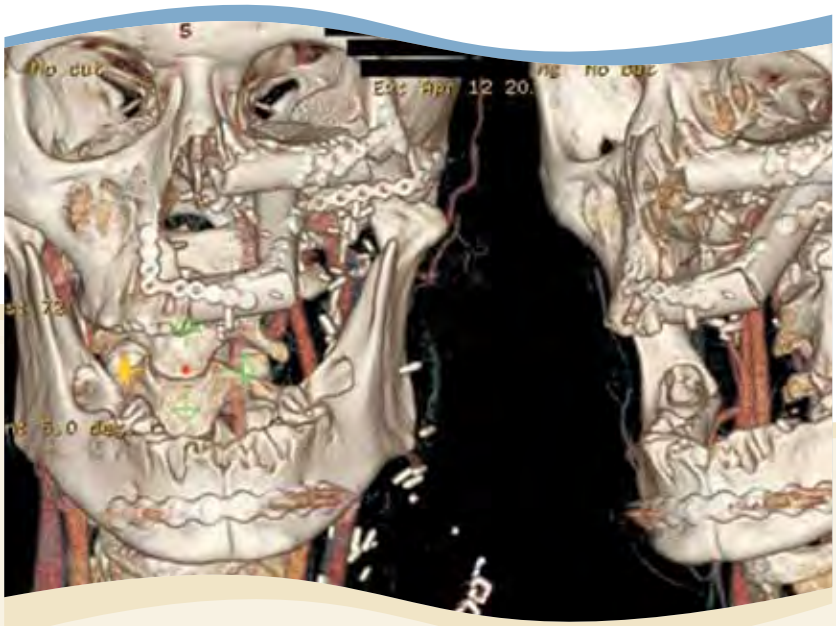
Legacy Cancer Services Annual Report 2009 Head and Neck Malignancies



Legacy Health

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Legacy Cancer Services benefits from the generous participation of individuals and organizations that are also dedicated to finding cures for cancer, helping the less fortunate receive care and improving treatment equipment and facilities at each of our medical centers. To learn how you can support Legacy Cancer Services, please contact Legacy Health Foundations at 503-413-4864 or visit www.legacyhealth.org/foundations.

A focus on head and neck cancer

By Nathalie Johnson, M.D., FACS, Medical Director, Legacy Cancer Services and Breast Health Centers

H&N, which stands for head and neck cancer, is a specialty area of Legacy Cancer Services in which we are proud of the caliber and breadth of services offered. Our program is distinguished for its multidisciplinary approach to cancer care. This comprehensive care model is seen throughout Legacy and earned our Network Cancer Program eight commendations during a recent Commission on Cancer accreditation survey. In particular, the number and sophistication of protocols around quality were cited and recognized by this national organization. Our Head and Neck Program is a shining example of the compassionate, highly skilled, coordinated care that results in good patient outcomes.

There are several tumor sites that fall under the auspices of the head and neck. Cancer of the tongue, maxilla and larynx all have the potential for treatment to drastically change patient appearance and function. Optimum patient recovery depends not only on the skill of the operating surgeon, but also on the physical, occupational and speech therapists who are an integral part of the health care team.

In addition, the program offers access to top-notch medical and radiation oncologists and these professionals meet at an interdisciplinary conference to review cases and offer patients comprehensive care, which meets the highest national guidelines. The caliber of this program also supports a training program that prepares young head and neck surgeons to perform complex procedures and to become skilled in the postoperative care required to get patients to a full recovery.

This year, we had the great fortune of hosting an international head and neck meeting in Portland that drew physicians from all over the globe to present and learn new techniques and share important knowledge in various head and neck tumor sites. It was a huge success and we look forward to hosting this amazing event again in the near future.

As you review this year's annual report, it will become clear the true gem that our head and neck program represents in the crown that is Legacy Cancer Services. We thank our whole team for their spirit of excellence and their heart of caring.

Legacy Cancer Services provides a comprehensive range of multidisciplinary services designed to help patients and their families through the diagnosis, treatment and recovery of their cancer. Legacy Cancer Services and its affiliated physicians provide high-quality, compassionate, efficient and cost-effective care to both adult and pediatric patients. This is accomplished by making the entire spectrum of cancer services available to all patients and their referring physicians. The following services comprise the cancer program.

American Cancer Society (ACS) Resource Center

Trained volunteers provide one-on-one assistance and support, linking patients and family members to desired cancer information, brochures and resources in the community and via the Internet. Volunteers are available by phone and in person. The ACS Gift Closet offers wigs, hats, scarves and prostheses at no charge to patients. The Resource Center and Gift Closet are located at Legacy Good Samaritan Medical Center.

Autologous Blood Stem Cell Transplant

Autologous (meaning from one's own) blood stem cell transplantation is performed at Legacy Good Samaritan Medical Center; this program is nationally accredited by the Foundation for the Accreditation of Cellular Therapy (FACT). Physicians, nurses and other health care team members are specially trained to provide high-quality, personalized care to patients and families undergoing this intensive form of cancer treatment. Patients with specific malignancies, including non-Hodgkin's lymphoma, Hodgkin's disease, acute leukemia, multiple myeloma, germ cell tumors and primary amyloidosis, may benefit from autologous transplantation.

- Northwest Marrow Transplant Program — Legacy Health and Oregon Health & Science University have joined their clinical and research activities related to blood and bone marrow transplant to form the Northwest Marrow Transplant Program, which is dedicated to enhancing patient care and conducting research in marrow and stem cell transplantation.
- Marrow and Blood Stem Cell Donation — Legacy Good Samaritan Medical Center has served as a collection center for the National Marrow Donor Program (NMDP) since 1995. Healthy individuals who have volunteered to donate bone marrow or blood stem cells to a designated recipient undergo collection of these cells as an outpatient. Bone marrow donation is performed in the operating room under general anesthesia. Blood cell donation is performed after four days of stem cell "priming" medication, whereupon these cells are collected from the bloodstream by an apheresis machine. Life-saving marrow or stem cells are then transported to the recipient, who may be undergoing treatment either in the U.S. or in another country.

Brain and Spinal Cord Tumor Services

Legacy's Brain and Spinal Cord Tumor Services offer state-of-the-art technology and comprehensive resources for adults and children, delivered in a compassionate manner. Our network of specialized physicians, coupled with our support services, provide a full spectrum of care. Legacy offers the most sophisticated cancer treatment available for surgery, chemotherapy and radiation, including Novalis® Shaped Beam Surgery, Intensity Modulated Radiation Therapy (IMRT) and Image-Guided Radiation Therapy (IGRT). The program includes components of the Legacy Rehabilitation Institute of Oregon (RIO), Legacy Research, the Oregon Comprehensive Epilepsy Program and the Children's Cancer Program, and holds a monthly multidisciplinary CNS Tumor Conference. The Brain Tumor Support Group is also a vital resource to many patients.

Breast Health Centers

Legacy Breast Health Centers are accredited as Centers of Excellence by the American College of Radiology (ACR), and in conjunction with the mammography departments at Legacy Emanuel Medical Center, Legacy Mount Hood Medical Center and the Legacy Medical Group–St. Helens, have been accredited as a Network Breast Health Program by the National Accreditation Program for Breast Centers (NAPBC), administered by the ACoS. The goals of the Legacy Breast Health Centers are to offer women comprehensive, compassionate care — all in one convenient location — and to provide each and every patient with prompt personalized care. The Legacy Breast Health Centers, located at Good Samaritan, Meridian Park and Salmon Creek medical centers, provide expertise in screening and diagnostic mammograms, breast ultrasound and breast biopsies. Digital mammography is available at all sites. The R2 ImageChecker® provides a computerized double-check of breast X-ray images to assist radiologists in reviewing mammograms. If changes in the breast are seen on a screening mammogram, it is important that further diagnostic tests can occur promptly. Breast Specific Gamma Imaging (BSGI), a molecular breast imaging technique, is available at Legacy Good Samaritan Medical Center. It is a complementary diagnostic procedure to mammography and ultrasound for difficult-to-diagnose patients, such as those with dense breast tissue, previous surgical scarring and for women with palpable lumps without positive mammography. The Breast Health Centers each have a multidisciplinary team available, including radiologists, surgeons, nurses, technologists and counselors. Legacy Breast Health Center nurses help guide women through the diagnostic process by providing necessary support, education and answers to questions or concerns.

Cancer Care Conferences/Tumor Boards

Cancer care conferences offer the multidisciplinary team an opportunity to discuss an individual's diagnosis, pre-treatment evaluation, staging, treatment strategy and rehabilitation goals for a broad spectrum of cancer cases, utilizing national standards. Physicians present current cases for discussion. These conferences also provide education for medical staff, residents and allied health care providers. In addition to general cancer conferences, Legacy offers a regular schedule of specialty conferences for the following tumors: breast, central nervous system, gastrointestinal, gynecologic, head and neck, hematologic, pediatric, prostate/urologic and thoracic malignancies. Monthly oncology grand rounds are also offered.

Cancer Care Unit

The Cancer Care Unit on the Legacy Good Samaritan Medical Center campus is the focused medical/surgical cancer inpatient unit for Legacy Health. The specially trained staff on the Cancer Care Unit provides state-of-the-art clinical treatments, thorough patient education and family support, while delivering compassionate care. The unit has 20 beds; most rooms are

private with a shower. This includes six rooms for autologous blood stem cell transplant and two Comfort Care Suites designed to care for inpatients with terminal illness. The unit has flexible visiting hours and houses the John Stanwood Family Room.

Cancer Data Management/Cancer Registry

Cancer Data Management employs a team of registrars to collect data on every patient diagnosed with cancer and/or initially treated in the Legacy system. Their responsibilities include case identification, data collection systems; lifetime follow-up of cancer patients; submission of data to the National Cancer Data Base (NCDB), the Oregon State Cancer Registry (OSCaR) and the Washington State Cancer Registry (WSCR); quality monitoring of registry data and responding to data requests. Data collected by the registrars are vital to Legacy's ACoS-accredited Network Cancer Program.

Cancer Genetics and Risk Assessment Program

Cancer genetic counseling and risk assessment provide information on the genetic component of cancer and an analysis of family history. Individuals with a diagnosis or a strong family history of colon, breast, ovarian and other cancers may wish to pursue a genetic consultation. A cancer genetic consultation includes an evaluation of personal and family cancer history, education about the inherited components of cancer, identification of cancer syndromes and, if appropriate, genetic testing. Also offered are pre-symptomatic detection, development of personalized screening recommendations and discussion of prevention strategies.

Cancer Healing Center

Legacy Cancer Healing Center incorporates integrative cancer care and support services to provide holistic care that helps individuals and their families adjust to the impact of cancer through evidence-based complementary therapies including:

- Adult nurse practitioner (ANP) — provides individual assessment and follow-up to achieve optimum wellness during cancer treatment and through survivorship. The ANP coordinates integrative cancer care services with the patient/family and the care providers.
- Dietitian — provides guidance in achieving a healthy lifestyle through individualized nutritional counseling and/or community presentations.
- Expressive art therapist — uses various artistic media to assist patients in expressing themselves through creative as well as verbal avenues. Art therapy assists adults and offers individual and group counseling to children of ill parents, specializing in addressing anticipatory grief issues for school-age children and adolescents.
- Healing gardens — provide therapeutic gardens accessible to patients and families for renewal and reflection.
- Massage therapist — applies a range of therapeutic treatments including manual massage therapy to positively affect the individual's health and well-being.
- Medical social worker — addresses emotional, social and financial needs and coordinates community services and resources.
- Movement classes (Nia, T'ai Chi and yoga) — increase mobility, flexibility and endurance, while providing support and enhancing quality of life.
- Music for healing — music for relaxation, distraction and comfort for patients and families in the Legacy Good Samaritan Cancer Care Unit, provided by volunteers.
- Music thanatology — a palliative music practice for end-of-life care. Harp and voice address discomfort and suffering at bedside with the therapeutic qualities of music.
- Psychosocial counselor — identifies emotional needs and adjustment issues, and assists in the development of coping skills.
- Stress management therapist — assists in an individual's adjustment to illness, disability and treatment through life planning, relaxation training and guided imagery.
- Survivorship — our nurse practitioner offers a personalized plan for essential follow-up care to promote long-term survival and quality of life.

Cancer Prevention and Early Detection

Legacy Cancer Services staff plays an active role in community education by providing information on cancer prevention and early detection at community events, health fairs and upon request. Periodically, free or low-cost cancer screenings are offered, often in conjunction with other community organizations.

Cancer Rehabilitation Services

Cancer rehabilitation team members help individuals and their families adjust to the impact of cancer through:

- Lymphedema management — treats swelling of the arm, leg or other body part caused by an abnormal build-up of protein and excess water in the tissue space. The goals of this therapy are to reduce swelling, minimize recurrence, decrease pain and discomfort, provide education and minimize psychological distress. The services are provided by nationally certified and trained physical and occupational therapists.
- Occupational therapy — educates and assists in the adjustment to possible limitations of endurance, self-care skills or other activities of daily living.
- Physical therapy — maximizes the level of independence within the limits of the individual's disability and illness through use of exercise, ambulation, assessment of equipment needs, family training and assistance with pain management.
- Speech therapy — provides instruction, training and therapy for those with speech, swallowing and communication difficulties.

Children's Cancer and Blood Disorders Program

The experts who staff the Children's Cancer and Blood Disorders Program at The Children's Hospital at Legacy Emanuel have been specially trained in caring for children and adolescents with cancer. Focusing on family-centered treatment and the cure of childhood cancer, our inpatient and outpatient oncology teams provide medical management, family education, help with reintegration into the community and long-term follow-up care. Patients have access to the most up-to-date and progressive treatments through participation in the Children's Oncology Group, a national consortium of children's hospitals that treat cancer. Services include chemotherapy, radiation therapy, comprehensive nursing services, home infusion/nursing services, pediatric surgery, pediatric neurosurgery, intensive care unit, pediatric subspecialty support and hospice.

Center for Colorectal Cancer

The Center for Colorectal Cancer at Legacy Good Samaritan brings together a full range of specialists to offer a comprehensive team approach to the prevention and treatment of colon and rectal cancers. With the latest in screening, diagnosis, treatment, recovery and support services, we provide individualized, up-to-date and compassionate care. Oncology nurse navigators guide, support and educate patients as they move through their cancer experience. Complex cases are presented twice a month at the Gastrointestinal Tumor Conference meeting. Participation in clinical trials and genetic counseling services are also important elements of the program.

Consultation Service

Consultation Service provides information and referrals to patients and families seeking a second opinion regarding their cancer diagnosis or cancer care. We offer individualized referrals to appropriate cancer care physicians.

Day Treatment/Infusion Clinics

The Day Treatment/Infusion Clinics are located at all five Legacy medical centers. They provide chemotherapy, blood products, antibiotics and other infusions, allowing patients to maintain independent lifestyles and avoid unnecessary hospitalization. Line placement and education including PICC (peripherally inserted central catheter) are also offered. A physician referral is required. The clinic locations at the medical centers allow convenient access to pharmacy, laboratory, X-ray and other support services. Autologous blood donation is a service provided at Legacy Meridian Park for those wishing to donate their own blood for possible use during their elective surgery.

End-of-Life Care/Hospice/Hopewell House

Palliative care, often called comfort care, is provided to any hospitalized patient nearing the end of life. Consultations are offered specifically at Legacy Good Samaritan, Legacy Emanuel, Legacy Meridian Park and Legacy Salmon Creek medical centers. Hospice is a special program that focuses on quality of life for adults and children with a terminal illness. Care is provided in the patient's place of residence whether it be their home, assisted living or care facility. Legacy Hopewell House Hospice is licensed as a specialty hospital. Hospice patients needing acute pain and other symptom management have found Hopewell House to be the next best thing to home. Regardless of where the care is provided, hospice focuses on providing a full range of physical, emotional, social and spiritual comfort to both the patient and family. The interdisciplinary care team includes the medical director, registered nurses, medical social workers, home health aides, physical therapy, occupational therapy, spiritual care services, pharmacist, dietitian, music thanatologist and volunteers. Bereavement support is provided to family/significant others of the deceased for 13 months following the death of the patient.

Green Gables Guest House

Green Gables Guest House, on the Legacy Good Samaritan Medical Center campus, provides affordable lodging for out-of-town Legacy patients and their families. The house accommodates up to 10 people; guests may stay as long as they are receiving treatment. Hospitable and caring volunteers help make the house seem like home-away-from-home for its guests.

Hepatic, Biliary and Pancreatic Program

Legacy Good Samaritan Medical Center is a leading regional center for the treatment of liver, bile duct and pancreas tumors. Legacy offers a full range of treatment options, including tumor resection, radiofrequency ablation, chemo- and radio-embolization for liver tumors and advanced radiation therapies. The primary goal is to improve the survival and quality of life for patients. The Hepatic, Biliary and Pancreatic Program is a collaboration between cancer services, medical and surgical oncology, gastroenterology, radiation oncology and interventional radiology. Components include a prospectively maintained database, active clinical research and education programs for physicians and patients.

Oncology Clinical Research

Legacy is proud to be able to offer our patients the latest in technology, innovation and treatment through our clinical research. Legacy Oncology Research participates in a variety of oncology clinical trials, including those sponsored by industry, investigator-initiated trials supported by Legacy Health Foundations and national cancer research organizations. National research base affiliations are established with the following organizations:

- American College of Radiology Imaging Network (ACRIN), with clinical trials to evaluate the use of imaging techniques for the screening, diagnosis and treatment of cancer
- American College of Surgeons Oncology Group (ACoSOG), which primarily evaluates the surgical management of patients with solid tumors
- Cancer and Leukemia Group B (CALGB), conducting cancer treatment studies including leukemia and lymphoma trials
- Children's Oncology Group (COG), researching cancers in children and adolescents
- Eastern Cooperative Oncology Group (ECOG), with clinical trials for all types of adult malignancies
- Gynecologic Oncology Group (GOG), studying women with pelvic malignancies such as cancer of the ovary, uterus and cervix
- M.D. Anderson Cancer Center (MDACC), conducting cancer treatment, control and prevention studies in adults, adolescents and children
- National Cancer Institute of Canada Clinical Trials Group (NCIC), offering cancer treatment and control trials
- National Surgical Adjuvant Breast and Bowel Project (NSABP), researching breast, colon and rectal cancers
- North Central Cancer Treatment Group (NCCTG), conducting cancer treatment, prevention and symptom management trials
- Northwest Marrow Transplant Program (NWMTP), conducting trials for adult and children undergoing blood and marrow transplantation
- Radiation Therapy Oncology Group (RTOG), supporting trials involving the latest radiation therapy techniques
- Southwest Oncology Group (SWOG), conducting cancer treatment and prevention trials

Oncology Nurse Navigator

Legacy Good Samaritan Medical Center offers the services of oncology nurse navigators, who are registered nurses trained in cancer care, to help patients navigate through their cancer diagnosis and treatment. The oncology nurse

navigator guides, supports and educates patients and their families and helps coordinate the efforts of the medical team. In addition, a patient navigator from the American Cancer Society works closely with our oncology nurse navigators, addressing other needs such as transportation, financial and physical issues, as well as linking patients with local, state and national resources.

Prostate Cancer Center

The Prostate Cancer Center at Legacy Good Samaritan Medical Center offers the latest in treatment and support services for men with prostate cancer. The field of robotic-assisted surgery has come to the forefront of urological surgery. Good Samaritan, with the highest volume of robotically performed prostate surgeries in Oregon, is proud to offer this treatment option, in addition to standard surgical methods. Legacy Health also has a full range of radiation treatments for prostate cancer, including IMRT (intensity-modulated radiation therapy.) And our prostate brachytherapy program, using radioactive seed implants, is the largest and most experienced in the region. To guide patients and their families through the prostate cancer diagnosis and treatment, oncology nurse navigators provide a single point of contact, offering a full array of support and educational resources. A pre-op class is led by one of the navigators in conjunction with a physical therapist. In addition, our physical therapists provide continence training post-op as needed.

Radiation Oncology

Radiation oncology consists of the application of high energy X-rays or particles to the body for the purpose of treating disease including cancer. Legacy Cancer Services provides radiation therapy at Legacy Good Samaritan, Legacy Mount Hood and Legacy Salmon Creek medical centers. The treatment process includes consultation, treatment planning, ongoing clinical evaluation, education and support services. Several types of radiation therapy are available, depending on the needs of a specific patient:

- Brachytherapy — a form of radiation therapy in which radioactive materials are placed within the body in direct contact with the affected area. This allows more radiation to be given safely in conjunction with external radiation treatments, and in certain situations it can be used by itself in a much shorter and more convenient course of treatment. Cancer types in which brachytherapy is particularly useful are prostate, breast, gynecologic and soft tissue sarcomas. Legacy offers a full range of the most technologically advanced brachytherapy services and is the largest and most experienced program in the region.
- Conformal external beam therapy — uses computerized technology to map the tumor's location and optimize the radiation dose delivered to the tumor while minimizing side effects to the surrounding tissues.
- Image guided radiation therapy (IGRT) — an advancement in precision for targeting and treating tumors. The technology works by combining and integrating X-ray scanning with the use of precise radiation therapy during the actual time of treatment. This allows the radiation team to deliver the treatment with a high degree of accuracy while minimizing damage to the surrounding healthy tissue. IGRT may be used on many types of cancers and is especially suited for cancers of the prostate, head, neck and lung.
- Intensity modulated radiation therapy (IMRT) — a powerful tool that delivers radiation more accurately and effectively to tumors in the head, neck, prostate, chest and other locations. IMRT conforms the radiation beams to match the irregular shapes of tumors, but also can change the shape of each beam and modulate the dose intensity during treatment.
- Novalis® Shaped Beam Surgery — an advanced form of radiosurgery treatment. The Novalis technology is "surgery without a scalpel" — shaping beams of radiation to mirror the exact size and shape of a tumor, treating only the tumor and sparing healthy tissue. With recent upgrades, the accuracy and reliability of Novalis® has been increased. This allows its use on medically inoperable tumors in the spine, head and neck, lung, liver, breast, prostate and other areas in the body.

Support and Education Groups

Support and education groups provide emotional support and ongoing education to individuals whose lives are touched by cancer. Some groups are open to family and friends, and are offered at a variety of times and locations. See the Legacy Cancer Services website at www.legacyhealth.org/cancer for a current listing.

Surgery

Legacy Surgical Services offers comprehensive state-of-the-art surgical services at Legacy's five medical centers. Legacy Health's surgical capabilities comprise virtually every medical specialty and feature many of the region's preeminent surgeons. Programs in robotics (including prostate, gynecologic, gastrointestinal, head and neck), bloodless surgery, minimally invasive surgery, reconstruction and pain management contribute to Legacy Health's reputation as a center of excellence.

Survivorship

Through the Legacy Cancer Healing Center, our nurse practitioner offers a personalized plan to essential follow-up care to promote long-term survival and quality of life. These services are available to individuals with all types and stages of cancer, providing a continuity of care and support throughout the course of treatment. For those interested in integrative care, our nurse practitioner can provide some services directly and can refer to providers at Legacy Health and the larger community to provide a full personalized integrative care plan.

Tumor Bank

The Legacy Oncology Laboratory opened its Tumor Bank in April of 2006. The bank collects and preserves tumor samples removed during surgery. Researchers are studying the relationships between tumor characteristics, treatment alternatives and patient outcomes. Consent from patients is required before banking the tumor specimens. Samples from the Tumor Bank have already led to several new, exciting discoveries in our research laboratories.

Volunteer Program

Legacy Cancer Services appreciates the support of an active and energetic volunteer staff. They assist with numerous rewarding activities such as helping with Survivors' Day, preparing mailings, making phone calls and performing receptionist tasks. Volunteers help keep Green Gables Guest House in ready condition for guests and provide support for the guests while staying there.

Celebrating and remembering Dr. Keith Hansen, one of the cornerstones of Legacy Cancer Services

By Nathalie Johnson, M.D., FACS, Medical Director, Legacy Cancer Services and Breast Health Centers

It is with fond memories and much gratitude that I write this remembrance. For all of us at Legacy Cancer Services, the name Dr. Keith Hansen evokes much respect for the person he was and the contributions he made to elevating the level of care delivered in our community. For his patients, his name brings to mind his dedication to evidence-based medicine, clinical research and improved outcomes. It was this attention to detail that made the Bone Marrow and Stem Cell Transplant Program at Legacy Good Samaritan Medical Center a nationally recognized leader with amazingly low morbidity and mortality.

Keith had a stellar academic career. He was a graduate of University of California–Berkeley and attended the Bowman Gray School of Medicine, Wake Forest University, where he obtained his medical degree. He completed his residency at the UCLA Hospital and Clinics and his oncology fellowship at University of California–San Francisco.

He moved to Portland in 1978 and entered practice with privileges at Good Samaritan. He subsequently became intimately involved with Legacy Cancer Services. Keith went on to develop the Bone Marrow and Stem Cell Transplant Program, which did the first autologous transplant in the state in 1989.

Outside of medicine, he was an avid fly fisherman and did much to promote the health of our rivers and wild fish conservation. Keith became one with the river on August 13, 2009, in British Columbia.

We miss him tremendously. I would like to share a poem written by one of his colleagues, Dr. Nico deWette, that I think is particularly poignant and really captures in great part the Keith we knew and loved. Keith, we miss you.

The loss of this larger-than-life man leaves us with a very big void in our hearts.

Big

Keith Hansen was a big man
Had a big, loud voice
A big laugh,
He was a big presence
He loved big, strong, fish, like steelhead
He loved big, bold red wines, like Panther Creek

He was big on honesty: some found him abrupt, assertive, in your face
It was just honesty without a filter
He had a big oncology practice, with large numbers of patients
He had a big, vast knowledge of the oncology literature, studies and protocols and the latest treatment advances
He wasn't big on holding hands or pampering patients
He was big on taking patients by the hand and leading them through aggressive and complex therapies

He had a big heart.
Underneath the large, loud, assertive exterior,
Was a man with
Passion for his work
Extraordinary caring for his patients
Deep love for his wife
Intense pride in his children
And profound joy in his grandchildren.

Legacy Cancer Services overview: Highlights from 2009

By R. Bryan Bell, M.D., DDS, FACS, Chair, Legacy Network Cancer Committee

The year 2009 was one of growth and great accomplishment for Legacy Cancer Services. But with the tragic passing of our chairman,

Keith Hansen, M.D., it was also a reminder to all of us privileged with the care of patients with cancer that life, at any stage, must be nourished, explored and respected. This is in fact part of the goal of Legacy Cancer Services: to cure the patient of their disease if possible, but if not, to ensure a quality of life for the patient and their family that allows enrichment, fulfillment and joy. Dr. Hansen lived his life thus, and made sure his patients were allowed the same indulgence. It has been an honor, therefore, to serve in his stead as Chairman of the Legacy Health Network Cancer Committee and I am pleased to highlight a few of its many accomplishments.

Legacy Cancer Services was the first in the United States to receive Network Cancer Program approval from the Commission on Cancer of the American College of Surgeons, and we remain the only approved network cancer program in Oregon. Legacy Salmon Creek Medical Center underwent a successful site consultation survey by the CoC in preparation for addition to the Legacy Cancer Network in early 2010. This will allow for the system-wide integration of cancer services, while ensuring the highest standard of care through program development, continuous quality initiatives, community outreach, education and research that are organized and implemented through the Network Cancer Committee.

The year 2009 witnessed the continued maturation of Legacy Cancer Services' centers of excellence and other cancer programs. The Legacy Breast Health Centers at Good Samaritan, Meridian Park and Salmon Creek medical centers applied for designation from the National Accreditation Program for Breast Centers (NAPBC) administered through the American College of Surgeons. Under the stewardship of Nathalie Johnson, M.D., the program received accreditation in 2010.

Dr. Keith Hansen's Autologous Stem Cell Transplant Program demonstrated excellent treatment outcomes since its inception in 1995 by reporting a three-year overall survival rate of 74 percent, exceeding that of the international registry data (68 percent). Similarly favorable results are being reported for all of the major programs at Legacy Health.

Legacy Health is committed to continue to develop and expand the programs and centers of excellence at all of its hospitals and clinics.

Top Six Sites 2009

Primary Site	EMC	GSMC	MPMC	MHMC	SCMC	LH	ACS*
	Percentage of total						
Breast	1.2%	26.3%	28.9%	22.6%	23.1%	22.2%	13.1%
Prostate	14.8%	22.8%	5.8%	8.2%	7.9%	16.0%	13.0%
Lung	9.8%	6.3%	7.6%	17.9%	11.9%	8.6%	14.8%
Colon/Rectum	4.5%	5.9%	13.9%	6.7%	13.9%	8.0%	9.9%
Corpus uteri	0.5%	9.0%	1.8%		1.7%	5.0%	2.8%
Bladder	9.1%	2.4%	4.5%	8.2%	5.6%	4.6%	4.8%
Percentage of total analytic cases	**39.9%**	**72.7%**	**62.5%**	**63.6%**	**64.0%**	**64.2%**	**58.4%**

**American Cancer Society 2009 estimated U.S. cancer cases*

Legacy Health 2009 Primary Sites

	Emanuel		Good Samaritan		Meridian Park		Mount Hood		Salmon Creek		Legacy Health	
Primary Site	Patient count	Percentage of total	Patient count	Percentage of total	Patient count	Percentage of total	Patient count	Percentage of total	Patient count	Percentage of total	Patient count	Percentage of total
Ampula of vater	1	0.2%			1	0.2%					2	0.1%
Anal canal		0.0%	8	0.6%	1	0.2%	1	0.5%			10	0.4%
Bladder	38	9.1%	32	2.4%	20	4.5%	16	8.2%	17	5.6%	123	4.6%
Bone/conn. tissue	8	1.9%	4	0.3%	3	0.7%	1	0.5%	1	0.3%	17	0.6%
Brain/CNS	59	14.1%	10	0.8%	21	4.7%	4	2.1%	18	5.9%	112	4.2%
Breast	5	1.2%	345	26.3%	129	28.9%	44	22.6%	70	23.1%	593	22.2%
Cervix uteri	3	0.7%	21	1.6%			2	1.0%			26	1.0%
Colon	12	2.9%	50	3.8%	45	10.1%	11	5.6%	34	11.2%	152	5.7%
Corpus uteri	2	0.5%	118	9.0%	8	1.8%			5	1.7%	133	5.0%
Endocrine	12	2.9%	1	0.1%					2	0.7%	15	0.6%
Esophagus	5	1.2%	9	0.7%	10	2.2%	2	1.0%	2	0.7%	28	1.0%
Fallopian tube			6	0.5%	3	0.7%					9	0.3%
Gallbladder			3	0.2%	1	0.2%	2	1.0%	2	0.7%	8	0.3%
Hodgkin's disease	7	1.7%	4	0.3%			4	2.1%	1	0.3%	16	0.6%
Kidney	17	4.1%	32	2.4%	22	4.9%			7	2.3%	78	2.9%
Larynx	1	0.2%	1	0.1%			1	0.5%	2	0.7%	5	0.2%
Leukemia	22	5.3%	10	0.8%	4	0.9%	2	1.0%	2	0.7%	40	1.5%
Lip/oral cavity	41	9.8%	5	0.4%	7	1.6%	5	2.6%	8	2.6%	66	2.5%
Liver/bile ducts	5	1.2%	15	1.1%	5	1.1%	3	1.5%	3	1.0%	31	1.2%
Lung	41	9.8%	83	6.3%	34	7.6%	35	17.9%	36	11.9%	229	8.6%
Lymphoma-NH	18	4.3%	26	2.0%	17	3.8%	9	4.6%	20	6.6%	90	3.4%
Melanoma	3	0.7%	38	2.9%	8	1.8%	2	1.0%	1	0.3%	52	1.9%
Mesothelioma	1	0.2%	1	0.1%					1	0.3%	3	0.1%
Multiple myeloma			4	0.3%	5	1.1%	3	1.5%			12	0.4%
Pharynx	2	0.5%	4	0.3%	1	0.2%	2	1.0%	2	0.7%	11	0.4%
Other site	10	2.4%	7	0.5%	2	0.4%			1	0.3%	20	0.7%
Ovary	2	0.5%	28	2.1%	5	1.1%			2	0.7%	37	1.4%
Pancreas	3	0.7%	27	2.1%	11	2.5%	8	4.1%	6	2.0%	55	2.1%
Prostate	62	14.8%	299	22.8%	26	5.8%	16	8.2%	24	7.9%	427	16.0%
Rectum/rectosig	7	1.7%	28	2.1%	17	3.8%	2	1.0%	8	2.6%	62	2.3%
Renal pelvis/ureter	1	0.2%	5	0.4%	2	0.4%			1	0.3%	9	0.3%
Salivary gland	2	0.5%									2	0.1%
Small intestine	1	0.2%	3	0.2%	7	1.6%			3	1.0%	14	0.5%
Stomach	2	0.5%	15	1.1%	3	0.7%	9	4.6%	2	0.7%	31	1.2%
Testis	10	2.4%	8	0.6%	4	0.9%	1	0.5%	2	0.7%	25	0.9%
Thyroid	9	2.2%	28	2.1%	9	2.0%	4	2.1%	14	4.6%	64	2.4%
Unknown primary	4	1.0%	15	1.1%	13	2.9%	5	2.6%	4	1.3%	41	1.5%
Urethra					1	0.2%					1	0.04%
Vagina	1	0.2%	3	0.2%	2	0.4%					6	0.2%
Vulva	1	0.2%	17	1.3%			1	0.5%	2	0.7%	21	0.8%
Grand total	**418**	**100%**	**1313**	**100%**	**447**	**100%**	**195**	**100%**	**303**	**100%**	**2676**	**100%**

These programs include the Prostate Center, the Colorectal Cancer Center, the Hepatic, Biliary and Pancreatic Program and the Breast Health Center at Legacy Good Samaritan Medical Center, the brain tumor and head and neck surgical services at Legacy Emanuel Medical Center, pediatric oncology services at The Children's Hospital at Legacy Emanuel and the system-wide integrative cancer care and oncology nurse navigator service.

Improving quality has been a major goal of Legacy Cancer Services. Under the leadership of Kate Morris, M.D., chair of the Quality Improvement Subcommittee, ACoS, SCOAP, SCIP and NISQIP standards have been defined and measured. Legacy now enjoys a highly favorable record in meeting and exceeding virtually all of these standards. The Cancer Data Management Quality Report shows that we are above our 100 percent target for abstracting within six months — currently at 112 percent. In 2007, we had 2,460 analytic cases; in 2009, we had 2,676, an 8.8 percent growth. We are on target for five-year follow-up of 92 percent and follow-up since reference date is 90 percent. The 75 percent requirement for Cancer Conference prospective case presentations is currently at 98 percent. Standards are met for major site presentation, abstract review, collaborative stage accuracy and staging discussed at Cancer Conferences. With the cooperation of all of our cancer physicians, AJCC staging and CAPS compliance is well above 90 percent.

Fostering clinical and basic science research, as well as improving patient access to clinical trials, has also been a goal of Legacy Cancer Services. In 2009, a long-standing affiliation with the Columbia River Oncology Program was discontinued, in part to expand the options available to adult and pediatric cancer patients. Legacy continues to have access to National Cancer Institute trials through the following research bases: GOG, COG, SWOG, NSABP, RTOG and ACoSOG.

With the recruitment of a new Vice President of Research, Ashley Wackym, M.D., Legacy Health has reaffirmed its commitment to original research. Abstracts carrying the Legacy name were presented at numerous national and international forums in the fields of breast, colorectal, head and neck, and prostate oncology.

Highlighting this group, Dr. Johnson presented BSGI outcomes data on more than 1,000 patients at the American Society of Breast Surgeons annual meeting. Dr. Morris continues accrual of tissue specimens into the NIH-funded Legacy Tumor Bank, which is now the most robust tumor depository in the state, promising a wealth of material for future scientific investigation.

Numerous community and professional events were made available to health care providers as well as lay people in 2009. The Third Annual G.I. Oncology Conference highlighted the rapidly expanding colorectal and hepatobiliary programs based at Legacy Good Samaritan. The Technological Advances in Head and Neck Oncology and Cranio-Maxillofacial Surgery CME event was a three-day multidisciplinary meeting focused on head and neck oncology and reconstructive surgery and was attended by 244 clinicians from 11 different countries. The meeting is being planned again for 2011 and will include a focus on transoral robotic surgery and other minimally invasive approaches for the surgical treatment of tumors of the upper aerodigestive tract. The Fifth Annual Pacific Northwest Excellence in Breast Care event at the Multnomah Athletic Club was also highly successful, drawing 161 attendees.

Cancer data management overview

By Leah Kiesow, CTR, MBA, Supervisor, Cancer Data Management

Legacy Health's Cancer Data Management Department serves an integral role within the scope of cancer services by performing a variety of job functions and the fulfillment of cancer program requirements. Cancer registrars provide representation at each Legacy Health facility, where their primary focus is to collect and record relevant and accurate cancer data for all patients diagnosed and/or treated within Legacy Health. Data collection performed by cancer registrars provides useful details for the monitoring of patient quality of care and ongoing cancer program planning. The collection process also gives the registrar an opportunity to tell the patient's story, from the time of cancer discovery, through the first course of treatment, and lifetime outcome.

Legacy Health Cancer Data Management staff includes, from left, front row, LeighAnne Leonard, Catherine Telford, CTR, Mindy Ansteth, back row, Dawn Cox, Kathy Mayer, Leah Kiesow, MBA, CTR, and Lorraine Colwell.

Beyond data mining

As members of a Commission on Cancer accredited program, registrars are also required to extend their capacity for understanding disease processes, to abstracting medical information and participation in cancer program activities. For example, registrars are the first point of contact for physicians for the preparation, organization and facilitation of site-specific cancer conferences. In 2009, 232 cancer conferences were held among the five hospital sites and 1,130 prospective patients were presented for discussion of multidisciplinary care.

The team also assumed the responsibility of assisting the Legacy Continuing Medical Education Department with planning a process to provide education credits to clinical and non-clinical conference attendees.

The team continues to have a strong presence in the creation and maintenance of site-specific database fields to better assist physicians and administration with specialized data collection needs. Cancer registrars are able to provide detailed information on treatment outcomes, survival and recurrence rates by specific disease, stage or demographic group. This information is used to determine the potential demand for community outreach events, educational venues and access to services for patients in rural areas.

Moving forward

Registrars remain a useful resource for data management that goes beyond the scope of state, national and accrediting body requirements. Each individual must possess a strong working knowledge of cancer, clinical practices and mandated rules and regulations while continuing to learn about new technology and patient care standards. Moving forward, accurate data collection, support of cancer program endeavors and involvement in focused cancer projects will continue to be demonstrated through the work of the cancer registry team.

Cancer Data Management staff (2009)

Hollis Brown, RHIT, manager
Jackie Cupp, RHIA, interim manager
Leah Kiesow, MBA, CTR, supervisor, Legacy Good Samaritan
Mindy Ansteth, Legacy Good Samaritan
Lorraine Colwell, Legacy Emanuel
Dawn Cox, Legacy Good Samaritan
Donna Gilbo, RHIT, CTR, Legacy Emanuel
Elly Hayes, CTR, Legacy Mount Hood
LeighAnne Leonard, Legacy Emanuel
Kathy Mayer, Legacy Meridian Park
Janel McNally, CTR, Legacy Salmon Creek
Catherine Telford, CTR, Legacy Emanuel
Ileana Craig and Sandi Potrue, support staff

Legacy Health head and neck site analysis

By R. Bryan Bell, M.D., DDS, FACS, Oral Maxillofacial Surgeon

Head and neck (H&N) cancer represents a heterogeneous group of cancers that arise from the oral cavity, oropharynx, hypopharynx, larynx, nasal cavity, paranasal sinuses, salivary glands, thyroid gland and skin. As a group, these cancers represent roughly 7 percent of all of the new cancers diagnosed in the United States annually and are the sixth most common cancer in the world. At Legacy, H&N malignancies represent 3.2 percent of our analytic cases, with 55 percent of the cases being diagnosed and treated at Legacy Emanuel. We have seen a growth of 34 percent in this population since 2002, when just 64 patients were treated at Legacy with this diagnosis. The

Age	Lip/ Oral cavity	Percentage	All H&N	Percentage
20–29			1	1%
30–39	2	6%	5	6%
40–49			4	5%
50–59	6	17%	21	24%
60–69	10	28%	28	33%
70–79	12	33%	16	19%
80–89	5	14%	10	12%
90–99	1	3%	1	1%
Total	**36**	**100%**	**86**	**100%**

Gender	Lip/ Oral cavity	Percentage	All H&N	Percentage
Female	20	56%	34	40%
Male	16	44%	52	60%
Total	**36**	**100%**	**86**	**100%**

2009 Legacy Health Head & Neck Major Groups for Staging						
Major groups for staging	**EMC**	**GSMC**	**MPMC**	**MHMC**	**SCMC**	**Network Totals**
Ethmoids	1				1	2
Glottis	1		1		1	3
Hypopharynx		1		1	1	3
Lip/Oral cavity	32	1			3	36
Maxillary sinus	1		1			2
Nasopharynx	1	1		1		3
Oropharynx	7	3	3	5	5	23
Salivary gland	2	2	4			8
Supraglottis	2	1		1	2	6
Total H&N cancer cases by facility	**47**	**9**	**9**	**8**	**13**	**86**
Total analytic cancer cases by facility	**418**	**1,313**	**447**	**195**	**303**	**2,676**
Percent of analytic cases	**11.2%**	**0.7%**	**2.0%**	**4.1%**	**4.3%**	**3.2%**

most common sites were lip and oral cavity (42 percent) and oropharynx (27 percent). Over half the patients were diagnosed between the ages of 60–79, with 12 percent under the age of 50.

The most common type of head and neck cancer is squamous cell carcinoma, which generally arises from the epithelial lining of the upper aerodigestive tract, most often the mouth or throat. In Legacy Health's population, 82.6 percent of the head and neck population was squamous cell carcinoma. Men represented 60 percent overall in all the head and neck cases, but in the lip/oral cavity group, 56 percent were female. Despite numerous advances in imaging modalities, surgical reconstruction, radiation delivery and novel chemotherapeutic agents, the prognosis remains relatively poor. Approximately 50 percent of the patients diagnosed with head and neck cancer will die within five years.

Squamous cell carcinoma has traditionally been considered a disease of older men who had a long history of cigarette smoking and heavy alcohol consumption. Despite national smoking cessation efforts and a precipitous decline in the rate of cigarette smoking since 1965, the overall incidence of head and neck cancer in the United States has decreased only modestly. In addition, recent evidence suggests that the rate of some types of head and neck cancer (oral and oropharyngeal) is increasing in young (less than 44 years) never-smokers, and 10 percent of Legacy cases fit this trend.

Recently, human papilloma virus (HPV) has been identified as a major risk factor for squamous cell carcinoma of the tonsil and base of tongue, and may in fact provide an explanation for the increased incidence in younger, never-

AJCC Major Stage Groups

	Stage 1	Stage 2	Stage 3	Stage 4	Totals
Glottis	2			1	3
Hypopharynx				3	3
Ethmoids				2	2
Lip/Oral cavity	12	3	3	18	36
Maxillary sinus	1		1		2
Nasopharynx	1		1	1	3
Oropharynx	1		6	16	23
Salivary gland	2		5	1	8
Supraglottis		1	2	3	6
Total H&N case by stage	**19**	**4**	**18**	**45**	**86**
Percentage of total H&N cases	**22%**	**5%**	**21%**	**52%**	**100%**

Site by Histology

	Carcinoma NOS	Verrucous carcinoma NOS	Squamous cell carcinoma	Basal cell adenocarcinoma	Adenoid cystic carcinoma	Mucoepidermoid carcinoma	Acinar cell carcinoma
Glottis			3				
Hypopharynx			3				
Ethmoids	1		1				
Lip/Oral cavity		3	32			1	
Maxillary sinus			2				
Nasopharynx			2			1	
Oropharynx			22			1	
Salivary gland				1	2	1	4
Supraglottis			6				
Totals	**1**	**3**	**71**	**1**	**2**	**4**	**4**
Percentage of total H&N	**1.2%**	**3.5%**	**82.6%**	**1.2%**	**2.3%**	**4.7%**	**4.7%**

Legacy Health Head & Neck Malignancies First Course Treatment by Stage 2009					
Treatment combination	**I**	**II**	**III**	**IV**	**Total**
Surgery	14	6	3	6	29
Radiation	2			1	3
Chemotherapy				1	1
Surgery + radiation	2	2	2	8	14
Surgery + chemotherapy				2	2
Radiation + chemotherapy		1	2	14	17
Surgery + radiation + chemotherapy	1		7	10	18
Treated	**19**	**9**	**14**	**42**	**84**
Not treated				**2**	**2**

Legacy Health Lip and Oral Cavity Cancers First Course Treatment by Stage 2009					
Treatment combination	**I**	**II**	**III**	**IV**	**Total**
Surgery	11	3	2	5	21
Surgery + radiation			1	7	8
Surgery + chemotherapy				2	2
Surgery + chemotherapy + radiation	1			4	5
Treated	**12**	**3**	**3**	**18**	**36**

smokers. It also may provide an explanation for the survival dichotomy that exists between African Americans and Caucasians: HPV positive patients tend to have better overall and disease-free survival than non-HPV positive patients when matched for stage and site, and African Americans tend to have a much lower rate of HPV infection. The prognostic implications associated with HPV infection are therefore profound. While this has not yet resulted in a change in recommended treatment, tailored therapeutic interventions based upon HPV positivity may be coming in the near future.

Surgery remains the primary modality with which to diagnose and treat most head and neck cancers. Philosophies that now emphasize quality of life over quantity of life have, however, caused a shift away from the radical, debilitating head and neck surgery of the past to more minimally invasive therapies of today. Surgical treatment that once included routine segmental resection of the mandible and radical neck dissection, with sacrifice of the sternocleidomastoid muscle, internal jugular vein and spinal accessory nerve, have now been replaced by judicious composite resections and selective neck dissection on the basis of known clinical and radiographic factors. Furthermore, advances in microvascular free tissue transfer have revolutionized the quality and predictability of composite tissue reconstruction and allow removal of the cancer and restoration of the patient's speech, swallowing and appearance in a single operation. Collaboration with specialized dentists also allows the replacement of missing bone and teeth to return the patient to optimal oral function.

Technological advances in surgery may also affect how patients are managed. Transoral robotic surgery (TORS) allows 'natural orifice' surgical resection of tumors from the pharynx and larynx that previously required extensive operations to perform, or were treated with combinations of chemotherapy and radiotherapy. TORS offers the advantage of eliminating the need for radiation and chemotherapy in some patients, or possibly decreasing the dose of postoperative

radiation therapy. In addition, three dimensional computer planning and intraoperative imaging offer the promise of more accurate and safe resection and reconstruction.

Radiation therapy, either alone or in combination with chemotherapy, has been used as the primary modality treatment for most cancers of the pharynx and larynx since results of the Veterans Administration Laryngeal Cancer Study Group clinical trial of the 1980s were published in 1991. It is also delivered postoperatively for patients with high-risk pathologic features or advanced stage disease. Intensity modulated radiotherapy (IMRT) is a system of treatment planning and delivery that results in a more precise and conformal dose of radiation, thus minimizing radiation exposure to normal structures such as the mandible, salivary glands or larynx.

Chemotherapy may be used to shrink the cancer before surgery or radiation (neoadjuvant), or it may be combined with radiation to increase the effectiveness of both treatments. The publication of the results from RTOG 9501 and EORTC 22931 in *The New England Journal of Medicine* in 2004 clearly demonstrated that among certain high-risk patients with resected head and neck cancer, concurrent postoperative chemotherapy and radiotherapy significantly improved the rates of local and regional control and disease-free survival. The most commonly used drugs for squamous cell carcinoma are cisplatin and 5-fluorouracil. Carboplatin and paclitaxel are also used in combination. New research shows promise for the use of an epidermal growth factor receptor inhibitor (Cetuximab), which is increasingly being incorporated into treatment strategies.

Within all head and neck tumor sites, 52 percent of Legacy patients are diagnosed at Stage IV. In the lip/oral cavity category, 50 percent were diagnosed in stage IV, but an additional 33 percent were Stage I, leaving 17 percent evenly divided between Stage II and Stage III. The majority of Legacy's head and neck cancer patients receive treatment (97.7 percent), with the predominant treatment being surgery, with the addition of radiation, chemotherapy or both treatment modalities. For the lip/oral cavity tumors, 100 percent received treatment, with 58 percent treated with surgery alone.

When reviewing Class of Case, we find that 98 percent of head and neck cancer patients diagnosed at a Legacy Health facility (Class of Case 0 and 1) are treated at Legacy. In addition, 30 percent of our total head and neck population is diagnosed elsewhere (Class of Case 2), but come to Legacy for their treatment. Our 1998–2002 head and neck survival data was compared to the state of Oregon and the ACoS Commission on Cancer (CoC) national cancer programs.

Legacy Health 2009 Total Head and Neck Analytic Cases — Class of Case (CoC)

Class of Case (CoC)	Lip and oral cavity	Percentage of total	All H&N cases	Percentage of total
CoC 0: Diagnosed **at Legacy**; all of first course treatment was performed elsewhere or the decision not to treat was made at another facility.	0	0%	1	1%
CoC 1: Diagnosed **at Legacy**; all or part of first course treatment performed at Legacy. (Includes watchful waiting, palliative care due to patient issues and patient refusal to accept treatment)	13	36%	59	69%
CoC 2: Diagnosed **elsewhere**; and all or part of first course treatment was performed at Legacy.	23	64%	26	30%
Total	**36**	**100%**	**86**	**100%**

Legacy Health's five-year survival is closely reflective of that for Oregon and the CoC; however, our volume is too small to evaluate survival at each stage. Our survival data for Stage IV disease exceeds both Oregon and the CoC, though our volumes are small.

Legacy Cancer Services offers world class, state-of-the-art care for patients with benign and malignant tumors of the head and neck, incorporating the most advanced techniques and cutting-edge technologies. Approximately one-third of the patients diagnosed with head and neck cancer in the state of Oregon are in fact treated within Legacy Health. Our multidisciplinary treatment team consists of physicians, dentists, nurses, speech pathologists, audiologists, nutritionists and social workers, all of whom work together to provide optimal tumor control and maximal functional and esthetic outcomes. We are incorporating computer planning for both surgery and radiation therapy, the use of minimally invasive surgical approaches, such as transoral laser surgery and sentinel lymph node biopsies, and we were the first health system on the west coast to perform transoral robotic surgery for a malignant tumor of the head and neck.

Beyond simply providing treatment outcomes that exceed the national average in terms of survival, Legacy Health physicians and surgeons are ensuring that our patients enjoy a quality of life that is as good or better than that provided anywhere else in the world.

Observed Five-Year Survival — NCDB Data All H&N Malignancies 1998–2002 Diagnoses

	Stage 0	Stage I	Stage II	Stage III	Stage IV	Over all
Legacy Health	*	72.8%	*	*	50.8%	56.9%
Oregon (39 programs)	*	72.0%	51.8%	54.3%	48.1%	57.2%
CoC (1,386 programs)	76.4%	74.7%	57.8%	51.4%	38.6%	52.5%

**Sample size too small — insufficient data to report survival*

Observed Five-Year Survival — NCDB Data for Lip and Oral Cavity Malignancies 1998–2002 Diagnoses

	Stage 0	Stage I	Stage II	Stage III	Stage IV	Overall
Legacy Health	*	72.9%	*	*	54.5%	59.1%
Oregon (34 programs)	*	69.8%	53.8%	55.2%	52.0%	58.8%
CoC (1,373 programs)	77.6%	73.0%	58.1%	54.3%	42.9%	55.0%

**Sample size too small — insufficient data to report survival*

The role of surgical treatment in head and neck malignancies: Where we've been, where we're going

By Eric J. Dierks, M.D., DMD, FACS, Oral Maxillofacial Surgeon

The history of cancer management is scarred by the tug-of-war between surgeons and radiation oncologists during the first half of the 20th century — with the patient usually stuck in the middle. Interdisciplinary rapprochement ensued at centers such as M.D. Anderson in Houston and cooperation between surgical, radiation and medical oncology became the norm, as it has always been within Legacy Health.

Beginning with the VA cooperative larynx cancer study in 1991, the concept of organ sparing has extended to include the non-surgical management of squamous cell carcinoma (SCCa) in other sites in the hypopharnx such as the tonsil, base of tongue and supraglottis. The wide-field radical surgery of the past has bowed to chemoradiotherapy, with good to excellent overall results. The relationship of many of these tumors to the human papilloma virus (HPV) has since been identified, as has the excellent prognosis for HPV-positive tumors. By 2000, the role of surgery for these hypopharyngeal sites had evolved into that of salvage, as conventional surgical access to the hypopharynx would entail extensive division of the mandible and tongue, or pharyngotomy through the neck, producing complex wounds and requiring long recuperation.

Just as we thought the role for primary surgery in the hypopharynx had become extinct, transoral robotic surgery (TORS) was developed at the University of Pennsylvania. TORS allows robotic excision of early stage tumors in the hypopharynx via a transoral approach. This results in a much simpler wound that heals by granulation, and the patient is usually out of the hospital in about two days. Conventional neck dissection follows within two to three weeks, and favorable histologic results of these surgeries may obviate radiation therapy for some patients and reduce the radiation dosage for others.

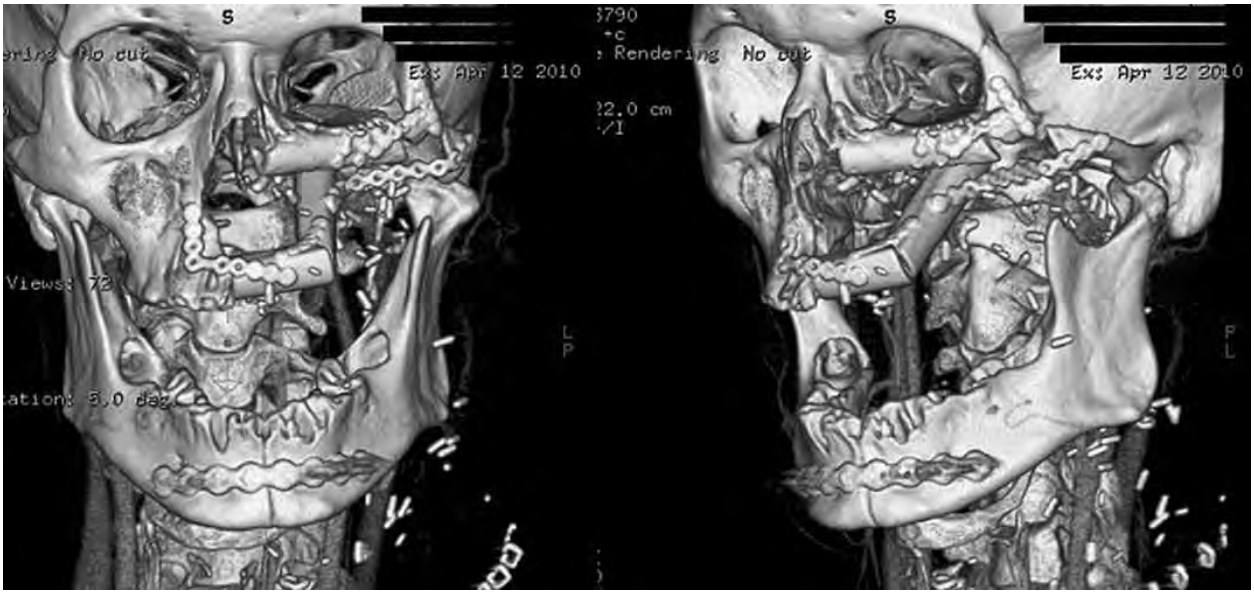
Avoidance of radiation also allows this valuable modality to be kept in reserve for a possible subsequent second primary.

On Dec. 14, 2009, the FDA approved the use of the da Vinci® Surgical System robot for TORS, and on March 31, 2010, the first TORS for oncologic resection on the West Coast was performed at Legacy Emanuel Medical Center. Legacy has made a significant commitment to becoming the regional leader in robotic surgery, and TORS will become a regular user of the burgeoning number of da Vinci® robots within Legacy Health.

Oral cavity malignancy continues to be the site within the head and neck that is most often addressed by surgery within the Legacy Cancer program and elsewhere. Early stage (T1 and T2) SCCa at common oral sites such as the tongue and floor of mouth can frequently be excised via a direct transoral approach with reconstruction involving direct closure, local, regional or microvascular flaps. The role of concomitant neck dissection for the clinically node negative neck may be significantly altered by the increasing acceptance of sentinel node biopsy for head and neck SCCa. A prospective sentinel node study for oral SCCa is currently underway at Legacy Emanuel Medical Center under principal investigator R. Bryan Bell, M.D., DDS.

Conventional management of thyroid and salivary malignancies entails a treatment paradigm that almost always begins with surgical resection. Salivary gland tumors often require histopathologic examination of the entire tumor to arrive at an accurate diagnosis. Differentiated thyroid cancer that is recurrent or metastatic within the neck may require surgical excision to facilitate radioactive iodine therapy. Little, if any, progress has been made in the surgical or other management of undifferentiated thyroid cancer.

The role of surgery also includes reconstruction,



3D CT reconstruction

and Legacy Emanuel Medical Center has become a recognized center for complex and innovative head and neck reconstruction. Microvascular free-flap techniques have revolutionized this previously difficult area, and these procedures are regularly performed within the Legacy Cancer program. Although the operations are lengthy and complex, the importation of soft and/or hard tissue from another body site often enables the head and neck cancer patient to achieve a higher level of form and function than was previously possible.

Our options for the reconstruction of osseous maxillofacial structures have increased with the commercial availability of bone morphogenic protein (BMP). BMP is the only true osteoinductive substance and can create bone de novo within soft tissue. Surgical placement techniques and resorbable carriers to contain and shape the BMP are rapidly evolving and this expensive but unique substance may assume a significant role in maxillofacial osseous reconstruction.

The role of medical oncology in head and neck cancer

By Spencer H. Shao, M.D., Medical Oncologist

Traditionally, chemotherapy had little significance in the treatment of squamous cell carcinoma of the head and neck. Chemotherapy was often reserved for the palliative setting. Outcome was typically poor due to advanced disease and prior treatment. Modern clinical trials addressed the advances in multimodality approaches.

Chemotherapy has now evolved into an essential component of curative treatment for locally advanced squamous cell carcinoma of the head and neck.

The landmark trial from the Veterans Affairs Laryngeal Cancer Study Group (N Engl J Med 324:1685-9, 1991) demonstrated a significant laryngectomy-free survival with sequential chemoradiotherapy at greater than 30 percent after more than five years of follow-up. This trial confirmed the value of chemotherapy in the treatment of locally advanced head and neck cancer, such that a high cure rate while preserving vital structures and function is possible. Investigators from Duke University found chemotherapy integrated with radiation therapy being more efficacious, but not more toxic, than radiation therapy alone (Brizel et al. N Engl J Med 338:1798-804, 1998). The need to improve locoregional control led to concurrent chemotherapy and radiation therapy. The addition of full dose cisplatin during daily fractionated radiation therapy has become the standard approach (Forastiere et al. N Engl J Med 349:2091-8, 2003). This type of therapy is frequently delivered with curative intent, although toxicity can be substantial. The most common acute toxicities include mucositis, requiring feeding tube placement, nausea, electrolyte abnormalities and neuropathic symptoms.

The desire for more effective chemotherapy for squamous cell carcinoma of the head and neck has led to the development of three-drug combination of infusional 5FU, cisplatin and docetaxel in an induction strategy.

The results of two randomized trials generated considerable excitement.

The 358-patient EORTC study compared cisplatin and 5FU with or without docetaxel (Vermoken et al. N Engl J Med 357:1695-1704, 2007). All patients received radiation therapy after induction chemotherapy. After a median follow-up of 32 months, there was a significant progression-free survival advantage in favor of the three-drug combination with a hazard ratio of 0.73.

The TAX 324 trial randomly assigned 501 patients to induction chemotherapy with cisplatin and infusional 5FU with or without docetaxel (Posner et al. N Engl J Med 357:1705-15, 2007). This is followed by radiation therapy with concurrent carboplatin at a weekly dose of AUC 1.5. A fraction of patients underwent surgery afterwards. This study demonstrated a significant disease-free survival and overall survival advantage in favor of the three-drug combination induction chemotherapy. With a hazard ration of 0.7, 62 percent of the patients in the experimental arm were alive at 36 months compared to 48 percent of patients who received standard cisplatin and 5FU. This significant survival difference was maintained after five years of follow-up.

We are eagerly awaiting the results of the highly anticipated DeCIDE and Paradigm trials to answer the question whether docetaxel-containing induction chemotherapy will provide benefit above and beyond upfront concurrent chemoradiotherapy.

In the postoperative setting, both the RTOG and EORTC cooperative groups have demonstrated superior locoregional control and disease-free survival for patients treated with concurrent chemoradiotherapy compared to radiation therapy alone (Cooper et al. N Engl J Med 350:1937–44, 2004 and Bernier et al. N Engl J Med 350:1945–52, 2004). The EORTC trial also showed overall survival

advantage in favor of the concurrent chemoradiotherapy arm. Full dose cisplatin with concurrent radiation therapy is now the standard for patients with poor risk pathology features after surgery.

More recently, cetuximab, a monoclonal antibody against epidermal growth factor receptor, has been shown to provide better locoregional control, progression-free survival (42 percent vs. 31 percent at three years) and overall survival (55 percent vs. 45 percent at three years) when given with radiation therapy compared to radiation therapy alone (Bonner et al. N Engl J Med 354:567–78, 2006). This treatment provides an alternative for patients who cannot tolerate full dose cisplatin. However, no randomized trials have been completed comparing concurrent radiation therapy with cetuximab or full dose cisplatin.

In the era of targeted therapy, there is tremendous interest in identifying molecular targets for potentially more effective treatments. It has been known for some time that squamous cell carcinoma of the head and neck with TP53 gene mutation carries a poor prognosis (Poeta et al. N Engl J Med 357:2552–61, 2007). There is new information that squamous cell carcinoma of the head and neck caused by human papilloma virus is associated with a good outcome. A retrospective analysis of 323 patients showed a three-year overall survival of 82.4 percent vs. 57.1 percent in favor of patients with human papilloma virus positive tumors. The hazard ratio was 0.42 after adjusting for age, race, cancer stage, tobacco exposure and treatment assignment (Ang et al. N Engl J Med 363:24–35, 2010). This result implies that treatment approach may need to be different for patients with different tumor characteristics.

We look forward to the day when patient characteristics, tumor biological markers, along with tumor site and stage will lead to more individualized selection of therapy. Meanwhile, we remind ourselves that caring for patients with head and neck cancer is complex. It requires the expertise of many specialists, including the head and neck surgeon, radiation oncologist, medical oncologist, plastic and reconstructive surgeon, radiologist, pathologist, dental prosthedontist, nutritionist, speech/swallow therapist, physical therapist, occupational therapist, social worker and our nurses. It is the cooperation across these different fields that will enable us to create an integrated multidisciplinary approach in order to maximize patient outcomes and facilitate the development of better treatment programs.

Radiation therapy in the management of head and neck squamous cell cancers

By Andrew Kee, M.D., Radiation Oncologist

Each year in the United States approximately

35,000 patients are diagnosed with squamous cell carcinoma of the head and neck. Cancer of the head and neck refers to a collection of malignancies predominately of squamous cell type located above the clavicle. It consists of six major areas: nasopharynx, nasal cavity/paranasal sinuses, salivary glands, oral cavity, oropharynx, hypophayrnx and larynx. Presenting symptoms depend on the location of the primary tumor and commonly include dysphagia, odynophagia and hoarse voice, as well as painless enlargement of neck lymph nodes.

Treatment of head and neck cancer is highly complex due to the variety of sub-sites, changes in lymphatic risk based on location of the primary tumor and the importance of maintaining func-

tion after therapy. Therapy may involve a combination of surgery, radiation and chemotherapy.

For all subsites, prognosis is based on TNM stage. Oral/oropharynx cancer prognosis also depends on human papilloma virus status, and nasopharynx cancer prognosis also depends on Epstein-Barr virus status. Generally, patients with positive viral DNA have a better prognosis. Early stage head and neck cancers, defined as either stage I or II, can often be treated with single modality therapy with either surgery or definitive radiotherapy. For instance, the treatment of early stage larynx cancers with definitive radiotherapy has shown local control rates in the range of 95–99 percent with excellent voice quality. With the exception of salivary gland primaries, definitive radiotherapy can be applied to many early stage primaries in the head and neck region.

The management of advanced head and neck primaries (stage III-IV) requires a more comprehensive team of oncologic surgeons, radiation and medical oncologists, speech pathologists, physical therapists, social workers, dietitians, dentists and gastroenterologists. Patients with local-regionally advanced tumors often require either a combined modality approach with surgery and radiation therapy with or without chemotherapy or definitive chemoradiation therapy. With only one randomized controlled trial from Singapore showing no difference in disease free survival between concurrent chemoradiation and surgery plus postoperative radiotherapy, the decision to proceed with definitive chemoradiation versus surgery is complex and requires a comprehensive team approach. In general, the preferred treatment for advanced head and neck cancers is with concurrent chemoradiation with the goal of organ preservation, as these patients will often require postoperative radiation. Initial surgery can be extensive and may lead to suboptimal functional outcomes without sparing patients postoperative adjuvant radiotherapy. Indications for postoperative radiotherapy include: T3-T4 primary tumors, advanced nodal disease in the neck (N2a or higher), perineural/perivascular invasion. Postoperative patients with high-risk features of positive margins and nodes with extracapsular extension require concurrent chemotherapy with radiation.

Definitive radiation or high-risk postoperative radiation patients will often require the addition of chemotherapy. Common agents include cisplatinum delivered in a weekly or every three-week regimen during the six to seven weeks of daily radiation therapy. The superiority of concurrent radiotherapy over definitive radiotherapy is now well established by a meta-analysis of nearly 16,500 patients from 87 studies by the Meta-Analysis of Chemotherapy in Head & Neck Cancer Group. This showed an absolute increase of 6.5 percent in five-year overall survival with the addition of chemotherapy added to definitive radiotherapy. The same study did not show benefit between single agent cisplatinum versus multi-agent chemotherapy.

Advances in image guided radiotherapy techniques have lead to better ability to spare normal organs at risk from radiation damage. Intensity modulated radiation therapy (IMRT) has provided radiation oncologists a tool to limit radiation dose to normal organs. Saliva production, swallowing function, hearing, voice and taste function are now better spared with appropriate dose constraints using IMRT. For example, multiple publications have emerged on parotid gland dose limits providing better ability of head and neck cancer patients to produce saliva post therapy. Similar studies on other head and neck organs have provided radiation oncologists guidance in preserving function of these organs. These include the middle ear, swallowing muscles, larynx, oral cavity, mandible, esophagus, nasal cavity, paranasal sinuses and brainstem. Recent publication of Quantitative Analysis of Normal Tissue Effects in the Clinic (QUANTEC) guidelines have also provided radiation oncologists more precise information in treating head and neck primaries while sparing normal organs. QUANTEC guidelines replace standards established almost 20 years ago before the use of 3D imaging technology. The new guidelines are a result of a comprehensive systematic review of

radiation therapy dose/volume/outcomes data of 16 organs.

The management of head and neck malignancies is complex and sometimes controversial with biases that require a cooperative, integrated, multispecialty pretreatment approach to ensure the highest quality of care for our patients.

CLP Report: Patient centeredness

By R. Bryan Bell, M.D., DDS, FACS, Cancer Liaison Physician

The role is changing for the American College of Surgeons Commission on Cancer: Cancer Liaison Physician (CLP). Although always an undercurrent, there is now a new focus on "patient centeredness" within the Commission on Cancer, defined as "the experience, to the extent the informed individual patient desires it, of transparency, individualization, recognition, respect, dignity and choice in all matters, without exception, related to one's person, circumstances and relationships in health care."

With this in mind, the primary responsibility of the CLP in the future will be to report on quality data (CP3R), National Cancer Data Base (NCDB) benchmark data and NCDB survival reports to the Cancer Committee four times a year. In this way, the leaders of Legacy Cancer Services will be constantly reminded of what it is we are really trying to do — that is cure patients of cancer if possible, and if not, to ensure that they enjoy a quality of life that we would wish upon our own family members. In my opinion, it is not enough for us to provide care that meets national standards for overall and disease-free survival — we must exceed these standards!

Since this annual report is dedicated to head and neck cancer (and I am a head and neck surgeon) it is with great pride that I am able to report favorable five-year NCDB data for Comprehensive Community Cancer Centers. This is particularly true for Stage IV disease, where our five-year survival outcomes are a full 10 percentage points over the national average. These data are indicative of the commitment to multimodal therapy and multidisciplinary care that is present at Legacy Health and point to a bright future in the ongoing fight against cancer.

Quality outcomes through continuous quality monitoring

By Katherine T. Morris, M.D., FACS, Chair, Cancer Quality Council, and Bethany Carey, MPH

To provide the best clinical care and achieve the highest level of patient satisfaction, all health care professionals within Legacy Cancer Services focus on improving the quality of our programs through continuous quality monitoring. As an American College of Surgeons accredited Network Cancer Program, we participate in national, regional and program-specific quality improvement initiatives to ensure we continue to provide the highest level of care. The most recent data from 2007 Cancer Program Practice Profile Reports (CP3R) illustrates our commitment to excellence as we are exceeding our state, region and nationally in all areas for breast, colon and rectum.

Additionally, we participate in the Surgical Care and Outcomes Assessment Program (SCOAP), Surgical Care Improvement Project (SCIP) and Patient Voice as well as working within our departments to develop data-driven quality plans each fiscal year.

In 2009, the radiation oncology team at Legacy Salmon Creek Medical Center identified a need to provide seamless coordination of care to ensure head & neck cancer patients undergoing radiation therapy would have their nutritional needs met during and after treatment. The R.N., social worker and radiation oncologist worked with speech pathologists to develop a referral process and identify specific swallowing concerns.

As a result, Legacy Salmon Creek Medical Center Radiation Oncology developed a protocol where the radiation oncologist will order a surgical consult for feeding tube placement and a dietary consult for nutritional needs. Additionally, cancer rehabilitation therapists identified a need to address the post-op needs of laryngectomy patients by developing a system-wide protocol to be followed when a laryngectomy patient is identified. With this protocol now implemented at all of our centers, the plan is to monitor these patients to see if there are improvements in their nutritional status and if they are satisfied with their overall quality of life.

Legacy Health is continuing to build its leadership role in community biorepositories (tumor banking) by partnering with a new foundation, the Treva Hoffman Foundation. Together we are developing the resources to provide patients in rural communities the ability to donate their tumors for research as opposed to having them incinerated after pathology procedures are finished. We are poised to be the central collection and processing site for a statewide tumor bank initiative. This project builds on Legacy

Legacy Health, Portland, Ore.
Cancer Program Practice Profile Reports (CP3R) for breast, colon and rectal cancers: 2004–08 diagnoses

		Estimated performance rates						
	Select breast and colorectal measures	2004	2005	2006	2007	2008	Oregon CoC programs	All CoC programs
Breast	Radiation therapy is administered within one year (365 days) of diagnosis for women under age 70 receiving breast conserving surgery for breast cancer. [BCS/RT]	93.8%	95.3%	96.5%	98%	99.1%	87.6%	77%
	Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1c N0 M0; or Stage II or III ERA and PRA negative breast cancer. [MAC]	100%	94.3%	92.6%	100%	100%	87.4%	77.2%
	Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1c N0 M0; or Stage II or III ERA and/or PR wA positive breast cancer. [HT]	91.2%	93%	97.5%	94.4%	99.3%	78.3%	62.7%
Colon	Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer. [ACT]	100%	100%	100%	100%	100%	96.8%	80.6%
	At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer. [12RLN]	59.7%	40.5%	45.5%	77.8%	81.4%	72.3%	79.6%
Rectum	Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 or with clinical or pathologic AJCC T4 N0 M0 or Stage III receiving surgical resection for rectal cancer. [AdjRT]	100%	100%	100%	100%	100%	86.3%	85.5%

Health's commitment to furthering cancer care and research in the community and country. Our outstanding program continues to evolve and build on the most current NCI best practices, as well as developing new models for the saving of specimens from community hospital settings — which should occur soon. This unique program is being run as a partnership between the Treva Hoffman Foundation and the Legacy Health Foundations and will be among the first statewide networks in the country. The partnership is completed by involvement from the Lions Clubs, who have committed to transport the specimens. While a complex and challenging process, our patients agree we cannot wait any longer to do this. With the help of Legacy Health, the Treva Hoffman Foundation and the Lions Clubs of Oregon, we are finished waiting.

The role of the speech language pathologist with head and neck cancer patients

By Ilyse Ring M.S., CCC-SLP, and Michelle Stewart, M.A., CCC-SLP

The speech language pathologist (SLP) plays an integral role in the comprehensive management of the head and neck cancer patient that includes balancing disease eradication, function preservation and quality of life. Our goals are to maximize post-treatment function and to facilitate quality of life.

The relationship between the patient and SLP often begins prior to treatment initiation at a preoperative or pretreatment visit. The clinician provides education to the patient and family regarding the planned intervention, potential effects on swallowing and communication as well as therapy interventions. Depending on the tumor location, size and invasion status, a baseline swallow measure may be completed at this visit. It is during this visit that the patient has the opportunity to ask questions, thus establishing the initial clinician-patient rapport.

Therapy intervention in the acute phase of recovery usually begins any number of days following surgery. If the patient has had a tracheostomy placed, the SLP's first job is to work with the respiratory therapist and medical team to initiate the weaning process. Throughout the progression to remove the tracheostomy tube, the patient's ability to manage their secretions and protect their airway is assessed by the SLP.

As appropriate, the patient's swallow function is evaluated. Swallowing assessment may include clinical swallow evaluation or more objective measures such as the modified barium swallow study (MBS) or fiberoptic endoscopic evaluation of swallowing (FEES). These instrumental assessments offer a view of anatomical surgical changes and the subsequent impact of both surgical and nonsurgical interventions on swallow function.

Throughout, the SLP is working closely with the patient and family on functional and effective communication. The patient may be able to wear a one-way speaking valve for normalized verbal speech. If the patient is unable to tolerate a speaking valve, the SLP will provide facilitation in an appropriate nonverbal communication modality. Patients who have undergone total or partial glossectomy, or who have intra-oral flaps, will be instructed in strategies to maximize their articulation and improve their speech intelligibility. Patients who have undergone total or partial laryngectomy will be educated about the potential appropriate verbal communication options such as the electrolarynx.

Prior to discharge home from the hospital, the patient is provided with referrals as indicated to outpatient therapy, and to the head and neck support group. The SLP encourages and supports them in the next step of the rehabilitation continuum.

Outpatient rehabilitation of the head and neck cancer patient

The role of the outpatient SLP is to continue to educate and manage the ongoing changes in swallow function and/or communication in the head/neck cancer patient and include family training. The SLP continues to work as an integral part of the cancer rehabilitation team.

For non-surgical patients, the outpatient SLP referral may be the first introduction to rehabilitation. The best and most efficient treatment plan can be developed if the patient is seen before chemo/radiation treatment is initiated.

Patients will undergo clinical and/or instrumental swallow assessments, aforementioned, upon admission and during treatment. Focus of swallowing treatment will be on education and management of the effects of chemo/radiation treatment such as xerostomia, reflux, trismus, submucosal fibrosis, mucositis, pain, altered taste/sensation, muscle weakness as well as swallowing changes due to altered anatomy with surgical patients.

The SLP's treatment plan may include training in oral pharyngeal and sensory exercises, use of the Therabite jaw motion rehabilitation system, compensatory safe swallow strategies and recommendations for food texture changes to ease and maintain swallow function during medical treatment. For patients with tube feeding, the SLP will work in close conjunction with the dietitian to maintain the patient's weight, increase oral intake and decrease tube dependence. The overall goal is to maintain swallow safety, weight and quality of life while avoiding muscle deconditioning.

The outpatient SLP will continue to address functional communication with the patient and family. Management of the speaking valve, stoma care, use of an electrolarynx, augmentative communication device or oral facilitative exercises and compensatory speech strategies can be the focus. Patients with reduced vocal function may need training in vocal hygiene, voice conservation or remediation. Those with velopharyngeal insufficiency will be trained in velopharyngeal exercises with recommendation for a referral to a prosthodontist for an obturator if appropriate.

Legacy Health speech language pathologists include, in front from left: Cara Schmitt, M.S.,CCC-SLP; Karen Garrett, P.T., CLT-LANA; Sarah LaVenture, OT/L, CLT-LANA; and Sandy Kirchner, P.T., CLT-LANA. Back row, from left: Daria Gray, M.S., CCC-SLP; Laura Evans, P.T., CLT-LANA; Cyd Dashkoff, M.S., P.T., CSLT; and Michelle Stewart MA CCC-SLP. Missing from photo are Ilyse Ring, M.S., CCC-SLP, and Gayla Iwata-Reuyl, Ph.D., CCC,-SLP.

The SLP will follow the patient throughout their course of medical treatment and beyond. Therapy provision is individualized per the patient's degree of medical intervention and the impact on the patient. The patient's swallow and communication status can be monitored via phone contact after the initial evaluation. Visits are planned per the patient's level of endurance. As cancer rehabilitation professionals, we pay close attention to the patient's individual needs, priorities and tailor our treatment plans to best meet the patient's goals. Standardized quality of life measures are taken before, during and after treatment concludes. Our overall focus is always on maintaining health, safety and most importantly, quality of life.

Cancer clinical research

By Leslie Sorenson, Supervisor, Oncology Clinical Research

Head and neck cancers account for approximately six percent of all malignancies in the United States. Our nation spends approximately $3.2 billion annually in the treatment of this disease.

The National Cancer Institute (NCI) supports translational research and clinical trials involving head and neck cancer. These trials are designed to find effective treatments for head and neck cancers, as well as discovering new ways to improve and manage treatment of side effects. Many head and neck cancer patients participate in these types of trials, making possible the development of new treatment options, which consequently improve the overall survival and the quality of life of other patients with head and neck cancers.

Legacy Health is proud to offer clinical trials in collaboration with physicians, cooperative research groups, the NCI and pharmaceutical and medical device companies. These collaborations give Legacy Health the opportunity to provide the most advanced treatment options to you and to our community.

One physician collaborative study that is currently underway at Legacy Health is the head and neck sentinel lymph node study, coordinated by Bryan Bell, M.D. and his associates, who have been looking at the role of sentinel lymph node biopsy in the head and neck surgical population. Selective neck dissection is currently the standard of care for patients with all but the smallest and most superficial of oral cancers. However, this is only beneficial in the clinically node negative patient when tumor is found on pathologic evaluation of the specimen, which then allows for early removal of metastatic disease and accurate staging information from which to base adjuvant therapy. Unfortunately, this approach has led to unnecessary neck dissection in 65 percent to 75 percent of patients with early stage oral squamous cell carcinoma. Sentinel lymph node biopsy is a minimally invasive technique that is currently under investigation for staging of head and neck cancer and offers the potential of reducing the morbidity associated with selective neck dissection. Results of their preliminary investigation suggest that it is efficacious for the identification of sentinel lymph nodes, that it is capable of detecting occult metastasis and that it accurately predicts the status of the lymphatic basins draining the primary tumor. To date, 17 patients have been enrolled in this study.

Cancer clinical staff members include, from left in front: Fernando Carrillo, clinical research nurse coordinator, Crystal Hazen, CRC-II, Alayne Lehman, manager, Samantha Hancock, clinical research nurse coordinator, From left in back: Amy McDonald, pediatric coordinator, Aaron White, CRC-II,Leslie Sorenson, supervisor, Armando Martinez, pediatric coordinator, Jeremy Douglas, CRC-I.

If you would like additional information about research trials or you would like to participate in one of our studies, please call our Oncology Clinical Research Department at 503-413-8199 or visit us at www.legacyhealth.org.

Cancer survivorship

By Reza Antoszewska, ANP-C, Cancer Healing Center

In July of 2009, the cancer survivorship service at Legacy Good Samaritan Medical Center opened to adult cancer survivors. Through the support of the Good Samaritan Foundation, the survivorship program was created. Patient survivorship concerns are now being met through referrals to our nurse practitioner. The role of the adult nurse practitioner is to provide follow-up care at the conclusion of the cancer patient's active treatment.

The need for a comprehensive plan documented through the Institute of Medicine report on cancer survivorship in 2005 caught the attention of multiple organizations serving the cancer population, including American Society of Clinical Oncology (ASCO) and the National Comprehensive Cancer Network (NCCN).

The cancer survivorship service offers a unique opportunity for a comprehensive one-on-one creation of an individualized plan of survivorship care, the prescription for survivorship success. This includes:

- Addressing symptoms that remain after cancer and its treatment through direct care or referrals.
- Developing a unique lifestyle plan to help the patient meet their personal post- treatment goals, optimize health and pave the way to a healthy future.
- Helping locate and refer to services, classes or other activities that can help the patient to restore, promote and maintain their health.
- Communicating with oncologists, primary care providers and other team members, when needed, to help the care run smoothly.
- Interventions and planning that incorporate each patient's values, beliefs, resources and abilities into a balanced life plan.

For those who are interested in integrative care, our nurse practitioner can provide some integrative services directly and can refer to providers at Legacy and the larger community to provide a full personalized plan for the patient's health and well-being.

The nurse practitioner works in coordination with an array of skilled cancer practitioners from Legacy Cancer Services and the community to provide a comprehensive program to meet the individualized needs of the cancer patient. Responses from patients and physician have been overwhelmingly positive. "I'm so glad you're here" is a remark heard frequently at the completion of a patient visit to this program.

Referrals to the nurse practitioner can be made by physicians, allied health or via self-referral by patients by calling 503-413-6550.

Community involvement 2009

Participation in Community Events

February — Breast Cancer Issues (Komen for the Cure)
May — Making Strides Walk (American Cancer Society)
— Familia, Salud and Vida: Hispanic Health Fair
June–July — Relay for Life (American Cancer Society)
September — Celebration of Courage (Children's Cancer Association)
— Race for the Cure and Komen Health Expo
October — "Light the Night" Walk (Leukemia & Lymphoma Society)
— Saks Fifth Avenue Key to the Cure

Public Education Talks /Activities

March — Super Colon display (GSMC)
— Colorectal Cancer: Preventable, Treatable, Beatable! (GSMC)
— Colon Cancer Awareness/Early Detection (MPMC)
May — Treatment Options for GYN Cancers (GSMC)
— Breast Health Center Education Event (GSMC)
June — Cancer Survivors' Day (GSMC)
July — New Frontiers in Prostate Health (Lincoln City)
August — New Frontiers in Prostate Health (McMinnville)
October — Issues Surrounding Prostate Cancer (SW Portland)
— Coping with Childhood Cancer (EMC)

As a component of the Prostate Cancer Center at Good Samaritan, multiple community outreach talks were presented to groups in Portland and throughout Oregon, focusing on prostate cancer screening and treatment options.

Screening Events

February — Men's Wellness and Screening Event: Prostate, Heart Health and Stroke Risk (EMC)
May — Skin Cancer Screening (with Providence and OHSU) (EMC)
October — African American Wellness Village, prostate and colorectal screening (N.E. Portland)

Ongoing low-cost screening mammograms, in conjunction with the Komen for the Cure, at Legacy Good Samaritan, Emanuel, Mount Hood and Meridian Park medical centers and Legacy Medical Group–St. Helens

Ongoing Support Groups

- Bereavement Groups
- Brain Tumor Support Group
- Breast Cancer Support Groups
- Gynecological Cancer Support Group
- Head & Neck Cancer Support Group
- Lymphedema Support Group
- Prostate Cancer Support Group
- Surviving Cancer Together Support Groups

Education and Movement Groups/Classes

- Art/expressive arts therapy for children of parents with cancer
- Expressions of Healing
- KIDZ in the Discovery Zone art workshop
- Meditation for cancer patients
- Nia mind/body exercise classes for individuals with cancer
- Nutrition, Exercise and Cancer
- T'ai Chi for Healing
- Words and Images — Creative expression of your cancer experience
- Yoga for individuals with cancer

Oregon Partnership for Cancer Control

The Oregon Partnership for Cancer Control is a statewide collaboration of individuals and organizations with a commitment to reducing the burden of cancer in our state. Legacy Cancer Services continues to be involved, represented by Selma Annala, member of the Coordinating Committee and Chair of the Treatment and Quality of Life Workgroup; Terry Wagie, member of the Treatment and Quality Workgroup; and Charlyn Wilson, member of the Prevention and Early Detection Workgroup and co-chair of the Colorectal Health Task Force.

Professional education activities 2009

Conferences and Courses

January — Nursing Annual Stem Cell Transplant Conference: Developing Best Practices; 64 participants, 4.8 hours

February — 26th Annual Seminar for Radiation Oncology Professionals; 63 participants, 6 hours

April — Stem Cell Transplantation: Achieving Best Outcomes for Our Patients: Updates in Care; 59 participants, 4.5 hours

April — Third Annual Controversies in Gastrointestinal Malignancies; 67 participants, 5 hours

April — ONS Chemotherapy and Biotherapy course; 18 participants, 13.5 hours

July — Technological Advances in Head and Neck Oncology and Cranio-Maxillofacial Surgery; 244 participants, 23.5 hours

October — Fifth Annual Pacific NW Excellence in Breast Care; 161 participants, 5 hours

Legacy Good Samaritan Oncology Grand Rounds (CME)

- Evolution of the Current Treatment for Rectal Cancer
- Surgical Management of Lung Cancer
- Stereotactic Body Radiation Therapy
- Challenges of Glioblastoma Multiforme Treatment
- State of the Art Management of Chronic Myeloid Leukemia
- Technological Advances in Head and Neck Oncology
- Precursors to Serous Carcinoma in the Female Genital Tract and Their Clinical Implications
- Inflammatory Breast Cancer: Clinical and Molecular Advances in Diagnosis and Treatment
- Optimizing Outcomes after Radical Prostatectomy

Legacy Good Samaritan Integrative Oncology Grand Rounds (CME)

- Nutrition and Cancer: What our patients want to know

Legacy Meridian Park Oncology Grand Rounds (CME)

- What's New in Benign and Malignant Hematology: ASCO Highlights
- Prostate Cancer and Surgical Treatment
- Current Surgical Options for Rectal Cancer

Legacy Meridian Park PCP Forum (CME)

- Non-Prostate GI Robotic Surgery
- Current Trends in Breast Imaging and Care
- Update on Management of Hepatobiliary Malignancies

Legacy Mount Hood Oncology Grand Rounds (CME)

- Understanding Palliative Care

Legacy Salmon Creek Oncology Grand Rounds (CME)

- New Treatment Options for Hepatocellular Carcinoma (at Medical Grand Rounds)

Lunch & Learn Presentations

- Interventional Radiology — presented at two Legacy Medical Group locations
- Hereditary Breast Cancer: It's Not All BRCA 1 & 2 — presented for staff at Columbia Memorial Hospital, Astoria
- Breast Imaging and Care — presented at three Legacy Medical Group locations
- Breast Cancer and Treatment — presented at Legacy Medical Group–Battle Ground
- Healing Center/Survivorship Program — presented to various Legacy departments and two community agencies
- Management of Prostate Cancer through Diagnosis and Treatment — presented at four Legacy Medical Group locations and two community clinics

Publications 2009

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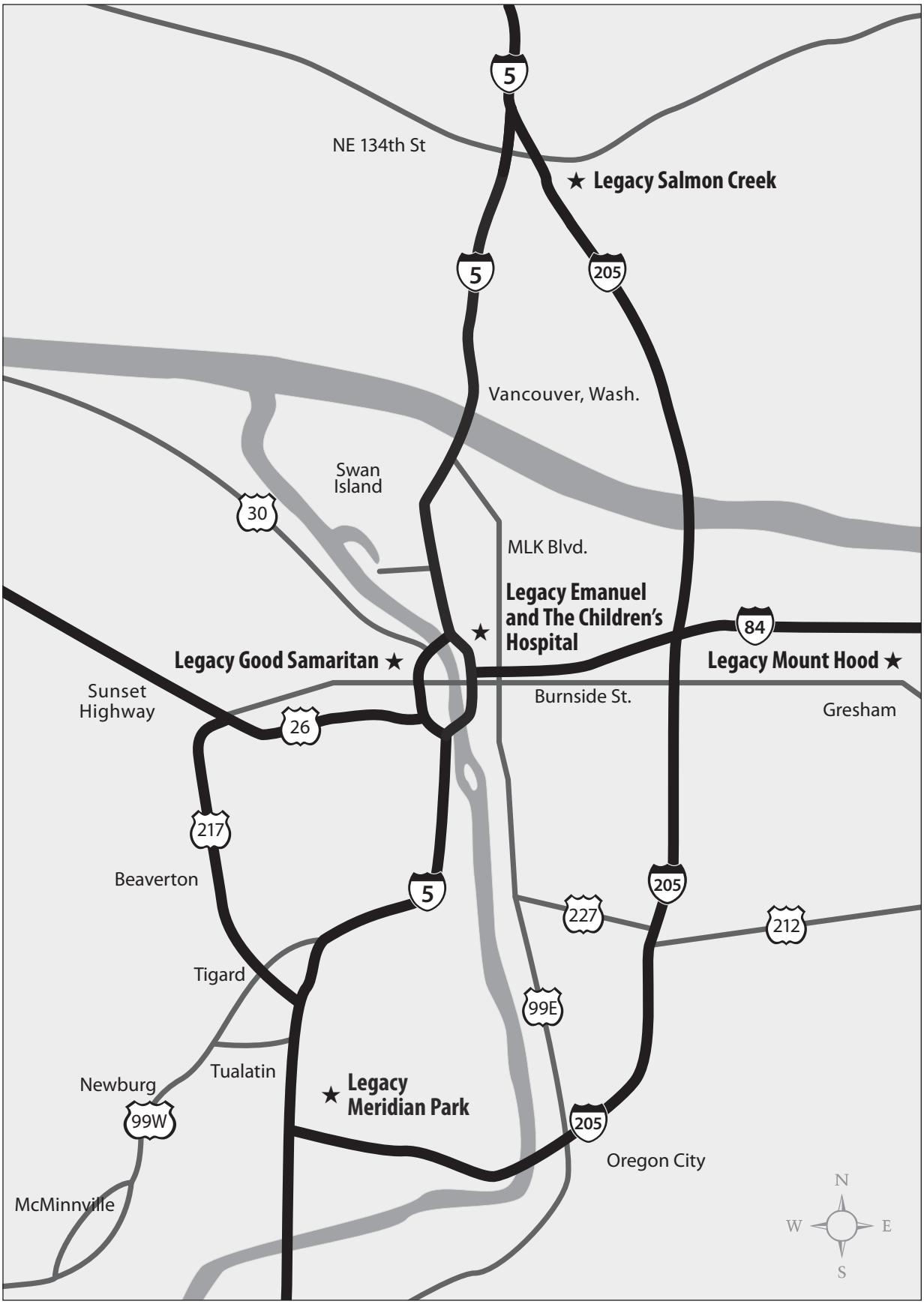
Legacy Health 2009 Network Cancer Committee Members

Selma Annala, R.T., CLC, Supervisor, Legacy Cancer Healing Center
R. Bryan Bell, M.D., DDS, FACS, Head & Neck Surgeon, Cancer Committee Chair and Cancer Liaison Physician
Jason Bauer, M.D., Interventional Radiologist
Hollis Brown, RHIT, Manager, Legacy Cancer Data Management
Diane Buelt, Director, Legacy Salmon Creek Clinical and Support Services
Bethany Carey, MPH, Legacy Cancer Services Quality Consultant
Jefferson Chen, M.D., FACS, Neurosurgeon
Andrew Cox, M.D., Diagnostic Radiologist
Kristy Dobrauc, Outreach Coordinator, Legacy Cancer Services
Kelly Doherty, Manager, Legacy Emanuel/Legacy Good Samaritan Radiation Oncology
Barbara Farmer, Manager, Legacy Hospice Services
Joseph Frankhouse, M.D., FACS, General Surgeon
Julie Goodwin, Director, Legacy Meridian Park Clinical and Support Services
Leah Grotzinger, PharmD, Legacy Emanuel/Legacy Good Samaritan Pharmacist
Keith Hansen, M.D., FACP, Medical Oncologist, Medical Director, Autologous Stem Cell Transplant Program; Cancer Committee Chair, Legacy Good Samaritan
Lisa Hansen, R.N., AOCN, Coordinator, Autologous Stem Cell Transplant Program, Legacy Good Samaritan
Kate Jaramillo, Chaplain, Legacy Good Samaritan
Kathleen Johnson, Manager, Legacy Mount Hood Rehabilitation Services and Radiation Oncology
Nathalie Johnson, M.D., FACS, Breast Surgeon; Medical Director Legacy Cancer Services and Legacy Breast Health Centers
Michael Kaempf, M.D., FACS, Urologist
Laurie Kennedy, Manager, Legacy Salmon Creek Rehabilitation Services and Radiation Oncology
Leah Kiesow, CTR, MBA, Supervisor, Legacy Cancer Data Management
Pamela Kilmurray, Director, Legacy Cancer, Rehabilitation, Imaging, Stroke and Hospice Services
Misa Lee, M.D., Radiation Oncologist
Alayne Lehman, Manager, Legacy Clinical Research
Katherine Leonard, Ph.D., Psychologist
Richard Lex, R.N., Manager, Legacy Good Samaritan Cancer Services
Bruce Lowe, M.D., Urologist
Anthony Melaragno, M.D., Chief Administrative Officer, Legacy Good Samaritan
Katherine Morris, M.D., FACS, Surgical Oncologist, Medical Director, Cancer Research and Hepatic, Biliary and Pancreatic Program
Dane Moseson, M.D., FACS, General Surgeon
Joanne Nelson, M.D., FACS, General Surgeon
Janice Olson, M.D., Pediatric Oncologist, Medical Director, Legacy Children's Cancer and Blood Disorders Program
Dan Osborn, BSW, ACS Patient Care Navigator
Kevin Oyama, M.D., Pathologist
Alexandra Penney, R.N., Manager, Legacy Salmon Creek Medical/Oncology Unit
Marci Reed, R.D., Dietitian, Legacy Cancer Services
Kelly Rice, Pharmacist, Legacy Good Samaritan
Deborah Shardy, M.D., Pediatric Oncologist, Legacy Children's Cancer and Blood Disorders Program
Mark Schray, M.D., Radiation Oncologist, Medical Director, Legacy Radiation Oncology
Anne Smith-Sehdev, M.D., Pathologist
Leslie Sorenson, Supervisor, Legacy Cancer Research
Susan Swanson, LCSW, Legacy Good Samaritan Social Services
Derek Taylor, M.D., Gastroenterologist
Terry Wagie, R.N., M.S., Clinical Nurse Specialist, Legacy Cancer Services
Jianzhou Wang, M.D., Pathologist
Craig Weintz, Manager, Legacy Hopewell House Hospice
Gail Weisgerber, Manager, Legacy Good Samaritan Rehabilitation Services
Robin Weisshaar, Manager, Legacy Good Samaritan/ Legacy Meridian Park Social Services
Amanda Wheeler, M.D., Breast Surgeon
Jocelyn White, M.D., FAAHPM, FACP, FAAPP, Medical Director, Legacy Palliative Care and Hospice Program
Mark Whiteford, M.D., FACS, Colorectal Surgeon
Charlyn Wilson, R.N., Clinical Coordinator, Legacy Cancer Services
Vina Winters, R.N., OCN, Supervisor, Legacy Good Samaritan Day Treatment Infusion Unit

Subcommittees of the Network Cancer Committee

Cancer Data Management Quality Council
Cancer Research Committee
Cancer Services Quality Advisory Council
Colorectal Cancer Center of Excellence Committee
Legacy Good Samaritan Breast Health Leadership
Healing Center Quality Committee
Hepatobiliary/Pancreatic Program
Integrative Cancer Care Advisory Committee
IV Standards Committee
Legacy Meridian Park Breast Health Center Model
Prostate Program Development
Public/Professional Education Council
Radiation Oncology Quality Council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Legacy Emanuel
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Legacy Mount Hood
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Beaverton
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Newburg
Legacy
Meridian Park
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Oregon City
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