



VA Connecticut Healthcare System Cancer Program Annual Report 2017

(Utilizing 2016 Registry Data)

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2017 Cancer Program Annual Report
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VA CONNECTICUT HEALTHCARE SYSTEM MISSION STATEMENT

Honor America's Veterans by providing exceptional health care that improves their health and well-being.

**VA CONNECTICUT HEALTHCARE SYSTEM CANCER PROGRAM
MISSION STATEMENT**

Promote the health of our Veterans by providing state-of-the-art cancer prevention, screening, and treatment programs; by educating the next generation of cancer care providers; and by expanding knowledge through research.

2017 VA Connecticut Healthcare System Cancer Committee

The Cancer Committee at the VA Connecticut Healthcare System is a multidisciplinary forum dedicated to providing state-of-the-art, comprehensive patient care. The focus of the committee is to ensure that our Medical Center provides excellent cancer prevention and screening programs, and that quality care is provided to all cancer patients. To achieve these goals, the Committee actively promotes and complies with the standards of the American College of Surgeons Commission on Cancer.

Cancer Committee Members

Coordinators

Director Cancer Center, Chairperson
Cancer Liaisons

Michal Rose, MD
Dale Han, MD
Preston Sprenkle, MD
Herta Chao, MD, PhD
Roxanne Wadia, MD
Michal Rose, MD
Donna Connery, CTR
Tammy Corso, CTR

Quality Improvement
Quality Control of Registry Data
Cancer Conference
Certified Tumor Registrar

Members

Radiation Oncology
Pulmonary Medicine
Chief, Pathology
Geriatrics/Long Term Care
Cancer Program Administrator
Chief of Surgery
Chief, Diagnostic Radiology
Urology
Pain Control
Social Worker/Case Manager
Pastoral Care
Research/Data Manager
ACS Control Representative
Nutrition
Performance Improvement/Quality Mgmt.
Patient/Family Education
Oncology Nurse
Cancer Care Coordinator

Kimberly Johung, MD
Hilary Cain, MD
Robert Homer, MD, PhD
Linda Accordino, APRN
Michael Ebert, MD
Ronnie Rosenthal, MD
Caroline Taylor, MD
Preston Sprenkle, MD
Tracy Shamas, APRN
Donna Doris, LSW
Rev. Sergei Bouteneff
Monica Delvy
Maitreye Shah
Stephanie Calhoun
Tammy Golden, RN
Karen Didomenico, RN
Marcia Burkitt RN
Julie Beck, APRN-BC

Chairperson's Report

I am honored to introduce this 2017 Annual Report which again demonstrates the dedication and expertise of our multidisciplinary team at VACT Cancer Center. The reports speak for themselves and attest to the individual and institutional commitment of our facility to the care of Veterans.

These are especially exciting times in the field of cancer care. The number of new drugs and new indications for drugs are growing exponentially, with the majority of the progress being made in the fields of precision oncology and immune therapy. In 2017, years of research came to fruition with the FDA approval of two new agents to treat B-cell hematologic malignancies utilizing chimeric antigen receptor (CAR) T cell immunotherapy (tisagenlecleucel and axicabtagene ciloleucel). As we continue to tell our patients, cancer is becoming a chronic illness that can be managed much like diabetes or hypertension, and there is much cause for optimism.

We continue to work hard to offer our Veterans state of the art treatment and have incorporated many of these new agents into our practice. Furthermore, Veterans who do not have effective, standard of care treatments are offered participation in clinical trials, either at our VA or at other institutions. We saw a significant growth in our clinical trials program in 2017: We now have 4 full time research coordinators to manage and grow our portfolio of studies, which encompass cancer prevention, early detection, treatment and end-of-life care. We are also active in the VISN1 Oncology clinical trials consortium which has expanded under our leadership to add multiple other VA centers nationwide.

As this Annual Report demonstrates, VACT offers multiple cancer prevention and screening programs. We are especially proud of our lung cancer screening program, which was one of the first in the VA system, and to date has included more than 5,500 Veterans. We also continue to promote healthy living for our cancer survivors with personalized treatment summaries which include recommendations for health maintenance and cancer prevention and screening. As in previous years, we organized several special events for our Veterans living with cancer in 2017, including an annual Cancer Survivor Day, a Thanksgiving luncheon, and a Cookie Bake for Christmas, in which Veterans received cookies to take home during the holiday season.

As this report demonstrates, the Cancer Center at VACT Healthcare System brings together providers from all disciplines to prevent and treat cancer. We are also very grateful to our administration for their continued support and to the many other entities that work with us to care for our Veterans such as the Volunteer Services of VACT and the American Cancer Society. I continue to feel privileged to belong to such a dedicated group of individuals.

*Michal Rose, MD
Director, Comprehensive Cancer Center*

Cancer Liaison Report

The role of the Cancer Liaison is primarily to promote the quality of care delivered at our institution, to serve as a liaison between the Commission on Cancer, sponsored by the American College of Surgeons and our local Cancer Program, and to facilitate community outreach programs. As such, we have a highly successful Cancer Survivor Day that has been both a celebration of our cancer survivors as well as an educational platform to continue to reach out to the community. This year

we celebrated our 12th Cancer Survivor Day at VACT. This year's theme was "Savor the Sweet Life" and once again we were able to create a joyful event full of entertainment, education, and hope for our patients living with cancer and their families. The event was extremely well attended, and we are already hard at work planning the next one.

Over this past year we continued our Oncology Education Series here at the VACT Healthcare System. This is a continuing medical education event centered on increasing awareness and knowledge regarding specific cancers and their care teams. This year, we chose to focus on prostate cancer. To that end, we hosted a highly successful educational event on Prostate Cancer on October 20, 2017. The day-long multidisciplinary educational conference was well attended by a variety of clinicians including physicians, nurse practitioners, physician's assistants, nurses and other healthcare providers.

Our center has a close partnership with our local American Cancer Society chapter and continues to work in coordination with the ACS to provide resources to our patients. The majority of our cancers are reviewed at our Tumor Board Conferences, and due to the large volume of cases, we have separate Multidisciplinary Tumor Boards including Pulmonary Nodule, Urologic, Hematologic, Liver and GI Tumor Boards. The role of the Cancer Liaison is continually evolving, but the mission remains the same: to continue to strengthen and develop VA Connecticut Cancer Center to better serve our Veterans.

*Dale Han, MD
Preston Sprenkle, MD
ACoS Liaisons*

Cancer Registry Report

Data of patients who are diagnosed and/or treated for cancer at the VA Connecticut Healthcare System are abstracted into the Cancer Registry. VA Connecticut Healthcare System's registry is a computerized data collection and analysis center. The registry operation is directed by the Cancer Committee, in accordance with the American College of Surgeons Commission on Cancer standards for a Veterans Affairs Cancer Program.

The data is reported in accordance with the standards set forth by the Veterans Affairs Central Cancer Registry in Washington D.C., the Department of Public Health for the State of Connecticut and the National Cancer Database. Since the reference date of 2000, 9957 cases have been included in the database, 8,268 being analytic. There were 701 cases (analytic) added during 2016 (please refer to primary site table on page 23).

Ten percent of all analytic cases are reviewed by VA Connecticut Healthcare's Quality Control Physician for quality assurance. Edit checks of cases are periodically returned on data submitted to the Veterans Affairs Central Cancer Registry, the State Cancer Registry and the National Cancer Database of the American College of Surgeons. Discrepancies are reviewed, corrected and resubmitted by the Cancer Registrar.

Every patient entered into the database is followed on an annual basis to assure correct and complete data. The cancer registry's lifetime follow-up rate of 98% exceeds the Commission on Cancer's standard of 90%. The registry's rate for follow-up of living patients of 97% exceeds the standard of 80%. The registry's follow-up rate for all patients diagnosed within the last 5 years is 98%, exceeding the standard of 90%.

Bladder cancer was the site chosen by the Cancer Committee for a long term survival study and is included in this report. Please refer to pages 24-31.

*Donna Connery CTR
Tammy Smith CTR
Cancer Registry*

Cancer Care Coordinator Report

During FY2017, we continued and expanded several initiatives to increase early detection and diagnosis of non-small cell lung cancers in our Veterans, many of whom are at high risk for lung cancer. We continue to track the daily alerts that are generated by our automated Cancer Care Tracking System (“CCTS”) which tracks radiology codes on chest imaging to identify patients with suspicious lung nodules. Patients identified as having lung nodules deemed suspicious due to size or location are discussed in our weekly multidisciplinary Pulmonary Nodule Tumor Board and individualized plans for follow up are determined for each patient. These plans are then entered into CCTS triggering automated reminders for follow-up, thereby increasing patient compliance.

During 2017, the caseload of early cancers and pulmonary nodule findings continues to be higher than historical rates and there has been an ongoing shift to diagnosis of non-small lung cancers at earlier stage with more than 50% of lung cancers diagnosed at Stage I or Stage II. This is partially due to the widespread use of low-dose screening CT for lung cancer in patients who meet the high risk criteria (ages 55-74, current smoker or quit within the last 15 years with 30 pack-years), and also due to the ongoing close monitoring of lung nodules with imaging following national guidelines and Pulmonary Nodule Tumor Board review of nodules >8 mm in size. Screening CT for lung cancer became widespread at VACHS beginning in June 2013. Since that time, the volume of alerts generated by CCTS and the Pulmonary Nodule Tumor Board caseload has more than doubled. We have also seen an increase in the number of Cancer Care Coordinator consults ordered by primary care providers to assist them in arranging for imaging, tissue diagnosis, travel and other services. During 2017, coordination of care for breast cancer patients at WHVA has continued to be an area where we are focused on improving our process. Primary Care Providers now routinely consult the Cancer Care Coordinator to assist patients undergoing work-up for breast cancer and we work closely with our colleagues at our academic affiliate to speed referrals for treatment.

During 2017 we continued to provide comprehensive care to Cancer Survivors in our multidisciplinary Cancer Survivorship Clinic. We work closely with our colleagues in Health Psychology, Social Work, Physical Therapy, and Nutrition to ensure that patients have services in place to help them make health promoting life-style changes. Particular attention is paid to assisting patients with smoking cessation, adopting a healthy diet, maintaining a regular exercise routine and managing stress.

During 2013, we developed a template that is now used to create an individualized Cancer Survivor Treatment Summary and Care Plan for each patient seen in our Cancer Survivorship Clinic. Since then, over 250 Treatment Summaries have been created and provided to patients and additional treatment summaries are created as new patients are seen in clinic. The completed Treatment Summaries become a permanent document in the electronic medical record and are provided in hard copy form to patients. This template has been well received by our patients and their families and provides an accurate, easy to locate, complete summary of the patient’s diagnosis and treatment for primary care providers and other caregivers within the VA System. It can also be a portable record for patients to take with them if they change providers or move to a different VA.

During FY 2017, we initiated a new continuing education conference for members of the multidisciplinary team. The VA Echo Cancer Care Conference hosted ten talks on all aspects of cancer care by members of VACHS team and colleagues at other VISNs. Average attendance was 50 people per talk from all across the VA. Our conference provided over 500 hours of continuing education to 260 participants. This conference was recognized as a best practice and we were invited to give a presentation about this quality initiative at the annual AVAHO meeting in September 2017 in Denver, Colorado.

*Julie Beck, APRN-BC
Cancer Care Coordinator*

Chaplain Report

FY2017 Activity

- The Chaplains provide direct care/visitation to the in-patient population through routine visitations on the ward. As the circumstances/conditions change, the minimum 1x/wk. visits are increased to meet needs of the veteran and his/her significant others.
- The Chaplains provide a Ministry of Support and Presence to the Out-patient population – directly/personally, as called upon by the Veterans who come into our offices seeking our Services or in group activity such as the Cancer Survivor Day.
- Direct Chaplain Consultation/referrals are met within 24 hours, or less.
- As members of the Palliative Care Team, In-Patient Palliative Care Consultation/referrals are met within 48 hours, or less.
- The Palliative Care Chaplain is a member of the Cancer Care Committee.
- The Palliative Care Chaplain is a member of the Cancer Survivor Day Committee.
- In addition to the .5 FTEE Chaplain assigned to the Palliative Care Team, our Service, when the Clinical Pastoral Program is in session (October-July), assigns Chaplain Interns to the various units who provide additional coverage to the Hospice/Palliative Care in-patients.

Chaplain Mission Statement

- To serve the emotional, spiritual and religious needs of all VACT's patients by providing professional Chaplaincy and notifying, with patient consent, local clergy and religious leaders when needed.
- Our department is committed to a Culture of Caring and committed to helping patients utilize their spirituality as part of the healing process.
- Our department works with all people without regard to spiritual belief and/or religious tradition.

Background in caring for Patients and their Loved Ones

For patients or a patient's loved one, a hospitalization may raise profound spiritual questions:

- *Who am I in the midst of illness?*
- *What is my responsibility for my own wellbeing?*
- *What does "healing" mean?*
- *Do I have a reason to go on living?*
- *Where is my Higher Power / God in all of this?*

The chaplains know that these questions are a normal, even necessary, part of moving through an illness. While we cannot give answers to these questions, we are prepared to provide accompaniment and guidance as individuals seek their own answers.

Spiritual Care Referral Hours:

Mon. – Fri., 7:30AM - 3:30 PM

Sat. & Sun, 8AM-4:30PM

How to Contact: Patients currently in the hospital may request to see a Chaplain by speaking with their nurse or simply call ext. **2414** (for family members outside the hospital: **1.203.932-5711**, ext. **2414**).

Off four hours Emergency:

For **inpatient emergency** only, the chaplains are to be contacted via VACT page operators.

At your request, we will exert every *reasonable* effort to contact the specific clergy of your choice.

Sergei Bouteneff
Chief, Chaplaincy Service

Clinical Health Psychology

At VA Connecticut, the Clinical Health Psychology service (CHP) takes a holistic, person-centered approach in working with veterans with cancer and their families. Clinical Health Psychology is focused on helping veterans improve their health and well-being. The CHP service works with Veterans to improve their physical health by learning self-management and behavioral strategies; learn how to cope better with their illness, and develop new, healthy habits. We can work with veterans individually, with their families, and in groups.

CHP offers services to help with:

- Coping with emotional reactions to cancer including depression and anxiety
 - o Pain management
 - o Stress management
 - o Managing nausea and fatigue
 - o Improving sleep
 - o Sexual Dysfunction
- Developing healthy habits like quitting smoking or making healthy lifestyle changes like healthy eating and exercise
- Using behavioral strategies to help veterans manage other health concerns like: diabetes, hypertension, or chronic pain problems
- Providing support groups for veterans with cancer

The following are the specific services offered by CHP within the Comprehensive Cancer Center:

- Individual CHP Clinics – for individual intervention and assessment. Current clinic times are
 - o Tuesday afternoons from 1-4
 - o Wednesday mornings from 8:30-noon
 - o One additional Resident Clinic: Wednesdays, 1-4PM
- Outreach and brief intervention for all new chemo patients (M-F, prn; no consult needed)
- On the fly consultation and warm handoffs as availability allows.
- Living with Cancer Support Group
 - o Bi-Monthly – 1st and 3rd Tuesday from 11:30-12:30
- CHP Assessments in the Individual HP Hem/ONC clinics for pre-stem cell transplant evaluations

The following are the services offered through the CHP service that take place outside of the CCC:

- CHP assessments in Health Psychology/Primary Care clinic for bone marrow and stem-cell transplants
 - o Friday mornings from 9-11AM in Firm B – by consult only

- Smoking Cessation Group
 - o Friday afternoons from 1-2 in T3W conference room, building 2 – by consult OR drop in
- MOVE Group
 - o Mondays at 10:30-11:30 (T3W Conference Room)AND from 1-2PM (Building 1, 9th Floor Conference room; also available at other sites via pictel)
 - o MOVE Grads: Mondays 9-10AM (Ground Floor Pt Dining Room)

Other Activities of CHP include:

- Offering education to oncology professionals via:
 - o Scan ECHO series
 - o Professional presentations at conferences
 - o Monthly Psycho-oncology SIG conference calls
- Continuing to collaborate with other psycho-oncology professionals throughout VA on further development of Psychosocial oncology Services in VA, including participating in a newly-formed SIG work group

Goals for 2018 are:

- Continue to offer individual and group services and education in the Cancer Center and the Survivorship Center.
- Continue to collaborate with the Cancer Center team to further develop programs in the Survivorship center based on ongoing needs assessment with veterans and staff.
- Continue to collaborate with the Cancer Center team and Patient Education team to develop educational materials for the veterans with cancer.
- Continue to offer outreach to veterans starting chemotherapy (goal is to reach 50% of these veterans).
- Continue to track all efforts.
- Continue to meet with the general Psycho-Oncology SIG group via monthly calls.
- Contribute to newly-formed SIG work group to begin to develop aims for advancing psycho-oncology in VA.

*Jessica Barber PhD
Clinical Health Psychology*

Clinical Oncology Pharmacist

At VA Connecticut Healthcare System, the clinical oncology pharmacists provide chemotherapy education and symptom management care for patients receiving intravenous and oral chemotherapy treatment. The clinical oncology pharmacists continue to review and update protocols in our electronic chemotherapy program Vista Chemotherapy Manager on a regular basis to assure that our templates are up to date and accurate. The oncology pharmacists and pharmacy resident are currently completing a multisite research protocol evaluating the utilization of oral targeted therapies among Veterans with stage IV or recurrent renal cell carcinoma and are in the process of establishing an oral chemotherapy adherence and monitoring clinic. The oncology pharmacists are a resource to the oncology multidisciplinary team, participate in monthly nursing journal club, attend multidisciplinary tumor board, and maintain board certification.

*John Szymanski, PharmD, BCOP
Clinical Oncology Pharmacist*

Clinical Research/Data Manager Report

The VA CT Cancer Center offers Veteran patients the opportunity to participate in clinical trials either at VA CT or by referral to outside facilities (if an appropriate trial is not available here). We are constantly

searching for new trials for our Veterans and each study is evaluated to determine if our patients will (1) possibly benefit from the trial, and (2) if they will be able to make the commitments required of them for study participation. The addition of two research study coordinators in the last year has enabled us to increase the number of clinical trials we are able to provide to our Veterans.

The VA CT Cancer Center and its physicians have participated as members of the National Cancer Institute's (NCI) Cooperative Group program since 2005, which allows access to a wide variety of studies which we may conduct at our institution. The NCI has been working with the VA at the national level to facilitate participation of more VA facilities in the National Clinical Trials Network. We are currently members of Southwest Oncology Group (SWOGSouthwest Oncology Group; one of the NCI cooperative groups), and we have been active participants in SWOG-VA working group meetings with the goal of streamlining the process for VA facilities to become members of SWOG.

During the past year we have instituted the use of a "Pre-Screening" protocol in order to allow us to identify potential candidates for clinical trials. The goal was to establish a standardized pre-screening process that will facilitate the recruitment of prospective cancer research participants for all trials within the VA Comprehensive Cancer Center (CCC). The system allows research staff the ability to identify potential participants from various disciplines and to perform a pre-screening review of their medical chart, by gathering the necessary information needed to simultaneously evaluate pre-eligibility for the clinically well-defined cancer populations across all Cancer Center studies. To date we have pre-screened over 2000 patients.

We recently began accrual to a new trial for Veterans with prostate cancer. The goal of the study is to combine brain imaging and neurocognitive testing to examine cognitive dysfunction in prostate cancer patients undergoing androgen deprivation therapy (ADT). The majority of prostate cancer patients will undergo ADT at some point over the course of their treatment, and a potential side effect of ADT is impairment of cognitive function, which may be a major determinant of quality of life. This new study is based on a pilot study conducted at VA Connecticut several years ago.

We have added several new clinical trials to our lung cancer portfolio, to include a range of different types and stages of lung cancer, including both treatment trials and screening for molecular biomarkers. We are one of the only VA sites in the country to have two unique NCI sponsored trials open at our site: "NCI MATCH" and "DART". The NCI MATCH study is designed to test a patient's tumor for mutations, to then match them to a drug that targets that specific mutation, and to determine if they derive a benefit from that drug. The DART trial is designed to provide an opportunity for patients with rare tumor types whose cancer is advanced, to receive treatment with two types of immunotherapy. In addition, we are the first VA site to open "Quadruple Threat" an EpicentRx sponsored study, which provides our patients a novel treatment for small cell lung cancer, EGFR mutation positive non-small cell lung cancer, ovarian cancer, and high-grade neuroendocrine carcinoma.

Current Studies (open for enrollment):

Clinical Trials:

Prostate Cancer

PI: Preston Sprenkle, M.D.

1. A Two-Part Prospective Study to Measure the Impact of Adding Genomic Testing (Polaris[®]) on the Treatment Decision Following Biopsy in Newly Diagnosed Prostate Cancer Patients with Long Term Follow-up Post- Treatment to Measure the Prediction of Progression/Recurrence in Men Treated in the Veterans Administration Medical Center (VAMC)

PI: Herta Chao, M.D., Ph.D.

2. Androgen Deprivation Therapy (ADT) and brain dysfunction in prostate cancer: the effects of age and neural plasticity

Non-Small Cell Lung Cancer

PI: Herta Chao, M.D., Ph.D.

- S1400 Lung-MAP:
 - Sub-studies:
 - S1400B: A Phase II Study of GDC-0032 (Taselisib) for Previously Treated PI3K Positive Patients with Stage IV Squamous Cell Lung Cancer.
 - S1400C: A Phase II Study of Palbociclib for Previously Treated Cell Cycle Gene Alteration Positive Patients with Stage IV Squamous Cell Lung Cancer.
 - S1400D: A Phase II Study of AZD4547 for Previously Treated FGFR-Positive Patients with Stage IV Squamous Cell Lung Cancer (Lung-Map Sub-Study)
 - S1400I: A Phase III Randomized Study of Nivolumab Plus Ipilimumab versus Nivolumab for Previously Treated Patients with Stage IV Squamous Cell Lung Cancer and No Matching Biomarker
- 2. Novartis INC280: A phase II, multicenter, four-cohort study of oral cMET inhibitor INC280 in adult patients with EGFR wild-type (wt), advanced non-small cell lung cancer (NSCLC) who have received one or two prior lines of systemic therapy for advanced/metastatic disease
- 3. Alchemist: A151216: Adjuvant Lung Cancer Enrichment Marker Identification and Sequencing Trial

Pancreas Cancer

PI: Michal Rose, M.D.

- S1505: A Randomized Phase II Study of Perioperative mFOLFIRINOX versus Gemcitabine/nab-Paclitaxel as Therapy for Resectable Pancreatic Adenocarcinoma

GI

PI: Michal Rose, M.D.

1. S0820: A Double Blind Placebo-Controlled Trial of Eflornithine and Sulindac to Prevent Recurrence of High Risk Adenomas and Second Primary Colorectal Cancers with Stage 0-III Colon or Rectal Cancer, Phase III – Preventing Adenomas of the Colon with Eflornithine and Sulindac (PACES)

Studies for Multiple Cancer Types and Rare Tumors

PI: Ellice Wong, M.D.

1. Randomized, placebo-controlled, double-blind phase II/III trial of oral isoquercetin to prevent venous thromboembolic events in cancer patients

PI: Michal Rose, M.D.

2. RRx-001 in patients with small cell lung cancer, high-grade neuroendocrine carcinoma, EGFR mutation positive non-small cell lung cancer or ovarian cancer (including Malignant Mixed Mullerian Tumor (MMMT) of the ovary or uterus) previously treated with a platinum-based regimen (QUADRUPLE THREAT)

PI: Herta Chao, M.D., Ph.D.

3. EAY131: Molecular Analysis for Therapy Choice (MATCH)
4. DART: Dual Anti-CTLA-4 and Anti-PD-1 blockade in Rare Tumors

Health Outcomes

PI: Michal Rose, M.D.

1. End of Life Lung Cancer Care in the Veteran's Health Administration vs. Fee-for Service Medicare
2. Clinical characteristic and outcome of pancreatic cancer within the Connecticut VA Healthcare System

Molecular biomarkers

PI: Ellice Wong, M.D.

1. Functional and Molecular Correlates of Myelodysplasia

PI: Michal Rose, M.D.

2. A Study to evaluate a panel of blood biomarkers for use in patients undergoing evaluation for lung cancer, ONC-LN-04

Misc.

PI: Michal Rose, M.D.

1. VACHS Cancer Center Pre-Screening Protocol (PSP)

Current Studies (closed to enrollment):

Clinical Trials:

PI: Preston Sprenkle, M.D.

- A Randomized Phase III Study of Neo-Adjuvant Docetaxel and Androgen Deprivation Prior to Radical Prostatectomy versus Immediate Radical Prostatectomy in Patients with High-Risk, Clinically Localized Prostate Cancer (CALGB 90203)
- The Men's Eating and Living (MEAL) Study: A Randomized Trial of Diet to Alter Disease Progression in Prostate Cancer Patients on Active Surveillance (CALGB 70807)

PI: Herta Chao, M.D., Ph.D.

- Phase III Trial of Enzalutamide Versus Enzalutamide, Abiraterone and Prednisone for Castration Resistant Metastatic Prostate Cancer (A031201)
- Imaging the Effects of Androgen Deprivation Therapy on Cognitive Functions in Patients with Non-Metastatic Prostate Cancer

PI: Michal Rose, M.D.

- Phase II Study of Modified FOLFIRINOX in Advanced Pancreatic Cancer

Health Outcomes:

PI: Herta Chao, M.D., Ph.D.

1. Incidence of Peripheral Neuropathy and/or Cognitive Dysfunction in Patients Receiving Mood Stabilizing Medications and Microtubule Dependent Chemotherapeutics.

*Monica Delvy
Clinical Research/Data Manager*

Diagnostic Imaging Report 2016

The Diagnostic Imaging Service of VACT offers comprehensive imaging services including general radiology, CT (2 320 slice multidetector scanners suitable for advanced cardiac and vascular applications, perfusion imaging, with the latest software which will enables state of the art imaging with optimal radiation dose reduction in both scanners. We offer body and neuroMR (we have 2 scanners, 1.5T and 3T field strength) and state-of-the-art ultrasound and angiography equipment.

We offer fine needle aspirations of accessible lesions of lung, visceral organs, retroperitoneum, head and neck and spine and offer radiofrequency ablation of tumors, including liver, lung and kidney, and have instituted a new program offering chemoembolization of liver tumors. We also are able to perform cryoablation procedures, used mainly in treatment of kidney tumors. Diagnostic and interventional angiography includes peripheral vascular, carotid, aortic and other stent procedures. We offer CT of the coronary arteries, CT arteriography, CT urography and cystography, virtual colonography (we have participated in an ACRIN trial in addition to performing studies on patients who are unable to undergo a completed endoscopy). In addition to offering “completion virtual colonography” to patients on the same day as an incomplete optical colonography, virtual colonography can also be offered as a screening alternative in patients who have relative contraindications to optical colonography, such as those at high risk of complications from sedation, or requiring anticoagulation therapy which should not be discontinued.

We are involved in a screening program of patients with hepatitis C and cirrhosis.

Mammography is referred off site, with incorporation of reports into the electronic medical record, and patients needing subsequent procedures such as ultrasound and MRI/biopsy are also referred for care to external MQSAP qualified programs.

We have implemented NCCN guidelines recommending low dose CT lung cancer screening to high risk patients who are heavy smokers or ex-smokers, in collaboration with Primary Care, who in May 2013 deployed a new clinical reminder developed in association with the IT service, with multidisciplinary cancer management of confirmed cases, and increased focus on smoking cessation for enrollees, as appropriate. We are screening up to 400 patients per month. We use LUNG-RAD guidelines.

Urologic imaging is offered with fluoroscopy, CT and MRI with CT urography used as the initial step in evaluation of patients with hematuria. Multiphase CT urography studies can assist in demonstrating renal, ureteral and bladder lesions. Multiphase CT and MRI are helpful in characterization of renal masses. MRI imaging of the prostate with segmentation has been introduced in the past year to assist urologists in performing image guided prostate biopsy, deploying fusion software.

The service can offer advanced image guided pain management procedures, such as deep nerve blocks, joint injections under CT guidance and vertebral kyphoplasty for compression fractures.

Newington campus offers general radiography, DEXA scanner, and ultrasound services available on site.

We offer nuclear medicine diagnostic services in general nuclear medicine and cardiac nuclear medicine (in association with the Cardiology Section), and therapeutic procedures. We have a PET-CT scanner and a SPECT CT scanner, suitable to dedicated oncologic imaging. We have increased our capacity in this area so essential in cancer care, in addition to offering functional cardiac evaluations through the Department of Cardiology, and neuroPET in evaluation of dementia. We have the capability to deploy radiation planning software integrated with the PET-CT images. Fusion software facilitates reading our PET scans integrated with CT scans and providing these images on the PAC’s workstation. We offer targeted therapy with Ibritumomab Tiuxetan, which is a radiotherapeutic antibody administered for the treatment of patients with relapsed or refractory low grade lymphoma and previously untreated follicular lymphoma who achieve a partial or complete

response to first – line chemotherapy. We also offer radioiodine therapy with Iodine 131 and follow up imaging for patients with thyroid cancer, and therapy for refractory painful bone metastasis with Samarium 153. In addition we offer therapy with radium 223 dichloride for patients with castration-resistant prostate cancer (CRPC) with symptomatic bone metastases and no known visceral metastatic disease. All our studies, including nuclear medicine, are available on the PACs network and web servers available to the clinicians.

Our radiologists include specialists available on a daily basis to consult on neuroradiology, general radiology, and cross-sectional and interventional procedures. We participate in the general, head and neck, pulmonary and liver tumor board conferences and multispecialty conferences such as GI, urology on a weekly basis. We train residents in Diagnostic Radiology, Nuclear Medicine (Diagnosis and Therapy), and Interventional Radiology.

We have offered TACE (transarterial chemoembolization) for patients with liver cancer since September 2009.

We welcome referrals from other VA medical centers for the above procedures.

*Caroline Taylor, MD
Chief, Radiology*

Lung Cancer Screening FY 2017 Annual Report

Lung Cancer Screening continues to be offered at VA CT for veterans who are considered high risk (ages 55-74, current smoker or quit within the last 15 years with 30 pack-years).

Program started in 6/2013 and thus far 5500 unique patients have undergone a lung cancer screening cat scan.

-For FY 2017- 1531 LUNG CANCER SCREENING CT SCANS have been done

-For FY 2017 802 Veterans were unique to LUNG CANCER SCREENING

-For FY 2017 8 lung malignancies were diagnosed from an initial lung cancer screening cat scan

There are on average about 10 lung cancer screening Cat scans done daily. This does not include “nodule f/u scans” that are done to f/u on nodules noted on screening.

We have identified >80 malignancies from 6/2013 on initial screening and more than 30 malignancies on patients who started out with screening and then on subsequent scans a malignancy was identified.

We continue to have a weekly PULMONARY NODULE REVIEW BOARD meeting on Friday mornings.

-65 cases were presented at PULMONARY NODULE REVIEW BOARD during FY 2017 that needed a review of a LUNG CANCER SCREENING CT SCAN.

We continue to offer interventional pulmonary services here at VACT as well as NON VA CARE referrals to Yale for the more complex cases. The pulmonary interventional services include Endobronchial ultrasound guided biopsy (EBUS) of lymph nodes as well as bronchoscopy with

peripheral EBUS of the more distal lesions, stenting of the airways, and other new and innovative ways of minimally invasively diagnosing malignancies.

We have hired a new Pulmonary Physician, Dr. Brett Bade. Dr. Bade, has a strong interest in Lung Cancer and Lung Cancer Screening.

We are looking to hire a new Pulmonary Case manager with an increased focus on Lung Cancer Screening Education to both providers and patients.

*Kathryn Lerz, BSN, MSN, APRN, BC
Pulmonary Service*

Nutrition/Dietary Report

Nutrition services are offered to cancer patients during each phase of their cancer care. Provided by a registered dietitian, nutrition care is available in the Oncology Nutrition Clinic, the Outpatient Nutrition Clinic and on every inpatient unit. In each setting, the dietitian completes a nutrition assessment, determines each patient's nutrition status, plans nutrition interventions that address nutrition-related problems, provides education and monitors patients to determine efficacy of intervention, attainment of goals and changes in nutrition status. Each patient's diet is individualized to meet therapeutic needs for specific cancer diagnoses as well as other pertinent diagnoses such as diabetes, renal disease, heart disease, gastrointestinal disorders, liver disease, and chewing/swallowing disorders. The dietitian provides recommendations to enhance oral intake and reviews overall healthy eating before, during and after cancer treatment.

A variety of interventions are utilized to meet nutrition goals for inpatients. These include adjusting diets to accommodate patient tolerances and preferences, adding between-meal snacks, nutrient dense foods and enteral supplements. For patients who are unable to meet nutrient needs with oral intake, alternate sources of alimentation, such as enteral tube feedings or parenteral nutrition therapy, may be used. Upon discharge, patients can be referred to the oncology nutrition clinic or outpatient nutrition clinic for follow-up.

In the outpatient setting, patients are followed to determine the attainment of mutually agreed-upon goals and changes in nutrition status. A variety of interventions can be planned, including enteral tube feedings that may or may not be the sole source of nutrition. The outpatient dietitians work with patients receiving enteral tube feedings to determine the administration method (bolus, gravity drip, continuous or combined feeds) that best fits their lifestyle and develop a schedule to meet their nutrient needs and minimize intolerance and complications. In addition to individual sessions, the dietitian participates in a support group for patients with cancer and follows patients during nutrition infusion room rounds. From time to time, additional recipes and food samples are provided to Veterans by the registered dietitian.

The nutrition care of cancer patients is met with a spectrum of available nutrition services in order to optimize nutrition status and quality of life.

Our clinical dietitian, Stephanie Calhoun RD has been working in the Comprehensive Cancer Center since July 2016.

*Stephanie Calhoun RD
Clinical Dietitian*

Oncology Education and Support

At VA Connecticut Healthcare System, the oncology nurses participate in educational sessions including; Scan Echo programs, pharmacy discussions and journal clubs, and educational programs

provided by hematology/oncology nurse practitioners and physicians to maintain competency. Oncology nursing staff has expanded staff and clinic coverage to ensure optimal patient safety and care. The oncology nursing staff plans to reinstate chemotherapy education and symptom management assessment for patients receiving intravenous chemotherapy treatment and the collaborative bi-monthly pharmacy/nursing group education session. The oncology nurses will continue to maintain ONS certification, while newer staff will work toward obtaining ONS certification.

*Marcia Burkitt RN, BSN, OCN
Oncology Education & Support*

Palliative Care/Hospice

VA Connecticut continues to offer Hospice & Palliative Care services in a variety of different capacities in the outpatient, inpatient and home setting. Sparked by the initiation of the VACT Hospice and Palliative Care Task Force in 2003, there has been a sustained effort to improve and expand the delivery of hospice/palliative care services throughout VA Connecticut consistent with VHA National goals and directives to achieve excellence in hospice & palliative care. The goal of VA Connecticut for palliative care continues to be the prevention and/or alleviation of suffering while promoting dignity and providing support for the best possible quality of life for both Veterans and their families, regardless of the disease or the need for other therapies. Palliative care is operationalized by a multidisciplinary team through effective management of pain and other distressing physical symptoms, while incorporating psychological, social and spiritual care according to the Veteran/family needs, preferences, values, beliefs and culture. The following resources are available to meet the needs of Veterans with life-limiting illnesses including: Palliative Care Consultation Team (PCCT), Comprehensive Pain Management Team, inpatient hospice and respite programs on the Community Living Center (CLC), chaplain services, care coordination/case management services, social work, patient care coordinators, recreational and creative arts therapists, nutrition and pharmaceutical services, psychotherapy, rehabilitation therapy (PT, KT and OT), and Home Based Primary Care (HBPC) to bridge to home hospice and community hospice services.

Both VISN 1 and VACT continue to have strong involvement in the journey towards excellence in end of life care for our Veterans. In regards to palliative care consults, VISN 1 went from 350 palliative care consults in FY 2005 to 2076 palliative care consults in FY 2017. The VACT Palliative Care Consult Team continues to show remarkable growth. The team went from 29 consults in FY05 to 415 for FY17. This is a moderate drop since last year, in large part due to the departure of the palliative care team's physician. Until this position is replaced, we do not expect any further growth in the program. Thankfully this has not affected overall penetration of palliative care services to those Veterans who die at VACT as we continue to see high penetration of palliative care consultation prior to death which has stayed at 80% or greater for the last several years including FY17 at 81% (compared to 18% in FY05). Most Veterans are followed longitudinally with the time frame from consultation to death moving earlier in the Veteran's disease course. This is most notable in the oncology service where a large proportion of Veterans with a cancer diagnosis are followed for greater than a year prior to their death. Even though the consults continue to grow, the team strongly feels that only a small percentage of Veterans that are eligible and in need of these services are currently being followed. It is anticipated that with ongoing expansion of dedicated Palliative Care Consultation Team staffing, this number will only continue to rise. Another positive trend that is happening at VACT is the number of deaths in the ICU or acute care settings is decreasing and conversely, the number of patients on the CLC in hospice & palliative care treating specialty designation are increasing. The palliative care team serves Veterans in all inpatient venues

as well as the outpatient oncology clinic, ALS multidisciplinary clinic, the liver clinic and a once weekly outpatient clinic to render consultation to Veterans without an oncologic diagnosis. We expect expansion in FY18 to cardiology. As a result of these efforts, patients are now being identified earlier in their disease process, which means the team is often able to significantly improve distressing symptoms that leads to improved quality of life. The PCCT team also has representation at the pulmonary/ENT tumor board & liver tumor board in a continued effort to try to identify patients who may be in need of services. The PCCT established a family meeting template for use in all inpatient venues, and have been working cooperatively with our MICU staff with a goal of improvement in timeliness of family meetings in critical illness. In FY14, the No Veteran Dies Alone hospice volunteer program was successfully rolled out on the Community Living Center. In FY17, our palliative care team was selected by the Birmingham VA to participate in the BEACON research study which allowed two team participants to undergo intensive two day training, with an endpoint goal of facilitation of a hospital wide comfort care order set, which should be completed and ready for use in all inpatient venues within the first quarter of FY18.

During the past few years, the CLC continues on their cultural transformation journey in an effort to enhance quality of life, preserve dignity and promote personal choice of Veterans. Since this project was undertaken, all of the patient rooms and hallways were painted brighter colors, ambient lighting was added to a corridor of rooms, seasonal landscape pictures have been purchased, and individualized DVD and CD players are available for use. Chairs that convert to twin beds were added to each room in the palliative care wing to allow more comfortable accommodations to families who choose to remain here overnight with their loved ones. A new family education and bereavement room was constructed and furnished. Comfort carts have been added to provide coffee/tea and non-perishable snacks to family members. To provide comprehensive palliative and end of life care, there is an increased emphasis on non-medical modalities for relief of suffering. This has included increases in available music therapy and physical/occupational therapy. In addition, given the larger volume of hospice/palliative care patients that are being admitted to the CLC, it was felt that more formalized hospice training for the staff was necessary. Web-based educational modalities are being used to facilitate palliative & hospice education to all members of the clinical and nursing staff. Because of increasing awareness of professional caregiver fatigue notably on the Community Living Center where Veterans receiving hospice care are located, a grant for Compassion Fatigue for CLC staff in FY15 allowed for specialized training to alleviate the emotional burden of caring for this unique patient population.

Bereavement support continues to be an important aspect of follow up care not only for the family members of the deceased Veterans but also to the staff that have cared for these individuals. The Hospice and Palliative Care service (HPC) has developed a number of different programs to assist with this aspect of care. Since 2007, this program has been providing an interfaith memorial service that memorializes Veterans who have died in the following programs: Community Living Center, Home Based Primary Care, Oncology service, OEF/OIF/Operation New Dawn, ALS/SCI, liver service and the hemodialysis unit. Originally the services were held twice a year but given the large percentage of deaths, the services now occur quarterly. Starting in FY15, all Veterans who die in the inpatient setting at VACT, irrespective of whether they have been served by Palliative Care Consultation Team (PCCT), have been included. The PCCT, Community Living Center, Home Based Primary Care (HBPC), & SCI/ALS programs are also included in the bereavement letter support program for families of the deceased. Specialized letters addressing various aspects of grief and bereavement is sent to participating family members at specified time intervals to help provide education and support. This has been expanded through the Caregiver Support program to include all Veterans who die at VACT. Families are also provided with information on community bereavement programs. There is also a monthly staff support group led by social work and

chaplaincy to help decrease the high level of caregiver burden that can be associated with serving this population.

On January 30, 2006, a steering meeting to launch the Hospice Veteran Partnership (HVP) of Connecticut was held at the Connecticut Hospital Association in Wallingford. The event was sponsored by the VA Connecticut Healthcare System, the Connecticut Council for Hospice and Palliative Care and Rocky Hill. The HVP of Connecticut is a coalition of individuals and organizations whose mission is to establish an enduring network of hospice and VA professionals, volunteers, and other interested organizations working together to provide quality services through the end of life for all of our state Veterans and their families. Connecticut is one of many states that have organized Partnerships and are a part of the national network of Hospice Veteran Partnerships. The Partnerships are an important part of the initiative by the Department of Veteran Affairs and the Veteran Health Administration that has made high quality end-of-life care a priority. The HVP of Connecticut has provided several educational conferences to date as well as various conferences throughout the state that deal with specialized issues such as PTSD and end of life. The HVP has received several grants; one from the National Hospice and Palliative Care Organization for \$25,000 and two VA Rural Health Grants (one for \$57,000 and one for \$61,000) to develop a specialized curriculum for training Veterans to become hospice volunteers to other Veterans in rural areas. The HVP of CT has not been active over the last 3 years due to changes in the statewide HPC home care changes and staff turnover. We hope to engage with our state champions in future years to reenergize this program.

*Tracy Shamas, APRN, MSN, ACHPN
Palliative Care Coordinator*

Patient/Family Education

Education programs and support groups are offered to Veterans and their families at the VACTHCS. Veteran/family education programs are based on patient preferences/needs and may include:

- Discussions with health care disciplines with regard to patient education needs, community resources.
- Health maintenance/screening and cancer related materials that patients and families may view at the medical center or at home.
- Closed Circuit Television. Examples of the films available include pain control, coping with cancer, and cancer care. A video lending library is available for patients who prefer to view films at home. Cancer related programs: C.A.R.E Channel (34 and 35) Patient Health Channel (36): Preventing Colon Cancer, Living with Prostate Cancer, Lung Cancer: Improving Survival, Advanced Directives: Making Family Decisions, many chronic disease management as well as wellness/prevention programs. 24/7.
- <http://www.thepatientchannelnow.com/> access code 05660 for patients to view educational videos relating to cancer(s) and cancer fatigue on demand.
- C.A.R.E.Channel – provides a continuous relaxing environment for patients/families.
- Structured classes are available that are geared to pain control, nutrition, prevention and exercise, and potential military exposure risks such as Agent Orange and ionized radiation.
- Patient/Family Education Learning Center which offers a section specific to cancer related subjects and an area to view cancer related videos.
- Use of Clinical Video Telehealth (CVT) to offer education programs to wider audience at VACHS and VISN locations.
- Patient Newsletter – includes health topics on cancer screening, prevention.

Prevention and cancer education related programs:

Colonoscopy pre-screening education program - offered weekly with five-one hour sessions. Advanced directives are obtained at the sessions. A new updated colonoscopy preparation video developed by endo team is being used in the education sessions, very informative.

Year	Colonoscopy group class	One to one education via telephone
2014	1402	1419
2015	1527	1338
2016	1451	1485
2017	1353	1434

These classes improved the effectiveness of pre-procedure preparation and increased successful completion of colonoscopies. This program will be continued.

Amputee Education/Support Group – Support group meets weekly, once a month education session is provided with topics including smoking cessation, cancer screening, and sessions covering prostate cancer, breast cancer in men, lung cancer, and skin cancer prevention.

Prostate Cancer Support Group – 1st Thursday in West Haven at 9:30am and 3rd Thursday in Newington at 10:00am and 2:00pm.

Patient Newsletter: Focus on Cancer Prevention topics on different months. Display for cancer prevention at the Patient Learning Center, room 1-300 offered x 2 in 2017.

Health Promotion, Disease Prevention (HPDP): 9-core healthy living messages delivered to patients/staff including tobacco cessation, eating wisely, physical activity, screening procedures. Monthly education sessions focus on the core elements of healthy living, stress management, coping, relaxation techniques.

Caregiver Support Group – every other week, contact Dana Savo, RN

October is Breast Cancer Awareness month. October 19, 2017 “Pink Out” wear PINK to work for breast cancer awareness. Breast self-exams taught in the learning center 10/19/2017 from 11:00-1:00 with giveaways, breast cancer self-exam demonstrations on an educational model, education and information handouts available at the learning center. 28 veterans and family members stopped by. Plan to repeat on October 18, 2018.

Community Outreach:

Healthy Living Fair 4/19/2017 –Display tables showcasing access to health promotion/disease prevention resources such as veterans’ health library, myhealthvet, telehealth, employee health, blood pressure screening, diabetes screening, and cancer screening education. Open to VA employees and patients. Next Healthy Living Fair on 4/18/2018 on the West Haven campus.

Year	Employees attending	Patient/family attending	Total number
2016	125	29	154
2017	109	42	151

Cancer Survivor Day – 12th annual Cancer Survivor Day, June 2, 2017 Donaldson Conference rooms, West Haven campus – Theme is Candyland - Savor the Sweet Life. The event hosted speakers, raffles, photo booth, refreshments, and a fun day for all patients and family members.

Year	Patients and family members	Cancer Survivors
2016	126	72
2017	134	64

134 patients, family members, and staff attended 64 cancer survivors. This is slightly up from 2016's 126 total attendees with 72 cancer survivors.

Great American Smoke out – November 16, 2017 with smoking cessation resources, education, information, apps, and support groups available at the learning center in West Haven, and in the rotunda at the Newington campus. Information and mints sent to all the CBOC's beforehand. This information is available all year round but showcased on this day.

Committee Staff Education:

Oncology Symposium 2017 – Prostate Cancer was offered to staff at the West Haven campus. Accredited by ACCME, ACCME-NP, ASWB, ANCC, APA, ACPE, & NYSED for 4.5 CEU's. 61 healthcare providers attended the program.

Goals for 2018:

- Increase attendance to cancer related education programs
- Continued collaboration with American Cancer Society, Leukemia and Lymphoma Society
- Plan annual Cancer Survivor Day, June 1, 2018 (13th Annual)
- Plan Healthy Living Fair, April 18, 2018
- Planning patient education programs based on Veteran/family need.
- Use of Clinical Video Teleconferencing to provide prevention/health promotion programs to reach wider audience in CBOCs
- Plan staff cancer education program for 2018, focus to be determined
- Continue with community outreach programs

*Karen DiDomenico, BSN, RN
Veteran and Family Education Coordinator
Health Promotion/Disease Prevention Manager*

Pathology and Laboratory Medicine Report

The pathologists review tissue and fluid samples from inpatients and outpatients. The pathologist will contact the clinicians in all cases of new malignancies or in other cases of unexpected findings of immediate clinical significance. The final report describes the type of cancer, its size, grade and extent. If appropriate, the cancer is staged using the American Joint Committee on Cancer staging. If the tumor is rare the case may be sent for expert consultation, usually to Yale-New Haven Hospital or to the Joint Pathology Center, a Federal reference laboratory. Modern anatomic pathology requires selection among a variety of techniques to characterize tumors, including immunohistochemistry, flow cytometry, and molecular diagnostics. While these techniques are largely performed outside of VACT, overall interpretation and integration of the reports is still the responsibility the local pathologist. The pathologists present cancer cases at tumor board

conferences. Dr. Homer, the Director of Anatomic Pathology, is an active participant of the Cancer Committee. Our staff includes Dr. Rebecca Baldassarri, who completed the Yale cytology fellowship and has experience in general surgical pathology. She has expertise in molecular aspects of thyroid cancer. Dr. Alexa Siddon, is our expert in hematopathology and also runs the hematology laboratory. Dr. Isil Yildez, is our most recent addition and is also expert in cytology, including performance of fine needle aspirates. Dr. Robert Homer has 25 years' experience at the VA and has expertise in lung, genitourinary pathology and general surgical pathology. Drs. Homer, Siddon, Baldassarri and Yildez all practice at Yale as well as at the VA.

Robert Homer, MD, PhD
Director of Anatomic Pathology, Pathology and Laboratory Medicine Service

Physical Medicine and Rehabilitation

Cancer is a category of disease that may lead to changes in physical functioning and ability to manage activities of daily living (ADLs). Rehabilitation professionals, including Physical Therapists, Occupational Therapists, and Kinesiotherapists, are able to assist veterans affected by cancer, to help them maximize independence and quality of life within their medical status. The goal of Cancer Rehabilitation is to help patients and survivors restore, improve and maintain physical, psychological and vocational function that has been impacted by their illness and by cancer therapies.

Physical and Occupational Therapy services available include:

- Pain Management: modalities including moist heat, cold therapy, TENS (Transcutaneous Electrical Nerve Stimulation), and ultrasound treatments.
- Equipment provision and training to facilitate safe visits or discharge to home, including custom wheelchairs and ramps when appropriate.
- Fall Prevention assessment and treatment to improve safety with transfers and ambulation.
- Education for patients and families in safe and proper use of assistive devices and adaptive ADL equipment to facilitate and encourage increased patient independence.
- Lymphedema assessment, patient/family education and referrals as appropriate for training, bandaging and lymph massage as needed.
- Home Exercise Program designed to maintain and improve range of motion, strength and general endurance.
- Recommendations for continued rehabilitation service needs after discharge home, such as home PT or OT, or modifications to the home to accommodate change in level of mobility.

Rehabilitation Services are available on both inpatient and outpatient basis. Providers may send consults to Physical Therapy Oncology or Occupational Therapy Oncology Clinics for outpatient assessments or to Physical Therapy inpatient or Occupational Therapy inpatient for veterans on acute or palliative care services.

We can also be reached at 203-932-5711 x2509.

Laurie Wingard PT, GCS
Physical Medicine and Rehabilitation

Radiation Oncology

When VA cancer patients require radiation therapy, they are referred to a facility near their home when possible. The majority of patients are referred to the Smilow Cancer Hospital at Yale-New Haven Hospital and its network facilities. Radiation oncologists from the Yale School of Medicine Department of Therapeutic Radiology are privileged at VACT with remote access to the VA EMR. An attending physician and a resident from radiation oncology are actively involved in the VACT multidisciplinary tumor board and work closely with VA physicians to coordinate care. All new consults are seen promptly. The Department of Therapeutic Radiology provides a wide range of specialized radiation techniques including 3 dimensional conformal radiation (3D-CRT), intensity modulated radiation therapy (IMRT) and volumetric arc therapy (VMAT), low dose rate and high dose rate brachytherapy, total skin electron beam therapy, gamma-knife stereotactic radiosurgery (GK-SRS) for intracranial tumors, linac-based stereotactic body radiosurgery (SBRT) for tumors of the lung, liver, pancreas and spine, 4D CT simulation for respiratory motion management, deep inspiration breath hold radiation (DIBH), and image-guided radiation therapy (IGRT) including Calypso tumor tracking and Brainlab ExacTrac patient positioning. The department is actively involved in research protocols offered both by cooperative groups and Yale University investigators.

*Kimberly Johung MD
Radiation Oncology*

Social Work Services

Social Work is available full time in the Cancer Center. This allows for more Veterans who are actively receiving treatment to be seen for assistance with various psychosocial needs, often on the same day that they are in the clinic. Social Work also follows many Veterans post treatment for continuity of care. Oncology Social Work consults continues to increase.

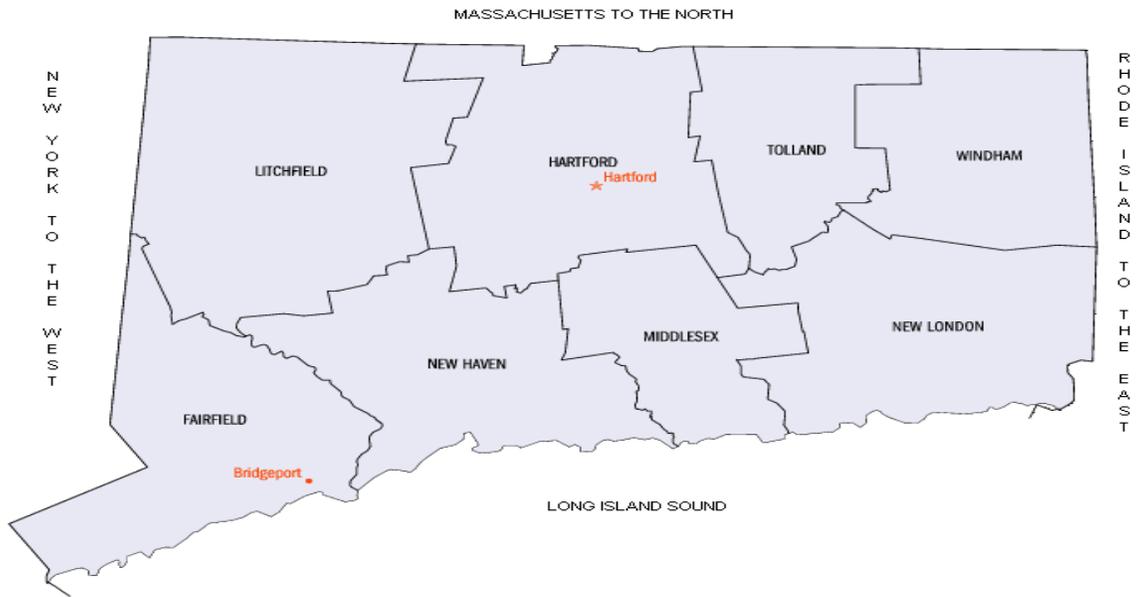
Social Work will continue to assist with Pet Therapy and providing Chaplain Services for Veterans while they are getting their treatments. Social Work continues to facilitate the Support Group for the Caregivers of Veterans Living with Cancer. Social Work will continue to be available and offer comprehensive psychosocial evaluation and case management services in the Cancer Center.

*Donna Doris, LCSW
Social Work*

SITE:	TOT#	ANAL	NON	W-M	B-M	O-M	W-F	B-F	O-F	0	I	II	III	IV	U	NA	INC
TONGUE, BASE	4	4		3		1								4			
TONGUE, OTHER/NOS	1	1		1							1						
FLOOR OF MOUTH	2	2		2						1				1			
TONSIL	12	12		11		1					1	1	2	5	2		1
PYRIFORM SINUS	1	1		1									1				
SUBTOTAL	20	20	0	18	0	2	0	0	0	1	2	1	3	10	2	0	1
ESOPHAGUS	9	9		9						1	1	4	1	1	1		
STOMACH	10	10		9	1							4		5	1		
SMALL INTESTINE	3	3		3								1			1	1	
COLON	32	31	1	28	2	2				2	12	6	5	4	3		
RECTOSIGMOID JUNCTION	2	2		2									2				
RECTUM	3	3		3							1		1	1			
LIVER/INTRAHEPATIC BIL	30	28	2	20	7	3					16	7	4	2	1		
BILARY TRACT - OTHER/N	4	4		3	1							2			1	1	
PANCREAS	15	14	1	11	3	1					2	4	3	5	1		
SUBTOTAL	108	104	4	88	14	6	0	0	0	3	32	28	16	18	9	2	0
NASAL CAV,MIDDLE EAR	1	1		1									1				
LARYNX	7	7		6	1					2	2	1		2			
LUNG/BRONCHUS	135	129	6	110	15	3	5	2			64	17	23	28	3		
THYMUS	1	1		1												1	
HEART/MEDIASTINUM/PLEU	1	1		1									1				
SUBTOTAL	145	139	6	119	16	3	5	2	0	2	66	19	24	30	3	1	0
HEMATOPOIETIC/RETICULO	32	32		27	4	1									5	27	
SUBTOTAL	32	32	0	27	4	1	0	0	0	0	0	0	0	0	5	27	0
SKIN	55	44	11	48		4	3			23	12	6	2	1	11		
SUBTOTAL	55	44	11	48	0	4	3	0	0	23	12	6	2	1	11	0	0
RETROPERITONEUM & PERI	1	1		1											1		
SUBTOTAL	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
CONNECTIVE/SUBCUTANEOU	5	5		5							3		1	1			
SUBTOTAL	5	5	0	5	0	0	0	0	0	0	3	0	1	1	0	0	0
BREAST	6	4	2		1		2	3			2	1	2		1		
SUBTOTAL	6	4	2	0	1	0	2	3	0	0	2	1	2	0	1	0	0
CORPUS UTERI	1	1					1								1		
SUBTOTAL	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
PENIS	4	4		3		1				2	1	1					
PROSTATE GLAND	193	191	2	138	49	6					47	111	13	18	4		
TESTIS	3	3		3							2		1				
SUBTOTAL	200	198	2	144	49	7	0	0	0	2	50	112	14	18	4	0	0
KIDNEY	18	18		13	2	2	1				12			5	1		
RENAL PELVIS	4	4		4						2	1			1			
URETER	3	3		3						1				1	1		
BLADDER	67	65	2	59	6		2			41	12	7	2	2	3		
SUBTOTAL	92	90	2	79	8	2	3	0	0	44	25	7	2	9	5	0	0
BRAIN	4	4		3			1									4	
SUBTOTAL	4	4	0	3	0	0	1	0	0	0	0	0	0	0	4	0	0
THYROID GLAND	6	6		4		1	1				2	1			3		
SUBTOTAL	6	6	0	4	0	1	1	0	0	0	2	1	0	0	3	0	0
LYMPH NODES	18	18		15	1	1	1					3	1	6	8		
SUBTOTAL	18	18	0	15	1	1	1	0	0	0	0	3	1	6	8	0	0
UNKNOWN PRIMARY SITE	8	8		7	1									1	1	6	
SUBTOTAL	8	8	0	7	1	0	0	0	0	0	0	0	0	1	1	6	0
TOTAL	701	674	27	558	94	27	17	5	0	75	194	178	65	94	54	40	1

Prostate Cancer

Comparison Data/State of CT Number of Cases Diagnosed by County 2011-2015

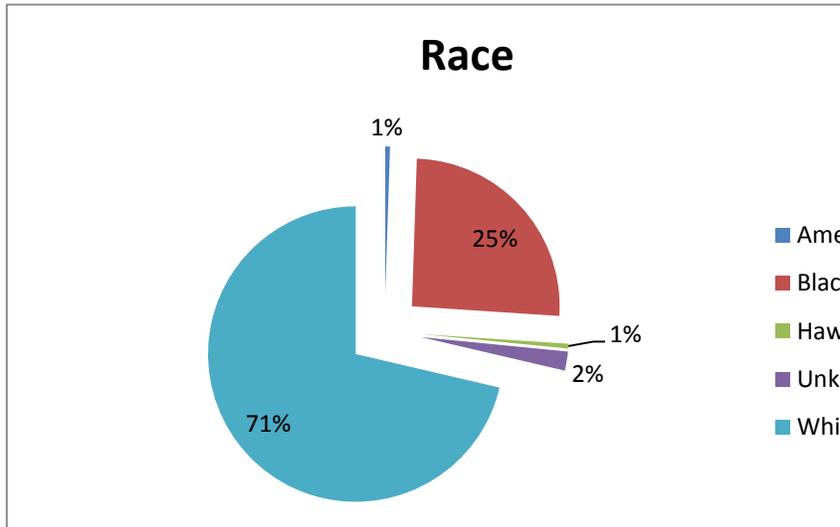


County	STATE Stage 0	VACT Stage 0	STATE Stage I	VACT Stage I	STATE Stage II	VACT Stage II	STATE Stage III	VACT Stage III	STATE Stage IV	VACT Stage IV	STATE Unk	VACT Unk	STATE Total	VACT Total
Fairfield	0		707	22	1,654	67	314	3	270	7	172	1	3,117	100
Hartford	1		748	54	1,593	117	295	7	257	14	194	6	3,088	198
Litchfield	0		184	18	404	25	89	5	79	3	52		808	51
Middlesex	0		113	7	322	26	64	1	61	2	17	2	577	38
New Haven	1		544	56	1,392	121	275	10	273	19	141	8	2,626	214
New London	1		203	16	473	28	77	1	85	3	37	3	876	51
Tolland	1		107	6	258	20	56	1	36	1	16	1	474	29
Windham	0		59	6	178	10	36	3	38	1	26		337	20
OOS				12		33		2		6		1		54
Total	4		2,665	197	6,274	447	1,206	33	1,099	56	655	22	11,903	755

* Cases from VA Connecticut are included in New Haven County

SEX/RACE at Diagnosis, 2016

In 2016, 192 Veterans were diagnosed with prostate cancer at VACT Healthcare System. Of these, 137 Veterans (71%) were white; 49 Veterans (26%) were black, 1 Veteran (.05%) was Native American, 1 Veteran (.05%) was Hawaiian and race is unknown for 4 Veterans (2%).

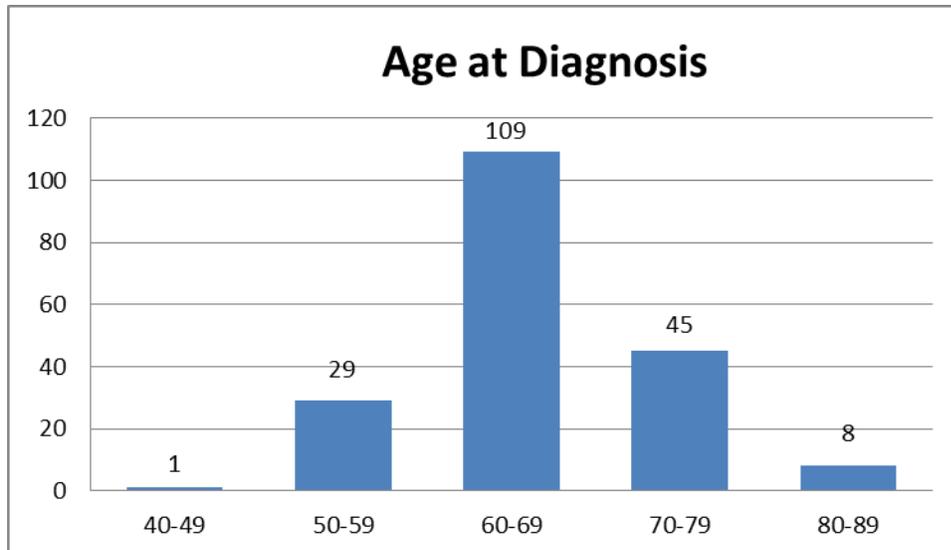


HISTOLOGY, 2016 Data

All 192 Veterans were diagnosed with adenocarcinoma.

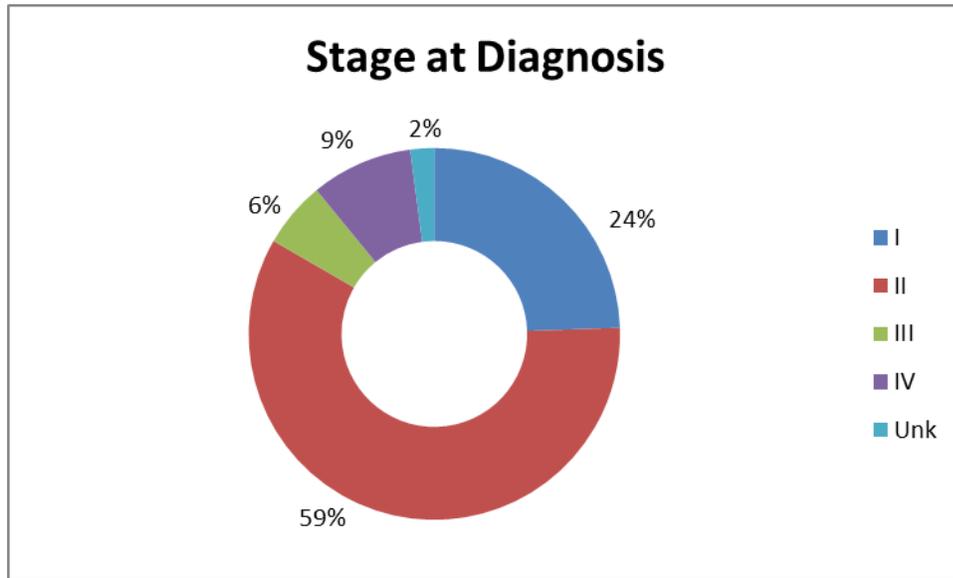
AGE AT DIAGNOSIS

Of the 192 Veterans who were diagnosed with prostate cancer in 2016, 109 were in the 60-69 age group (57%), 45 were in the 70-79 age group (23%), 29 were in the 50-59 age group (15%), 8 were in the 80-89 age group (4%) and 1 was in the 40-40 age group (.05%).



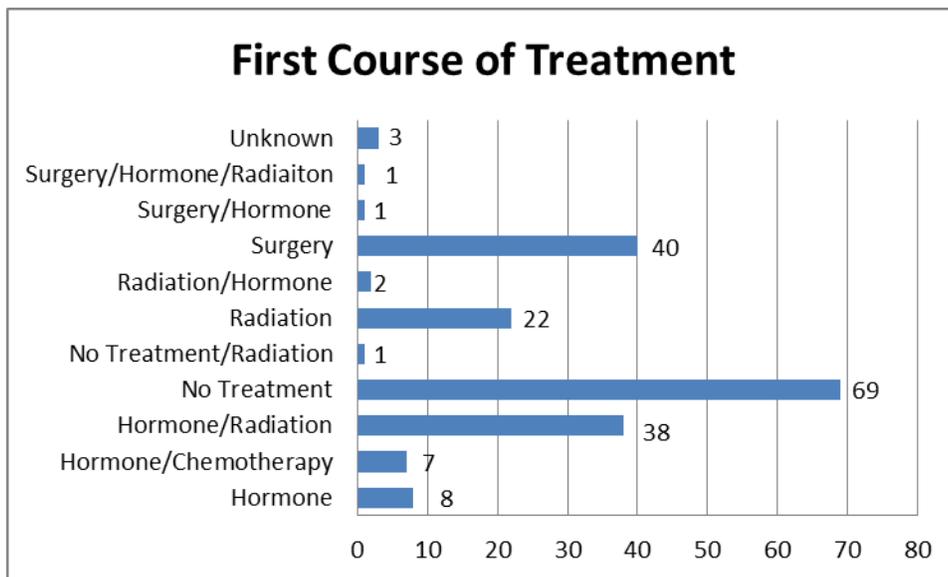
STAGE AT DIAGNOSIS 2016 Data

Of the 192 Veterans who were diagnosed with prostate cancer in 2016, 47 Veterans (24%) were diagnosed with Stage I, 113 Veterans (59%) were diagnosed with Stage II, 11 Veterans (6%) were diagnosed with Stage III, 17 (9%) Veterans were diagnosed with Stage IV and 4Veteran (2%) stage of disease was unknown.



FIRST COURSE OF TREATMENT 2016 Data

Of the 192 Veterans who were diagnosed with prostate cancer in 2016, 40 Veterans (21%) received surgery only, 1 Veteran (.05%) received surgery and hormone therapy, 1 Veteran (.05%) received surgery, hormone therapy and radiation, 22 Veterans (11%) radiation only, 2 Veterans (1%) received radiation and hormone therapy, 8 Veterans (4%) received hormone therapy, 7 Veterans (4%) received hormone and chemotherapy, 38 Veterans (20%) received hormone and radiation therapy, 1 Veteran (.05%) received no treatment followed by radiation therapy, 69 Veterans (36%) received no treatment and treatment was unknown for 3 Veterans (2%).



**COMPARISON DATA VA CONNECTICUT VS STATE VS NCDB,
2011-2015 Data
STAGE AT DIAGNOSIS**

VA Connecticut Healthcare System vs. State of CT vs. NCDB “All Hospital Types” vs. all VAs

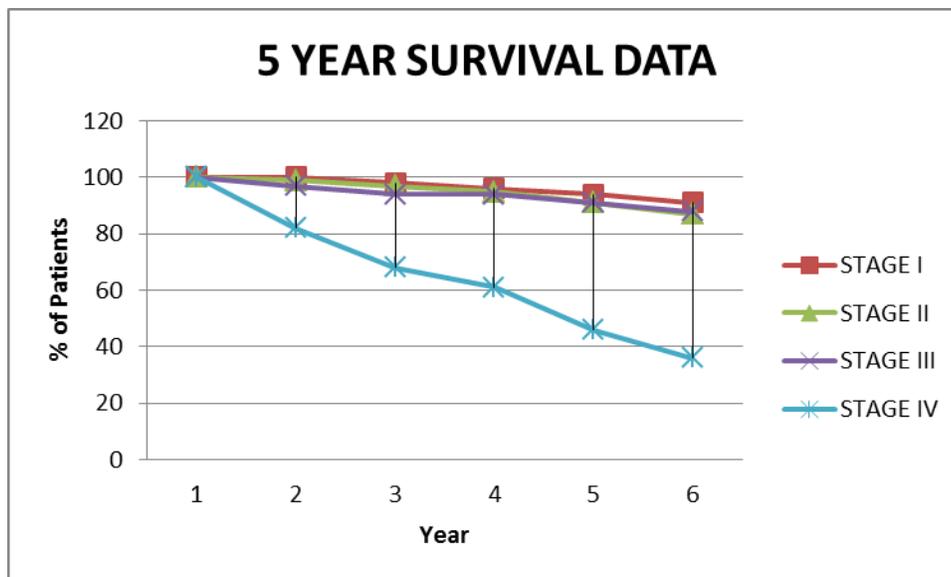
STAGE	VACT (N)	STATE (N)*	NCDB (N)	All VA (N)	VACT (%)	STATE (%)*	NCDB (%)	All VA %
0		4				1%		
I	197	2665	113125	16262	27%	22%	21%	24%
II	447	6274	289815	35667	59%	53%	55%	54%
III	33	1206	62366	3944	4%	10%	12%	6%
IV	56	1099	46288	5524	7%	9%	9%	8%
NA			238	14				
UNK	22	655	14756	5137	3%	5%	3%	8%
Total	755	11903	526586	66548	100%	100%	100%	100%

As the table shows, the stage distribution of prostate cancer diagnosed at VACT compares favorably with that of other databases, including the State of CT, NCDB and VSSC. This is a testament to the excellent primary care and urology care our patients receive.

FIVE YEAR SURVIVAL STUDY PROSTATE CANCER

6 cases out of 652 cases did not meet criteria for inclusion in the chart due to a stage of 0 or unknown stage group.

YEAR	STAGE I	# VETERANS	STAGE II	# VETERANS	STAGE III	# VETERANS	STAGE IV	# VETERANS
1	100	90	99	483	97	33	82	23
2	98	88	97	475	94	32	68	19
3	96	83	95	463	94	31	61	17
4	94	81	91	441	91	30	46	13
5	91	74	87	407	88	29	36	10



DISCUSSION

Prostate cancer remains the most common solid organ malignancy affecting men, and the second leading cause of cancer death in men. It is the most commonly diagnosed cancer at VACT with all but stage IV patients (which fortunately is only 2%) having excellent survival. VACT continues to offer shared decision making when discussing prostate cancer screening with patients, and unnecessary PSA testing is limited by this process, and by an automated message on the PSA laboratory ordering menu. The main risk factors for prostate cancer include older age, a family history, and African-American race. Unfortunately we do not know how to prevent the development of prostate cancer, but at VACT we continue to take these risk factors into account when discussing screening.

MRI-US fusion prostate biopsy has improved the accuracy of prostate cancer diagnosis, helping appropriately identify patients with higher risk prostate cancer. This technique has been available at VACT for three years and we are one of only a few VA centers offering this technologically advanced procedure to our veterans.

Once diagnosed, prostate cancer has a variety of management options and our patients with low grade disease are often managed expectantly with active surveillance, taking into consideration the slow natural progression of prostate cancer and high likelihood of competing mortality, especially in older patients. Those for whom treatment is recommended almost equally undergo surgery or radiation therapy for their disease. Surgical techniques have continued to improve to minimize the negative impact on urinary and sexual dysfunction associated with radical prostatectomy. Furthermore, recently introduced technological advances such as Calypso® tracking beacons and SpacOAR™ rectal spacers have allowed for smaller radiation fields when treating prostate cancer and a reduction in rectal toxicity from the therapy – significantly improving patient side effect profiles after treatment.

MRI imaging of the prostate and targeted biopsy has provided more precise anatomic location information for prostate cancers within the prostate gland. VACT offer targeted ablation of these cancers in appropriately selected patients. Focal ablation has the benefit of only treating the area where cancer is located, decreasing the negative impact on sexual and urinary function usually associated with any whole-gland treatment (like radiation or surgery). We look forward to building this program further in the future.

Although the majority of patients with prostate cancer are diagnosed at early, curable stages, this cancer remains the second leading cause of cancer death in men. Fortunately, treatment options for patients with metastatic disease continue to improve. The CHAARTED study, published in 2015, showed that the addition of docetaxel chemotherapy to patients in the early castrate sensitive phase of the disease had a significant positive impact on overall survival. The LATTITUDE and STAMPEDE studies, published in 2017, showed that the early use of abiraterone in men with metastatic disease in the castrate sensitive phase of their disease can also have a significant positive impact on their survival. Recent data has also shown that up to a third of patients with castrate resistant prostate cancer have DNA repair defects and may respond to novel therapies such as PARP

inhibitors. Thus the management and therapeutic landscape for patients with prostate cancer at all stages and risk categories of disease continues to improve.

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Glossary & Acknowledgements

ACCESSIONED: The order in which patients are entered into the tumor registry for a given year. Each patient has one unique accession number.

ACoS: Abbreviation for the American College of Surgeons

AJCC: Abbreviation for American Joint Committee on Cancer, responsible for the TNM cancer staging.

AMERICAN COLLEGE OF SURGEONS: The administrative body responsible for the establishment of guidelines for approved cancer programs.

ANALYTIC: Cases which are first diagnosed and/or received all or part of the first course of therapy at VA Connecticut Healthcare after January 1, 2000, and are eligible for inclusion in treatment and statistical analysis of the database.

FIRST COURSE OF TREATMENT: The initial tumor directed treatment or series of treatments, usually initiated within four months of diagnosis.

NATIONAL CANCER DATABASE: Data collected from hospital cancer registries across the country by the American College of Surgeons Commission on Cancer, which is used to show trends in cancer diagnosis, treatment and outcome.

NCDB: Abbreviation for National Cancer Database.

NON-ANALYTIC: Cases which are first seen at VA Connecticut after a full course of therapy has been completed elsewhere and are now referred for recurrence or subsequent therapy. These cases are not generally included in treatment and survival statistics, but may be included in administrative reports.

PRIMARY SITE: The anatomical location within the human body considered the point of origin for the primary malignancy.

Acknowledgements:

The Connecticut Tumor Registry, 2018

The Cancer Program at VA Connecticut Healthcare System is accredited by the American College of Surgeons Commission on Cancer as a Teaching Hospital Cancer Program.