

POMONA VALLEY HOSPITAL MEDICAL CENTER

*Cancer Program*  
**ANNUAL REPORT**  
*for 2018*



MEDICAL CENTER  
THE ROBERT & BEVERLY LEWIS FAMILY CANCER CARE CENTER

# 2018 Cancer Committee

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*American Cancer Society  
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# Cancer Committee Report

by Sri G. Gorty MD, Chair

The Cancer Program at Pomona Valley Hospital Medical Center (PVHMC) offers an integrated approach to all aspects of patient care. The unique opportunity to provide Radiation Oncology, Medical Oncology, Gynecology Oncology, Psychosocial Support and Breast Health Center (breast cancer imaging) under one roof at The Robert & Beverly Lewis Family Cancer Care Center allows patients to find support, quality care and multidisciplinary excellence in a positive and caring environment.

## 25th Anniversary Celebration of The Robert & Beverly Lewis Family Cancer Care Center

In 25 years of serving the surrounding communities there have been significant advances in technology and treatments. The Robert & Beverly Lewis Family Cancer Care Center kept up by offering state-of-the-art equipment and treatments along with expanding their services to provide comprehensive cancer care close to home.

A Celebration was held on April 25th. In addition to the leadership saying a few words, a beautiful art work was unveiled. This piece of art was created by Tony Sheets, who wanted to honor the Lewis' for their ongoing philanthropy.

As the program has grown, Nurse Navigators, a Social Worker, pertinent support and wellness programs have been added to help guide patients through their cancer journey.



*Y.S. Ram Rao, MD, Radiation Oncologist and Cancer Program Medical Director; Leigh Cornell, FACHE, Vice President, Administration; Preeti Chaudhary, MD, Medical Oncologist; Swarna Chanduri, MD, Medical Oncologist and Sri Gorty, MD, Radiation Oncologist.*

Philanthropy has also played a major role in the Center's growth through the years. From the initial \$1 million pledge by the PVHMC Auxiliary and major gifts from The Robert and Beverly Lewis Family, to outside organizations fundraising and individual donations, every contribution has helped build the Center into what it is today.



*Staff and Physicians*

## Prevention and Screening

The 2018 Prevention Program included family history and information on genetic influences on inherited susceptibility to cancer. However factors that increase cancer risk are not always inherited. According to the World Cancer Research Fund, about 20% of all cancers diagnosed in the US are related to a high Body Mass Index (BMI), inactivity, and poor diet. All of which are preventable.

Education was focused on nutrition for cancer prevention and sustaining a healthy life through survivorship. It was presented by a registered dietitian at the Cancer Care Center at our Survivors Day event. We had 37 participants. The goal was to empower the community regarding healthy changes in their diet and ways that they can reduce their risk to cancer.

Out of the participants who completed the pre-test, 94% were aware of the link between obesity and cancer risk. 82% were able to identify what types of food make up a healthy plate. By the end of the program all participants who completed the post-test stated that they would apply the information learned to their daily life.

The 2018 Screening Program focused on breast cancer, which is our number one site. In our triennial Community Needs Assessment (CNA) it was noted that finances continue to be a barrier. As finances were also noted in the previous CNA as a barrier, this allowed us to serve the community by offering low-cost screening mammograms in October. And in 2019, we will be offering low-cost screening mammograms in April. In 2018 we increased participation by 29% for a total of 207 low-cost screening mammograms. Out of the 207 mammograms, seven required further work-up, one ended up with a biopsy and a diagnosis of cancer in-situ.

## Medical Oncology

Many of our oncologists integrated their practices with the Hospital; the Hospital performs the business functions and the physicians continue to provide the highest quality, personalized medical care for their patients. The results are an even higher level of collaboration, shared decision-making and care that is based on evidence based guidelines. Medical oncologists are now linked to each other through an electronic medical record system. The oncology specific, state of the art system ensures the highest standard of care through access to National Comprehensive Cancer Network regimens (NCCN) and protocols which are being used by leading cancer institutes around the world.



*Infusion Room*

Our medical oncologists continue to collaborate weekly by presenting new cancer cases at the Cancer Care Center pre-treatment conference. These conferences enable patients to have multiple opinions to develop the best treatment plan available based on NCCN Guidelines for that patient. Surgeons, pathologists and radiologists, along with medical and radiation oncologists, nurses, clinical trials coordinator and therapists offer their knowledge and expertise to each individual's case.

Weekly Tumor Board conferences provide physicians an opportunity to present challenging cases to a multidisciplinary forum for review and recommendations. This team, in addition to the members stated above, also includes physicians from many different specialties and other health care professionals.

## 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. In 2016, an upgrade was implemented that now allows us to obtain a 2D plus 3D mammogram at half the previous radiation dosage.

The Breast Health Program at PVHMC has full American College of Radiology accreditation in mammography, ultrasound and stereotactic and ultrasound guided breast biopsy, demonstrating that our facility has achieved high practice standards in image quality, personnel qualifications, facility equipment, quality



*Elizabeth Jimenez, RN,  
Breast Health Navigator*

control procedures, and quality assurance programs.

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 month of 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.



*Varian Trilogy with Rapid Arc and Cone Beam CT Unit*

## Radiation Oncology

2018 was a busy and productive year providing more than 8,500 high quality radiation treatments to over 500 patients diagnosed with cancer and several benign conditions such as but not limited to adenomas, meningiomas and keloids. The top 4 cancer diagnoses for this patient population are as follows:

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

The two modes of radiation medicine that we offer by our department are as follows:

- Teletherapy - Linear accelerator based treatments
  - Accuray TomoTherapy HiArt Unit
  - Varian Trilogy with Rapid Arc & Cone Beam CT Unit
  - 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
  - HDR
    - APBI for Select Early Stage Breast Cancer
    - Interstitial Implants for GYN Cancers
    - Intracavitary implants for GYN Cancers

- Permanent Radioactive Seed Implants for Prostate Cancer
- Radioactive Iodine Ablations for Thyroid Cancer and Hyperthyroidism
- Radioactive Injections for Metastatic Bone Cancer
- 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.



*Amanda Jarvey, RN  
Lung Nurse Navigator*



*Gynecologic Oncology Associates*

## GYN Oncology

Our GYN Oncology services continue to expand since Gynecologic Oncology Associates (GOA), a group of five board certified gynecologic oncologists, joined our medical staff in 2011. GOA continues to be a valuable asset to our community providing GYN oncology exper-

tise to our patients. 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 is not to be confused with hospice care. Palliative care is symptom management in addition to other medical management including chemotherapy or other interventions. Hospice care provides symptom management only when other medical interventions are no longer beneficial.

## 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 700 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 5 types of cancer related clinical trials:

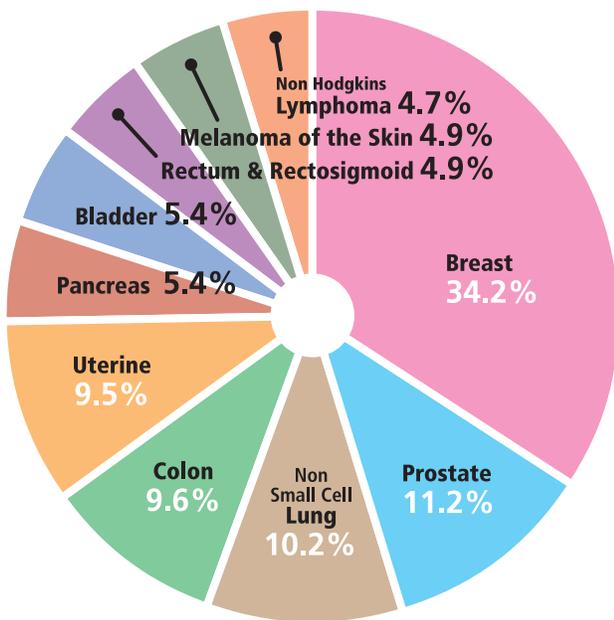
- > **Treatment trials** test new treatments (like a new cancer drug, new approaches to surgery or radiation therapy, new combinations of treatments, or new methods such as gene therapy).
- > **Prevention trials** test new approaches, such as medicines, vitamins, minerals, or other supplements that doctors 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.
- > **Screening trials** test the best way to find cancer, especially in its early stages.
- > **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.)

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 "HIPPA," (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



**Top Ten Cancer Cases at PVHMC**

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 29,231 cancer patients.

In 2018 the Cancer Registry accessioned a total of 1,002 cancer cases. There were 840 analytic or new cases and 162 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 571 cases or 67.98% of the total cancer cases seen at PVHMC for 2018. The top ten cancers are: Breast (195 cases or 34.2%), Prostate (64 cases or 11.2%), Non-small cell lung (58 cases or 10.2%), Colon (55 cases or 9.6%), Uterine (54 cases or 9.5%), Pancreas (31 cases or 5.4%), Bladder (31 cases or 5.4%), Rectum & Rectosigmoid (28 cases or 4.9%), Melanoma of the Skin (28 cases or 4.9%), Non-Hodgkin's Lymphoma (27 cases or 4.7%) and Other Cancers (269 cases or 50.6%).

### 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 compliments, suggestions and concerns are forwarded to the appropriate manager and department for recognition or follow-up as appropriate.



*Living Well After Cancer*



*Yoga*

### Support Programs

Support Services continue to offer a wide variety of support programs, workshops and wellness groups.

We participated in wellness fairs, an open house and numerous speaking engagements throughout the community with a focus on cancer prevention, early detection and education. We celebrated Survivors Day with a special nutrition workshop discussing cancer prevention and nutritional needs after treatment.

The PVHMC's Foundation's special fund was once again utilized to offer two different sessions of the "Living Well After Cancer" program in 2018. This program, in conjunction with The Claremont Club's goal is to help cancer survivors improve their fitness level, quality of life and self-esteem. We want them to know that life can improve after cancer treatment ends. The participants (men and women) experienced many forms of exercise specifically designed for them. They met a minimum of twice weekly for 13 weeks. In addition to weight training and cooking classes the program included yoga, Pilates, balance, and aqua classes.

We had 250 different support or wellness group meetings with an attendance of over 2,900. We reviewed, with our physicians' prostate cancer treatment management and the benefits of using a multidisciplinary approach. We also attended several community events to educate about breast health. Once again, we also ended the year with our annual holiday open house where we celebrate the holidays with over 175 of our current and past patients.



*Singing For Survivors Participants*



*Winner Braxton Gohde*

**Fundraising**

In addition to the ongoing support of The Robert and Beverly Lewis Family Cancer Care Center, donors supported the 1st Annual "Singing for Survivors" event (an American Idol format) at the DoubleTree Hotel in Ontario. Over 300 guests enjoyed a reception, theme basket raffle drawings, lunch and the competition. Guest host was Jeff Garlin, comedian, actor, and author who kept the audience laughing. Braxton Gohde from West Covina was our Singing for Survivors winner of \$500 and a trophy.

Once again, we are very appreciative of Ladies Plastics Golf Organization holding their 19th annual Golf Tournament to benefit The Robert and Beverly Lewis Family Cancer Care Center's Breast Health fund. The board of LPGO presented a check in the amount of \$34,000 during the Christmas holidays, bringing their overall contributions of \$575,000 from this annual event. Their kindness and generosity has helped thousands of breast cancer patients during their cancer journey.

In 2018, the Pomona Police Department donated \$20,000 from their Pink Patch Project (PPP) campaign. The PPP is an innovative public awareness campaign designed to bring attention to the fight against breast cancer. The goals of the PPP are to

- Raise awareness about breast cancer and the importance of early detection and treatment
- Raise funds for cancer research, treatment and education through the sale of commemorative pink patches and other items the Pomona Police Department had available

In 2018, we provided 96 wigs for patients who have lost their hair due to chemotherapy. We are very proud to offer numerous educational and wellness programs to anyone touched by cancer "free of charge."



*Ladies Plastic Golf Organization*



*Pomona Police Department Pink Patch Project Campaign*

*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 2018

Pomona Valley Hospital Medical Center

## SITE GROUP

	Total Cases	Class		Sex			Other	0	I	Stages					Unk	N/A*	Missing
		A	N/A	M	F	II				III	IV						
<b>Oral Cavity/Pharynx</b>	<b>15</b>	<b>12</b>	<b>3</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>			
Tongue	2	2	0	2	0	0	0	1	0	0	1	0	0	0			
Salivary Glands, Major	1	1	0	1	0	0	0	0	1	0	0	0	0	0			
Gum	1	1	0	1	0	0	0	0	0	0	1	0	0	0			
Floor of Mouth	1	0	1	1	0	0	0	0	0	0	0	0	0	0			
Tonsil	1	1	0	1	0	0	0	1	0	0	0	0	0	0			
Oropharynx	5	3	2	3	2	0	0	1	0	1	1	0	0	0			
Nasopharynx	1	1	0	1	0	0	0	0	0	1	0	0	0	0			
Pharynx & Ill-Defined	1	1	0	1	0	0	0	0	0	0	0	0	1	0			
<b>Digestive System</b>	<b>200</b>	<b>161</b>	<b>39</b>	<b>104</b>	<b>96</b>	<b>0</b>	<b>4</b>	<b>26</b>	<b>26</b>	<b>32</b>	<b>41</b>	<b>14</b>	<b>18</b>	<b>0</b>			
Esophagus	9	5	4	9	0	0	0	1	1	0	0	1	2	0			
Stomach	24	18	6	9	15	0	0	2	1	3	6	5	1	0			
Small Intestine	5	5	0	1	4	0	0	1	0	2	0	1	1	0			
Colon	67	55	12	32	35	0	0	10	7	17	8	3	10	0			
Rectum/Rectosigmoid	32	28	4	22	10	0	4	3	8	6	3	3	1	0			
Anus, Anal Canal, Anorectum	7	7	0	3	4	0	0	2	3	1	0	0	1	0			
Liver	13	9	4	6	7	0	0	1	0	1	4	1	2	0			
Gallbladder	2	1	1	0	2	0	0	0	0	0	1	0	0	0			
Bile Ducts	1	1	0	1	0	0	0	0	0	1	0	0	0	0			
Pancreas	39	31	8	21	18	0	0	5	6	1	19	0	0	0			
Retroperitoneum	1	1	0	0	1	0	0	1	0	0	0	0	0	0			
<b>Respiratory &amp; Intrathoracic System</b>	<b>82</b>	<b>65</b>	<b>17</b>	<b>47</b>	<b>34</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>29</b>	<b>0</b>	<b>4</b>	<b>0</b>			
Larynx	1	1	0	0	1	0	0	0	0	0	1	0	0	0			
Lung/Bronchus-Small Cell	7	6	1	5	2	0	0	0	1	3	2	0	0	0			
Lung/Bronchus-Non Small Cell	74	58	16	42	31	1	2	9	9	8	26	0	4	0			
<b>Hematopoietic</b>	<b>42</b>	<b>34</b>	<b>8</b>	<b>24</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>28</b>	<b>0</b>			
Hemoretic	30	25	5	15	15	0	0	2	0	0	4	0	19	0			
Myeloma	9	7	2	6	3	0	0	0	0	0	0	0	7	0			
Other Hematopoietic	3	2	1	3	0	0	0	0	0	0	0	0	2	0			
<b>Bone</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>			
<b>Soft Tissue</b>	<b>8</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>			
<b>Skin</b>	<b>36</b>	<b>31</b>	<b>5</b>	<b>25</b>	<b>11</b>	<b>0</b>	<b>4</b>	<b>13</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>0</b>			
Melanoma of Skin	32	28	4	22	10	0	4	13	3	3	4	1	0	0			
Kaposi Sarcoma	2	2	0	2	0	0	0	0	0	0	0	0	2	0			
Other Skin CA	2	1	1	1	1	0	0	0	1	0	0	0	0	0			
<b>Breast</b>	<b>212</b>	<b>195</b>	<b>17</b>	<b>0</b>	<b>212</b>	<b>0</b>	<b>17</b>	<b>116</b>	<b>31</b>	<b>14</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>0</b>			
<b>Female Genital Organs</b>	<b>105</b>	<b>89</b>	<b>16</b>	<b>0</b>	<b>105</b>	<b>0</b>	<b>1</b>	<b>54</b>	<b>1</b>	<b>16</b>	<b>10</b>	<b>2</b>	<b>5</b>	<b>0</b>			
Cervix Uteri	15	10	5	0	15	0	0	8	1	1	0	0	0	0			
Corpus Uteri	56	54	2	0	56	0	0	40	0	9	3	1	1	0			
Uterus Nos	7	1	6	0	7	0	0	0	0	0	0	1	0	0			
Ovary	19	17	2	0	19	0	0	3	0	4	7	0	3	0			
Vagina	4	3	1	0	4	0	0	1	0	2	0	0	0	0			
Vulva	3	3	0	0	3	0	1	2	0	0	0	0	0	0			
Other Female Genital	1	1	0	0	1	0	0	0	0	0	0	0	1	0			
<b>Male Genital</b>	<b>94</b>	<b>74</b>	<b>20</b>	<b>94</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>34</b>	<b>15</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>0</b>			
Prostate	83	64	19	83	0	0	0	3	33	12	10	6	0	0			
Testis	9	8	1	9	0	0	0	5	0	2	0	1	0	0			
Penis	2	2	0	2	0	0	0	0	1	1	0	0	0	0			
<b>Urinary Tract</b>	<b>63</b>	<b>56</b>	<b>7</b>	<b>47</b>	<b>16</b>	<b>0</b>	<b>15</b>	<b>13</b>	<b>9</b>	<b>6</b>	<b>10</b>	<b>1</b>	<b>2</b>	<b>0</b>			
Bladder	32	31	1	26	6	0	12	4	6	3	5	0	1	0			
Kidney and Renal Pelvis	30	24	6	20	10	0	2	9	3	3	5	1	1	0			
Urether	1	1	0	1	0	0	1	0	0	0	0	0	0	0			
<b>Brain and Other Endocrine</b>	<b>57</b>	<b>43</b>	<b>14</b>	<b>18</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>0</b>			
Brain	20	18	2	10	10	0	0	0	0	0	0	0	0	18			
Other Nervous System	37	25	12	8	29	0	0	0	0	0	0	0	0	25			
<b>Thyroid and Other Endocrine</b>	<b>38</b>	<b>31</b>	<b>7</b>	<b>7</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>			
Thyroid	15	13	2	0	15	0	0	10	3	0	0	0	0	0			
Other Endocrine**	23	18	5	7	16	0	0	0	0	0	0	0	18	0			
<b>Hodgkin/Non-Hodgkin Lymphoma</b>	<b>31</b>	<b>29</b>	<b>2</b>	<b>17</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>3</b>	<b>0</b>			
Hodgkin's Disease	2	2	0	2	0	0	0	1	1	0	0	0	0	0			
Non-Hodgkin's Lymphoma	29	27	2	15	14	0	0	9	5	3	6	1	3	0			
<b>Unknown or Ill-Defined</b>	<b>17</b>	<b>14</b>	<b>3</b>	<b>9</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>			
<b>TOTALS</b>	<b>1002</b>	<b>840</b>	<b>162</b>	<b>409</b>	<b>592</b>	<b>1</b>	<b>43</b>	<b>266</b>	<b>125</b>	<b>102</b>	<b>122</b>	<b>31***</b>	<b>151*</b>	<b>0</b>			

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 31 cases for 2018. 3 Class 0 cases were subtracted thus leaving 28 cases divided by 840 analytical cases = 3.3% unstaged cases (less than 10%)."

# Breast Cancer

by Swarna Chanduri, MD



Breast cancer is the most common female cancer in the United States and the second most common cause of cancer death in women. 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%

At PVHMC, we discuss all patients with breast cancer diagnosis in a pre-treatment conference. These conferences are attended by radiation oncologists, medical oncologists, surgeons, radiologists and pathologists along with support staff. We have nurse navigators, clinical trial coordinators and social workers to help patients and physicians in coordinating patient care.

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 were evaluated with further tumor genetic testing where indicated, thus avoiding chemotherapy where it's not indicated.

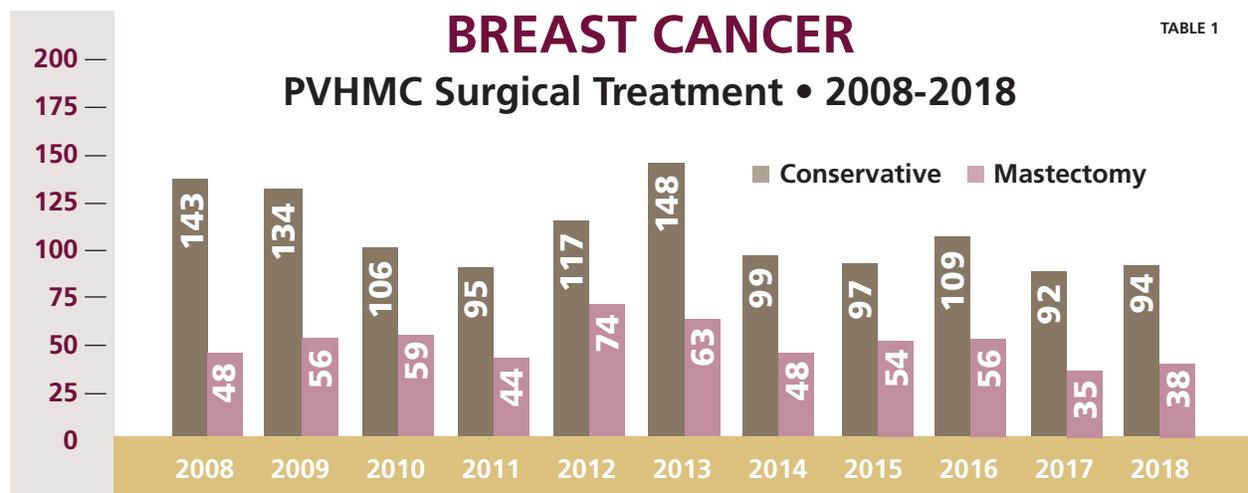
We try to adhere to NCCN clinical guidelines for treatment. However, guidelines cannot replace good clinical judgment. The management of breast cancer requires the expertise of several disciplines including surgical oncologist, radiation oncology, radiology,

pathology, palliative care specialists, social workers and geneticists when indicated. Each and every 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 weekly multidisciplinary tumor board meeting.

I reviewed our Hospital's 3-year breast cancer data collected by the cancer registry (2016, 2017 and 2018). The incidence of breast cancer across all stages has more or less remained the same. There were total 194 new cases of breast cancer diagnosed at PVHMC in 2018, 194 cases in 2017 and 236 cases in 2016.

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, (2016, 2017 and 2018) and presented in the graphs and tables 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 2018, we had 38 patients treated with mastectomy and 94 patients with breast conservative treatment. Our Hospital's breast cancer data collected by our cancer registry for the last 3 years from 2016-2018 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, 2 and 3) Breast cancer remains a disease of older women and



## BREAST CANCER Stage at Diagnosis NCDB vs PVHMC

Stage at Diagnosis	NCDB		PVHMC		PVHMC		PVHMC		TABLE 2
	NCDB 2016	% of Total NCDB	PVHMC 2016	% of Total PVHMC	PVHMC 2017	% of Total PVHMC	PVHMC 2018	% of Total PVHMC	
0	26,851	20%	43	18%	25	13%	17	9%	
I	60,887	44%	86	36%	69	36%	115	59%	
II	33,492	24%	70	30%	62	32%	28	14%	
III	9,334	7%	23	10%	17	9%	15	8%	
IV	5,644	4%	6	3%	9	5%	3	2%	
Unknown	1,328	1%	8	3%	11	6%	8	4%	
N/A	98	0%	-	-	1	1%	8	4%	
<b>Totals</b>	<b>137,634</b>	<b>100%</b>	<b>236**</b>	<b>100%</b>	<b>194**</b>	<b>100%</b>	<b>194</b>	<b>100%</b>	

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

## BREAST CANCER Age at Diagnosis NCDB vs PVHMC

Age Group	NCDB		PVHMC		PVHMC		PVHMC		TABLE 3
	NCDB 2016	% of Total NCDB	PVHMC 2016	% of Total PVHMC	PVHMC 2017	% of Total PVHMC	PVHMC 2018	% of Total PVHMC	
Under 20	5	0%	-	-	-	-	-	-	
20-29	565	0%	3	1%	2	1%	1	1%	
30-39	4,831	4%	17	7%	12	6%	7	4%	
40-49	18,986	14%	40	17%	47	24%	48	25%	
50-59	31,886	23%	55	24%	45	23%	48	25%	
60-69	40,598	30%	56	24%	42	22%	46	24%	
70-79	28,020	20%	42	18%	29	15%	31	16%	
80-89	10,964	8%	11	5%	12	6%	10	4%	
90+	1,779	1%	10	4%	4	2%	3	2%	
Unknown	-	-	-	-	-	-	-	-	
<b>Totals</b>	<b>137,634</b>	<b>100%</b>	<b>234**</b>	<b>100%</b>	<b>193**</b>	<b>100%</b>	<b>194</b>	<b>100%</b>	

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

78% women treated at our Center were above the age of 50. (Table 3)

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 2007-2012) 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 82.6% as depicted in Table 6. ER negative patients have overall survival of 73.4%.

We see a fall in survival of triple negative patients at 66.6% and has worst survival rate as depicted in Table 8. Patients with triple positive and ER positive PR positive patients have a better survival rate of 84.6%.

Overall, each day we strive to provide superior care and tailor individualized plans for 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 when available to improve their care and outcome. 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 2016		PVHMC 2016		PVHMC 2017		PVHMC 2018	
	# Cases	%	# Cases	%	# Cases	%	# Cases	%
No 1st Course Treatment	4,139	3%	22*	10%	25*	11%	1*	1%
Surgery Only	19,350	14%	34	16%	24	13%	25	15%
Radiation Only	180	0%	-	-	-	-	-	-
Hormones Only	2,380	2%	2	1%	-	-	1	1%
Hormones and Other	-	-	-	-	-	-	1	1%
Chemotherapy Only	1,169	1%	4	2%	-	-	1	1%
Immunotherapy Only	-	-	-	-	-	-	-	-
Chemotherapy & Immunotherapy	655	0%	-	-	3	2%	1	1%
Chemotherapy and Hormones	781	1%	1	1%	-	-	-	-
Chemotherapy, Hormones and Immunotherapy	139	0%	-	-	-	-	-	-
Radiation and Hormones	392	0%	1	1%	1	1%	-	-
Radiation, Hormones, Immunotherapy	-	-	-	-	-	-	-	-
Radiation and Chemotherapy	265	0%	-	-	3	2%	-	-
Radiation, Chemotherapy and Hormones	-	-	-	-	1	1%	1	1%
Surgery and Immunotherapy	87	0%	-	-	-	-	1	1%
Surgery and Radiation	8,727	6%	6	3%	9	5%	11	7%
Surgery and Chemotherapy	4,833	4%	8	4%	5	3%	7	4%
Surgery and Hormones	21,220	15%	23	11%	12	7%	14	9%
Surgery, Hormones and Immunotherapy	-	-	-	-	1	1%	-	-
Surgery, Radiation & Hormones	35,779	26%	50	23%	38	21%	54	33%
Surgery, Chemo & Immunotherapy	1,921	1%	-	-	2	1%	7	4%
Surgery, Chemo and Radiation	6,256	5%	9	4%	10	6%	6	4%
Surgery, Chemo, Hormones	4,115	3%	10	5%	9	5%	3	2%
Surgery, Chemo, Hormones and Immunotherapy	-	-	3	1%	2	1%	4	2%
Surgery, Chemo, Radiation, Hormones and Immunotherapy	-	-	7	3%	5	3%	2	1%
Surgery, Radiation, Chemo and Immunotherapy	-	-	7	3%	5	3%	5	3%
Surgery, Radiation, Chemo and Hormones	12,406	9%	29	13%	24	13%	17	10%
Surgery, Radiation, Hormones and Immunotherapy	-	-	-	-	-	-	-	-
Other Specified Treatment	12,767	9%	1	1%	2	1%	1	1%
Active Surveillance	73	0%	-	-	-	-	-	-
<b>TOTAL</b>	<b>137,634</b>	<b>100%</b>	<b>217**</b>	<b>100%</b>	<b>180**</b>	<b>100%</b>	<b>164</b>	<b>100%</b>

\* 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 and other facilities.

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

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

Diagnosed in 2007-2012 – Comprehensive Community Cancer Program - PVHMC

TABLE 5

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	229	100.0	99.6	98.3	96.1	92.6	91.7
I	398	100.0	97.0	95.0	93.4	89.6	88.3
II	291	100.0	98.3	94.1	88.6	83.1	79.9
III	125	100.0	94.4	84.0	72.8	67.2	63.0
IV	41	100.0	77.8	60.2	47.4	31.6	29.0
<b>Overall</b>	<b>1084</b>	<b>100.0</b>	<b>96.3%</b>	<b>92.2%</b>	<b>87.8%</b>	<b>83.1%</b>	<b>81.0%</b>

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

Diagnosed 2007-2012 – Comprehensive Community Cancer Program - PVHMC

TABLE 6

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	23	100.0	100.0	100.0	95.7	91.3	91.3
I	55	100.0	96.4	92.7	89.1	85.5	83.6
II	72	100.0	95.8	91.7	89.1	85.5	83.6
III	35	100.0	88.6	71.4	62.9	60.0	57.0
IV	13	100.0	75.0	41.7	41.7	33.3	33.3
<b>Overall</b>	<b>198</b>	<b>100.0</b>	<b>93.2%</b>	<b>85.0%</b>	<b>80.7%</b>	<b>75.4%</b>	<b>73.4%</b>

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

Diagnosed 2007-2012 – Comprehensive Community Cancer Program - PVHMC

TABLE 7

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	148	100.0	99.3	98.7	96.0	93.9	93.2
I	294	100.0	97.3	95.6	94.2	90.7	89.3
II	178	100.0	99.4	95.5	88.7	83.6	80.7
III	68	100.0	95.6	89.7	77.9	72.0	65.9
IV	14	100.0	92.9	85.7	57.1	42.9	35.7
<b>Overall</b>	<b>702</b>	<b>100.0</b>	<b>97.7%</b>	<b>95.0%</b>	<b>90.5%</b>	<b>86.7%</b>	<b>84.6%</b>

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

Diagnosed 2007-2012 – 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	12	100.0	100.0	100.0	100.0	100.0	91.7
II	25	100.0	100.0	96.0	92.0	84.0	84.0
III	9	100.0	100.0	100.0	88.9	77.8	66.7
IV	2	100.0	100.0	100.0	50.0	50.0	50.0
<b>Overall</b>	<b>49</b>	<b>100.0</b>	<b>100.0%</b>	<b>98.1%</b>	<b>90.4%</b>	<b>84.6%</b>	<b>80.7%</b>

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

Diagnosed 2007-2012 – Comprehensive Community Cancer Program - PVHMC

TABLE 9

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	34	100.0	94.1	88.2	82.4	76.5	73.5
II	55	100.0	94.6	89.1	87.3	78.2	74.5
III	20	100.0	80.0	55.0	50.0	50.0	50.0
IV	7	100.0	71.4	28.6	28.6	28.6	28.6
<b>Overall</b>	<b>117</b>	<b>100.0</b>	<b>90.2%</b>	<b>78.9%</b>	<b>74.8%</b>	<b>69.1%</b>	<b>66.6%</b>

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

Diagnosed 2007-2012 – Comprehensive Community Cancer Program - PVHMC

TABLE 10

Stage	Cases	At dx	1 year	2 years	3 years	4 years	5 years
0	164	100.0	99.4	98.2	95.7	93.3	92.0
I	334	100.0	97.0	95.2	94.0	90.3	89.1
II	212	100.0	99.1	94.8	88.2	83.4	80.0
III	87	100.0	96.6	88.5	77.0	70.1	65.3
IV	27	100.0	81.5	70.4	51.4	31.6	27.7
<b>Overall</b>	<b>824</b>	<b>100.0</b>	<b>97.0%</b>	<b>93.7%</b>	<b>89.2%</b>	<b>84.7%</b>	<b>82.6%</b>

# Definition of Terms

<b>Age of Patient</b>	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.
<b>Class of Case</b>	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.  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.
<b>Stage Of Disease</b>	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: T = tumor size, and/or tumor invasion, N = node involvement, M = metastases, spread to distant sites (lung, liver, bone, brain, etc.)  A Stage Group, i.e. I, II, III, IV is assigned after the TNM elements have been determined.
<b>Survival Rate</b>	The proportion of patients surviving a particular interval from the time of diagnosis, expressed in terms of percentage, and then computed.
<b>Treatment</b>	Refers to the first course of planned treatment after initial diagnosis.

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