as chest pain.

Stroke Warning Signs

Stroke can occur at any time, and the sooner a patient can receive treatment, the better the outcome. Recognizing the warning signs of stroke will improve the patient's chances of a better recovery.

- Sudden weakness, paralysis or numbness of the face, arm or leg, especially on one side of the body
- Sudden onset of double vision, dimness or loss of vision
- Sudden difficulty speaking or understanding language
- Sudden severe headache without apparent cause
- Unexplained dizziness, unsteadiness or loss of balance, especially in combination with other signs

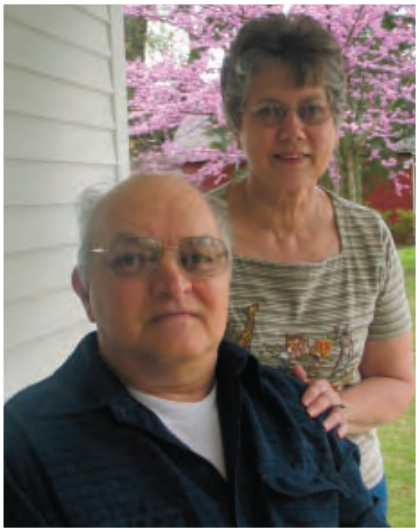
If someone is experiencing these symptoms, call 911 immediately.

Stroke Center Saves Patient

In January 2007, Jack McGuire suffered a massive stroke that left him with many obstacles that he and his wife, Betty, would have to face. Luckily, the stroke occurred just a few weeks after attending a stroke program presented by the University of Tennessee Medical Center – part of the community education required by the stroke certification. With this education, Betty was able to quickly identify Jack's symptoms and get him proper care. The Medical Center's Certified Primary Stroke Center provided the expertise of the stroke team that could create the best treatment plan for Jack. "A stroke can happen to anyone," says Betty. "The sooner you can seek treatment, the better. I would not have known what was going on if I hadn't been to the class."

Betty and Jack could not be any more thankful to the stroke team and appreciate the dedication, training, and compassion each member exhibited. "The team all worked together to provide excellent care," Betty recalls. "It is miraculous that Jack has recovered like he has."

Wendi Hope Hager



Jack & Betty McGuire at their home.

PRIMARY CARE DOCTOR

Your primary care physician can open doors and serve as your advocate in the complex healthcare process.

The Total Health Connection

Most people know what they need to do to be healthy—eat well, exercise, don't smoke, wear a seatbelt. But a major component to staying healthy is having a primary care physician. Trained in every major area of medicine, your primary care physician is the foundation for your good health. The primary care physician not only treats your medical conditions but also monitors your health over time by identifying changes that could signal the onset of a disease and determines when and where to send you for specialized treatment. When you need a treatment referral, specialized care or hospitalization, your primary care physician can open doors and serve as your advocate in the complex healthcare process.

Choosing the right primary care physician is as important as choosing the right business partner. You have to find the person who you trust, who is well trained and educated and with whom you expect to have a long relationship. Ask these important questions when choosing your physician: where do you go for information when you have questions; where do you send your patients for treatment; when you need a consult, to whom do you refer?

The University of Tennessee Medical Center currently has 36 family and 27 internal medicine physicians. Having a University of Tennessee Medical Center primary care physician means patients are assured access to all of the resources of an academic medical center. Our five Centers of Excellence along with other areas within the hospital work together to coordinate services, facilitate referrals and communication, and efficiently manage care from the physician office to the hospital to other outpatient services designed to help each patient along the road to recovery.

Primary care physicians at the University of Tennessee Medical Center also have access to the latest technology including endoscopic ultrasound, PET/CT scan, Da Vinci Surgical System and CyberKnife StereoTactic Radiosurgery System. This technology coupled with the skills of our highly trained physicians help patients have a better chance for recovery and returning to a normal life.

The primary care physician provides both the entry point and the focal point for your healthcare. To find a primary care physician a the the University of Tennessee Medical Center, call toll-free 1-877-UT CARES.

Susan Wyatt



The Functions of a Primary Care Physician (PCP)

Your primary care physician is available to build a life-long relationship and provide services including:

- **Diagnose and treat personal medical problems**
- **Provide preventive medical screenings based on medical risk factors or family history and if such screenings detect an early-stage condition, provide appropriate treatment or referral**
- **Admit you to a hospital, if needed**
- **Provide formal written referrals to specialists if that is part of your health insurance plan**
- **Provide pre-surgical clearances**
- **Coordinate the efforts of various specialists who may be diagnosing and treating your medical problems**

Good Fellows on Your Team

In Tennessee, the aged population is expected to grow from about 12% to 26% in the next two decades, but the state has only 95 physicians trained to care for the unique needs of the older population.

Currently the United States is experiencing a shortage of cardiologists, particularly as the baby boomers age. In Tennessee, heart disease is the most common cause of death. Most recent statistics state that diseases of the heart caused 26.9% of the deaths in the state.

In Tennessee each year, respiratory diseases account for 5.5% of deaths, the fourth leading cause. This prevalence of lung disease is occurring when the country, particularly rural areas, is experiencing a shortage of physicians.

Only 2.3% of physicians in the state are pulmonary specialists.

The outlook of healthcare in the U.S. and in Tennessee might seem bleak. We don't agree. Through our fellowship programs, UT Graduate School of Medicine is fulfilling the needs of patients in our communities with highly trained, specialized physicians. And the best part for you is that these fellows are on your team.

The team approach is best for patient care. In fact, it's just what the doctors ordered. And thanks to UT Graduate



Left to right: Tanika Pinn, MD, James Chalk, MD, William Mix, MD, Venkata Aligeti, MD, (front) Lorien Forrest, MD, (back) Luke Rawlings, MD, Rubinder Rudy, MD, Carmelo Venero, MD, Joseph Wollas, MD, Paramveer Bhugra, MD, Kinnaresh Patel, MD

School of Medicine's aggressive approach to educating physicians, you not only have practicing physicians on your team, but you also have experienced fellows working for you. They form a team that works together, brings unique levels of expertise, asks questions, and finds answers.

"The fellows in Vascular Surgery are fully trained general surgeons who choose to do two years of subspecialty training, and their impact on patient care is immense," says Michael Freeman, MD, professor of surgery, chief of the Division of Vascular Surgery, and program director of the Vascular Surgery Fellowship. "Since the University of Tennessee Medical Center is a referral center, we see many of the region's patients with the most complicated vascular problems. Without the help of the vascular fellow, it would be difficult to provide necessary patient care to see these individuals through their surgery and post-operative recovery. This would mean many vascular patients with complicated problems would have to leave the region to find other specialized vascular centers."

UT Graduate School of Medicine offers 12 fellowship programs, having added three new programs in the last year:

2008 / 2009 FELLOWSHIP PROGRAMS AND PROGRAM DIRECTORS

Advanced Obstetrics
Sigrid Johnson, MD, MSc

Behavioral Medicine
Steven Spalding, MD

Cardiovascular Disease
Dale Wortham, MD

Cytopathology
Elizabeth Hubbard, MD

Emergency Medicine
Amy Keenum, DO, PharmD

Geriatric Medicine
Ronald Lands, MD

Oral/Head and Neck Surgery
Eric Carlson, DMD, MD

Pulmonary Disease
Tina Dudney, MD

Sports Medicine
Kenneth Bielak, MD

Surgical Pathology
Alan Grindstaff, MD

Surgical Critical Care
Blaine Enderson, MD

Vascular Surgery
Michael Freeman, MD

"This proggressive educational stance means that The Medical Center is able to include fellows on patients' healthcare teams and is sending highly specialized physicians into our region. More and more people in East Tennessee and nearby areas benefit by having specialists in their communities, filling dire needs for their medical care," says James J. Neutens, PhD, dean of UT Graduate School of Medicine.

In 2007, close to 50% of the physicians completing residency and fellowship programs at UT Graduate School of Medicine stayed in East Tennessee to practice medicine.

"In the sports medicine fellowship, we deal with many elite athletes," says Tanika Pinn, MD, a fellow in the Sports Medicine Fellowship. "When they're injured, it is imperative to diagnose their problems quickly and efficiently and start a rehabilitation program that will get them back in competition as soon as possible. I'm able to apply these skills to the rest of us budding athletes and weekend warriors."

Amanda Johnson

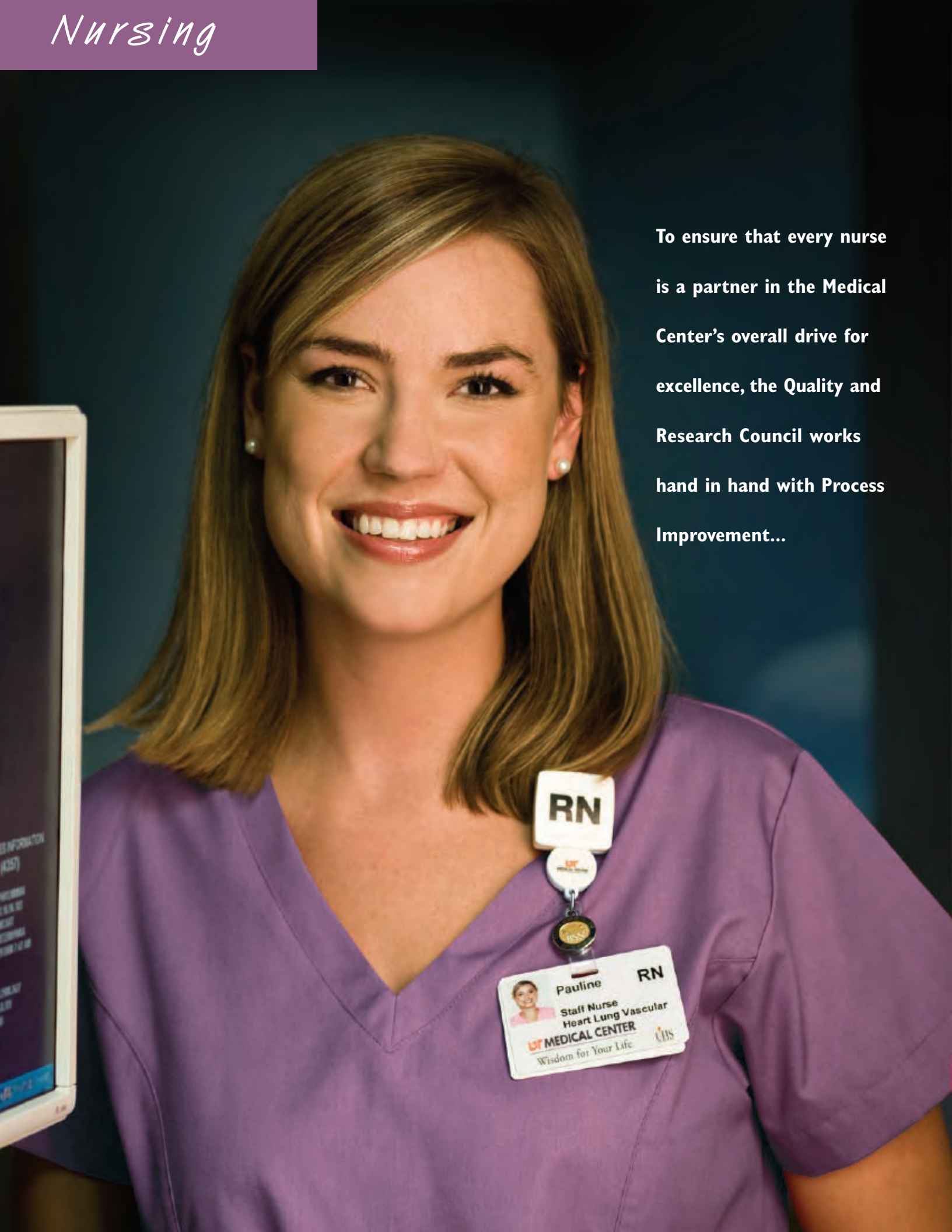


What is a Fellow?

Fellows are fully licensed physicians, many of whom have practiced medicine for years, who possess a drive for specialized expertise in their fields. They yearn to be able to solve even the most complicated medical conditions for their patients.

Fellowship programs provide advanced medical education beyond the education received in medical school and residency period. These programs provide licensed and experienced physicians, called fellows, with concentrated education in subspecialties, which are highly specialized medical fields such as cardiovascular disease, geriatric medicine, or oral surgery. Subspecialties require one to four years of fellowship education in addition to the nine to 14 years of medical education required to complete medical school and the subsequent residency period.

Nursing



To ensure that every nurse is a partner in the Medical Center's overall drive for excellence, the Quality and Research Council works hand in hand with Process Improvement...

Grassroots Excellence

MEDICAL CENTER NURSES MEASURE UP WELL

When a patient checks into the University of Tennessee Medical Center, chances are she'll be cared for by a large community of medical professionals: physicians, pharmacists, physical therapists, nurses, dietitians, diagnosticians, and an array of specialists ranging from anesthesiologists to respiratory therapists to X-ray techs. Staffers will come and go, consulting on the case as needed—often the patient may never fully understand how and by whom they were helped in their journey to healing. But one thing will remain constant and fully transparent: high-quality nursing care.

"Nurses are on the frontline of patient care," says Janell Cecil, RN, MSN, senior vice president and chief nursing officer at the Medical Center.

"We are a crucial part of the team because we're actually at the bedside 24 hours a day. We really are the eyes and ears of quality—the critical thinkers with the power to identify potential problems and address them early. How we perform is intimately tied to positive patient outcomes."

In Cecil's view, systemwide excellence happens from the bottom up, not from the top down. That's why she has established a shared-governance management model that puts the power of change and oversight into the hands of the organization's true grassroots, the nurses themselves. "The beauty of shared governance," she says, "is that it empowers practicing bedside nurses to draw on their own clinical experience and put together the kinds of plans that can really revolutionize our ability to provide a positive patient experience."

As a staff nurse assigned to the Vascular Surgery and Transplant Unit, Vicki Cannington, RN, MSN, well knows the truth in Cecil's words. "We have the most direct, hands-on care with the patients," says Cannington. "We deliver the medicines that can mean life or death; we implement the treatments that are ordered. We interact with all the different departments on a system level, and act as the hospital's main interface with the patient. Our performance is directly related to outcomes, safety, and satisfaction."

Cannington doesn't only talk the talk; as chair of the nursing department's Quality and Research Council, she walks the walk. "Our two main questions are, how are we doing? And how can we improve?" she says. "We're constantly surveying and collecting data to help find the answers."

Most often those answers are found at the bedside level—and addressed at the nursing unit level. When systemwide problems or opportunities are identified, the Quality and Research Council acts to effect comprehensive changes. Cannington offers one example: "We recently changed over to the use of temporal artery thermometers, and in doing so we saw that there was some inconsistency—there were some nurses who felt that they weren't working correctly or that the results they were seeing weren't correct. We were able to consult the research and study the problem. We found that the thermometers are the most accurate and noninvasive technique available if used correctly. We provided additional education that ended up being a great benefit to our patients.

To ensure that every nurse is a partner in the Medical Center's overall drive for excellence, the Quality and Research Council works to make data available to all levels of the organization, reporting on unit performance right down to individual staff. This kind of transparency is part of the Medical Center's effort to win Magnet status from the American Nursing Credentialing Center. "Participating in this program will let us benchmark our performance with over 500 other hospitals, so that we always know how we're doing," says Magnet program coordinator Cathy Kerby, RN. "We can use that data to create real culture change. When nurses have knowledge and recognition, they feel motivated to make changes that will enhance our overall performance."

> "We interact with all the different departments on a system level, and act as the hospital's main interface with the patient. Our performance is directly related to outcomes, safety, and satisfaction," says Vicki Kannington.

The current data shows that by nearly every measure, University of Tennessee Medical Center nurses excel. "We have very high numbers, up in the high 90th percentiles, in so many of our core measures," Cannington notes. "But the proof is really in the pudding. My patients tell me over and over again that they'd rather come to the University of Tennessee Medical Center than to any other hospital. They feel they've gotten the very best care here, and that is what really speaks to our quality."

Hillari Dowdle

Always Ready!

ACADEMIC MEDICAL CENTER

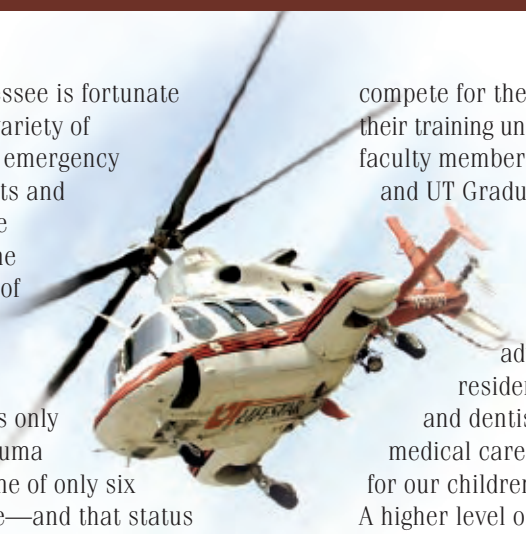
In today's fast-paced world,

with the always available Internet and all-day and all-night cable news, entertainment, and sports, what does it mean to have an academic medical center in our community?

Imagine a situation like those we've all read or heard about:

- The heart attack on the golf course
- The stroke on Sunday morning
- The broken hip from a fall
- The early-arriving newborn
- The farm accident
- The playground injury
- The table-saw mishap
- The traffic accident

None of us expects these things to happen to us, to our families, or to our friends, but daily life sometimes throws us a curve. When we face the unexpected event, we expect someone, somewhere, to be ready to provide care and comfort. That place and those people are the University of Tennessee Medical Center. No matter the day and time, no matter the conditions and circumstances, the Medical Center is always ready to provide the highest level of patient care for the citizens of our region.



East Tennessee is fortunate to have a variety of accredited emergency departments and urgent care centers. The University of Tennessee Medical Center is the region's only Level I Trauma Center—one of only six in the state—and that status brings special resources to bear in times of stress and crisis.

Whether you arrive by ambulance, LIFESTAR helicopter, or your own vehicle, at the Medical Center you'll find the physician specialists and nursing professionals always ready to assist with your needs or those of your family. This responsibility and commitment means that everything you might need is available at any time, including primary-care physicians, physician specialists, surgeons, nursing specialists, pharmacists, laboratory specialists, and chaplains, all supported by housekeeping, maintenance, and dietary services. It takes an entire team, and the University of Tennessee Medical Center provides patient care at this level 24/7. We have been proud to do so for more than 50 years: it is who we are.

In meeting this expectation, the Medical Center is also preparing for the future. Every year graduates of medical, dental, and nursing schools across the country compete for the opportunity to continue their training under the guidance of faculty members at the Medical Center and UT Graduate School of Medicine. Working alongside board-certified physician specialists and nurses with advanced training are resident physicians, nurses, and dentists who will be providing medical care in East Tennessee for our children and grandchildren. A higher level of care results when individual cases are evaluated and treated by a team of healthcare specialists rather than by a single physician or nurse.

The citizens of our region—our families, friends, co-workers—can take comfort in knowing that there's a place where various medical needs or conditions can be met and addressed, no matter what time, day, month, or year it is. That place is the University of Tennessee Medical Center. Always ready.



John Sheridan


OB/GYN

Giving Honor Where Honor is Due



Doris Cox & her "Guardian Angel," Dr. Robert Bertoli

Doris Cox's birthday wish may have initially sounded a bit unusual. On her 51st birthday, the only thing the Crossville resident wanted to do was visit Dr. Robert Bertoli, a radiation oncologist at the University of Tennessee Medical Center. Her wish came true.

A four-time cancer survivor, Doris says that in August 2003, representatives of the facility that first diagnosed her cancer told her she had just a 15% chance of surviving for five years. As of September, It's been five years and one month since that diagnosis. Shortly after she received it, she switched her cancer care to the Medical Center, where she met Dr. Bertoli, who has been overseeing her cancer treatment plan ever since.



"He doesn't want his patients to spend days worrying about test results," Doris says. "If it's good news, he's so excited to let me know about it, and if it's bad news, he always calls with a plan for how to treat it. He's just so wonderful. He takes the time with you."

Doris says she'd been thinking for some time about how to thank Dr. Bertoli for his care and compassion. That's when she saw a brochure for the Medical Center's Guardian Angel Program. The program allows patients and family members who are grateful for the compassionate care they've received to express their appreciation to a Medical Center caregiver or employee. Doris says the term "guardian angel" was perfect for Dr. Bertoli when she decided to honor him through the program.



"I think the Guardian Angel Program is a great thing, and Mrs. Cox is very nice to give the recognition," says Dr. Bertoli. "But in terms of personal credit, I can't take any, because I'm not the one who made her better. God did."

Dr. Bertoli also credits the strong support of Doris's family, as well as the compassion shown by his own staff members, with contributing to her ability to repeatedly battle cancer and win. He says his staff of front-office personnel, nurses, therapists, physicists, and other Medical Center physicians and staff all work together to treat a patient as though they were treating a brother or sister. And one element critical to Doris Cox's success, he adds, is the overwhelmingly positive attitude that she brought to the care process. With Doris's recognition of Dr. Bertoli, he becomes the 100th employee at the Medical Center to be recognized as a guardian angel. Initiated in late 2007, the program has helped fill a need often expressed by patients and their family members, according to the Office of Development for the Medical Center.

It certainly seemed to be the right choice for Doris Cox. After she placed the angel-shaped lapel pin on Dr. Bertoli's lab coat, she gave her doctor one more hug, picked up her birthday card from the entire staff of Radiation Oncology, and left to make the trip back home to Crossville.

The smile on her face could have illuminated the Medical Center's entire ground floor.

"If it weren't for Dr. Bertoli and the University of Tennessee Medical Center, I wouldn't be here today," she says. "I thank God and thank the Medical Center."

For more information about recognizing your Guardian Angel at the Medical Center, please contact the Development Office at 865-305-6611 or visit our website at http://www.utmedicalcenter.org and select Make a Gift.

Rachel Greene

If you are a physician, researcher, allied healthcare professional or faculty member seeking continuing medical or dental education, you might be interested in these upcoming activities offered by UT Graduate School of Medicine.

January 24, 2009



Fifth Annual Hematology Conference: An Update on Selected ASH Topics

University of Tennessee Conference Center, Knoxville, TN

This conference will provide an update on recent advances in the treatment of blood cancers, including a review of the biology of specific types and an update on recent clinical trials. Participants will hear new data and treatment strategies with the aim of improving patient outcomes and quality of life. Topics include hemostasis/thrombosis, chronic leukemias, multiple myeloma, myelodysplastic syndromes, and malignant lymphoma.

Featured speakers are Thomas Habermann, MD, Mayo Clinic; Jean-Pierre Issa, MD, MD Anderson Cancer Center; Craig Kessler, MD, Georgetown University; Sagar Lonial, MD, Emory University Hospital; and David Rizzieri, MD, Duke University.

March 14, 2009



Fifth Annual Diabetes Regional Conference: Reducing Cardio-Metabolic Risk for the Diabetic Patient

University of Tennessee Conference Center, Knoxville, TN

Patients with type 2 diabetes are at high risk for cardiovascular disease. According to recent studies, 39% of all people visiting primary care providers worldwide were overweight or obese. In North America, this proportion was 49%. Abdominal obesity was recognized by 58% of primary care providers worldwide as a significant risk factor for heart disease. Patients requiring glucose-lowering therapy exhibited a cardiovascular risk comparable to that of non-diabetic individuals with a prior myocardial infarction.

The correlation between cardiovascular disease and diabetes presents primary care providers with the particularly difficult task of treating one disease without aggravating the other. Designed to address this issue, the Fifth Annual Diabetes Regional Conference employs speakers from the diverse specialties involved in treating these disease states.

April 29, 2009



John E. Sullivan, DDS, Memorial Endowed Lecture Series

Wood Auditorium, University of Tennessee Medical Center, Knoxville, TN

This biannual lecture will focus on grafting, reconstructive surgery and dental implants. Speakers are Alan S. Herford, DDS, MD, chair and program director of the Department of Oral and Maxillofacial Surgery, Loma Linda University School of Dentistry; and Stanley Rye, DDS, Atlanta prosthodontist. Herford will speak about reconstructive surgery, particularly with regard to rhBMP-2/ACS, and Rye will discuss dental implants.

Healthcare professionals who would find this lecture of particular interest include dentists, oral surgeons, prosthodontists, and others working in the fields of reconstructive surgery and dental implants.



THE UNIVERSITY OF TENNESSEE MEDICAL CENTER

1924 Alcoa Highway
Knoxville, Tennessee 37920-6999

www.utmedicalcenter.org

Non-Profit Org.
U.S. POSTAGE
PAID
Permit No. 575
Knoxville, TN