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 1,200 new cancer patients seen each year, our center is among the busiest cancer referral facilities in the United States and ranks among the best comprehensive cancer treatment centers in the VHA system.

Among the milestones achieved this year, the VA Puget Sound Cancer Care Program received a new three-year accreditation through 2015 from the Commission on Cancer with the designation of Comprehensive Cancer Center with “Commendation”. This is the twelfth continuous year our cancer program has received national accreditation and in nine of these years, we have received distinction of commendation or outstanding achievement status for superior performance. This accomplishment is a tribute to the dedicated team of physicians, nurses, and allied health professionals, who have worked collaboratively to improve the quality of cancer care for our Veterans.

Our cancer center continues to offer cutting edge cancer treatment. A few examples include Radiation Oncology, led by Dr. Kent Wallner, has expanded the use of intensity modulated radiation therapy (IMRT) and remains a national leader in the use of brachytherapy (seed-implantation) for the treatment of prostate cancer. Each year, more than 400 Veteran patients are referred from around the country for prostate brachytherapy. The Marrow Transplant Program led by Dr. Thomas Chauncey, treats over 100 patients with hematologic malignancies with stem-cell transplantation. Many of these patients receive donor stem cells from unrelated donors through the National Marrow Donors Registry. The Urology Department, led by Dr. Mike Porter, now offers robotic-assisted surgery for urologic cancers. Lastly, our multidisciplinary GI cancer team offers a broad-range of combined modality protocols to treat advanced esophageal, rectal, and pancreatic malignancies.

This cancer program is also intimately involved with innovation and implementation of new ideas to help Veterans with cancers. Among these is the VAPSHCS Telemedicine Tumor Board (TTB), which provides support for referral sites across VISN20 including the Spokane, 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 care and provides expert opinion to the remote sites. The clinical research program at our center continues to grow. These protocols not only contribute to the science of cancer but also provide our patients with novel treatment options.

In 2012 issue of the Annual Report, we highlight the wide-range of serviced offered here at the VA Puget Sound Cancer Program. We thank our local and regional VA leadership for their continued support of the Cancer Care Program and we are committed to the goal of providing the highest quality cancer care for our nation’s veterans.
A Cancer Registry is one of the required components of an American College of Surgeons’ approved cancer program and also mandated by law and by VHA Central Office. The Cancer Registry at the VA Puget Sound Health Care System (VAPSHCS) collects demographic, site-specific, staging, treatment, and outcome related information on all analytic cancer patients, starting at diagnosis and collects follow-ups throughout the cancer patient’s lifetime. Since the cancer registry reference date in 1998, the VAPSHCS Registry has compiled information on over 12,000 cases, and is continuing to do so. All information are maintained following all privacy and confidentiality rules, as required by law. The collected data is an invaluable tool in the fight against cancer, and fuel national cancer data-bases, such as COC-NCDB, SEER, CDC, State, VACCR, etc. Among its many uses are:
- Diagnostic and treatment research, clinical study recruitment, grant application/renewal purposes
- Special quality and other studies at the facility, and/or studies at NCDB, VA Central Office, etc
- Calculation and comparison of survival and quality of life
- Developing staff, patient and public educational programs, early detection, prevention of cancer programs, etc
- Presenting data for treatment planning at Cancer Conferences
- Evaluating the effectiveness of current treatment modalities, benchmarks for quality of cancer care, analyzing patterns of care, etc
- Submission of data to state and national databases for comparison
- Benchmark reports can be created with the data to evaluate and compare the cancer care delivered to patients diagnosed and/or treated at our hospital with all other VA hospitals, or other COC approved cancer programs nationwide.

The Cancer Registry staff is an integral part of the cancer program and is currently staffed by NCRA-certified, facility-employed cancer program manager/cancer registrar, and contract cancer registrars (Best Practices Group/Grace Registry Services). Cancer registrars strive to provide the highest quality data by adhering to all relevant national data standards ensuring uniformity and accuracy in data collection, and accurate and timely follow-up information on our patients. Continuing Education is an important requirement for maintaining certification and for highest quality data, and all abstractors regularly attend local, regional and national educational offerings to remain informed about the latest advances in cancer care per the requirements of the American College of Surgeons’-Commission on Cancer.

The VAPSHCS Cancer Registry submits data on a regular basis to the VA Central Cancer Registry, Commission on Cancer - National Cancer Data Base (NCDB), Cancer Surveillance System (CSS) located at Fred Hutchinson Cancer Research Center, (for WA State reporting, DUA in place). In addition, VAPSHCS Cancer Registry participates and provides
Cancer Program Annual Report

Cancer Registry Report (Continued)

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 are stripped when they are submitted to VA Central Office and the CoC/NCDB data base. A log is maintained for all data requests per facility and VACO policy. The VAPSHCS cancer registry participates in all special studies of COC-NCDB and other organizations, as required.

In 2011, 958 analytic cases of cancer, and 187 non-analytic cases, for a total of 1145 cancer cases were accessioned in the cancer registry.

Of the analytic cases, 926 were male and 31 were female in 2011. There has been a steady increase in the total number of female patients accessioned over the years, as demonstrated by 20 female pts accessioned in 2009, 31 female in accessioned 2010 and 40 female patients accessioned in 2011.

57 percent of the analytical cases were diagnosed at VAPSHCS and 43 percent were diagnosed elsewhere and referred to us for treatment.

The top five cancer primary sites seen at our facility in 2011 were Prostate, Respiratory, GI, Hematopoietic & Lymphomas, and Urinary system cancers.
2011 VAPSHCS Select Primary Sites by Age at Dx

H&N incl Larynx
Mel/Reportable Skin
Lung
Leuk/Plasma Lymp
Urinary
Esophagus
Colorectal

<table>
<thead>
<tr>
<th>&lt;29 yrs</th>
<th>30-39 yr</th>
<th>40-49yr</th>
<th>50-59yr</th>
<th>60-69yr</th>
<th>70-79yr</th>
<th>&gt;80 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>100</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

number of cases

Source: VAPSHCS Cancer Registry Database

Glossary of Terms:
Analytic: Cancer diagnosed and/or received first course of treatment at VAPSHCS.
First Course of Treatment: Cancer directed treatment planned and administered at VAPSHCS, usually within four months of diagnosis or as determined by the managing physician.
NCDB: National Cancer Database is a nationwide oncology outcome database.
CSS: collects population-based data on cancer 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.
NCRA: a not-for-profit association representing cancer registry professionals and Certified Tumor Registrars
DUA: Data Use Agreement, as required by VA policies.

References
4. Previous Annual Reports
5. CSS website: http://www.fhcrc.org/science/phs/css/
6. NCRA website: http://www.ncra-usa.org
7. American Cancer Society website: www.cancer.org/acs

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.
## Cancer Registry Report (Continued)

### Site:

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: H&N, excl Larynx

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Respiratory

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Digestive

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Hematopoietic/Reticul

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Skin (excl reprod)

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Breast ex skin

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### System: Other ICD-10 codes

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**System: Periph Nervs/Aut**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Retroper**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Connective/Soft Tissue**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Breast ex skin**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: FemGenital**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: HemP**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: H&N excl Larynx**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Periph Nervs/Aut**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Retroper**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**System: Connective/Soft Tissue**

<table>
<thead>
<tr>
<th>TOT#</th>
<th>ANA</th>
<th>NON</th>
<th>MALE</th>
<th>FEMALE</th>
<th>STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 Health Care System (VAPSHCS).

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 (FH-CRC) 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, GI and hematologic malignancies are discussed at the multidisciplinary tumor board and are offered clinical trial participation if the tumor board physicians consider protocol therapy to be an alternative to the current standard of care. Patients are only referred to VAPSHCS approved research studies. Stem-cell transplant patients are enrolled in sponsored protocols approved by the VAPSHCS as a part of their routine clinical care. In 2011, 27% of all cancer patients at this institution elected to participate in clinical protocols. Among these research programs, the Prostate therapy in-house protocols and Gastrointestinal and Lung in-house protocols accrued the highest number of patients in 2011.

In 2012 the hospital performance measures for cancer screening have remained within the target or have steadily improved. The breast cancer screening rate is at 89%, up 2% from FY11 and with a target of 77%. The target for cervical cancer screening is 86% and we are at 87%. We met the colorectal screening for the year at 75%, with a 67% target. The outpatient 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 96%, 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 95%, exceeding the 58% target. The inpatient counseling for tobacco cessation is now at 100% thanks to the nursing admission template, instituted in 2011. These changes demonstrate our hospital’s commitment to cancer screening and prevention and are just a few of the improvements that were completed in 2012. Each improvement helps us grow and working with the veteran patients inspires us to continue to strive for excellence in Cancer Care.
Tumor Board Activities for 2011
Stephanie Magone

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 2011, there were 51 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.

Tumor Board 2011
Distribution of 408 Total Cases

- HEAD & NECK 90 22.1%
- DIGESTIVE 101 24.8%
- THORAX 165 40.4%
- MUSCULOSKELETAL 6 1.5%
- SKIN 15 3.7%
- BREAST 1 0.2%
- GENITOURINARY 4 1.0%
- OPHTHALMIC 2 0.5%
- LYMPHOID NEOPLASMS 5 1.2%
- OTHER 19 4.7%
- UNKNOWN 90 22.1%

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).
Hospital & Specialty Medical Care – Oncology Division
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, two 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 activities 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.

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 five full-time and one part-time staff gastroenterologists/hepatologists, one nurse practitioner, and a superb team of nurses on staff at the Seattle and American Lake campuses.

(continued on page 9)
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 1,230 patients have been transplanted in Seattle, including close to 200 from unrelated donors. Utilizing 8 inpatient beds and 1 outpatient suite, 40-45 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

Gastroenterology and Hepatology (continued)

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.
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 aerodigestive 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, neuroradiologists, 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.
Radiation Oncology - Innovation and Patient Centered Care in Radiation Therapy
Tony S. Quang, M.D. and Kent E. Wallner, M.D.

The VA Puget Sound Health Care System serves as a radiation oncology referral center in the Veterans Affairs (VA) system, drawing patients from the entire northern component of Veterans Integrated Service Network (VISN) 20. We deliver innovative and interdisciplinary care to patients diagnosed with head and neck cancers, lung cancer, gastrointestinal and genitourinary malignancies, sarcomas, brain tumors, breast cancer, and leukemias and lymphomas. Our robust bone marrow stem cell transplant program using total body irradiation as a conditioning regimen is unparalleled.

Our patient census continues to grow and our department continues to successfully implement new technology and offer sophisticated treatment plans. In the past 6 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. On October 1, 2012 we upgraded our patient electronic medical system, MOSAIQ Management System, to version 2.3, which is the most updated version in the industry. MOSAIQ provides an additional layer of treatment verification and quality assurance. This state-of-the-art technology implementation 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 Hydration clinic in one of our examining rooms. During weekly treatment visits for patients undergoing chemoradiation, Dr. Tony S. Quang, MD, one our radiation oncologists, was concerned when he noticed 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 and Kirk Hoopes, RN have been instrumental in the day-to-day implementation of clinic flow and logistics. The IV Hydration clinic has a capacity of 5 patients at any given time. Currently we have been instituting 6 to 8 IV hydration sessions per week primarily for our head and neck cancer patients undergoing chemoradiation therapy. 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 2010, when 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. Because of the maturity of our experience and the recruitment of Sharon Hummel-Kramer, CMD, RTT who brings over 35 years of treatment planning experience to the VA from the University of Washington Medical Center, we have systematically expanded IMRT to patients with lung, anal, and gastrointestinal cancers. We continue to use cone beam CT imaging protocols to ensure optimal adaptive radiation therapy. 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. Our new recruit Administrative Officer, Imelda Lemasters-Burket, has also led the effort in running monthly departmental meeting to streamline administrative work flow.

Furthermore, as a national authority on the quality assurance effort of other VA brachytherapy programs, Dr. Kent E. Wallner, MD has pioneered a specialty clinic in the administration of seed brachytherapy for prostate cancer patients. Because of short-staffing issues, we have been required to turn away out of VISN 20 patients and have decreased our census significantly. VA leadership is looking into ways to ameliorate this situation. 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 Health-care Enterprise in Radiation Oncology (IHE-RO) planning and technical committees. The IHE-RO works in collaboration with the American Society for Radiation Oncology (ASTRO) 54th Annual Meeting in Boston, Massachusetts, Dr. Quang commenced discussions with the VA Radiation Oncology national leadership for the VA Puget Sound to participate in the multi-center VALOR trial. The VALOR trial is a phase III clinical trial which compares toxicity and survival outcomes for medically operable early-stage non-small cell lung cancer patients randomized to surgical resection or stereotactic body radiotherapy (SBRT). Our department plans to offer this pioneering study to our patients in a controlled, regulated, and ethical manner.

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.

Drs. Quang and Wallner are active participants at weekly Tumor Board meetings where patients are offered the optimal management recommendations through an interdisciplinary effort. Dr. Quang runs monthly clinical case conferences and 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 radiation therapy students in the training program.

Following his attendance at the American Society for Radiation Oncology (ASTRO) 54th Annual Meeting in Boston, Massachusetts, Dr. Quang commenced discussions with the VA Radiation Oncology national leadership for the VA Puget Sound to participate in the multi-center VALOR trial. The VALOR trial is a phase III clinical trial which compares toxicity and survival outcomes for medically operable early-stage non-small cell lung cancer patients randomized to surgical resection or stereotactic body radiotherapy (SBRT). Our department plans to offer this pioneering study to our patients in a controlled, regulated, and ethical manner.

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.

(continued on page 13)
Diagnostic Imaging Service
Julie Takasugi MD and 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 9 receptionists/schedulers, 2 program support persons, 1 administrative officer, 2 PACS administrators, 3 file clerks, 2 health technician/escort, 38 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 (CAT) scans, ultrasound exams, magnetic resonance imaging (MRI), angiography and radionuclide studies. A new modern CT scanner was installed last year and a new wide bore MRI and PET/CT scanner will be installed shortly. Currently, Positron-emission tomography (PET) scans using fluorodeoxyglucose (FDG) are available through outside vendors. Mammmography 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 and lymphoscintigraphy are performed. SPECT/CT is being 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 is 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/Neurosurgery 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 VISN. In 2012, a total of 94,600 radiologic examinations were performed at the VAPSHCS.
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 multimodality treatment for tumors of the upper and lower gastrointestinal tract, hepatobiliary system, pancreas, breast, melanoma, soft tissue sarcoma, and endocrine system. Together with Drs. Lorrie Langdale, Roger Tatum, Dana Lynge, and Edgar Figueredo, our section performs an extensive range of cancer-related procedures, including sentinel lymph node biopsies, minimally invasive surgery, and radiofrequency ablation. We commonly accept referrals for a wide array of complex intraabdominal procedures including esophagectomy, hepatic resection, pancreaticoduodenectomy, rectal cancer surgery and management of retroperitoneal sarcomas. We work closely with colleagues in Medical and Radiation Oncology to offer combined modality protocols. Our goals are to provide state-of-the-art care for solid tumors in a multidisciplinary format, 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.
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, mediastinum, 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. In 2011, VAPSHCS in Seattle partnered with the Spokane VAMC to create a team which was selected as one of 8 sites to participate in the National Lung Cancer Collaborative Program. The goals of the program were to analyze current care delivery for Veterans with lung cancer and improve quality of care and patient satisfaction.

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 thoracoscope. 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.

Because most lung cancer patients require extended follow-up as a part of their cancer care, the Thoracic Surgery service follows all resected lung cancer patients for five years. This requires biannual imaging, clinical examinations, and assistance and counseling regarding smoking cessation. All tests and examinations are performed by the Thoracic Surgery service at a weekly outpatient clinic.

The Thoracic Surgery Service also renders care for patients with benign lung diseases including surgical management of end-stage lung disease in conjunction with Pulmonary Medicine. We offer lung volume reduction surgery to select patients and we are one of three VA Medical Centers nationwide offering lung transplantation as an option for those patients who would derive medical benefit.
Nutrition and Cancer
Patti Pritchard, RD

Nutrition is essential in contributing to good 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 get good nutrition: nausea, vomiting, 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.

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 reoccurrence prevention, 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, and monitors tube feeding tolerance and progression. Marrow Transplant patients may require total parenteral nutrition (TPN) during their treatment. 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.

Psychology and Oncology
Dawn Sternstein, 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. Psychological and integrative treatment methods serve to enhance the healing of our veterans and improve their quality of life. In order to provide our veterans with comprehensive cancer care, psychological services are available to Oncology treatment programs.

Psychologists at the VAPSHCS provide assessment, education and therapy (including individual, couples/family, and group) to veterans and their family/friends who often serve as caregivers in the cancer care program. The psychologists provide evaluations of mood, affect, and cognition 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 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 14 years, Dr. Dawn Sternstein 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 a stem cell/marrow transplantation. She spearheads a team of psychologists who complete VACO mandated Transplant Candidate Mental Health assessments for all marrow and solid organ transplants. In addition to direct patient care services, Dr. Sternstein 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.
Bringing Care Coordination Home: Telehealth (CCHT) to Veterans at Home with Cancer Study

Jerry Virtue, ARNP

The CCHT Oncology/Palliative Care program is a new model of care coordination for Veterans with cancer (Funding: VA T21 Grant lasting 3 years, 2010-2012; Staff: ARNP 1.0 FTE, Chaplain 0.25 FTE, MSW 0.5 FTE - lost this position March, 2012). It provides medical, psychosocial and spiritual support for the Veteran, and includes the caregiver as a unit of care. The target groups are Head and Neck cancer Veterans receiving active treatment and lodgers travelling to Seattle for cancer treatment, although patients with other cancer diagnoses were also eligible. Head and Neck cancer treatment has known risk for high utilization of health care resources, debilitation and death in active treatment and a life expectancy of 2 years or less.

Criteria for enrollment:
- Cancer diagnosis with focus group Head and Neck cancer
- VA Puget Sound PCP or referred to Puget Sound VA for active cancer treatment
- Live in stable housing, or lodging during cancer treatment in Seattle
- Have landline phone, or access to high speed internet for connection to health monitor called Health Buddy
- Must be able to complete daily question sets, or have caregiver to complete the question set

Goals:
- Patient becomes an active participant in their own health care
- Patient will learn about managing their illness
- Enhancing quality of life with early detection and intervention for a change in health status to avoid hospital or ED visit
- Psychosocial and spiritual support
- Optimizing function
- Education and support for caregiver

Data facts for Intervention group receiving CCHT Oncology/Palliative care program:
Total Enrollment by 9/13/12 = 128
Rural status - 30%
Lodgers - 47%
Caregiver support – 70%
Referral source – 47% Radiation Oncology, 38% Cancer Clinic, 5% PCCT, 4% PACT, 6% other
Cancer diagnosis – 41% Head and Neck, 14% Lung, 13% Esophageal, 8% Colorectal, 6% Lymphoma, 5% other GI, 15% other
Reason for disenrollment – 24% left lodging, 18% program ended, 13% non compliant in completing data transmission, 10% referred to Hospice, 8% prolonged hospitalization, 8% patient request, 7% loss of connectivity, 6% death, 4% other
Deaths – 8 (6%) during enrollment period

Data facts for Control Group not receiving CCHT Oncology/Palliative care program due to refusal, or did not meet enrollment criteria:
Total Enrollment by 9/13/12 = 125
Rural Status – 30%
Lodgers – 30%
Cancer Diagnosis – 31% Head and Neck, 22% Lung, 10% Esophageal, 7% Colorectal, 6% other GI, 6% Prostate, 19% other
Reason for Non-enrollment – 41% refused, 41% not suitable due to not meeting criteria, 12% lacked connectivity, 6% other
Deaths – 49 (39%) during enrollment period

Outcome data as of 9/13/12: Rural status, medication adherence rate along with unplanned hospital bed days of care (BDOC) and emergency department (ED) visits were tracked at one month and from 2 - 5 months following enrollment. These data were compared to a control group matched for diagnoses

Results:
1. Access measure – 30% in intervention group met rural criteria; 30% for control group
2. Quality measure- 99% in intervention group self reported medication compliance
3. Utilization of resources (data normalized for BDOC or ED visits/Veteran/Day)

a. Unplanned Hospitalization Bed Days of Care (BDOC) following Month One 90% Reduction in Bed Days of Care for Intervention group (N=95) as compared to control group (N=120)

b. Unplanned Hospitalization BDOC Months 2-5 72% Reduction in BDOC for intervention group (N=30) as compared to control group (N=73)

c. Emergency Department (ED) visits following Month One 18% Increase in ED visits for intervention group (N=95) as compared to the control group (N=120)

d. ED Visits Months 2-5 65% Increase in ED visits for intervention group (N=30) as compared to control group (N=73)

Increased Emergency Department visits by the intervention group reflects the medically fragile status of this group with 41% head and neck cancer veterans receiving active cancer treatment with multiple co-morbid conditions, debilitation and known risk for high utilization of health care resources.

Quality Management and Improvement
JoElaine Rinker RN, BSN

The Cancer Committee at the VA Puget Sound Health Care System (VAPSHCS) views Quality Management as Continuous Quality Improvement. This keeps us focused on the future and continuing to improve on our abilities to diagnose patients in a timely manner, improve cancer treatments and outcomes (with radiation therapy, chemotherapy, and clinical trials), along with customer service. With all the clinics undergoing a system redesign, the Cancer Program has continued to lead the way with its ability to see and treat patients on an immediate basis.

The VAPSHCS Cancer Committee tasks the Quality Management and Improvement (QM&I) Multidisciplinary Subcommittee each year to identify priority areas to improve the quality of care and quality of overall services received by cancer patients and family members. Identified priorities are presented to the Cancer Committee for discussion and approval each year.

This year we are moving forward with several changes to improve Cancer Care to our veterans. Nursing and Pharmacy continue a closed system for the mixing, transporting and administration of chemotherapy. This system protects patients, families and staff against the accidental leakage and aerosolization of chemotherapy. We feel that this has been a significant safety addition. There have been other safety initiatives over the course of the year. The escorts now have a cart to pick up chemotherapy from the pharmacy and transport to the Cancer Care Clinic, there are gloves, gowns, mask, spill kits and step by step instructions on the cart to keep chemotherapy safe while transporting to protect the staff, visitors and patients. The Marrow Transplant Unit continues to update their Internet website to be used by referring VAs and new patients coming to Seattle for transplant. All the patient education materials used by the interdisciplinary team continue to be captured on this website.

We continue to work on providing opportunity for the nursing staff in the Cancer Care Clinic and the Marrow Transplant Unit to obtain their Oncology Nurse Certification. 100% of the nurses are chemotherapy/biotherapy certified.
Community Outreach Activities

Members of the Cancer Care Committee help 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 (VAPSHCS). Other topics including nutrition during cancer treatment, caregiver support, smoking cessation 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. Additionally, the space has been updated, making it more friendly, comfortable and usable.

Members of the Cancer Care Committee continue to be active in community organizations providing leadership and education, as well as participating in volunteer activities. Race for the Cure and a bone marrow donor registration drive are examples of these. Several committee members presented informational talks to VA-associated volunteer groups as well as community 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.

Oncology Social Workers Cathy Blanchard and Ana Fisher are working towards strengthening and formalizing a cancer survivorship program, recognizing that more individuals are facing issues after treatment is completed. We will be holding a Survivorship Conference at VA Puget Sound, inviting Veterans, caregivers and staff to attend, in May 2012. Topics will covers issues such as managing long term side effects, nutrition, exercise, Veteran specific concerns and resources available. Additionally, they are also planning a Survivorship psycho-educational group for patients to provide information and support regarding the effects of cancer and treatment on emotions, work and family.

Oncology Social Workers provided education to community colleagues at a quarterly Association of Oncology Social Worker Network meeting, VA Social Workers and Nursing staff on the Cancer Survival Toolbox (a self-advocacy program focusing on survivorship), Cultural Competence and End of Life Care and Grief Loss and Bereavement. In November 2011 members of the team presented a one hour workshop on “Caregiver Types and Caregiver Burden” in 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.

Cancer Care Clinic’s Ellen Nason, ARNP, AOCNP is a presenter at the Fundamentals of Oncology Nursing educational consortium that is held twice a year. It is sponsored by Puget Sound Oncology Nurse Society (PSONS). Her lecture is titled: “Oncologic Emergencies.” Ms. Nason is also involved in WA CARES, a Washington Department of Health comprehensive cancer program. She serves on the steering committee as well as the task force for survivorship and palliative Care, as a representative of PSONS.

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 Lamar Vincent, 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.
The Palliative Care and Hospice Service continues to provide care for patients on both campuses of VAPSHCS. The biggest change in FY2012 is the discontinuation of the Coordinated Care-Home Telehealth (CCHT)/Oncology/Palliative Care program which was not selected for funding by the facility at the end of the third year of T21T grant funding. Program startup was delayed until January 2011 due to delayed hiring of staff, but the CCHT program ultimately served 128 Veterans prior to its conclusion. Notable accomplishments for the CCHT/Oncology/Palliative Care program included the following:

- improved resource utilization as evidenced by a decrease in unplanned hospitalizations/bed days of care of up to 90% over the 18 months of the program;
- improved medication adherence, as evidenced by self-reported medication compliance of 99% by the end of the program;
- high level of satisfaction with the program, with 100% reporting they were “satisfied” or “very satisfied”;
- initiation of an outpatient cancer survivorship outpatient program with face to face visits of enrolled veterans;
- development and facilitation of Head and Neck Cancer Pathway Interdisciplinary Rounds to coordinate care for all Veterans with head and neck cancer receiving treatment at the Seattle Division;
- initiation of a cancer caregiver support group;
- outreach to Veterans living in rural locations and Veterans in lodging status (in FY2012, rural veterans comprised 30% of the CCHT cohort; lodgers comprised 47%); and
- provision of outpatient palliative care services (note that due to staffing limitations, the CCHT program was the only available venue for Veterans to receive these services at the Seattle Division).

The Palliative Care Service saw 513 consults in FY12, of which 58% were cancer patients. These data exclude patients followed by the CCHT/Oncology/Palliative Care program. Palliative Care consultation rates exceeded the Emerging Measure 3 standard (55% of all inpatient deaths seen by the consultation team within 12 months prior to death) by seeing 62% of all inpatients who died at Puget Sound in FY 2012 (first 3 quarters). It is noteworthy that smoother transitions occurred when Veterans followed by the CCHT/Oncology/Palliative Care program needed inpatient or hospice services, compared to Veterans not enrolled in this program.

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, as well as telephone meetings and an educational program at American Lake. 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”. For the first 3 quarters of FY 2012, overall “excellent” ratings on the BFS for VAPSHCS improved to 61%, compared to 51% in FY 2011. 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).

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. Twenty-one nurses subsequently attended the ELNEC-Critical Care class held in August 2012. 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 this grant which is to improve care in the ICU for Veterans who will not survive their illness 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.

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, the 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 evaluation and treatment planning.

This past year, we received generous funding support from the VACO Transformational Initiatives Program for Telehealth which resulted in the hiring of our new Cancer Telehealth Coordinator, Lisa Mandell, R.N., J.D. who will lead efforts to expand the Tele Tumor Board program to other VISN20 sites including Spokane, Boise, Anchorage, and Walla Walla.

For further information, please e-mail:
Peter.Wu@va.gov
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 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 November 2011 to coincide with National Caregiver’s Month. In May 2013, 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 has already begun plans for the annual Heroes of the Heart conference to be held in March 2013 and will continue to hold training at community hospitals to increase awareness of Veterans’ benefits and programs. With renewed emphasis on survivorship, there are plans to partner with a community agency to hold a cancer survivor’s group at VA Puget Sound. OSWs will be teaching the Cancer Survival Toolbox to medical professionals at the hospital and 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. Social Workers participate in VISN-wide social work conferences to address topics including palliative care, estate planning, caregiver support, and cultural competence.

VAPSHCS CANCER COMMITTEE MEMBERS

Jeff Almgren, RPh, Pharmacy
Haritha Avula, MD, GI Services
Leah Backhus, MD, Thoracic Surgery, Cancer Liaison Physician
Jeannine Barton, Clinical Research Coordinator
Cathy Blanchard, LICSW, Social Work
Charles Boyd, PA-C, MPAS, Cancer Care
Todd Brown, Education, CME Program Coordinator
Yeshearg Dagne, RN, Cancer Care Clinic
Sudarshana Das, CTR, RHIT, Cancer Program Manager
David Dong, MD, Pathologist, Chief of Hematology
Lana Dunsmore, PA-C, Cancer Clinic
William Eubank, MD, Radiology (retired in Sept)
Armida Evangelista, RN, Oncology
Ana Fisher, LICSW, Oncology Social Worker
Lisa Fox, RN
Gonzalez Pamela, Administrative officer
Marie Guillet, Physical Therapist, Rehabilitation Services
Jean Hargrett, PA-C, Rad-Onc
Thomas Hartmann, Chaplain
Booyeon “Alicia” Kim, Cancer Care Quality Coordinator
Leila Kozak, Associate Health Fellow, Complementary & Integrative Medicine- CIM
Walter Kopf, LICSW, Palliative Care and Oncology Social Worker
Stephanie Magone, Research Coordinator and Tumor Board Coordinator
Ellen Nason, ARNP, AOCNP, Cancer Care
Julie Nugent-Carney, Quality Consultant
Becky Porter, ADPAC
Michael Porter, MD, Urology
Patti Pritchard, RD
Tony Quang, MD, Radiation Oncology
JoElaine Rinker, RN, BSN, Nurse Manager- BMTU and Cancer Care Clinic
William Schubach, MD, PhD, Chief Oncology
Sandra Solomon, RN, Nurse Manager – 6W
Dawn Sternstein, PhD, MTU Psychologist
Julie Takasugi, MD, Diagnostic Radiology (joined in Oct)
Bill Thurn, RN, IV Therapy
Lamar Vincent, MDiv, Chaplain
Jerri Virtue, ARNP, CCHT Palliative Care Program (transferred recently)
Elizabeth White, RN, Palliative Care Coordinator, Hospice Coordinator
Kent Wallner, MD, Radiation Oncology
Daniel Wu, MD, PhD, Medical Oncology
Peter Wu, MD, Surgery, Cancer Committee Chairperson
CREDITS

Editing Consultants
Sudarshana Das, CTR, RHIT
Alisa Engeland

Graphic Design
Alisa Engeland

Article Contributors
David Au, MD
Haritha Avula, MBBS
Leah Backhus, MD
Jeannine Barton
Cathy Blanchard, LICSW, OSW-C
Thomas R. Chauncey, MD, PhD
Sudarshana Das, RHIT, CTR
Ana Fisher, LICSW
Richard Goodman, MD
David A Gruenewald, MD
Thomas C. Hartmann, MDIV
Walter Kopf, LICSW
Janet Leahy, RN, BSN
Stephanie Magone
Thomas McDonough, PA-C
Eduardo Mendez, MD
Bruce Montgomery, MD
Michael S. Mulligan, MD
Patti Pritchard, RD
Tony S. Quang, MD
Joseph G Rajendran, MD
JoElaine Rinker, RN, BSN
William Schubach, MD, PhD
Dawn Sternstein, PhD
Julie Takasugi, MD
Lamar Vincent, MDIV
Jerry Virtue, ARNP
Kent Wallner, MD
Elizabeth White, RN, HBPC
Peter C. Wu, MD (Chair)