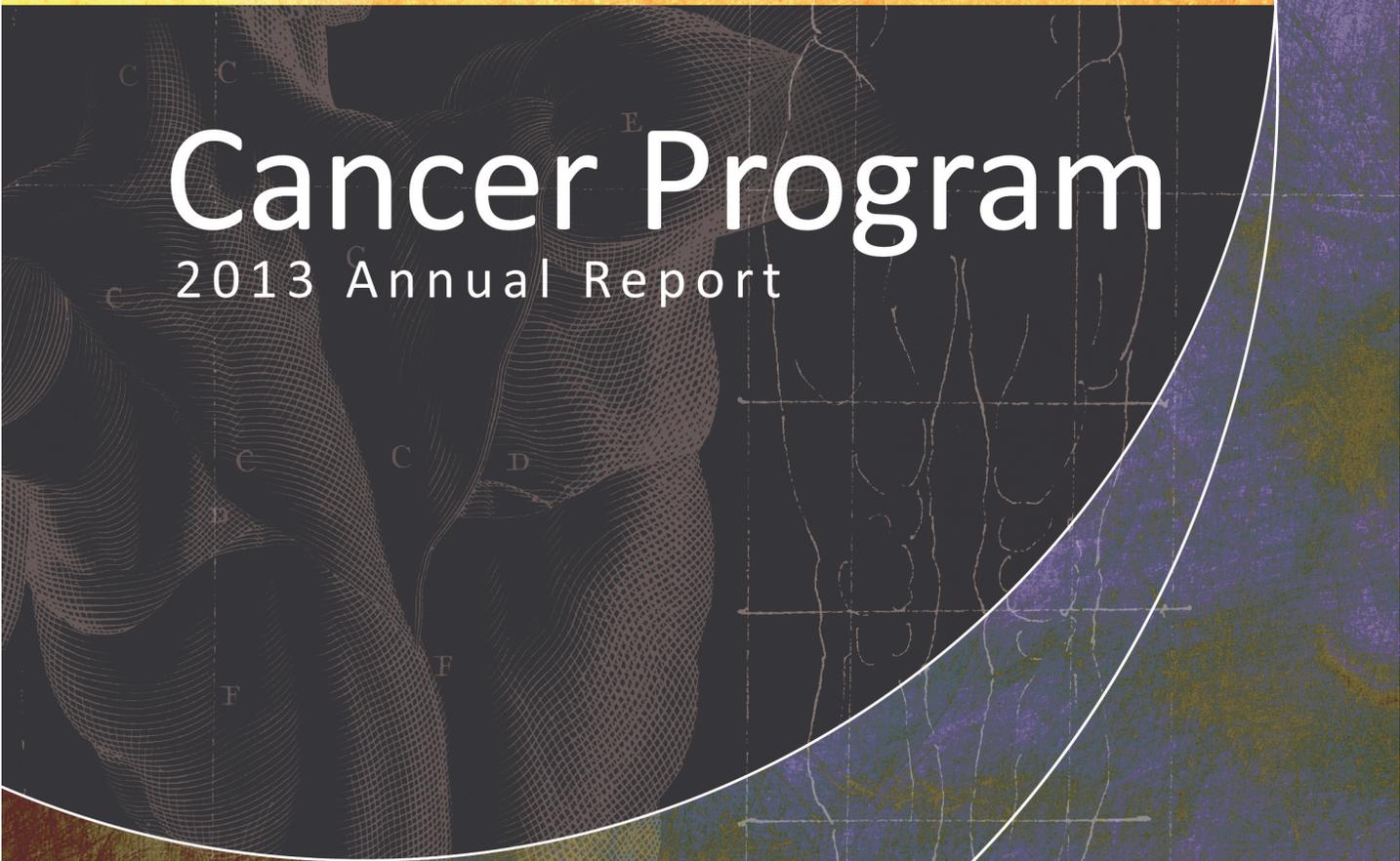


VA Puget Sound Health Care System



Cancer Program

2013 Annual Report

Chairman's Message

Peter C. Wu, M.D.

The mission of the VA Puget Sound Cancer Care Program is to provide excellent and compassionate care to our Veteran patients diagnosed with cancer. With a caseload of nearly 1,000 new cancer patients seen over the past year, our center ranks among the most comprehensive VA cancer referral facilities in the United States.

Among several milestones achieved this year, the VA Puget Sound Cancer Care Program has joined other VISN20 programs on a Cancer Care Platform initiative including funding and staff positions to create a Cancer Care Navigator team that will greatly enhance our ability to track and facilitate patient care distributed across our vast region. The Puget Sound and Durham VA cancer programs have been selected as the 2 national sites to beta test a new computerized chemotherapy management system that is designed to enhance outpatient clinic efficiency and increase patient safety. A multidisciplinary clinic has also been piloted this year to provide patients a single outpatient appointment to receive a combined medical and surgical oncology evaluation which benefits patients and their families traveling long distances and shortens time to treatment.

One of the major goals of our cancer program is the implementation of innovative programs to help Veterans with cancers. Among these is the VAPSHCS Telemedicine Tumor Board (TTB), which provides support to sites across the VISN20 including Spokane, Walla Walla, Boise, and Anchorage VA systems. Patient cases are reviewed via teleconference equipped with remote pathology and radiology viewing capabilities. The TTB greatly facilitates inter-facility consultations and extends multidisciplinary care to remote sites. The clinical research program at our center continues to thrive. Our program currently enrolls 46% of cancer patient referrals into 43 active clinical trials covering nearly all organ sites. These protocols not only contribute to the science of cancer, but also provide our patients with novel up-to-date treatment options.

This year also recognizes the retirement of Dr. William Schubach, Chief of Oncology, who has provided 20 years of exceptional leadership and mentorship at the VAPSHCS. Following graduation from Stanford University with a BA in Philosophy in 1966, he received a Ph.D. in Biology from UC Santa Cruz and M.D. from the Columbia University College of Physicians and Surgeons in 1974. He then completed his residency in Internal Medicine at the University of Washington and fellowship in Oncology and Hematology at the UW/Fred Hutchinson Cancer Research Center. He became a nationally recognized researcher during faculty appointments at the University of Minnesota and SUNY Stony Brook and was fortunately recruited back to Seattle in 1993 to provide leadership in the UW fellowship program and appointed Director of the VA Oncology Section. Under his stewardship, the VA Cancer Program was recognized by the Commission on Cancer in 2009 as the only VA facility in the country to achieve its highest level of distinction. He has also served as Director of Fellow Recruitment for the University of Washington and has trained countless aspiring clinicians and



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has personally mentored numerous oncology fellows and junior faculty to successful academic careers. We cannot express enough our sincere gratitude and appreciation for his service and leadership.

The 2013 Annual Report highlights the wide-range of services offered within the VA Puget Sound Cancer Program and recognizes the important contributions from all service lines and departments. We thank our local and regional VA leadership for their continued support of the Cancer Care Program and continue to strive to provide the highest quality cancer care for our nation's veterans.

Cancer Registry Report

Sudarshana Das, Cancer Program Manager & Cancer Registrar

National Cancer Act 1971, Cancer Registries Amendment Act 1992 mandates collection and reporting of reportable cancer cases to national databases such as CDC, SEER, COC-NCDB, NAACCR, State, VACCR, etc for research, statistical, outcome measurement and numerous other purposes. Cancer/Tumor Registries perform this function and are an important component of quality cancer care

VAPSHCS Cancer Registry

The Cancer Registry at the VA Puget Sound Health Care System (VAPSHCS) is currently staffed by a team of NCRA-certified CTRs who have specialized education & training for the purpose, including a facility-employed cancer program manager/cancer registrar,

and contract cancer registrars (Best Practices Group/Grace Registry Services). The Registry submits data on regular basis to various mandated national databases, including VA Central Cancer Registry (VACCR), Commission on Cancer-National Cancer Data Base (CoC-NCDB), Cancer Surveillance System (CSS- SEER registry) located at Fred Hutchinson Cancer Research Center for WA State reporting (DUA in place). In addition, it participates and provides data for special studies conducted at our facility, or at national level, NCDB patient care quality improvement studies as required, and for all other valid purposes as requested. All data submitted are aggregate data, and patient identifiers/confidential information are removed during data submission.

Usefulness of Cancer Registry Data

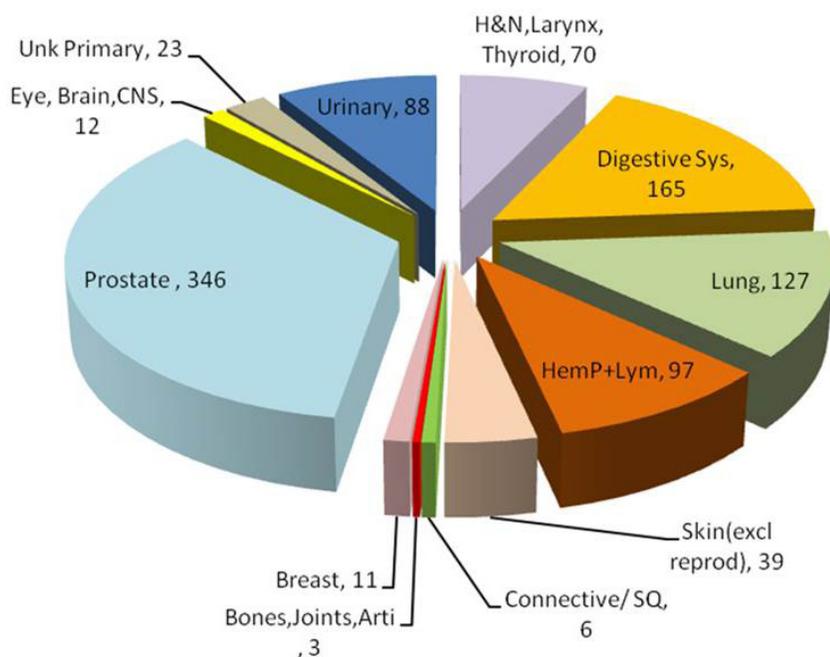
The VAPSHCS Registry has compiled a rich data-base comprising of diagnoses, staging, treatment, and outcome related information on over 13,000 cancer cases accessioned at our facility since 1998. All information is maintained following privacy and confidentiality rules, as required by law. The collected data is a vital contributor to cancer research and outcomes measurement, and an invaluable tool in the fight against cancer. Cancer Registry Data is also useful for analyzing patterns of care and quality of care, evaluating the effectiveness of current treatment modalities, developing educational programs, early detection/screening cancer programs, and can help leadership in making informed decisions for hospital expansion, resource allocation and other business purposes. Some examples of the usefulness of registry data can be seen in the data and graphs below.

Select 2012 Cancer Data from VAPSHCS Cancer Registry Database

In 2012, 867 analytic cases of cancer, and 130 non-analytic cases, for a total of 997 cancer cases were accessioned into the cancer registry database. Of the total cases, 968 were male and 29 were female.

(Continued on next page)

VAPSHCS ANNUAL CANCER CASELOAD 2012

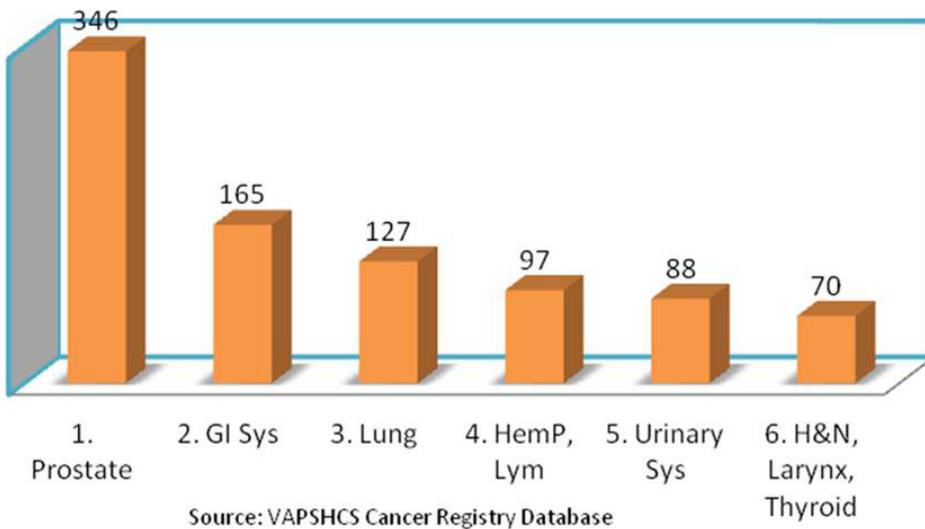


Source: VAPSHCS Cancer Registry Database

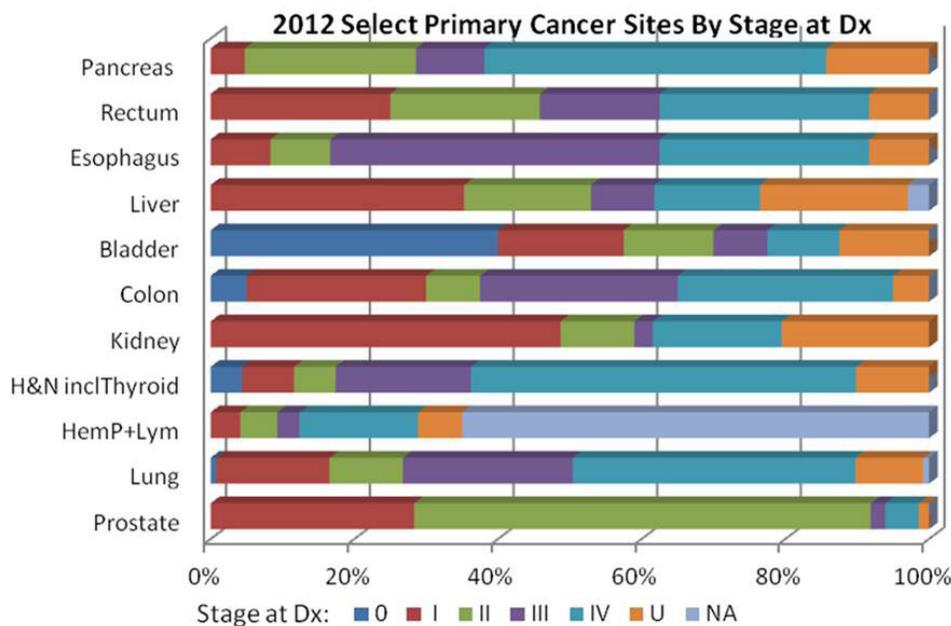
Cancer Registry Report (Continued)

The top cancer primary sites seen at our facility in 2012 were Prostate, GI, Lung, Hematopoietic & Lymphomas, Urinary, and Head & neck system.

TOP PRIMARY CANCER SITES 2012



570 of the total cases were diagnosed and treated at VAPSHCS and 413 cases were diagnosed elsewhere and referred to us for treatment, in 2012.



Glossary of Terms:

Abstract: a summary or abbreviated record that identifies, a cancer patient's disease process from time of diagnosis till patient's death including diagnosis, staging, cancer treatment. This forms the basis of a cancer registry.

Accession: to enter a reportable cancer case following national rules and guidelines into the registry database.

Analytic: Cancer patients diagnosed and/or received first course of treatment at VAPSHCS.

American College of Surgeons (ACoS): a professional organization of surgeons and physicians founded in 1913, which has supported standards for hospitals, formation of registries, and accredits quality cancer programs nationwide through its Commission on Cancer (CoC) accreditation.

Caseload: the number of new cancer cases annually entered into a registry

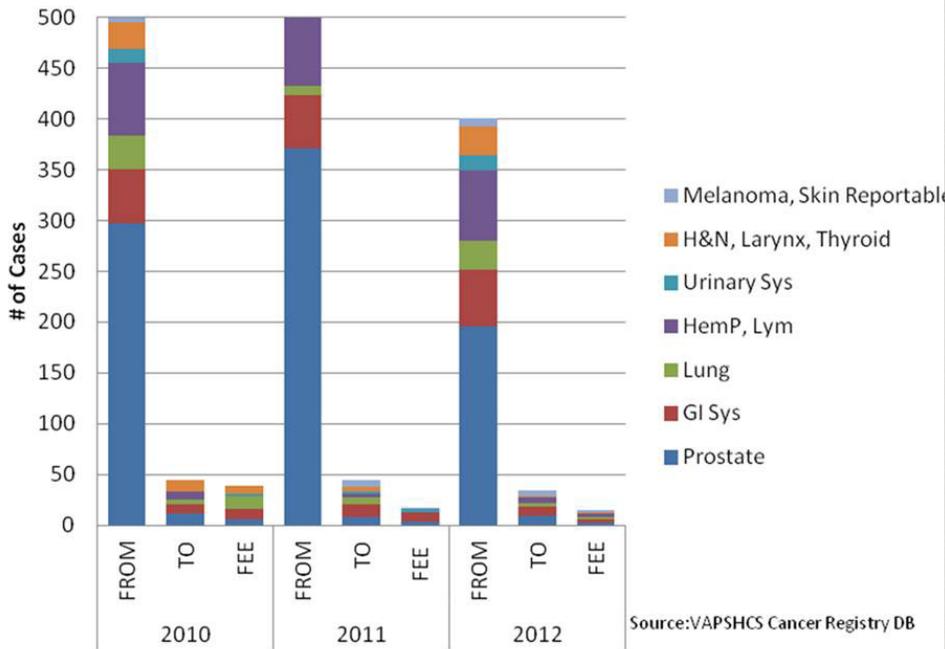
CDC: Centers for Disease Control and Prevention is a federal agency of the Department of Health and Human Services.

Certified Tumor Registrar (CTR): the credentials granted to a person who has passed the cancer registry certification examination by the NCRA, and signifies specialized knowledge and education for accurate collection, recording and analysis of cancer data into registry databases.

Commission on Cancer (CoC): a division of the ACoS, consisting of over professional organizations involved in cancer control and improving survival and quality of life for cancer patients through standard-setting, prevention, research, education, and monitoring of comprehensive quality care. CoC accredited cancer programs, such as VA Puget Sound Health Care System, signifies establishment of performance measures for provision of high-quality cancer care and is nationally recognized by JC (formerly JCAHO), ACS, CMS, NQF, NCI, to name a few.

CSS: Cancer Surveillance System collects population-based data on cancer

Referral Pattern of Select Cancer Sites



incidence and survival in 13 counties in western Washington State, and is part of the Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute (NCI).

DUA: Data Use Agreement, as required by VA national policies for sharing of data.

First Course of Treatment: Cancer directed treatment planned and administered, usually started within four months of diagnosis or as determined by the managing physician.

NCDB: National Cancer Database is a nationwide oncology outcomes database for more than 1,400 CoC-approved cancer programs in the United States and Puerto Rico. Approximately 75 percent of all newly diagnosed cases of cancer in the United States are captured at the institutional level and reported to the NCDB.

NCRA: National Cancer Registrars Association is a not-for-profit association with a primary focus of education and certification, representing Cancer Registry professionals and Certified Tumor Registrars (CTRs).

SEER: a federally funded consortium of population-based cancer registries, established by the National Cancer Act of 1971 to collect and publish information on cancer incidence, mortality, survival and trends over time in the US.

References:

1. VHA Privacy and Release of Information 2006, VHA Handbook 1605.1, <http://ww1.va.gov/vhapublications>
2. VA Central Office Cancer Program, <http://www1.va.gov/cancer/>
3. Commission on Cancer Cancer/ National Cancer Data Base: <http://www.facs.org/cancer/>
4. Previous Annual Reports
5. Cancer Registry Management Principles & practice, Hutchison, Menck, Et al.

(Continued on next page)

Cancer Program Annual Report

Cancer Registry Report (Continued)

PRIMARY SITE:	CASELOAD			MALE			FEMALE			STAGE AT DX						
	TOT	ANAL	NON	RACE			RACE			0	I	II	III	IV	U	NA
				Wh	B	Oth	W	B	Oth							
System: H&N, excl Larynx																
LIP	2	1	1	1		1				1				1		
TONGUE, BASE	9	9		7		1	1						2	7		
TONGUE, OTHER/NOS	6	5	1	4		2				1			2	3		
GUM	3	3		2		1				1	1			1		
FLOOR OF MOUTH	6	5	1	5		1				1		1	1	3		
PALATE	2	2		2						1				1		
OTHER/NOS MOUTH	1	1		1										1		
PAROTID GLAND	3	3		2		1								3		
MAJOR SALIVARY GLAND	1	1		1						1						
TONSIL	8	8		5	2	1					1			7		
OROPHARYNX	1	1		1										1		
NASOPHARYNX	1	1		1									1			
PYRIFORM SINUS	4	4		3		1							1	3		
HYPOPHARYNX	2	2		1	1								2			
OTHER LIP/ORAL	0															
SUBTOTAL	49	46	3	36	3	9	1	0	0	2	4	3	9	31	0	0
System: Digestive	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
ESOPHAGUS	26	25	1	20		5	1			2	2	11	7	2		
STOMACH	8	6	2	5	2	1				1	1	2	2	2		
SMALL INTESTINE	3	2	1	3						1		1	1			
COLON	40	34	6	29	3	8				2	10	3	11	12	2	
RECTOSIGMOID JUNC	3	3		2		1						1	1	1		
RECTUM	21	20	1	19	1	1				6	4	3	6	2		
ANUS/ANAL CANAL	2	2		2						2						
LIVER/INTRAHEPATIC BIL	34	32	2	24	4	5	1			12	6	3	5	7	1	
GALLBLADDER	1	1		1						1						
BILARY TRACT - OTHER/N	4	4		2	1		1				1	1	2			
PANCREAS	21	21		17	1		1	1	1	1	5	2	10	3		
OTHER-DIGESTIVE	2		2	2												2
SUBTOTAL	165	150	15	126	12	22	4	0	1	2	36	23	35	46	18	3
System: Respiratory	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
NASAL CAV, MIDDLE EAR																
ACCESS SINUSES	2	2		2										2		
LARYNX	12	11	1	9		3				1			4	6	1	
TRACHEA	1	1		1												1
LUNG/BRONCHUS	125	121	4	92	14	18	1			1	20	13	30	49	12	
THYMUS																
HEART/MEDIASTINUM/PL	1	1		1										1		
OTHER-RESP/INTRATH																
SUBTOTAL	141	136	5	105	14	21	1	0	0	2	20	13	34	58	13	1
Sys: Bones, Joints, Arti	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
BONES/JOINTS/ARTICUL	3	2	1	1	1				1		2					1
SUBTOTAL	3	2	1	1	1	0	0	1	0	0	2	0	0	0	0	1
System: HemP	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
HEMATOPOIETIC/RETICUL	62	40	22	41	9	7	3	1	1							62
SUBTOTAL	62	40	22	41	9	7	3	1	1	0	0	0	0	0	0	62
System: Lymph Nodes	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
LYMPH NODES	35	24	11	29	1	5					4	5	3	16	6	1
SUBTOTAL	35	24	11	29	1	5	0	0	0	0	4	5	3	16	6	1

Cancer Program Annual Report

System:Skin(excl reprod)	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
SKIN	39	32	7	34	1	1	3			2	8	6	7	3	13	
SUBTOTAL	39	32	7	34	1	1	3	0	0	2	8	6	7	3	13	0
System:Perph Nerv/ Auto	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
PERIPHERAL NERVES/AUT																
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
System:Retroperi	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
RETROPERI & PERI																
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
System:Connective/ SQ	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
CONNECTIVE/SUBQ	6	4	2	6							2		1	1	2	
SUBTOTAL	6	4	2	6	0	0	0	0	0	0	2	0	1	1	2	0
System:Breast ex skin	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
BREAST	11	7	4	1		1	7		2		4	4		1	1	
SUBTOTAL	11	7	4	1	0	1	7	0	2	0	4	4	0	1	1	0
System:FemGenital	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
VULVA	1		1				1			1						
VAGINA																
UTERUS																
OVARY																
PLACENTA																
SUBTOTAL	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
System:Male Genital	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
PENIS	2	2		2						1	1					
PROSTATE GLAND	346	304	42	238	51	57					98	220	7	16	5	
TESTIS	3	2	1	3								1			2	
MALE GENITALIA, OTHER	1	1		1								1				
SUBTOTAL	352	309	43	244	51	57	0	0	0	1	99	222	7	16	7	0
System:Urinary	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
KIDNEY	39	34	5	31	3	5					19	4	1	7	8	
RENAL PELVIS	4	4		4							1			1	2	
URETER	3	3		3							1			1	1	
BLADDER	42	37	5	33	1	8				16	7	5	3	4	5	
URINARY ORGANS-OTH																
SUBTOTAL	88	78	10	71	4	13	0	0	0	17	27	9	4	13	16	0
System:Eye/Brain/CNS	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
EYE/ADNEXA	4	3	1	4												4
MENINGES	2	2		2												2
BRAIN	6	4	2	4					1	1						6
SP CORD,CRANIAL NERVE																
SUBTOTAL	12	9	3	10	0	0	0	1	1	0	0	0	0	0	0	12
System:Thyroid/Endo	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
THYROID GLAND	9	7	2	7		1			1		1	1			6	
ADRENAL GLAND																
OTHER ENDOCRINE																
SUBTOTAL	9	7	2	7	0	1	0	0	1	0	1	1	0	0	6	0
System:ILL Defin	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
OTHER ILL-DEFINED SITE	1	1		1												1
SUBTOTAL	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
System:Unk Primary	TOT	ANAL	NON	Wh	Bl	Oth	W	B	Oth	0	I	II	III	IV	U	NA
UNKNOWN PRIMARY SITE	23	22	1	17	4	2										22
SUBTOTAL	23	22	1	17	4	2	0	0	0	0	0	0	0	0	0	22
TOTAL	997	867	130	729	100	139	20	3	6	27	207	286	100	185	82	103

Oncology Clinical Trials

2012 and from January through August 20, 2013

Jeannine Barton

Clinical trials in oncology are studies that test, and often compare, treatments in a specific group of patients with a given cancer. Clinical trials define and advance best treatments for patient care. Through some clinical trials, patients may also access novel drugs for treatment of their diseases. Cancer clinical trials are therefore a vital part of the care oncology patients receive at the VA Puget Sound.

VAPSHCS actively participates as a member institution of the Southwest Oncology Group (SWOG) and NCI-Clinical Trial Support Unit (CTSU). Cancer patients are also offered participation in the Fred Hutchinson Cancer Research Center (FHCRC) stem cell transplant protocols. In addition, cancer patients are offered participation in appropriate pharmaceutical industry-sponsored studies with novel therapies, as well as in-house protocols. Examples of VA supported pharmaceutical industry-sponsored studies include; chemotherapy combination regimens prior to stem cell transplantation and to reduce the risk of side effects from stem cell transplantation, preventative medications to reduce chemoradiotherapy side effects, advanced stage cancer treatment options, new chemotherapy treatment options for different types of cancers, and preventative vaccine studies in patients diagnosed with cancer.

Our commitment to clinical trials involves a multidisciplinary team of physicians including medical, radiation and surgical oncologists as well



as physicians of other surgical and medical subspecialties. Patients with head and neck, thoracic, gastrointestinal and hematologic malignancies are discussed at the multidisciplinary tumor board and are offered clinical trial participation by the oncology research staff. Patients are only referred to VA Puget Sound approved research studies. Stem-cell transplant patients are enrolled in sponsored protocols approved by the VA Puget Sound as a part of their routine clinical care. In 2012, 219% of all cancer patients at this institution elected to participate in clinical protocols. In 2013, 645% of all cancer patients at this institution elected to participate in clinical protocols.

Cancer Committee

Peter Wu, MD (Chair)

The Cancer Care Committee is comprised of representatives from each of the medical center specialties that participate in the care of cancer patients including the allied health departments involved in cancer-related supportive care. The Committee is charged with the establishment and maintenance of an accredited cancer program that assists patients and their families through the continuum of care.

The Cancer Care Committee is involved with the entire spectrum of cancer patient care and is responsible and accountable for all Cancer Care Program activities. Two major responsibilities of the committee are to oversee the Cancer Registry and the multidisciplinary Cancer Conference (Tumor Board). The Committee is also responsible for advising the Executive Committee and Cancer Care Program of any issues related to oncology practice standards as well as sponsoring investigational approaches to patient care.

The Committee leads the Cancer Care Program through goal-setting and implementation, evaluation, and improvement of cancer-related activities throughout the facility. The Committee establishes annual goals and monitors progress in the following categories: programmatic, quality improvement, and clinical care. During the past year, the Committee established and completed goals related to the areas of quality improvement, community outreach, and clinical improvement.

Tumor Board Activities

2012 and from January through August 2013

Stephanie Magone, Victoria Campa

The VA Puget Sound Health Care System Tumor Board is held every Wednesday from 1:00 p.m. to 2:00 p.m. in Building 100, Room BD-152. Tumor Boards provide clinical information, pathologic staging, and treatment recommendations for the patient's disease.

The Tumor Board is composed of a multidisciplinary group of attending physicians, fellows, residents, physician assistants, nurses, medical students, and other health care professionals. Staff representatives from Medical, Surgical, and Radiation Oncology act as discussants. All surgical subspecialties are represented. Images and micrographs are presented by staff physicians from Diagnostic Radiology and Pathology. The conference provides a forum to disseminate the most current information on cancer management. The discussants review data from current publications and determine eligibility of patients for cooperative group trials sponsored by the Southwest Oncology Group (SWOG) as well as in-house clinical trials. The conferences provide continuing medical education and provide a convenient forum for expeditious management decisions of complex patients.

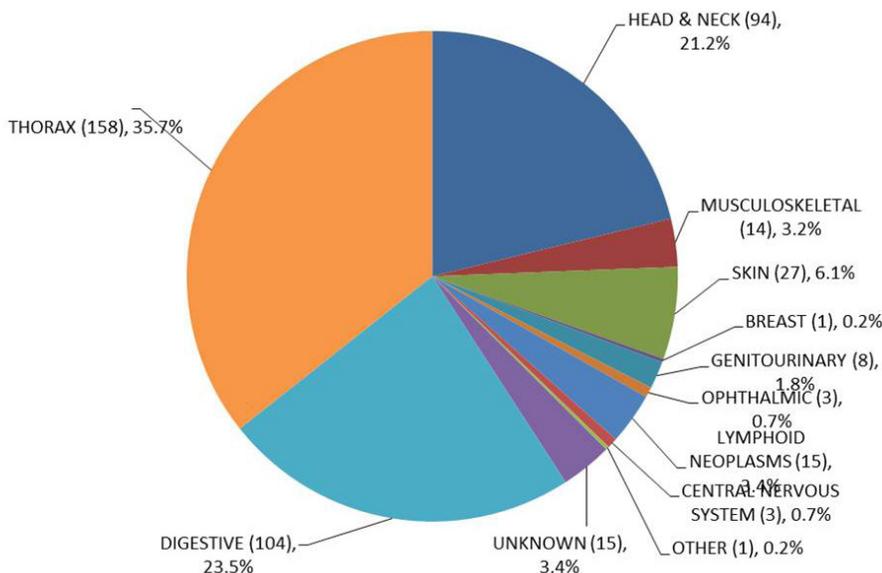
In 2012, there were 50 conferences for the year. All the major cancer sites were represented in the cases discussed. The average attendance at each conference was 25. Attendees can receive one credit hour continuing medical education category 1 per session, which can be applied toward re-licensure requirements in Washington State.

In 2013, there were 35 conferences, and a total of 265 cases from January to August. All the major cancer sites were represented in the cases discussed.

All requests for Tumor Board submission shall be ordered online in CPRS on the order tab. The requesting service must complete the consult template and include a reason for the request. All consult requests will be coordinated through Stephanie Magone, Tumor Board Coordinator, Oncology Section (Room 4D-117 or extension 62182).

HEAD & NECK	94	21.2%
MUSCULOSKELETAL	14	3.2%
SKIN	27	6.1%
BREAST	1	0.2%
GENITOURINARY	8	1.8%
OPHTHALMIC	3	0.7%
LYMPHOID NEOPLASMS	15	3.4%
CENTRAL NERVOUS SYSTEM	3	0.7%
OTHER	1	0.2%
UNKNOWN	15	3.4%
DIGESTIVE	104	23.5%
THORAX	158	35.7%

Tumor Board Annual Report- 2012



Hospital & Specialty Medical Care

William Schubach, MD, PhD

The Oncology Division provides initial medical diagnosis, medical treatment, and follow-up care for patients diagnosed with cancer. Care for cancer patients is also provided within the surgical specialties and through Radiation Oncology. Care and treatment for these patients is coordinated through a multidisciplinary Tumor Board. In this forum, individual cases and therapeutic options are reviewed. A full-time oncology nurse coordinator ensures follow-up, coordinates diagnostic and therapeutic recommendations, and maintains daily contact with all members of the Division. In addition, a well-staffed Cancer Care Clinic provides ongoing chemotherapeutic, transfusion, and supportive services for patients undergoing treatment.

The Oncology Division provides care in both inpatient and outpatient settings. There are three weekly specialty outpatient clinics staffed by attending physicians and fellows. Outpatient care is also provided in the Cancer Care Clinic that operates five days per week. Two physician assistants, two nurse practitioners, three RNs, and one clerk staff this unit. This unit provides all of the outpatient chemotherapy for VA Puget Sound Health Care System patients and also provides a convenient location for outpatient procedures, such as bone marrow aspirates and physical examinations, outside of the regular outpatient clinic hours. There is a full-time on-site clinical pharmacist who manages chemotherapy for both inpatients and outpatients. In addition to the patient treatment ac-



tivities in this unit, a full-time RN provides the contact point for tertiary referrals for medical oncology care to VAPSHCS from other VA and non-VA facilities and practitioners.

Another major section of the Oncology Division is the Marrow Transplant Unit (MTU). This is the site of a national VA program, one of only three such units nationwide. The MTU performs approximately 50 transplants per year on patients referred from both remote and regional sites. The MTU works in close collaboration with the Fred Hutchinson Cancer Research Center, and the treatment and experimental protocols for transplantation are shared between the two institutions. After the acute transplant phase, the MTU performs outpatient follow-up on transplanted patients as well as annual long-term follow-up.

The MTU is a discrete physical patient care unit with integrated outpatient and inpatient care, and a dedicated nursing and clerical support staff.

Radiation Oncology, while not part of the Oncology Division, also supports the care and treatment of cancer patients at VAPSHCS. The Radiation Oncology unit performs all total body irradiation treatment for marrow transplant patients, and is one of the few units nationwide performing prostate brachytherapy on an outpatient basis. This unit is located in Building 33, immediately adjacent to the main hospital facility. The Radiation Oncology unit is staffed by two full-time attending physicians and one University of Washington resident, as well as an RN, a PA, and a full-time health physicist.

Marrow Transplant Unit

Thomas R. Chauncey, M.D., PhD

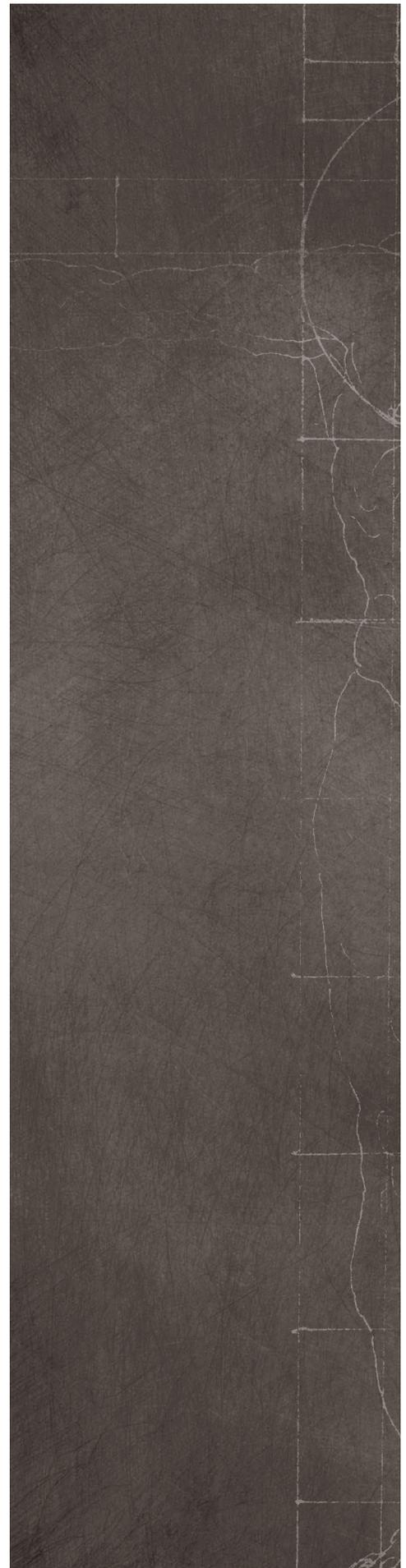
The Marrow Transplant Unit at the VA Puget Sound Health Care System was founded in 1982. It operates in conjunction with the Seattle Cancer Care Alliance, Fred Hutchinson Cancer Research Center and the University of Washington School of Medicine. The San Antonio VA began performing marrow transplants in 1986, joined by the Nashville program in 1995. Together, the three VA transplant centers provide comprehensive marrow and stem cell transplantation services for adults with a variety of malignant and nonmalignant hematologic disorders.

Since 1982, over 1,300 patients have been transplanted in Seattle, including over 200 from unrelated donors. Utilizing 8 inpatient beds and 1 outpatient suite, 60-70 transplants are performed yearly. Seattle patients receive infusion of marrow or peripheral blood stem cells from themselves (autologous transplantation) or from a matched or closely-matched relative or unrelated donor (allogeneic transplantation). Allogeneic transplant recipients, especially those receiving stem cells from mismatched and unrelated donor sources, require prolonged immunosuppression and are at risk for a variety of complications. Immunologic tolerance ultimately occurs with time, although close medical surveillance can be required for months to years. The longitudinal follow-up care and clinical advice provided by the Seattle program is a key element to the successful transplantation for patients throughout the country.

The largest proportion of patients treated in Seattle have received transplants for multiple myeloma, followed by non-Hodgkin's lymphoma, acute myelogenous leukemia (AML), Hodgkin's disease, chronic myelogenous leukemia (CML), and chronic lymphocytic leukemia (CLL). Multiple myeloma, non-Hodgkin's lymphoma and CLL are service-connected conditions for veterans with prior Agent Orange exposure. Other malignancies and nonmalignant hematologic disorders are considered for transplantation on a case-by-case basis.

Clinical research projects performed at the Marrow Transplant Unit in conjunction with the Fred Hutchinson Cancer Research Center have led to improved safety and efficacy of marrow transplantation, making curative treatments available to a broader number of patients. Outcome data from patients transplanted at the Marrow Transplant Unit at the VA Puget Sound Health Care System compares favorably to published data in the medical literature.

<http://www.pugetsound.va.gov/marrowtransplant/Welcome.asp>



Head & Neck Cancer Service

Eduardo Mendez, MD

More than 40,000 Americans (and more than 750,000 people worldwide) are diagnosed with head and neck (H&N) cancer every year. Because veterans have disproportionately high rates of smoking and alcohol use, which are two of the greatest risk factors for the development of H&N cancers, many of these Americans are veterans of our country's military services.

At the VA Puget Sound Health Care System (VAPSHCS), cancers of the head and neck are the third most common solid tissue cancer. Our Head and Neck Cancer Service treats over 50 new cancer patients and 40 recurrent cancer patients each year, making it one of the busiest VA H&N centers nationally.

Head and neck cancers are unique because they have a tremendous impact on patients' lives. Some of the most basic functions we count on, such as eating and speaking (functions that make each of us "human"), can be taken away by these tumors. These cancers may also impair vital senses such as taste, smell, hearing, and sight. They also affect uniquely-identifying characteristics, such as our physical appearance and our voices.

Fortunately, thanks to recent advancements in technology along with newer surgeries and organ-sparing treatments that take advantage of the newest equipment and protocols, we have made remarkable improvements in the quality of our patients' lives and comfort after treatment. For example, we are one of a very



few centers that offer on-site microvascular tissue reconstruction of defects after surgery. In addition, we are also offering organ-sparing laryngeal surgery as an alternative to a total laryngectomy, a new advancement that has allowed us to spare the larynx so patients can retain their voices and ability to breathe through the nose. Lastly, we have two surgeons trained in minimally-invasive robotic surgery – an exciting new development that will extend the benefits of minimally-invasive transoral surgery to tumors of the upper aero digestive tract where, in many cases, the only treatment options were chemotherapy and radiation. We offer all of these advances to our patients. However, perhaps the most important aspect of how we deliver care is that we work as a multidisciplinary team consisting of surgical, medical and radiation oncologists, neuro-radiologists, nurse practitioners, nurses, social workers, speech pathologists,

and psychologists. All head and neck cancer patients are presented in a multi-disciplinary care conference (Tumor Board) to ensure that all options are being considered and the care is comprehensive in treating the patient, not just the disease.

We are partnered with physicians at the University of Washington, where our surgical oncologists, medical oncologists, and radiation oncologists all hold appointments on the faculty. Our residents are trained at the University as well. We have substantial research collaborations with faculty from the University of Washington, the Seattle Cancer Care Alliance, and the Fred Hutchinson Cancer Research Center. These research programs offer exciting progress towards the hope that patients will be cured of even the most aggressive tumors, and that we will be able to do this with an eye towards improving the quality of life of all of our cancer survivors.

Gastroenterology and Hepatology

Jason A. Dominitz, MD, MHS, Haritha Avula, MBBS, George Ioannou, MD, MS

Cancers of the digestive system constitute a significant portion of the cancers diagnosed and treated at the VA Puget Sound Health Care System (VAPSHCS). Increased awareness and compliance with colorectal cancer screening, as well as the rising incidence of hepatocellular carcinoma, esophageal and pancreatic adenocarcinoma, have resulted in ever-increasing numbers of procedures performed for the screening, surveillance, diagnosis, and treatment of these cancers at our facility.

Procedures offered at the VAPSHCS include liver biopsy, esophagogastroduodenoscopy (EGD), sigmoidoscopy, colonoscopy, capsule endoscopy, and endoscopic retrograde cholangiopancreatography (ERCP). Since September 2010, endoscopic ultrasound (EUS) is also available to Veterans needing tissue acquisition for the diagnosis of cancer, as well as for cancer staging. Other procedures include endoscopic palliation of malignant obstruction (e.g. esophageal, duodenal, biliary or colonic obstruction), in addition to percutaneous endoscopic gastrostomy for nutritional support. There are now nine full-time staff gastroenterologists/hepatologists, two nurse practitioners, and a superb team of nurses on staff at the Seattle and American Lake campuses. Gastroenterology and Hepatology providers participate in weekly multidisciplinary conferences for the management of malignancies (e.g. Tumor Board and Liver Tumor Conference).

All staff physicians at the VAPSHCS hold faculty positions at the University of Washington and the GI team usually includes fellows, residents and students from the corresponding University programs. Members of our GI Section are also actively involved in investigation relevant to cancer, including basic (e.g. DNA methylation & carcinogenesis), translational (e.g. screening tools), and clinical (e.g. diagnostic and treatment strategies) research. They also collaborate with the research programs of many other departments within the VAPSHCS, the Fred Hutchinson Cancer Research Center and the University of Washington.



Quality, Safety, and Patient Centered Care in Delivery of Radiation Therapy

Tony S. Quang, MD, JD, Kent E. Wallner, MD

The VA Puget Sound Health Care System is a radiation oncology referral center in the Veterans Affairs (VA) system which draws patients from the VA Northwest Health Network (VISN 20) which serves Alaska, Idaho, Oregon and Washington.

We deliver state-of-the art care to patients diagnosed with various malignancies including: head and neck cancers, lung cancer, gastrointestinal and genitourinary malignancies, sarcomas, brain tumors, breast cancer, and leukemias and lymphomas. Our bone marrow stem cell transplant program using total body irradiation as a conditioning regimen is unrivaled with the implementation of safer and less toxic regimens both in clinical and research settings.

Our patient census continues to grow and our department continues to successfully implement new technology and offer sophisticated treatment plans. In October 2013, Ana Boekenoogen, RN, BSN, OCN joined our department with twenty-two years of nursing experience. To meet the rigor of clinical patient volume we have also recruited two radiation therapists, Stephanie Roof, ARRT(T), CMD, MBA, and Kenneth Clark, ARRT(T), whose goals include patient advocacy and efficient delivery of care.

Additionally, in the past six months our Pinnacle radiation treatment planning system underwent a server upgrade. Moreover, the VA National

Health Physics inspected our Prostate Brachytherapy program in February 2012 and our External Beam program in September 2012, and we passed both audit reviews with flying colors.

Our upgraded patient electronic medical system MOSAIQ Management System to version 2.3 which is the most up-to-date version in the industry. MOSAIQ provides us with an additional layer of treatment verification and quality assurance which meets national standards.

Our VA continues to be the only radiation oncology facility in the State of Washington accredited by the American College of Radiology.

To better meet the needs of our cancer patients we installed an Intravenous (IV) Hydration clinic in one of our examining rooms. During weekly treatment visits for patients undergoing chemoradiation, Dr. Tony S. Quang, one of our radiation oncologists, was concerned about the high number of patients who became orthostatic due to decreased oral intake. In response to the problem he proposed on-site intravenous hydration with normal saline solution. Jean Hargrett, PA-C was instrumental in the day-to-day implementation of clinic flow and logistics.

The IV Hydration clinic has a capacity of five patients at any given time. Currently we have been instituting six to eight IV hydration sessions per

week primarily for our head and neck cancer patients undergoing chemotherapy. This strategic implementation not only allows us to better support our patients and to increase their sense of well being, but it has also relieved patient burden on the Medical Oncology infusion suite and the Emergency Department.

Since the technological capability of intensity modulated radiation therapy (IMRT) was commissioned on our Elekta Synergy linear accelerators we have increased the use of IMRT to treat our patients with head and neck and prostate cancers and have systematically expanded its use to lung, anal, and gastrointestinal cancers.

Sharon Hummel-Kramer, CMD, ARRT(T) who brings over 38 years of treatment planning experience to the VA from the University of Washington Medical Center has been at the forefront of this effort. We continue to use cone beam CT imaging protocols to ensure optimal adaptive radiation therapy. Last year Ms. Hummel-Kramer teamed up with resident physician, Dr. Michael Gensheimer, MD, and David Cain, ARRT(T), CMD to develop a mathematical model predicting success in parotid gland sparing for head and neck IMRT treatment planning. This model adds efficiency as it predicts success in planning allowing both the dosimetrist and the radiation oncologist to have reasonable expectations of parotid sparing. The findings were accepted as an

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abstract at the 55th ASTRO Annual Meeting in Atlanta, Georgia. Moreover, as a member of the physics team, Ms. Hummel-Kramer has collaborated with radiation therapists in the implementation of added safety features using the MOSAIQ Management System, including the use of barcode scanning to identify specific patient treatment devices.

Implementation of additional quality assurance and patient safety measures include involving Paul Brandt in MOSAIQ management, implementing an incident reporting system, wireless Daily QA3, and a Time Out Policy. Rigorous clinical peer review and morbidity and mortality conferences are conducted regularly.

Furthermore, as a national authority on the quality assurance effort of other VA brachytherapy programs, Dr. Kent E. Wallner has pioneered a specialty clinic in the administration of seed brachytherapy for prostate cancer patients. As our patient enrollment has stabilized over the past year our clinic continues to offer this treatment to prostate cancer patients who come from every region of the United States. We are also integrating brachytherapy with an expanding prostate cancer program that includes IMRT with placement of gold seed fiducials.

Radiation Oncology continues to play a strong leadership role in the VA system. We remain committed to

the oncology Telemedicine Outreach effort that directly extends our expertise to all VA centers within VISN 20. Last year we partnered with the Cancer Care Collaborative of the Lung Cancer Section to optimize care for satellite VA sites using the spoke-hub model. We are continually working closely with our social worker, Ana Fisher, MSW who has been pivotal in implementing added supportive measures for our patients who need other ancillary services.

Our radiation oncologists continue to hold leadership roles to better serve our VA patients. Dr. Quang provides our VA with up-to-date scientific expertise in his role as Co-Chair on the VA Institutional Review Board. He also serves as an Alternate Voting Member on the VA Research and Development Committee and the Institutional Principal Investigator for the Southwest Oncology Group (SWOG). Dr. Quang continues to be an active member of the Integrating Healthcare Enterprise in Radiation Oncology (IHE-RO) planning and technical committees. The IHE-RO works in collaboration with the American Society for Radiation Oncology, which addresses ways to improve the use of computer systems for information sharing, work flow, and patient care.

Drs. Quang and Wallner are active participants at weekly Tumor Board meetings where patients are offered the optimal management recommendations through an interdis-

ciplinary effort. Dr. Quang runs monthly clinical case conferences while Dr. Wallner runs monthly journal clubs teaching residents at University of Washington Medical Center. They are both the only two Visiting Oncology Lecturers at Bellevue College teaching clinical oncology to radiation therapy students. Students from this training program have consistently over the years scored in the 90th to 95th-percentile.

The VA Puget Sound Radiation Therapy Department has maintained its position as a nationally visible center, drawing referrals from other VA facilities throughout the United States. Our expansion of cutting edge technology, continued innovation efforts, and our commitment to quality assurance has positioned our department to offer our patients the best of care for now and well into the foreseeable future.

Diagnostic Imaging Service (DIS)

Julie Takasugi MD, Joseph G Rajendran, MD

Diagnostic radiology and nuclear medicine are important fields in detection, diagnosis, treatment and follow up of a variety of diseases, including malignancies. Diagnostic Imaging Services (DIS) is responsible for the performance of quality examinations, interpretation of those examinations and for the communication of study results to the referring clinician in a timely fashion. At the VA Puget Sound Health Care System (VAPSHCS), Seattle and American Lake Divisions, there are 8 receptionists/schedulers, 2 program support persons, 1 administrative officer, 2 PACS administrators, 3 file clerks, 2 health technician/escort, 34 radiologic/nuclear medicine technologists, 5 technology students, 1 nurse, 8 residents, 2 fellows, 9 full-time and 2 part-time attending physicians. Attending radiologists subspecialize in abdominal imaging, cardiothoracic radiology, gastrointestinal radiology, neuroradiology, musculoskeletal radiology, nuclear medicine or vascular and interventional procedures.

Services provided by DIS include conventional radiographic exams, fluoroscopic studies of the gastrointestinal and genitourinary tracts and nervous system, computed axial tomographic (CT) scans, ultrasound exams, magnetic resonance imaging (MRI), angiography and radionuclide studies. Modern CT, SPECT/CT and PET/CT scanners have been installed and a new wide bore MRI will be installed shortly. The PET/CT scanner exemplifies a fruitful collaboration between R&D and DIS in providing PET scan capability at VAPSHCS and we have



started of with 18F-fluorodeoxyglucose imaging. Mammography is performed at Virginia Mason, UW, and other local imaging centers. Percutaneous biopsies, aspiration and drainage of fluid collections, biliary and genitourinary drainage, long-term intravenous catheter placement, percutaneous feeding tube placement, tumor embolization and ablation procedures, intra-arterial chemotherapy access and intravascular stent placement are some of the diagnostic and therapeutic procedures offered by this department. In nuclear medicine, all general nuclear imaging studies including myocardial perfusion studies, brain SPECT imaging (including DAT scan) and lymphoscintigraphy are performed. A modern SPECT/CT (16 slice) was installed at SEA. Therapy with radiopharmaceuticals is routinely performed for hyperthyroidism, thyroid cancer (using Iodine 131) and bone pain palliation (using Strontium 89 and Samarium 153).

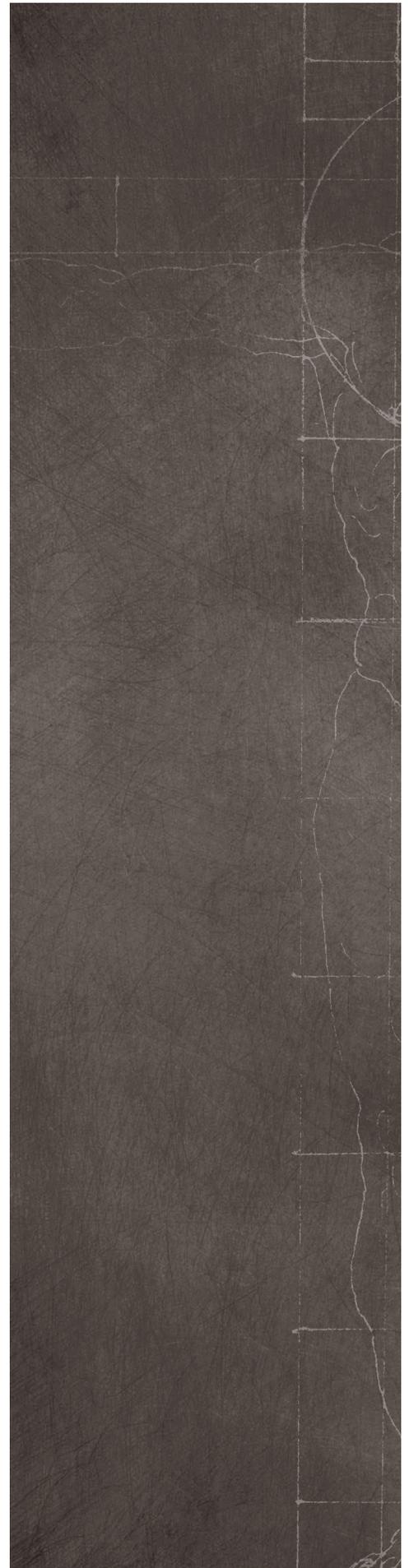
Radioimmunotherapy (with Yttrium 90 Ibritumomab tiuxetan) for treating non-Hodgkins lymphoma and Ra-223 chloride therapy for metastatic prostate cancer are now available for our patients. VAPSHCS provides teleradiology service for the interpretation of nuclear medicine studies performed at Spokane VA Hospital. In addition, DIS supports a number of committees and conferences dealing with cancer patients at its Seattle Division, including Tumor Board, Cancer Committee, Tumor Registry, Gastroenterology-Surgery Conference, Neurology/Neuro-Surgery Conference, Liver tumor conference and Genitourinary Conference. Diagnostic Imaging also provides consultation on studies performed at outside hospitals and teleradiology services for other VA hospitals in the VISN20. In 2013, a total of 96,000 radiologic examinations will have been performed at the VAPSHCS.

Urologic Oncology Program

Bruce Montgomery, MD, Michael Porter, MD

The multidisciplinary Urologic Oncology program is designed to help patients with genitourinary cancers of all types and give them the opportunity to discuss their therapeutic options with a broad range of care providers who treat patients with this disease, including urologists, radiation oncologists, medical oncologists and endocrinologists. By providing this type of integrated patient care, doctors hope to help patients make informed decisions and receive the best possible treatment. The multidisciplinary team offers some of the most advanced treatment options available for prostate cancer, including nerve sparing prostate surgery, brachytherapy (radiation implants), adjuvant chemotherapy and advanced disease chemotherapy studies. The center is one of a select few VA centers in the country utilizing the DaVinci robotic system to perform prostatectomies. We also offer

cutting edge treatment options for kidney and bladder cancer, including robotic partial nephrectomy, laparoscopic nephrectomy, energy based ablative techniques for small renal tumors, radical cystectomy with urinary diversion for muscle invasive bladder cancer, and adjuvant therapies for non-muscle invasive bladder cancer including chemotherapy placed into the bladder. We are a cancer referral center for all of VISN 20 and also provide comprehensive care for cancers that are more uncommon in the Veteran population, including testis and penis cancer. The Program is the national coordinating center for a randomized study of how to prevent relapse of prostate cancer after prostatectomy and has other prostate cancer study protocols open. For information, contact the Oncology Department at (206) 764-2709 or the Urology Department at (206) 764-2265



Thoracic Surgery

Leah M. Backhus, MD, Michael S. Mulligan, MD, Thomas McDonough, PA-C

The Thoracic Surgery service at the VA Puget Sound Health Care System (VAPSHCS) has been an active participant in the care of Veterans in the Pacific Northwest for many years. The Thoracic Surgery section is an integral part of the Division of Cardiothoracic Surgery, which attends to all aspects of thoracic pathology. We are dedicated to the prevention, detection, treatment and research of thoracic diseases.

Our service consists of Dr. Leah Backhus, Dr. Michael Mulligan and Mr. Thomas McDonough, PA-C. Dr. Backhus is an assistant professor of surgery at the University of Washington with clinical and research emphasis on thoracic oncology and lung transplantation. Dr. Michael Mulligan is a professor of surgery at the University of Washington and is director of the lung transplant and minimally-invasive thoracic surgery programs and Section Chief for Thoracic Surgery. The team is also supported by a dedicated Physician Assistant, Thomas McDonough, who has been a part of the section for over ten years. We offer a wide variety of surgical treatment options for patients with both benign and malignant diseases.

Lung cancer is one of the most common solid tumors encountered in our nation's Veterans and it constitutes the majority of the Thoracic Surgery practice at the VA. In addition to lung cancer, we provide treatment for mesothelioma and malignancies involving the trachea, chest wall, me-

diastinum, esophagus and secondary pulmonary metastases. To this end, we utilize a multidisciplinary approach to the thoracic oncology patient and collaborate with our colleagues in Pulmonary Medicine, Radiation Oncology, Medical Oncology, Radiology, Nuclear Medicine and Pathology. These patients require a number of diagnostic and therapeutic tests that are coordinated by the Physician Assistant. Preoperative counseling and testing are performed in tandem with the Pulmonary and Oncology services within an integrated clinic structure. Approximately fifty to sixty lung resections are performed at the VAPSHCS each year. Beginning in 2013, VA Puget Sound has partnered with members of the Portland VA to create a multidisciplinary team to deliver consultative services to outlying clinics in a virtual clinic format as well as education didactic sessions for clinical providers. The team is led by Pulmonary Medicine and includes Thoracic Surgery, Radiology, Medical Oncology and Palliative Medicine.

We offer minimally-invasive surgical techniques including Video Assisted Thoracic Surgery (VATS). This technique allows removal of a lobe of the lung (lobectomy) through small incisions with the assistance of a thoraco-

scope. It avoids the traditional large, rib cutting incision associated with significant morbidity and mortality in lung cancer patients. Patients undergoing VATS lobectomy appear to have less pain associated with surgery and generally leave the hospital and return to normal activity sooner. Oncologic results with VATS lobectomy appear to be equivalent to traditional open thoracic procedures. VATS is also utilized in performing lung and lymph node biopsy as well as part of a minimally-invasive esophagectomy.

A significant portion of the clinical volume for the Thoracic Service is also related to pleural space management. Here again video-assisted techniques have limited the extent of operation and decreased the morbidity to the patient. This is particularly relevant to patients who need palliative procedures at the end of life to manage malignant pleural effusions and other symptoms limiting quality of life. We also use a new state-of-the-art bronchoscopy suite in Pulmonary Medicine where we have the ability to perform interventional bronchoscopy procedures for diagnosis, staging, and palliation of symptoms.

Pulmonary Medicine

Richard B. Goodman, M.D., David H. Au, M.D.

Lung cancer is one of the most common solid tumors encountered in our nation's veterans. The Pulmonary Medicine Section at the VA Puget Sound Health Care System focuses on the prevention and diagnosis of lung cancer and maintains strong interactions with Thoracic Surgery, Radiation Oncology, and Medical Oncology to support their therapeutic interventions.

The smoking cessation program is supported by an RN. The program includes both inpatient and outpatient services. Behavior modification and pharmacologic interventions are combined in a successful program with quit-rates that meet or exceed those published in the literature.

Pulmonary diagnostic services include fiberoptic bronchoscopy to aid in the pre-surgical staging and histologic diagnosis of patients with suspected lung cancer. Recent acquisition of video-photographic equipment to support bronchoscopy services has facilitated communication with Thoracic Surgery and aids their pre-operative planning for surgical staging and resection. The Pulmonary Function laboratory provides measurements of lung function that is important to planning therapeutic interventions. The cardiopulmonary exercise laboratory can quantitate cardiopulmonary reserve function and help determine the functional importance of cardiac co-morbidity.

Because many of our lung cancer patients have additional lung disease, such as COPD, their postoperative care is supported by services from Respiratory Therapy, the Pulmonary Clinic Providers, and the Home Oxygen Program. Finally, the Pulmonary Rehabilitation Program at VAPSHCS is a joint venture with Rehab Medicine that has received national recognition for its work. This program conducts ongoing clinical outcomes research that benefits VAPSHCS lung cancer patients who suffer from limited pulmonary reserve after curative treatment of their cancer.

The Pulmonary Section supports two nationally-recognized investigators studying quality of lung cancer care. Together with Medical Oncology and Thoracic Surgery, the Pulmonary Section participates in the multidisciplinary team studying quality and timeliness of care in lung cancer patients as part of the OQP process to reduce wait-times.



Surgical Oncology

Peter C. Wu, MD

The surgical oncology program provides comprehensive evaluation and treatment for tumors of the upper and lower gastrointestinal tract, hepatobiliary system, pancreas, breast, melanoma, soft tissue sarcoma, and endocrine system. Together with Drs. Lorie Langdale, Roger Tatum, Dana Lyng, Edgar Figueredo, and Deborah Marquardt; our section provides surgical expertise covering a broad range of procedures, including sentinel lymph node mapping, minimally invasive and robotic surgery, and complex oncologic resections including esophagectomy, hepatic resection, pancreaticoduodenectomy and total mesorectal excision with anal sphincter preservation. We work in tandem with colleagues in Medical and Radiation Oncology to offer personalized combined modality protocols. Our goals are to provide state-of-the-art solid tumor treatment in a multidisciplinary environment, enroll patients in cancer clinical trials, conduct innovative cancer research, and provide education and mentorship to our students, residents, and fellows affiliated with the University of Washington and Fred Hutchinson Cancer Research Center.

Palliative Care and Hospice Service Report

Elizabeth White RN, MN AOCN, David A Gruenewald, MD

The Palliative Care and Hospice Service continues to provide care for patients on both campuses of VAP-SHCS. The Palliative Care Service saw 546 consults in FY13, of which 60% were cancer patients. Palliative Care saw 71% of all the Veterans who died within our facility exceeded the Emerging Measure 3 standard (55% of all inpatient deaths seen by the consultation team within 12 months prior to death). We also provided hospice referrals to 445 Veterans and paid for 55% of the care.

The consult service follows Veterans at both the Seattle (SEA) and at American Lake (AL) divisions. There are 10 hospice/palliative care beds at the SEA Campus and 12 beds at AL. An outpatient clinic is available at AL as well as limited home visits/in-home vesting visits in a defined area around the AL campus.

The VAPSHCS Palliative Care and Hospice Service is actively engaging with our community partners in We Honor Veterans, a program sponsored by the Department of Veterans Affairs in collaboration with the National Hospice and Palliative Care Organization (NHPCO). The program invites hospices and state hospice organizations into Hospice-Veteran Partnerships by recognizing the unique needs of America's Veterans and their families. The Palliative Care & Hospice staff has provided in-services at individual community hospices. A Military History Checklist has been incorporated into many hospices' initial assessments, which has increased calls to the VAPSHCS Palliative Care and

Hospice Service as hospice programs seek ways to access VA benefits for Veterans in the community.

The Bereaved Family Survey (BFS) is a national VA family satisfaction survey administered by the PROMISE Center that continues to monitor the quality of end of life care for inpatients at all VA medical centers. The national campaign slogan is "Strive for 65", which refers to the goal that 65% of bereaved family members responding to the BFS will rate the care the Veteran received at the end of life as "excellent". We are meeting that standard. Personal care and death/survivor benefits information are our two lowest areas and are targets for QI projects in the coming year. Predictors associated with higher BFS ratings included the presence of a "Do Not Resuscitate" order, a chaplain visit with the Veteran or family member, palliative care consultation, and care in a dedicated hospice unit (i.e., CLC hospice beds).

The CCHT/Oncology/Palliative Care program was not picked up by the facility at the end of the demonstration project but Palliative care received a small grant from VACO in FY 2012 to improve palliative care in the ICU. The focus of the grant was on nursing education. To that end five RNs from the BMT, SICU, MICU and CCU were identified as palliative care champions and attended End of Life Nursing Education Consortium (ELNEC)-Critical Care training in a "train the trainer" format. Three different training sessions have occurred since the roll-

out, and staff have also participated in online ELNEC for Veterans-Critical Care training. Other programs to improve care in the ICU for those at the end of life include the development of a family meeting family brochure and a template in CPRS to document family meetings. In the coming year, we will continue to work toward the goal of a new small grant to improve communication in the ICU for critically ill Veterans and their families. Data from the BFS suggest that having a discussion with Veterans and their families about care preferences near the end of life improves satisfaction with care. Ideally, these discussions would happen earlier in the course of care, which could result in fewer Veterans with cancer and other life-limiting illnesses receiving unwanted and inappropriate ICU-level interventions at the end of their lives. We have found that a surprising number of patients with terminal cancer are dying in the ICU. In a survey of ICU deaths in Q3 of FY 2013, 17 of 27 ICU deaths occurred in patients with terminal illnesses such as metastatic cancer at the time of ICU admission (Dr. Vincent Fan, personal communication). This presents an opportunity for collaboration between Oncology, ICU and Palliative Care.

Nutrition and Cancer

Melissa Powell, RD

Nutrition is essential in contributing to optimal outcomes in patients undergoing cancer treatment. Eating well during cancer treatment can help patients maintain strength and energy, decrease their risk of infection, and reduce the side effects from treatment. Patients undergoing cancer treatment can experience numerous side effects that can adversely affect their ability to maintain proper nutrition: nausea, vomiting, early satiety, diarrhea, taste and/or smell changes, difficulty with swallowing, and loss of appetite. Weight loss can result from these side effects and can put patients at higher risk of hospitalization, and potentially delay surgery.

Nutrition and Food Services at VA Puget Sound Health Care System provides nutrition education and counseling by Registered Dietitians to Radiation Oncology, Cancer Care Clinic, and Marrow Transplant Unit patients and their caregivers on an individual and group basis. Topics of evidence-based education and counseling include weight management, food safety, cancer recurrence prevention, basic healthy eating, Diabetes education, and symptom management. Many patients will require a feeding tube to maintain nutrition and hydration during and after cancer treatment. The dietitian provides tube feeding formula recommendations to patients and providers, provides instruction on feeding and hydration, utilizing feeding pumps, and monitors tube feeding tolerance and progression.

Many patients undergoing Bone Marrow Transplants may require total parenteral nutrition (TPN) during their treatment. In this case, the dietitian provides TPN recommendations and monitors patients' nutritional status throughout the transplant process. In addition, the dietitian provides guidance and policy oversight to the provision of high quality patient food service.

Updates: Recently, the nutrition department has started a Nutrition Support Team, (NST) that meets weekly to discuss high risk patients and to ensure that we are all utilizing the most current evidenced based nutrition practices. We have developed a new system for tracking our out-patient tube feeding patients in order to monitor them more closely and to provide support on a more frequent basis. Sometime in the next few months, we are excited to welcome a new Dietitian to our team who will be helping with Cancer Care as we have many patients with a variety of nutritional needs. Additionally, we have been working closely with Pharmacy, and will soon be able to customize TPN using a new automated compounding machine.



Cancer Telemedicine Program

Peter C. Wu, M.D.

The Cancer Telemedicine Program based at the VA Puget Sound is broadcast twice monthly and serves to advise and coordinate multidisciplinary oncology care throughout the Veterans Integrated Service Network (VISN) 20. Originally conceived as the Northern Alliance Cancer Center and funded by the VA New Clinical Initiatives Program and VACO Transformational Initiatives Program, the VA Cancer Telemedicine Program has matured into a vital clinical program for the region. Providers at regional VA facilities throughout the VISN 20 present cases in a live interactive format to the multidisciplinary tumor board in Seattle staffed by surgical, medical, radiation, and thoracic oncologists. Participation in this program facilitates patient referral, minimizes consultation delays, avoids unnecessary patient travel, coordinates outpatient studies, and provides multidisciplinary evaluation of all cancer patients. The program's success ensures that all veterans within the VISN 20 have access to state-of-the-art multidisciplinary cancer care. Over the past year, we have expanded the program to include sites represented by the Spokane, Boise, Anchorage, and Walla Walla VA centers.

For further information, please contact our Cancer Telehealth Coordinator, Lisa Mandell, R.N., J.D. e-mail: Lisa.Mandell@va.gov

Psychology and Oncology

Dawn Irene Aragón, PhD

As the VA Puget Sound Health Care System (VAPSHCS) Oncology programs have expanded to provide care for more hematologic/oncologic disorders, so have the roles of the psychologists. A plethora of research shows a clear relationship between stress and illness. In order to provide our veterans with comprehensive cancer care, psychological services are available to enhance the healing of our veterans and improve their quality of life.

Psychologists at the VAPSHCS provide assessment, education and therapy (including individual, couples/family, and group) to veterans and their caregivers in the cancer care program. The psychologists provide evalua-

tions for pre-, interim, and post-procedures and consult with the various treatment teams regarding development of behavioral and cognitive strategies that can aid in facilitating treatment and adherence effectiveness. Psychological interventions are evidence-based and include the use of psychometrics in assessments and treatment planning. Psychologists assist veterans who need vocational rehabilitation either through VA Vocational Rehabilitation services or via their state Department of Vocational Rehabilitation. They are also an integral part of end-of-life care when needed. Referrals to Mental Health Services can be initiated by a patient or by his or her oncologist.

For over 15 years, Dr. Dawn Irene Aragón has provided direct patient care through the Marrow Transplant Unit (MTU) program. She provides psychological services to all patients and their caregivers as they journey through stem cell/marrow transplantation. She completes VACO mandated Transplant Candidate Mental Health assessments for all stem cell/marrow transplants. In addition to direct patient care services, Dr. Aragón is active in other program development projects. She initiated and updates the Seattle Marrow transplant website (www.pugetsound.va.gov/marrowtransplant/Welcom.asp) and is a member of the VACO Mental Health Transplant Evaluation Workgroup and the Cancer Care Committee.

Improvements to Standardize Oral Care

Yeshearg Dagne, RN, BSN, OCN.

An interdepartmental team consisting of Oncology Cancer Care Clinic, Radiation Oncology, Bone Marrow Transplant Unit, Community Leaving Center (CLC), Palliative Care and Speech Pathology assembled in January 2013 to reduce inpatient admissions due to Mucositis and Aspiration Pneumonia by implementing standardized oral care for cancer patients. The group had weekly meeting to implement a nursing procedure guide for Oral care for patients undergoing cancer treatment, create a treatment order set for Mucositis and oral care, add NCI guidelines for Mucositis grading scale and oral care to the nursing Admission, Nursing Progress Note and Chemotherapy Clinical Pathway templates, create a standardized patient teaching mate-

rial for oral care during cancer treatment at VA Puget Sound Health Care System and to provide nursing education in-service about Mucositis and oral care for patient undergoing cancer treatment.

The group has implemented the following:

1. Nursing procedure for oral care for patients undergoing cancer treatment was approved by the associate Director of Nursing and it is on the VA Puget Sound Health Care System Nursing SharePoint site.
2. Mucositis Inpatient Prevention/Treatment order set was completed and approved it is on CPRS Admission Treatment Menu
3. Standardize patient teaching material about Caring for Your Mouth

& Throat during cancer treatment has been approved and it is on Nursing SharePoint site at Veterans Health Education.

4. NCI guidelines for Mucositis grading scale and oral care to the Nursing Admission, Nursing Progress Note and Chemotherapy Clinical Pathway templates was approved and it is on Nursing Shared Templates (named Mucositis Assessment).
5. The group has worked on nursing education power point presentation about Cancer Treatment Induced Mucositis and Oral Care it was approved to give the in-service by VA Puget Sound Health Care System nursing education committee and the in-service will be started in December 2013 .

Cancer Rehabilitation

Meg Sablinsky, PT, DPT, CLT – LANA

For patients undergoing cancer treatment, quality of life matters as much—if not more—than the quantity of life. With an increasing focus on rehabilitation, patients are able to have improved quality of life during and after their cancer treatment. Patients undergoing cancer treatment may experience one or more of the following side effects: decreased muscle strength, decreased bone density, peripheral neuropathy related to chemotherapy, fatigue, decreased range of motion, pain, lymphedema, and scar adhesion. Rehabilitation Care Services can assist patients who have been diagnosed with cancer with a variety of their rehab needs on an inpatient or outpatient basis. These needs include pain control, weakness and deconditioning, mobility including assessment and provision of equipment for mobility safety, activities of daily living such as dressing/grooming/bathing, cognition, communication, swallowing, nutrition, bowel/bladder functions, skin integrity and wound management, lymphedema management, depression/adjustment/anxiety, social support, and vocational guidance. Goals for cancer rehabilitation often include effective pain control, maximal functional independence, restoration of maximal strength and mobility, prevention of further impairment, care-giver training to assist functionally-dependent patients, home management, community reintegration, and behavioral adaptation to pain and illness.

In addition, a specialized service that Rehabilitation Care Services offers is Complete Decongestive Therapy

(CDT), a treatment for lymphedema. Lymphedema is swelling of a body part, most commonly involving the extremities, face and neck but it may also occur in the trunk, abdomen or genital area. It is most commonly the result of damage to the lymphatic system due to surgery or radiation treatment therapy, surgical procedures performed in combination with the removal of lymph nodes such as mastectomies, lumpectomies, prostatectomies, or neck dissection procedures, trauma or infection of the lymphatic system, as well as severe venous insufficiency. There is no cure for lymphedema. However, CDT can help reduce the swelling and maintain reduction, and significantly improve a patient's quality of life. This comprehensive treatment involves the following four steps:

- manual lymph drainage
- compression therapy (bandaging)
- decongestive exercises
- skin care

Once the treated extremity/area is back to close to normal size or is no longer reducing in size, the patient is fitted with a compression garment. Patients are also taught how to self manage their condition after treatment has ended. At the end of 6-8 weeks of sessions, we can expect a 60% decrease in the swelling, which facilitates functional activities for these patients. In addition, the lymphedema treatment program for head and neck patients will help them recover their ability to swallow and produce saliva, voice, and ROM of the neck.

During this 2013 year, our Lymphedema Clinic has a total of four certified therapists: Brian Reaksecker, PT CLT, Erin Hirschler, OTR-L CLT, Meg Sablinsky, PT CLT-LANA, and Melissa Smith, PTA CLT.

We also have developed a Head and Neck Lymphedema Management Program and we are working closely with Radonc and Surgery to see these patients as early as possible. Sometimes it will be only for a few sessions, evaluating, educating about warning signs, decongestive exercises, range of motion exercises, posture, or sometimes manual lymphatic drainage when necessary. We are also trying to develop post-surgery education handouts, in conjunction with Surgery.

We also have an increasing number of early consults for patients with breast cancer, which is quite successful since most of the time they haven't developed lymphedema yet or it is at a very early stage. These patients receive education regarding warning signs, decongestive exercises, activities of daily life, manual lymphatic drainage when indicated, and sometimes they will be fitted with an appropriate compression garment.

In all the cases of oncology patients, not only do they get better with treatment, but they also feel somewhat reassured and feel support which is also very important. Their quality of life is much improved.

Community Outreach Activities

Cathy Blanchard, LICSW, and Ana Fisher, LICSW

Over the last year, Oncology Social Workers Cathy Blanchard and Ana Fisher have continued efforts towards strengthening and formalizing a cancer survivorship program, recognizing that more individuals are facing issues after treatment is completed. The plan to invite Veterans, caregivers and staff to attend a Survivorship Conference at VA Puget Sound in May had to be postponed but efforts are underway to get it back on track on 2013. Topics presented at the conference will cover issues such as managing long term side effects, nutrition, exercise, Veteran specific concerns and resources available. Additionally, there are goals to create a Survivorship psycho-educational group for patients to provide information and support regarding the effects of cancer and treatment on emotions, work and family.

Members of the Cancer Care Committee work each year to disseminate information on cancer to Veterans as well as the public through various means. This past year, posters and flyers focusing on diagnosis specific information, treatment information and community resources were displayed in public areas at the VA Puget Sound Health Care System (VAP-SHCS). Other topics including nutrition during cancer treatment, caregiver support, smoking cessation, caregiver classes and groups and various cancer educational resources are also displayed in public places for staff, patients and visitors. The Cancer Care Clinic's resource room

and Bone Marrow Transplant's family room continue to build a library of information that is available to staff, patients, and families.

Members of the Cancer Care Committee continue to be active in community organizations providing leadership and education, as well as participating in volunteer activities such as participating in Public Health Reserve Corp and work groups with Be The Match. Several committee members presented informational talks to VA-associated volunteer groups, community health care organizations and national groups. Nurses and Social Workers have been involved with Washington State Cares About Cancer Partnership, working to improve survivorship. Social Work has also presented at Community hospitals to provide outreach and to inform community health care employees about accessing services for Veterans. Social Work has also presented Veterans specific information as guest lecturers at University of Washington and Evergreen State College.

Oncology Social Workers and Nurses continue to provide education to community colleagues at a quarterly Association of Oncology Social Worker Network meeting on the Cancer Survival Toolbox (a self advocacy program focusing of survivorship), Cultural Competence and End of Life Care and Grief Loss and Bereavement. In March members of the team presented a one hour workshop on caregiving at the annual VA

Heroes of the Heart Caregiver Conference at both American Lake and Seattle VA campuses. The teams have continued to provide a weekly Oncology Caregiver Support groups and Education groups in the Cancer Care Clinic as well as on the Marrow Transplant Unit. Additionally, VA Puget Sound staff held a half-day workshop titled VA Health Care 101, providing valuable information to community partners about working with VA to provide health care and resources to our Veterans.

Through the resources of a Post Fund for Cancer Care and Social Work, Veterans can be given supplemental support to include items such as phone cards, Ensure and resources for groceries and gas. The community outreach clinicians are involved with committees and programs to link the Cancer Care Program with other specialty programs. Examples of such programs include improving the care of Veterans with head and neck cancers, and developing interactive systems for communication with Veterans.

Spiritual Care

Chaplain Thomas C. Hartmann, MDIV; Chaplain Gary K. Cowden, MDIV

The Chaplain Service of the VA Puget Sound Health Care System has been given the overall spiritual care of all VA patients. Among our Veterans are those that experience the diagnosis and treatment of cancer. At the time of a patient's diagnosis and treatment projection, Chaplaincy endeavors to support the patient and their family as they progress through the various treatments, whether it is surgery, chemotherapy, radiation, or a stem cell transplant. Spiritual support covers both the negative and positive aspects of cancer care such as times of wellness and times of palliative intervention.

Chaplains have been available with the treatment teams as various spiritual needs have surfaced in the treatment process. Often, along with treatment comes uncertainty, anxiety, fear of treatment outcomes, guilt, spiritual distress, along with the concerns of treatment symptoms. Through consults and various patient contacts, chaplains have given spiritual support affecting patient and family moral. Chaplains have also been involved in the Tele-health program which brings care to patients in their home.

One aspect of care involves times when treatment options become limited toward bringing cure. Palliative Care brings meaning and purpose to these times of helping patients and their families transition to a different perspective on their treatment goals. Chaplains have given consistent and positive support through this process. When the limitations of science lead

a patient toward another destiny, Chaplains are prepared to give spiritual support through these un-charted experiences to both the patient and the families surrounding them.

Finally, Chaplains bring bereavement care to patients and families in the journey of finishing their time of life. Memorial services are held twice a year for all patients who have been in the hospital at their end of life. Their families are invited to attend as a way of celebrating their memory. Each family is invited to attend and to bring pictures and memorabilia that helps share their memory with others. The Hospital Director and various staff members are invited to share the experience. Family members are invited to share their loved ones experience. Many of the stories of support by the VA Hospital give overwhelming credibility to the Cancer program .



Cancer Screening and Prevention Report

Cathy Blanchard, LICSW, OSW-C

In 2013 the hospital performance measures for cancer screening have remained within the target or have steadily improved. The breast cancer screening rate is at 85%, exceeding the target of 77%. The target for cervical cancer screening is 86% for all age groups and VA Puget Sound is at 87%. The colorectal screening for the year was met at 78%, with a 67% target. The out-patient measures for tobacco use are as follows: 1) the percentage of patients using tobacco in the past year who have been offered medications to assist with quitting smoking is 94%, exceeding our target of 63%. 2) The percentage of patients using tobacco in the past year who are provided with counseling on how to quit is 94%, with a target of 83%. 3) The percentage of patients using tobacco in the past year who are offered referral to a cessation program is 96%, exceeding the 58% target. These changes demonstrate our hospital's commitment to cancer screening and prevention and are just a few of the improvements that were completed in 2013. Working with the Veterans receiving care at VA Puget Sound inspires us to continue to strive for excellence in Cancer Care.

Oncology Social Work

Cathy Blanchard, LICSW, OSW-C, Ana Fisher, LICSW, OSW-C

When patients receive a cancer diagnosis they have many concerns about what the diagnosis means, what to expect, details on medical care, concerns from loved ones, finances, and survival. Comprehending and organizing the provided information can provoke anxiety and be overwhelming while one is making important health care decisions. The role of the Oncology Social Worker (OSW) is central to helping patients, caregivers and communities with detection, prevention, navigation and survival in a rapidly-changing treatment environment. OSWs are uniquely trained in accessing resources, recognizing disparities in care, communication, stress reduction, family systems, advocacy, and community resources, allowing the OSW to affect positive change in the lives of Veterans and their families.

Specifically, OSWs strive to obtain accurate and up-to-date educational information and other resources for patients. The hope is that by contacting patients early in the process and providing them with verbal and written material, the patients will have a better understanding of what to expect during their treatment and will also be better prepared to cope. Social workers have been active in public education campaigns including workshops for veterans, conducting training for staff and community partners, and public message boards to inform Veterans about cancer prevention, detection and care; as well as Veterans' benefits and VA resources. The OSW also presented a component on

cultural competence and grief, loss and bereavement during the End-of-Life Nursing Consortium in the Spring and Fall of 2011. Additionally, OSWs provide ongoing education to social work students through the University of Washington School of Social Work (UWSSW) practicum program, which provides hands-on experience to students and to provide the University with input regarding Social Work in health care.

Support groups and educational offerings can be beneficial at all stages of the cancer experience. At VA Puget Sound, Social Workers co-facilitate a support group for patient caregivers who receive stem cell transplants as well as a general diagnosis support group for caregivers. Social Work, with the assistance of other departments, sponsors and organizes a day-long workshop developed for Veterans and their caregivers called "Heroes of the Heart," which provides information about self-care, resources available, Medicare and Medicaid planning, advance care planning, and estate planning. This workshop was held in March 2013. In 2014, OSW's plan to hold a Veteran's Survivorship Conference to present information about managing long term side effects, nutrition, exercise, Veteran specific concerns and resources available. Additionally, they are also planning an ongoing Survivorship psycho-educational group for patients to provide information and support regarding the effects of cancer and treatment on emotions, work and family.

Cancer treatment moves patients into a new awareness and self-image. Patients and their loved ones may feel incapable of managing independently at home. OSWs are highly skilled at assessing patients' and families' resources and referring patients to the level of care appropriate for their current situation and needs, including community outpatient programs, home health care, skilled nursing or assisted living facilities, or hospice/palliative care.

OSWs participate as members of the inpatient consultation team in the palliative and hospice care program. Social workers, along with other staff members, focus on the patient's quality of life by assisting with end-of-life planning, care resources and emotional support. Additionally, OSWs provide the patient and loved ones with grief and bereavement support and referral to resources during this transition. Social workers participate in end-of-life education for staff members and education for community partners about the VA hospice and palliative care program, survivor benefits, and burial benefits.

OSWs are essential in Advance Care Directive (ACD) planning, education and completion. Social workers participate in a hospital-wide initiative to improve Veterans' and staff members' understanding of living wills, durable power of attorney, and the role of surrogate decision makers. Veterans are encouraged to complete health care directives to ensure their ongoing participation in their own



health care and to relieve stress for loved ones who are named as surrogate decision makers.

During the next year, OSWs at VA Puget Sound will continue to advocate for Veterans in our care, reducing barriers to care and increasing access to treatment whether through locating appropriate transportation resources or finding financial resources to allow them to keep their appointments. Social workers conduct quality training for veterans, caregivers, staff, and community members and will continue to train student interns at VA Puget Sound. Social Work will continue to hold trainings at com-

munity hospitals and institutions of higher education to increase awareness of Veterans' benefits, programs and unique health care needs. With renewed emphasis on survivorship, there are plans to hold a cancer survivor's group at VA Puget Sound. OSWs will continue to work on the committee to improve the Cancer Survival Toolbox to pass that information on to medical professionals at the hospital. We will continue to provide caregiver and Veteran education and support groups. These efforts support the overall goal to help patients maintain their quality of life while they cope with various issues that arise during cancer care.

Complementary and Integrative Care in Supportive Oncology

Leila Kozak, PhD

Cancer patients and their caregivers have extensive needs for emotional, social and spiritual support. The Institute of Medicine Report on Cancer Care for the Whole Patient (IOM, 2008) has highlighted the importance of psycho-social support for patients undergoing cancer diagnosis and treatment, and how this support (or lack of) may interfere with patients receiving the care they need, complying with their treatment plans and managing their illness and recovery. Providing support for these needs requires a truly multi-disciplinary approach that involves educating patients, caregivers and providers in all available means of support. Such multi-disciplinary approach has expanded during the last 10 years to include “complementary therapies” - interventions that have been shown to decrease anxiety and pain and promote relaxation, which in turn enhance quality of life for patients and their caregivers.

These complementary care interventions have been incorporated into conventional cancer care across cancer care centers in the US and abroad, and are now referred to as “integrative care” or “integrative oncology.” Integrative oncology practices are expanding rapidly. Highly recognized cancer centers are responding to this expansion by providing training to physicians in integrative oncology practices and research.

The quest for establishing integrative care practices has been spearheaded at the VA by the Office of Patient Centered Care and Cultural Transformation (OPCC & CT). Created in 2010, OPCC & CT is ensuring that the VA transforms from physician-centered care to patient-centered, integrative and personalized care. To accomplish this, OPCC & CT has been providing T21 funding since 2010 to VA facilities around the country for demonstration projects focused on complementary and integrative care. In addition, funding has been supporting 5 Centers of Innovation and 5 Emerging Centers of Innovation which together have implemented numerous pilot programs with the goal of advancing patient-centered and integrative/personalized approaches. These Centers of Innovation function as “living laboratories” to test patient-centered care initiatives that, if successful, may be disseminated across other facilities. Such centers now offer programs that include touch/massage, yoga, tai chi, acupuncture, meditation, guided imagery, hypnosis, music and art therapy. A new integrative and personalized care curriculum is currently in pilot stage and has been delivered at various VA facilities to train VA providers in this new approach to care.

Integrative care in oncology has been fueled by a growing body of scientific evidence showing that some complementary interventions may have an

important role in the co-management of cancer treatment side effects and in supporting psycho-social and spiritual needs of cancer patients and their caregivers. For example, acupuncture has been shown to have a role in co-managing pain and chemotherapy-induced nausea while touch/massage has been shown to decrease pain and anxiety. Mind-body based exercise practices such as yoga and tai chi are now frequently offered as a way of gentle exercise for cancer patients because they have been shown to decrease pain, improve mood, decrease anxiety and promote relaxation (for a more detailed description of evidence-based complementary therapies used in integrative oncology, please visit <http://depts.washington.edu/integonc/clinicians/about.shtml>)

As cancer patients are increasingly seeking these services, hospital-based cancer services are responding by offering them as part of cancer care because of their benefits, high safety profiles and alignment with patient-centered care principles. In addition, offering these modalities within the hospital environment guarantees that patients have access to high quality care provided by professionals who not only have been trained in the complementary modalities but are also knowledgeable about the particular needs of oncology populations.

Cancer Program Annual Report

VA Puget Sound Cancer Care Program has been at the leading edge of this culture transformation towards integrative care by supporting research and implementation of complementary care for Veterans and their caregivers. Latest developments in this area at VA Puget Sound Cancer Care Program include:

- 1) A recent study, supported by a Seattle HSR&D fellowship, tested the feasibility of training caregivers of Veterans with cancer in basic massage techniques using the "Touch, Caring & Cancer" (TCC) Program (www.partnersinhealing.net). This study, which was recently published by the J. of Supportive Oncology (Kozak et al, 2013), recruited 27 Veteran-caregiver dyads at VA Puget Sound Cancer Care clinic, and provided them with copies of the TCC program, following them for 8 weeks as they learned the techniques at home. The TCC Program was initially developed with funding from the National Cancer Institute at NIH and had been previously tested in a randomized trial involving 97 civilian dyads (Collinge et al, 2012). The trial showed that participants who received massage from their partners 3 to 4 times a week, for at least 20 minutes each time, showed less pain, anxiety and fatigue than those receiving the control in-

tervention. Our VA Puget Sound study provided crucial information about the psycho-social and supportive care needs of our Veterans with cancer and their caregivers, and was the inspiration for a later grant received from OPCC & CT to advance implementation and evaluation of touch/massage therapy in oncology and palliative care services. Results from our Puget Sound study concurred with those published by the initial trial and suggested that caregivers also benefited from learning the massage techniques, feeling more confident about the ability to support their partner during cancer treatment and reporting an increased sense of closeness in their relationship nurtured by the massage practice. Both, Veterans and caregivers were highly satisfied with the program, and repeatedly expressed their gratitude to VA Puget Sound Cancer Care Program for making such program available to them.

- 2) The Office of Patient Centered Care and Cultural Transformation (OPCC & CT) recognized the work of Dr. Leila Kozak in advancing Complementary and Integrative Care in oncology and palliative care by providing her with funding as Clinical Champion to continue her work at VA Puget Sound and VISN 20 facilities. Dr. Kozak has been an active member of

the VISN 20 Integrative Medicine Task Force Committee and is currently the Chair of the Integrative Medicine Workgroup at VISN 20 Patient Experience Committee. Dr. Kozak's work has been dedicated to enhance staff education in evidence-based complementary and integrative therapies and to improve access to complementary therapies for Veterans at VA Puget Sound and other VA facilities.

- 3) In 2013, Dr. Kozak was awarded \$525,988 from the Office of Patient Centered Care and Cultural Transformation (OPCC & CT) to support dissemination of best practices in Touch/Massage Therapy and Healing Touch. This funding will support staff training and further implementation of complementary therapies for cancer patients and their caregivers. In addition, funding provided VA Puget Sound Cancer Care Program with copies of the Touch, Caring & Cancer Program (which will be available to cancer patients and their caregivers for free through Oncology Social Work). This project is also developing tool-kits, videos and webinars that will support education in and implementation of best practices in Touch/Massage and Heal-

(Continued on next page)

Complementary and Integrative Care in Supportive Oncology (Continued)

ing Touch across oncology and hospice & palliative care services at VA Puget Sound Cancer Care Program and nationally through OPCC & CT's SharePoint site.

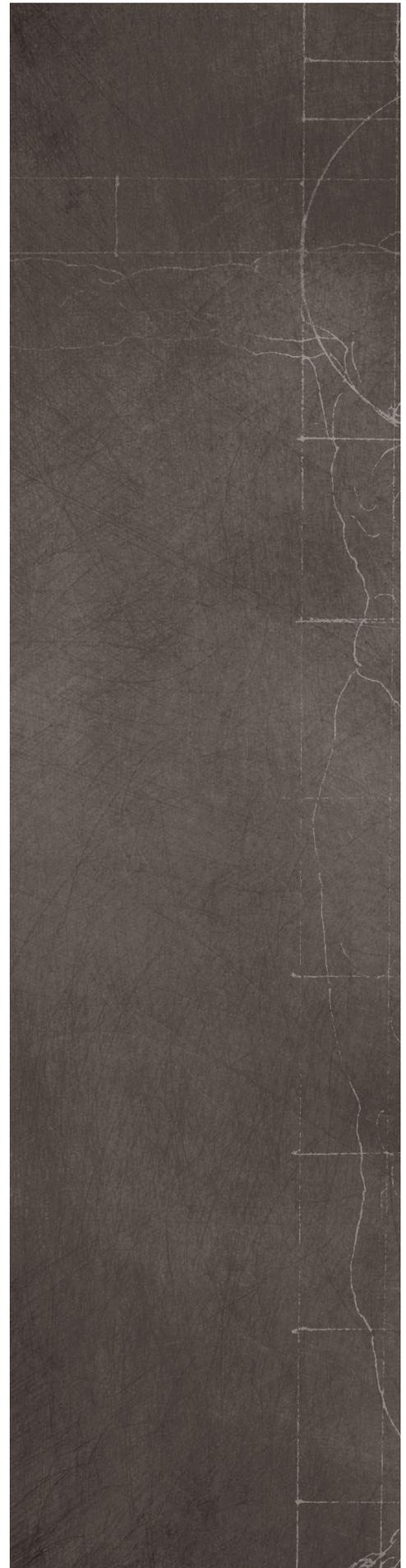
These advances towards bringing complementary care to our Veterans with cancer and their caregivers have been possible only because of the dedication, vision and support of many VAPSHCS Cancer Committee Members and the ongoing partnership with and support from Seattle HSR&D and OPCC & CT/VACO.

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