



St. Agnes Hospital is the first hospital in the mid-Atlantic region to offer TomoTherapy, a treatment for cancer that integrates daily CT imaging and the delivery of radiation therapy into the same machine. TomoTherapy is used to treat tumors in most areas of the body with unprecedented accuracy.

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AMAZING MEDICINE . AMAZING GRACE .

Increasing Perinatal Safety

St. Agnes Hospital is participating in the Ascension Health/IHI Perinatal Collaborative, a safety initiative developed in response to the increasing trend toward lower birth weight and infant mortality. Staff members in the OB/GYN department have adopted communication tools for physicians and nurses and developed management plans for the use of pitocin, which is involved in more than half of all birth trauma malpractice suits.

3

Diagnosing Heart Disease

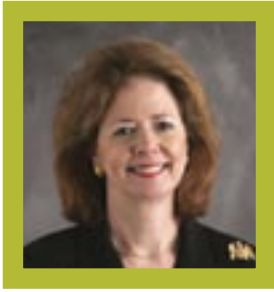
The national HeartAware program is designed to identify individuals at risk for heart disease before symptoms appear. The seven-minute diagnostic tool is available on the St. Agnes Hospital Web site and is a resource for physicians to help educate their patients about preventive care.

4

Less Invasive Spine Surgery

Extreme Lateral Interbody Fusion (XLIF) is allowing spine surgeons at St. Agnes Hospital to perform surgery less invasively and with reduced risks and pain for patients who need spinal fusion. The procedure avoids disrupting the paraspinal muscles, the peritoneum, and the major blood vessels, which reduces postoperative complications and pain.

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Dear Colleagues,

Scratch the surface of any successful hospital and you'll likely find a strong culture of nursing excellence. Nurses who respect one another and hospital leaders who value their nursing professionals are essential for quality patient care, and quality patient care is a hallmark of St. Agnes Hospital.

That's why I was delighted to see the results of a recent readers' poll conducted by *Advance for Nurses*, a prominent nursing journal. Nurses rated St. Agnes among top hospitals from a list of 159 in the Maryland, D.C., and Virginia areas.

They ranked hospitals in five areas that matter most to them: communication, organizational culture, professional development, quality of care, and retention efforts. St. Agnes scored among the highest in all five areas—one of only three hospitals to do so—putting us

on the "honor roll" for best places to work in the region. We shared this distinction with Franklin Square Hospital Center and The Johns Hopkins Hospital.

We have long recognized that our nurses provide amazing medicine, with amazing grace; our patients tell us so every day. The readers' poll provides wonderful evidence that our nurses recognize the strong support, culture of quality, and development opportunities available at St. Agnes.

This atmosphere of mutual respect translates into high-quality patient care, the most important goal for us all—physicians, administrators, associates, and, of course, our nurses.

Bonnie Phipps

President and CEO

St. Agnes' *Physician Update* is a quarterly publication serving the medical staff of St. Agnes HealthCare. It is a forum for news and information of interest to our doctors. *Physician Update* is published by the hospital's Planning, Marketing, and Business Development Office. Questions or comments should be directed to Danielle Underferth at 410-368-2143. This publication is available online at www.stagnes.org.

ST. AGNES HEALTHCARE

Bonnie Phipps
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Chief Medical Officer

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Medical Staff President

Diana Griffiths, M.D.
Medical Staff Past-President

Mary Behrens, M.D.
Medical Staff Secretary/Treasurer

Renovation Timeline

St. Agnes Hospital has begun its \$212 million Campus Revitalization Project. Below is a rough timeline for the project.

- **Temporary Main Entrance**
(Completion: Third Quarter 2008)
- **ED and Ambulatory Surgery Waiting Area Expansion**
(Completion: Second Quarter 2008)
- **Wilkens Avenue Garage—600 spaces**
(Completion: Third Quarter 2008)
- **New Patient Tower**
(Completion: Fourth Quarter 2010)
- **Caton Avenue Garage—800 spaces**
(Completion: Fourth Quarter 2010)
- **Cancer Center**
(Completion: Second Quarter 2011)
- **Existing Tower Renovation**
(Completion: Fourth Quarter 2012)

DURING OUR CAMPUS RENOVATION, WE ENCOURAGE PATIENTS AND VISITORS TO USE OUR FREE VALET SERVICE, LOCATED AT THE MAIN ENTRANCE AND ED ENTRANCE. FOR UP-TO-DATE INFORMATION ON THE PROJECT, VISIT WWW.STAGNES.ORG.



A group of physicians who have been involved in the design and space planning for the Campus Revitalization project helped break ground for the project Sept. 10.



St. Agnes Hospital's CMO Adrian E. Long, M.D., (center) discusses some of the features of the project during the event.

Making Perinatal Safety a Priority

The latest Centers for Disease Control and Prevention report indicates that 6.78 infants die per 1,000 live births. That statistic, combined with an increased trend toward lower birth weights, has sounded an alarm to physicians specializing in obstetrics and pediatrics.

In response, St. Agnes Hospital recently implemented an increased emphasis on perinatal safety as an ongoing priority initiative.

“We are actively involved in the Ascension Health/IHI perinatal collaborative, which targets perinatal safety with zero preventable negative outcomes,” says Raymond Cox, M.D., Chair of the St. Agnes OB/GYN Department. “We have focused on issues surrounding communication and documentation to improve our teamwork, as well as our skills in managing high-risk, low-frequency events.”

As part of the perinatal safety strategy, St. Agnes has examined many aspects of perinatal safety.

“We have found through various studies that pitocin is involved in

more than 50 percent of all birth trauma malpractice suits,” says Dr. Cox. “We have implemented elective induction and augmentation bundles designed to help us better manage the use of pitocin, and we are adopting the NICHD common language for electronic fetal monitoring guidelines to improve communication between doctors and nurses regarding the interpretation of the fetal heart tracing.”

Other changes include utilizing the SBAR (Situation, Background, Assessment, Recommendation) communication tool and performing “huddles” twice a day on the labor floor, which are designed to communicate critical information to the staff about the patients and the environment.

“The main thing is to create a learning culture and improve the health care culture for our patients, physicians, and associates,” Dr. Cox adds. “What we are trying to do is to help people work better by focusing on the concept of teamwork through improving communication and documentation.”



Correcting Erroneous Documentation



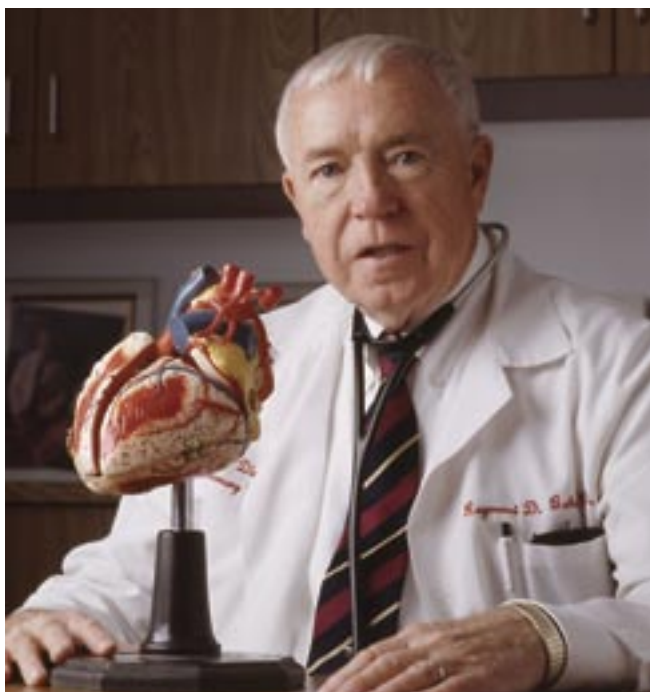
Making corrections properly to the St. Agnes Electronic Medical Records (EMR) system and written

documentation is vitally important for patient safety.

In order to make corrections to electronic documentation: Access status board, then history in the appropriate intervention and click “undo.” Meditech will show the change as an “edit” and time/date stamp in real time.

In order to make corrections to written documentation: Draw a single line through each erroneous line, and write “error.” Date and initial the correction.

Erroneous documentation should never be scratched out, covered with whiteout, or otherwise obliterated.



Bahr Recognized with Founders' Award

St. Agnes honored Raymond Bahr, M.D., with its annual Founders' Award on Oct. 27. Dr. Bahr was nominated and selected by a committee of his peers. The award recognizes a physician leader who demonstrates the mission, vision, and values of St. Agnes.

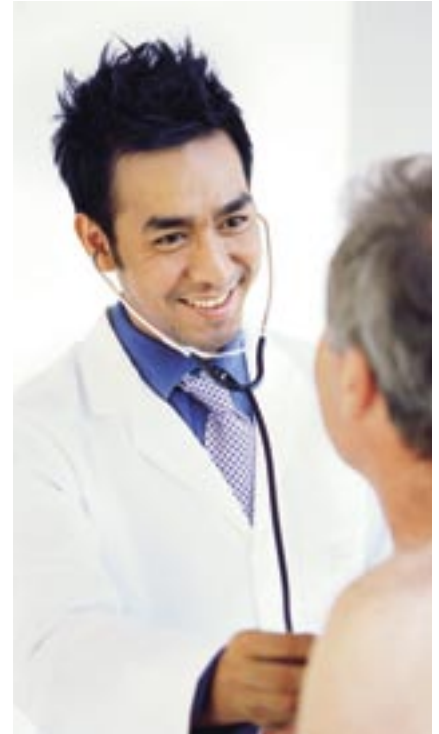
Dr. Bahr contributed decades of pioneering work at St. Agnes in the area of emergency care for patients with symptoms of a heart attack. He also established the first Chest Pain Emergency Room in 1981, as well as the International Society for Chest Pain Centers. Since that time, Chest Pain Centers have become an internationally accepted protocol.



HEARTaware™

A Diagnostic Tool

THE HEARTAWARE™ PROGRAM PROVIDES AN EXTRA OPPORTUNITY FOR PHYSICIANS TO IDENTIFY ASYMPTOMATIC PATIENTS WHO ARE AT RISK FOR HEART DISEASE. IT ALLOWS PHYSICIANS A MORE WELL-ROUNDED MEANS TO ASSESS THEIR PATIENTS, WHETHER THEY BE AT RISK NOW OR 10 YEARS FROM NOW



“T

his program is a wonderful collaboration between departments,” says Mary Lappe, Director of Cardiology at St. Agnes Hospital. “It coordinates diagnostic imaging staff members, cardiovascular nursing staff, and the support and follow-up resources.”

How It Works

Patient education plays a significant role in cardiac care, and many patients don't make the necessary lifestyle changes until symptoms appear or they have had a cardiac event. HeartAware has the potential to help physicians educate their patients about their risks early with the aim of reducing the incidence of heart disease.

“HeartAware is important because it gives physicians one more resource to give their patients to help them understand their risk for heart disease,” says David Simpkins, Vice President of Planning, Marketing, and Business Development at St. Agnes.

The free, seven-minute test—developed by the National Heart Organization, which is recognized as a leader in the early detection and prevention of cardiac disease—is available on St. Agnes' Web site and consists of questions patients can answer on their own.

During the survey, patients have an immediate visual cue about their level of risk as the tool bar changes colors depending on how they answer the questions. Once the questionnaire is completed, the patient gets a “risk score” and, if necessary, the option to have a free on-site clinical evaluation or screenings at St. Agnes or St. Joseph.

“St. Agnes hopes to help improve the health of the community through the HeartAware program,” says Simpkins. “With this new addition, early detection and diagnosis will grant people healthier lives without cardiovascular disease.”

FOR MORE INFORMATION ABOUT THE HEARTAWARE PROGRAM OR TO REFER A PATIENT TO THE QUESTIONNAIRE, VISIT WWW.STAGNES.ORG.

Collaboration for Patient Care

In January of 2007, St. Agnes HealthCare joined with St. Joseph Medical Center to form a strategic alliance—Mission Health Partners.

“What is so wonderful about this partnership is that St. Agnes Hospital is more known for its diagnostic side with early detection, diagnosis, and prevention when it comes to cardiovascular services, while St. Joseph is more recognized for its interventional side,” says David Simpkins, Vice President of Planning and Marketing at St. Agnes Hospital. “Through this partnership, the community is served with the best of both worlds.”

Expanded Services

Other services to come from this collaboration include:

- Clinical services
- Code development of ambulatory care network
- Collaboration with bariatric surgery
- Community outreach extension, which will target underserved communities and at-risk populations
- Physician network expansion and support

THE DAILY RECORD'S innovator OF THE YEAR

The *Daily Record* recognized St. Agnes Hospital and Erickson Retirement Communities jointly as Innovator of the Year.

St. Agnes and Erickson, which manages Charlestown Retirement Community in Catonsville, established a system for instant patient data exchange between their respective Electronic Medical Record (EMR) systems, marking the first time that such a system has been developed between a hospital and a continuing care retirement provider in the country.

As a result of the collaboration, patient information, such as allergies, medications, and medical history, is immediately available to St. Agnes health care providers whenever a Charlestown resident is referred to St. Agnes for inpatient services or emergency care.

“Establishing a secure health information exchange between Erickson and St. Agnes Hospital will enhance the quality of patient care the hospital can provide to Erickson residents,” says Bonnie Phipps, President and CEO of St. Agnes Hospital. “Such a collaboration will allow us and our patients immeasurable benefits, including a reduction in turnaround time for retrieval of up-to-date patient information; the elimination of paper-based transmission of patient clinical information; a reduction in the need for patients to inform physicians of chart updates when moving between care settings, and a reduction in residents’ average length of stay.”

Nominees for the *Daily Record* award were judged in four areas: originality, power, challenge, and value. St. Agnes and Erickson were among 24 winners in the Baltimore region.

Readers’ Choice Survey Results

St. Agnes Hospital earned high marks and praise in a recent poll of nurses in the Maryland, D.C., and Virginia region.

Advance for Nurses conducted its first Readers’ Choice survey, asking nurses to rate their workplace in five categories—Quality of Care, Organizational Culture, Communication, Professional Development, and Retention Efforts—on a scale of 1 (strongly disagree) to 5 (strongly agree). Nurses responded to 10 statements in each category, such as, “Offers a competitive salary,” and “Advocates for its nurses.” The online poll was conducted from March 1 through July 31, and the results were published in the Oct. 22 print edition.

The magazine recognized hospitals that averaged a 4 in each category. No hospital averaged a 5 in any of the categories. Out of 159 hospitals in the region, St. Agnes was one of three who made the “honor roll” for earning a mention in all five categories. The other two were Franklin Square Hospital Center and The Johns Hopkins Hospital.

“We are thrilled to have our nurses recognize St. Agnes as a great place to work, and it’s gratifying to know that they appreciate the opportunities for professional development and growth available here,” says Yolanda Copeland, R.N., Senior Vice President of Patient Care Services and CNO at St. Agnes.



Top Doctors Recognized



Three members of the St. Agnes Hospital medical staff were named in *Baltimore* magazine’s Top Doctors issue, which hit newsstands in November.

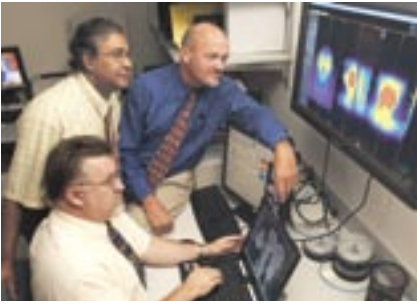
Carlos Ince, M.D., was recognized in the category of Cardiovascular Disease, Raymond Cox, M.D., was recognized in the category of Obstetrics and Gynecology, and Siew-Jyu Wong, M.D., was recognized in the category of Neonatal-Perinatal Medicine.

Baltimore magazine bases the list on The Best Doctors in America 2007 database, which reflects physicians selected by fellow physicians, determined by the question, “If you or a loved one needed a doctor in your specialty, to whom would you refer them?”

Weekend MRI

St. Agnes Hospital has expanded its schedule for inpatient and emergent MRI. Inpatient MRI is now available on Saturdays and Sundays from 9 a.m. to 3 p.m.

FOR A COMPLETE LIST OF ST. AGNES HOSPITAL PHYSICIANS, VISIT WWW.STAGNES.ORG.



From left: Timothy Holmes, Ph.D., D.A.B.R., Director of Medical Physics; Abdul "Tulu" Kazi, Ph.D., D.A.B.R., Medical Physicist; and Mark Hall, Rt.T., C.M.D., Technical Director, Dosimetrist, study TomoTherapy images at St. Agnes Cancer Center.



Richard Hudes, M.D., attends to a patient prior to TomoTherapy treatment.



From left: Melissa Kyle, Radiation Therapist, and Sylwester Dziuba, M.D., discuss a course of TomoTherapy at St. Agnes Cancer Center.

TomoTherapy™ at St. Agnes Hospital

CT IMAGE-GUIDED RADIATION THERAPY SETS A NEW STANDARD IN CANCER CARE

Planning, delivery, and verification of radiotherapy may sound like a process that would drag a patient over a burdensome amount of territory and time; but, in fact, TomoTherapy™ is an integrated method of real-time CT image-guided radiation therapy (IGRT) and intensity modulated radiation therapy (IMRT) that accomplishes all of this in a course of very short daily sessions. Treatment is delivered with unprecedented accuracy to most areas of the body, including the head and neck, brain, spine, lung, esophagus, breast, pancreas, liver, colon, pelvis, and prostate.

The hallmark of TomoTherapy is its ability to obtain daily CT imaging of the body before the actual treatment.

"The CT technology provides an excellent understanding of the anatomy in terms of the

"The continuous movement of the beams in a 360-degree spiral provides more degrees of freedom in terms of radiation delivery," Dr. Dziuba says. "Because there are so many angles, we have more ability to sculpt the radiation around the tumor."

An average TomoTherapy session usually takes 15 to 30 minutes. Compared with other IMRT treatments, a session of TomoTherapy is much faster, particularly for cancer of the prostate or the head and neck. The course of TomoTherapy is similar to traditional radiation therapy, consisting of one treatment daily, Monday through Friday, for six to eight weeks.

"A major advantage is the reproducibility," says Dr. Dziuba. "Because we do a CT scan each time before delivering the treatment, we are assured of a high degree of accuracy in the ability to modulate the radiation dose around the target and avoid critical structures."

"The combination of daily CT imaging and dose reconstruction in the TomoTherapy treatment unit allows unprecedented accuracy in treatment delivery." —Richard Hudes, M.D.

relationship of the tumors and the organs," says Sylwester Dziuba, M.D., Director of Stereotactic Radiosurgery at St. Agnes Cancer Center. "Patients undergo a CT that takes only a few minutes and no IV contrast is used; nor is there a need to place additional markers or fiducials. This is basically a noninvasive technology."

More Degrees of Freedom

TomoTherapy delivers the radiation therapy in a helical fashion, as opposed to traditional IMRT delivery, which uses a number of fixed radiation beams coming from various directions. The ability to precisely deliver radiation therapy to the target of choice while avoiding adjacent structures translates to fewer potential side effects.

The type of CT imaging used with TomoTherapy brings the additional advantage of forgiving metal objects that patients may have in various parts of the body. Dental fillings and bridges, staples, joint prostheses, or other hardware would cause deterioration of the image and loss of precision in a standard CT. For example, a patient with two hip prostheses was recently scheduled to begin treatment for prostate cancer at a different facility. During the planning process, a CT was unable to precisely delineate the prostate anatomy because of the artifacts from the hips.

"When that patient came to us for TomoTherapy, the artifacts did not show up on CT, so we were able to precisely outline the prostate and provide the most accurate and precise treatment," Dr. Dziuba explains.

In some situations, TomoTherapy can be performed on patients who were treated previously with standard radiation therapy.

“This is not a frequent use of TomoTherapy, but it is a definite advantage in some cases,” Dr. Dziuba says. “In palliative cases where the patient suffers from pain or symptoms like bleeding or significant shortness of breath, or when a tumor is located in close proximity to a previously treated spinal cord, this technology comes in very handy. It allows us to deliver a meaningful dose of radiation that could provide improvement in symptoms and buy quality of life for the patient. We can target the tumor and try to reduce it, thereby reducing potential trouble.”

Over the last two years, the TomoTherapy spiral has been used to deliver stereotactic body radiation therapy (SBRT) in the treatment of lung cancer. A large dose of radiation therapy is given in a short course of treatment, usually three to five sessions.

“There is national interest in pursuing that shortened course of radiation therapy because experience suggests that SBRT seems to be more effective in treating lung cancer than conventional radiation,” Dr. Dziuba says.

This is particularly true in the case of small tumors without lymph node involvement. This short course can be offered to patients who would traditionally be offered surgery but, because of medical comorbidities, can't take surgery or are not willing to have surgery.

Anatomically Correct

Because TomoTherapy is CT-based, it is noninvasive. TomoTherapy does not require fiducials in the lung or chest or in any part of the body.

“This way, we actually have a very precise anatomic delineation of the target, as opposed to plain X-ray images,” Dr. Dziuba says. “In other words, the image is anatomically correct! We actually see the tumor and not just markers near the tumor.”

“I don't think many [physicians] understand the improvement in targeting that daily CT imaging provides,” says Richard Hudes, M.D., chief of the division of radiation oncology at St. Agnes Cancer Center. “Previously, when delivering the same treatment, all we would have had were tattoos on the skin or a two-dimensional X-ray, looking at a fiducial in or near a target. Fiducials have an intrinsic inaccuracy, in that they only act as a surrogate target, whereas CT image-guidance localizes to the actual target. We are looking at actual soft tissue, not a clip placed in a lung tumor that could shift and cause us to be targeting the wrong place.”

Additionally, tumors can shrink and that shrinkage can only be seen on daily CT image guidance.

“You wouldn't see that on a fiducial,” Dr. Hudes says. “TomoTherapy allows us to do adaptive radiation therapy, where we can actually change the volume of the dose, based on tumor response. That is a huge area in TomoTherapy in terms of how we evolved.”

“TomoTherapy has stayed ahead of the curve,” Dr. Hudes adds. “At meetings three to four years ago, everyone was just talking about image guidance and TomoTherapy had already accomplished that. Now, they are talking about adaptive radiation therapy and TomoTherapy is still ahead. The combination of daily CT imaging and dose reconstruction in the TomoTherapy treatment unit allows unprecedented accuracy in treatment delivery.”

Critical Issues

For cancers of the head and neck, the most critical advantage of TomoTherapy is the ability to spare parotid glands. That has been clearly shown to reduce the risk for permanent dryness in the mouth. In the treatment of

“A major advantage [of TomoTherapy] is the reproducibility. Because we do a CT scan each time before delivering the treatment, we are assured of a high degree of accuracy in the ability to modulate the radiation dose around the target and avoid critical structures.”

—Sylwester Dziuba, M.D.

prostate cancer, TomoTherapy decreases the radiation dose to the rectum and bladder, and that translates to less urinary side effects and fewer rectal symptoms.

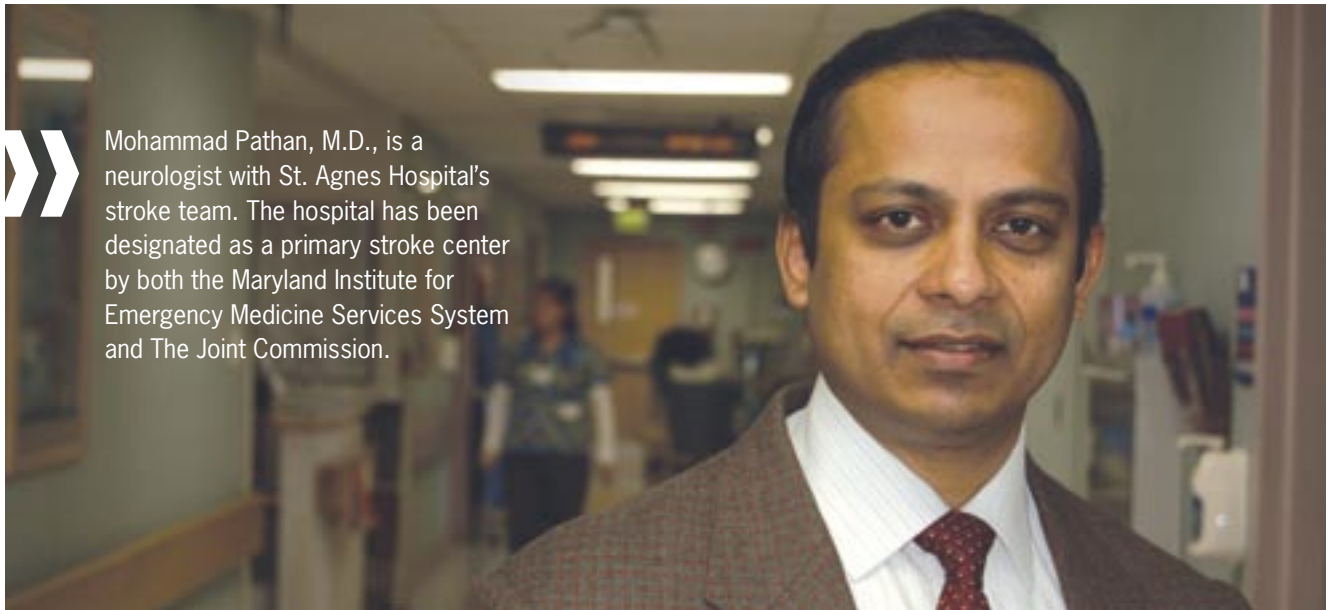
“For prostate cancer, we definitely have a track record of treatment with much greater precision,” says Dr. Hudes. “We are delivering significantly higher doses of radiation and seeing the same or fewer side effects for prostate, head and neck, and lung tumors. That means better tumor coverage while avoiding the hot spots of radiation that in the past we believe, in part, accounted for some of the toxicities that we would see.”

The precision of TomoTherapy has also been very remarkable in decreasing bowel toxicity.

“We are able to treat suspected lymph nodes along the iliac chain while minimizing the dose to the bowel, which is located right between the treatment areas,” Dr. Hudes says. “Imagine a horseshoe with the bowel sitting in the middle. The tumor region and the iliac chain create a horseshoe shape that can be treated while minimizing the dose to the center-lying bowel.”

TomoTherapy received FDA approval in 2002. Physicians at St. Agnes Hospital—including one of TomoTherapy's original three patent holders, physicist Timothy Holmes—became the first in the mid-Atlantic region to use the system in 2004.

FOR MORE INFORMATION ABOUT TOMOTHERAPY AT ST. AGNES HOSPITAL, CALL 410-368-2965.



Mohammad Pathan, M.D., is a neurologist with St. Agnes Hospital's stroke team. The hospital has been designated as a primary stroke center by both the Maryland Institute for Emergency Medicine Services System and The Joint Commission.

Dedicated Stroke Care

St. Agnes Receives Designation

St. Agnes Hospital received Primary Stroke Center designation in August of last year from both the Maryland Institute for Emergency Medicine Services System and The Joint Commission. St. Agnes submitted extensive data on stroke admissions, protocols, treatment plans, patient outcomes, and the ability to care for stroke patients throughout their stay.

"Patients who come to St. Agnes with stroke symptoms should receive care that has been proven to result in the best possible outcomes," says Eileen Shryock, R.N., B.S.N., M.A., Stroke Program Coordinator at St. Agnes. "A lot of research went in to developing procedures that would enhance patient outcomes and provide the best quality stroke care."

St. Agnes tracks all 10 of The Joint Commission's quality improvement indicators. The indicators include: consideration of TPA; dysphagia screening; DVT prophylaxis; rehabilitation needs; and addressing and aggressively treating all risk factors.

The hospital plans to create support groups for both stroke survivors and their caregivers, and free smoking cessation classes are available.

Currently, only 25 hospitals in Maryland have been named Primary Stroke Centers by The Joint Commission. The state of Maryland only allows ambulances to deliver stroke patients to hospitals with stroke centers certified by the Maryland Institute for Emergency Medicine Services System (MIEMSS).

The Joint Commission Guidelines

The Joint Commission certification requires that all primary care providers have a minimum of eight hours of stroke education each year and that the hospital is equipped to do all stroke-related tests, as well as diagnose and provide care for stroke patients, including the delivery of clot busting drugs to the patient.

Primary Stroke Criteria

A designation of Primary Stroke Center from The Joint Commission means the hospital has:

- a trained acute stroke team
- an emergency department staff trained in stroke care
- neurological imaging and lab services available 24 hours a day
- stroke protocols in place to direct care
- a relationship with local emergency medical services
- a designated stroke unit
- educational stroke programs for EMS providers
- a system to track patient outcomes and quality data
- a plan to continue to work toward improvement

"This project has been a collaborative effort with all stroke certified Maryland hospitals," says Eileen Shryock, R.N., B.S.N., M.A., Stroke Program Coordinator at St. Agnes Hospital. "Stroke coordinators across the state have developed an alliance. We meet regularly to ensure uniform standards of care and data collection."



Oren G. Blam, M.D.

Extreme Lateral Interbody Fusion (XLIF)

THE ABILITY TO DIAGNOSE AND TREAT SPINAL DISORDERS HAS IMPROVED GREATLY IN RECENT YEARS, AS HAVE SPINE SURGERY TECHNIQUES. MANY PROCEDURES ARE NOW BEING DONE THROUGH SMALLER, LESS DISRUPTIVE INCISIONS—REDUCING BLOOD LOSS, POSTOPERATIVE PAIN AND RECOVERY TIME FOR THE PATIENT AND PROVIDING SPEEDIER SURGERY TIME TO SURGEONS

Extrême Lateral Interbody Fusion (XLIF) is a procedure for accessing the anterior spine that avoids the traditional abdominal incision and also avoids disrupting the major muscles and tissue of the back.

Anterior spinal fusion is performed through two incisions, each measuring only one inch in length. XLIF was first described by Luiz Pimenta, M.D., in Sao Paulo, Brazil, based on pioneering work by Rudi Bertagnoli, M.D., in Straubing, Germany, to reduce the risks associated with open anterior and posterior approaches.

Indications for XLIF are the same as for any interbody fusion, including lumbar spondylolisthesis, lumbar scoliosis, and severe discogenic back pain and foraminal stenosis.

“XLIF doesn’t expand our indications,” explains Oren G. Blam, M.D., spine surgeon at St. Agnes Hospital. “It allows us to achieve surgery more safely with less risk and less pain for people who needed the surgery to begin with.”

Fusion surgery is usually considered only after extensive non-operative therapies have failed.

There are four ways to achieve interbody fusion: anterior lumbar interbody fusion (ALIF), posterior lumbar interbody fusion (PLIF), transforaminal lumbar interbody fusion (TLIF), and now XLIF.

“Because XLIF achieves fusion without any disruption of the paraspinal muscles, the severe back pain that usually follows PLIF is eliminated,” says Dr. Blam. “TLIF is just a variant of PLIF. A major benefit of XLIF is avoidance of the open ALIF technique that would involve manipulation of the peritoneum and the major blood vessels. The risk of blood clots, major bleeding, intestinal injury, and ureteral injury are avoided with XLIF.”

The XLIF procedure involves inserting a series of dilators and, finally, a tubular retractor through the retroperitoneal space behind the intestines to dock against the lateral aspect of the disc. Further work is done through the tubular retractor, using specialized cutting instruments in the disc space. Just before the instruments reach the spine, they have to pass between fibers of the psoas muscle.

In order to avoid the lumbar plexus nerves that also go through the psoas muscle, instruments are attached to an electrical neuro-monitoring device that, at the same time, is doing free-run EMG monitoring. If the instruments come close to any nerves as they are passing through, they can be redirected away from the path of the nerve and brought safely through the muscle to the spine and the disc. There are no necessary adjunctive visualization tools, e.g., endoscope; so, direct visualization of the patient’s anatomy is accomplished through conventional methods.

Disc material is then removed from the spine and replaced with a structural support (implant) that keeps the space open to a proper alignment and also contains bone graft or bone graft substitute, which stimulates fusion. The XLIF implant is the widest one available and may provide more stability than other methods.

The XLIF procedure is part of NuVasive’s Maximum Access Surgery (MAS) system, a proprietary suite of instruments and technology that allows surgeons to perform a wide range of conventional spine procedures through a minimally invasive approach. The instruments are similar to those used in open procedures, but are used through significantly smaller incisions.

“TLIF and discectomy also have minimally invasive options,” Dr. Blam says, “but I think that XLIF is one of the most novel and also is strikingly different than the standard way of doing interbody fusion. It’s a large improvement.”

Not unlike other spine procedures, XLIF has limitations. It cannot safely reach the L5-S1 level because the pelvis is in the way. If a patient has significant central spinal stenosis, then lumbar laminectomy may still be required in addition to or instead of XLIF. Only those vertebra of the spine that have clear access from the side of the body can be approached using XLIF.

EXTREME LATERAL INTERBODY FUSION (XLIF) IS ONE COMPONENT OF A COMPREHENSIVE SPINE PROGRAM AT ST. AGNES HOSPITAL. TO LEARN MORE ABOUT THE XLIF PROCEDURE OR TO REFER A PATIENT TO DR. BLAM, CALL 410-368-2173.

New Physicians at St. Agnes

The following physicians are new to our medical staff. For the most up-to-date information on the St. Agnes Hospital medical staff, visit the physician finder service online at www.stagnes.org.

Diagnostic Imaging

Jamshid Danaie, M.D.
900 Caton Ave., Baltimore
410-368-3456

Jules Katz, M.D.
900 Caton Ave., Baltimore
410-368-3456

Gastroenterology

Allen T. Banegura, M.D.
Digestive Disease Associates,
4660 Wilkens Ave.,
Suite 206, Baltimore
410-247-7500

Mahmood Solaiman, M.D.
8109 Ritchie Highway,
Pasadena
410-590-8920

Megan D. Willard, M.D.
Digestive Disease Associates,
9055 Chevrolet Dr.,
Suite 203,
Ellicott City
410-465-9558

Emergency Medicine

Alice Tang, D.O.
900 Caton Ave., Baltimore
410-368-2000

William A. Wild, D.O.
900 Caton Ave., Baltimore
410-368-2000

Nikia S. Wooten, D.O.
900 Caton Ave., Baltimore
410-368-2000

Pediatrics

Ruby Dey, M.D.
Kaiser Permanente – Woodlawn
7141 Security Blvd., Baltimore
443-663-6264

Amy M. Cheung, M.D.
9011 Chevrolet Dr.,
Suite 1-6,
Elliott City
410-465-7550

Pediatric Emergency Medicine

Anamika Khatri-Dua, M.D.
900 Caton Ave., Baltimore
410-368-2011

Psychiatry

Jany R. Rose, M.D.
900 Caton Ave., Baltimore
410-368-2737

Pulmonary Medicine

Kala K. Davis, M.D.
Baltimore Pulmonary
& Critical Care,
821 N. Eutaw St., Baltimore
410-669-1393

Infectious Disease

Prashanth P. Santhekadur, M.D.
Infectious Disease Associates,
11055 Little Patuxent
Parkway, Suite 209, Columbia
410-884-1311

Internal Medicine

Kartik J. Desai, M.D.
3290 N. Ridge Rd., Suite 100,
Ellicott City
410-313-9292

Neurology

**Marian P. LaMonte, M.D.,
M.S.N., F.A.H.A.**
3421 Benson Ave, Suite. 240,
Baltimore
410-368-8444

Rheumatology

Ashok C. Jacob, M.D.
700 Geipe Rd.,
Catonsville
410-744-0661



Welcome Dr. Pickett

Cicely Pickett, M.D., has joined Seton Women's Ob/Gyn Group. Dr. Pickett has served as an Ob/Gyn attending for Baltimore Medical Systems for the past three years. She is a graduate of the University of Maryland School of Medicine and completed her residency in obstetrics and gynecology at Franklin Square Hospital Center.

Dr. Pickett will be assuming the care of Dr. Hope Griffin's patients as she develops her practice. Her office is located at 4 E. Rolling Crossroads, Suite 110, in Catonsville. She can be reached at 410-744-9073.



Welcome: Dr. LaMonte

Marian P. LaMonte, M.D., M.S.N., F.A.H.A., has joined St. Agnes Hospital as Chief of Neurology.

Dr. LaMonte began her career in nursing, and after receiving her master's degree from The Catholic University, she practiced on the faculty of The Catholic University and George Mason University School of Nursing. After developing programs for psychiatric nursing, she turned to medicine, receiving her medical degree from Hahnemann University. She completed her neurology residency at Pennsylvania Hospital in Philadelphia.

Dr. LaMonte became the first neurovascular fellow at the University of Pennsylvania under dual directorship for research in cerebral blood flow and metabolism and for developing the clinical program for acute stroke therapy. She was invited to join the faculty of the University of Maryland in the Departments of Neurology and Emergency Medicine to develop the first acute stroke program in Maryland. There, she established programs for brain attack, and fellowships in neurovascular neurology for both neurologists and neurology nurse practitioners.

Her research with cutting-edge technologies led to the world's first telemedicine link for remote evaluation and thrombolytic treatment of stroke patients, and the development of prehospital technologies for distinguishing ischemic and hemorrhagic stroke. Her contributions to the literature in this field are considered foundational. She has served as international and national principal investigator for numerous acute stroke trials and is considered a foremost expert on heparin-induced thrombocytopenia and stroke, and treatment strategies for blood disorders and stroke. She has published extensively on stroke and other neurology topics and has received awards from national and local associations and organizations for her work.

In the last few years, Dr. LaMonte has turned her attention toward incorporating therapeutic modalities from ancient systems of health care for the easing of neurological disorders. She has traveled extensively throughout India and Asia, and is developing an integrated neurology practice for St. Agnes, blending these traditional and conventional Western philosophies to provide a balanced plan of treatment for neurological patients.

Dr. LaMonte's office is located at 3421 Benson Ave., Suite 240, in Baltimore. She can be reached at 410-368-8444.

Continuing Medical Education Form

CME: Read assigned article on page 6 and then complete this form.

1. TomoTherapy is an integrated method of which of the following?

- a. IGRT and SBRT
- b. CT and MRI
- c. IGRT and IMRT
- d. SBRT and CT

2. TomoTherapy can be used in which of the following areas?

- a. spine
- b. esophagus
- c. prostate
- d. all of the above

3. The hallmark of TomoTherapy is:

- a. the ability to obtain CT images of the body before each treatment.
- b. the speed and accuracy of treatment.
- c. the versatility of treatment options.
- d. the ability to deliver radiation in a helical fashion.

4. Typical TomoTherapy treatments last:

- a. 15 to 30 weeks
- b. 12 to 15 weeks
- c. 9 to 12 weeks
- d. 6 to 8 weeks

5. One of the major benefits of TomoTherapy is:

- a. the need to only perform one CT scan throughout treatment.
- b. the high degree of accuracy in the ability to modulate the radiation dose around the tumor.
- c. the ability to treat tumors close to the spine.
- d. reduced nausea experienced after treatment.

6. A relatively new use of TomoTherapy is the treatment of which type of cancer?

- a. breast
- b. prostate
- c. lung
- d. brain

7. TomoTherapy is able to deliver more precise radiation because:

- a. less radiation is used.
- b. the fiducials used provide a more accurate target.
- c. the images provided by the X-ray are anatomically correct.
- d. the images provided by the CT are anatomically correct.

8. Previous treatments required physicians to rely on which of the following in targeting the tumor?

- a. tattoos
- b. X-ray images
- c. fiducials
- d. all of the above

9. Sparing the parotid glands when treating head and neck cancers is beneficial because:

- a. it reduces the risk of permanent dryness in the mouth.
- b. it reduces the risk of the cancer metastasizing.
- c. it reduces the dose of radiation required in subsequent treatments.
- d. none of the above

10. The accuracy of TomoTherapy allows which of the following?

- a. fewer side effects
- b. higher doses of radiation
- c. avoidance of radiation hot spots
- d. all of the above

SELF-ASSESSMENT QUESTIONS

ACTIVITY EVALUATION

Answers for this section are:

- a. knew/know very well
- b. knew/know nothing

1. What was your level of understanding of this topic prior to reading the article?

2. What is your level of understanding now?

Answers for this section are:

- a. strongly agree
- b. agree
- c. neutral
- d. disagree
- e. strongly disagree

3. The material presented was up-to-date?

4. The material presented was appropriate in its level of difficulty?

5. The educational objectives were achieved?

6. The material will be useful in your practice?

7. The material will improve your clinical skills?

REGISTRATION/ANSWER FORM

To receive one half-hour of AMA cat 1, AAFP prescribed, or AOA CME credit, read the indicated articles and mark your responses on this form. You must complete all questions to receive credit. Then return this form in the envelope enclosed in this publication. Please return the entire form, including questions, for processing. A certificate awarding you CME credit will be sent to you by mail. This CME evaluation form must be postmarked by March 15, 2008. Please allow up to four weeks for your certification to arrive.

Please print.

First Name MI Last Name

Street Address

City State ZIP code

Area Code Telephone Number

ID#

Medical Specialty

Are you new to our CME program? yes no

Statement of Completion: I attest to having completed the CME activity.

Signature Date

Marking Instructions Correct: Incorrect:

TEST	A	B	C	D	E	Activity Evaluation	A	B	C	D	E
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Comments/suggestions for topics:

Questions? Call 410-368-2143.

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME). St. Agnes HealthCare, Inc. is accredited by MedChi, the Maryland State Medical Society to sponsor continuing medical educational for physicians.

St. Agnes HealthCare, Inc. designates this educational activity for a maximum of .5 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

CALENDAR OF EVENTS

GENERAL MEDICAL STAFF MEETINGS

April 17, Sept. 18, Nov. 20 | Noon to 2 p.m.
Alagia Auditorium
Lunch Served

MEDICINE Grand Rounds

Every Thursday | 8 a.m.
Alagia Auditorium
Call 410-368-3120 to confirm date, time,
and location.

OB/GYN Business Meetings

First Wednesday | Noon
Alagia Auditorium

Grand Rounds

Fourth and fifth Wednesday | time
TBD Alagia

Morbidity & Mortality

Second Wednesday | 7:30 a.m.
Alagia Auditorium
Call 410-368-2626 to confirm times, dates,
and locations.

PEDIATRICS Grand Rounds

Every Friday | 8:30 a.m.
Pediatric Conference Room (5AB)

SURGERY Business Meeting

First Friday | 7:30 a.m.
Alagia Auditorium

Grand Rounds

Every Friday except the first | 7:30 a.m.
Alagia Auditorium

Morbidity & Mortality

Every Friday | 8:30 a.m.
Alagia Auditorium

TUMOR BOARDS Breast

Every Thursday | 11 a.m.
3rd floor tower conference room

General

Fourth Thursday | 4 p.m.
7th floor tower conference room

GI/Colorectal

First, third, and fifth Wednesday | 4 p.m.
7th floor tower conference room

Gynecology

Third Wednesday | Noon
Alagia Auditorium

Head & Neck

Third Wednesday | 7:30 a.m.
Cancer Center conference room

Lymphoma

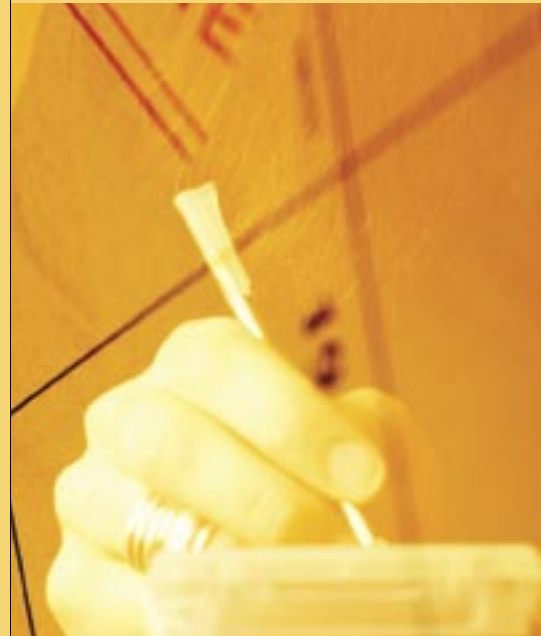
First and third Wednesday | Noon
6th floor tower conference room

OB/GYN

Third Wednesday | Noon
Alagia Auditorium

Thoracic

First, second, third, and fifth
Thursday | 4 p.m.
7th floor conference room



SAVE THE DATE!

Caritas: St. Agnes Spring Gala

April 5, 2008, at 7:30 p.m.

Soaring to New Heights with Team St. Agnes

Be a part of Team St. Agnes as we return to M&T Bank Stadium to celebrate Caritas: St. Agnes Spring Gala. There will be dancing to the "Doctor's Orders," delicious fare to sample, and behind-the-scenes tours of the stadium so you won't be left on the sidelines!

Show your St. Agnes spirit as we honor Dr. Stephen and Mrs. Jan Planholt with the Caritas Award.

For more information, call 410-368-3155.

Coming Soon!

An online auction will be held March 3–April 2, 2008, at www.stagnesauction.cmarket.com.



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