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2016 Fargo Cancer Committee Annual Report

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CANCER CENTER



Roger Maris Cancer Center

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Cover Photo:

Representatives of the head and neck oversight committee, clockwise from left: Andrew Terrell, MD, Miran Blanchard, MD, Mark Gitau, MD, Tuan Bui, MD, Leah Roethel, RD, LRD, Amy Schmidt, BSN, RN, OCN, Linda Thorseth, PT, Lisa Moen, APRN-CNP, Joy Loiseau, MS, CCC-SLP.

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Cancer Committee Chair

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Diagnostic Radiologist

Julie Lessard, MD
Pathologist

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General Surgeon and Cancer Liaison Physician

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Medical Oncologist and Cancer
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Jake Byers, LCSW, MSW
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Theresa Behrens, BAN, RN, CHPN
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Director of Radiation Oncology

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Service Chair – RMCC

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AD HOC for Surgery

Samuel Anim, MD
AD HOC for Pediatric Oncology issues

Nathan Kobrinsky, MD
AD HOC for Pediatric Oncology issues

Theodore Sawchuk, MD
AD HOC for Urologic Oncology issues

Andrew Terrell, MD
AD HOC Head and Neck Surgery

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Terri Hedman, MSSL, BSN, RN, OCN
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Alicia Poole
Recording Secretary

Amber Pope
Recording Secretary

A letter from Sanford Health Fargo Executive Vice President Paul Richard



Paul Richard

Sanford Roger Maris Cancer Center has been an important regional resource for the diagnosis and treatment of cancer since it opened its doors in 1990. It is widely recognized as a top cancer center in the country. Always seeking to advance and improve its care and services, Roger Maris Cancer Center recently added new services and expertise in the area of head and neck cancer.

Several new physician specialists with expertise in oral and maxillofacial surgery and minimally-invasive microvascular and reconstructive surgery have joined the head and neck cancer team. They offer innovative surgical procedures to remove head and neck tumors while preserving the patients' appearance and ability to swallow and speak. Decreased side effects provide patients with an increased quality of life and the ability to return to jobs, hobbies and full activity much sooner.

Research has always been an important component of the care and treatment at Roger Maris. Patients can be involved in clinical studies that provide cutting-edge treatments and cures. Through research, Sanford has some of the best survival rates for head and neck cancer in the country.

Screening is another important component of cancer care. The earlier these cancers are caught, the easier they are to treat. In April, Sanford Fargo offered a free screening for oral, head and neck cancer and screened nearly 100 people.

The head and neck cancer team at Roger Maris is large and diversified. In addition to medical oncologists, radiation oncologists, surgeons, radiologists, nurse practitioners and nurse navigators, you will



also find speech therapists, dietitians, physical therapists and social workers and psychologists.

As the program continues to grow and evolve, one thing is certain: at Sanford Roger Maris Cancer Center the focus will always be on the patient and providing the best care possible.

A handwritten signature in black ink that reads "Paul F. Richard". The signature is written in a cursive, flowing style.

Paul Richard
Executive Vice President
Sanford Health Fargo

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Head and neck cancer surgery team



Tuan Bui, MD,
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Ian Lalich, MD



Andrew Terrell, MD



Lisa Moen, APRN-CNP

Roger Maris Cancer Center Annual Report Year in Review



John Leitch, MD
Chair,
Cancer Committee

Thank you for taking time to read this year's edition of the Roger Maris Cancer Center annual report. Our annual report gives us the opportunity to highlight our cancer services and the impact we've made in the communities we serve.

This year, we've chosen to focus specifically on head and neck cancer. In 2015, there were 57 cases of head and neck cancer recorded by our tumor registry.

Head and neck cancer includes cancers of the lip, oral cavity, tongue, tonsils, throat, larynx, nasal cavity, sinuses and salivary glands. This kind of cancer is difficult to treat due to the cancer's anatomic location and the functional consequences of treatment.

In addition to surgery, chemotherapy or radiation, other therapies can include nutrition, speech and other support services. At Roger Maris Cancer Center, we are fortunate to have a team of specialists who focus on head and neck cancer, and they strive to cure while minimizing the effects of treatment.

Within our annual report, you will find articles on the role of the head and neck nurse navigator, the head and neck oversight committee and the multidisciplinary head and neck cancer conference. The

articles will also highlight our team approach to complex surgery, radiation oncology, medical oncology, physical therapy, speech therapy, nutrition services and psychosocial services.

Ultimately, prevention is the cure for cancer. We made sure to include an article that reviews our head and neck cancer screening services and the role of our ear, nose and throat department, nurse educator and tobacco cessation experts.

Survivorship programs give our patients the information to maintain and improve their health after treatment.

The Sanford Medical Center Cancer Committee works to provide comprehensive cancer programs. We are thankful for the opportunity to provide the people in our communities with the most comprehensive, advanced head and neck cancer care possible – right here close to home.





The highest standards of quality

Roger Maris Cancer Center holds a number of accreditations. Accreditation is a voluntary process in which outside reviewers closely examine our program and our results. If we meet or exceed specific standards, we receive the stamp of approval. For patients and families, accreditation is an important measure of quality.

- Accreditation of Sanford Medical Center by The Joint Commission (TJC)
- Accreditation of Sanford Medical Center by the American College of Surgeons' Commission on Cancer
This year we celebrated 76 years of continuous accreditation.
- Accreditation by the National Accreditation Program for Breast Centers (NAPBC) through the American College of Surgeons
- Accreditation by the American College of Radiology – Radiation Oncology
- Edith Sanford Breast Health Comprehensive Center (Fargo) recognized as a Certified Quality Breast Center of Excellence through the National Consortium of Breast Center (NQMBC)
- Breast Imaging Center of Excellence (BICOE) through the American College of Radiology
- Advance Care Certification by TJC for Palliative Care Services
- Certification by the Quality Oncology Practice Initiative (QOPI) through the American Society of Clinical Oncology



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Team of experts

- 14 Medical Oncologists/
Hematologists
- 5 Radiation Oncologists
- 3 Pediatric Oncologists
- 8 Palliative Care Board
Certified Physicians
- 1 Oncology Clinical Psychologist
- 1 Medical Geneticist
- 2 Genetic Counselors
- 1 Doctor of Nursing Practice
- 1 Physician Assistant
- 3 Nurse Practitioners
- 10 Oncology Nurse Navigators
- 174 Nurses (166 RN's
and 8 LPN's)
- 64 Nurses trained in
Chemotherapy
- 56 Nurses holding specialty
certifications: 47 Oncology
Certified Nurses (OCN);
2 Certified Pediatric
Hematology and Oncology
Nurses (CPHON), 2 Certified
Breast Patient Navigators in
Imaging and Cancer (CBPN-
IC), 2 Certified Hospice
and Palliative Care nurses
(CHPN); 3 nurses with Medical
Surgical Nursing Certification
(RN-BC and MS-BC)
- 8 Pharmacists
- 8 Pharmacy Technicians
- 3 Pharmacy Interns
- 11 Radiation Therapists
- 4 Radiation Oncology
Medical Physicists
- 4 Medical Dosimetrists
- 1 Physicist Assistant/Dosimetry
- 1 Dosimetry Assistant
- 4 Radiation simulation therapists
- 2 Social Workers
- 8 Cancer Registrars
- 3 Massage Therapists
- 1 Art Therapist
- 1 Integrative Care Educator
- At least 85 additional staff
in administrative, office and
supportive care roles



Comprehensive care

- 32-bed oncology unit
- 8-bed palliative care unit
- Infusion center
- Hemophilia/thrombosis care
- Point of care testing lab
- Pharmacy
- Nutrition services
- Psycho-oncology services
- Spiritual care
- Financial services
- Massage therapy
- Healing arts
- Cancer survivorship
- Patient and family education
- Clinical research
- Bedside palliative care program
- Cancer registry
- Integrative care

Marsha Kapphahn: A trusted cancer care team by her side

It was just one week before Thanksgiving in 2015 when Marsha Kapphahn noticed something different. The West Fargo, N.D., resident had two swollen lymph nodes in her neck, and the inside of her throat didn't feel the same when she swallowed.

"My throat felt 'thick'; so I suspected I might have strep throat or a cold," Marsha recalls. "I looked at my tonsils and the right one was very swollen and oddly shaped. I hadn't ever really seen anything like it."

The lab manager for the animal science lab at North Dakota State University in Fargo decided a trip to urgent care was in order. The medical staff ordered some antibiotics, but also seemed concerned and referred her to Sanford Health.

"At that point, I thought it was probably cancer," Marsha says. "So when I was officially diagnosed with tonsil cancer the day after Thanksgiving, I wasn't surprised."

The first step was for Marsha to meet with the various members of her head and neck cancer team at Roger Maris Cancer Center. Because the cancer had spread to her tongue, surgery to remove the cancer was not a good option.

On Dec. 16, Marsha began her radiation and chemotherapy treatments at Roger Maris. She remembers the challenges she faced due to the treatments and how her cancer team was always there to help and provide support.

"The radiation treatments completely destroyed my taste buds and also left the inside of my mouth and throat very dry and

sore," Marsha says. "Because of this, eating became difficult. The team at Roger Maris worked with me to help find solutions."

It's important for patients to maintain weight and take in proper nutrition every day in order to stay as strong as possible. Roger Maris has physical therapists, speech therapists and dietitians on staff to help patients combat these challenges.

"Nothing sounded good or tasted good, plus the chemotherapy made me nauseous," Marsha says. "My team just kept trying different options to help me during the treatment process."

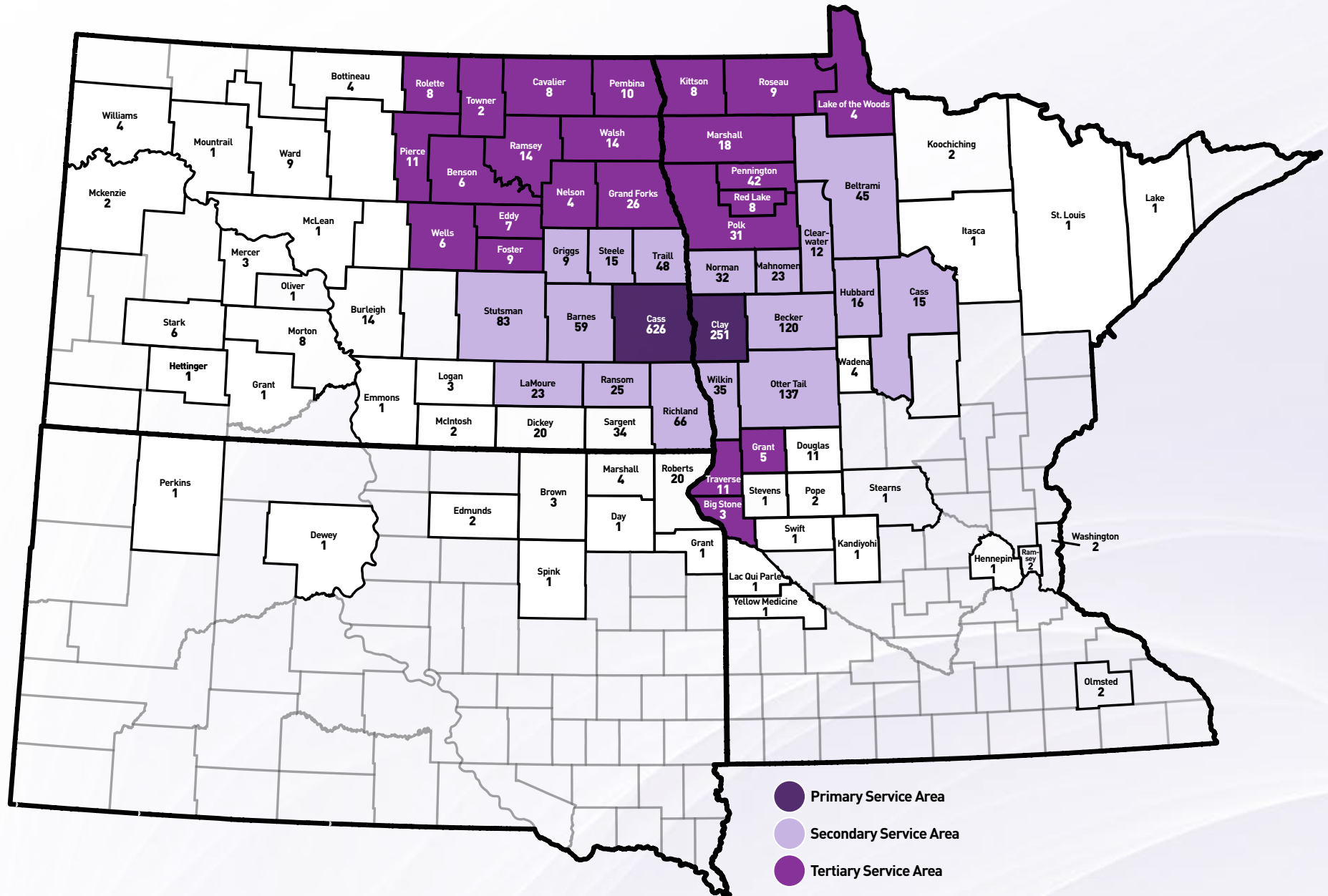
Now that Marsha has finished treatment and is hoping to remain cancer free, she looks back with gratitude for the care she received so close to home at Roger Maris.

At the heart of Marsha's treatment was her nurse navigator, Amy Schmidt, RN. Nurse navigators at Roger Maris coordinate care, are the first point of contact for patients, and track every patient's progress through treatment.

"Amy was always checking in with me to make sure everything was going ok," Marsha says. "There are a lot of things happening during treatment, and she was always there. Amy made the whole process so much easier. I'm grateful for her support – and the support from everyone at Roger Maris. They make you feel like part of the family."



Geographic distribution of primary cases 2015



Primary cancer site distribution for Sanford Roger Maris Cancer Center

Site	2015 All	2015 Male	2015 Female	2014 All	2014 Male	2014 Female
Breast	344	2	342	320	4	316
Prostate	265	265	0	172	172	0
Lung & Bronchus	210	112	98	208	109	99
Melanoma, skin	154	85	69	154	81	73
Colon	101	60	41	103	50	53
Thyroid	97	24	73	104	21	83
Bladder	84	69	15	86	67	19
Leukemia	78	42	36	71	42	29
Lymphoma	72	36	36	89	43	46
Pancreas	69	40	29	50	28	22
Kidney	67	31	36	72	52	20
Rectum/rectosigmoid	56	35	21	55	35	20
Other CNS	53	15	38	40	6	34
Oral Cavity/Pharynx	53	28	25	47	36	11
Brain	50	22	28	31	18	13
Uterus	45	0	45	54	0	54
Multiple Myeloma	32	15	17	25	14	11
Stomach	29	16	13	14	6	8
Liver/IBD	26	17	9	29	21	8
Ovary	15	0	15	18	0	18
Esophagus	13	10	3	26	19	7
Testis	13	13	0	12	12	0
Soft Tissue	11	8	3	10	3	7
Small Intestine	9	6	3	11	7	4
Anus	7	3	4	3	0	3
Vulva	7	0	7	5	0	5
Larynx	4	4	0	8	6	2
Cervix	3	0	3	7	0	7
Mesothelioma	3	0	3	0	0	0
Ureter	2	2	0	3	2	1
Other Sites	133	72	61	115	56	59
Total	2105	1032	1073	1942	910	1032

Site	2015 All	2015 Male	2015 Female	2014 All	2014 Male	2014 Female
Leukemia	78	42	36	71	42	29
Lymphocytic	35	21	14	39	22	17
ALL	8	3	5	10	5	5
CLL	26	17	9	29	17	12
Other	1	1	0	0	0	0
Myeloid	41	19	22	29	18	11
AML	29	15	14	20	11	9
CML	9	3	6	8	6	2
Other	3	1	2	1	1	0
Other leukemias	2	2	0	3	2	1
Lymphoma	72	36	36	89	43	46
Non-Hodgkin	64	34	30	81	38	43
Nodal	35	18	17	47	24	23
Extranodal	29	16	13	34	14	20
Hodgkin	8	2	6	8	5	3

Kenneth Moats: Embracing life after cancer

Kenneth Moats had one goal once he began his treatment for tonsil cancer in January 2016: be ready to umpire baseball games the following spring. And thanks to the head and neck cancer care team at Roger Maris Cancer Center, he did.

“I was even back out on the field before my goal date,” Kenneth remembers. “I owe that to my faith, prayers and support from my wife, co-workers, friends and family and the team at Roger Maris.”

It was a nagging sore throat and swollen lymph nodes that were the first signs something wasn't right. During a routine physical exam, Kenneth, who had recently moved to Moorhead, Minn., from Minneapolis, talked to his primary care physician about the issues.

Although Kenneth didn't smoke or chew tobacco, both of which are common risk factors for head and neck cancer, his physician ordered additional tests and a biopsy to find answers. Unfortunately, the answer was that he had tonsil cancer and would require chemotherapy and radiation therapy.

“It was not what I was expecting – it was a shock to both my wife and me,” Kenneth says. “But, I had a friend who had undergone a similar treatment, so in talking with him I had a good understanding of what can happen. The doctors were very good at explaining

all the possible side effects of the treatments I would be undergoing.”

So when Kenneth began to lose his appetite and struggle with eating and swallowing, he wasn't surprised. When he experienced what could be compared to a sunburn on his neck later in treatment, he again anticipated this change. But Kenneth also knew he needed help getting through the process and was grateful for the support at Roger Maris.

“Eating anything at all became difficult because nothing sounded good or tasted right. I began to lose a lot of weight,” Kenneth recalls. “The team offered me different options to try and help me get proper nutrition, but eventually I needed a feeding tube to help me get through treatments.”

He also used various creams and lotions recommended by his physician and friends to help combat the burns on his skin.

Kenneth finished radiation and chemotherapy treatments in May 2016, and now relishes the time with his wife and family. His appetite has returned, but his cancer, so far, has not.

Kenneth admits his cancer journey wasn't always easy, but he also recognizes how fortunate he was to have access to the team at Roger Maris.



“I wanted to be able to continue to work as long as I could while undergoing treatment,” Kenneth says. “The physicians and nurses at Roger Maris are some of the best I've encountered in my entire life. I'm glad I chose to stay right here in Fargo for my care.”

Prevention and screening: Keeping our communities healthy

Mary Sahl, RN, BSN, OCN

Roger Maris Cancer Center is committed to improving the health of the communities it serves. We've established a cancer committee that reviews the screening needs of our community.

The health of our community is reviewed from data gathered in the community needs assessment. Cancer registry statistics reveal which cancer is being found in later stages, to determine if a screening event could benefit earlier detection of that cancer.

Our data revealed the rate of late stage diagnosis of head and neck cancer rose from 38.7 percent in January 2014 to 41.5 percent in October 2015. According to the American Society of Clinical Oncology (ASCO), if cancer has spread to distant parts of the body, the five-year survival rate is 38 percent, compared to 83 percent when found early.

The committee, in collaboration with our ear, nose and throat (ENT) department, planned a free public screening event at Sanford's Otolaryngology Clinic in Fargo. Risk factors were assessed, such as current or previous tobacco and alcohol use. Of the 100 appointment slots, 93 patients signed up, and 86 completed appointments.

Four providers from the ENT and oral and maxillofacial surgery (OMS) departments performed the screening exams. Members of the cancer committee and ENT department assisted with patient flow activities before and during the event. If any patient problems were identified, a follow-up appointment was scheduled before leaving the event.

The 24 patients who needed screening follow-up appointments were tracked by the education department, head and neck navigator and ENT supervisor. Benign diagnoses found in follow-up were: gastroesophageal reflux disease (GERD), mouth sores, dermatology lesions, thyroid nodules and hearing loss.

One patient presented with hoarseness, and was found to have early stage vocal cord cancer. The patient was contacted by our head and neck nurse navigator and seen in consult by

the head and neck cancer team. The case was presented at our head and neck conference, where treatment options were discussed. Radiation therapy was decided to be the best course of treatment, and the patient has now completed his therapy.

Another component of the community needs assessment was finding that smoking rates in Cass and Clay counties exceeded the national average. Because smoking is a risk factor for head and neck cancer, it seemed reasonable to hold two free-standing clinics: one for prevention and one for screening, alongside each other. Tobacco cessation counselors were on hand to assess patients' readiness to quit, and offer free cessation products and quit-line support. Six people identified themselves as tobacco users, with four completing counseling. In the follow-up visit, one person had successfully quit using tobacco.



Taking a team approach to head and neck cancer care

Amy Schmidt, BSN, RN, OCN
Andrew Terrell, MD

Head and neck cancer is a complex, highly individualized disease. It can often affect patients in a very functional, visible way. A patient's speech, communication, swallowing and breathing can be affected not only by the cancer itself, but also by the treatment.

The two main goals of the head and neck cancer team at Roger Maris Cancer Center are to cure the patient and to minimize the side effects of treatment. In order to accomplish these goals, we use a team approach called a multidisciplinary treatment team. Each part of the team serves an essential role in ensuring our patients receive the best care possible.

Our physicians, including surgical oncologists, radiation oncologists, and medical oncologists are responsible for guiding and providing treatment as well as engaging ancillary providers when needed.

At the center of the team is our nurse navigator, who is essential for coordinating care, being a first point of contact for patients, and tracking every patient's progress through treatment. Nurse navigators also coordinate appointments as quickly as possible, help resolve and identify any barriers to care, provide education and facilitate understanding of the information patients receive.

Part of the role of nurse navigation is to arrange and coordinate scans and consults with our oncologists and surgeons, and to get patients

connected to supportive services. Those support services may include speech therapists, dietitians, dentists, oral surgeons, physical therapists, research nurses, social workers, financial advisors and clinical psychologists.

Last but not least, our patients are a critical part of their own treatment team. They are included in every care decision and engaged in the treatment process to achieve the best outcomes.

The best cancer outcomes are achieved when the multidisciplinary team communicates well with the patient and each other. One crucial time of communication is at our multidisciplinary tumor board, where each patient's case is presented. All the information is gathered and the physician team reviews pertinent radiology, biopsies, and other test results. The team then decides on the best treatment plan, keeping in mind each patient's circumstances. This tumor board discussion makes sure every patient is treated in accordance with national guidelines, and not according to the opinion of one particular doctor.

The tumor board is an excellent opportunity for collaboration to make sure our patients receive the best care. At Sanford Health, we have made an effort to have a system-wide head and neck cancer tumor board. This provides even more specialists looking at and reviewing each case. It also helps to identify any treatment trials for which a patient may be eligible. This collaboration throughout the

Sanford system helps coordinate resources and efforts in a way that benefits all of our patients.

Each patient's progress is monitored by the whole treatment team at an informal weekly meeting we call the "huddle." This meeting also includes a speech therapist, a dietitian, and a physical therapist, who provide valuable updates on each patient's progress. The whole goal of this meeting is to avoid problems and side effects before they occur. This continued coordination throughout the treatment period ensures the best outcome possible for each patient.

The last crucial part of our multidisciplinary team is survivorship. Survivorship begins at the time of diagnosis, which is the best time to identify ways to avoid side effects of treatment. After treatment, survivorship consists of follow-up to not only ensure the cancer does not come back, but also to establish and continue healthy habits. Oftentimes living after cancer is not the same as it was before cancer. Our survivorship team, which includes mental health professionals, helps patients deal with these new changes.

Head and neck cancer care is not only about what you do, but it is about how you do it. At Sanford, we have put together a dedicated team that is working to cure this disease every single day. We do that best as we work together, with each other and with our patients, keeping them at the forefront of everything we do.

Surgical treatment for head and neck cancer

Tuan Bui, MD, DMD, FACS
Andrew Terrell, MD

Surgery continues to play a pivotal role in the management of head and neck cancer. Prior to any surgery or treatment, however, patients are evaluated by a head and neck surgeon, a physician with advanced surgical training in managing head and neck cancer.

Our head and neck surgeons have the experience to know what signs and symptoms are concerning for cancer and when to proceed with testing to get a diagnosis. Diagnosis is typically obtained through a biopsy as part of a procedure called a panendoscopy. This enables the surgeon the opportunity to view all areas of the mouth, throat, larynx, and esophagus, as well as to obtain biopsies. Biopsies obtained from this procedure are sent to a pathologist who is able to diagnose head and neck cancer. In general, surgery may

be recommended based on the size, site or type of cancer, or for recurrent or persistent cancer after radiation and chemotherapy.

The surgical management of head and neck cancer has two main parts. The first part involves complete removal of the cancer. To accomplish this, our surgeons remove the cancer at the primary site where the cancer is located, which could be the mouth, throat or larynx. In addition, the lymph nodes in the neck often need to be removed.

When performing surgery, the goal is to remove the cancer entirely, while doing as little damage to surrounding structures as possible. Recent advances in surgical technique include trans-oral robotic surgery, which has greatly enhanced the ability to remove cancers in the back of the throat without making big incisions and or splitting the jaw bone. It has also

enhanced patient recovery and helped many patients avoid long-term feeding tubes.

The second aspect of surgical management for head and neck cancer is the reconstruction. Reconstruction techniques vary widely, but may include skin grafts, tissue or bone grafts, and synthetic graft material to help restore appearance and function to the affected areas.

Advances in reconstruction have allowed us to remove bigger and more invasive cancers, while at that same time giving patients the functional outcomes that allow them to return to normal activity.

At the Roger Maris Cancer Center, we have all the tools needed to perform state-of-the-art surgical excision and reconstruction. We can provide the comprehensive care that patients expect and deserve.



Immunotherapy in head and neck cancer treatment: Promising clinical trials

Mark Gitau, MD

Clinical trials look for new ways to prevent, detect or treat a variety of diseases including cancer. These include new drugs, new surgical procedures or devices, or other aspects of care such as improving the quality of life for people with cancer.

In the past few years, a rapidly advancing field of cancer treatment has led to new ways of fighting cancer. This new field is known as immunotherapy, which works by increasing the strength of immune responses against tumors.

One immunotherapy approach is to block the ability of certain proteins, called immune checkpoint proteins, to limit the strength and duration of immune responses. These proteins normally keep immune responses in check by preventing overly intense responses that might damage normal cells as well as abnormal cells. Researchers have learned tumors can take control of these proteins and use them to suppress immune responses, which allows the cancer to grow.

Blocking the activity of immune checkpoint proteins releases the “brakes” on the immune system, increasing its ability to destroy cancer cells. Several immune checkpoint inhibitors approved by the FDA include Ipilimumab, Nivolumab, Pembrolizumab and Atezolizumab. These medications are approved

for the treatment of non-small cell lung cancer, malignant melanoma, bladder cancer, kidney cancer, and metastatic head and neck cancer.

Participation in clinical research has been an important part of providing head and neck cancer patients with access to some of the most promising new therapies. Though some of these immunotherapies are now approved for the treatment of certain cases of incurable head and neck cancer, participation in trials has allowed even more head and neck cancer patients access to these medications.

Some trials available at Roger Maris Cancer Center include:

- MISP trial (NCT02586207) This is a single-arm, multi-site, open-label trial of Pembrolizumab (MK-3475) used in combination with standard, Cisplatin-based, definitive chemoradiotherapy (CRT) in patients with stage III-IVB squamous cell carcinoma of the head and neck (SCCHN).
- Keynote 048 Keynote (NCT02358031) Study of Pembrolizumab (MK-3475) for first line treatment of recurrent or metastatic squamous cell cancer of the head and neck (MK-3475-048/KEYNOTE-048)
- Keynote 055 (NCT02255097) Study of single-agent Pembrolizumab (MK-3475) in participants with recurrent and/or metastatic head and neck squamous cell carcinoma (HNSCC) who have progressed on platinum-based and Cetuximab therapy.

Choosing to participate in a clinical trial is a personal decision. People who choose to participate have access to advanced treatments, help us find new treatments and cures, play an active role in their own health care and help improve the quality of life for everyone with a specific kind of cancer.

To learn more about clinical trials offered at Roger Maris Cancer Center, talk with your physician or visit sanfordhealth.org/clinical-trials.



Radiation therapy for head and neck cancer

Miran Blachard, MD
Ash Jensen, MD

Radiation therapy is an important treatment for many head and neck cancer patients. It can be used as the primary form of treatment, in combination with chemotherapy, or after surgery to improve the chances that all cancerous areas are eliminated.

Radiation therapy uses high-energy X-rays to destroy cancer cells. Typically head and neck cancer patients will receive one treatment per day five days a week for six to seven weeks, or 30-35 total treatments. Each daily treatment lasts approximately 15 minutes.

About two weeks before radiation treatments start, a treatment planning scan called a simulation is done. The treatment team makes a mold of the patient's head to stabilize head movement and ensure consistency of positioning. This improves the precision of the radiation treatments and reduces the amount of healthy tissue exposed to high doses of radiation. Three-dimensional imaging and complex computerized planning is also

used to protect healthy tissue by shaping the radiation beams tightly around the cancerous tissue. This reduces the risk of long-term complications such as severe dry mouth, difficulty swallowing, and damage to nerves in the head and neck.

During radiation, patients commonly develop dry mouth, altered taste, thick phlegm in the throat, and temporary painful redness of the skin and lining of the mouth where the treatment is directed. The cancer care team works closely with patients during and after treatment to help patients manage these side effects and get back to normal functioning as fast as possible.

A large team of specialized professionals are involved in the radiation treatment process. The radiation oncologist is the doctor who helps patients determine if radiation treatment is appropriate for them and supervises the treatment planning and delivery process. Other team members also deal with patients directly. Nurses help educate patients and treat side effects. Simulation technicians do the treatment planning



scans. Radiation therapists set the patient up for treatment every day and operate the linear accelerator machine that delivers the X-rays.

There are also many important team members that patients may never meet who perform essential jobs behind the scenes. These include dosimetrists who help the doctor design the details of the radiation plan, and medical physicists who do quality assurance to ensure treatment is delivered correctly and safely.

After radiation is complete, the

radiation team often continues to be actively involved in patients' care, seeing patients back at short intervals to help manage symptoms and monitor treatment results. The recovery after radiation treatment can be difficult, and some side effects from treatment are permanent and life-changing. Thanks to ongoing advancements in radiation technology and the caring expertise of the radiation oncology team, patients are often able to be cured of their cancer while preserving their comfort and quality of life.

Nutrition therapy: An important part of cancer care

Shana Vold, RD, LRD, CSO

Head and neck cancer patients often struggle with eating and drinking because of the cancer itself and also the different cancer treatments. Common nutrition-related side effects of head and neck cancers and its treatments include chewing and swallowing difficulties, taste changes, oral irritation, dry mouth, thick saliva, nausea, and vomiting.

Our registered dietitians play an essential role in helping patients better manage those side effects, maintain weight and reduce fatigue. Maintaining adequate food and fluid intakes during treatment can help to prevent acute medical issues like dehydration, which can result in a hospitalization or delay of treatment.

Registered dietitians provide nutritional monitoring and interventions to maintain nutrition for the best treatment outcomes. Nutrition goals focus on monitoring weight trends and attempting to avoid significant weight losses that can negatively impact the patient and the treatment plan.

Because patients can have difficulty chewing and swallowing, sometimes a feeding tube is needed on a short-term basis. Registered dietitians can calculate and provide recommendations for support. They can also assist in setting up feeding tube supplies and provide close monitoring of tube feeding tolerance.

The idea of using and/or needing a feeding tube can be challenging for patients. However, this option can alleviate the stress of trying to maintain adequate food and fluid intake, and help patients focus on their cancer treatment.

Once treatment is completed, patients can have longer lasting side effects like taste changes and an altered ability to chew and swallow which can continue to impact nutritional status and quality of life. Registered dietitians provide monitoring not only during treatment, but also after to improve a patient's quality of life.



Functional rehabilitation services: Focus on physical and speech therapy

Joy Loiseau, MS, CCC-SLP
Linda Thorseth, PT

While the treatment options for head and neck cancer patients at Roger Maris Cancer Center are the most advanced around, patients still face challenges due to the location of their cancer. Through our functional rehabilitation services like physical therapy and speech therapy, we can help patients maintain or regain as much function as possible during and after treatment.

Patients may experience pain, weakness and tightness in their facial, jaw, neck and

shoulder area because of surgical procedures or other treatments. Other side effects from surgery or treatment may include dry mouth, oral pain, and difficulty swallowing or eating.

To help minimize the pain and fatigue, and maximize function, our physical therapists develop individualized treatment plans. Each plan may include postural exercises, stretching out scar tissue, and muscular stretching and strengthening exercises – both in the clinic and at home. Other treatments include manual lymph drainage, fitting of compression garments and self-care education for lymphedema.

Additional side effects from head and neck cancer treatment include loss of voice and difficulty speaking. Our speech therapists provide different techniques, strategies and exercises to help patients maximize swallow function before, during and after treatment. Being proactive can help patients maintain more strength during the later stages of treatment, when they are faced with challenges like oral pain, swelling, and taste changes.

Swallowing exercises along with strategies, such as alternating solids and liquids or using extra sauce to moisten foods, and maneuvers, such as “chin tuck”, are some ways speech therapists assist patients undergoing treatment for head and neck cancer. Speech therapists also work with dietitians and physicians to recommend safe diet textures and then provide education to the patients regarding these recommendations. Speech therapy can also address voice and communication needs for patients who have had surgical intervention, chemoradiation and total laryngectomy.

Functional rehabilitation is essential for head and neck cancer patients to achieve the best possible outcomes after treatments and therapies. Getting our patients cancer free is the first step, and the next is to help them return to their daily life with as much function as possible.



PsychOncology care: Helping patients cope with cancer

Jake Byers, LCSW, MSW
Cheryl Hysjulien, RN, PsyD
Cheryl Smith, LCSW, MSW, OSW-C

The diagnosis of a head and neck cancer can be extremely difficult and life changing. Patients worry about the same issues any cancer patient faces such as reaction to treatment, fears of recurrence, and death. However, they also have to endure a treatment that is usually highly visible and one that can be disfiguring.

The treatment can also affect eating, drinking, sleeping, breathing and speech. It is often stressful and this stress negatively impacts recovery and quality of life. Self-image and self-esteem can be negatively affected by surgery and treatments that alter the person's physical appearance. Sadness, worry, depression, and guilt are common. Addressing these emotional factors is extremely important for recovery and the overall well-being of patients.

At Roger Maris Cancer Center, the Psychoncology team is an integral part of the treatment team with the goal of assessing patients and assisting them to cope with their diagnosis and treatment, manage stress, and improve overall well-being.

Head and neck cancer patients can also face practical barriers, including issues with transportation, lodging, and finances. The

rural nature of our area affects the availability of resources. There are some communities that offer assistance through public transportation and/or their local senior center. If an individual receives medical assistance there may be resources through county social services to help with these concerns.

In addition, the American Cancer Society (ACS) partners with local hotels for lodging, if individuals meet the criteria to utilize the service. The financial cost

of treatment is also a concern for patients and families. Sanford offers a Financial Assistance Program for persons who have no health insurance, or are underinsured, to help offset the cost of treatment. Sanford Patient Financial Services are available to assist in the application process.

Our Psychoncology team can assist patients to coordinate with any of the support services mentioned above.



Gene Sommerfeld: Keeping the faith and conquering cancer

Gene Sommerfeld has always been appreciative for every day God gives him. But after his fight with cancer, he relishes each day a little more.

“I never anticipated facing anything like this,” Gene, from Dilworth, Minn., says. “I never used any type of tobacco – which is the most common risk factor. So I did question, ‘why me?’ after hearing my diagnosis, but sometimes these things just happen.”

In early fall of 2015, the recently-retired elementary principal noticed a small, red spot on his lower gum area that didn’t go away. After a few visits to a dentist and periodontist,

Gene was referred to Tuan Bui, MD, DMD, Sanford Health’s new head and neck cancer specialist in Fargo, N.D., for a biopsy.

In May 2016, Gene was diagnosed with cancer in his lower gum area. Sixty percent of his lower jaw would need to be removed, as well as some of his lymph nodes to learn if the cancer had spread.

But the surgical procedure didn’t end with that. After removal came reconstruction.

“They had to remove a section of my fibula (leg bone) to help rebuild my jaw,” Gene says. “They also had to take significant amounts of skin and tissue from my

leg to help create my new lower gum. This was a very complex process.”

Following an eight-hour surgery, Drs. Bui and Andrew Terrell, head and neck surgeon at Sanford, were able to remove all of the cancer. Gene required no chemotherapy or radiation therapy, but was faced with a significant impact both functionally and cosmetically.

As of September 2016, Gene remains cancer free. Through it all, Gene has remained positive, which he attributes to his faith, family and cancer team at Roger Maris.

“My Christian faith kept me going, along with the support of my wife, children, grandchildren and friends,” Gene says. “My wife and I routinely prayed for my medical team and read devotions together. I trusted that the Lord was going before me and leading me through my journey. I also trusted the team at Roger Maris. I can’t say enough good things about everyone who works there, especially Dr. Bui and Dr. Terrell. They all put the care of their patients first.”

Gene is taking his cancer journey one step further, and will soon be a mentor at Roger Maris. The mentorship program brings cancer survivors together with patients currently going through treatment.

“This is not an easy process, and if I can help someone get through their cancer journey and help ease some of their worry or concern, I’m happy to help.”



The power of philanthropy



The medical breakthroughs and inspiring stories featured throughout this report were made possible thanks to the generosity of donors to the Roger Maris Cancer Center.

The spirit of giving makes all the difference at Roger Maris. Philanthropy helps enhance and expand essential services, including the Cancer Survivorship Program, nurse navigation, patient amenities, staff education, clinical research and more, all of which contribute to the highest standard of care possible for patients and their families.

Looking back at the impact we've made over the past 12 months, we believe there are no limits to what we can accomplish in the years ahead. Please stand with us and support the future of cancer research and care through Sanford Health Foundation's Building Tomorrow Today campaign. Together, we can extend hope, health and healing for generations to come.

For more information about the Sanford Health Foundation, please call (701) 234-6246 or email shfoundation.fargo@sanfordhealth.org.

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