

# *A Decade of Caring*

*10 Years of Service to the Region*



*2000 Annual Report*  
*Applying 1999 Data*



**MeritCare**  
Roger Maris Cancer Center  
[meritcare.com](http://meritcare.com)

## ***Our Vision***

***is to provide comprehensive, compassionate care that will focus on:***

- State-of-the-art cancer care including treatment and cancer control measures
- A patient/family/community-centered approach
- A full continuum of coordinated care/service
- An outcomes-based clinical care system
- Balancing quality and cost in meeting health needs
- Expanding our commitment to education and clinical research
- Improving the health status of the communities we serve
- Increasing our commitment to prevention and early detection
- Being functionally integrated; planning, coordinating and managing key support functions across all operating units
- Nurturing an environment of cooperation, support and appreciation for the role each individual plays in reaching our mission

## ***Our Mission***

***To excel in***

***providing comprehensive oncology/hematology and infusion services to improve the quality of life among the individuals and communities we serve.***

## ***MeritCare Cancer Committee***

Robert Arusell, M.D. - Radiation Oncology

Mark Crowston - Manager Pediatric Oncology, Medical Oncology, Infusion Center

Terrance Grimm, M.D. - Pathology

Kathy Hanish, R.N., M.S. - Oncology Executive Partner

Peg Hokanson, R.H.I.T., C.T.R. - Cancer Registry

L. Michael Howell, M.D. - Surgery

Marilyn Jacobson, M.S.W. - Social Services

Jan Feder, R.N., B.S.N. - Quality Management

John Leitch, M.D. - Oncology Executive Partner, Cancer Committee Chair

Ralph Levitt, M.D. - Medical Oncology

Linda Lindquist, M.D. - Surgery

Richard Marsden, M.D. - Radiology

Roxanne Newman, M.D. - Heart Services

Tracy Pedersen, R.H.I.T., C.T.R. - Cancer Registry

Deb Pilon, C.C.R.A. - Community Clinical Oncology Program, Cancer Registry

Barbara Rosenbloom, R.N., B.S.N. - Cancer Education

Janelle Sanda, M.D. - Internal Medicine/Breast Clinic

Ann Sandgren, Ph.D. - Psycho-Oncology

Theodore Sawchuk, M.D. - Urology

Shawn Wing Schmidt - Cancer Registry

Randel Stolee, M.D. - Surgery, MeritCare Clinic Perham

Wanda Schlauderaff, R.N., O.C.N. - Clinical Coordinator Inpatient Oncology

Corey Tiegen, M.D. - Radiology

Kari Wessman, M.D. - OB/GYN



# *A decade of service to the region*

*by John M. Leitch, M.D. and Kathy Hanish, R.N., M.S.*

According to the National Cancer Program, our society has learned a great deal about the nature of cancer in the last 30 years. Over the last 10 years, researchers have been unraveling the mysteries of cancer aided by discoveries in basic research including the Human Genome Project. Researchers are translating this new knowledge into more effective prevention, detection, and treatment of certain cancers.

Much has been accomplished, but much more needs to be done. The hope for a simple cure for cancer faded as research for the past two decades has shown that cancer is far more complex and formidable than previously realized. Cancer develops through a complicated pathway at the level of genes. The challenge is to use this knowledge to improve detection, treatment and prevention. The data collected by our Cancer Registry profiles the major challenges and opportunities we face in managing cancer. We manage cancer in partnership with those whom we serve.

July 2000 marked MeritCare Roger Maris Cancer Center's 10th anniversary of service to the region. Having completed our first decade as a cancer center, we continue our tradition to improve the quality of life of individuals and communities we serve.

## **Looking Back**

Our specific goals last year were to:

- Participate in the American College of Surgeons (ACoS) Patient Care Evaluation (PCE) of Melanoma
- Obtain Cancer Committee approval and implement the National Comprehensive Cancer Network (NCCN) guidelines for lung and colo-rectal cancer.
- Conduct the second annual regional oncology symposium
- Recruit and hire one to two additional medical oncologists

Through teamwork and collaboration we were able to accomplish the following:

- Under Dr. John Leitch's guidance and leadership, the Cancer Committee approved the NCCN guidelines for lung and colorectal cancer
- Follow-up guidelines (developed by Roger Maris Cancer Center oncologists for breast, prostate, colo-rectal, lung, and endometrial cancers) were published online on MeritCare Health System's CareNet, providing electronic access to all providers in the health system
- The second annual oncology symposium -- "Primary Care and

Cancer" — took place in April, drawing close to 300 attendees. Christopher Foley, M.D., provided information on complementary health. Joanne Hilden, M.D., and Christopher Moertel, M.D., lectured on end-of-life issues and emergency dilemmas in Pediatric Oncology. The symposium's clinical focus was lung cancer, with Richard Gralla, M.D., Columbia University, New York, as the featured speaker for lung cancer.

- In addition to the symposium, Roger Maris Cancer Center staff provided education at the Big Iron event in West Fargo, Women's Showcase and various other events including parish nurse educational sessions throughout the region.
- Patient Care Evaluations. The Cancer Registry participated in the Melanoma and Quality of Data review PCE's offered by the ACoS in 1999.
- Efforts to recruit additional medical oncologists continue. We are pleased to announce the addition of John Tate, M.D., medical oncologist from the Cleveland Clinic, who will join us in December 2000. We are very grateful for the support of Ahmad Ghaffar, M.D., and Christian Debranim, M.D., who have assisted Medical Oncology on a temporary basis this past year to help meet our patients' needs.

In addition to the goals addressed, team members also collaborated to achieve cancer program re-accreditation from the American College of Surgeons (ACoS). Three recommendations accompanied the accreditation award:

- (1) Improve multidisciplinary attendance at tumor conference
- (2) Publish annual report which meets ACoS content requirements
- (3) Provide documentation of completion of annual report utilizing 1999 data by November 1, 2000

We have achieved success in all of these areas and continue to work on them to achieve our goals.

## **Quality-Improvement Efforts Continue**

Our quality- improvement efforts continue to focus on these core processes:

- Access
- Education and Program Development
- Delivery
- Research

# *A decade of service to the region (cont.)*

*by John M. Leitch, M.D. and Kathy Hanish, R.N., M.S.*

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**Access:** We continue to experience an increased demand for oncology services locally and in the region. This past year, oncology outreach services were added to:

- Park Rapids, Minn., for Medical Oncology
- Minot, N.D., for Pediatric Oncology (a half-day at Medical Arts, a half-day at Trinity)
- Fergus Falls, Minn., for Radiation Oncology

Although we have received other requests to increase outreach to MeritCare locations, we are limited due to our current number of providers. This is another reason we hope to have recruiting success in the year to come.

**Education and Program Development:** The Advanced Care Team, under the direction of Roger Maris Cancer Center psychologist Ann Sandgren, Ph.D., continues to serve patients with life-limiting illness. (See related article on page 18.)

The Familial Risk Assessment Program, under the direction of Carol Grimm, M.D., M.P.H., plans to expand services to colorectal risk assessment (in addition to breast cancer risk assessment).

**Delivery:** In addition to the approval of the NCCN guidelines, oncology health team members also participated in the following quality-improvement activities:

- Completion of work on the DRG 410 (chemotherapy) project to enhance cost effective care
- Initiating the DRG 239 (pathological fracture) pathway and implementing related standing orders
- Updating Chemotherapy Safety Standards and related policies and procedures for the health system
- Initiating a team to improve our management of reporting and responding to medication errors
- Designing and implementing a self-report survey on pain management to our patients and their family members (See related article on page 16.)

Efforts continue in all of these areas. We strive to hold our gains and continue improvement when and where opportunities are identified. One area of study this year will be cancer-related fatigue and the implementation of screening and evaluation tools.

**Research:** Oncologists plan to enhance their involvement in industry-sponsored research. This will enhance access to available clinical trials for our patients. We are currently involved in cooperative group research with:

North Central Cancer Treatment Group (NCCTG)  
Eastern Cooperative Oncology Group (ECOG)  
National Surgical Adjuvant Breast and Bowel Project (NSABP)  
Radiation Therapy Oncology Group (RTOG)  
Children's Oncology Group (COG)

Roger Maris Cancer Center was selected as one of 400 cancer programs in the US, Canada, and Puerto Rico to participate in the STAR (Study on Tamoxifen and Raloxifene) trial for the prevention of breast cancer. The trial is off to a good start with an excellent accrual rate thus far (see update on page 17).

We were also recently approved to participate in the SELECT Study (Selenium and Vitamin E Chemotherapy Prevention Trial) for the prevention of prostate cancer. This will begin in the fall of 2000.

We are grateful for the support we receive and the opportunities we have to participate in research on a regional and national level.

## *Looking Ahead*

As we move into our eleventh year of service, we will continue to focus on providing compassionate, family-centered, state-of-the-art care to patients from throughout the region. We have set the following specific goals:

- Recruit two medical oncologists and one radiation oncologist
- Open a Radiation Oncology unit in Bemidji, Minn.
- Organize the third annual regional oncology symposium
- Fulfill the accreditation recommendations from the American College of Surgeons
- Begin the process of measuring system compliance with the approved NCCN guidelines, beginning with breast cancer

As the National Cancer Program indicates, "We have learned a great deal about cancer in the last 10 years. Much has been accomplished, but much more needs to be done." We appreciate your continued support in these efforts.

*John Leitch, M.D., is the Oncology Executive Partner and Cancer Committee Chair. Kathy Hanish, R.N., M.S., is the Oncology Executive Partner. For more information call (701) 234-6161.*



## ***Lung cancer research takes several avenues***

***by Ralph Levitt, M.D.***

**M**eritCare Roger Maris Cancer Center utilizes several modalities in lung cancer research. We have cooperated in national and international studies, evaluating the worth of intense radiation therapy in lung cancer as opposed to conventional dosing programs. It appears that intense radiation therapy may be beneficial. We have contributed to this finding through our participation in prospective, carefully monitored and conducted research protocols.

We are also involved in studying new agents, both in the single-drug setting and in combination with other drugs. We have found that combinations utilizing gemcitabine, a relatively new drug for lung cancer, as well as Taxotere, have been surprisingly effective in cases where conventional therapies have failed. We are also researching the use of adjuvant chemotherapy (chemotherapy given following surgical resection of the tumor) in patients with high-risk tumors. These patients include those whose tumors demonstrate aggressive behavior pathologically and have a tendency to recur in the months or years after surgery. The current research shows promise in this set of patients, even though prior treatment attempts were not proven to be helpful.

A recently completed national study, in which Roger Maris Cancer Center participated, showed the superiority of one standard program of Taxol and carboplatin in terms of benefits for patients with advanced lung cancer.

Research has also included smoking-cessation protocols which are directed at evaluating various methods to assist participants in their efforts to stop smoking. A new study will be available in late 2000 offering another opportunity to current smokers in their effort to prevent the development of lung cancer and other lung diseases known to be caused by smoking.

New studies become available frequently, which will enable us to define a better therapeutic program than what is currently available. Participation in these research opportunities is exciting as we continue to improve methods of combating this devastating disease.

***A medical oncologist at MeritCare Roger Maris Cancer Center, Dr. Levitt is the principal investigator for the Community Clinical Oncology Program. For more information call (701) 234-6161.***

***“Now we’re looking inside cells, not just at them. We’re looking at the genes that form cancers and promote cell growth. We’re getting a much clearer understanding of cancer as a process and in the future we’ll turn cancer from a deadly acute illness to a chronic illness that people can live with and have good quality of life. Even now, patients are living longer than they did 10 years ago, and more are surviving cancer.”***

***—Ralph Levitt, M.D., MeritCare Oncologist***



## *Advanced nuclear medicine technology opens doors in diagnosis and staging*

*by Donald Stallman, M.D.*

Lung cancer frequently presents as a focal lung abnormality. This is evaluated further by routine cross-sectional imaging, typically computed tomography (CT scanning). However, chest radiography, CT or even MRI (Magnetic Resonance Imaging) cannot definitively differentiate benign from malignant tumors. In most cases, tissue diagnosis by bronchoscopy, imaging guided biopsy, or open biopsy is required. Recent advances in nuclear medicine technology are providing less invasive methods of differentiating benign from malignant and more accurate initial staging when malignancy is present.

Solitary pulmonary nodules are discovered in about 1 in 500 chest x-rays, with about 130,000 new nodules discovered in the United States each year. In people 35 and older, one-third will be carcinoma. The risk is higher in patients with risk factors such as tobacco use. A number of studies have demonstrated the utility of FDG-PET (fluorine-18-deoxyglucose - positron emission tomography) in the characterization of pulmonary nodules as benign or malignant. In the initial study from Duke University, the sensitivity and specificity in a series of 51 patients were 100 percent and 89 percent respectively. Subsequent larger series have shown sensitivities of about 95 percent and specificities of 90 percent. Bronchoalveolar carcinoma represents the most common false negative, and active tuberculosis and histoplasmosis the most common false positives. FDG-PET evaluation could prevent unnecessary biopsies of non-metabolically active lesions. Nodules with increased metabolism would require tissue diagnosis.

When malignancy is proven, staging of the extent of disease is required to guide appropriate therapy. CT has been the standard imaging method for staging, but has been shown to have some limitations. The criterion used in staging in the mediastinum is based on lymph-node size, with lymph nodes measuring greater than 1 cm presumed to be neoplastic. This anatomic criteria results in a sensitivity, specificity, and accuracy of about 65 percent. FDG-PET, which is based on metabolic criteria, shows sensitivity of 85 percent, specificity of 94 percent, and accuracy of 92 percent. In addition, FDG-PET evaluates adrenal metastases with a 92 percent sensitivity and specificity approaching 100 percent. MRI evaluation of the brain is better than FDG due to normal cerebral glucose metabolism. None of the imaging modalities is able to detect microscopic disease. PET is theoretically limited to lesions of 6 mm or larger; gamma camera based systems to lesions of about 1 cm. PET scanning is expensive, but a recent study from the Northern California PET Imaging Center showed overall cost savings of \$2,080 per patient. This was based on correct staging of patients, with

avoidance of unnecessary thoracotomies, avoidance of mediastinoscopy, and unnecessary biopsy.

FDG is a metabolic tracer, which is an analog of glucose. It is transported into cells by the same mechanism as glucose, but its metabolism is incomplete and it is trapped within the cell. The uptake of FDG is proportional to the rate of true glucose metabolism. Almost all malignant cells have increased glucose metabolism, increased protein synthesis, and uncontrolled cell proliferation. Fluorine-18 is a radioactive isotope of Fluorine. It is a positron emitter with a half-life of 109 minutes.

Until recently PET was limited to large university centers due to the logistics of maintaining a PET scanner and a local cyclotron to produce the radioisotope. Due to advances in technology, modifications to the standard gamma cameras used in nuclear medicine departments allow "camera-based PET." These systems, available in community settings, have slightly less resolution than dedicated PET, but approach PET in lesion detectability. The second component -- the availability of the radiotracer -- has been addressed by the development of regional centers, which produce FDG and ship to multiple sites. We are currently receiving FDG produced in Omaha, through PET-NET. Mayo Clinic has recently started its own PET center and may be producing FDG for distribution; there may also be a production site located in Minneapolis/St Paul.

Neo-Tect, a Technetium-99m based polypeptide, was recently granted FDA approval for evaluation of solitary pulmonary nodules. This is a somatostatin analog that has been demonstrated to have sensitivity and specificity for detection of malignancy similar to PET. Many neoplasms, including both small cell lung cancer and non-small cell lung cancer, express increased somatostatin receptors. This radiotracer has the advantage of being Tc-99m based and would be available for use in any nuclear medicine department. Ongoing studies are evaluating its utility for staging lung cancer and for other malignancies.

*Dr. Stallman is a radiologist at MeritCare. For more information call (701) 234-2406.*



# *Advances in the treatment of lung cancer*

*by Gerald Gross, M.D.*

Of all the cancers we deal with, lung cancer is one of the toughest. Even when caught in stage 1, when the lesion can be surgically removed, we still see a solid 20 to 30 percent chance the cancer will recur. Why? Because these tumors are highly capable of attaching themselves to blood vessels and circulating around the body where they find “fertile soil” in other organs to grow. For this reason, therapy for lung cancer must be directed not just against the lung where the tumor is, but against the entire body where the cells gain a foothold and begin growing as tumors known as metastases.

In the past 10 to 15 years, several advancements have been made both in how we treat advanced lung cancer as well as in what we're doing to prevent recurrence. In the following, I will briefly review some of these advancements and their availability at Roger Maris Cancer Center. The following information concerns the most commonly diagnosed form of lung cancer, the so-called “nonsmall cell” type, which typically accounts for about three-quarters of all lung neoplasms seen in the United States.

## *New approaches to various stages of lung cancer*

■ **Early-stage lung cancer.** Is it advantageous to follow surgery with a course of chemotherapy in the treatment of early-stage lung cancers? Historically, surgery alone has been the standard course of treatment for most stage 1 and stage 2 lung cancers, but a Mayo Clinic study, that MeritCare is currently participating in, will teach us more. Years down the road, we may find that the use of chemotherapy in early-stage lung cancers can result in a 10 to 15 percent rate of relapse rather than the current 25 percent.

■ **Stage 3 lung cancer.** Surgery is often not an option for stage 3 cancer involving positive lymph nodes in the chest; we have, however, found some success in combining chemotherapy with radiation. In fact, people who had no chance of being surgically cured years ago now have at least a 1-in-5 chance. Today, chemotherapy and concomitant or sequential radiation for nodal disease in the chest is the standard of care.

Another option that may be available to some patients is neoadjuvant (also called pre-operative) chemotherapy. Through our involvement in the North Central Cancer Treatment Group, we currently participate in a study with Mayo Clinic to evaluate neoadjuvant chemotherapy for stage 3 lung cancer. With neoadjuvant chemotherapy, it may be possible to treat a previously inoperable tumor down to a size where surgery is feasible. Sometimes these patients benefit from radiation therapy, too.

■ **Advanced lung cancer.** As recently as 10 years ago, it was thought chemotherapy for advanced lung cancer was futile, that it would just give people side effects with very little benefit. Today, with the use of the platinum-related compounds in combination with other types of chemotherapy, we are able to shrink many advanced tumors, relieving pain and extending survival rates. Cisplatin (Platinol) is a platinum-based product that emerged about 20 years ago and was applied extensively to lung cancer about a decade ago.

Incidentally, other first-line drugs in the current treatment of lung cancer are paclitaxel (Taxol) and its first cousin docetaxel (Taxotere). The gold standard to which all other drug combinations for lung cancer are compared is a combination of paclitaxel and carboplatin (Paraplatin). Other newer drugs we use in the treatment of lung cancer include gemcitabine (Gemzar) and vinorelbine (Navelbine).

## *New medications help improve quality of life*

The bone marrow bears much of the brunt of chemotherapy's toxicity. With the availability of white blood cell and red blood cell growth-factor shots, we are now able to more quickly restore patients' energy and immunity. This makes a marked difference in quality of life and overall tolerability of chemotherapy. Another area where significant progress has been made is in chemotherapy-related nausea. More types of anti-nausea drugs are now available, and we have greater knowledge as to how to use them. The result has been a significant decrease in nausea, both during treatment as well as a few days after. I would estimate that 9 out of 10 patients who receive chemotherapy are now able to do well in terms of nausea. The downside is cost. Insurance providers generally cover these high-cost drugs. For people who do not have insurance, we try to make samples available whenever possible.

## *Future options for treating lung cancer*

Of course we will continue to combine traditional chemotherapy drugs and test new ones, but we are entering a time when adjunctive biological therapies will emerge to help the drugs work better. Monoclonal antibodies are an example. We are now enrolling patients in a clinical trial utilizing the humanized monoclonal antibody known commercially as Herceptin. Herceptin has been FDA-approved for breast cancers which overexpress a certain type of antigen or cell marker (Her-2/neu) on the cell surface making it an excellent cancer-specific target.

# *Advances in the treatment of lung cancer (cont.)*

*by Gerald Gross, M.D.*

By attaching itself to this Her-2 receptor, it causes the cancer cells to stop reproducing and in many cases to ultimately die. It is now being tested against lung cancers which also test positive for overexpression of this same receptor. Other cell surface markers which seem to be relatively specific to lung and other cancers are also being identified and are leading to the development of similar therapies.

Gene therapy — now under study at major universities and through biotechnology corporations — will one day be a major treatment avenue. Its present status is still very embryonic and fraught with several unknowns but has become the “holy grail” of cancer therapy. It is hoped gene therapy will affect only those cells that are abnormal, either killing them or changing their malignant behavior back to normal while leaving the rest of the body unaffected. As you can see, the wave of the future is to

more specifically destroy tumors without compromising normal organs and tissues. This approach is commonly likened to a laser guided missile or “surgical strike” against an enemy target.

It also pleases me to see significant efforts toward earlier detection of lung cancer — this is absolutely critical. Obviously, smoking cessation efforts hold the greatest promise for reducing lung cancer rates in the first place. But from my perspective as a medical oncologist who sees patients already diagnosed with this disease, we must also be able to minimize the chances of relapse from a limited stage lung cancer. My hope would be that in the next 10 to 15 years, we will make continued significant progress toward that end.

*Dr. Gross is a medical oncologist at MeritCare Roger Maris Cancer Center. For more information call (701) 234-6161.*



## *3-D conformal radiation therapy for lung cancer*

*by Dennis Bier, M.D.*

Since spring 2000, MeritCare Roger Maris Cancer Center has offered three-dimensional radiation therapy,

sometimes called conformal therapy. This state-of-the-art approach to radiation therapy uses imaging and advanced computer software to help physicians better design and carry out more complex radiation treatments. They can shape the high-dose volume of the radiation treatment to the target, while minimizing the radiation dose to the surrounding normal tissue.

Nationwide, 3-D radiation therapy has been used primarily for small brain tumors, lung cancer and prostate cancer. At Roger Maris Cancer Center, we have used 3-D radiation therapy in the treatment of certain types of prostate cancer and lung cancer.

Regarding lung cancer, the concept of shaping the high-dose volume of radiation therapy, targeting the tumor and minimizing the dose to surrounding tissue is important to delivering high quality radiation therapy. But, it is especially important in tissue with relatively low tolerance to radiation - such as lung tissue. Historically, a low tolerance has limited the dose of radiation that can be given to both the lung and other critical structures in the thorax.

Another advantage of better tumor targeting is the ability to escalate dose to the tumor. By escalating the tumor dose, the probability of tumor control increases. Evidence suggests that

improving local control of tumors may decrease the risk of metastatic disease. Several prostate-cancer reports show this concept may be accurate.

Recent published reports about 3-D radiation treatment of lung cancer suggest improved local control and improved one and two year survival rates, either with radiation alone or combined with chemotherapy.

MeritCare’s recent installation of 3-D capability is part of a general upgrading of the department. Currently our equipment includes two linear accelerators (treatment machines), the 3-D treatment planning system, beam-scanning system, IMPAC system, multileaf collimator and electronic portal imaging.

With our upgraded equipment, we now are able to treat approximately 60 patients per day. Our improved capabilities also allow us to participate to a greater extent in clinical trials for lung cancer sponsored by the Radiation Therapy Oncology Group and other clinical trial groups.

The ultimate outcome for 3-D radiation therapy will be the ability to treat lung-cancer patients with greater effectiveness and less toxicity.

*Dr. Bier is a radiation oncologist at MeritCare Roger Maris Cancer Center. For more information call (701) 234-5126.*



# *Today's surgical treatment of lung cancer*

*by Roxanne Newman, M.D.*

Not so long ago, surgery for the treatment of lung cancer was an option only for people who did not have advanced disease. Moreover, a full thoracotomy was often difficult to recover from and involved significant discomfort. Advances in recent years have positively impacted these three areas.

## ***Team Approach Makes Surgery an Option for More Patients***

Traditionally, evidence of metastatic disease or lymph-node involvement precluded patients from resection. Now, with oncologists and surgeons working more closely together, as they do at MeritCare, patients who at one time would have been considered ineligible for resection may now be candidates.

MeritCare oncologists and surgeons communicate with one another and together devise a plan in which chemotherapy and/or radiation therapy can be used in conjunction with surgery to improve the survival rate. Sometimes surgery precedes other treatments; other times it follows them.

## ***Limited Thoracotomy Offers Benefits***

The traditional incision used in a full thoracotomy extends from the spine to near the sternum, affecting ribs and major muscles. The healing from the muscle incision alone can be very demanding, and problems with swelling, discomfort, and fluid accumulations are not unusual.

For about six years, MeritCare surgeons have performed — when appropriate — the limited thoracotomy. This involves an incision that is approximately 4 to 6 inches and often preserves muscle. Though a limited thoracotomy is more tedious and time consuming for the surgeon, it is definitely beneficial in terms of the patient's recovery time. Patients who have undergone a limited thoracotomy recover more quickly and are able to participate in adjuvant therapy sooner. A three-day hospital stay is typical.

Though frequently used at MeritCare and with good results, the limited thoracotomy is not yet common practice nationwide, but it is catching on.

## ***Keeping Pain Under Control***

Keeping pain under control is important for several reasons, including overall endurance and recovery time. Patients who are relatively comfortable are able to cough, deep breathe, keep their lungs fully expanded, and get up and move around. In

addition to the limited thoracotomy, two factors have contributed significantly to a patient's comfort: cryoablation and the PCA (Patient Controlled Analgesia) pump.

Cryoablation of the intercostal nerves involves freezing the nerves at the time of incision. This technique was adopted from the MeritCare Pain Clinic, where nerve blocks are often used to give pain relief for anywhere from 1 to 3 months. When used in surgery, cryoablation has resulted in patients requiring less anesthesia because the pain response is less. Plus, patients are easier to manage post-operatively.

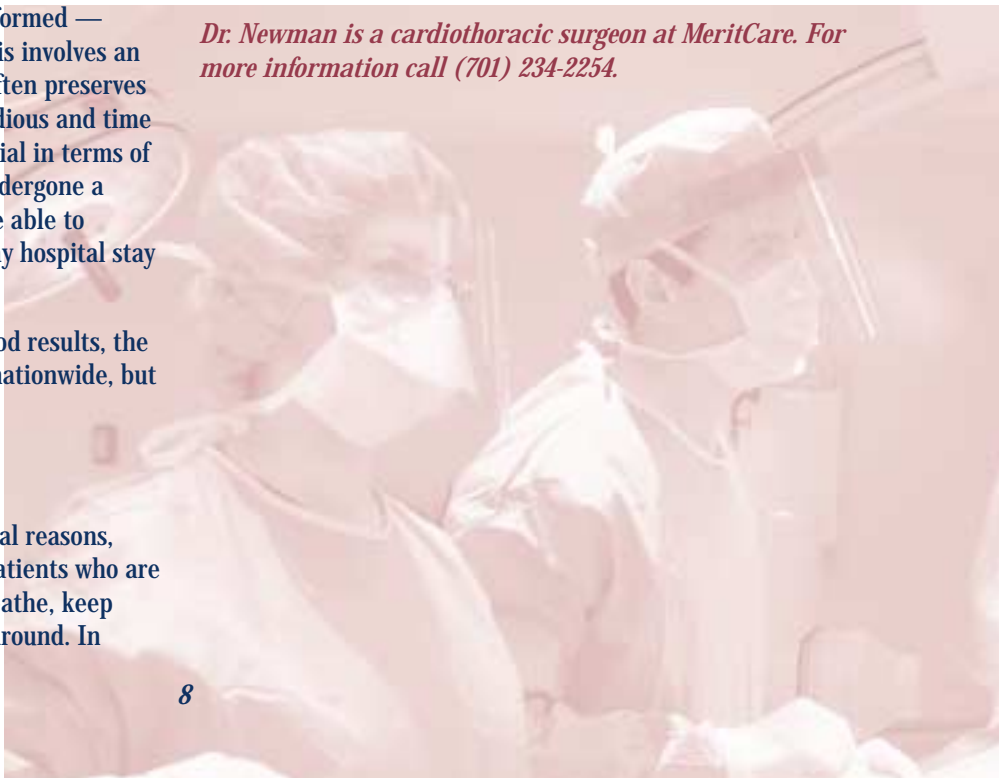
PCA pumps have been used at MeritCare for several years. They give patients continuous pain management until the chest tubes are removed. At that point, patients switch over to oral pain medications.

## ***What's Ahead in the Surgical Treatment of Lung Cancer?***

More and more patients who were previously unresectable because of local invasion, bulkiness of tumor, or poor prognosis will likely be candidates for post-therapy resection for the removal of residual tumor. This will be possible with continuing advancements in chemotherapy and radiation therapy.

In addition, the cooperation among surgeons and oncologists will certainly continue. It has resulted in cooperative treatment plans that benefit patients.

*Dr. Newman is a cardiothoracic surgeon at MeritCare. For more information call (701) 234-2254.*





# *Advances toward the early diagnosis of lung cancer*

*by Patrick Stoy, M.D.*

One of the keys to improving the survival rate of patients with lung cancer is the ability to identify it at its earliest possible stage. New techniques and technological advances move us closer in that direction. They also contribute to better management of the disease, greater comfort for the patient, and, possibly, an increased chance for cure.

## ***Benign or malignant? PET scans help distinguish***

A needle biopsy is the typical course of action to investigate a spot on the lungs, but some patients are poor candidates for biopsy due to underlying problems such as emphysema. A biopsy could put them at risk for a collapsed lung or bleeding. For these patients, PET (positron emission tomography) scanning may be the best, least-invasive option, though it is costly.

Available through MeritCare's radiology department, a PET scan requires extensive equipment and a special type of tracer or radiopharmaceutical. In simple terms, after the tracer is injected in the patient, images are taken with special cameras. Areas that light up indicate a strong possibility of cancer. This information helps guide the physician in determining whether surgery should follow, and to what extent the surgery should be.

PET scanning can also help in the management of cancer. It provides information about the spread of cancer and whether surgery is an option.

## ***Screening for lung cancer may be effective for certain subsets***

Screening is another way we may be able to diagnose lung cancer at an earlier stage. Studies from the 1970s showed no benefit in screening the general population of cigarette smokers, but researchers now believe selected subsets of smokers actually do benefit from screening. These subsets include smokers with emphysema, a prior history of a smoking-related cancer such as lung or head and neck cancer, known exposure to asbestos or radon or a family history of lung cancer.

Today's screening techniques include X-ray, but sputum cytology screening may be a future option. Other future options may include serum markers for lung cancer and sputum genetic analysis.

## ***On the horizon: photodynamic therapy***

Imagine being able to shine a light on a tiny spot of cancer on the lung and destroying it, perhaps even curing the disease. With photodynamic therapy, this could be possible.

Used for the early diagnosis of lung cancer as well as treating early-detected cancers, photodynamic therapy involves injecting the patient with a special dye, which is taken up by cancer cells, but not healthy tissue. Two days later, the patient undergoes a bronchoscopy involving a special probe that transmits a specific wavelength of laser light. This allows the physician to identify and locate suspicious tissues. Photodynamic therapy could also be used to open airways plugged by tumors, making it a valuable tool for symptom improvement.

An emerging technology, photodynamic therapy may be available at MeritCare in the future.

## ***Prevention still the best solution***

When you consider the high percentage of lung cancers caused by smoking, you realize how important it is to keep young people from starting — and help smokers of all ages quit. Research has clearly shown a physician's advice to a patient about not smoking is one of the most powerful messages that person hears. We must not forget this, and we must continue to enhance our efforts to educate our patients on the dangers of smoking.

We also need to introduce patients to the tools that can help them stop smoking, including smoking-cessation classes, medications such as Zyban (this has helped many), support groups, Internet sites, or phone numbers they can call. Today's tools are not perfect, but they are certainly better than what we have had in the past.

By encouraging smokers to quit and matching them with the tools they need, we can help reduce the incidence of smoking ... and ultimately the incidence of lung cancer.

*Dr. Stoy is an allergist/pulmonologist at MeritCare. For more information call (701) 234-5000.*

# Pharmacological and behavioral approach helps smokers quit

by Tamara McCabe Halvorson, B.A., R.R.T.

One of the major risk factors for lung cancer is tobacco smoking. At the beginning of the 20th century, lung cancer was rare. The introduction of manufactured cigarettes in the early 1900s made cigarettes more readily available. Now, at the start of the 21st century, 80 % of lung cancers are thought to result from smoking.

Some progress has been made in the United States. Tobacco use has decreased from 50% in the early 1950s to roughly 25% today. Most recreational tobacco users have quit. But those whose tobacco consumption is high, remain. These individuals are unable to quit without both psychosocial and pharmacological support. The good news is there is assistance for those who want to quit.

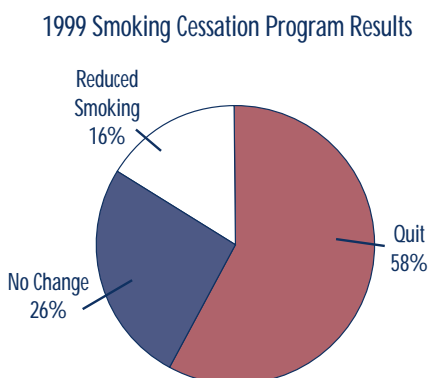
## Components of the combined approach

Pharmacological support includes Bupropion (Zyban) and Nicotine Replacement Therapy (nicotine gum, nicotine inhaler, nicotine nasal spray, and nicotine patches).

Psychosocial support that motivates patients to change their behavior and move them through the behavior- change process is beneficial. Strategies shown to increase motivation for quitting include smoke-free policies, price increases and media campaigns. The process typically takes the following course: Patients go from not thinking about quitting, to thinking about quitting, to setting a quit date, to staying quit.

Pharmacological support used in conjunction with psychosocial support that includes individualized behavioral counseling with patient follow-up seems to double the patient quit rates. MeritCare Respiratory Care Services uses this method in its Tobacco Cessation Counseling Program.

We utilize individualized patient counseling with follow-up, and assist physicians and patients with decision-making related to pharmacological support. We help patients set a quit date, determine how they can modify their behavior, provide education on pharmacological support and its use, and provide support and follow-up for one year.



## Future Plans for the Tobacco Cessation Counseling Program

■ **Marketing the service to physicians and patients.** Currently we work primarily with MeritCare Heart Service patients, but we are working to market this service to others in the health system. One step toward this goal is to implement a Tobacco Use and Dependence Clinical Practice Guideline through out MeritCare Health System. Once physicians identify patients as tobacco users, they will use this guideline to assist them with preliminary counseling, then refer the patients to our service or elsewhere as needed. A team of clinical experts from across the health system has been appointed to assist with the implementation of this guideline and we anticipate implementation in 2000.

■ **Identification of parents who are tobacco users.** We hope to identify parents who are tobacco users, then assist them with quitting tobacco use. This could result in a decrease in the number of their children's clinic visits and hospitalizations, which may be due to exposure to secondhand smoke.

■ **Counselor training.** Several respiratory therapists from MeritCare have gone to Mayo Clinic for Nicotine Dependency Counselor Training. This practice will continue.

*Tamara McCabe Halvorson, B.A. R.R.T is a respiratory therapist at MeritCare. For more information about the tobacco dependence treatment from MeritCare (701) 234-5000.*

***“People today are more sophisticated than ever in terms of understanding their diagnoses and their treatment options. Because we have a clinical research program here, we are able to offer state-of-the-art therapies. People are able to participate in the same research they’re reading about on the internet.”***

***—Ralph Levitt, M.D.***



# Lung cancer care

By Robert Arusell, M.D.

Lung cancer has become the second most common cancer in both men and women and the American Cancer Society estimates over 89,000 men and 87,000 women will die of lung cancer in the year 2000<sup>1</sup>. In 1993, there were 143 analytic (diagnosed and/or having part of their initial course of therapy at MeritCare Health System) lung patients. At the time of this statistical analysis, current survival status and treatment information was available for all of these cases.

In the course of this data analysis, comparison data from the National Cancer Database (NCDB) was utilized as well as data from The Upper Midwest Oncology Registry System (TUMORS). The NCDB is a joint effort of the American College of Surgeons

and the American Cancer Society and includes data from over 1200 hospitals regarding all aspects of cancer surveillance. TUMORS is a consortium of 27 cancer registries from which 17 participated in the data review included in this report. (A list of TUMORS members may be found at the end of this article).

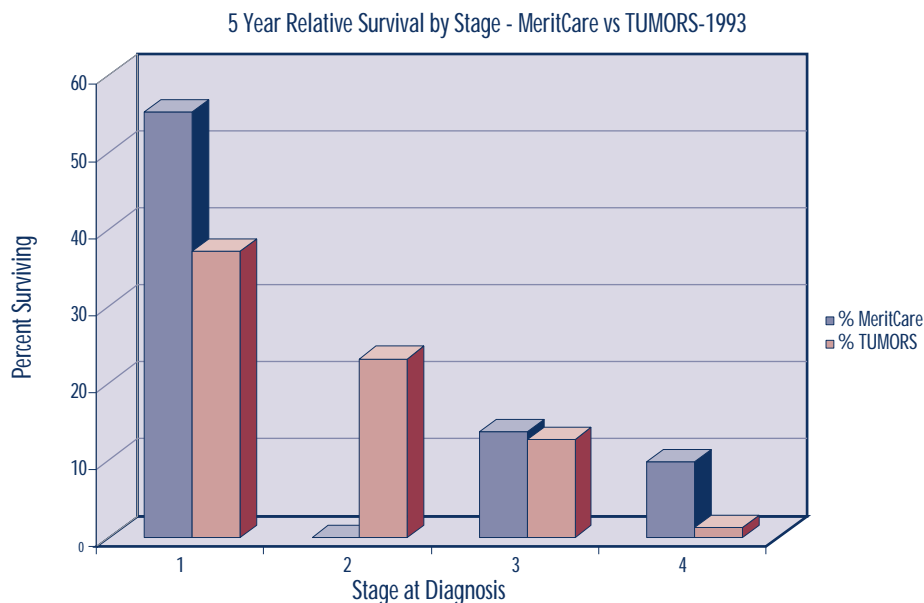
Patients with lung cancer often do not develop symptoms until the cancer is in an advanced stage and this is depicted by the percentage of stage 3 and stage 4 cancers reported by all three sources (Table 1).

Survival following a lung cancer diagnosis is poor, especially for the advanced cases as depicted in Table 2.

<b>*COMBINED AJCC STAGE AT PRESENTATION PERCENT OF TOTAL CASES</b>						
	Stage 0	Stage I	Stage II	Stage III	Stage IV	Not Staged
MeritCare (143 patients)	1	20	3	38	34	3
TUMORS (994 patients)	1	18	5	31	37	9
NCDB (87,928 patients)	1	19	5	27	34	13

**Table 1**

\*Combined AJCC stage group includes the pathologic stage group where documented, augmented by the clinical stage group where pathologic stage is not recorded.



# Lung cancer care (cont.)

By Robert Arusell, M.D.

Table 3 displays the treatments given for the various groups. Relative survival for MeritCare patients is shown in the lower half of the table.

<b>TREATMENT OF LUNG CANCER, 1993 PERCENT OF TOTAL CASES</b>							
	Surgery Alone	Radiation Alone	Chemotherapy Alone	Surgery + Radiation	Surgery + Chemotherapy	Radiation + Chemotherapy	No Treatment
MeritCare	12	31	10	8	1	29	8
TUMORS	14	33	10	8	1	19	13
NCDB	17	28	11	6	1	15	21
<b>MERITCARE'S SURVIVAL PERCENTAGES (%)</b>							
MeritCare	59	16	0	18	0	10	0

Table 3

The 5-year relative survival for MeritCare, TUMORS, SEER<sup>2</sup> is 21, 13 and 14 percent respectively. (Please note: No NCDB survival data was available for 1993, therefore SEER data from 1989-1994 was utilized.)

<b>5 YEAR RELATIVE SURVIVAL</b>			
	MeritCare	TUMORS	SEER
All Stages	21%	13%	14%
Year	1993	1993	1989-1994

In our analysis, presenting symptoms, age, stage, histology, and treatments were quite comparable between the groups. One difference was histology where small cell carcinoma was found in 22 percent of MeritCare cases and 16 percent in the other groups. This may partially explain the increased use of chemotherapy and radiation at MeritCare and somewhat less surgery as seen in Table 3. Since 1982, MeritCare has participated in clinical research studies sponsored by the National Cancer Institute. The attention to detail for staging and treatment may carry over to all patients treated and contribute to a better survival rate.

Lung cancer is a devastating illness and earlier diagnosis, better treatment and smoking prevention programs are greatly needed. Other articles in this report discuss ongoing efforts at MeritCare Medical Center in dealing with lung cancer.

## TUMORS Aggregate

Altru, Grand Forks, N.D.; Avera, Sioux Falls, S.D.; MedCenter One, Bismarck, N.D.; St. Alexius Hospital, Bismarck, N.D.; Douglas County, Alexandria, Minn.; HealthEast St. Joseph's Hospital, St. Paul, Minn.; Immanuel-St. Joseph's, Mankato, Minn.; Methodist Hospital, St. Louis Park, Minn.; Regions Medical Center, St. Paul, Minn.; Rice Memorial Hospital, Willmar, Minn.; Ridgeview Medical Center, Waconia, Minn.; St. Cloud Hospital, St. Cloud, Minn.; St. Francis Regional Medical Center, Shakopee, Minn.; St. Joseph's Medical Center, Brainerd, Minn.; Trinity Medical Center, Minot, N.D.; Unimed St. Joseph's Hospital, Minot, N.D.; Univeristy Medical Center – Mesabi, Hibbing, Minn.

## These facilities are part of the TUMORS aggregate, but did not submit data

Abbott Northwestern, Minneapolis, Minn.; Unity Medical Center, Minneapolis, Minn.; Mercy Medical Center, Coon Rapids, Minn.; United Hospital, St. Paul, Minn.; Fairview Southdale Hospital, Minneapolis, Minn.; Fairview Ridges Hospital, Burnsville, Minn.; Fairview-University Medical Center, Minneapolis, Minn.; Colon and Rectal Surgery Associates, Minneapolis, Minn.; and Winona Community Memorial Hospital, Winona, Minn.

*Dr. Arusell is a radiation oncologist at MeritCare Roger Maris Cancer Center. For more information cal (701) 234-5126.*

<sup>1</sup> American Cancer Society, 2000 Cancer Facts and Figures

<sup>2</sup> Surveillance, Epidemiology, And End Results Report for the National Cancer Insititue

# Cancer registry report

by Tracy Pedersen, R.H.I.T., C.T.R.  
and Peg Hokanson, R.H.I.T., C.T.R.

The MeritCare Cancer Registry is a member of The Upper Midwest Oncology Registry System (TUMORS) and is located in the Education and Research Department at MeritCare Roger Maris Cancer Center. TUMORS is now 27 members strong with an aggregate database of over 320,000 cancer cases.

Since the reference date of January 1, 1986, 21,309 total cases have been entered in the Cancer Registry database. Of these total cases, 17,957 are analytic (diagnosed and/or having any part of their initial course of therapy at MeritCare Health System) and 3,352 are non-analytic (diagnosed and initial course of therapy at another facility). 9,786 of the total cases are deceased; and 5,023 cases do not require follow-up according to guidelines set by the Commission on Cancer (CoC), meaning they are benign and borderline cases, carcinoma in situ of the cervix, basal and squamous cell carcinomas of the skin, foreign residents, and non-analytic.

As of December 31, 1999, the total number of cases in the database requiring lifetime follow up was 7,771 with a follow up rate of 94 percent, which exceeds the CoC standard requirement of 90 percent.

In 1999, 51 cancer case review conferences were held, with 187 (13 percent of 1999 analytic caseload) cases presented, and an average attendance of 26. Sites presented for discussion include, but are not limited to, breast, prostate, lung, colon, rectal, leukemia, lymphoma, Hodgkin's lymphoma, multiple myeloma, bladder, kidney, stomach, pancreas, small bowel, ovarian, endometrial, penile, unknown primary, esophagus, larynx, thyroid, head & neck, Ewing's sarcoma, soft tissue, bone, skin, brain, leiomyosarcoma, glioblastoma and choriocarcinoma.

Of the 187 cases presented, 120(64 percent) were prospective presentations, which is well over the required 51 percent standard set by CoC.

In 1999, 29 data requests were received and completed by the registry staff. Physicians and non-physicians requested information pertaining to stage and treatment given for breast, colorectal treatment, prostate, skin, melanoma, pancreas and ovary; patients having received radiation; all small cell lung cancer vs non-small cell lung cancer including the age at diagnosis, treatment given, stage, survival, and co-morbidities. Registry data was utilized to improve patient care, for grant renewals, for public education, and to determine accrual feasibility for research protocols.

<i>Site</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
<i>Oral Cavity &amp; Pharynx</i>	<i>30</i>	<i>21</i>	<i>9</i>
<i>Esophagus</i>	<i>14</i>	<i>12</i>	<i>2</i>
<i>Stomach</i>	<i>17</i>	<i>12</i>	<i>5</i>
<i>Colorectal</i>	<i>151</i>	<i>84</i>	<i>67</i>
<i>Pancreas</i>	<i>30</i>	<i>16</i>	<i>14</i>
<i>Other Digestive</i>	<i>36</i>	<i>18</i>	<i>18</i>
<i>Lung</i>	<i>174</i>	<i>108</i>	<i>66</i>
<i>Larynx</i>	<i>6</i>	<i>4</i>	<i>2</i>
<i>Other Respiratory</i>	<i>7</i>	<i>6</i>	<i>1</i>
<i>Bones &amp; Joints</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>Soft Tissue</i>	<i>7</i>	<i>4</i>	<i>3</i>
<i>Melanoma</i>	<i>23</i>	<i>13</i>	<i>10</i>
<i>Other skin</i>	<i>3</i>	<i>3</i>	<i>0</i>
<i>Breast</i>	<i>241</i>	<i>5</i>	<i>236</i>
<i>Cervix</i>	<i>13</i>	<i>0</i>	<i>13</i>
<i>Uterus</i>	<i>42</i>	<i>0</i>	<i>42</i>
<i>Ovary</i>	<i>36</i>	<i>0</i>	<i>36</i>
<i>Other Female Genital</i>	<i>2</i>	<i>0</i>	<i>2</i>
<i>Prostate</i>	<i>354</i>	<i>354</i>	<i>0</i>
<i>Other Male Genital</i>	<i>9</i>	<i>9</i>	<i>0</i>
<i>Bladder</i>	<i>70</i>	<i>56</i>	<i>14</i>
<i>Kidney</i>	<i>46</i>	<i>24</i>	<i>22</i>
<i>Other Urinary</i>	<i>2</i>	<i>2</i>	<i>0</i>
<i>Eye</i>	<i>1</i>	<i>1</i>	<i>0</i>
<i>Brain</i>	<i>27</i>	<i>14</i>	<i>13</i>
<i>Other Nervous System</i>	<i>15</i>	<i>5</i>	<i>10</i>
<i>Thyroid</i>	<i>18</i>	<i>5</i>	<i>13</i>
<i>Other Endocrine</i>	<i>4</i>	<i>1</i>	<i>3</i>
<i>Hodgkin's Lymphoma</i>	<i>6</i>	<i>4</i>	<i>2</i>
<i>non-Hodgkin's lymphoma</i>	<i>64</i>	<i>39</i>	<i>25</i>
<i>Multiple Myeloma</i>	<i>16</i>	<i>6</i>	<i>10</i>
<i>Acute Leukemias</i>	<i>6</i>	<i>2</i>	<i>4</i>
<i>Chronic Leukemias</i>	<i>14</i>	<i>9</i>	<i>5</i>
<i>Other Leukemias</i>	<i>29</i>	<i>14</i>	<i>15</i>
<i>All Other Sites</i>	<i>29</i>	<i>16</i>	<i>13</i>
<b>TOTAL</b>	<b>1545</b>	<b>869</b>	<b>676</b>





## ***Pediatrics year in review***

*by Nathan Kobrinsky, M.D.*

### ***Pediatric hematology/oncology***

Just as with adults, children who have cancer need to get to a place that provides compassionate, comprehensive, state-of-the-art care. For the majority of children with malignant diseases from North Dakota and western Minnesota, that place is MeritCare Roger Maris Cancer Center and MeritCare Children's Hospital. The Pediatric Oncology team diagnose and/or treat an average of 18 to 20 cases per year.

Research plays a major role in children's cancer treatments. Since 1982 Roger Maris Cancer Center has been a member of the Children's Cancer Group, recently expanded and now called the Children's Oncology Group (COG). Children with newly diagnosed or recurrent malignancies are considered for treatment on COG protocols.

COG meets twice annually to review the results of ongoing studies and develop new protocols and treatment strategies. Pediatric oncologist/hematologist Nathan Kobrinsky, M.D., serves as principal investigator for Roger Maris Cancer Center with COG. This past year, Dr. Kobrinsky and his colleagues in Pediatric Oncology have published their research findings in the *Journal of Pediatric Hematology/Oncology*, *Journal of Neuro-Oncology* and *Journal of Clinical Oncology*.

*Nathan Kobrinsky, M.D., is medical director of these programs at Roger Maris Cancer Center. For more information call (701) 234-7544.*

### ***Highlights: The North Dakota hemophilia and thrombosis treatment center***

Approximately 35 people with hemophilia have registered with the North Dakota Hemophilia and Thrombosis Treatment Center located at MeritCare Roger Maris Cancer Center. They represent A and B, and all levels of severity. The number of individuals registered is what would be expected based on the given population of patients.

For the second year, the North Dakota Hemophilia and Thrombosis Treatment Center has participated in a national study with the Center for Disease Control to monitor blood safety issues and complications from bleeding episodes.

As a federal-grant recipient, the North Dakota Hemophilia and Thrombosis Treatment Center is able to offer a wide variety of services to patients. These services would not be possible without qualified staff. Staff participate in numerous professional educational conferences to constantly maintain the most up-to-date hemophilia treatments.

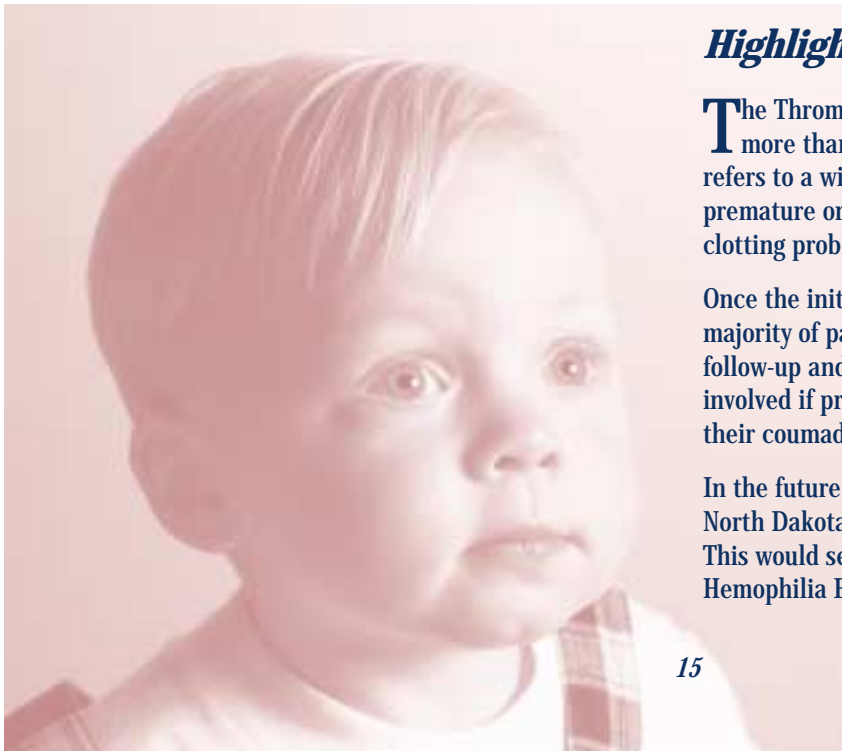
Initiated by MeritCare, a clotting factor sales program gives patients the opportunity to purchase their product at reduced rates. Revenue from the program allows the North Dakota Hemophilia and Thrombosis Treatment Center to provide hemophilia-camp scholarships, sponsor a yearly family event, and offer various other social and educational activities.

### ***Highlights: The thrombophilia program***

The Thrombophilia program is relatively new, but already more than 350 people have been evaluated. Thrombophilia refers to a wide range of conditions associated with the premature or unexpected development of arterial and/or venous clotting problems.

Once the initial diagnosis and medical workup is completed, the majority of patients can return to their primary physician for follow-up and monitoring. Thrombophilia program staff become involved if problems arise or procedures necessitate changes in their coumadin and/or heparin regimen.

In the future, the Thrombophilia program may join with the North Dakota Hemophilia and Thrombosis Treatment Center. This would secure continued funding from the National Hemophilia Foundation.





# *Survey examines effectiveness of pain management for cancer patients*

*By Ann Sandgren, Ph.D.*

Of all the fears associated with cancer, one of the biggest is pain. The person with cancer fears pain, as does the person's loved ones. The pain issue was brought to the forefront in June of 1999 when the Institute of Medicine released a report on the quality of cancer care in the United States. In terms of management of cancer pain, it was less than favorable. Since then, pain-management standards have become part of the 2000-2001 Joint Commission on the Accreditation of Hospital Organizations (JCAHO) review standards.

Here at MeritCare, steps have been taken in the past year to address this important quality-of-life issue. MeritCare's Joint Practice Committee identified pain management as the focus for clinical quality improvement in 1999-2000. The Pain Committee began its work on the issue in August '99.

## ***Patients, loved ones surveyed***

To determine how well Oncology Services was addressing the needs of patients in pain, a survey was developed internally to determine the perception of pain management and control of patient pain.

115 patients completed the 12-question survey, and 65 loved ones for a total of 180 individuals. Demographic data also was obtained to identify age, gender, physician and point of contact. The goal was for patients to perceive their pain as being controlled at least 60 percent of the time.

## ***Highlights of survey results***

- 77.6 percent of the patients surveyed said the oncologist asked about their pain at each visit.
- 50.4 percent of patients indicated they experienced pain, but very few experienced levels of pain greater than 3, on a scale of 1 to 5, with 1 = no pain and 5 = extreme pain. Of those who did have pain, 74 percent reported the treatment prescribed was always effective, 12.1 percent indicated it was effective sometimes.
- 91 percent of patients indicated a good understanding of the medication they were taking.
- 81 percent reported they did not experience bothersome side effects.

Survey results were discussed with physicians and health care staff at department meetings. This survey could serve as an example for other MeritCare clinical groups interested in addressing similar questions.

## ***Future pain management goals***

While MeritCare Oncology Services is doing fairly well in managing and controlling patients' pain, there is opportunity for improvement. Another survey will be conducted within a year. Goals will include:

- 95 percent of patients reporting the oncologist asks about pain at each visit
- 95 percent of patients reporting their treatment is effective
- 95 percent reporting a good understanding of their medication

*A psychologist at MeritCare Roger Maris Cancer Center, Ann Sandgren's work includes Pain Management. For more information call (701) 234-6161.*



# *Massage therapy program offers a much-appreciated “extra”*

*by Barbara Rosenbloom R.N., B.S.N.*

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**M**edicine, surgery, radiation — all can treat the patient’s cancer. But in the meantime, what can make the patient feel better? More in control? More relaxed? For many, massage therapy has helped.

In November 1999 MeritCare Roger Maris Cancer Center began its Massage Therapy Program. So far more than 300 patients — adults as well as children — have received massages. They receive them at the Cancer Center, the Oncology Unit at MeritCare Hospital and MeritCare Children’s Hospital. For added comfort and convenience, patients can receive their massages while relaxing on specially designed massage-therapy chairs provided by MeritCare Foundation.

## *Benefits of massage therapy*

Massage therapy benefits all body systems including skeletal, muscular, circulatory, respiratory, digestive and urinary tract. It offers emotional and mental benefits, too. More specifically, massage therapy can improve circulation, reduce blood pressure, increase relaxation, reduce mental stress, improve the thinking process, reduce muscle pain, increase joint flexibility and range

of motion, enhance self-image and give a patient a sense of control. Perhaps one of the most important benefits a massage can offer is a brief vacation from thinking about problems. It can take the person to a better place, at least for a little while.

The massage therapists involved in the program have the knowledge and training to accurately assess the patient’s condition, then apply special techniques that will not cause pain and discomfort. So far, the massage therapists have donated their time, but it is hoped an honorarium will be available in the future.

Massage therapy services are free to patients — and the services are appreciated. A questionnaire completed by patients before and after their first massage indicated the service helped their pain, anxiety, and relaxation and they were very pleased with it. We hope to add more massage therapists in the future so we can continue to provide this much-appreciated extra service.

*Barbara Rosenbloom works in oncology education at Merit Roger Maris Cancer Center. For more information about the Massage Therapy Program call (701) 234-6161.*

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## *STAR Study update*

**T**he study of Tamoxifen and Raloxifene (STAR) is still seeking volunteers. The study is taking place at more than 400 cancer centers across the United States, Canada and Puerto Rico; MeritCare Roger Maris Cancer Center is the only designated site in North Dakota and northwestern Minnesota.

The STAR trial will include 22,000 postmenopausal women at increased risk of breast cancer to determine whether the osteoporosis prevention drug, Raloxifene (Evista), is as effective in reducing the chance of developing breast cancer as Tamoxifen (Nolvadex) has proven to be.

With support from the National Cancer Institute (NCI), this trial will study Raloxifene’s potential for preventing breast cancer. The only way to prove that potential is to conduct a clinical trial in which the risks and benefits of Raloxifene are directly compared with the risks and benefits of Tamoxifen.

Tamoxifen reduced the risk of developing breast cancer by 49 percent in the Breast Cancer Prevention Trial (BCPT) announced in April 1998. Tamoxifen is medically successful, but it is not perfect-side effects may be significant. Women who are at an increased risk of breast cancer need options for preventing

this disease with a minimum of side effects, and the STAR trial is a concerted effort to find out if Raloxifene can do that.

*Women in our region who are interested in participating in STAR can call MeritCare Roger Maris Cancer Center at (701) 234-5842 or (800) 511-6161, ext. 5842. Or visit our web site, which includes the guidelines for participation, [www.meritcare.com](http://www.meritcare.com).*

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***“You get such good care while you’re on the study, and the check-ups are more frequent than average. You know that if anything out of the ordinary develops, there’s a good chance it’ll be found right away. My mother died of breast cancer, for that reason alone, it’s worth it to me to participate.”***

***—Sandy Fuchs, Horace, N.D., STAR Breast Cancer Study***

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# Advanced care team addresses the human complexities of life-limiting disease

by Ann Sandgren, Ph.D.

For patients and caregivers alike, life-limiting disease prompts an untold number of challenges and changes. MeritCare Roger Maris Cancer Center's Advanced Care Team (ACT) helps ease the strain, offering much-needed support to people during this difficult time.

The ACT does not take the place of contact with the physician or clinic nurse; rather it supplements the usual provision of health care services. The ACT provides an avenue for interdisciplinary services involving nursing-psycho-social-spiritual components. Referrals come from physicians, nurses, and social workers. Since the program began in 1998, 107 patients have been served.

Number of patients by cancer diagnoses:	
Lung	52 (49%)
Breast	11 (10%)
Gynecologic	11 (10%)
Colo-Rectal	7 ( 7%)
Other (lymphoma, leukemia, liver, pancreas, prostate, renal, unknown primary)	26 (24%)

Once a patient connects with the ACT, the program's nurse coordinator conducts an initial assessment that includes health and illness perceptions, advance directives, pain, sleep/relaxation, energy level, nutrition/metabolic, functioning, coping/mood, family information and other health needs or concerns. The assessment provides the starting point for anticipating and coordinating future needs. From then on, contact with the patient typically occurs on a weekly basis or more often if necessary. The team meets weekly to review new and continuing patient needs as well as to identify, prioritize and coordinate ACT services for patients and caregivers.

Perceived by patients and caregivers as a follow-up service that monitors their health condition, the ACT can accomplish much. It can:

- Thwart developing problems
- Provide prompt communication with the physician
- Link the patient or caregiver to other services from the interdisciplinary team including social services, chaplaincy services, psychological services and palliative care services. All are part of Roger Maris Cancer Center.

What have been the results of the ACT's work? For one, the ACT has found that some of the most simple interventions have been the most effective, from re-explaining the importance of taking pain medications, to identifying community resources, to listening to an anxious caregiver. Other results have included fewer unnecessary hospital admissions due to alternative interventions, the opportunity for patients to express themselves regarding end-of-life wishes and preferences about care. And, for those referred to hospice, a longer median length of stay, 18 days for ACT patients compared to 12 days for general hospice patients. A brief questionnaire completed by patients and caregivers indicated a high degree of satisfaction with the ACT, showing means of 4.7 and 4.6 by patients and caregivers respectively on a scale of 1-5 with 1=not at all satisfied and 5=very much satisfied. The average age of ACT patients is 64 years and more women (60) than men (47) have participated. The median length of stay in ACT has been 61 days.

Initial funding has come from MeritCare Foundation. Efforts are underway to seek alternative sources of grant funding. The ACT service is a good representation of the Clinical Practice Model that has been embraced by MeritCare Health System. We look forward to reporting on future work and outcome data of the ACT.

*A psychologist at MeritCare Roger Maris Cancer Center, Ann Sandgren is the contact person for the Advanced Care Team. Team members include Wayne Cassman, R.N., Sister Juli Caron, Chaplain and Marilyn Jacobson, M.S.W. For more information call (701) 234-6161.*



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