St. Joseph Hospital is once again investing in state-of-the-art technology with the purchase and implementation of PACS (Picture Archiving and Communication System). This digital imaging system gives the hospital the capability to establish a virtual radiology department – creating a more efficient and accurate way to manage and distribute images. After a multi-year planning process, PACS went live on Monday, May 3 with the following imaging modalities: CT Scan, Ultrasound, MRI, Nuclear Medicine and Cardiovascular Ultrasound.

PACS is a computer-based system that captures, stores, distributes and manages digital images. PACS viewing stations are available for physicians in the Radiology Department and ICU, and future plans are to implement a viewing station in the Emergency Room. The system’s benefits are plentiful for both physicians and patients. “Because PACS is a digital system the radiologists can review images instantly,” said Radiologist Jeffrey Chapdelaine, MD. For emergency or urgent patients this immediate access works especially well, giving radiologists the ability to make an accurate diagnosis more quickly. The system’s editing functions are also another benefit. “Film is a stagnant media,” Dr. Chapdelaine said, “the PACS system gives me the ability to manipulate the image so I can examine the image more closely and efficiently.”

The system’s editing capabilities allow radiologists to adjust the exposure factors as well as zoom and crop images, which enhance the image’s quality. During a brief demonstration Dr. Chapdelaine pointed out that the lightening feature helps him to better differentiate between tissue masses. This enables him to make a better, more informed diagnosis. With film-based images this is not possible, and the result is that some patients have to undergo longer imaging procedures and occasionally retakes are necessary.

Another benefit is that communication between radiologists and referring physicians will become more efficient. PACS images can be posted to the physician portal, which makes images available via a secure Internet connection. This gives radiologists and referring physicians the capability to simultaneously view a patient’s diagnostic images regardless of their locations – as long as a secure Internet connection is available. Dr. Chapdelaine also noted that the PACS system allows him to identify areas of concern by electronically flagging on an image.

St. Joseph Hospital will continue to add more PACS features as the Diagnostic Imaging department strives to become a filmless environment over the next 12 months. The project’s success is due to a multidisciplinary team from Diagnostic Imaging and Information Services including Jim McKenna, Beth Balmer, Mary Beth McGonagle, Jim Malone, Dr. Chapdelaine and Dr. Berger, as well as the Radiology and Information Systems staff. “This system reflects well on the hospital,” Dr. Chapdelaine said. “It is the way of the future and St. Joseph Hospital is already investing in it.” St. Joseph Hospital is one of only two hospitals in New Hampshire to implement PACS. “PACS is part of St. Joseph Hospital’s effort to implement a completely electronic medical record,” said Jim McKenna, Associate Vice President of Patient Care Services. “Our goal is to provide physicians, nurses and other providers with a patient’s medical information wherever and whenever it is needed to support the care process.”
A significant number of reproductive-age and perimenopausal-age women suffer from excessive bleeding at the time of their menstrual periods, and, in even recent times past, the reflex "solution" has been to perform more invasive procedures such as hysterectomy (complete removal of the uterus). But for more than two decades, a procedure known as endometrial ablation has been available for many of these patients. Unfortunately, this technology has been off the radar screen of many health providers. Part of the reason for this has been the difficulty in acquisition by healthcare providers of the skills required to perform the procedure. However, with the development and availability of newer, less skill-sensitive techniques, the justification for riskier procedures such as hysterectomy does not hold up to scrutiny in many cases.

There are a number of possible reasons why a woman may suffer from excessive menstrual bleeding. However, when disorders such as thyroid disease, hyperplasia (uncontrolled overgrowth) of the endometrium, bleeding disorders, and large fibroid tumors or large polyps have been ruled out, a substantial portion of patients are left with benign causes of heavy bleeding that are amenable to ablation. Out of 100 candidates with no significant endometrial disease at least 75 will be able to avoid unnecessary hysterectomy.

One of the simplified ablation techniques that has intrigued me most is the hydrothermablator, by Boston Scientific. It is one of several global (treats the whole inner lining of the uterus at one time) techniques that has made ablation simpler, safer, and user-friendly. It involves circulating superheated (around 90 degrees Celcius) saline into the uterine cavity to destroy the endometrium. It is faster, safer, easier, and as effective as the traditional technique, known as resectoscopic endometrial ablation. Moreover, it can still be performed when the patient has small fibroids or small polyps in the endometrium. To me, its chief advantage over some of the other more simplified ablation alternatives (such as the ThermaChoice balloon or the microwave Novasure techniques) is that it is performed under direct vision via a hysteroscope – a device that looks directly into the uterine cavity – so that you get a visual feedback over how the procedure is succeeding. And, again, unlike some of the other global techniques, small fibroids or small polyps are not a contraindication to performing the procedure. As well, the fail-safe mechanisms built into the HTA equipment lessen the already small risks of the procedure. It has been my personal goal to have this technology available to supplant a significant number of more invasive surgical procedures done in this community and elsewhere. The HTA has been available at St. Joseph Hospital since January 2003, and traditional ablations have been done by a select few of our staff for an even longer period.

Out of 100 candidates who undergo this procedure, approximately 75 will have a satisfactory result, which for about a third of them will mean the elimination of periods, and for the rest will mean lighter or more normal menstrual flows. This compares well with the more traditional ablation statistics. And the follow-up over several years for endometrial ablation is that the majority of patients continue to have success with their periods and avoid major surgery. When plagued with this problem, it is important for a patient to have her options explained to her. Hopefully, this information can help someone seeking alternatives to hysterectomy for a condition that may be readily amenable to a less invasive and less complicated approach.

Physician portal is a computerized system designed for physicians and their office staff. It is available from any computer in the hospital, the office or from home. The information is accessed through a secure site and only patients associated with either you or your practice can be accessed.

Patient information is available from Oct. 1, 2002, to the present, and is in “real time.” Physicians and their staff can access either inpatient or outpatient information, clinical as well as demographic information. The clinical information includes the orders that have been entered into the computer system, laboratory and diagnostic results as well as transcriptions. The transcriptions include, history and physicals, consultations, operation reports, endoscopy reports and discharge summaries. The demographic information shows the patient's address, next of kin, as well as insurance information.

Physician portal also shows not only patients assigned to you, but other patients in your practice, which is beneficial when doing rounds and when on call. It also allows access to patient’s information when asked to see a patient in consultation. Besides viewing clinical information, it also allows access to the electronic signature system. This link allows medical record reports to be signed electronically instead of “using a pen.” The PACS system went live on May 3, which is used for viewing diagnostic films. If you are interested in joining the steering committee for future computer-related systems, please contact Dr. William Stephan. If you have not received training on physician portal, please contact Lisa Rawnsley at x63519 or Carolyn Gatchell at x63520.
**MASTER FACILITY PLAN - CONSTRUCTION UPDATE**

The construction of the new parking garage is underway and will be located between the hospital and the church property, near the current Physician’s Entrance. It will hold approximately 215 cars, and will provide almost 100 additional parking spaces to the campus. The garage will be completed this fall, which will allow construction of the new ambulatory building to begin.

The need for this expansion is due to the tremendous outpatient growth we have been experiencing especially among our core ancillary services, lab and radiology, and our cardiovascular, oncology, breast care and day surgery programs.

The 80,000 square foot new addition is the largest building project the hospital has pursued in more than a decade and will transform the facade of St. Joseph Hospital, as we know it today. This new addition will feature a central atrium that will serve as a main entrance and also an access way between the new building and the hospital. The main entrance will be located near the new parking garage and features an outdoor canopy for dropping patients off. Once inside, a greeter will be available at the main information desk to assist patients and visitors with directions and wayfinding. Patient registration, phlebotomy, the hospital’s retail pharmacy, gift shop and a new café will also be housed in the central atrium to give patients fast and convenient access to these services.

The specialty centers that will be located in the new building are The Cardiovascular Center, Oncology Center, SurgiCenter, and Endoscopy.

When the new ambulatory building is complete, renovations can begin on the first floor of the hospital. Expansions will occur in Diagnostic Imaging, to allow for a fixed MRI and additional CT Scanner. The Emergency Department will also expand to allow a separate 6 bed Fast Track area and dedicated X-ray room.

Stay tuned for future construction updates!!

**TIMELINE OF EVENTS:**

- **April 2004**
  - Construction begins for two story parking garage
  - New entry roadway

- **Fall 2004**
  - Construction begins for Ambulatory Care Building
    - New main entrance/ Atrium
    - Cardiovascular Center
    - Oncology Center
    - SurgiCenter
    - Endoscopy

- **Winter 2005**
  - Renovations begin: Emergency Department expansion
  - ED Fast Track
  - Diagnostic Imaging expansion:
    - CT, MRI, Ultrasound

**UPDATE ON THE MAGNET JOURNEY**

Magnet status is the highest recognition that the American Nursing Credentialing Center (ACCN) can extend to professional nursing in a health care organization. This award recognizes excellence in professional nursing practice and nursing leadership.

On January 2, 2003, CNE Pam Duchene and the senior leadership team embarked on a major undertaking, to apply for Magnet recognition. The process of receiving this prestigious award involves three distinct phases.

Phase I is the application process. During this stage the organization declares its intention to apply for Magnet recognition and embarks on an intensive self - study to determine if we meet the 14 standards for Magnet recognition. The Magnet standards are based on the American Nurses Association Scope and Standards for Nurse Administrators (Smith, 2003).

The second phase is the documentation phase, in which we present written evidence demonstrating how we have met the Magnet standards. The evidence submitted will describe the role of professional nursing in many areas including decision-making, research, planning, education, administration, community activities, and outcomes evaluations. The principal writer for our documentation of these standards is Lisa Kennedy Sheldon, MS, RN, ARNP, ONC. The Magnet Steering Committee and the 14 staff nurses who serve as Magnet Champions support Lisa in this effort. Currently, our document is 90% completed and reflects an in depth analysis of how the Chief Nurse Executive and the Nursing Division at St. Joseph Hospital demonstrate excellence in professional nursing practice.

The final phase of the Magnet process is the site visit, which is anticipated in the fall of 2004. During the site visit, two surveyors will be specifically looking to clarify, magnify, and verify the evidence submitted in the Magnet application document. The site visit will be conducted over two days and it is our opportunity to shine. Not only will we demonstrate that we satisfy the standards for Magnet recognition, but we will also celebrate excellence in professional nursing practice at St. Joseph Hospital.

As we prepare to enter the final segment of our journey to Magnet recognition our excitement is mounting. The task has been challenging at times, but our goal is in sight.

Submitted by: Kathleen Knight MS, RN

References:

In April, The Board of Directors approved criminal background checks at the time of reappointment for all members of the medical staff and for allied health professionals. The Board also approved criminal background checks for physicians seeking temporary privileges.
MINIMALLY INVASIVE HIP AND KNEE REPLACEMENT - Improves Quality of Life

Total Hip Replacement (THR) and Total Knee Replacement (TKR) surgeries have been available methods of hip and knee joint arthritis disease for more than 30 years. Typically these surgeries require a large, open incision and long hospital recovery. Today minimally invasive surgical procedures are revolutionizing hip and knee replacements through new surgical techniques, instruments, and implants. Patients who are eligible for minimally invasive total hip and knee replacement are spared a large incision, experience decreased blood loss and have shorter hospital stays.

"It's all about quality of life," said Douglas Joseph, MD, a board certified orthopaedic surgeon at The Orthopaedic Center in Nashua. "Patients facing a hip replacement or knee replacement want to be up and around as soon as possible. This new procedure allows that to happen."

According to the American Academy of Orthopaedic Surgeons, about 300,000 patients have hip replacements and another 300,000 have knee replacements each year. The use of the new minimally invasive procedures is a welcomed option for these patients.

"Minimally invasive surgery is a technique that offers both functional and cosmetic benefits to patients," said Dr. Joseph, "because it significantly reduces the size of the incision and the disruption of muscle tissue." For example, the minimally invasive THR replaces the 10 to 12 inch incision from traditional, open surgery with a smaller incision that is 3 to 5 inches. Likewise, minimally invasive TKR replaces the surgical incision of 12 inches with a small 3 to 5 inch incision. The small incision also minimizes the muscle incision under the skin and the patient experiences significantly less soft tissue bruising during surgery allowing a speedier recovery. "This new procedure is much better for the patient," said Dr. Joseph. "There is less blood loss, there is less time spent in the operating room, the recovery time is much quicker and there is less pain involved. Overall it is healthier for our patients." The minimally invasive THR and TKR is performed very much the same way as the traditional method. However, the instruments have been modified or redeveloped to accommodate this new approach.

Dr. Joseph is one of the few surgeons in the Southern New Hampshire area who performs the minimally invasive THR and TKR. Since these procedures require specifically designed instruments and specialized techniques, Dr. Joseph has undergone special training. By years end, Dr. Joseph expects to have performed about 200 of the minimally invasive procedures. "Patients find it comforting to know, that these procedures are now available here in Nashua," said Dr. Joseph. "They are very excited to know they have this option, which enables them to return to their normal lifestyle as quickly as possible."

While there are significant advantages with these new procedures, minimally invasive THR and TKR are not necessarily for every patient. If you or someone you know is interested or may be a candidate for these surgical procedures, please call to make an appointment with Dr. Joseph at The Orthopaedic Center at 883-0091.

CONGRATULATIONS TO JOHN POSNER, MD, of The Oncology Center, who was recently named this quarter's Physician Champion. The Physician Champion Award is given quarterly to a physician chosen by the Division Advisory Committee (DAC). Dr. Posner was nominated by Lori Lester, RN of 4 North.

LORI FOX, A.R.N.P. has been named the new nurse practitioner for the Senior Adult Mental Health Unit at St. Joseph Hospital. Ms. Fox has over 20 years of experience in medical and psychiatric nursing. Most recently, Ms. Fox worked as a Senior Mental Health Consultant providing psychiatric consultation and management to residents in Long Term Care Facilities.

Ms. Fox received her Bachelor of Science Degree in Nursing from New York University and completed her Master's Degree in Nursing at the University of Pennsylvania. She completed her post graduate certification as a Family Nurse Practitioner at Rivier College in Nashua. Ms. Fox has a special interest in geriatric psychiatry.

DR. HOLLY DREXLER, recently joined SJ Family Medical Center in Merrimack. Dr. Drexler received her medical degree from the State University of New York (SUNY) at Buffalo School of Medicine in Buffalo, NY, and completed her residency at Williamsport Family Practice in Williamsport, Penn. She is board certified in Family Medicine and has special interests in Preventive Medicine, Family Care and Pediatrics. Before joining SJ Family Medical Centers, Dr. Drexler served as a staff physician at the Urgent Care Center at Williamsport Hospital. Dr. Drexler is a member of the American Medical Association and the American Academy of Family Practice. She has co-authored articles that appeared in The Journal of Spinal Cord Medicine. She can be contacted at 424-4181.

MOVING? RETIRING? CHANGE OF ADDRESS?
If you are leaving the area or retiring from practice, please contact the Medical Staff Office so that we may process your resignation. In addition, please be sure to notify us of location changes so your information can be updated promptly.