

POMONA VALLEY HOSPITAL MEDICAL CENTER

CANCER PROGRAM
ANNUAL REPORT
for 2020



MEDICAL CENTER

THE ROBERT & BEVERLY LEWIS FAMILY CANCER CARE CENTER

2020 Cancer Committee

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Cancer Committee Report

Swarna S. Chanduri, MD, Chair



In the year past, The Cancer Program at Pomona Valley Hospital Medical Center (PVHMC) continued to discharge its mission of offering integrated delivery of all aspects of cancer care. The specialists and their associated staff in Medical Oncology, Radiation Oncology, Gynecological Oncology, Breast Cancer Imaging (Breast Health Center) brought together under The Robert & Beverly Lewis Family Cancer Care Center provided a well-coordinated care. All this happened, despite the extra-ordinarily difficult and unprecedented circumstances imposed by the threat of the Pandemic. Our staff understood the vulnerability and the need for continued care of our patient population and rose to the challenge. I thank them for their dedication and commitment.

Medical Oncology

Our Oncology practice model is a coordinated approach that works well for our patients. We provide personalized oncology medical care by identifying predictive markers that guide our treatment decisions and improve treatment outcomes. Personalized precision oncology helps us tailor the right drug to the right patient.

Collaborating with a multi-disciplinary team of experts, shared decision making, and care based on evidence-based guidelines and access to clinical research trials makes our program successful. Weekly pre-treatment and tumor board meetings with all the key players, nurses, navigators, physicians allow us to develop an integrated, personalized care plan for the individual.

We treat the whole person as one entity by focusing



Infusion Room

on family, social and spiritual needs rather than just concentrating on conventional modalities of treatment. Last year more than 10,000 patients received high-quality care at our facility.

We offer iPads/ screens for patients' entertainment and privacy while receiving treatments. Our cancer patients have the option to choose FDA-cleared Dignicap Delta services to minimize hair loss during their chemotherapy treatments and improve their well-being and quality of life.

Our Practice has access to National Comprehensive Cancer Network regimens (NCCN) and protocols, Companion & Complementary diagnostics ensuring the highest standard of care to our patients.

Patient engagement via oncology electronic medical record system [Patient Portal] has enhanced communication between physicians and their multi-disciplinary team members.

We can only cure a limited number of patients with cancer, but we can offer to heal everyone. Our patient navigators, oncology nurses, social workers, nutritionist connect with our patients, work with them every step of the way, and help them get through their cancer treatment journey. We are relentless in the pursuit of quality patient care.

Breast Health Center

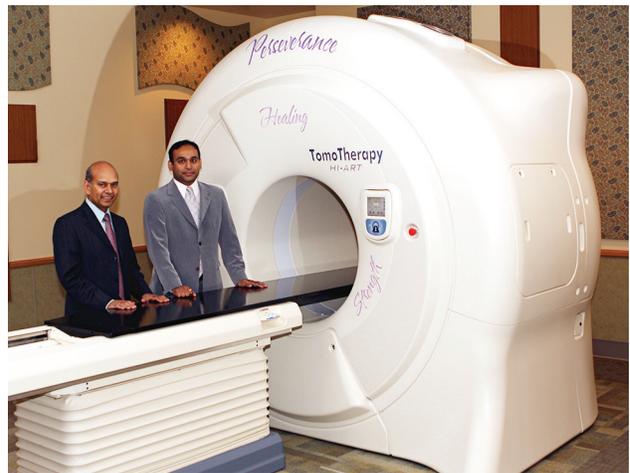
The primary goal of the Breast Health Program at PVHMC is to deliver the highest quality care to our patients. We exclusively offer digital breast tomosynthesis mammography at our Pomona, Claremont, La Verne and Chino Hills sites. Digital breast tomosynthesis (DBT) is a 3-dimensional mammogram, which allows the radiologist to examine the breast tissue in fine detail, 1 mm at a time. The technology has been shown in multiple studies to significantly increase the cancer detection rate and reduce recall rates relative to standard digital mammography.

The Breast Health Program at PVHMC was designated in 2019 as an American College of Radiology Breast Imaging Center of Excellence and received accreditation in Breast MRI, demonstrating that our facility has achieved high practice standards in mammography, breast ultrasound, and breast MRI image quality, ultrasound guided and stereotactic breast biopsy performance, personnel qualifications, facility equipment, quality control procedures, and quality assurance programs.

In 2019, the Breast Health Center adopted the SmartCurve compression system, which allows for a more comfortable mammogram compared with standard compression technology.

We are a major partner with local community health clinics to provide screening and diagnostic mammography services for medically underserved patients, in conjunction with the state funded Every Woman Counts program. For women in our communities who do not have a primary Doctor, we allow them to self-refer for a screening mammogram and offer low cost screening mammograms in the months of April and October.

We are dedicated to ensure that every woman in our community has timely access to our high quality breast care, helping women overcome barriers such as access to care, a lack of understanding or fear of the care process, fear of a positive diagnosis, financial barriers to treatment, and a myriad of additional psychosocial, emotional, and family concerns in the event of a positive diagnosis.



Radiation Oncology

2020 was a very challenging year meeting our patient needs during the COVID19 Pandemic. We did not see a down turn in referrals 2020 or patients needing radiation treatments. It was a busy year providing more than 9,000 high quality radiation treatments to over 550 patients diagnosed with cancer and several benign conditions such as but not limited to adenomas, meningiomas and keloids. The top 4 cancer diagnoses for our patient population are:

- Breast Cancer
- Prostate Cancer
- GYN (cervical & uterine) Cancer
- Colo-Rectal Cancer

The two modes of radiation medicine we offer are:

- **Teletherapy** – Linear accelerator based treatments or external beam treatment
 - o Accuray TomoTherapy HiArt Unit
 - o Varian Trilogy with Rapid Arc & Cone Beam CT Unit
 - o External Beam Treatment Options
 - Photons (x-rays)
 - Electrons
 - Intra-fraction tracking
 - 3D Conformal
 - IMRT with IGRT
 - SBRT with IGRT
 - Respiratory Gating & Deep Breath Hold

- **Brachytherapy** – Radioactive material based treatments
 - o HDR
 - APBI for Select Early Stage Breast Cancer
 - Interstitial Implants for GYN Cancers
 - Intracavitary implants for GYN Cancers
 - o Permanent Radioactive Seed Implants for Prostate Cancer
 - o Radioactive Iodine Ablations for Thyroid Cancer and Hyperthyroidism
 - o Radioactive Applications for Various Other Conditions

We look forward to providing our community with leading edge and high quality radiation medicine for decades to come by our board certified expert physicians, medical physicists, dosimetrists, therapists, nurses and an outstanding clerical team.

Lung Cancer Program

The Lung Cancer Program (LCP) at PVHMC was founded in January 2008. The LCP comprises a team of primary care physicians, radiologists, cardiothoracic surgeons, pulmonologists, medical oncologists, radiation oncologists, pathologists and a clinical trials coordinator. We have a dedicated Lung Cancer Nurse Navigator to assist patients through their treatment journey, while providing education and support.

Our primary goal is to promote early diagnosis and to eliminate treatment delays by expediting patients through the health care process once a suspicious radiologic screening abnormality is identified. We work to replace late stage cancer diagnoses with earlier diagnoses, and thereby improve treatment outcomes.

To promote diagnosing lung cancer at the earliest of stages, PVHMC offers the public low cost and low dose CT Chest Screening, not requiring a physician referral. While not appropriate for everyone, current publications suggest that CT screening could reduce lung cancer mortality by 20% in heavy smokers through early detection of this lethal disease. We also provide smoking cessation literature.

GYN Oncology

In 2020 we welcomed a new GYN Oncologist, Raffi Chalian M.D., to our community after Gynecologic Oncology Associates (GOA), a group of five board certified gynecologic oncologists out of Newport Beach left our community. We appreciate Dr. Chalian's excitement and commitment to not only assist our patients and community but allow our patients to receive their treatments in our infusion center. This is a great benefit and convenience to everyone allowing patients to stay locally for their entire treatment course. PVHMC can now serve women with gynecologic cancers right here. Our patients receive the most up to date in gynecologic cancer treatments. This includes minimally invasive laparoscopic or robotic surgery, ultra-precise radiation therapy utilizing TomoTherapy and Trilogy, both of which deliver IMRT treatments with IGRT and high dose rate brachytherapy which places the radiation directly at the site of the cancer, where the cancer was or where the cancer may recur in the pelvis.



Palliative Care Team

Palliative Care

Palliative care is specialized medical care for people with serious illness. This type of care is focused on providing patients with relief from symptoms (pain, shortness of breath, nausea, anxiety, fatigue, depression) and addressing the stress of a serious illness. The goal is to improve the quality of life for both the patient and the family. Palliative care is provided by a team of specially-trained doctors, nurses, chaplains, social workers and other specialists who work with the patient's other doctors to provide an extra layer of support. The palliative care team discusses goals of care, treatment options, pain and symptom management, and advance care planning. Palliative care can be provided at any stage in a serious illness and can be provided together with other medical treatments. Palliative care can be provided at any age and at any stage in a serious illness. It can also be provided together with other medical treatments.

PVHMC's Palliative Care service has been certified by The Joint Commission since 2014. The Palliative Care service works collaboratively with Oncology services to providing a holistic approach to our patients and families. This partnership is committed achieving best practice in all aspects of care.

Clinical Trials

Clinical trials have been offered since 1995 under the leadership of Y. S. Ram Rao, MD, Director of Radiation Oncology and the Cancer Program. We have enrolled over 733 patients into Non-NCI and NCI sponsored co-operative group clinical trials since 1995.

The Cancer Care Center continues to participate and actively enroll cancer patients onto clinical trials through the National Cancer Institute (NCI), other Cooperative Groups such as NRG, and occasionally Pharmaceutical Company sponsored clinical trials.

Each study design is created to focus on answering various scientific questions that will assist in discovering enhanced ways to prevent, diagnose and/or treat various cancers. All clinical trials are fully conducted in compliance with the FDA guidelines including but not limited to, "Good Clinical Practice" guidelines (GCP).

Phase III and some Phase II Clinical Trials are made available to the community providing patients with easy access to the latest cancer research regimes. At any given time, there are more than a dozen clinical trials open to patients with various types and stages of cancer.

There are five types of cancer related clinical trials:

- **Treatment trials** test new treatments (like a new cancer drug, new approaches to surgery or radiation therapy, new combinations of treatments, or new methods such as gene therapy).
- **Prevention trials** test new approaches, such as medicines, vitamins, minerals, or other supplements that doctors believe may lower the risk of a certain type of cancer. These trials look for the best way to prevent cancer in people who have never had cancer or to prevent cancer from coming back or a new cancer occurring in people who have already had cancer.
- **Quality of Life trials** (also called supportive care trials) explore ways to improve comfort and quality of life for cancer patients.
- **Pain relief (palliative care)** and pain progression (comparing relief after radiation and re-irradiation, comparing overall pain progression for symptoms of bone metastases).
- **Quality Improving trials** explore ways to improve and implement a patient-centered approach to improvements in quality, safety, and cost.

All potential study patients are presented with the most recent version of the IRB Approved Consent Document for each specific trial. All consent documents contain the "Experimental Subject's Bill of Rights." (California law under Health & Safety Code Section 24172) and a "HIPAA," (Authorization) to Use or Disclose (Release) Identifiable Health Information for Research.

The Department of Health and Human Services (HHS) issued the Standards for Privacy of Individually Identifiable Health Information (the Privacy Rule) under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to provide the first comprehensive Federal protection for the privacy of personal health information. Potential study patients undergo the consenting process to its entirety before initiating any study related procedures or assessments. All potential study patients are reminded that their study participation is completely voluntary and they have the right to refuse study participation without any bias from our medical and ancillary staff.

Cancer Registry

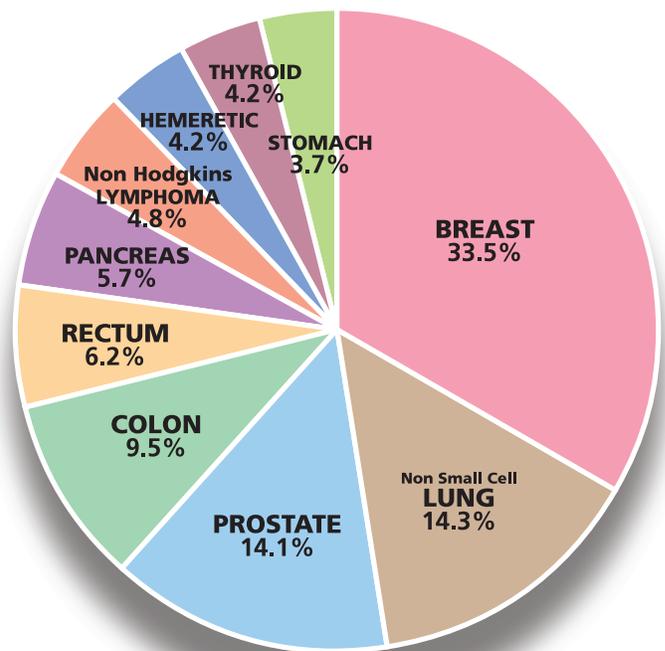
The Cancer Registry at PVHMC has collected cancer data for analysis, research and mandatory reporting to the California Cancer Registry since 1985. The Cancer Registry also contributes data to the American College of Surgeons (ACoS), Commission on Cancer, and National Cancer Data Base (NCDB) annually. The NCDB contains data from American College of Surgeons approved hospitals nationally. The physicians at PVHMC utilize benchmark reports from the NCDB to measure and evaluate patient care, treatment and survival of our cancer patients. Our computerized database contains 31,187 cancer patients.

In 2020 the Cancer Registry accessioned a total of 880 cancer cases. There were 805 analytic or new cases and 75 non-analytic or previously diagnosed and treated cases. We also perform lifetime annual follow-up on all analytic patients in our database as a requirement of the American College of Surgeons approved Cancer Programs.

The top ten sites comprise a total of 547 cases or 67.95% of the total cancer cases seen at PVHMC for 2020. The top 10 cancers are: Breast (183 cases or 33.5%), Non-small cell lung (78 cases or 14.3%), Prostate (77 cases or 14.1%), Colon (52 cases or 9.5%), Rectum & Rectosigmoid (34 cases or 6.2%), Pancreas (31 cases or 5.7%), Non-Hodgkin's Lymphoma (26 cases or 4.8%), Hemeretic (23 cases or 4.2%), Thyroid (23 cases or 4.2%), Stomach (20 cases or 3.7%), and Other Cancers (258 cases or 32.05%).

Customer Satisfaction

Customer Satisfaction is always a top priority. Many of our patients who utilize the hospital based departments are surveyed regarding the service and their satisfaction. The surveys allow us timely feedback about our patients' experience. We also offer "Feedback Forms" throughout the Center that allows patients an immediate opportunity to express appreciation or concerns. All complements, suggestions and concerns are forwarded to the appropriate manager and department for recognition or follow-up as appropriate.



2020 Top Ten Cancer Cases at PVHMC

Support Programs

Due to the Pandemic, support and wellness groups were put on hold for everyone's safety and protection. Providing our patients with the tools and support they need during the pandemic remains our top priority. Our social worker and navigators continue to connect and support our patients through regular phone calls and virtual face-to-face meetings.

Fundraising

The pandemic greatly impacted donations to the Cancer Center. However, in an ongoing effort to increase public awareness about the fight against breast cancer, Los Angeles County Sheriff Alex Villanueva presented a \$10,500.00 check to the Pomona Valley Hospital Medical Center's (PVHMC) Breast Health Center.

Proceeds were generated through the Pink Patch Project, a collaborative effort between the Los Angeles County Police Chiefs' Association (LACPCA) and over 500 public safety agencies throughout the United States. As part of this program, participating agencies sell their commemorative pink patches not only to public safety personnel but also to the community. In addition to pink patches, other merchandise, including T-shirts, challenge coins, and stuffed animals, is sold to generate funds. Last year face masks were added to the list. Proceeds from the sale of these items go to fund breast cancer education, research, and treatment.

"We are extremely grateful for the support of the Los Angeles County Sheriff's Department and the community's support of the Pink Patch Project," said Richard E. Yochum, FACHE, President/CEO of Pomona Valley Hospital Medical Center. "The funds raised help us to provide free resources to those in our community affected by cancer, including Nurse Navigators for patients, support groups, a wig program, creative journaling and exercise classes, as well as investments in advanced technologies, such as our SmartCurve breast stabilization system, which reduces pain during mammograms, and the DigniCap Scalp Cooling System that reduces the risk of hair loss during chemotherapy treatment."

Maria Perez, a former patient of PVHMC, shared her story of survival: "When they tell you 'you have stage IV cancer' and when you see your kids, and you see that you're going to leave them by themselves, who is going to take care of them? I pushed myself to come here."

Sheriff Villanueva, a cancer survivor himself, added: "Early detection, prevention, and intervention is the key to success, and we want to encourage and facilitate any which way we can to give all the resources to the community to facilitate treatment."



Pink Patch Project



We are very proud to offer numerous educational and wellness programs to anyone touched by cancer "free of charge." Thank you to our community family for your ongoing support in our efforts to raise funds for The Robert and Beverly Lewis Family Cancer Care Center.

New Cancer Cases 2020 Pomona Valley Hospital Medical Center

SITE GROUP	Total Cases	Class		Sex				Stages						
		A	N/A	M	F	Other	0	I	II	III	IV	Unk	N/A*	Missing
Oral Cavity/Pharynx	10	10	0	9	1	0	0	3	3	2	0	1	1	0
Tongue	2	2	0	2	0	0	0	0	1	1	0	0	0	0
Salivary Glands, Major	4	4	0	3	1	0	0	1	1	1	0	1	0	0
Tonsil	2	2	0	2	0	0	0	1	1	0	0	0	0	0
Nasopharynx	1	1	0	1	0	0	0	1	0	0	0	0	0	0
Pharynx & Ill-Defined	1	1	0	1	0	0	0	0	0	0	0	0	1	0
Digestive System	200	184	16	115	85	0	7	45	30	35	52	6	9	0
Esophagus	9	8	1	8	1	0	0	0	1	3	3	1	0	0
Stomach	25	20	5	13	12	0	0	4	2	2	12	0	0	0
Small Intestine	4	4	0	2	2	0	1	1	0	1	0	1	0	0
Colon	54	52	2	30	24	0	4	13	13	11	11	0	0	0
Rectum/Rectosigmoid	35	34	1	23	12	0	2	8	6	6	8	2	2	0
Anus, Anal Canal, Anorectum	4	4	0	2	2	0	0	0	1	3	0	0	0	0
Liver	12	11	1	11	1	0	0	2	2	1	4	0	2	0
Gallbladder	5	4	1	4	1	0	0	2	0	1	1	0	0	0
Bile Ducts	13	11	2	7	6	0	0	2	3	3	1	1	1	0
Pancreas	34	31	3	13	21	0	0	12	2	4	12	1	0	0
Peritoneum, Omentum, Mesent	2	2	0	2	0	0	0	1	0	0	0	0	1	0
Other Digestive	3	3	0	0	3	0	0	0	0	0	0	0	3	0
Respiratory & Intrathoracic System	100	92	8	58	42	0	3	19	5	9	50	2	4	0
Larynx	5	5	0	5	0	0	0	1	0	0	2	2	0	0
Lung/Bronchus-Small Cell	7	6	1	4	3	0	0	0	1	1	4	0	0	0
Lung/Bronchus-Non Small Cell	85	78	7	46	39	0	3	18	4	8	43	0	2	0
Pleura	1	1	0	1	0	0	0	0	0	0	1	0	0	0
Other Respir & Thoracic	2	2	0	2	0	0	0	0	0	0	0	0	2	0
Hematopoietic	40	35	5	23	17	0	0	0	1	0	5	0	29	0
Hemoretic	24	23	1	14	10	0	0	0	1	0	5	0	17	0
Myeloma	14	10	4	7	7	0	0	0	0	0	0	0	10	0
Other Hematopoietic	2	2	0	2	0	0	0	0	0	0	0	0	2	0
Soft Tissue	4	3	1	3	1	0	0	0	0	1	0	0	2	0
Skin- Melanoma	20	16	4	13	7	0	2	7	0	3	3	1	0	0
Breast	189	183	6	2	187	0	25	97	32	13	10	2	4	0
Female Genital	47	41	6	0	47	0	0	15	5	9	8	0	4	0
Cervix Uteri	10	10	0	0	10	0	0	7	1	2	0	0	0	0
Corpus Uteri	15	11	4	0	15	0	0	5	2	3	1	0	0	0
Uterus Nos	4	3	1	0	4	0	0	2	0	0	1	0	0	0
Ovary	16	15	1	0	16	0	0	1	1	4	6	0	3	0
Vulva	1	1	0	0	1	0	0	0	1	0	0	0	0	0
Other Female Genital	1	1	0	0	1	0	0	0	0	0	0	0	1	0
Male Genital	99	84	15	99	0	0	0	25	26	16	15	1	1	0
Prostate	92	77	15	92	0	0	0	22	26	13	15	1	0	0
Testis	7	7	0	7	0	0	0	3	0	3	0	0	1	0
Urinary Tract	47	44	3	32	15	0	7	13	5	5	10	0	4	0
Bladder	23	23	0	16	7	0	6	7	4	2	0	0	4	0
Kidney and Renal Pelvis	23	20	3	16	7	0	0	6	1	3	10	0	0	0
Urether	1	1	0	0	1	0	1	0	0	0	0	0	0	0
Ophthalmic	1	1	0	0	1	0	0	0	0	0	0	0	1	0
Brain and Other Nervous System	41	34	7	16	25	0	0	0	0	0	0	0	17	0
Brain**	19	17	2	10	9	0	0	0	0	0	0	0	17	0
Other Nervous System	22	17	5	6	16	0	0	0	0	0	0	0	17	0
Thyroid and Other Endocrine	34	32	2	8	26	0	0	18	4	0	2	0	8	0
Thyroid	23	23	0	6	17	0	0	18	3	0	2	0	0	0
Other Endocrine**	11	9	2	2	9	0	0	0	1	0	0	0	8	0
Hodgkin/Non-Hodgkin Lymphoma	40	38	2	22	18	0	0	14	8	5	10	0	1	0
Hodgkin's Disease	12	12	0	6	6	0	0	3	5	0	4	0	0	0
Non-Hodgkin's Lymphoma	28	26	2	16	12	0	0	11	3	5	6	0	1	0
Unknown or Ill-Defined	8	8	0	3	5	0	0	0	0	0	0	0	8	0
TOTALS	880	805	75	403	477	0	44	256	119	98	165	13***	93	0

Lymphoma: Table includes lymphoma cases coded to lymphatic and extranodal sites.

* Not Applicable: Benign tumors, hematopoietic malignancies and tumors and histopathology in a particular primary site not included in AJCC TNM staging scheme

** Benign tumors: Collection and reporting has been a requirement of the American College of Surgeons and /or the State of California

*** Unknown stage: ACoS, CoC allow 10% or less of the analytic case load to be unstaged. Starting 1/1/2006, analytic Class 0 cases (diagnosed at our hospital but received all 1st course of treatment elsewhere) are no longer required to be TNM staged. The table reflects a total of 13 cases for 2020. 4 Class 0 cases were subtracted thus leaving 9 cases divided by 805 analytical cases = 1.1% unstaged cases (less than 10%)."

Breast Cancer

by Preeti Chaudhary, MD



Breast cancer is the most commonly diagnosed malignancy and the second leading cause of cancer death among women in the USA. Breast cancer accounts for 265,000 new cases each year and is responsible for over 40,000 deaths. Breast cancer mortality rates have been decreasing since the 1970s. This decrease in mortality is likely due to improved breast cancer screening and adjuvant treatment and new and targeted treatments for metastatic disease. These new treatments have increased the 5-year survival rate to nearly 80%. Therapy saves lives when breast cancers are treated early.

Our breast cancer nurse navigator follows most of these patients from initial abnormal mammograms and guides them to acquire necessary treatment. Patients with early breast cancer are evaluated with further tumor genetic testing where indicated.

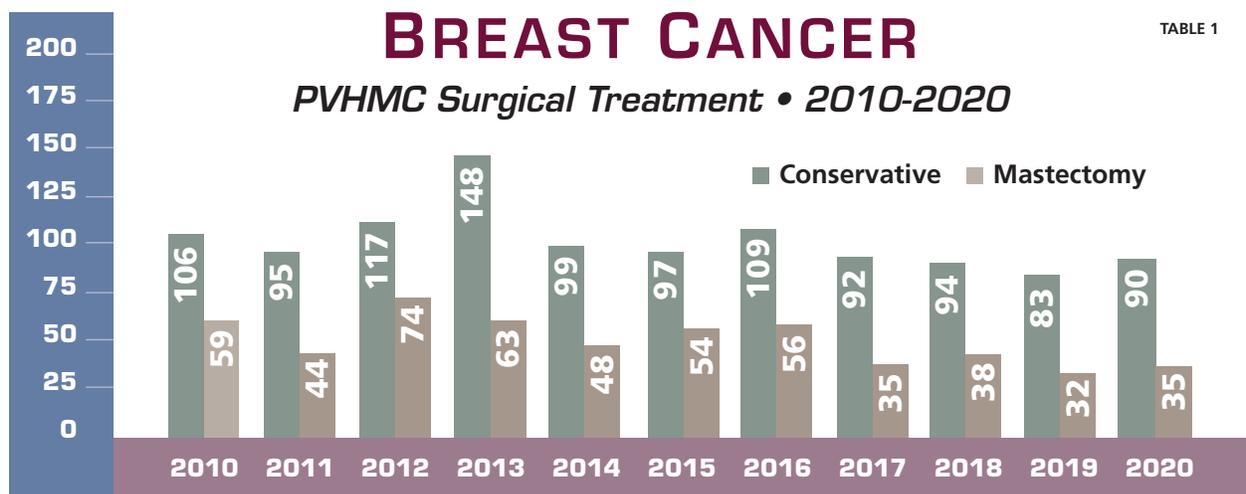
We try to adhere to NCCN clinical guidelines for treatment. However, guidelines cannot replace good clinical judgment. The management of breast cancer requires the expertise of several disciplines including surgical oncologist, radiation oncology, radiology, pathology, palliative care specialists, social workers and genetic counselor when indicated. Each case of newly diagnosed breast cancer is discussed in our pre-treatment conference attended by various sub-specialists routinely involved in the management of

breast cancer. Cases are also presented at the Thursday afternoon multidisciplinary tumor board meeting.

I reviewed our Hospital's 3-year breast cancer data collected by cancer registry (2018, 2019 and 2020). The incidence of breast cancer across all stages has more or less remained the same. There were 184 new cases of breast cancer diagnosed at PVHMC in 2020, 182 cases in 2019 and 198 cases in 2018.

Our data was compared to NCDB data regarding age at diagnosis, stage at diagnosis, and various treatments given and 5-year survival for last 3 years. (2018, 2019, 2020) and presented in the graphs and tables given below. Our surgical treatment data shows more conservative surgery than mastectomy. Bilateral mastectomy was offered to women with hereditary breast cancer syndrome, where indicated.

In 2020, we had 35 patients treated with mastectomy and 90 patients with breast conservative treatment. Our Hospital's breast cancer data collected by our cancer registry for the last 3 years from 2018-2020 is reported in the graphs and tables depicted below. The data depicts the surgical management (Conservative versus mastectomy), stage at diagnosis as well as age at diagnosis. (Table 1 and 2 and 3) Breast cancer remains a disease of older women and 77% women treated at our center were above the age of 50. (Table 3)



BREAST CANCER Stage at Diagnosis NCDB vs PVHMC

Stage at Diagnosis	NCDB		PVHMC					
	NCDB 2019	% of Total NCDB	PVHMC 2018	% of Total PVHMC	PVHMC 2019	% of Total PVHMC	PVHMC 2020	% of Total PVHMC
0	25,332	16%	17	9%	23	13%	25	14%
I	91,271	57%	118	60%	90	49%	98	53%
II	17,953	11%	28	14%	23	13%	32	17%
III	8,743	6%	16	8%	18	10%	13	7%
IV	6,279	4%	4	2%	15	8%	10	5%
Unknown	5,779	4%	7	4%	6	3%	2	1%
N/A	3,591	2%	8	4%	7	4%	4	2%
Totals	158,948	100%	198**	100%	182**	100%	184	100%

** Reflects updated totals, and includes all analytical cases.

BREAST CANCER Age at Diagnosis NCDB vs PVHMC

Age Group	NCDB		PVHMC					
	NCDB 2019	% of Total NCDB	PVHMC 2018	% of Total PVHMC	PVHMC 2019	% of Total PVHMC	PVHMC 2020	% of Total PVHMC
Under 20	16	0%	-	-	-	-	-	-
20-29	656	0%	1	1%	3	2%	3	2%
30-39	5,468	3%	7	4%	13	7%	8	4%
40-49	20,963	13%	48	24%	30	16%	31	17%
50-59	34,206	22%	49	25%	45	25%	52	28%
60-69	46,210	29%	48	24%	42	23%	51	28%
70-79	36,646	23%	31	16%	29	16%	29	16%
80-89	12,789	8%	11	6%	20	11%	6	3%
90+	1,994	1%	3	2%	1	1%	4	2%
Unknown	-	-	-	-	-	-	-	-
Totals	158,948	100%	198**	100%	183**	100%	184	100%

** Reflects updated totals, and includes all analytical cases.

Table 4 depicts treatment modalities used in the management of breast cancer at PVHMC.

Our 5-year survival data for breast cancer patients across all age groups is depicted in table 5. (Diagnosed 2009-2014). Our 5-year overall survival data for all stages is 81%. Various factors may be responsible for these results such as patient refusal to undergo treatment, racial disparities, socioeconomic status of patients etc. Both younger (<35 years) and older (>70 years) age at diagnosis is associated with a worse prognosis. Over 30% patients treated at PVHMC fall in this category and may account for our slightly inferior 5-year survival rates. Poor documentation, inability to acquire outside medical records and patients lost to follow up may be other confounding factors. Also survival data is dependent on the tumor characteristics.

ER positive tumors have a better overall survival of 82.7% as depicted in Table 6. ER negative patients have overall survival of 75.7%. All of the triple negative patients have 67.1% survival, and the worst survival rate as depicted in Table 8. Patients with triple positive and ER positive PR positive patients have a better survival rate of 78.1%

Overall, each day we strive to provide superior care and tailor individualized plans for neoadjuvant and adjuvant therapy for patients diagnosed with breast cancer. Each year we have newer medications available for breast cancer patients of all stages and we offer them, as they are available to improve their care. We also provide them with referrals to tertiary centers to give them opportunities to participate in clinical trials not open at our center.

BREAST CANCER Treatment • NCDB vs PVHMC

TABLE 4

Treatment at Diagnosis	NCDB 2019		PVHMC 2018		PVHMC 2019		PVHMC 2020	
	# Cases	%	# Cases	%	# Cases	%	# Cases	%
No 1st Course Treatment	5,080	3%	1*	1%	21*	13%	14*	8%
Surgery Only	21,738	14%	26	16%	36	22%	25	15%
Radiation Only	169	0%	1	1%	4	2%	-	-
Hormones Only	2,767	2%	1	1%	1	1%	2	1%
Hormones and Other	-	-	1	1%	-	-	-	-
Chemotherapy Only	1,191	1%	1	1%	7	4%	3	2%
Immunotherapy Only	-	-	-	-	1	1%	-	-
Chemotherapy & Immunotherapy	811	1%	1	1%	1	1%	4	2%
Chemotherapy and Hormones	1,387	1%	-	-	1	1%	1	1%
Chemotherapy, Hormones and Immunotherapy	154	0%	-	-	1	1%	-	-
Radiation and Hormones	281	0%	-	-	1	1%	-	-
Radiation, Hormones, Immunotherapy	-	-	-	-	-	-	-	-
Radiation and Chemotherapy	225	0%	-	-	-	-	-	-
Radiation, Chemotherapy and Immunotherapy	-	-	1	1%	-	-	-	-
Radiation, Chemotherapy and Hormones	-	-	1	1%	2	1%	-	-
Surgery and Immunotherapy	90	0%	1	1%	-	-	-	-
Surgery and Radiation	9,169	6%	11	7%	12	7%	18	11%
Surgery and Chemotherapy	5,253	3%	7	4%	9	6%	6	4%
Surgery and Hormones	27,315	17%	15	9%	19	12%	13	8%
Surgery, Hormones and Immunotherapy	-	-	-	-	1	1%	-	-
Surgery, Radiation & Hormones	43,959	28%	56	33%	28	17%	29	17%
Surgery, Chemo & Immunotherapy	2,078	1%	7	4%	3	2%	6	4%
Surgery, Chemo and Radiation	7,143	4%	6	4%	7	4%	19	11%
Surgery, Chemo, Hormones	4,152	3%	3	2%	2	1%	2	1%
Surgery, Chemo, Hormones and Immunotherapy	-	-	4	2%	-	-	1	1%
Surgery, Chemo, Radiation, Hormones and Immunotherapy	-	-	2	1%	1	1%	8	5%
Surgery, Radiation, Chemo and Immunotherapy	-	-	5	3%	-	-	7	4%
Surgery, Radiation, Chemo and Hormones	12,636	8%	17	10%	5	3%	12	7%
Surgery, Radiation, Hormones and Immunotherapy	-	-	-	-	-	-	-	-
Other Specified Treatment	13,233	8%	-	-	1	1%	-	-
Active Surveillance	117	0%	-	-	-	-	-	-
TOTAL	158,948	100%	168**	100%	164**	100%	169**	100%

* Reflects cases diagnosed at PVHMC but patient has not sought any further treatment due to personal, spiritual or other reasons (including treatment recommended but patient refused or unknown, patient expired or went into Hospice). This is based on exhaustive research to physicians offices and other facilities.

** Reflects updated totals, from previous year and/or excludes Analytic Class of Case 0 cases (diagnosed here, and treated elsewhere).

PVHMC Five-Year Survival Table for Breast Cancer Cases

Diagnosed in 2009-2014 – Comprehensive Community Cancer Program - PVHMC

TABLE 5

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	230	100.0	99.6	98.7	97.4	93.4	92.1
I	442	100.0	97.3	95.2	92.7	89.5	88.3
II	288	100.0	98.3	92.7	87.3	82.7	78.9
III	132	100.0	94.9	84.8	73.9	69.5	65.6
IV	45	100.0	96.2	86.4	75.0	68.9	63.3
Overall	1137	100.0	96.4%	92.2%	87.8%	83.6%	81.3%

PVHMC Five-Year Survival Table for Breast Cancer ER- Cases

Diagnosed 2008-2013 – Comprehensive Community Cancer Program - PVHMC

TABLE 6

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	17	100.0	100.0	100.0	100.0	94.1	94.1
I	52	100.0	96.2	94.2	90.4	88.5	86.5
II	71	100.0	94.4	93.0	93.0	84.2	84.2
III	35	100.0	88.6	77.1	65.7	59.9	56.7
IV	13	100.0	60.0	34.3	34.3	34.3	34.3
Overall	188	100.0	91.8%	86.2%	82.0%	76.8%	75.7%

PVHMC Five-Year Survival Table for Breast Cancer ER/PR+ Cases

Diagnosed 2009-2014 – Comprehensive Community Cancer Program - PVHMC

TABLE 7

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	160	100.0	99.4	99.4	97.5	95.0	93.6
I	344	100.0	98.0	96.2	94.1	91.5	90.5
II	169	100.0	99.4	93.5	85.6	82.6	78.8
III	76	100.0	98.7	92.1	81.6	75.0	68.2
IV	18	100.0	66.7	61.1	44.4	32.6	26.1
Overall	767	100.0	98.0%	95.1%	90.7%	87.5%	85.2%

PVHMC Five-Year Survival Table for Breast Cancer Triple+ Cases

Diagnosed 2009-2014 – Comprehensive Community Cancer Program - PVHMC

TABLE 8

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	1	100.0	100.0	100.0	100.0	100.0	100.0
I	7	100.0	100.0	100.0	100.0	100.0	85.7
II	24	100.0	100.0	95.8	91.7	83.3	83.3
III	6	100.0	100.0	100.0	83.3	66.7	50.0
IV	1	100.0	100.0	100.0	0.0	0.0	0.0
Overall	39	100.0	100.0%	97.6%	90.2%	82.9%	78.1%

PVHMC Five-Year Survival Table for Breast Cancer Triple- Cases

Diagnosed 2009-2014 – Comprehensive Community Cancer Program - PVHMC

TABLE 9

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	0	-	-	-	-	-	-
I	24	100.0	93.1	86.2	79.3	75.9	72.3
II	31	100.0	95.0	90.0	90.0	82.5	80.0
III	14	100.0	79.0	52.6	47.4	47.4	47.4
IV	6	100.0	71.4	28.6	28.6	28.6	28.6
Overall	75	100.0	88.6%	78.5%	73.4%	68.4%	67.1%

PVHMC Five-Year Survival Table for Breast Cancer ER+ Cases

Diagnosed 2009-2014 – Comprehensive Community Cancer Program - PVHMC

TABLE 10

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	181	100.0	99.5	98.9	97.2	94.4	92.7
I	382	100.0	97.6	95.8	93.7	90.4	89.6
II	217	100.0	99.5	93.3	85.5	82.2	77.2
III	95	100.0	90.0	89.5	79.0	72.6	66.0
IV	31	100.0	64.5	54.8	41.5	27.1	23.2
Overall	906	100.0	97.3%	93.5%	89.1%	85.3%	82.7%

Definition of Terms

Age of Patient	Recorded in completed years at the time of diagnosis for analytic cases or the age of the patient at the time they were first seen at this hospital for non-analytic patients.
Class of Case	<p>Analytic: Patients with a malignant neoplasm (or benign brain or CNS tumor diagnosed in 2001 or after), newly diagnosed and/or received all or part of their 1st course of treatment at Pomona Valley Hospital Medical Center.</p> <p>Non-Analytic: Patients who have been previously diagnosed and treated for a malignancy (or benign brain or CNS tumor after 2001) elsewhere who receive treatment at PVHMC for progressive, recurrent or metastatic disease.</p>
Stage Of Disease	<p>Analytic cancer cases at PVHMC are staged according to the American Joint Commission on Cancer (AJCC), 6th Edition Cancer Staging manual as required by the American College of Surgeons, Commission on Cancer. The AJCC, TNM Classification Systems is based on the premise that cancer of similar types (histology) or site of origin share similar patterns of growth. There are no AJCC TNM Staging Classifications for malignant brain and CNS tumors or hematopoietic diseases. These cases are designated as not applicable (N/A) under stages on the New Cancer Cases 2006 table. This system expresses the anatomic extent of disease based on:</p> <p style="padding-left: 40px;">T = tumor size, and/or tumor invasion, N = node involvement, M = metastases, spread to distant sites (lung, liver, bone, brain, etc.)</p> <p>A Stage Group, i.e. I, II, III, IV is assigned after the TNM elements have been determined.</p>
Survival Rate	The proportion of patients surviving a particular interval from the time of diagnosis, expressed in terms of percentage, and then computed.
Treatment	Refers to the first course of planned treatment after initial diagnosis.

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