

2018 Florida Hospital Cancer Institute Annual Report

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Florida Hospital Cancer Institute Facts

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Leadership

The Florida Hospital Cancer Institute (FHCI), soon to be AdventHealth Cancer Institute, is proud to present our 2018 Annual Outcomes Report, including 2017 activities and Cancer Registry data.

VISION STATEMENT

To achieve national recognition as a cancer institute that provides patient access to value-based, personalized care through highly specialized, comprehensive, and innovative destination programs.

Dear Colleagues and Community Members:

Florida Hospital Cancer Institute continues to build an extraordinary team of internationally and nationally known physicians who work across multiple programs in order to deliver exemplary care to all patients. We treat each patient individually, providing comprehensive care consisting of leading-edge treatments and therapies for both body and soul.

Our team is proud of its efforts, which have continually boosted five-year survival rates, exceeding most measured outcomes of nine national cancer registries. For many tumor sites, survival rates were significantly higher at FHCI.

Our institute is fast becoming a world-class oncology diagnostic and treatment center, and I am pleased to share the year's achievements and outcomes, including:

- Dr. Vipul Patel, a globally renown pioneer of robotic surgeries, performed his 10,000th robotic prostatectomy case via worldwide live stream in February 2017 from the Nicholson Center.
- Dr. J. Scott Magnuson of the Head and Neck Cancer program became the first physician in the world to use the da Vinci® SP™ Surgical System. Dr. Magnuson was the principal investigator in a study that used the system in TORS procedures for resection of malignant tumors.

- Our Center for Interventional Endoscopy continues to be the largest volume EUS unit in North American and was the fourth-largest program globally. In 2017, the center’s Endoscopic Retrograde Cholangiopancreatography (ERCP) volume exceeded 1,638, and more than 600 endoscopic mucosal resection procedures were performed.
- Our Research program collaborated with such partners as the Moffitt Cancer Center, the American Society of Colon and Rectal Surgeons, and Duke University Medical Center on leading-edge studies, evaluating such things as groundbreaking immunotherapies and innovative surgical robotics.
- Through the generous support of donors and community partners, our Integrative and Creative Arts Therapies Program now has its own space on the Orlando campus where it holds monthly creative art support group sessions and offers complimentary individual sessions for oncology patients. Donors also made it possible for 3,000 cancer patients to receive vital financial assistance, and 2,660 women received scholarships for screening mammograms and diagnostic testing to detect breast cancer.

As the Florida Hospital system moves forward to take a new name – AdventHealth – in January 2019, know that we at FHCI remain dedicated to both the care of our patients and the pursuit of new treatments that will brighten the outlook for all.

Thank you for allowing us to serve you as we deliver the best in compassionate, comprehensive cancer care.

Warmly,

Mark A. Socinski, MD

Executive Medical Director

Florida Hospital Cancer Institute

Member, Thoracic Oncology Program

BLOOD AND MARROW TRANSPLANT

Steven Goldstein, MD

Medical Director, Blood and Marrow Transplant Center

Florida Hospital Cancer Institute

Rushang Patel, MD, PhD, FACP

Shahram Mori, MD, PhD

Juan Varela, MD, PhD

The Blood and Marrow Transplant Center (BMTC) is Central Florida's first and only comprehensive blood and marrow transplant center for adults. BMTC offers:

- Autologous transplants (a patient's own stem cells are used)
- Allogeneic transplants (a donor provides stem cells) from:
 - unrelated donors
 - matched sibling donors
 - haploidentical donors (half-matched donors within the family when no full match is available)
 - umbilical cord blood stem cells
- Pre-transplantation evaluations
- Peripheral blood stem cell collections/apheresis
- Bone marrow collections
- Comprehensive post-transplant care, including evaluation and management of acute and chronic graft vs. host disease (GvHD)
- ECP treatment (Extracorporeal Photopheresis, used for GvHD and cutaneous T-cell lymphoma)

The program is accredited by the Foundation for the Accreditation of Cellular Therapy (FACT) and the National Marrow Donor Program (NMDP). It participates in Blood and Marrow Transplant Clinical Trials Network (BMT-CTN).

2017 Highlights

- Performed 108 stem cell transplants.
- Continues to hold every Center of Excellence designation available for blood and marrow transplant.
- Achieved excellent survival results that met or exceeded the national average for the last several years.
- Introduced several poster presentations at international transplant meetings by BMTC team.
- Opened three new clinical research trials for the prevention and treatment of acute and chronic GvHD.

Publications

Miller HK, Braun TM, Stillwell T, Harris AC, Choi S, Connelly J, Couriel D, Goldstein S, Kitko CL, Magenau J, Pawarode A, Reddy P, Riwes M, Yanik GA, Levine JE. Infectious Risk after Allogeneic Hematopoietic Cell Transplantation Complicated by Acute Graft-versus-Host Disease. *Biol Blood Marrow Transplant*. 2017 Mar;23(3):522-528. doi: 10.1016/j.bbmt.2016.12.630. Epub 2016 Dec 22. PubMed PMID: 28017733; PubMed Central PMCID: PMC5551893.

Saliba RM, Sarantopoulos S, Kitko CL, Pawarode A, Goldstein SC, Magenau J, Alousi AM, Churay T, Justman H, Paczesny S, Reddy P, Couriel DR. B-cell activating factor (BAFF) plasma level at the time of chronic GvHD diagnosis is a potential predictor of non-relapse mortality. *Bone Marrow Transplant*. 2017 Jul;52(7):1010-1015. doi: 10.1038/bmt.2017.73. Epub 2017 May 8. PubMed PMID: 28481353; PubMed Central PMCID: PMC5687506.

Majchrzak K, Nelson MH, Bowers JS, Bailey SR, Wyatt MM, Wrangle JM, Rubinstein MP, Varela JC, Li Z, Himes RA, Chan SSL, Paulos CM. β -catenin and PI3K δ inhibition expands precursor Th17 cells with heightened stemness and antitumor activity. *JCI Insight*. 2017 Apr 20;2(8). pii: 90547. doi: 10.1172/jci.insight.90547. Epub PubMed PMID: 28422756; PubMed Central PMCID: PMC5396523.

Cooling L, Roxbury K, Hoffmann S, DeBusscher J, Kota U, Goldstein S, Davenport R. Use of allogeneic apheresis stem cell products as an interlaboratory proficiency challenge. *Transfusion*. 2017 Jun;57(6):1543-1554. doi: 10.1111/trf.14107. Epub 2017 Mar 28. PubMed PMID: 28370131.

BRAIN AND SPINE ONCOLOGY

Herbert B. Newton, MD, FAAN

Medical Director, Brain and Spine Tumor Program
Florida Hospital Cancer Institute
Professor of Neurology and Neurosurgery (Retired)
Ohio State University Medical Center & James Cancer Institute

Melvin Field, MD

Surgical Director, Brain and Spine Tumor Program
Neurosurgical Director, Gamma Knife Center and

Neuroscience Institute
Associate Professor of Neurological Surgery
University of Central Florida College of Medicine

The FHCI Brain and Spine Program specializes in the diagnosis and comprehensive management of primary brain and spinal tumors for adult and pediatric patients, complications of malignant/low-grade brain and spinal tumors, secondary metastatic cancer directly affecting the brain and spinal cord, neurologic manifestations of cancers elsewhere in the body, and treatment-related complications affecting the central and peripheral nervous system.

Among the advanced treatments used in the Brain and Spine Program is the Leksell Gamma Knife® Perfexion radiosurgery system. The non-invasive outpatient procedure is used to treat malignant and benign brain tumors while leaving surrounding tissue intact. The Florida Hospital Gamma Knife Center is the first and only facility of its kind in Central Florida to offer Gamma Knife radiosurgery. It has treated thousands of patients with a multitude of different brain lesions since opening in 1996.

2017 Highlights

- In the fall of 2017 the Neuro-Oncology Center Clinic added a second neuro-oncologist, Dr. Sherif Makar. Dr. Makar is a Central Florida native, and attended Medical School and Neurology Residency training in Florida, followed by a Neuro-Oncology Fellowship at the prestigious Stanford University Medical Center in California.
- In 2017, the Neuro-Oncology Center cared for more than 1,500 patients with brain and spine cancers. The center treated 204 new patients, provided continuing care to 1,202 patients, and cared for more than 100 patients receiving chemotherapy with oral, intravenous, and intrathecal drugs.

Lectures and Presentations

Dr. Herbert Newton: Headaches and Brain Tumors, Florida Hospital Headache Symposium, Orlando; Jan. 27, 2017.

Dr. Herbert Newton: Neuro-Oncology Update: Florida Hospital Cancer Institute 6th Annual Best of ASCO 2017, Orlando; June 25, 2017.

Dr. Herbert Newton: The Neurobiology of Music: Part 1, Rollins College School of Music, Common Hour Class, Winter Park, Florida; Oct. 5, 2017.

Dr. Herbert Newton: The Role of the Neuro-Oncologist, FLASCO Fall Session, Orlando; Oct. 22, 2017.

Dr. Herbert Newton: Neurofibromatosis Type 1: Clinical overview and updates on molecular approaches to chemotherapy, FHCI Pediatric Neuro-Oncology Annual Neurofibromatosis Symposium, Orlando; Dec. 2, 2017.

Dr. Herbert Newton: Neuro-Oncology Update: Neuropathology, Optune and Immune Checkpoint Pathways, Neuro-Oncology Update FHCI, Orlando; Dec. 6, 2017.

Book Chapters

Vargo C, Ray L, Newton HB. Neurological complications of chemotherapy. In: *Cancer Neurology in Clinical Practice. Neurological Complications of Cancer and Its Treatment, 3rd Edition*. Schiff D, Kesari S, Wen PY (Eds.). Humana Press 2017;15:275-310.

Recognitions

Newton, HB; Handbook of Brain Tumor Neuro-Imaging, 2nd Edition, *Highly Commended Honours*, Radiology category, British Medical Association Awards, Sept. 11, 2017, London.

Research Grants

Moats RA, Newton HB. Integrative and Creative Arts Therapy Program, Florida Hospital Cancer Institute, pilot program housed in the Neuro-Oncology Center; three years funded: \$202,122.50, \$220,639.90 and \$226,273.40, respectively; February 2017-February 2020.

Active Trials and Studies

RTOG 3508/AbbVie M13-813, a trial for newly diagnosed glioblastoma patients who are epidermal growth factor receptor (EGFR) positive. The trial consists of radiation therapy, oral chemotherapy and an antibody drug conjugate (IV infusion). Three patients enrolled.

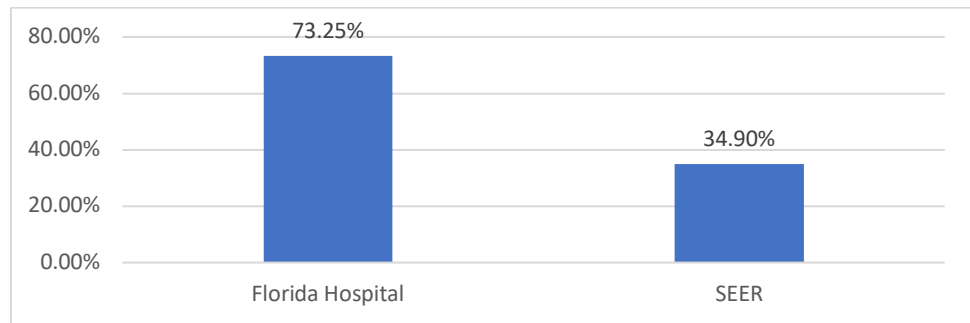
NRG-BN003, a study for newly diagnosed gross totally resected WHO grade II meningioma patients who have just had their brain tumors completely removed. The trial is comparing observation after surgery vs radiation therapy after surgery.

Brain and Spine Cancer Cases
Five-Year Survival
Cases Diagnosed 2007-2013

More than 73 percent of FHCI patients had survival rates of five years – significantly higher than the national survival rate of less than 35 percent.



Brain and Spine-Five_year Surviv



FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)
Source: FHCI Cancer Registry, SEER.gov CanQues

BREAST ONCOLOGY

Carlos Alemany, MD

Co-Medical Director, Florida Hospital Cancer Institute

Louis Barr, MD

Chair, Breast Program Leadership

Lisa Minton, MD

Olga Ivanov, MD
Martin Dietrich, MD
Amber Orman, MD

As a leader in breast cancer treatment, FHCI employs a wide range of therapies, including surgery, radiation therapy, chemotherapy, hormonal therapy and targeted therapy. Our multidisciplinary approach provides comprehensive care that enables patients to coordinate appointments with different specialists within the same day and promptly receive coordinated treatment recommendations. Breast cancer care coordinators assist patients through every step of their treatments and offer moral support. After-care and support help patients transition back to their day-to-day lives. FHCI is an innovator in community outreach that has provided thousands of screenings to underserved women.

Publications

Patel R, Ivanov O, Voigt J. Lifetime cost-effectiveness analysis of intraoperative radiation therapy versus external beam radiation therapy for early stage breast cancer. *Cost Eff Resour Alloc*, 2017 Nov 9; 15:22. doi: 10.1186/s12962-017-0084-5. PubMed PMID: 29151818; PubMed Central PMCID: PMC5679386.

Mellon EA, Orman A, Joya LE, Montejo ME, Laronga C, Hoover SJ, Lee MC, Khakpour N, Kubal PF, Diaz R. Frequency of whole breast radiation therapy after intraoperative radiation therapy due to criteria identified by lumpectomy. *Brachytherapy*, 2017 Jan-Feb; 16(1):174-180. doi: 10.1016/j.brachy.2016.09.012. Epub 2016 Nov 2. PubMed PMID: 27816540.

Parra NA, Orman A, Padgett K, Casillas V, Punnen S, Abramowitz M, Pollack A, Stoyanova R. Dynamic contrast-enhanced MRI for automatic detection of foci of residual or recurrent disease after prostatectomy. *Strahlenther Onkol*, 2017 Jan; 193(1):13-21. doi: 10.1007/s00066-016-1055-z. Epub 2016 Oct 19. PubMed PMID:27761612; PubMed Central PMCID: PMC5559220.

Abstracts

Centers N, Ivanov O, Buffington C, Caceres A. Hormone replacement therapy (HRT) among BRCA mutation carriers, Annual Clinical Meeting of the American Society of Clinical Oncology (ASCO), June 2017, Chicago; *Journal of Clinical Oncology* 35, Supplement 15, meeting abstract 1561, 2017 May 20.

Ivanov O, Centers N, Wiercinski K, Reina E, Buffington C, Caceres A. BRCA mutation carriers undergoing combined mastectomy with immediate reconstruction and gynecologic risk-reducing surgery: An analysis of outcomes, Annual Clinical Meeting of the American Society of Clinical Oncology (ASCO), June 2017, Chicago; Journal of Clinical Oncology 35, Supplement 15, meeting abstract e13004, 2017 May 20.

Yang GQ, Mills M, Ahmed KA, Laronga C, Orman AGB, Diaz R. Characteristics of Radiation Therapy for Medullary Carcinoma of the Breast in the National Cancer Database, Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), Sept 2017, San Diego; International Journal of Radiation Oncology Biology Physics 99(2): Supplement S: E58-E58, meeting abstract 2135, published Oct 1, 2017.

Oliver DE, Mills M, Yang GQ, Yuan ZM, Ahmed KA, Hoover SJ, Diaz R, Orman AGB. Trends of Radiation Therapy in Metaplastic Breast Cancer – A National Cancer Database Study, Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), Sept 2017, San Diego, International Journal of Radiation Oncology Biology Physics 99(2): Supplement S: E38-E39, meeting abstract 2091, published Oct 1, 2017.

Mellon EA, Diaz R, Montejo ME, Laronga C, Lee MC, Hoover SJ, Khakpour N, Kubal PF, Orman AGB. Rates of Whole Breast Radiation Therapy Following Intraoperative Radiation Therapy Using 2009 and 2016 ASTRO Consensus Guidelines. Conference: Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), San Diego, Sept 2017; International Journal of Radiation Oncology Biology Physics 99(2): Supplement S: E35-E35, meeting abstract 2083, published Oct 1, 2017.

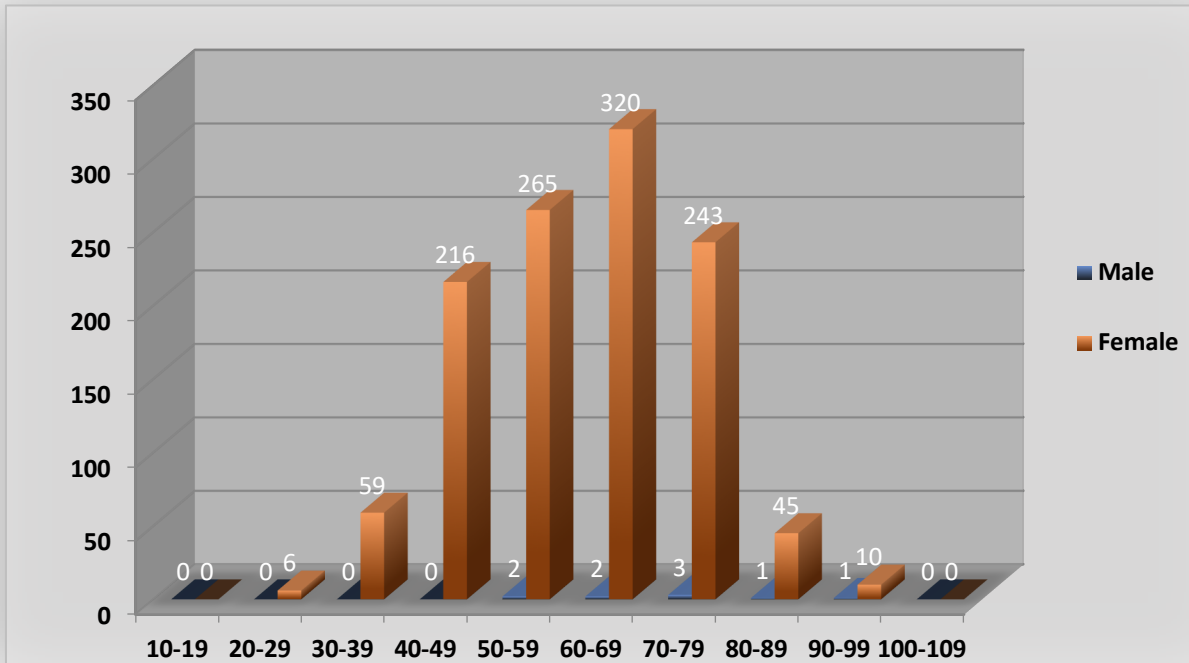
Orman AG, Ma ZJ, Zhou JM, Portman D, Jim H, Johnstone P, Yu M. A Modified Edmonton Symptom Assessment Scale for Symptom Clusters in Radiation Oncology Patients, American Radium Society (ARS) meeting, Colorado Springs, Colo., May 2017; International Journal of Radiation Oncology Biology Physics 98(2): Supplement S: E56-E45, meeting abstract P110, published June 1, 2017.

Mills M, Yang GQ, Ahmed KA, Khakpour N, Orman AGB, Diaz R. Trends of Radiation Therapy in Metaplastic Breast Cancer – A National Cancer Database Study. Annual Meeting of the American Society for Therapeutic Radiation Oncology (ASTRO), San Diego, Sept 2017; International Journal of Radiation Oncology Biology Physics 99(2): Supplement S: E36-E36, meeting abstract 2085, published Oct 1, 2017.

Breast Cancer Cases

Age at Diagnosis by Gender

In 2017, 27 percent of women diagnosed with breast cancer were from 60 to 69 years old. Almost 90 percent of women were diagnosed between the ages of 40 and 79.

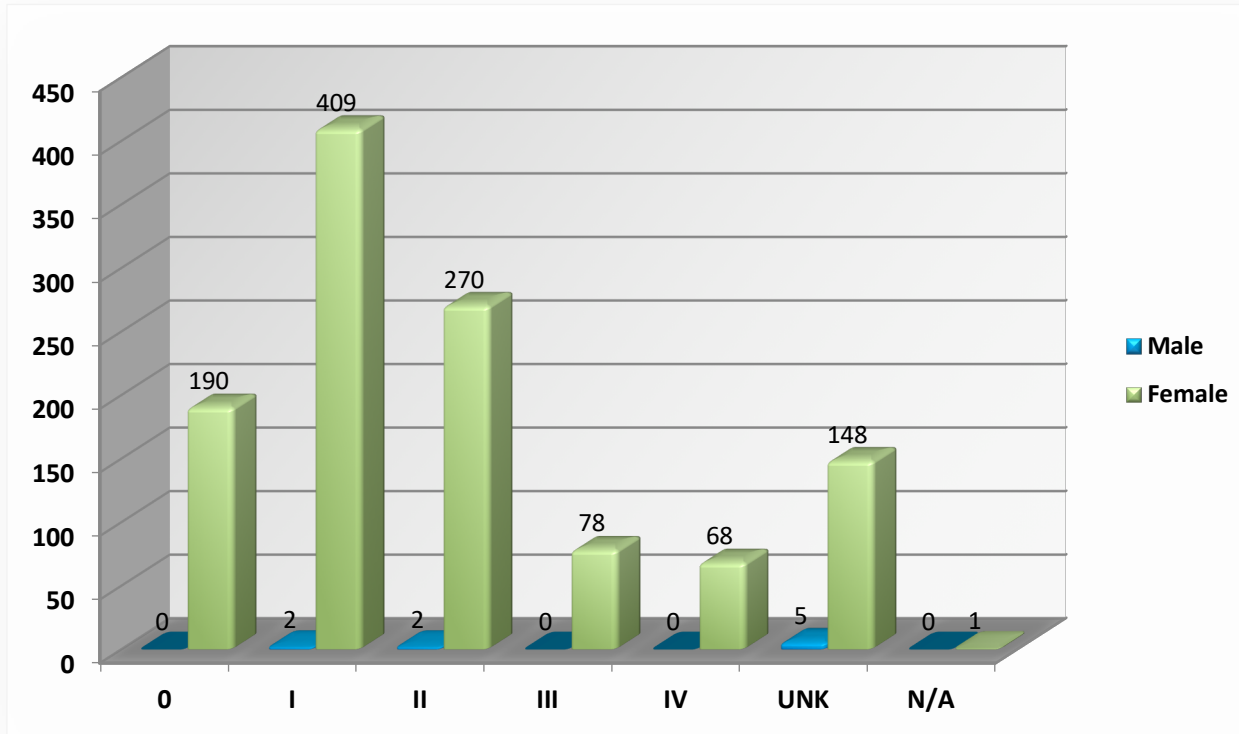


Source: FHCI Cancer Registry

Breast Cancer Cases

Stage at Diagnosis by Gender

At FHCI, 1,173 new cases of breast cancer were diagnosed or treated in 2017. Nearly 75 percent of them were identified in early stages (0, I, II), demonstrating the continued effectiveness of building awareness through early screenings.



Source: FHCI Cancer Registry

First-course Surgery Type

By Stage at Diagnosis

Lumpectomy was the first course of treatment for 47 percent of breast cancer patients in 2017, followed by mastectomy for 36 percent of cases.



BREAST First Course
Stage at Diagnosis.xls

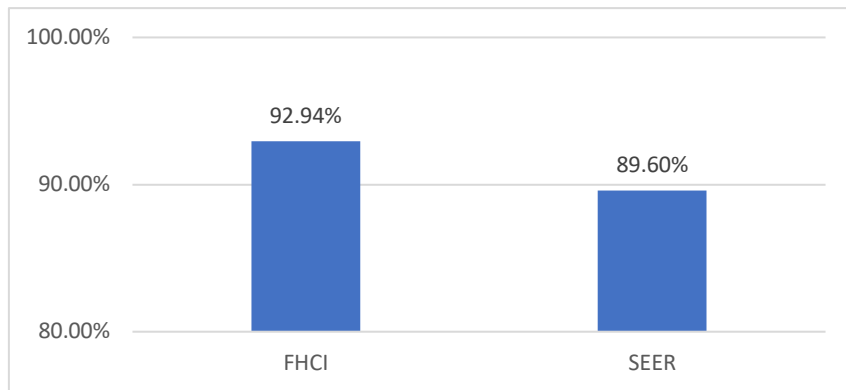
Cancer Directed Surgery Code	0 Number	1,1A,1B Number	2,2A,2B Number	3,3A,3B,3C Number	4 Number	99 Number	All Others Number	Total Values Number
NO Surgery	11	30	50	16	59	33	2	201
LUMPECTOMY	119	258	105	8	3	49	5	547
MASTECTOMY	60	123	117	53	5	52	9	419
SURGERY, Not Otherwise Specified	0	0	0	1	1	4	0	6
Overall Totals	190	411	272	78	68	138	16	1173

Source: FHCI Cancer Registry

Breast Cancer Five-year Survival

Cases Diagnosed 2008-2014

The five-year survival rate for breast cancer patients treated at FHCI compared favorably to national data.



FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

GI / COLORECTAL ONCOLOGY

John R. T. Monson, MD, FRCS, FASCRS, FACS

Executive Director Colorectal Surgery, Florida Hospital System
Center for Colon and Rectal Surgery, Florida Hospital Medical Group
Clinical Director Surgical Health Outcomes Consortium (SHOC)
Professor of Surgery, University of Central Florida, College of Medicine
Director, NAPRC Accredited Rectal Cancer Program

Ahmed Zakari, MD

Medical Director, Gastrointestinal Cancer Program
Florida Hospital Cancer Institute
Section Chair of Hematology, Florida Hospital
Associate Professor, University of Central Florida College of Medicine

FHCI offers the largest comprehensive colorectal cancer program in Florida. For patients with colon or rectal cancer, our program is in the top 2 percent of programs nationally by volume of patients treated annually. A number of dedicated colorectal surgeons provide the highest quality care at a range of campus sites under a single program ensuring a consistency of patient care, regardless of location. Faculty within the group are key national and international leaders within the field of colorectal surgery. They have developed novel technologies and surgical and other treatment options that are not available anywhere else within Florida. A unique and dedicated multi-disciplinary team of true specialists provide personalized care for patients on an individualized basis.

Our doctors have presented lectures and teaching courses around the United States as well as more than a dozen countries internationally in the last 12 months alone. They have also published a range of key research papers on the latest techniques in patient care that have received much publicity in the international media.

November 2017, we held the inaugural Orlando Colorectal Congress meeting over a 3-day period featuring didactic sessions with CME, international guest lecturers, as well as live surgery and cadaveric labs for demonstrating advanced techniques including robotic-assisted procedures and transanal total mesorectal excision (taTME). It was attended by 100 surgeons from around the world.

Highlights

- Dr John Monson was an invited speaker at the annual ASCRS in Seattle, Washington speaking on taTME vs. lapTME: Best Evidence & Trial Updates. He also delivered a keynote lecture at the annual ACS in San Diego, California titled Evaluating the Current Status of Rectal Cancer Care in the US: Where We Stand at the Start of the Commission on Cancer's National Accreditation Program for Rectal Cancer.
- Dr. Matthew Albert was a visiting professor at Al Hamad Hospital, Doha, Qatar delivering specific talks on TAMIS and The Evolution to Transanal TME. He also presented on the pitfalls and complications associated with performing TaTME at the Digestive Disease Week at the Jagelman Colorectal Congress; Fort Lauderdale, Florida. He also chaired the teaching course on TaTME at the IRCAD Course for Transanal and Laparoscopic Colorectal Surgery in Brazil. He was also an invited lecturer to the Chinese Congress Surgery; Beijing, China speaking on TAMIS and the Evolution to taTME.
- Dr Teresa deBeche-Adams was a visiting professor at the Midwest Colorectal Society Annual Meeting in Big Sky, Montana delivering a keynote talk on TaTME. She also was involved in delivering hands-on teaching in robotics in both Germany and Italy.
- Dr George Nassif continued his national and international expertise in Enhanced Recovery after Surgery programs giving lectures in Alabama, at ASCRS in Seattle and Chongqing in China.
- Dr Justin Kelly gave instruction on the bi-monthly TaTME cadaveric program at the Nicholson Center in Florida Hospital, educating numerous visiting surgeons on the details concerning TaTME.

Publications

Aquina CT, Blumberg N, Becerra AZ, Boscoe FP, Schymura MJ, Noyes K, Monson JRT, Fleming FJ. Association Among Blood Transfusion, Sepsis, and Decreased Long-term Survival After Colon Cancer Resection. *Ann Surg*. 2017 Aug;266(2):311-317. doi: 10.1097/SLA.0000000000001990. PubMed PMID: 27631770.

Aquina CT, Mohile SG, Tejani MA, Becerra AZ, Xu Z, Hensley BJ, Arsalani-Zadeh R, Boscoe FP, Schymura MJ, Noyes K, Monson JR, Fleming FJ. The impact of age on complications, survival, and cause of death following colon cancer surgery. *Br J Cancer*. 2017 Jan;116(3):389-397. doi: 10.1038/bjc.2016.421. Epub 2017 Jan 5. PubMed PMID: 28056465; PubMed Central PMCID: PMC5294480.

Atallah SB, DuBose AC, Burke JP, Nassif G, deBeche-Adams T, Frering T, Albert MR, Monson JRT. Uptake of Transanal Total Mesorectal Excision in North America: Initial Assessment of a Structured Training Program and the Experience of Delegate Surgeons. *Dis Colon Rectum*. 2017 Oct;60(10):1023-1031. doi: 10.1097/DCR.0000000000000823. PubMed PMID: 28891845.

Monson JRT, Arsalanizadeh R. Transanal Total Mesorectal Excision (TaTME) and Quality of Rectal Cancer Surgery: Do we Really Know? *Ann Surg*. 2017 Dec;266(6):e88-e89. doi: 10.1097/SLA.0000000000001736. PubMed PMID: 27070936.

Xu Z, Mohile SG, Tejani MA, Becerra AZ, Probst CP, Aquina CT, Hensley BJ, Arsalanizadeh R, Noyes K, Monson JR, Fleming FJ. Poor compliance with adjuvant chemotherapy use associated with poorer survival in patients with rectal cancer: An NCCDB analysis. *Cancer*. 2017 Jan 1;123(1):52-61. doi: 10.1002/cncr.30261. Epub 2016 Aug 25. PubMed PMID: 27560162.

Xu Z, Berho ME, Becerra AZ, Aquina CT, Hensley BJ, Arsalanizadeh R, Noyes K, Monson JRT, Fleming FJ. Lymph node yield is an independent predictor of survival in rectal cancer regardless of receipt of neoadjuvant therapy. *J Clin Pathol*. 2017 Jul;70(7):584-592. doi: 10.1136/jclinpath-2016-203995. Epub 2016 Dec 8. PubMed PMID: 27932667.

Xu Z, Becerra AZ, Aquina CT, Hensley BJ, Justiniano CF, Boodry C, Swanger AA, Arsalanizadeh R, Noyes K, Monson JR, Fleming FJ. Emergent Colectomy Is Independently Associated with Decreased Long-Term Overall Survival in Colon Cancer Patients. *J Gastrointest Surg*. 2017 Mar;21(3):543-553. doi: 10.1007/s11605-017-3355-8. Epub 2017 Jan 12. PubMed PMID: 28083841.

González MG, Kelly KN, Dozier AM, Fleming F, Monson JRT, Becerra AZ, Aquina CT, Probst CP, Hensley BJ, Sevdalis N, Noyes K. Patient Perspectives on Transitions of Surgical Care: Examining the Complexities and Interdependencies of Care. *Qual Health Res*. 2017 Oct;27(12):1856-1869. doi:10.1177/1049732317704406. Epub 2017 May 10. PubMed PMID: 28936931.

Lee L, Edwards K, Hunter IA, Hartley JE, Atallah SB, Albert MR, Hill J, Monson JR. Quality of Local Excision for Rectal Neoplasms Using Transanal Endoscopic Microsurgery Versus Transanal Minimally Invasive Surgery: A Multi-institutional Matched Analysis. *Dis Colon Rectum*. 2017 Sep;60(9):928-935. doi:10.1097/DCR.0000000000000884. PubMed PMID: 28796731.

Aquina CT, Becerra AZ, Xu Z, Boscoe FP, Schymura MJ, Noyes K, Monson JRT, Fleming FJ. Nonelective colon cancer resection: A continued public health concern. *Surgery*. 2017 Jun;161(6):1609-1618. doi:10.1016/j.surg.2017.01.001. Epub 2017 Feb 23. PubMed PMID: 28237645.

Becerra AZ, Aquina CT, Mohile SG, Tejani MA, Schymura MJ, Boscoe FP, Xu Z, Justiniano CF, Boodry CI, Swanger AA, Noyes K, Monson JR, Fleming FJ. Variation in Delayed Time to Adjuvant Chemotherapy and Disease-Specific Survival in Stage III Colon Cancer Patients. *Ann Surg Oncol*. 2017 Jun;24(6):1610-1617. doi:10.1245/s10434-016-5622-4. Epub 2016 Oct 13. PubMed PMID: 27738848.

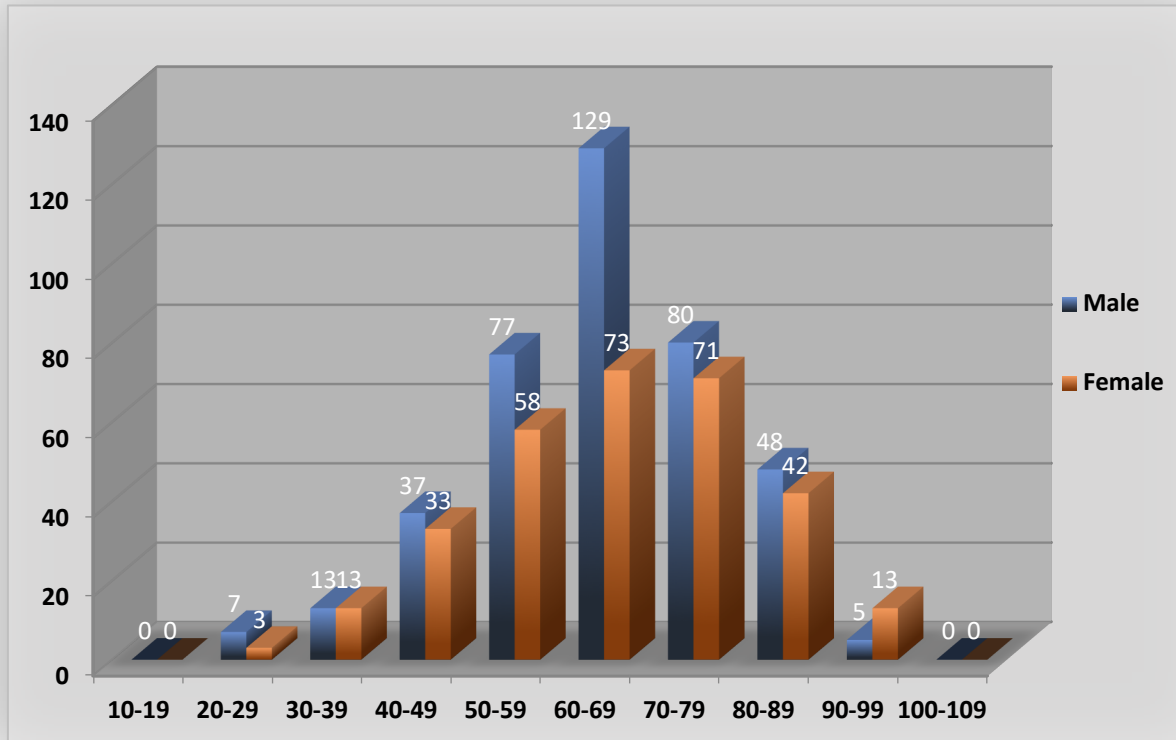
Teaching taTME

Transanal Total Mesorectal Excision (taTME) is a relatively new minimally invasive approach for rectal cancer surgery. To date, more than 100 surgeons from over 50 leading national and international centers have completed two-day training program led by surgeons in our group in the Nicholson Center at Florida Hospital Orlando. The operative course trains experienced surgeons in live surgery and cadaveric and didactic sessions using taTME.

Colorectal Cancer Cases

Age at Diagnosis by Gender

In 2017, male and female patients diagnosed at FHCI with colorectal cancer were most likely to be 60 to 69 years old, followed by ages 70 to 79.



Source: FHCI Cancer Registry

Colorectal Cancer Cases

Stage at Diagnosis

Almost 26 percent of the 703 patients diagnosed with colon cancer at FHCI were in Stage III of the disease when it was found.

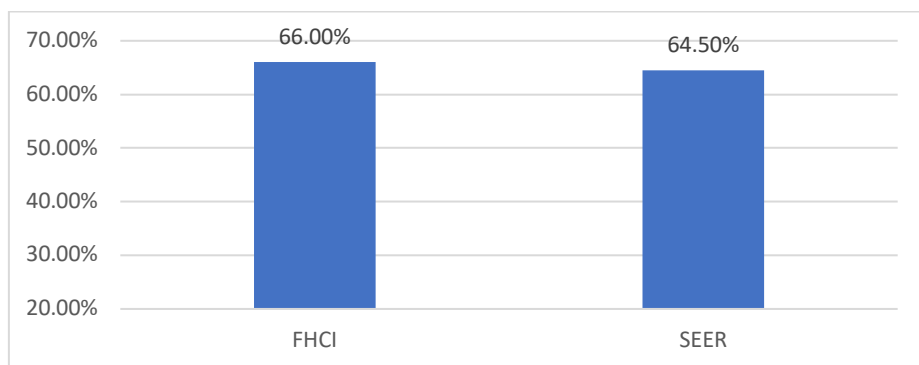
Site Name	Total Cases	Stage 0 (%)	Stage I (%)	Stage II (%)	Stage III (%)	Stage IV (%)	Unk (%)	N/A (%)								
Colon	486	69%	30	6%	67	14%	82	17%	124	26%	89	18%	94	19%	0	0%
Rectosigmoid Junction	48	7%	0	0%	12	25%	9	19%	14	29%	6	13%	7	15%	0	0%
Rectum	169	24%	8	5%	37	22%	26	15%	44	26%	17	10%	37	22%	0	0%
Overall Totals	703	100%	38	5%	116	17%	117	17%	182	26%	112	16%	138	20%	0	0%

Source: FHCI Cancer Registry

Colorectal Cancer Five-year Survival

Cases Diagnosed 2008-2014

The five-year survival rate for colorectal cancer patients treated at Florida Hospital compared favorably to national data.



FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

UPPER GI / GASTRIC PANCREATIC AND HEPATOBILIARY ONCOLOGY

Ahmed Zakari, MD

Medical Director, Gastrointestinal Cancer Program
Florida Hospital Cancer Institute
Section Chair of Hematology, Florida Hospital
Associate Professor, University of Central Florida College of Medicine

Juan Pablo Arnoletti, MD, FACS

Chief of Surgical Oncology
Chairman of the Gastrointestinal Cancer Leadership Committee
Florida Hospital Cancer Institute
Professor of Surgery, University of Central Florida College of Medicine

Thomas Chin, MD**Ravi Shridhar, MD**

FHCI offers a comprehensive array of treatments and therapies for pancreatic and hepatobiliary cancer, including state of the art surgical and endoscopic techniques, complex liver and pancreatic resections, clinical trials as well as stereotactic body radiation and radioembolization therapy for large or multiple tumors. With the latest endoscopic, minimally invasive and 3-D technologies, the Pancreatic and Hepatobiliary Oncology team produces more accurate early diagnoses and successfully treats a large patient population. We perform more pancreatic surgeries than any other medical center in central Florida and offer a wide array of cancer therapies for digestive tumors. We are actively involved in translational research studies seeking novel therapies and better treatment for patients with pancreatic cancer.

Our Pancreatic and Hepatobiliary Oncology Centers of Excellence offer a wide range of multi-disciplinary specialists who provide clinical expertise and patient-centered care for the diagnosis and treatment of the entire spectrum of benign, pre-malignant and malignant HPB and digestive neoplasms. FHCI's comprehensive approach also helps patients manage the emotional, physical, and nutritional impact of cancer. FHCI is committed to education and treatment that improves the lives of our patients and their families.

Publications

Arnoletti JP, Zhu X, Almodovar AJ, Veldhuis PP, Sause R, Griffith E, Corpus G, Chang JC, Fanaian N, Litherland SA. Portal Venous Blood Circulation Supports Immunosuppressive Environment and Pancreatic Cancer Circulating Tumor Cell Activation. *Pancreas*. 2017 Jan;46(1):116-123. PubMed PMID: 27400259.

Atallah S, Mabardy A, Volpato AP, Chin T, Sneider J, Monson JRT. Surgery beyond the visible light spectrum: theoretical and applied methods for localization of the male urethra during transanal total mesorectal excision. *Tech Coloproctol*. 2017 Jun;21(6):413-424. doi: 10.1007/s10151-017-1641-9. Epub 2017 Jun 6. Review. PubMed PMID: 28589242.

Matar AJ, Files J, Burkholder R, Chin T, Angelis M. Evaluating living donor kidney transplant rates: Are you reaching your potential? *Clin Transplant*. 2017 Apr;31(4). doi: 10.1111/ctr.12914. Epub 2017 Mar 1. PubMed PMID: 28135781.

Abstracts

Portales F, Philip PA, Hammel P, Buscaglia M, Pazo-Cid R, Mozo JLM, Kim ES, Dowden S, Zakari A, Borg C, Terrebonne E, Herrero FR, Li JSS, Ong TJ, Nydam T, Lacy J. Interim health related quality of life (QoL) from LAPACT, a Phase 2 trial of nab-paclitaxel (nab-P) plus gemcitabine (G) for patients (Pts) with locally advanced pancreatic cancer (LAPC). Conference: 42nd European-Society-for-Medical-Oncology Congress (ESMO). Date SEP 08-12, 2017, Madrid, SPAIN. *Annals of Oncology* 28(Supplement 5). Meeting Abstract 730P, Published Sep 2017.

Philip PA, Lacy J, Portales, F, Sobrero A, Pazo-Cid R, Mozo JLM, Kim ES, Dowden S, Zakari A, Borg C, Terrebonne E, Herrero FR, Li JSS, Ong TJ, Nydam T, Hammel P. nab-Paclitaxel (nab-P) plus gemcitabine (G) for patients (Pts) with locally advanced pancreatic cancer (LAPC): Interim efficacy and safety results from the Phase 2 LAPACT Trial. Conference: 42nd European Society for Medical Oncology Congress (ESMO) Conference Date SEP 08-12, 2017, Madrid, SPAIN. *Annals of Oncology*, Meeting Abstract 622PD Vol. 28, Supplement 5, Published: Sep 2017.

Matar A, Files J, Burkholder R, Chin T, Angelis M. Evaluating Living Donor Kidney Transplant Rates: Are You Reaching Your Potential? ASTS 17th Annual State of the Art Water Symposium, Miami Beach, FL Date: JAN 26-29, 2017. *Amer Soc Transplant Surg*; Novartis Pharmaceut Corp; Astellas; Sanofi Genzyme. *American Journal of Transplantation* Vol. 17 Special Issue SI, Supplement 2(41-42). Meeting Abstract: P-35, Published JAN 2017.

Active Research Grants

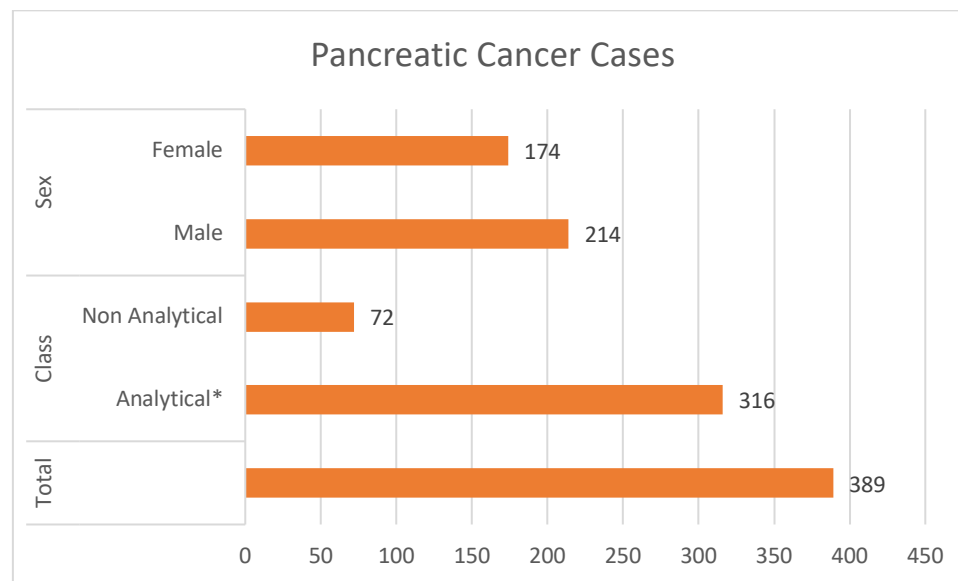
SA Litherland, JP Arnoletti, A Khaled. Novel Actin Polymerization Inhibitor Test in Pancreatic Cancer Mixed Cell Reaction Culture System; to test the effects of actin polymerization inhibition on pancreatic cancer CTC proliferation and apoptosis in MCR Culture System; Phi Beta Psi; November 2016-November 2017.

SA Litherland, JP Arnoletti, Xainlin Han. Identification of altered lipids for early diagnosis of pancreatic cancer; to identify and characterize the Lipidomics profile unique to pancreatic cancer to find potential therapeutic targets and biomarker signatures for malignancy and tumor staging; Florida Hospital Foundation; September 2016-August 2017.

Pancreatic Cancer Cases

Cases Diagnosed by Class and Gender

Male patients made up to 55 percent of the 389 cases of pancreatic cancer diagnosed in 2017 at FHCI.



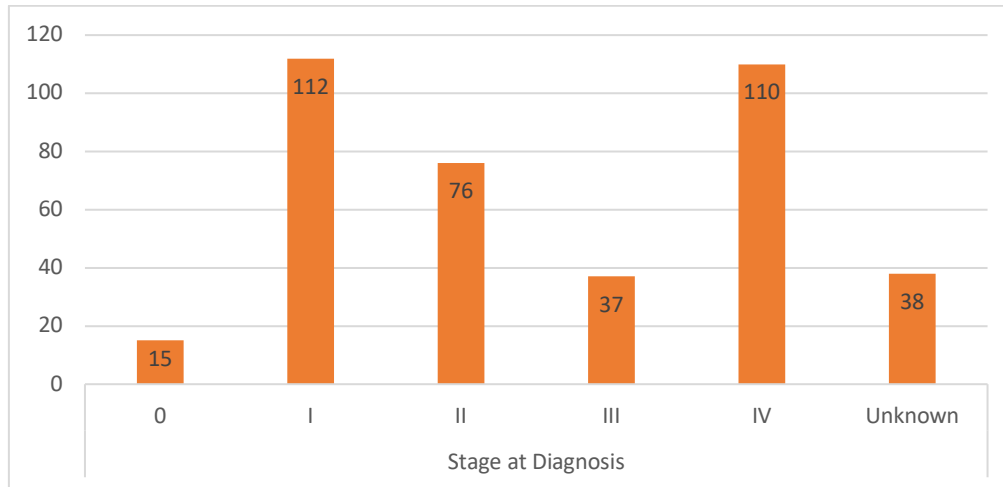
* Analytical patients have some or all of their first course of treatment at one or more of our FH Central Region - South facilities

Source: FHCI Cancer Registry

Pancreatic Cancer Cases

AJCC Stage at Diagnosis

Nearly 29 percent of the pancreatic cancer patients were diagnosed in stage I while almost as many were in stage IV at diagnosis.

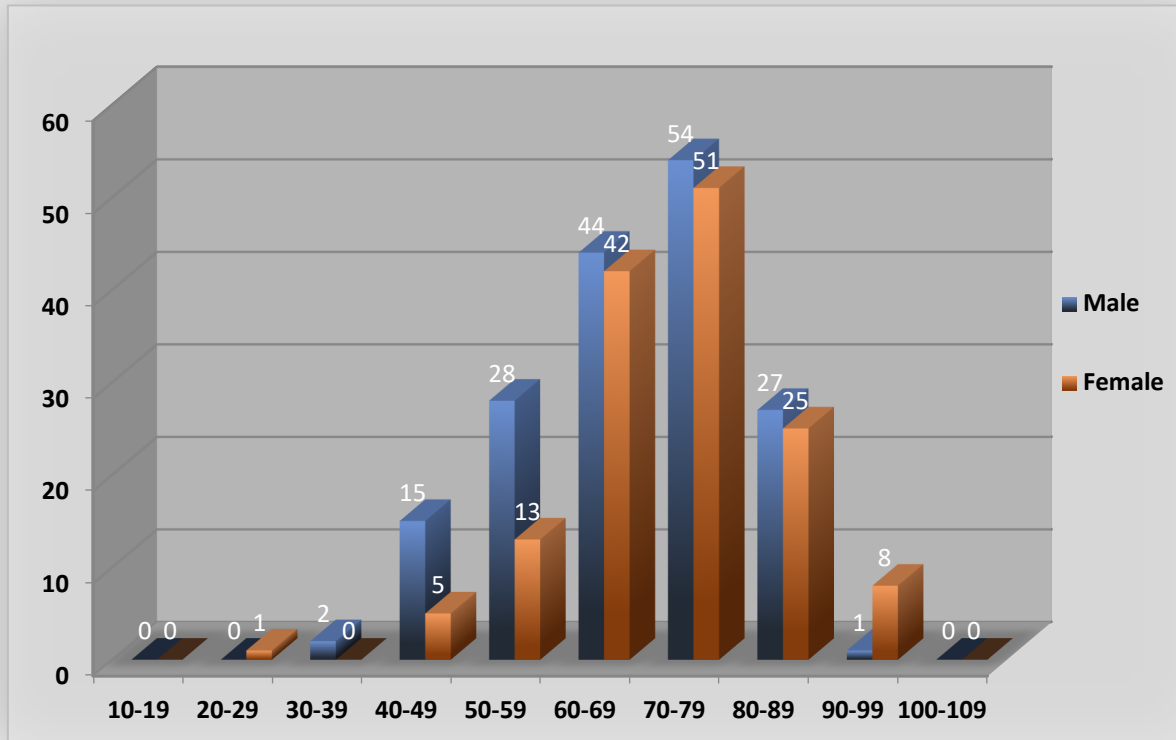


Source: FHCI Cancer Registry

Pancreatic Cancer Cases

Age at Diagnosis by Gender

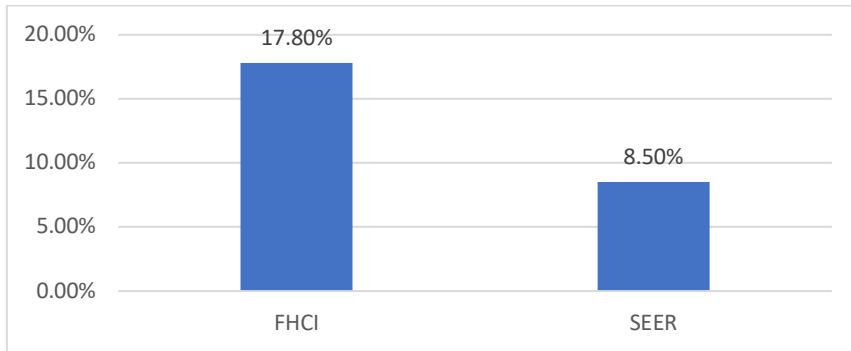
Fourteen percent of men and 13 percent of women were from 70 to 79 years old at diagnosis, while 11 percent of both men and women were ages 60 to 69.



Source: FHCI Cancer Registry

Pancreatic Cancer Cases
Five-year Survival
Cases Diagnosed 2008-2014

Pancreatic five-year survival rates at FHCI were more than double those of national averages.



*FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)
Sources: FHCI Cancer Registry; SEER.gov CanQues*

GYNECOLOGIC ONCOLOGY

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Medical Director, Gynecologic Oncology Program
Florida Hospital Cancer Institute
Professor of Obstetrics & Gynecology, University of Central Florida
Clinical Professor of Obstetrics & Gynecology, Florida State University

James E. Kendrick, MD, FACOG

Director of Clinical Operations, Gynecologic Oncology Program
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Associate Professor of Obstetrics & Gynecology, University of Central Florida
Clinical Associate Professor of Obstetrics & Gynecology, Florida State University

Nathalie D. McKenzie, MD, MSPH, FASCO

Program Director, Gynecologic Oncology Fellowship
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Clinical Assistant Professor of Obstetrics & Gynecology, Florida State University

Sarfraz Ahmad, PhD, FAACC, FABAP

Director of Clinical Research, Gynecologic Oncology
Florida Hospital Cancer Institute
Professor of Medical Education, University of Central Florida
Professor of Clinical Sciences, Florida State University

The Florida Hospital Gynecologic Oncology (FHGO) Program at FHCI is internationally recognized for excellence in clinical research, innovation in robotic surgery and treatment, and novel collaborative laboratory investigations of translational research. Surgeons from around the world have attended Florida Hospital's advanced robotic training courses and physician observations. FHGO's seminal research publications, which focus on robotic surgery outcomes, are widely quoted in peer-reviewed scholarly literature. Patients have access to the most advanced oncologic therapies because of affiliations with the National Cancer Institute's Gynecologic Oncology Group (GOG) / NRG* Oncology, several university research centers and industry-sponsored research consortiums that also change the treatment paradigms in gynecologic oncology.

Note: NRG Oncology brings together the unique and complementary research areas of the National Surgical Adjuvant Breast and Bowel Project (NSABP), the Radiation Therapy Oncology Group (RTOG), and the Gynecologic Oncology Group (GOG).

2017 Highlights

- Florida Hospital has been ranked within the top 15 hospitals in the nation by the *U.S. News & World Report* for Gynecology during the past few years.
- Dr. Nathalie D. McKenzie joined the Gynecology Oncology practice as Attending Surgeon in June, and became Program Director of Gynecologic Oncology Fellowship in August.
- Data monitoring, analyses and final peer-reviewed publication was accomplished **the** FDA Investigational Device Exemption study "Detection of Sentinel Lymph Nodes in Patients with Endometrial Cancer Undergoing Robotic-Assisted Staging: Comparison of Isosulfan Blue and Indocyanine Green Dyes with Fluorescence Imaging" (Drs. Holloway, Ahmad, Kendrick).
- FHGO initiated the Accreditation Council for Graduate Medical Education (ACGME) transition process, Fellowship Program expansion (with laboratory experience and dedicated research year and Wellness program).
- Drs. Ahmad, Holloway, Kendrick and McKenzie served as reviewers for several peer-reviewed, national/international scientific journals (e.g., *Gynecologic Oncology*, *British Journal of Cancer*, *International Journal of Gynecological Cancer*, *American Journal OB/GYN*, *Archives*

of Obstetrics and Gynecology, Journal of Robotic Surgery, Journal of American College of Surgery, Surgical Endoscopy, Indian Journal of Experimental Biology, Clinical & Translational Oncology, Critical Reviews in Oncology/Hematology, F1000Research, Cureus, Medicine, etc.).

Publications

Coleman RL, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp A, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, Goh JC, O'Malley DM, Armstrong DK, Garcia-Donas J, Swisher EM, Floquet A, Konecny GE, McNeish IA, Scott CL, Cameron T, Maloney L, Isaacson J, Goble S, Grace C, Harding TC, Raponi M, Sun J, Lin KK, Giordano H, Ledermann JA; ARIEL3 investigators. Rucaparib maintenance treatment for recurrent ovarian carcinoma after response to platinum therapy (ARIEL3): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet*. 2017 Oct 28;390(10106):1949-1961. doi: 10.1016/S0140-6736(17)32440-6. Epub 2017 Sep 12. Erratum in: *Lancet*. 2017 Oct 28;390(10106):1948. PubMed PMID: 28916367; PubMed Central PMCID: PMC5901715.

Holloway RW, Ahmad S, Kendrick JE, Bigsby GE, Brudie LA, Ghurani GB, Stavitzski NM, Gise JL, Ingersoll SB, Pepe JW. A Prospective Cohort Study Comparing Colorimetric and Fluorescent Imaging for Sentinel Lymph Node Mapping in Endometrial Cancer. *Ann Surg Oncol*. 2017 Jul;24(7):1972-1979. doi: 10.1245/s10434-017-5825-3. Epub 2017 Mar 6. PubMed PMID: 28265777.

Holloway RW, Abu-Rustum NR, Backes FJ, Boggess JF, Gotlieb WH, Jeffrey Lowery W, Rossi EC, Tanner EJ, Wolsky RJ. Sentinel lymph node mapping and staging in endometrial cancer: A Society of Gynecologic Oncology literature review with consensus recommendations. *Gynecol Oncol*. 2017 Aug;146(2):405-415. doi: 10.1016/j.ygyno.2017.05.027. Epub 2017 May 28. Review. PubMed PMID: 28566221; PubMed Central PMCID: PMC6075736.

Wisner KPA, Ahmad S, Holloway RW. Indications and techniques for robotic pelvic and para-aortic lymphadenectomy with sentinel lymph node mapping in gynecologic oncology. *Best Pract Res Clin Obstet Gynaecol*. 2017 Nov;45:83-93. doi: 10.1016/j.bpobgyn.2017.04.006. Epub 2017 Apr 24. Review. PubMed PMID: 28533155.

McCourt CK, Deng W, Dizon DS, Lankes HA, Birrer MJ, Lomme MM, Powell MA, Kendrick JE, Saltzman JN, Warshal D, Tenney ME, Kushner DM, Aghajanian C. A phase II evaluation of ixabepilone in the treatment of recurrent/persistent carcinosarcoma of the uterus, an NRG Oncology/Gynecologic Oncology Group study. *Gynecol Oncol*. 2017 Jan;144(1):101-106. doi: 10.1016/j.ygyno.2016.10.026. Epub 2016 Oct 28. PubMed PMID: 28029447; PubMed Central PMCID: PMC5362250.

Holloway RW, Ahmad S, Kendrick JE, Bigsby GE, Brudie LA, Ghurani GB, Stavitzski NM, Gise JL, Ingersoll SB, Pepe JW. A Prospective Cohort Study Comparing Colorimetric and Fluorescent Imaging for Sentinel Lymph Node Mapping in Endometrial Cancer. *Ann Surg Oncol*. 2017 Jul;24(7):1972-1979. doi: 10.1245/s10434-017-5825-3. Epub 2017 Mar 6. PubMed PMID: 28265777.

Wisner KPA, Ahmad S, Holloway RW. Indications and techniques for robotic pelvic and para-aortic lymphadenectomy with sentinel lymph node mapping in gynecologic oncology. *Best Pract Res Clin Obstet Gynaecol*. 2017 Nov;45:83-93. doi: 10.1016/j.bpobgyn.2017.04.006. Epub 2017 Apr 24. Review. PubMed PMID: 28533155.

Kurt G, Loerzel VW, Hines RB, Tavasci K, Galura S, Ahmad S, Holloway RW. Learning Needs of Women Who Undergo Robotic Versus Open Gynecologic Surgery. *J Obstet Gynecol Neonatal Nurs*. 2018 Jul;47(4):490-497. doi: 10.1016/j.jogn.2018.04.133. Epub 2018 May 8. PubMed PMID: 29750905.

Gubbi A, Kacheria S, Ahmad S, Stavitzski NM, Kendrick JE. Prognostic Significance of the Standardized Uptake Value of Pretherapeutic 18F-Labeled 2-Fluoro-2-Deoxyglucose Positron Emission Tomography/Computed Tomography in Patients with Locally Advanced Cervical Cancer. *Int J Gynecol Cancer*. 2017 Mar;27(3):530-536. doi: 10.1097/IGC.0000000000000930. PubMed PMID: 28187100.

International Articles

Basha R, Mohiuddin Z, Rahim A, Ahmad S. Ovarian cancer and resistance to therapies: Clinical and laboratory perspectives. *Drug Resistance in Bacteria, Fungi, Malaria, and Cancer* (Arora G, Sajid A, Kalia VC, Eds.), Springer International Publishing, Switzerland, 2017; pp. 511-537 [ISBN 978-3-319-48683-3].

Rauf A, Ali S, Khan MT, Rahman AU, Ahmad S. The expanding role of Sp1 in pancreatic cancer: Tumorigenic and clinical perspectives. *Role of Transcription Factors in Gastrointestinal Malignancies* (Nagaraju GP, Bramhachari PV, Eds.), Springer Nature Singapore Pte. Ltd., 2017; pp. 391-402 [ISBN 978-981-10-6728-0].

Research Abstracts

Clamp A, McNeish I, Dean A, Gallardo D, Weon-Kim J, O'Donnell D, Hook J, Coyle C, Blagden S, Brenton J, Naik R, Perren T, Sundar S, Cook A, James E, Swart A, Stenning S, Kaplan R, Ledermann J. ICON8: A GCIg phase III randomized trial evaluating weekly dose-dense chemotherapy integration in first-line epithelial ovarian/fallopian tube/primary peritoneal carcinoma (EOC) treatment: Results of primary progression-free survival (PFS) analysis. Oral presentation, European Society of Medical Oncology (ESMO) Congress, Sept. 8-12, 2017, Madrid; Abstr. # 9290-PR.

Ferrandina G, Braly PS, Terranova C, Salutari V, Ricci C, Raspagliesi F, Lorusso D, Benedetti Panici P, Scollo P, Plotti F, Brewer M, Method MW, Holloway RW, Madiyalakan M, Nicodemus CF, Pecorelli SL, Scambia G, Angioli R. A randomized phase II study assessing an optimized schedule of oregovomab (O) anti-CA125 vaccination with carboplatin paclitaxel (CP) relative to CP alone in front-line treatment of optimally cytoreduced stage III/IV ovarian cancer (EOC). Poster presentation, American Society of Clinical Oncology (ASCO) Annual Meeting, June 2-5, 2017, Chicago; Abst. # 5536.

Wisner KPA, Ahmad S, Singh C, Gise JL, Pattanaik S, Gupta S, Stephens AJ, Pernicone PC, Kendrick JE, Holloway RW. Evaluation of sentinel lymph node isolated tumor cells in endometrial cancer. Poster presentation, Conference of the American College of Osteopathic Obstetricians & Gynecologists (ACOOG), March 26-31, 2017, Palm Desert, Calif. (won 1st prize in poster competition).

Gennette S, Maksem J, Scheuneman T, Ossin David, Frierson E, McKenzie ND, Schimp VL, Bryant C. Endometrial cancer patients with a MELF gland pattern treated with hysterectomy only are at an increased risk of lymph node involvement. Poster presentation, Annual Meeting of SGO, March 12-15, 2017, National Harbor, Md., Abstr. 259.

Gupta S, Wisner KPA, Stephens AJ, Ahmad S, Gise JL, Brudie LA, Kendrick JE, Holloway RW. Robotic-assisted laparoscopic hysterectomy and para-aortic lymphadenectomy following chemoradiation for stage IB-2 cervical cancer. Oral presentation, Society of Robotic Surgery (SRS) Annual Meeting, Feb. 24-26, 2017, Miami.

Invited Lectures and Training Programs

Invited Speaker at the XIII Brazilian Congress of Surgical Oncology, Rio de Janeiro, Brazil, Oct. 25, 2017 – Dr. Holloway.

Invited Speaker at the Gynecologic Grand Rounds at Xijing Military Hospital of the Fourth Medical University, Xian, China with Professor Biliang Chen, Oct. 15, 2017 – Dr. Holloway.

Invited Keynote Speaker at First Annual Meeting of the Hunan Provence Society of Gynecologic Oncology and Minimally Invasive Surgery, Changsha, China, Professor Min Xue, president. Live surgery performed at Third Xiangya Hospital of Central University, Oct. 13-14, 2017 – Dr. Holloway.

Invited Keynote Speaker, 2017 Sino-European Summit of Gynecologic Endoscopy (SESGE), Beijing, and Sun Yat-Sen University Cancer Center, Guangzhou, China, June 14-18, 2017 – Dr. Holloway.

Director and Speakers, 1st Annual East Meets West: Advances in Gynecologic Robotic Surgery - A Gynecologic Oncology Symposium; Orlando and Celebration, Fla., March 16-17, 2017 – Drs. Holloway, Kendrick, McKenzie.

Awards

Dr. Sarfraz Ahmad, Clinical Chemist Recognition Award, American Association for Clinical Chemistry (AACC), Washington, D.C.

Dr. Sarfraz Ahmad, Fellow of the Academy of AACC (FAACC), Washington, D.C.

Cervical Cancer Cases

Extent of Disease at Diagnosis

Breakdown by SEER Summary Stage*

**The Surveillance, Epidemiology, and End-Results (SEER) Program of the National Cancer Institute (NCI) is an authoritative source of information on cancer incidence and survival in the United States. It is the only comprehensive source of population-based information in the United States that includes stage of cancer at the time of diagnosis and patient survival data.*

<i>Updated Survival by Stage 11.07.2018</i>		
LOCALIZED	REGIONAL	DISTANT
91.70%	56.00%	17.20%
90.00%	59.00%	21.00%

FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

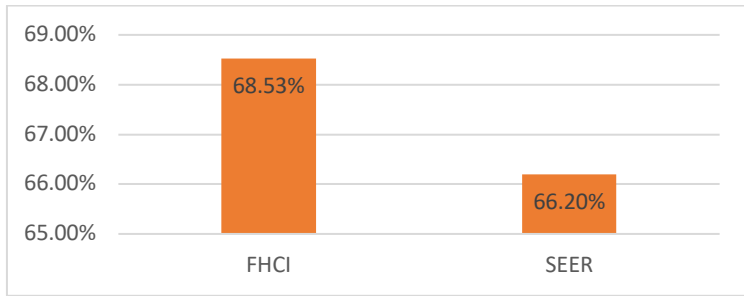
Cervical Cancer Cases

Five-year Survival

Cases Diagnosed 2008-2014

The five-year survival rate for cervical cancer patients treated at Florida Hospital compared favorably to national data.

30 For more information visit our Website at FloridaHospitalCancer.com | 2017 Outcomes Data and Information



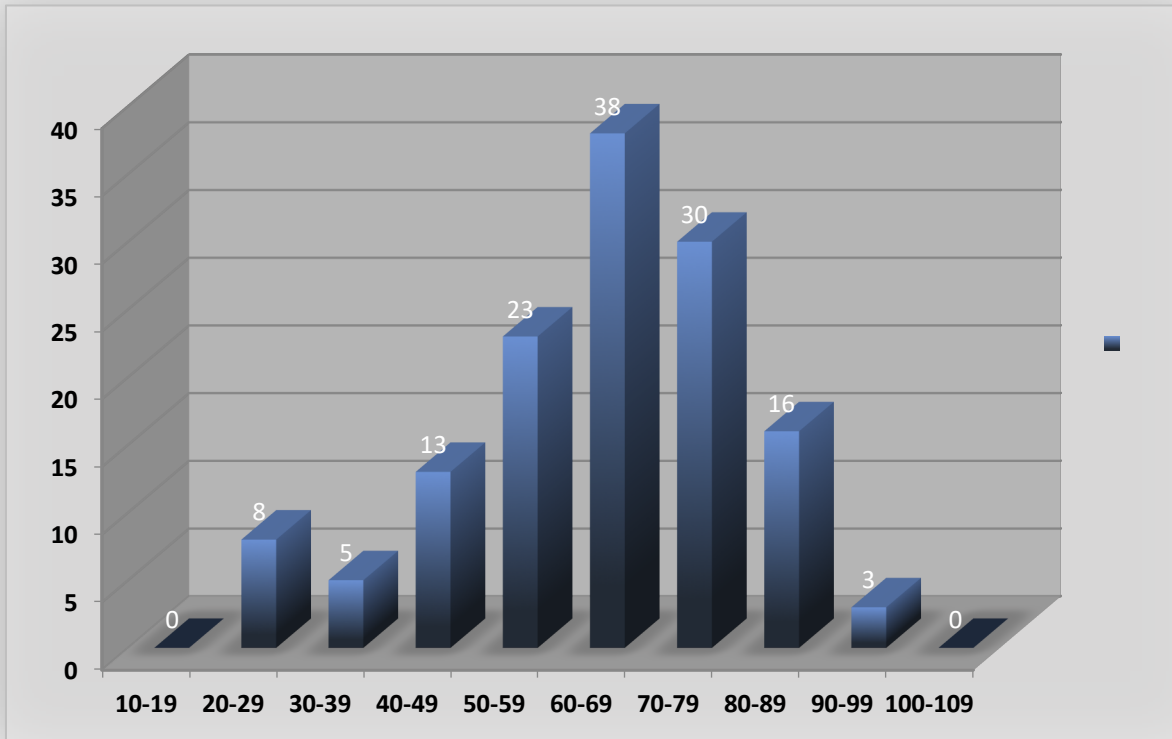
FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

Ovarian Cancer Cases

Age at Diagnosis

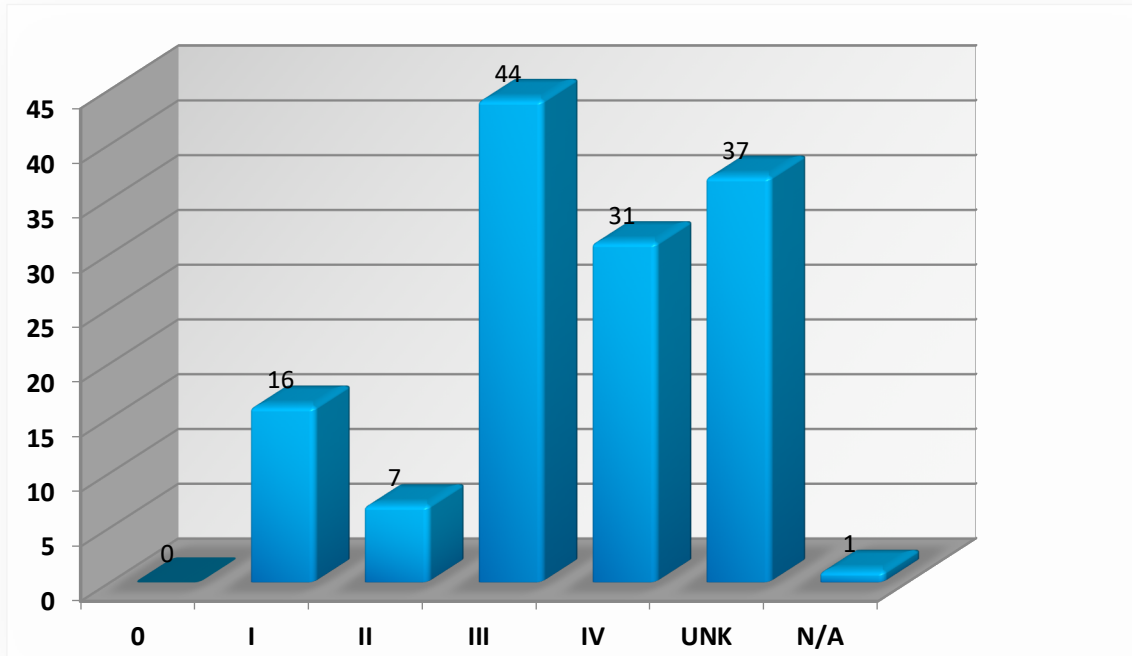
The most common age of diagnosis for ovarian cancer patients at FHCI in 2017 was 60 to 69, followed closely by ages 70 to 79.



Source: FHCI Cancer Registry

Ovarian Cancer Cases
Stage at Diagnosis

In 2017, 82 percent of patients diagnosed with ovarian cancer at FHCI were in Stage III or later.



Source: FHCI Cancer Registry

Ovarian Cancer Cases

Extent of Disease at Diagnosis

Breakdown by SEER Summary Stage

Updated Survival by Stage 11.07.2018		
LOCALIZED	REGIONAL	DISTANT
92.30%	74.50%	29.20%
90.00%	69.00%	44.00%

FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

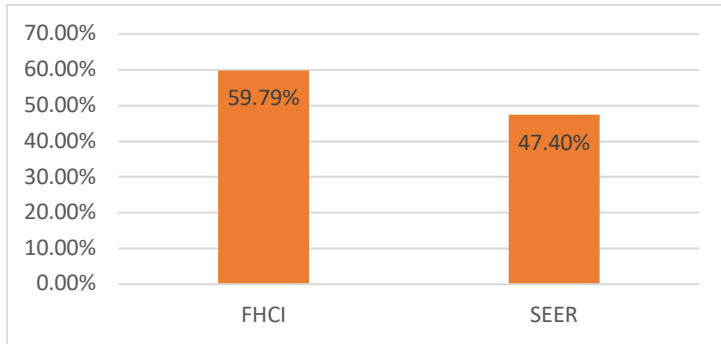
Source: FHCI Cancer Registry, SEER.gov CanQues

Ovarian Cancer Cases

Five-year Survival

Cases Diagnosed 2008-2014

The five-year survival rate for ovarian cancer patients treated at FHCI compared favorably to national data.



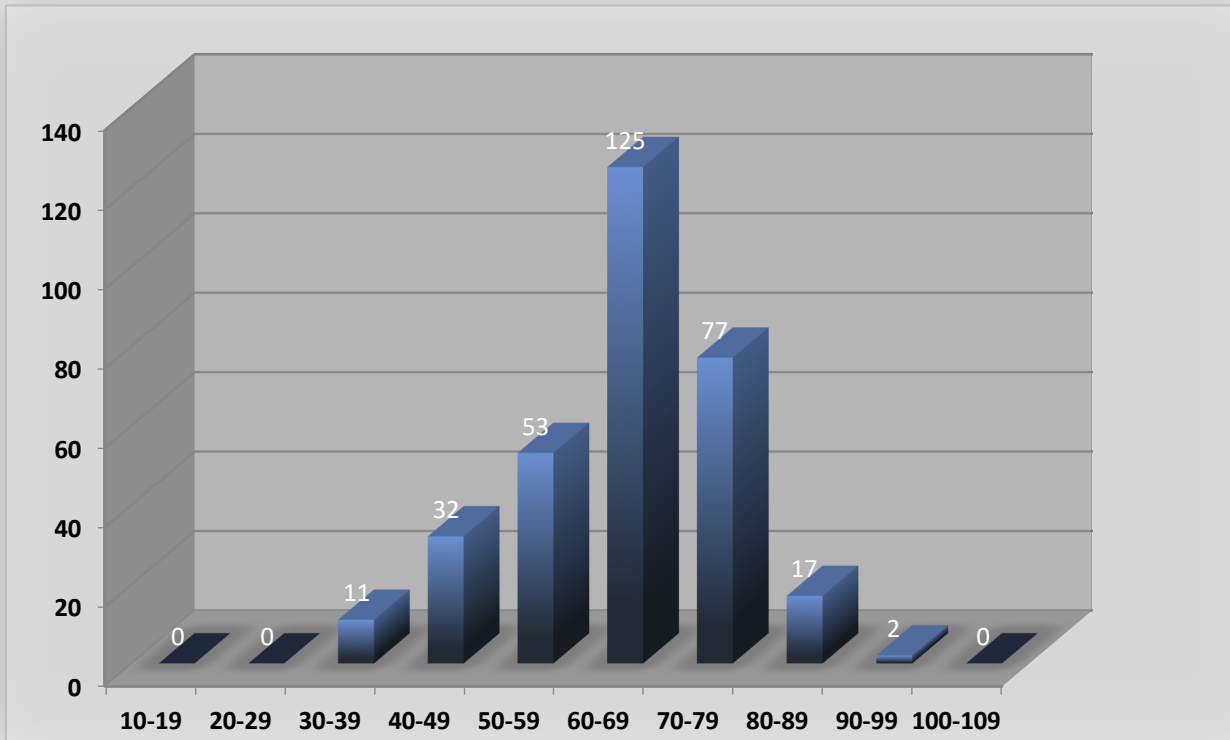
FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

Uterine Cancer Cases

Age at Diagnosis

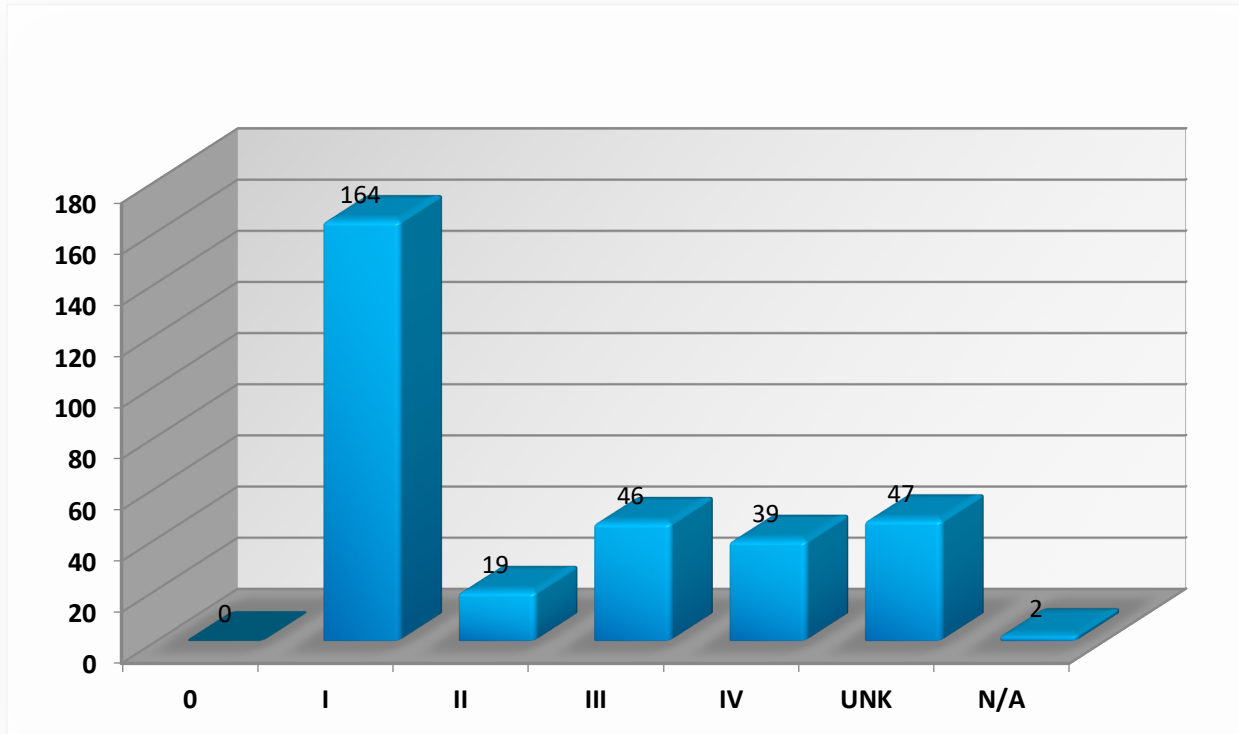
More than 39 percent of patients diagnosed with uterine cancer at FHCI in 2017 were ages 60 to 69.



Source: FHCI Cancer Registry

Uterine Cancer Cases
Stage at Diagnosis

Almost 52 percent of uterine cancer patients at FHCI were diagnosed with stage I disease.



Source: FHCI Cancer Registry

Uterine Cancer Cases

Extent of Disease at Diagnosis

Breakdown by SEER Summary Stage

Updated Survival by Stage 11.07.2018		
LOCALIZED	REGIONAL	DISTANT
94.90%	68.60%	16.30%
91.00%	72.00%	24.00%

FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

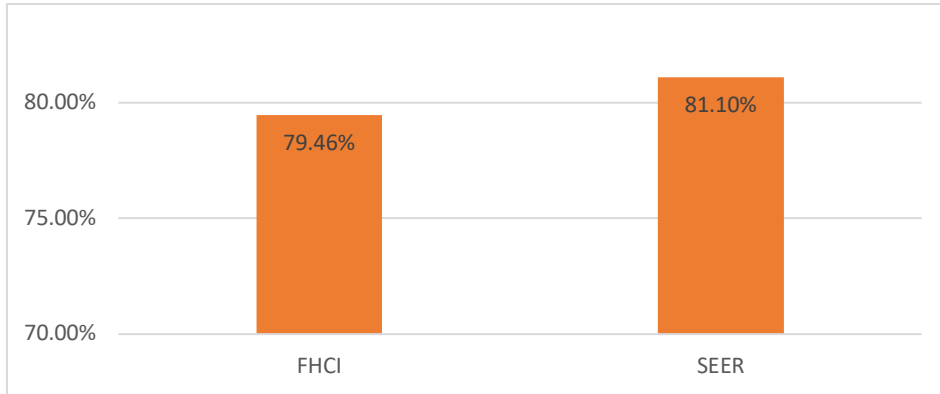
Source: FHCI Cancer Registry, SEER.gov CanQues

Uterine Cancer Cases

Five-year Survival

Cases Diagnosed 2008-2014

The five-year survival rate for uterine cancer patients treated at FHCI compared favorably to national data.



FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

Gynecological* Cancer Cases

Extent of Disease at Diagnosis

Breakdown by SEER Summary Stage

Updated Survival by Stage 11.07.2018		
LOCALIZED	REGIONAL	DISTANT
92.97%	64.43%	20.90%
91.00%	69.00%	36.00%

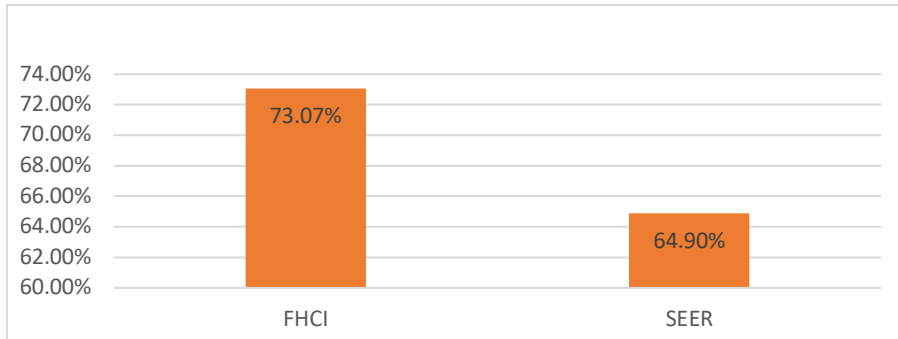
*GYNECOLOGICAL = CERVICAL, UTERINE & OVARIAN

FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

Gynecological* Cancer Cases
Five-year Survival
Cases Diagnosed 2008-2014

The five-year survival rate for gynecological cancer patients treated at FHCI compared favorably to national data.



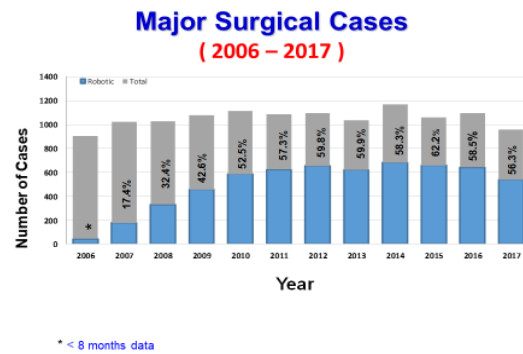
*GYNECOLOGICAL = CERVICAL, UTERINE & OVARIAN

FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)

Source: FHCI Cancer Registry, SEER.gov CanQues

Gynecological Cancer Surgeries
Robotic Procedures vs. Total Procedures
Cases diagnosed 2006-2017

Robotic surgeries continued to represent the greatest number of surgical procedures used to treat patients with gynecological cancer at FHCI, with nearly 56 percent of cases in 2017.

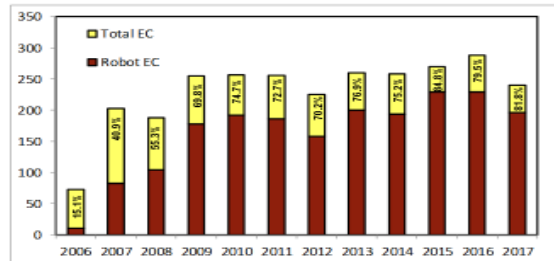


Source: Florida Hospital Gynecologic Oncology Database

Gynecologic Oncology Robotic Surgery for Endometrial Cancer July 2006 - December 2017

More than 80 percent of endometrial cancer patients seen at FHCI were treated using robotic surgery in 2017, about the same as the last several years.

**Annual Robotic Cases for
Endometrial Cancer at FHCI
(7/1/06 – 12/31/17)**



*First 6-months data since the initiation of Robotics Program

First 6-months data since the initiation of Robotics Program

Source: Florida Hospital Gynecologic Oncology Database

HEAD AND NECK ONCOLOGY

Henry Ho, MD

Co-Director, Head and Neck Cancer Program

Florida Hospital Cancer Institute

Immediate Past-President, The Ear, Nose, Throat and Plastic Surgery Associates, PA

Associate Professor, Otolaryngology, University of Central Florida College of Medicine

Associate Professor, Surgery, Florida State University College of Medicine

J. Scott Magnuson, MD, FACS

Co-Director, Head and Neck Cancer Program

Florida Hospital Cancer Institute

Medical Director, Head and Neck Surgery, Celebration Health

Chief Medical Officer, Florida Hospital Nicholson Center
Medical Director, Robotic Head and Neck Surgery, Florida Hospital Nicholson Center for Robotic Surgery
Professor of Otolaryngology Head and Neck Surgery, University of South Florida College of Medicine

James Bekeny, MD
Bruce Haughey, MD
Bradley Johnson, MD

The FHCI Head and Neck Cancer Program treats more cancer cases than any other Florida care center. Our multidisciplinary approach with a team of physicians, nurses, speech language pathologists, dieticians and social workers ensures that patients receive leading-edge, evidenced-based care. Our team offers a complete array of advanced therapeutic options that include robotic-assisted surgery, microvascular reconstruction, and minimally invasive skull base surgery, as well as chemoradiation, immunotherapy and clinical trials. As a leader with a visionary approach to cancer care, the Head and Neck Cancer Program consistently strives to improve patient care and treatment outcomes.

2017 Highlights

- In 2017, support was provided for 543 cancer patients through the various components of our program, including care coordination, education, tumor board presentation, and our head and neck cancer support group.
- Dr. Magnuson was the first physician in the world to use the da Vinci® SP™ Surgical System device. The trial called A Prospective, Multicenter Investigation of the da Vinci® SP™ Surgical System in TORS Procedures for Resection of Malignant Tumors was opened with Dr. Magnuson as Principal Investigator. The study objective was to evaluate and confirm the safety and clinical performance of the da Vinci® SP™ Surgical System, Instruments, and Accessories in transoral robotic surgery procedures for malignant oropharyngeal tumors classified as T1 and T2. Enrollment was completed in 2017.

Publications

Keller A, Harvey ME, Kameh DS, Haughey B, Ho H, Magnuson S, Akhtar A, Mekhail T, Zehngbot L, Rao NG. De-escalation of radiotherapy for the treatment of HPV-associated head and neck cancer: A case report and a word of caution. *Acta Oto-laryngologica case reports*. 2017 2(10): 29-33. doi: 10.1080/23772484.2017.1292399.

Patel UA, Hernandez D, Shnayder Y, Wax MK, Hanasono MM, Hornig J, Ghanem TA, Old M, Jackson RS, Ledgerwood LG, Pipkorn P, Lin L, Ong A, Greene JB, Bekeny J, Yiu Y, Noureldine S, Li DX, Fontanarosa J, Greenbaum E, Richmon JD. Free Flap Reconstruction Monitoring Techniques and Frequency in the Era of Restricted Resident Work Hours. *JAMA Otolaryngol Head Neck Surg*. 2017 Aug 1;143(8):803-809. doi: 10.1001/jamaoto.2017.0304. PubMed PMID: 28570718; PubMed Central PMCID: PMC5710561.

Day AT, Sinha P, Nussenbaum B, Kallogjeri D, Haughey BH. Management of primary T1-T4 glottic squamous cell carcinoma by transoral laser microsurgery. *Laryngoscope*. 2017 Mar;127(3):597-604. doi: 10.1002/lary.26207. Epub 2016 Aug 31. PubMed PMID: 27578610.

Kligerman MP, Song Y, Schoppy D, Divi V, Megwalu UC, Haughey BH, Sirjani D. Retrograde Parotidectomy and facial nerve outcomes: A case series of 44 patients. *Am J Otolaryngol*. 2017 Sep - Oct;38(5):533-536. doi: 10.1016/j.amjoto.2017.05.003. Epub 2017 May 5. PubMed PMID: 28647300.

Zenga J, Haughey BH, Jackson RS, Adkins DR, Aranake-Chrisinger J, Bhatt N, Gay HA, Kallogjeri D, Martin EJ, Moore EJ, Paniello RC, Rich JT, Thorstad WL, Nussenbaum B. Outcomes of surgically treated human papillomavirus-related oropharyngeal squamous cell carcinoma with N3 disease. *Laryngoscope*. 2017 Sep;127(9):2033-2037. doi: 10.1002/lary.26455. Epub 2016 Dec 23. PubMed PMID: 28008626.

Uppaluri R, Winkler AE, Lin T, Law JH, Haughey BH, Nussenbaum B, Paniello RC, Rich JT, Diaz JA, Michel LP, Wildes T, Dunn GP, Zolkind P, Kallogjeri D, Piccirillo JF, Dehdashti F, Siegel BA, Chernock RD, Lewis JS Jr, Adkins DR. Biomarker and Tumor Responses of Oral Cavity Squamous Cell Carcinoma to Trametinib: A Phase II Neoadjuvant Window-of-Opportunity Clinical Trial. *Clin Cancer Res*. 2017 May 1;23(9):2186-2194. doi: 10.1158/1078-0432.CCR-16-1469. Epub 2016 Nov 9. PubMed PMID: 28151720; PubMed Central PMCID: PMC5509449.

Jackson RS, Sinha P, Zenga J, Kallogjeri D, Suko J, Martin E, Moore EJ, Haughey BH. Transoral Resection of Human Papillomavirus (HPV)-Positive Squamous Cell Carcinoma of the Oropharynx: Outcomes with and Without Adjuvant Therapy. *Ann Surg Oncol*. 2017 Nov;24(12):3494-3501. doi: 10.1245/s10434-017-6041-x. Epub 2017 Aug 14. Erratum in: *Ann Surg Oncol*. 2017 Aug 28; PubMed PMID: 28808988.

Chin RI, Rao YJ, Hwang MY, Spencer CR, Pierro M, DeWees T, Patel P, Sinha P, Gay HA, Daly M, Haughey BH, Nussenbaum B, Adkins DR, Lewis JS Jr, Thorstad WL. Comparison of unilateral versus bilateral intensity-modulated radiotherapy for surgically treated squamous cell carcinoma of the palatine tonsil. *Cancer*. 2017 Dec 1;123(23):4594-4607. doi: 10.1002/cncr.30931. Epub 2017 Sep 7. PubMed PMID:28881377.

Book Chapters

Sinha P, Haughey BH. Cancer of the Head and Neck, Chapter 16, Cancer of the Hypopharynx and Cervical Esophagus, 5th Edition, Wolters Kluwer, 2017.

Presentations

Dr. J. Scott Magnuson: Speaker, TORS for Parapharyngeal Space Tumors, Mayo Clinic 10th Annual Multidisciplinary Transoral Surgery for Head and Neck Cancer, Scottsdale, Arizona; Feb. 23, 2017.

Dr. Henry Ho: Stump the Professors Panel and Meet the Professor Break-Out Session, Best of ASCO 2017 Annual Meeting, Florida Hospital Cancer Institute, Hyatt Regency Grand Cypress, Orlando; June 24, 2017.

Dr. Henry Ho: New Guidelines for the Evaluation of the Neck Mass and Head and Neck Cancer Overview, Dental Society of Greater Orlando, Winter Park Civic Center, Winter Park, Florida; Oct. 23, 2017.

Dr. J. Scott Magnuson: Keynote Speaker, Hemostatic Options for Transoral Robotic Surgery of the Pharynx and Base of Tongue; Keynote Speaker, TORS for OSA: More Experience, More Evidence; 7th International Robotic Surgery Symposium, Seoul, South Korea; Oct. 29, 2017.

Dr. J. Scott Magnuson: Guest of Honor and Keynote Speaker, Current Status of Robotic Head & Neck Surgery, 2017 Robotic Surgeons Council of India, Goa, India; Nov. 18, 2017.

Dr. J. Scott Magnuson: Speaker, Controversy: Prevention and Management of Post-Operative Hemorrhage: What is the Role of Prophylactic External Carotid Artery Ligation During Neck Dissection? International Guild of Robotic & Endoscopic Head and Neck Surgery (IGReHNS), Lausanne, Switzerland; Dec. 1, 2017.

Dr. Henry Ho: New Guidelines for the Evaluation of the Neck Mass and Head and Neck Cancer Overview, General Surgery Residency, Florida Hospital, Orlando; Dec. 8, 2017.

Head and Neck Cancer Cases

Site by Gender

At FHCI, 543 cases of head and neck cancers were diagnosed in 2017. The most frequent cancer for both men and women was thyroid, with 71 percent of the cases diagnosed in women.

Site	Male	Female	Total
Lip	3	2	5

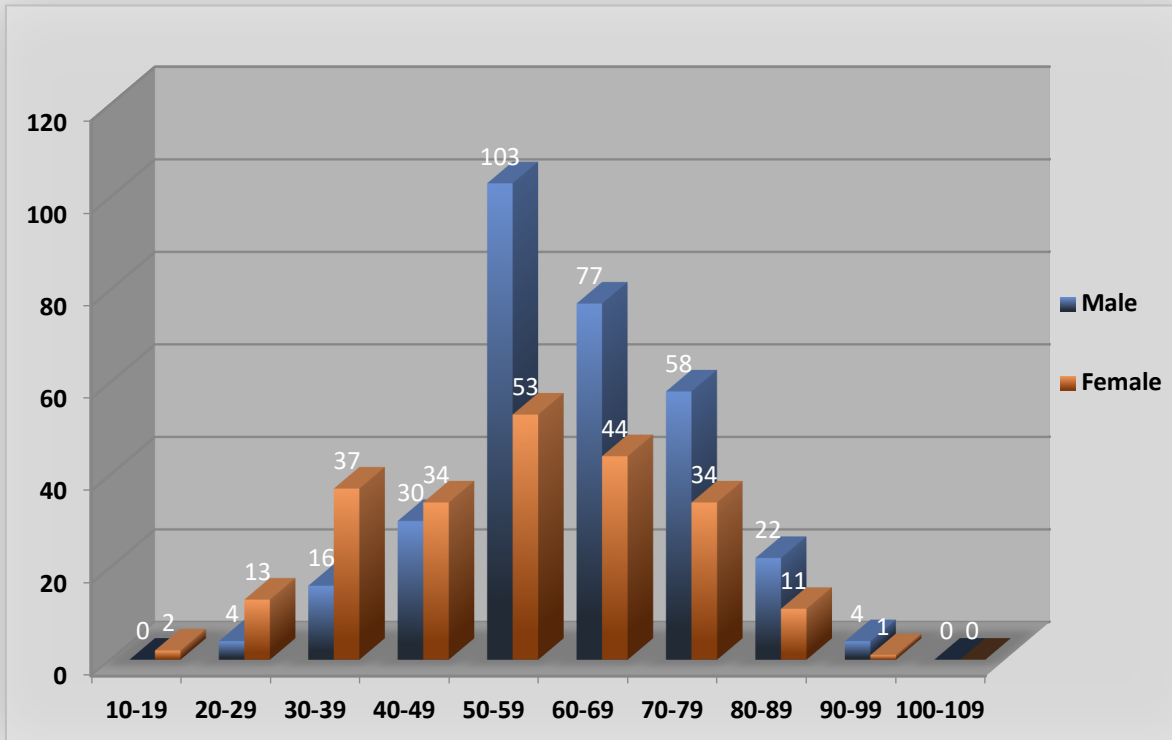
Base of Tongue	46	6	52
Other Parts of Tongue	26	6	32
Gum	1	1	2
Floor of Mouth	5	3	8
Palate	5	3	8
Other/Unspecified Parts of Mouth	7	10	17
Parotid Gland	9	8	17
Other Salivary Glands	1	2	3
Tonsil	42	10	52
Oropharynx	15	2	17
Nasopharynx	7	4	11
Pyriiform Sinus	2	1	3
Hypopharynx	2	1	3
Other Oral Cavity	11	2	13
Nasal Cavity & Middle Ear	3	4	7
Accessory Sinuses	4	1	5
Larynx	61	12	73
Thyroid Gland	64	151	215
Overall Totals	314	229	543

Source: FHCI Cancer Registry

Head and Neck Cancer Cases

Age by Gender at Diagnosis

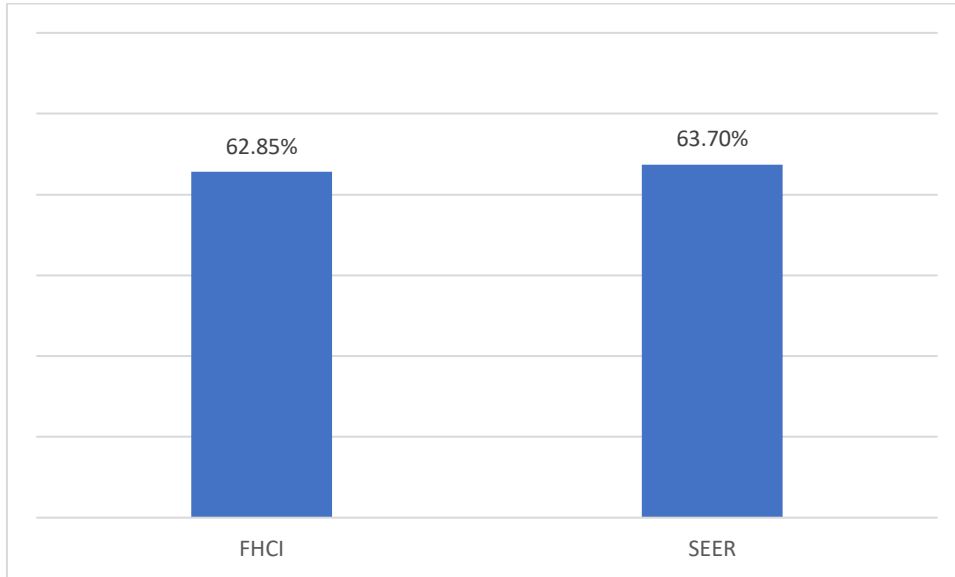
Fifty-one percent of patients with head and neck cancers in 2017 were from 50 to 69 years old at diagnosis. More than 30 percent of men diagnosed were in the 50-59 age range.



Source: FHCI Cancer Registry

Head and Neck Cancers
Five-year Survival
Cases Diagnosed 2008-2014

The five-year survival rate for head and neck cancer patients treated at Florida Hospital compared favorably to national data.

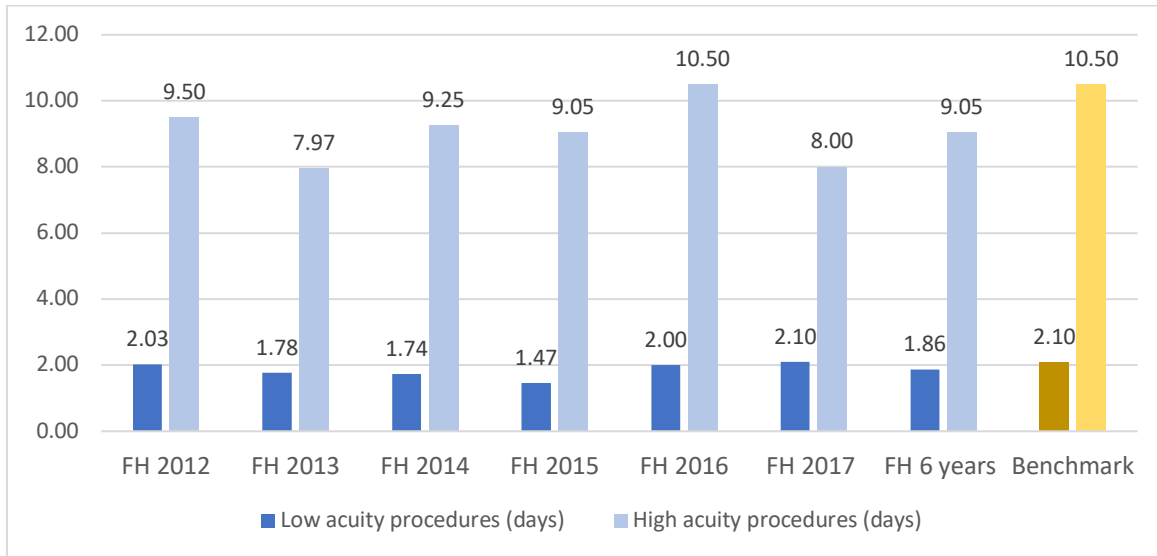


*Head and neck cancers include oral, cavity, pharynx and larynx.
FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)
Source: FHCI Cancer Registry, SEER.gov CanQues*

Head and Neck Quality Metrics Report

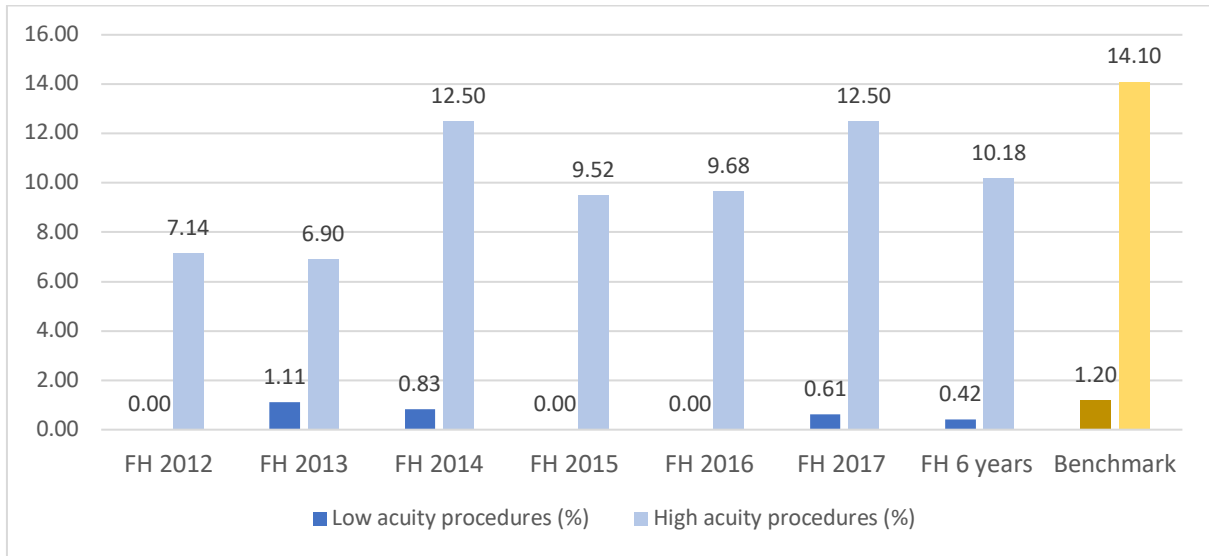
Length of Stay

Cases Diagnosed 2012-2017



Source: Florida Hospital Head and Neck Oncology Database

Head and Neck Quality Metrics Report
Surgical Site Infection 2012-2017



Source: Florida Hospital Head and Neck Oncology Database

PEDIATRIC ONCOLOGY

Fouad Hajjar, MD

Medical Director, Hematology/Oncology
 Children's Center for Cancer and Blood Diseases

Dennis Borrero, MD

Heather Allewelt, MD

The Children’s Center for Cancer and Blood Diseases offers hematology and oncology care for patients with sickle cell disease, thalassemia, bleeding disorders, coagulation problems, various cytopenias, leukemia and other childhood cancers. As a Children’s Oncology Group (COG) affiliate, we can offer leading-edge clinical trials.

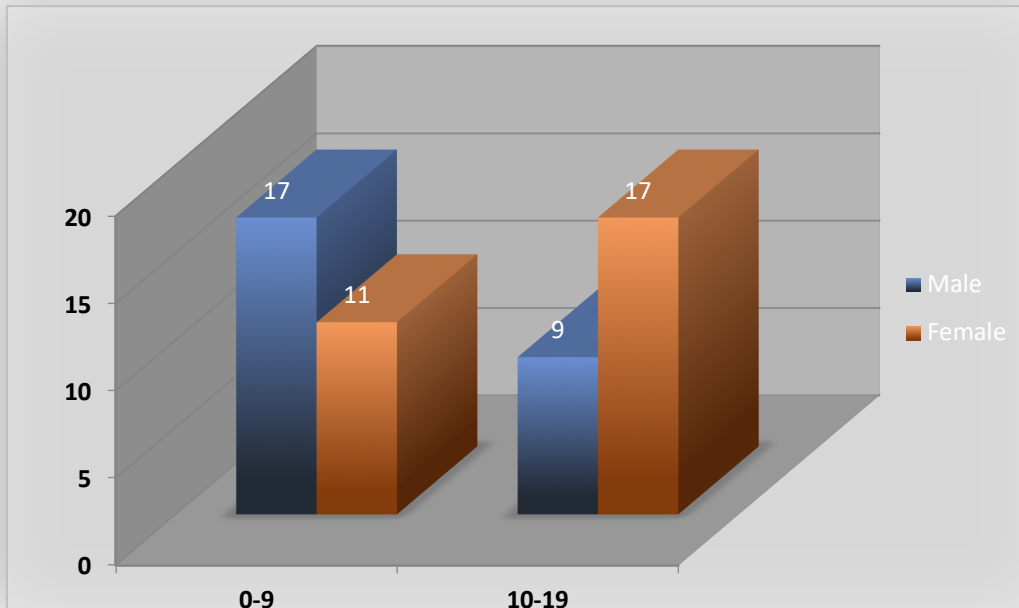
Publications

Patel SA, Allewelt HA, Troy JD, Martin PL, Driscoll TA, Prasad VK, Kurtzberg J, Page KM, Parikh SH. Durable Chimerism and Long-Term Survival after Unrelated Umbilical Cord Blood Transplantation for Pediatric Hemophagocytic Lymphohistiocytosis: A Single-Center Experience. Biol Blood Marrow Transplant. 2017 Oct;23(10):1722-1728. doi: 10.1016/j.bbmt.2017.06.013. Epub 2017 Jun 21. PubMed PMID: 28647558.

Pediatric Cancer Cases

Age at Diagnosis by Gender

In 2017, FHCI specialists treated 54 children with cancer; slightly more than half were females. Of the 26 males seen, most were in the 0 to 9 age range at diagnosis, while most female cases were diagnosed in the 10 to 19 age range.



Source: FHCI Cancer Registry

Pediatric Cancer Cases

Diagnosis by Gender

Blood and bone marrow and brain cancers were the most commonly treated childhood cancers at FHCI in 2017.

Site Name	Total		Male		Female	
	Number	(%)	Number	(%)	Number	(%)
Liver & Bile Ducts	1	2%	1	100%	0	0%
Heart Mediastinum Pleura	1	2%	1	100%	0	0%
Bones Joints & Articular Cartilage	3	5%	1	33%	2	67%
Bones Joints & Other Unspecified Sites	1	2%	1	100%	0	0%
Blood & Bone Marrow	17	31%	8	47%	9	53%
Retroperitoneum & Peritoneum	2	4%	0	0%	2	100%
Connective Subcutaneous Other Soft Tissue	3	5%	1	33%	2	67%
Testis	1	2%	1	100%	0	0%
Kidney	1	2%	1	100%	0	0%
Meninges	1	2%	0	0%	1	100%
Brain	16	29%	7	44%	9	56%
Thyroid Gland	2	4%	0	0%	2	100%
Adrenal Gland	1	2%	1	100%	0	0%
Other Endocrine Glands	1	2%	0	0%	1	100%
Other Ill-Defined Sites	1	2%	1	100%	0	0%
Lymph Nodes	3	5%	2	67%	1	33%
Overall Totals	55	100%	26	47%	29	53%

Source: FHCI Cancer Registry

RADIATION ONCOLOGY

Matthew Biagioli, MD, MS

Medical Director
Florida Hospital Cancer Institute

Kunal Saigal, MD
Ravi Shridhar, MD
Shravan Kandula, MD

Florida Hospital Cancer Institute offers extensive expertise and experience in a wide range of radiation treatment modalities. With its focus on evidence-based medicine, the team uses a disease-specific approach that ensures patients are evaluated by physicians with expertise in the appropriate discipline of oncology. Available treatments include External Beam Radiation Therapy, Intensity-Modulated Radiation Therapy, Stereotactic Body Radiation Therapy, Volumetric Modulated Arc Therapy, Gamma Knife®, intra-cavity and interstitial brachytherapy.

Florida Hospital Radiation Oncology is one of the few programs in the country to offer MRI-based brachytherapy for prostate cancer/gynecological malignancies, which enables optimal targeting of radiation and reduces the dose to critical structures. The physician team collaborates with specialists in surgery, medical oncology, neurosurgery, otolaryngology, gastroenterology, genitourinary and gynecology to improve patient outcomes.

Publications

Chung H, Polf J, Badiyan S, Biagioli M, Fernandez D, Latifi K, Wilder R, Mehta M, Chuong M. Rectal dose to prostate cancer patients treated with proton therapy with or without rectal spacer. *J Appl Clin Med Phys*. 2017 Jan;18(1):32-39. doi:10.1002/acm2.12001. Epub 2016 Nov 21. PubMed PMID: 28291917; PubMed Central PMCID: PMC5689902.

Altazi BA, Zhang GG, Fernandez DC, Montejo ME, Hunt D, Werner J, Biagioli MC, Moros EG. Reproducibility of F18-FDG PET radiomic features for different cervical tumor segmentation methods, gray-level discretization, and reconstruction algorithms. *J Appl Clin Med Phys*. 2017 Nov;18(6):32-48. doi: 10.1002/acm2.12170. Epub 2017 Sep 11. PubMed PMID: 28891217; PubMed Central PMCID: PMC5689938.

Wright JL, Saigal K, Reis IM, Zhao W, Takita C, Ambros T, Saeed AM, Sujoy V, Hurley J. Locoregional and Overall Recurrence After Neoadjuvant Endocrine Therapy Versus Chemotherapy in Postmenopausal Women with Estrogen Receptor+ HER2- Breast Cancer. *Am J Clin Oncol*. 2017 Oct;40(5):490-497. doi: 10.1097/COC.000000000000194. PubMed PMID: 26017482.

Mellon EA, Jin WH, Frakes JM, Centeno BA, Strom TJ, Springett GM, Malafa MP, Shridhar R, Hodul PJ, Hoffe SE. Predictors and survival for pathologic tumor response grade in borderline resectable and locally advanced pancreatic cancer treated with induction chemotherapy and

neoadjuvant stereotactic body radiotherapy. *Acta Oncol.* 2017 Mar;56(3):391-397. doi: 10.1080/0284186X.2016.1256497. Epub 2016 Nov 25. PubMed PMID: 27885876.

Potrebko PS, Fiege J, Biagioli M, Poleszczuk J. Investigating multi-objective fluence and beam orientation IMRT optimization. *Phys Med Biol.* 2017 Jul 7;62(13):5228-5244. doi: 10.1088/1361-6560/aa7298. Epub 2017 May 11. PubMed PMID:28493848.

Saini A, Das I, Hwang C, Biagioli M. Evaluation of Organs at Risk (OAR) Sparing in Left Breast Irradiation Techniques. Conference: 59th Annual Meeting and Exhibition of the American-Association-of-Physicists-in-Medicine (AAPM) Location: Denver, CO Date: JUL 30-AUG 03, 2017. *Medical Physics* 44(6): 2922-2922. Meeting Abstract SU-I-GPD-T, Published JUN 2017.

Salem AI, Thau MR, Strom TJ, Abbott AM, Saeed N, Almhanna K, Hoffe SE, Shridhar R, Karl RC, Meredith KL. Effect of body mass index on operative outcome after robotic-assisted Ivor-Lewis esophagectomy: retrospective analysis of 129 cases at a single high-volume tertiary care center. *Dis Esophagus.* 2017 Jan 1;30(1):1-7. doi: 10.1111/dote.12484. PubMed PMID: 27149640.

Lee L, Kelly J, Nassif GJ, Atallah SB, Albert MR, Shridhar R, Monson JRT. Chemoradiation and Local Excision for T2N0 Rectal Cancer Offers Equivalent Overall Survival Compared to Standard Resection: A National Cancer Database Analysis. *J Gastrointest Surg.* 2017 Oct;21(10):1666-1674. doi: 10.1007/s11605-017-3536-5. Epub 2017 Aug 17. PubMed PMID: 28819913.

Frakes J, Mellon EA, Springett GM, Hodul P, Malafa MP, Fulp WJ, Zhao X, Hoffe SE, Shridhar R, Meredith KL. Outcomes of adjuvant radiotherapy and lymph node resection in elderly patients with pancreatic cancer treated with surgery and chemotherapy. *J Gastrointest Oncol.* 2017 Oct;8(5):758-765. doi: 10.21037/jgo.2017.08.05. PubMed PMID: 29184679; PubMed Central PMCID: PMC5674250.

Oliver JA, Venkat P, Frakes JM, Klapman J, Harris C, Montilla-Soler J, Dhadham GC, Altazi BA, Zhang GG, Moros EG, Shridhar R, Hoffe SE, Latifi K. Fiducial markers coupled with 3D PET/CT offer more accurate radiation treatment delivery for locally advanced esophageal cancer. *Endosc Int Open.* 2017 Jun;5(6):E496-E504. doi: 10.1055/s-0043-104861. Epub 2017 May 31. PubMed PMID: 28573183; PubMed Central PMCID: PMC5451282.

THORACIC CANCER PROGRAM

Mark A. Socinski, MD

Executive Medical Director

Member, Thoracic Cancer Program

Florida Hospital Cancer Institute

Tarek Mekhail, MD, MSc, FRCSI, FRCSEd

Medical Director, Thoracic Cancer Program
Associate Executive Director of Clinical Research
Florida Hospital Cancer Institute

Joseph Boyer, MD

Surgical Director, Thoracic Cancer Program
Director of Minimally Invasive and Robotic Surgery
Florida Hospital Cancer Institute

The FHCI Thoracic Cancer Program has received national recognition for its multidisciplinary approach to diagnosing and treating lung and esophageal cancers, mesothelioma, and other cancers involving organs within the thorax. FHCI is one of the most active participants in lung and esophageal clinical trials in the nation.

2017 Highlights

- First robot-assisted esophagectomy performed with comparable outcomes to open esophagectomy with respect to morbidity and mortality.
- Opened six new clinical trials, with 28 patients enrolled in 11 open thoracic cancer trials.
- Presented 225 cases at 44 thoracic cancer conferences with 86 percent multidisciplinary team approach.
- Over 300 patients evaluated with Low Dose CT for lung cancer screening, with four cases of confirmed lung cancer.
- Community Partnership with American Lung Association for Lung Expo and Lung Force Run/Walk.
- Discharge mortality rate (1.54%) lower than national average for lobectomy, 0.95% for lobectomy for lung cancer.

Publications

Gandhi L, Besse B, Mazieres J, Waciar S, Cortot A, Barlesi F, Quoix E, Otterson G, Ettinger D, Horn L, Moro-Sibilot D, Socinski M, Gold K, Gray J, Oton A, Heist RS, Costa D, Mcculloch L, Bebachuk J, Bryce R, Kris M. Neratinib Temeirolimus in HER2-Mutant Lung Cancers: An International, Randomized Phase II Study. Journal of Thoracic Oncology 12(1), Supplement S: S358-S359. Meeting Abstract MA04.02, Published Jan 2017.

Carbone DP, Reck M, Paz-Ares L, Creelan B, Horn L, Steins M, Felip E, van den Heuvel MM, Ciuleanu TE, Badin F, Ready N, Hiltermann TJN, Nair S, Juergens R, Peters S, Minenza E, Wrangle JM, Rodriguez-Abreu D, Borghaei H, Blumenschein GR Jr, Villaruz LC, Havel L, Krejci J, Corral Jaime J, Chang H, Geese WJ, Bhagavatheeswaran P, Chen AC, Socinski MA; CheckMate 026 Investigators. First-Line Nivolumab in Stage IV or Recurrent Non-Small-Cell Lung Cancer. *N Engl J Med*. 2017 Jun 22;376(25):2415-2426. doi: 10.1056/NEJMoa1613493. PubMed PMID: 28636851.

Novello S, Nowak AK, Grosso F, Steele N, Popat S, Greillier L, John T, Leigh NB, Reck M, Pavlakis N, Sorensen L, Hughes B, Mazieres J, Socinski MA, von Wangenheim U, Barrueco J, Morsli N, Scagliotti G. Overall survival (OS) and forced vital capacity (FVC) results from the LUME-Meso study of nintedanib (N) plus pemetrexed/cisplatin (PEM/CIS) vs. placebo (P) plus PEM/CIS in chemo-naive patients (pts) with malignant pleural mesothelioma (MPM). Conference: 42nd European Society for Medical Oncology Congress (ESMO) Location: Madrid, Spain. Date: Sep 8-12, 2017. *Annals of Oncology* 28(Supplement 5). Meeting Abstract 1618PD, Published Sep 2017.

Planchard D, Besse B, Kim TM, Quoix EA, Souquet PJ, Mazieres J, Barlesi F, Groen HJM, Smit EF, Baik CS, Sho BC, Kelly RJ, Socinski MA, Novello S, Rigas JR, Giannone V, D'amelio AM, Zhang PD, Mookerjee B, Bruce E. Updated survival of patients (pts) with previously treated BRAF V600E-mutant advanced non-small cell lung cancer (NSCLC) who received dabrafenib (D) or D plus trametinib (T) in the phase II BR113928 study. Conference: Annual Meeting of the American Society of Clinical Oncology (ASCO). Location: Chicago, IL Date: Jun 2-06, 2017. *Journal of Clinical Oncology* 35(Supplement 15). Meeting Abstract 9075, Published May 20, 2017.

Wang K, Eblan MJ, Deal AM, Lipner M, Zagar TM, Wang Y, Mavroidis P, Lee CB, Jensen BC, Rosenman JG, Socinski MA, Stinchcombe TE, Marks LB. Cardiac Toxicity After Radiotherapy for Stage III Non-Small-Cell Lung Cancer: Pooled Analysis of Dose-Escalation Trials Delivering 70 to 90 Gy. *J Clin Oncol*. 2017 May 1;35(13):1387-1394. doi: 10.1200/JCO.2016.70.0229. Epub 2017 Jan 23. PubMed PMID: 28113017; PubMed Central PMCID: PMC5455462.

Antonia SJ, Villegas A, Daniel D, Vicente D, Murakami S, Hui R, Yokoi T, Chiappori A, Lee KH, de Wit M, Cho BC, Bourhaba M, Quantin X, Tokito T, Mekhail T, Planchard D, Kim YC, Karapetis CS, Hirt S, Ostoros G, Kubota K, Gray JE, Paz-Ares L, de Castro Carpeño J, Wadsworth C, Melillo G, Jiang H, Huang Y, Dennis PA, Özgüroğlu M; PACIFIC Investigators. Durvalumab after Chemoradiotherapy in Stage III Non-Small-Cell Lung Cancer. *N Engl J Med*. 2017 Nov 16;377(20):1919-1929. doi: 10.1056/NEJMoa1709937. Epub 2017 Sep 8. PubMed PMID: 28885881.

Guan J, Lim KS, Mekhail T, Chang CC. Programmed Death Ligand-1 (PD-L1) Expression in the Programmed Death Receptor-1 (PD-1)/PD-L1 Blockade: A Key Player Against Various Cancers. *Arch Pathol Lab Med*. 2017 Jun;141(6):851-861. doi: 10.5858/arpa.2016-0361-RA. Epub 2017 Apr 18. Review. PubMed PMID: 28418281.

Wakelee H, Zvirbule Z, De Braud F, Kingsley CD, Mekhail T, Lowe T, Schütte W, Lena H, Lawler W, Braiteh F, Cosgriff T, Kaen D, Boyer M, Hsu J, Phan S, Novello S. Efficacy and Safety of Onartuzumab in Combination with First-Line Bevacizumab-or Pemetrexed-Based Chemotherapy Regimens in Advanced Non-Squamous Non-Small-Cell Lung Cancer. Clin Lung Cancer. 2017 Jan;18(1):50-59. doi: 10.1016/j.clcc.2016.09.013. Epub 2016 Oct 19. PubMed PMID: 27856142.

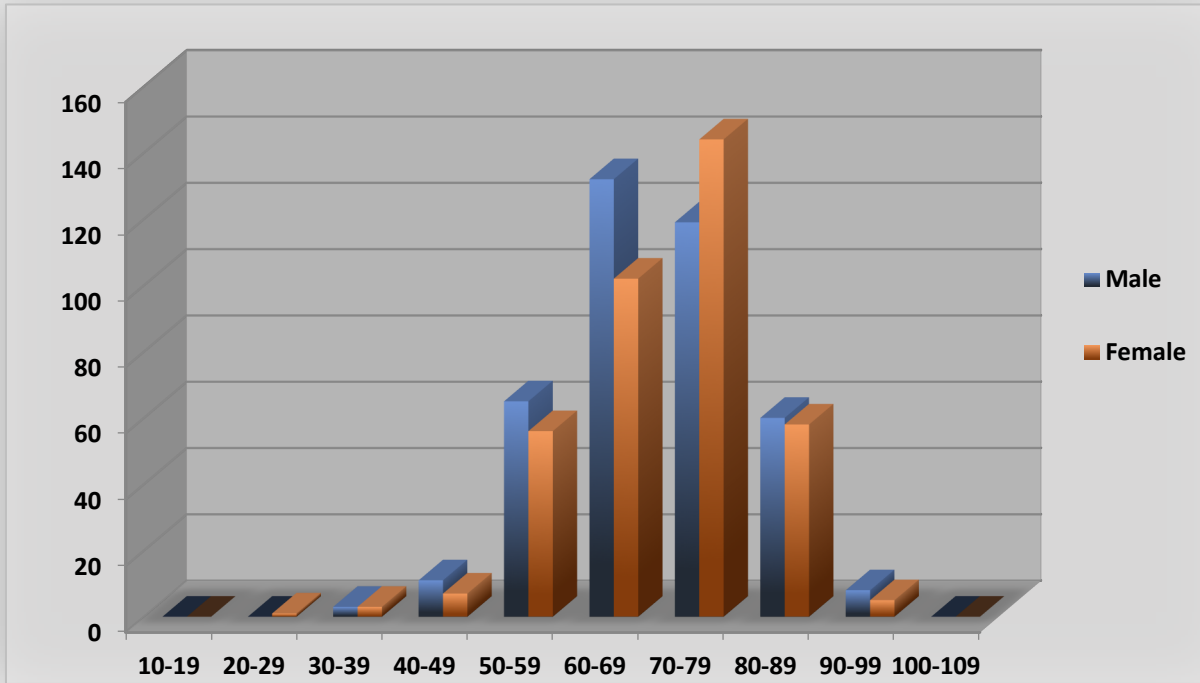
Grosso F, Steele N, Novello S, Nowak AK, Popat S, Greillier L, John T, Leigh NB, Reck M, Taylor P, Planchard D, Sørensen JB, Socinski MA, von Wangenheim U, Loembé AB, Barrueco J, Morsli N, Scagliotti G. Nintedanib Plus Pemetrexed/Cisplatin in Patients with Malignant Pleural Mesothelioma: Phase II Results From the Randomized, Placebo-Controlled LUME-Meso Trial. J Clin Oncol. 2017 Nov 1;35(31):3591-3600. doi: 10.1200/JCO.2017.72.9012. Epub 2017 Sep 11. PubMed PMID: 28892431.

Husain H, Martins R, Goldberg S, Senico P, Ma W, Masters J, Pathan N, Kim DW, Socinski M, Golberg Z, Cho BC. Phase 1 Dose Escalation of PF-06747775 (EGFR-T790M Inhibitor) in Patients with Advanced EGFRm (Del 19 or L858R +/- T790M) NSCLC. Journal of Thoracic Oncology 12(1), Supplement S: S1185-S1185. Meeting Abstract P3.02b001, Published Jan 2017.

Lung Cancer Cases

Age at Diagnosis by Gender

In 2017, almost one-third of males diagnosed with lung cancer at FHCI were from 60 to 69 years old, while 38 percent of women were diagnosed between the ages of 70 to 79.

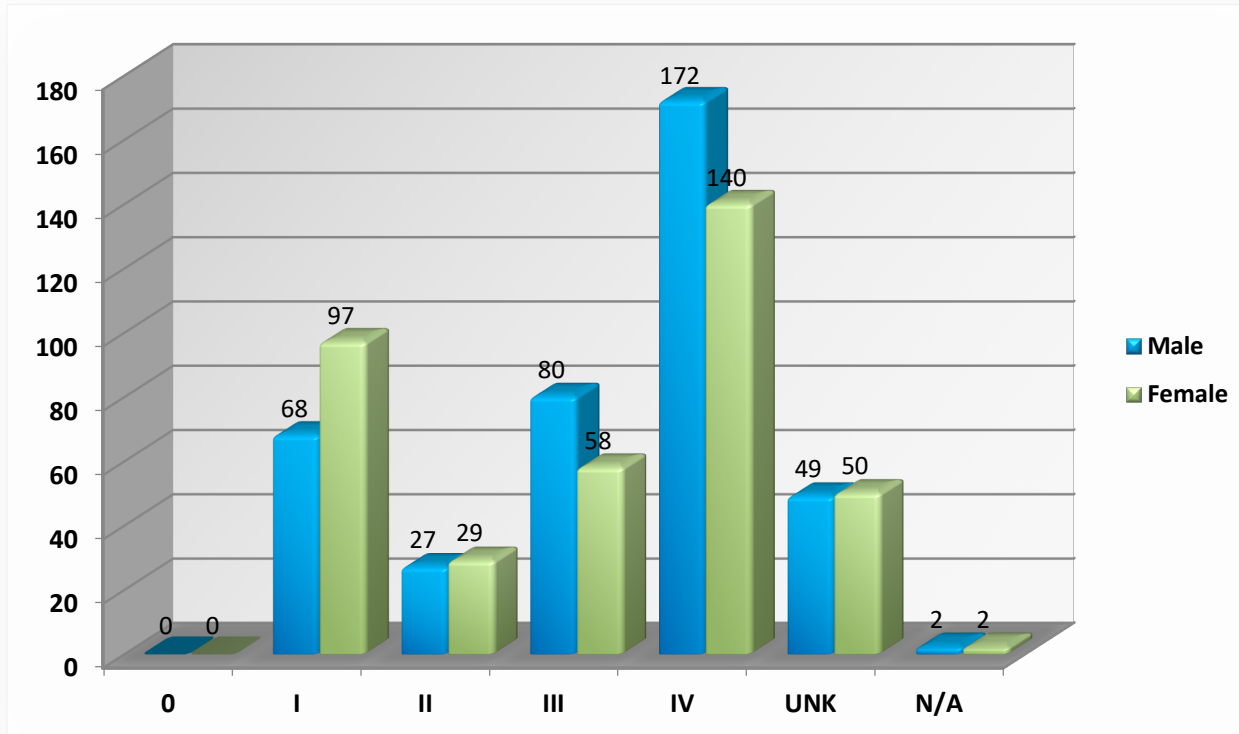


Source: FHCI Cancer Registry

Lung Cancer Cases

Stage by Gender at Diagnosis

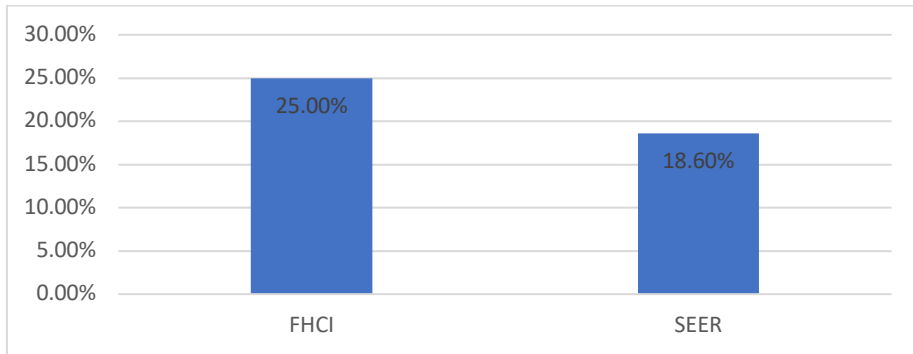
Patients were most commonly diagnosed at Stage IV in 2017. Forty percent of all patients were diagnosed at that stage, representing 43 percent of men and 37 percent of women.



Source: FHCI Cancer Registry

Lung Cancer Cases
Five-year Survival
Cases Diagnosed 2008-2014

The five-year survival rate for lung cancer patients treated at FHCI significantly exceeded national data.



FHCI Tri-County vs. SEER (SEER = Surveillance, Epidemiology and End-Results)
 Sources: FHCI Cancer Registry; SEER.gov CanQues

Lung Cancer Primary Procedures

Almost 42 percent of primary procedures in 2017 were lobectomy resections, followed by mediastinoscopy (23 percent) and wedge (9 percent).

	PROCEDURE	Cases	D/C MORTALITY RATE
Resections	Pneumonectomy	13	18.20%
	Bilobectomy	6	0.00%
	Lobectomy	106	1.00%
	Sleeve Resection	4	0.00%
	Segmentectomy	15	0.00%
	Wedge (s)	24	4.40%
Biopsies	Mediastinoscopy	59	0.00%
	Chamberlain	2	0.00%
	Pleural Bx	7	0.00%
	Mediastinal LN	3	0.00%
	Mediastinal Mass	2	0.00%
Other	Pericardial Window	9	12.50%
	Other	4	25.00%

	Overall Total	254
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Source: FHCI Thoracic Surgery Database

Robotic Procedures Case Breakdown

Of the 126 patients who underwent robotic lung cancer procedures in 2017, more than 49 percent had a lobectomy.

Procedures	Cases
Lobectomy	62
1st Cervical Rib Resection	14
Wedge Resection	9
Thymectomy	8
Sympathectomy	6
Multiple Wedge Resection	5
Segmentectomy	5
Other	3
Funduplication	2
Myotomy	2
Diaphragmatic Hernia Repair	2
Pleural Biopsy	2
Esophagectomy	2
Mediastinal Mass Resection	1
Bilobectomy	1
Thoracic Duct Ligation	1
Other Esophageal	1

Source: FHCI Thoracic Surgery Database

UROLOGIC ONCOLOGY

Vipul Patel MD, FACS

Medical Director, Global Robotics Institute, Celebration Health

Medical Director, Florida Hospital Cancer Institute Urologic Oncology Program
Professor of Urology, University of Central Florida

Carlos Alemany, MD

Hematology Oncology
Medical Director, Genitourinary Oncology
Florida Hospital Cancer Institute

Inoel Rivera, MD, FACS

Uro-oncology Leadership Committee Chair
Urologic Oncology Program
Florida Hospital Cancer Institute

FHCI's oncology team includes some of the country's leading experts in urologic cancer. The team uses the latest in diagnostic technology and advanced surgical techniques, including MRI Fusion Biopsy, to customize patient treatment plans. FHCI pioneered robotic prostate surgery, which accounts for more than 85 percent of all radical prostatectomy in the United States. The team is highly skilled in the use of the da Vinci® Surgical System – a less invasive, robotic-assisted procedure that has revolutionized the surgical process.

2017 Highlights

- In a live global streaming from Nicholson Center, Dr. Patel performed his 10,000th robotic prostatectomy case. He followed this achievement with global lectures at the University College London Hospitals (UCLH) Symposium in London, the Sydney Robotics Summit, Research + Innovation in Australia, and the Congress of the Sociedad Colombiana De Urologia in Cartagena.
- Opened a new institutional review board (IRB)-approved laboratory study to evaluate a blood biomarker that can distinguish between the presence or absence of aggressive prostate cancer. In this collaboration with Genomic Health, Inc., scientists research a blood biomarker as a way to possibly detect at diagnosis the aggressiveness of prostate cancer in men in order to better steer treatment.

Publications

Rassweiler JJ, Autorino R, Klein J, Mottrie A, Goezen AS, Stolzenburg JU, Rha KH, Schurr M, Kaouk J, Patel V, Dasgupta P, Liatsikos E. Future of robotic surgery in urology. BJU Int. 2017 Dec;120(6):822-841. doi: 10.1111/bju.13851. Epub 2017 Apr 22. Review. PubMed PMID: 28319324.

Fontanella P, Benecchi L, Grasso A, Patel V, Albala D, Abbou C, Porpiglia F, Sandri M, Rocco B, Bianchi G. Decision-making tools in prostate cancer: from risk grouping to nomograms. *Minerva Urol Nefrol.* 2017 Dec;69(6):556-566. doi: 10.23736/S0393-2249.17.02832-6. Epub 2017 Mar 30. Review. PubMed PMID: 28376608.

Ogaya-Pinies G, Palayapalam-Ganapathi H, Rogers T, Hernandez-Cardona E, Rocco B, Coelho RF, Patel, VR. Can dehydrated human amnion/chorion membrane accelerate the return to potency after a nerve-sparing robotic-assisted radical prostatectomy? Propensity score-matched analysis. *J Robot Surg.* 2017 doi:10.1007/s11701-017-0719-8.

Patel VR, Sandri M, Grasso AAC, Lorenzis E, Palmisano F, Albo G, Rocco, B. A novel tool for predicting extracapsular extension during graded partial nerve sparing in radical prostatectomy. *BJU Int.* 2017 doi:10.1111/bju.14026.

Kumar A, Samavedi S, Mouraviev V, Bates, AS, Coelho RF, Rocco B, Patel VR. Predictive factors and oncological outcomes of persistently elevated prostate-specific antigen in patients following robot-assisted radical prostatectomy. *J Robot Surg.* 2017 11(1), 37-45. doi:10.1007/s11701-016-0606-8.

Conferences

Dr. Vipul Patel: Course Director; Advanced Robotic Urologic Oncology: Extreme Unforgettable Cases and Their Management; Moderator-Poster Session: Prostate Cancer: Localized: Surgical Therapy IV. American Urologic Association Annual Meeting, May 12-15, Boston.

Dr. Vipul Patel: Video: Nerve Sparing Robotic Radical Prostatectomy; Video: Nuances of Salvage RALP; Panel: Lessons Learned, Challenging Cases and Complications; Lectures: Lessons Learned From 10,000 RALP: The Humbling and Never-Ending Learning 3Curve, An Introduction to Prostate Cancer Biomarkers. Society of Robotic Surgery Annual Meeting, Feb. 24-26, Miami.

Dr. Vipul Patel: Lecture: Lessons Learned From 10,000 RALP cases; Live surgery: Robotic Radical Prostatectomy; Lecture: Experience with Amniofix Early Outcomes; UCLH Symposium, Jan. 20-24, London.

Dr. Vipul Patel: Lecture: Experience from 10,000 Robotic Cases; Lecture: How I Handle Intraoperative Complications; Live Case: Nerve-Sparing Robotic Radical Prostatectomy

Round Table Discussion – Open Vs. Robot: Brisbane Randomized Control Trial

Rise of the Machines Q&A; Moderator: New Robots and Novel Technology.

Sydney Robotics Summit, Research + Innovation, June 21-27, 2017, Sydney, Australia.

Dr. Vipul Patel: Lecture: Dissection of the Neurovascular Bundle: Retrograde; Lecture: Complications in Prostatectomy and Difficult Situations; Lecture: Minimally Invasive Surgery in Uro-Oncology: Past, Present and Future; Debate: Case Discussion; XXXVI Brazilian Congress of Urology, Aug. 24-29, Fortaleza, Brazil.

Abstracts

Patel V; Prostate Cancer in Men Younger Than 55: Rates of Functional Recovery Post-Robotic Assisted Laparoscopic Radical Prostatectomy; Technical Factors Preventing Full Nerve Sparing During Robotic-Assisted Laparoscopic Radical Prostatectomy in Patients That Are Candidates for Full Nerve Sparing; Robot Assisted Radical Prostatectomy for Prostates Over 100 Grams: Technique and Outcomes; Salvage Robotic-Assisted Radical Prostatectomy: Oncologic and Functional Outcomes from Two High-Volume Institutions; Safety of Live Surgery in Urology. Propensity Score Matched Analysis, Boston. American Urological Association Annual Meeting, May 12-16.

Patel V; Safety of Live Surgery in Urology. European Association of Urology 2017, Mar. 24-28, London.

Genitourinary Cancer Case Incidence

By Site and Gender

Prostate cancer remained the most diagnosed or treated genitourinary cancer at FHCI, with 1,478 new cases in 2017.

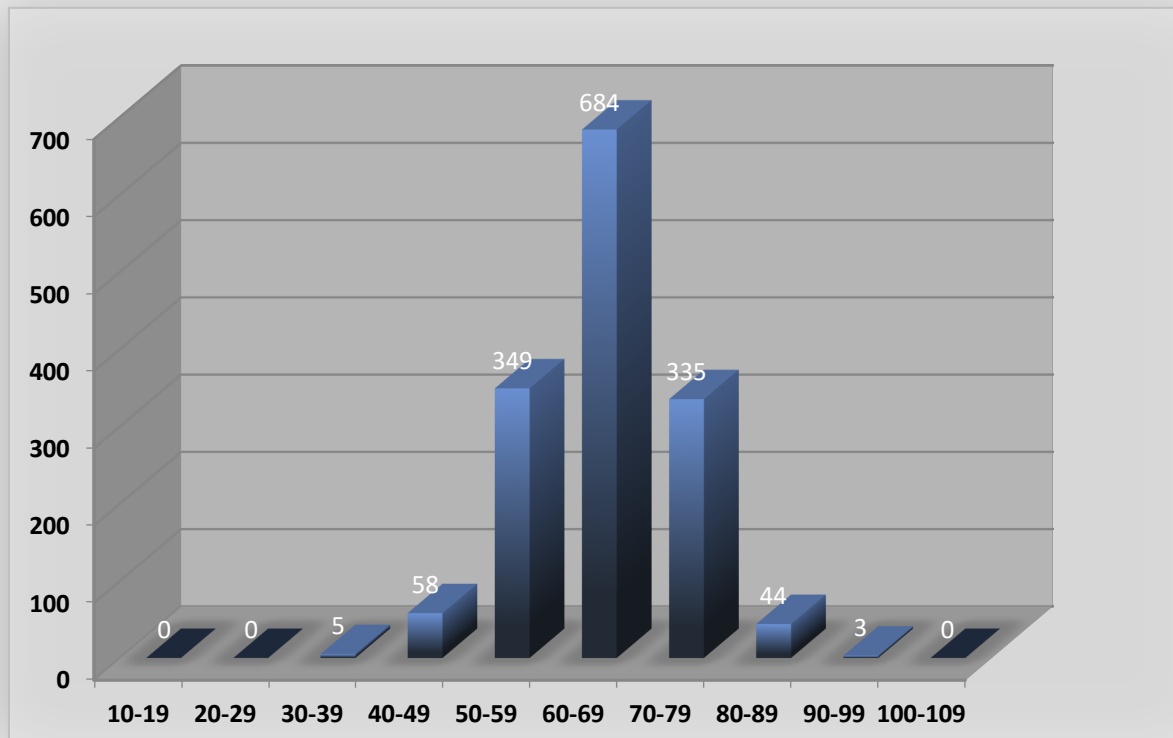
Site Name	Total Number	Male Number	Female Number
Penis	5	5	0
Prostate Gland	1478	1478	0
Testis	35	34	0
Other & Unspecified Male Genital Organs	1	1	0
Kidney	266	175	91
Kidney, Renal Pelvis	22	12	10
Ureter	17	14	3
Urinary Bladder	261	198	63
Other & Unspecified Urinary Organs	3	1	2
Overall Totals	2088	1918	169

Source: FHCI Cancer Registry

Prostate Cancer Cases

Age at Diagnosis

About 46 percent of prostate cancer patients at FHCI were between 60 to 69 years old at diagnosis.

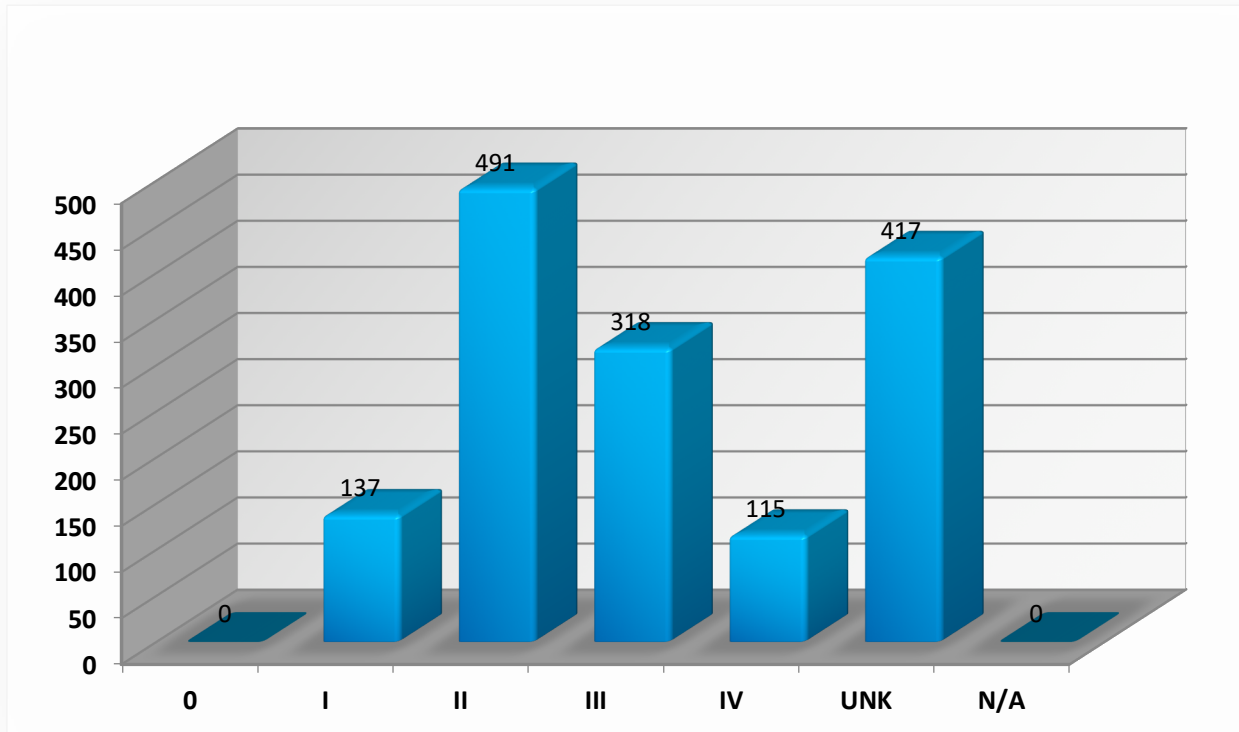


Source: FHCI Cancer Registry

Prostate Cancer Cases

Stage at Diagnosis

Just less than 30 percent of FHCI prostate cancer patients in 2017 had stage II disease at diagnosis.



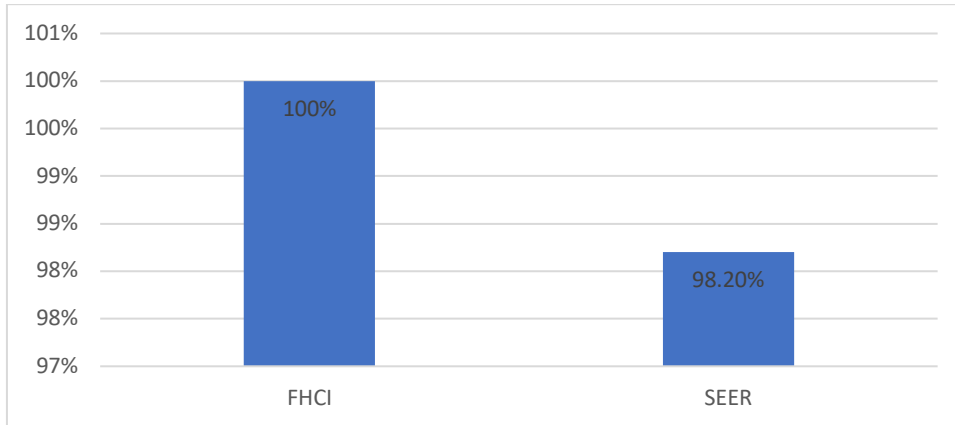
Source: FHCI Cancer Registry

Prostate Cancer

Five-year Survival

Cases Diagnosed 2007-2014

The five-year survival rate of FHCI prostate cancer patients in 2017 was 100 percent, as it was in 2016. Patients have one of the highest survival rates of all cancer types due to early-screening efforts and effective treatment options.



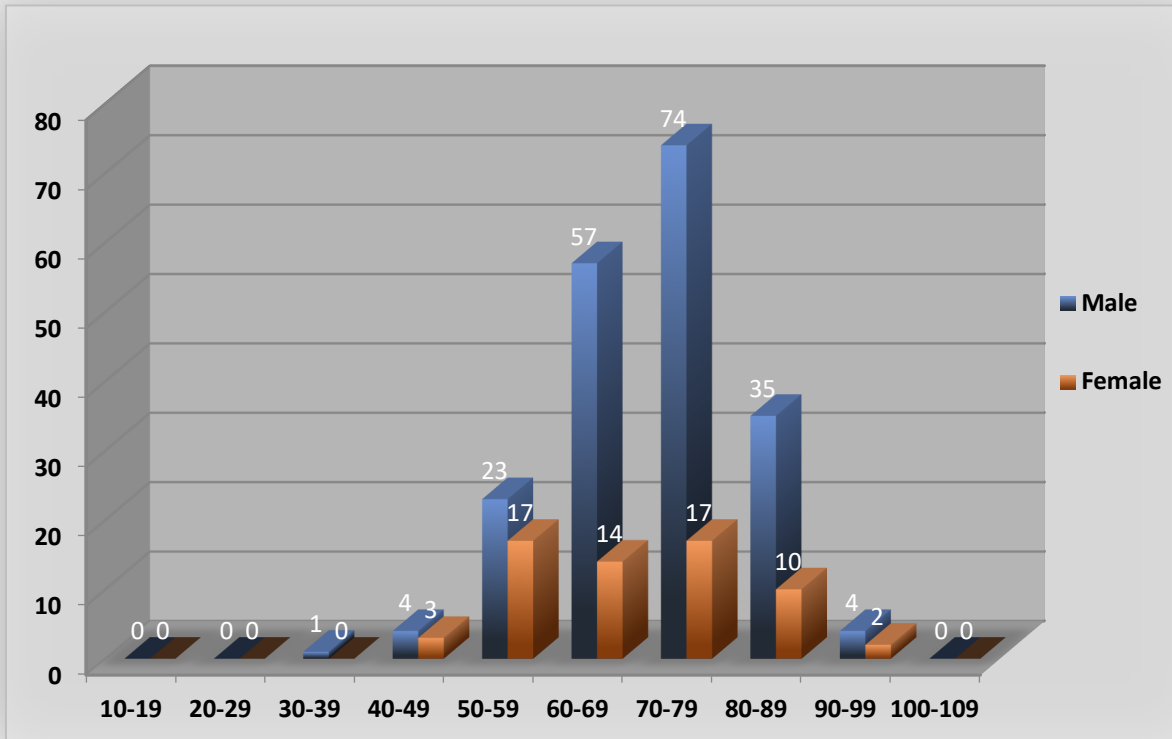
FHCI Tri-County vs SEER (SEER = Surveillance, Epidemiology and End-Results)

Sources: FHCI Cancer Registry; SEER.gov CanQues

Bladder Cancer Cases

Age at Diagnosis by Gender

In 2017, male patients with bladder cancer were most often diagnosed between 70 to 79 years old, while female patients were most often diagnosed between 60 to 69 years old.

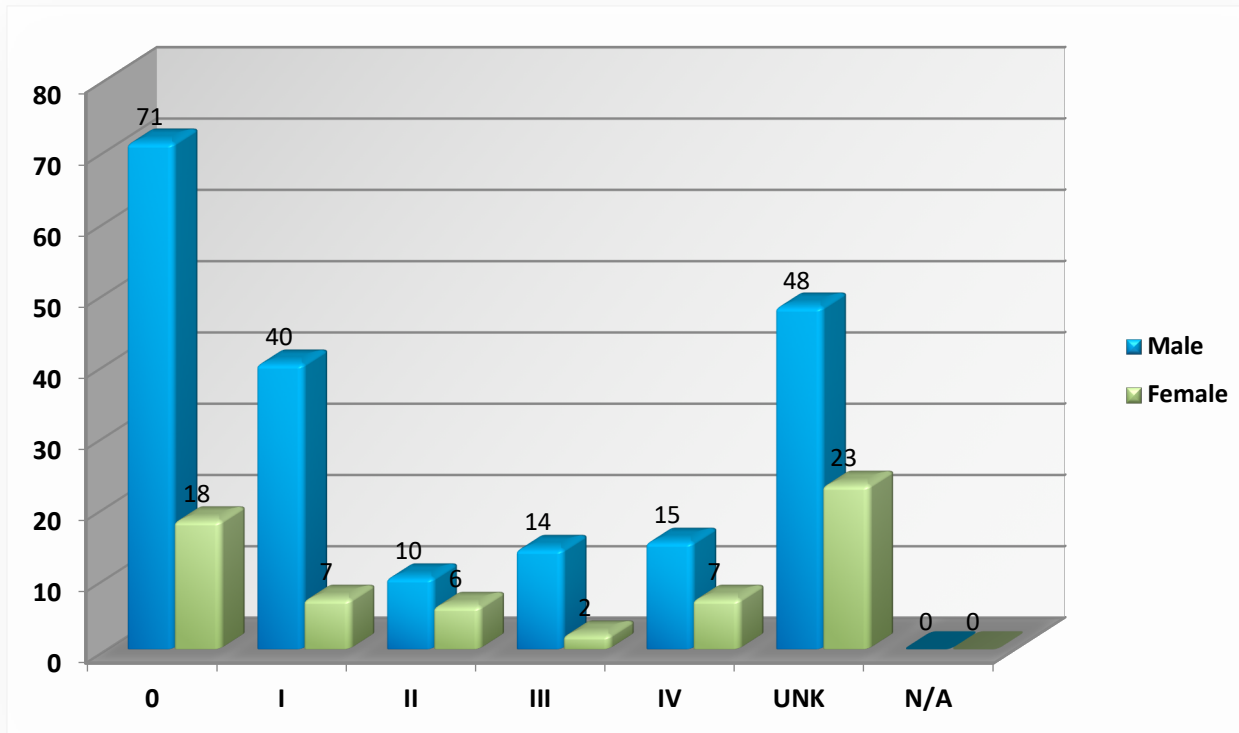


Source: FHCI Cancer Registry

Bladder Cancer Cases

Stage at Diagnosis by Gender

In 2017, male patients were most often diagnosed with bladder cancer in stage 0. The disease was detected in men three times more frequently than in women.

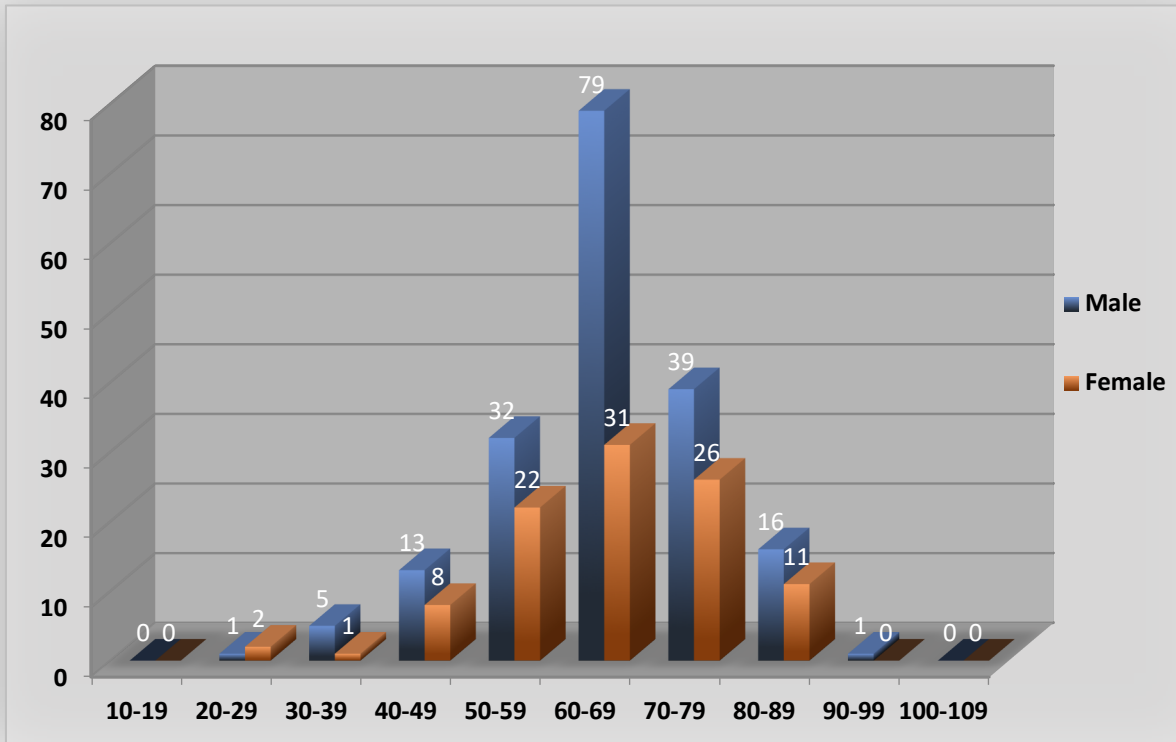


Source: FHCI Cancer Registry

Kidney Cancer Cases

Age at Diagnosis by Gender

FHCI diagnosed 287 cases of kidney cancer in 2017. Both male and female patients were most likely to be from 60 to 69 years old at diagnosis.

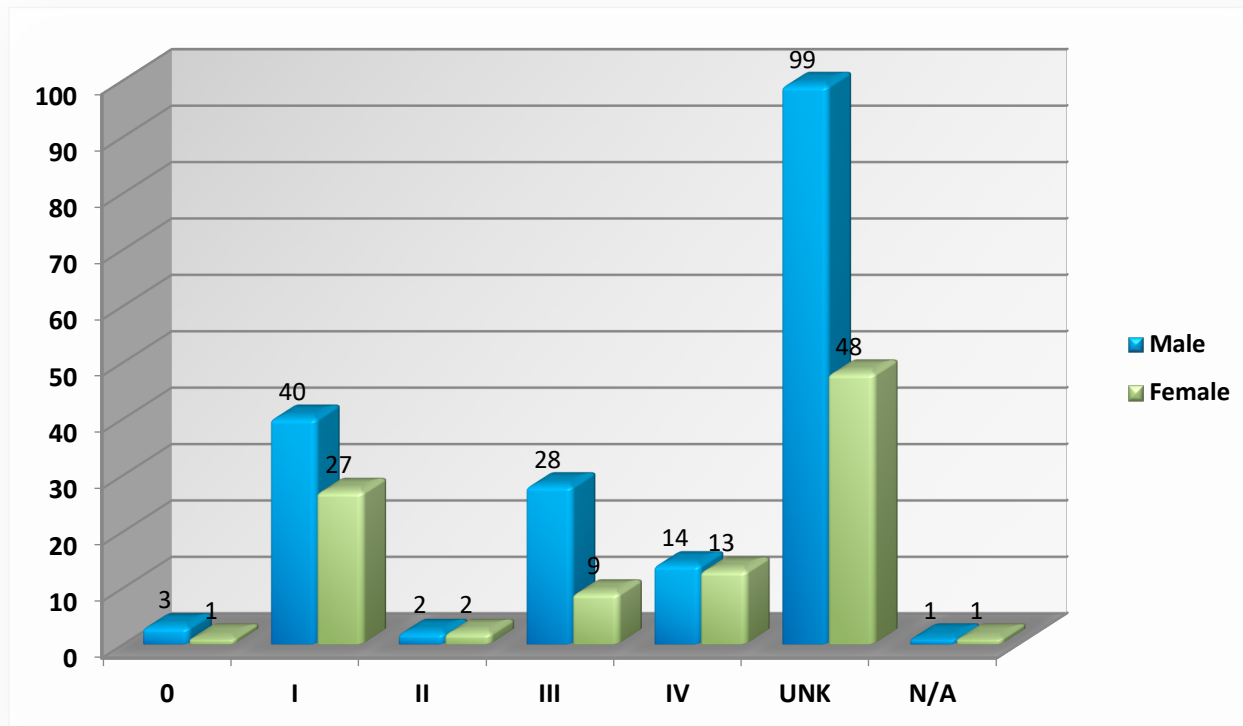


Source: FHCI Cancer Registry

Kidney Cancer Cases

Stage at Diagnosis by Gender

At FHCI in 2017, kidney cancer was most frequently diagnosed in both men and women at stage I.

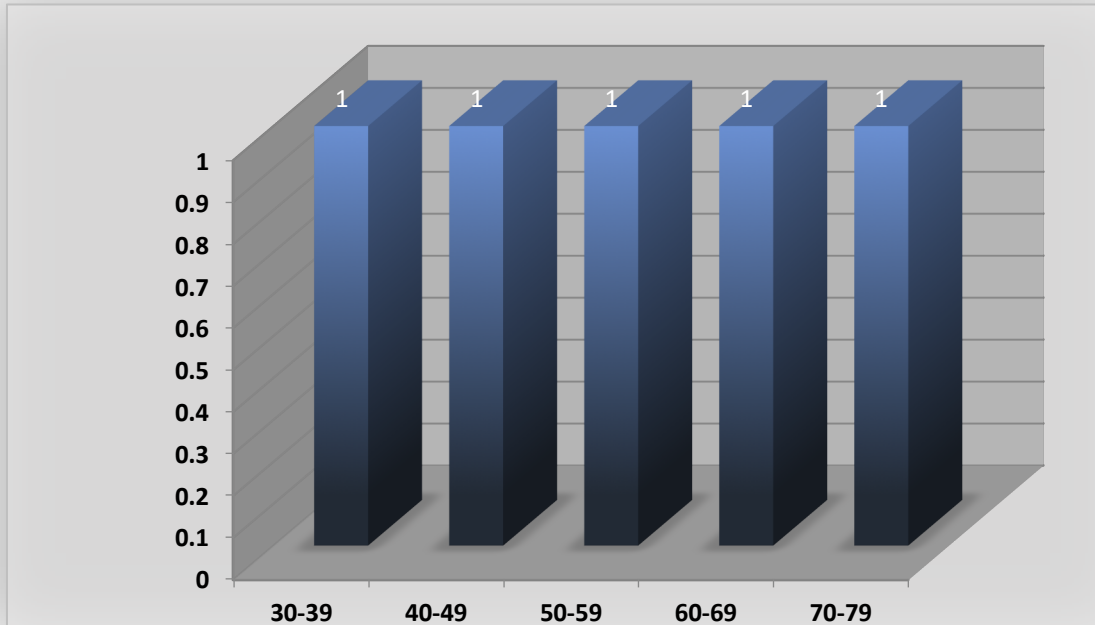


Source: FHCI Cancer Registry

Penile Cancer Cases

Age at Diagnosis

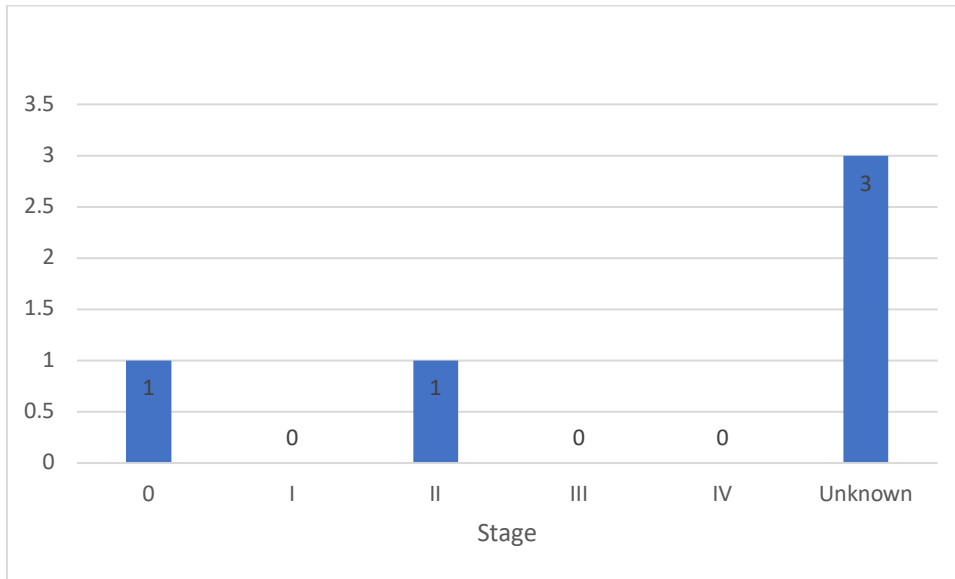
Five patients were diagnosed with penile cancer at FHCI in 2017, one per decade of age from 30 to 79 years old.



Source: FHCI Cancer Registry

Penile Cancer Cases
Stage at Diagnosis

Half of the patients at FHCI were diagnosed in the earlier stages of penile cancers.



Number of Cases Excluded: 0

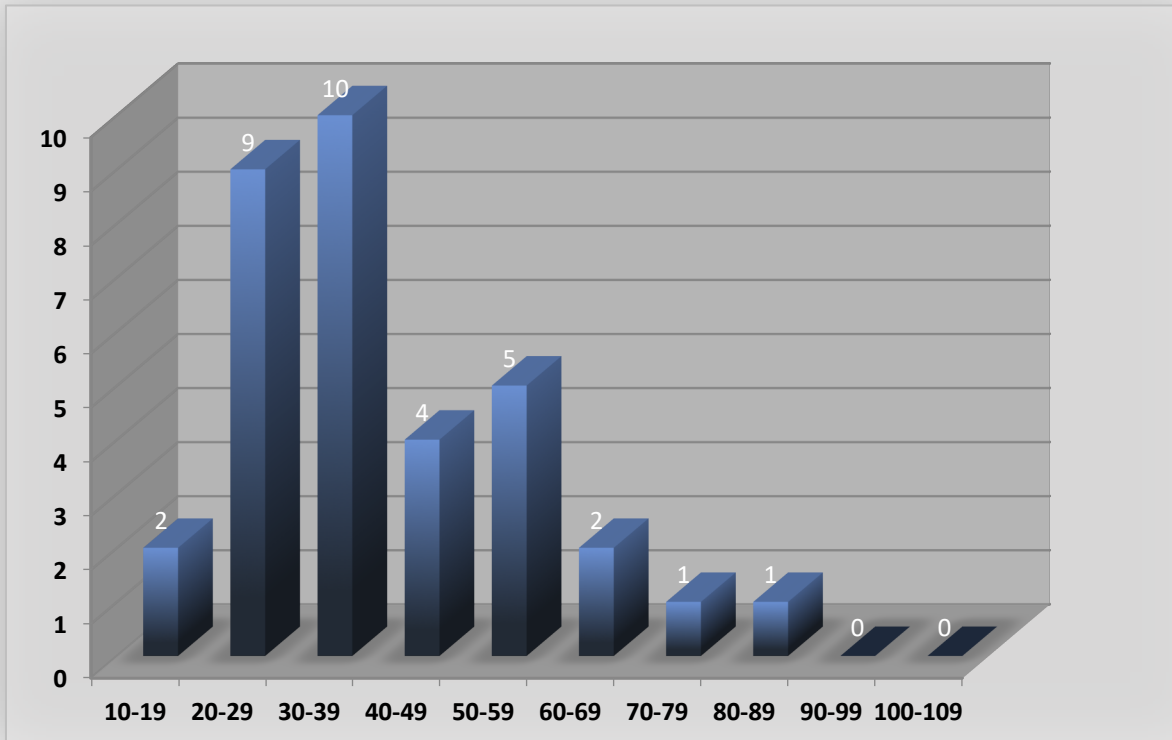
This report Includes CA in-situ cervix cases, squamous and basal cell skin cases, and intraepithelial neoplasia cases.

Source: FHCI Cancer Registry

Testicular Cancer Cases

Age at Diagnosis

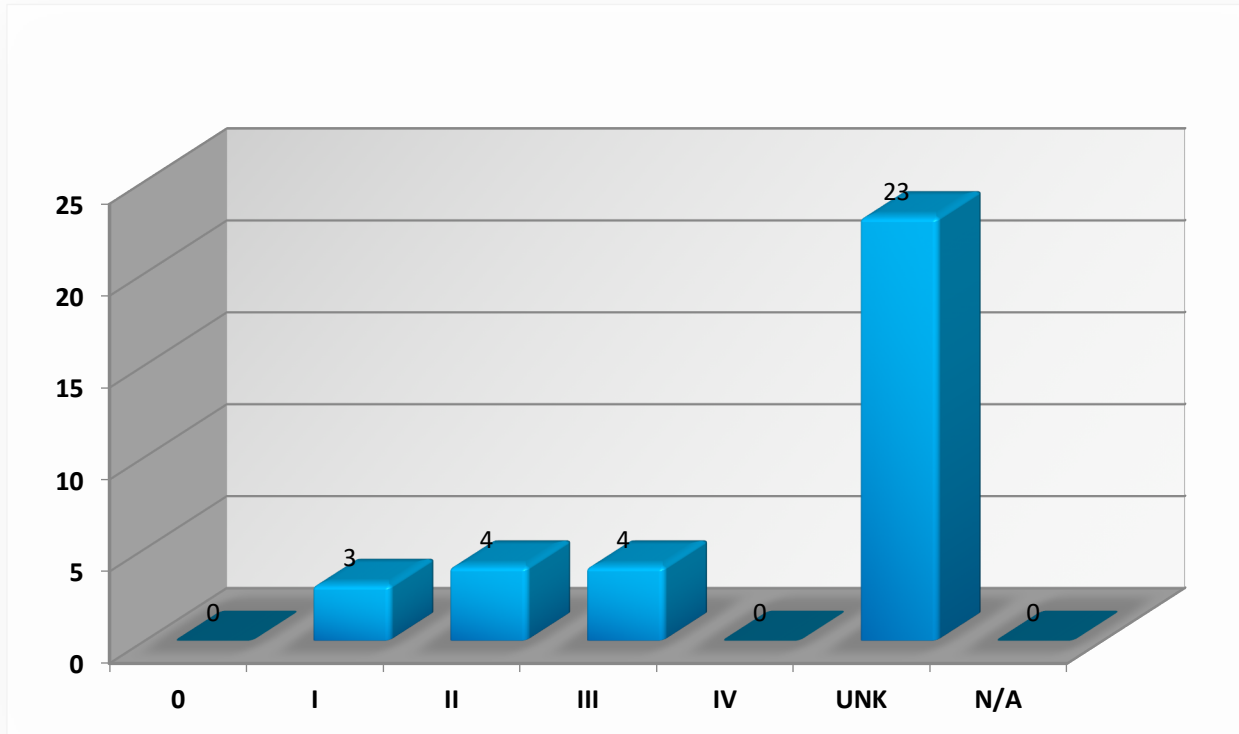
Thirty-four patients were diagnosed with testicular cancer in 2017, most of whom were between the ages of 20 and 39.



Source: FHCI Cancer Registry

Testicular Cancer Cases
Stage at Diagnosis

In 2017, almost one-third of patients with testicular cancer were diagnosed in stages I, II or III.



Source: FHCI Cancer Registry

CANCER REHABILITATION

Julie Sexton
Administrative Director

FHCI introduced a Cancer Rehabilitation program in 2012 to help patients manage stress and avoid the physical declines often associated with cancer treatments. The Outpatient Cancer Rehabilitation program includes physical therapy, occupational therapy, speech therapy, audiology services, massage therapy and medical fitness. Clinicians are specifically trained to treat patients who have cancer.

Research has shown that therapeutic interventions decrease cancer-related fatigue, improve range of motion, maintain or increase strength, reduce anxiety, improve balance to decrease the risk for falls, and maximize quality of life.

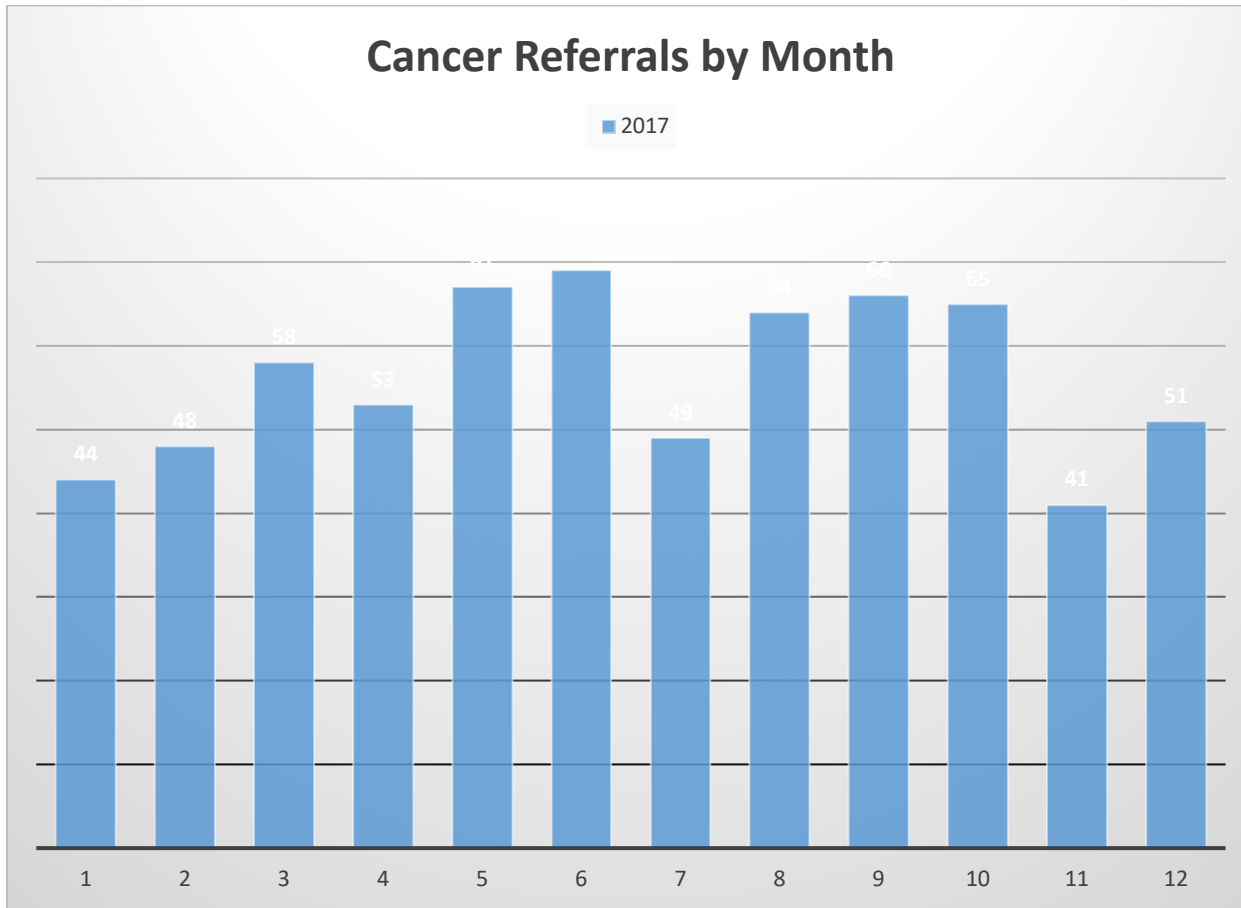
The program's goals are to begin rehabilitation at diagnosis in order to assess the functional baseline, prevent or decrease physical deficits that may result from cancer treatments, and serve as a resource to patients throughout treatment to maximize quality of life.

2017 Highlights

- Expanded cancer rehabilitation services to a new clinic in Orlando off Orange Avenue, increasing total to 18 outpatient rehabilitation locations and the treatment of 675 patients.
- Ranked in the top 75th percentile in Press Ganey patient satisfaction score.
- Ongoing presence of outpatient physical therapists and occupational therapists at monthly Breast and Head/Neck Tumor Boards.

Referrals to Cancer Rehabilitation

At FHCI referrals to cancer rehabilitation patients grew 3 percent, reaching 675 patients.



Source: Cancer Rehab Program Database

RESEARCH

Carlos Alemany, MD, Medical Director, Clinical Research

Bryan Allinson, MBA, Senior Director, Research Institute

Susan Coakley, MHA, CCRP, Director, Clinical Research and Regulatory, Orlando Hospital

Lorraine Hickson, MRA, CCRP, Manager, Clinical Research and Regulatory, Celebration Hospital
Cameron Richardson, RN, BSN, OCN, Clinical Research Nurse Manager, Translational Research and NCI Strategy
Felipe Valerio, CCRC, CCRA, DHA, New Study Acquisition Coordinator, Blood and Marrow Transplant and Urology Associates
Robin Barron, RN, MSN, CCRP, Clinical Research Operations Manager, Center for Interventional Endoscopy

Cancer studies can identify new and better ways to prevent and treat cancer and improve the quality of a participant's life during and after treatment. They give patients direct access to promising new therapies, including the newest drugs in development, precision medicine approaches, immunotherapy and diagnostics. The majority of clinical research comes at no additional cost to participants.

Two of the most promising approaches in research today are precision medicine and immuno-oncology:

- Research in immuno-oncology unlocks the body's natural ability to attack and fight off cancer. This involves reprogramming the immune system so it recognizes and destroys cancer cells, which under normal circumstances may be able to evade an immune system attack.
- Research in precision medicine studies includes discovery, development, optimization and long-term outcomes of the individual variability in a patient's genes, environment and lifestyle. Precision medicine provides a means for Florida Hospital physicians to tailor treatments such as immuno-oncology, surgical oncology, radiation oncology and other modalities.

Cancer research is managed by the Florida Hospital Research Institute (FHRI) in close collaboration with the Florida Hospital Cancer Institute and the Florida Hospital Medical Group. Cancer researchers have access to a dedicated clinical research unit, wet laboratory, research magnetic resonance imaging, research IT infrastructure, investigational drug services and tissue processing. FHRI is accredited by the Association for the Accreditation of Human Research Protection Programs.

Cancer research continues to provide access to more than 200 clinical trials at any given time for both adult and pediatric patients with solid and circulating tumors. The centralized clinical research office provides comprehensive and valuable support to more than 70 investigators with all aspects of research and clinical trial operations. The clinical research department is comprised of research nurses, data managers, research assistants, regulatory coordinators and biostatisticians.

2017 Highlight

- Almost 1,800 patients enrolled in oncology trials.

Current Research Affiliations

Cancer research at Florida Hospital includes the newest and most innovative studies. Sponsors and collaborators include:

- National Cancer Institute
- National Clinical Trials Network
 - Alliance for Clinical Trials in Oncology
 - Alliance Foundation Trial
 - Blood and Marrow Transplant Clinical Trials Network
 - Center for International Blood and Marrow Transplant Research
 - Children’s Oncology Group
 - Eastern Cooperative Oncology Group-ACRIN Cancer Research Group
 - Gynecologic Oncology Group
 - National Cord Blood Program
 - National Heart, Lung and Blood Institute
 - National Marrow Donor Program
 - NRG Oncology
 - Radiation Therapy Oncology Group
 - SWOG Cancer Research Network
- Fraternal Order of Eagles
- Medical University of South Carolina
- Moffitt Cancer Center
- Mount Sinai Health System
- Phi Beta Psi
- Research Foundation of the American Society of Colon and Rectal Surgeons (ASCRS)
- Sanford Burnham Prebys Medical Discovery Institute
- University of Central Florida
- University of North Carolina
- University of Pittsburgh

- University of Texas Health San Antonio
- Industry/pharmaceutical-sponsored trials

Florida Hospital participates in the National Clinical Trial Network as a collaborator with organizations including:

American College of Radiology
Baptist Health
Baylor Scott & White Health
Cancer Center of Iowa
Case Western Reserve University
Cedars-Sinai Medical Center
City of Hope National Medical Center
Cornell University Weill Medical College
Dana Farber Cancer Institute
Duke University Medical Center
European Network of Gynecologic Trial Groups
Fred Hutchison Cancer Research Center
Harvard University
Jefferson Hospital
Jewish Hospital
Johns Hopkins University
Loyola Medicine
Karmanos Cancer Center
Massachusetts General Hospital Cancer Center
Mayo Clinic
Medical College of Wisconsin
Medical University of Vienna
Memorial Sloan Kettering
New York University Medical Center
North Shore University Health System
Ohio State University
Partners HealthCare

Penn State College of Medicine
Roswell Park
Rutgers University
Virginia Commonwealth University
Spectrum Health, West Michigan
Susan F. Smith Center for Women's Cancers
St. Anthony's Medical Center
Stanford University
University College London
University of Alabama at Birmingham
University of California, Los Angeles
University of California, San Francisco
University of Chicago
University of Cincinnati
University of Colorado Denver
University of Columbia
University of Florida College of Medicine
University of Kansas
University of Michigan
University of Minnesota
University of Missouri
University of Nebraska
University of North Carolina
University of Oklahoma
University of Pennsylvania
University of Rochester Medical Center
University of Texas MD Anderson Cancer Center
University of Texas Southwestern Medical Center
University of Utah
University of Virginia
University of Washington
US Oncology Network

Tulane University

National Clinical Trial Network (NCTN) references:

- Blood and Marrow Transplant Network
- Alliance for Clinical Trials in Oncology
- Alliance Foundation Trials
- NRG Oncology
- Gynecologic Oncology Group
- Eastern Cooperative Oncology Group

Examples of Florida Hospital research affiliations:

- Continued a study with Moffitt Cancer Center to investigate immunotherapy on Florida Hospital cancer patients.
- Collaborated with Research Foundation of the American Society of Colon and Rectal Surgeons to study innovative surgical robotics.
- Sub-recipient for a grant funded by the Florida Department of Health through the William G. "Bill" Bankhead Jr. and David Coley Cancer Research Program.

CLINICAL RESEARCH

Carlos Alemany, MD

Medical Director, Clinical Research
GU Medical Oncology Director
Breast Medical Oncology Director
Co-Chair of Protocol Review Committee
Florida Hospital Cancer Institute

Steven Goldstein, MD

BMT Medical Oncology Director
Co-Chair of Protocol Review Committee
Florida Hospital Cancer Institute

Clinical trials are carefully designed research studies of new and innovative medical treatments. Through cancer trials, doctors hope to find new ways to improve patients' cancer treatments and quality of life. Our trials offer the most advanced therapies available. Our centralized clinical research team is comprised of research nurses, data managers, research assistants and regulatory coordinators.

The clinical research team supports these programs: Neurological, Breast, Gastrointestinal, Pediatric, Pancreatic and Hepatobiliary, Genitourinary, Gynecological, Thoracic and Bone Marrow Transplant.

2017 Highlights

- Thirty new adult oncology studies were activated in 2017 by the FHCI Clinical Research Program. On average, 55 studies were open to enrollment.
- In Pediatric Oncology, the Children's Oncology Group (COG) activated two new studies in 2017. An average of 20 studies were open to enrollment.
- The Pediatric Oncology department maintained a perfect score of 100 percent for the Data Currency Score for the third consecutive year. In addition, COG ranked in the 60th percentile for number of studies approved and enrolled.

Publications

Patel UA, Hernandez D, Shnayder Y, Wax MK, Hanasono MM, Hornig J, Ghanem TA, Old M, Jackson RS, Ledgerwood LG, Pipkorn P, Lin L, Ong A, Greene JB, Bekeny J, Yiu Y, Noureldine S, Li DX, Fontanarosa J, Greenbaum E, Richmon JD. Free Flap Reconstruction Monitoring Techniques and Frequency in the Era of Restricted Resident Work Hours. *JAMA Otolaryngol Head Neck Surg.* 2017 Aug 1;143(8):803-809. doi: 10.1001/jamaoto.2017.0304. PubMed PMID: 28570718; PubMed Central PMCID: PMC5710561.

Chung H, Polf J, Badiyan S, Biagioli M, Fernandez D, Latifi K, Wilder R, Mehta M, Chuong M. Rectal dose to prostate cancer patients treated with proton therapy with or without rectal spacer. *J Appl Clin Med Phys.* 2017 Jan;18(1):32-39. doi:10.1002/acm2.12001. Epub 2016 Nov 21. PubMed PMID: 28291917; PubMed Central PMCID: PMC5689902.

Altazi BA, Zhang GG, Fernandez DC, Montejó ME, Hunt D, Werner J, Biagioli MC, Moros EG. Reproducibility of F18-FDG PET radiomic features for different cervical tumor segmentation methods, gray-level discretization, and reconstruction algorithms. *J Appl Clin Med Phys.* 2017 Nov;18(6):32-48. doi: 10.1002/acm2.12170. Epub 2017 Sep 11. PubMed PMID: 28891217; PubMed Central PMCID: PMC5689938.

Miller HK, Braun TM, Stillwell T, Harris AC, Choi S, Connelly J, Couriel D, Goldstein S, Kitko CL, Magenau J, Pawarode A, Reddy P, Riwes M, Yanik GA, Levine JE. Infectious Risk after Allogeneic Hematopoietic Cell Transplantation Complicated by Acute Graft-versus-Host Disease. *Biol Blood Marrow Transplant*. 2017 Mar;23(3):522-528. doi: 10.1016/j.bbmt.2016.12.630. Epub 2016 Dec 22. PubMed PMID: 28017733; PubMed Central PMCID: PMC5551893.

Saliba RM, Sarantopoulos S, Kitko CL, Pawarode A, Goldstein SC, Magenau J, Alousi AM, Churay T, Justman H, Paczesny S, Reddy P, Couriel DR. B-cell activating factor (BAFF) plasma level at the time of chronic GvHD diagnosis is a potential predictor of non-relapse mortality. *Bone Marrow Transplant*. 2017 Jul;52(7):1010-1015. doi: 10.1038/bmt.2017.73. Epub 2017 May 8. PubMed PMID: 28481353; PubMed Central PMCID: PMC5687506

Day AT, Sinha P, Nussenbaum B, Kallogjeri D, Haughey BH. Management of primary T1-T4 glottic squamous cell carcinoma by transoral laser microsurgery. *Laryngoscope*. 2017 Mar;127(3):597-604. doi: 10.1002/lary.26207. Epub 2016 Aug 31. PubMed PMID: 27578610.

Coleman RL, Oza AM, Lorusso D, Aghajanian C, Oaknin A, Dean A, Colombo N, Weberpals JI, Clamp A, Scambia G, Leary A, Holloway RW, Gancedo MA, Fong PC, Goh JC, O'Malley DM, Armstrong DK, Garcia-Donas J, Swisher EM, Floquet A, Konecny GE, McNeish IA, Scott CL, Cameron T, Maloney L, Isaacson J, Goble S, Grace C, Harding TC, Raponi M, Sun J, Lin KK, Giordano H, Ledermann JA; ARIEL3 investigators. Rucaparib maintenance treatment for recurrent ovarian carcinoma after response to platinum therapy (ARIEL3): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet*. 2017 Oct 28;390(10106):1949-1961. doi: 10.1016/S0140-6736(17)32440-6. Epub 2017 Sep 12. Erratum in: *Lancet*. 2017 Oct 28;390(10106):1948. PubMed PMID: 28916367; PubMed Central PMCID: PMC5901715.

Holloway RW, Ahmad S, Kendrick JE, Bigsby GE, Brudie LA, Ghurani GB, Stavitzski NM, Gise JL, Ingersoll SB, Pepe JW. A Prospective Cohort Study Comparing Colorimetric and Fluorescent Imaging for Sentinel Lymph Node Mapping in Endometrial Cancer. *Ann Surg Oncol*. 2017 Jul;24(7):1972-1979. doi: 10.1245/s10434-017-5825-3. Epub 2017 Mar 6. PubMed PMID: 28265777.

Holloway RW, Abu-Rustum NR, Backes FJ, Boggess JF, Gotlieb WH, Jeffrey Lowery W, Rossi EC, Tanner EJ, Wolsky RJ. Sentinel lymph node mapping and staging in endometrial cancer: A Society of Gynecologic Oncology literature review with consensus recommendations. *Gynecol Oncol*. 2017 Aug;146(2):405-415. doi: 10.1016/j.ygyno.2017.05.027. Epub 2017 May 28. Review. PubMed PMID: 28566221; PubMed Central PMCID: PMC6075736.

Patel R, Ivanov O, Voigt J. Lifetime cost-effectiveness analysis of intraoperative radiation therapy versus external beam radiation therapy for early stage breast cancer. *Cost Eff Resour Alloc*. 2017 Nov 9;15:22. doi: 10.1186/s12962-017-0084-5. PubMed PMID: 29151818; PubMed Central PMCID: PMC5679386.

Keller A, Harvey ME, Kameh DS, Haughey B, Ho H, Magnuson S, Akhtar A, Mekhail T, Zehngebot L, Rao NG. De-escalation of radiotherapy for the treatment of HPV-associated head and neck cancer: A case report and a word of caution. *Acta Oto-laryngologica case reports*. 2017 2(10): 29-33. doi: 10.1080/23772484.2017.1292399

Antonia SJ, Villegas A, Daniel D, Vicente D, Murakami S, Hui R, Yokoi T, Chiappori A, Lee KH, de Wit M, Cho BC, Bourhaba M, Quantin X, Tokito T, Mekhail T, Planchard D, Kim YC, Karapetis CS, Hirt S, Ostoros G, Kubota K, Gray JE, Paz-Ares L, de Castro Carpeño J, Wadsworth C, Melillo G, Jiang H, Huang Y, Dennis PA, Özgüroğlu M; PACIFIC Investigators. Durvalumab after Chemoradiotherapy in Stage III Non-Small-Cell Lung Cancer. *N Engl J Med*. 2017 Nov 16;377(20):1919-1929. doi: 10.1056/NEJMoa1709937. Epub 2017 Sep 8. PubMed PMID: 28885881.

Guan J, Lim KS, Mekhail T, Chang CC. Programmed Death Ligand-1 (PD-L1) Expression in the Programmed Death Receptor-1 (PD-1)/PD-L1 Blockade: A Key Player Against Various Cancers. *Arch Pathol Lab Med*. 2017 Jun;141(6):851-861. doi: 10.5858/arpa.2016-0361-RA. Epub 2017 Apr 18. Review. PubMed PMID: 28418281.

Mellon EA, Orman A, Joya LE, Montejo ME, Laronga C, Hoover SJ, Lee MC, Khakpour N, Kubal PF, Diaz R. Frequency of whole breast radiation therapy after intraoperative radiation therapy due to criteria identified by lumpectomy. *Brachytherapy*. 2017 Jan - Feb;16(1):174-180. doi: 10.1016/j.brachy.2016.09.012. Epub 2016 Nov 2. PubMed PMID: 27816540.

Gandhi L, Besse B, Mazieres J, Waciar S, Cortot A, Barlesi F, Quoix E, Otterson G, Ettinger D, Horn L, Moro-Sibilot D, Socinski M, Gold K, Gray J, Oton A, Heist RS, Costa D, Mcculloch L, Bebbuchuk J, Bryce R, Kris M. Neratinib Temeirrolimus in HER2-Mutant Lung Cancers: An International, Randomized Phase II Study. *Journal of Thoracic Oncology* 12(1), Supplement S: S358-S359. Meeting Abstract MA04.02, Published JAN 2017.

Carbone DP, Reck M, Paz-Ares L, Creelan B, Horn L, Steins M, Felip E, van den Heuvel MM, Ciuleanu TE, Badin F, Ready N, Hiltermann TJN, Nair S, Juergens R, Peters S, Minenza E, Wrangle JM, Rodriguez-Abreu D, Borghaei H, Blumenschein GR Jr, Villaruz LC, Havel L, Krejci J, Corral Jaime J, Chang H, Geese WJ, Bhagavatheeswaran P, Chen AC, Socinski MA; CheckMate 026 Investigators. First-Line Nivolumab in Stage IV or Recurrent Non-Small-Cell Lung Cancer. *N Engl J Med*. 2017 Jun 22;376(25):2415-2426. doi: 10.1056/NEJMoa1613493. PubMed PMID: 28636851.

Novello S, Nowak AK, Grosso F, Steele N, Popat S, Greillier L, John T, Leigh NB, Reck M, Pavlakakis N, Sorensen L, Hughes B, Mazieres J, Socinski MA, von Wangenheim U, Barrueco J, Morsli N, Scagliotti G. Overall survival (OS) and forced vital capacity (FVC) results from the LUME-Meso study of

nintedanib (N) plus pemetrexed/cisplatin (PEM/CIS) vs placebo (P) plus PEM/CIS in chemo-naive patients (pts) with malignant pleural mesothelioma (MPM). Conference: 42nd European-Society-for-Medical-Oncology Congress (ESMO) Location: Madrid, SPAIN Date: SEP 08-12, 2017. Annals of Oncology 28(Supplement 5). Meeting Abstract 1618PD, Published SEP 2017.

Planchard D, Besse B, Kim TM, Quoix EA, Souquet PJ, Mazieres J, Barlesi F, Groen HJM, Smit EF, Baik CS, Sho BC, Kelly RJ, Socinski MA, Novello S, Rigas JR, Giannone V, D'amelio AM, Zhang PD, Mookerjee B, Bruce E. Updated survival of patients (pts) with previously treated BRAF V600E-mutant advanced non-small cell lung cancer (NSCLC) who received dabrafenib (D) or D plus trametinib (T) in the phase II BRF113928 study. Conference: Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO) Location: Chicago, IL Date: JUN 02-06, 2017. Journal of Clinical Oncology 35(Supplement 15). Meeting Abstract 9075, Published MAY 20, 2017.

Wang K, Eblan MJ, Deal AM, Lipner M, Zagar TM, Wang Y, Mavroidis P, Lee CB, Jensen BC, Rosenman JG, Socinski MA, Stinchcombe TE, Marks LB. Cardiac Toxicity After Radiotherapy for Stage III Non-Small-Cell Lung Cancer: Pooled Analysis of Dose-Escalation Trials Delivering 70 to 90 Gy. J Clin Oncol. 2017 May 1;35(13):1387-1394. doi: 10.1200/JCO.2016.70.0229. Epub 2017 Jan 23. PubMed PMID: 28113017; PubMed Central PMCID: PMC5455462.

Portales F, Philip PA, Hammel P, Buscaglia M, Pazo-Cid R, Mozo JLM, Kim ES, Dowden S, Zakari A, Borg C, Terrebonne E, Herrero FR, Li JSS, Ong TJ, Nydam T, Lacy J. Interim health related quality of life (QoL) from LAPACT, a Phase 2 trial of nab-paclitaxel (nab-P) plus gemcitabine (G) for patients (Pts) with locally advanced pancreatic cancer (LAPC). Conference: 42nd European-Society-for-Medical-Oncology Congress (ESMO). Date SEP 08-12, 2017, Madrid, SPAIN. Annals of Oncology 28(Supplement 5). Meeting Abstract 730P, Published Sep 2017.

Ning N, Yan J, Dietrich MF, Xie XJ, Gerber DE. Institutional Scientific Review of Cancer Clinical Research Protocols: A Unique Requirement That Affects Activation Timelines. J Oncol Pract. 2017 Dec;13(12):e982-e991. doi: 10.1200/JOP.2017.024299. Epub 2017 Oct 11. PubMed PMID: 29019706; PubMed Central PMCID: PMC5728362.

Clinical Highlights

- FHCI initiated Phase 2 Clinical Trial of GL-ONC1 in Recurrent Ovarian Cancer.
 - The Phase 2 trial, VIRO-15 (Oncolytic Vaccinia Immunotherapy in Recurrent Ovarian Cancer), is being led by Dr. Robert Holloway, a world-renowned gynecologic oncologist with extensive clinical trial experience in gynecologic malignancies. Additional site(s) in the U.S. are planned as the trial progresses.

The study is based on positive data of GL-ONC1 from Phase 1b clinical study conducted at FHCI in heavily pretreated, platinum-resistant/refractory ovarian cancer patients. Administration of GL-ONC1 as a monotherapy was shown to have clinically significant results, including documented objective response and tumor-specific T-cell response, a favorable trend of durable response, and a quality of life benefit.

- The FHCI Clinical Research office organized the Second Annual Clinical Research Pipeline Meeting in April 2017. Physician Investigators and translational/clinical research and clinical professionals attended the two-day scientific meeting to learn about oncology agents in development for more than 10 types of malignancies. The program included presentations with more than 15 key pharmaceutical medical scientific liaisons. Keynote speaker for this program included Scott Antonia, MD, PhD; Moffitt Cancer Center, Chair, Department of Thoracic Oncology.

Clinical Research Affiliations

- National Cancer Institute (NCI)/National Institute of Health (NIH)
 - National Clinical Trials Network (NRG & Alliance main members)
 - Clinical Trial Support Unit access to Southwest Oncology Group (SWOG) and Eastern Cooperative Oncology Group (ECOG)
 - COG
- University of Central Florida
- Moffitt Cancer Center
- Industry-funded clinical trial collaborations

TRANSLATIONAL RESEARCH

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Holloway RW, Ahmad S, Kendrick JE, Bigsby GE, Brudie LA, Ghurani GB, Stavitzski NM, Gise JL, Ingersoll SB, Pepe JW. A Prospective Cohort Study Comparing Colorimetric and Fluorescent Imaging for Sentinel Lymph Node Mapping in Endometrial Cancer. *Ann Surg Oncol*. 2017 Jul;24(7):1972-1979. doi: 10.1245/s10434-017-5825-3. Epub 2017 Mar 6. PubMed PMID: 28265777.

Wisner KPA, Ahmad S, Holloway RW. Indications and techniques for robotic pelvic and para-aortic lymphadenectomy with entinel lymph node mapping in gynecologic oncology. *Best Pract Res Clin Obstet Gynaecol*. 2017 Nov;45:83-93. doi: 10.1016/j.bpobgyn.2017.04.006. Epub 2017 Apr 24. Review. PubMed PMID: 28533155.

Gubbi A, Kacheria S, Ahmad S, Stavitzski NM, Kendrick JE. Prognostic Significance of the Standardized Uptake Value of Pretherapeutic 18F-Labeled 2-Fluoro-2-Deoxyglucose Positron Emission Tomography/Computed Tomography in Patients with Locally Advanced Cervical Cancer. *Int J Gynecol Cancer*. 2017 Mar;27(3):530-536. doi: 10.1097/IGC.0000000000000930. PubMed PMID: 28187100.

Loerzel V, Kurt G, Tavasci K, Galura S, Ahmad S, Holloway R. Learning Needs Differences in Women Undergoing Robotic and Open Gynecologic Surgeries for Benign and Cancerous Conditions. *Oncol Nurs Forum*. 2017 Mar;4(2): Meeting Abstract 515, Published MAR 2017.

Atallah SB, DuBose AC, Burke JP, Nassif G, deBeche-Adams T, Frering T, Albert MR, Monson JRT. Uptake of Transanal Total Mesorectal Excision in North America: Initial Assessment of a Structured Training Program and the Experience of Delegate Surgeons. *Dis Colon Rectum*. 2017 Oct;60(10):1023-1031. doi: 10.1097/DCR.0000000000000823. PubMed PMID: 28891845.

Plummer JM, Leake PA, Albert MR. Recent advances in the management of rectal cancer: No surgery, minimal surgery or minimally invasive surgery. *World J Gastrointest Surg*. 2017 Jun 27;9(6):139-148. doi: 10.4240/wjgs.v9.i6.139. Review. PubMed PMID: 28690773; PubMed Central PMCID: PMC5483413.

Arnoletti JP, Zhu X, Almodovar AJ, Veldhuis PP, Sause R, Griffith E, Corpus G, Chang JC, Fanaian N, Litherland SA. Portal Venous Blood Circulation Supports Immunosuppressive Environment and Pancreatic Cancer Circulating Tumor Cell Activation. *Pancreas*. 2017 Jan;46(1):116-123. PubMed PMID: 27400259.

Aquina CT, Blumberg N, Becerra AZ, Boscoe FP, Schymura MJ, Noyes K, Monson JRT, Fleming FJ. Association Among Blood Transfusion, Sepsis, and Decreased Long-term Survival After Colon Cancer Resection. *Ann Surg*. 2017 Aug;266(2):311-317. doi: 10.1097/SLA.0000000000001990. PubMed PMID: 27631770.

Aquina CT, Mohile SG, Tejani MA, Becerra AZ, Xu Z, Hensley BJ, Aرسالani-Zadeh R, Boscoe FP, Schymura MJ, Noyes K, Monson JR, Fleming FJ. The impact of age on complications, survival, and cause of death following colon cancer surgery. *Br J Cancer*. 2017 Jan;116(3):389-397. doi: 10.1038/bjc.2016.421. Epub 2017 Jan 5. PubMed PMID: 28056465; PubMed Central PMCID: PMC5294480.

Wright JL, Saigal K, Reis IM, Zhao W, Takita C, Ambros T, Saeed AM, Sujoy V, Hurley J. Locoregional and Overall Recurrence After Neoadjuvant Endocrine Therapy Versus Chemotherapy in Postmenopausal Women with Estrogen Receptor+ HER2- Breast Cancer. *Am J Clin Oncol*. 2017 Oct;40(5):490-497. doi: 10.1097/COC.000000000000194. PubMed PMID: 26017482.

Mellon EA, Jin WH, Frakes JM, Centeno BA, Strom TJ, Springett GM, Malafa MP, Shridhar R, Hodul PJ, Hoffe SE. Predictors and survival for pathologic tumor response grade in borderline resectable and locally advanced pancreatic cancer treated with induction chemotherapy and neoadjuvant stereotactic body radiotherapy. *Acta Oncol*. 2017 Mar;56(3):391-397. doi: 10.1080/0284186X.2016.1256497. Epub 2016 Nov 25. PubMed PMID: 27885876.

Smith SR, Garvey WT, Greenway FL, Zhou S, Fain R, Pilson R, Fujioka K, Aronne LJ. Coadministration of lorcaserin and phentermine for weight management: A 12-week, randomized, pilot safety study. *Obesity (Silver Spring)*. 2017 May;25(5):857-865. doi: 10.1002/oby.21811. PubMed PMID: 28440045; PubMed Central PMCID: PMC5518190.

Chakravarthy M, Parsons S, Lassman ME, Butterfield K, Lee AY, Chen Y, Previs S, Spond J, Yang S, Bock C, Yi F, Moon J, Wohlers-Kariesch E, Smith SR, Meyer C. Effects of 13-Hour Hyperglucagonemia on Energy Expenditure and Hepatic Glucose Production in Humans. *Diabetes*. 2017 Jan;66(1):36-44. doi: 10.2337/db16-0746. Epub 2016 Oct 7. PubMed PMID: 27999106.

Sparks LM, Redman LM, Conley KE, Harper ME, Yi F, Hodges A, Eroshkin A, Costford SR, Gabriel ME, Shook C, Cornell HH, Ravussin E, Smith SR. Effects of 12 Months of Caloric Restriction on Muscle Mitochondrial Function in Healthy Individuals. *J Clin Endocrinol Metab*. 2017 Jan 1;102(1):111-121. doi: 10.1210/jc.2016-3211. PubMed PMID: 27778643; PubMed Central PMCID: PMC5413108.

Lanfear DE, Gibbs JJ, Li J, She R, Petucci C, Culver JA, Tang WHW, Pinto YM, Williams LK, Sabbah HN, Gardell SJ. Targeted Metabolomic Profiling of Plasma and Survival in Heart Failure Patients. *JACC Heart Fail.* 2017 Nov;5(11):823-832. doi: 10.1016/j.jchf.2017.07.009. PubMed PMID: 29096792; PubMed Central PMCID: PMC5679305.

CANCER REGISTRY DATA

The cancer statistics included in this report are the result of work completed by the Florida Hospital Cancer Registry team, which collects a comprehensive data set for each newly diagnosed cancer patient. This data set includes information about patients’ presenting symptoms, diagnostic workups, clinical and pathologic stages, treatments and lifelong follow-up activities. Data are collected according to Cancer Program Standards established by the American College of Surgeons Commission on Cancer, as well as the Florida Cancer Data Systems (FCDS), the state’s central registry. Data collected are disease-specific and standardized to ensure accurate information that can be compared with national and state outcomes for each type of cancer.

Cancer Cases Diagnosed in 2017

National Comparison of the Select Cancer Sites to FHCI Tri-county Area

Estimated Cancer Cases from the American Cancer Society Cancer Facts & Figures 2017

Breast cancer was the most commonly diagnosed cancer nationally in 2017 and the second-most common in Florida. The most common in Florida was lung cancer. At FHCI, prostate cancer made up 17 percent of cases diagnosed and treated, whereas breast cancer accounted for almost 15 percent.

<u>PRIMARY SITE</u>	<u>FLORIDA HOSPITAL CENTRAL REGION - SOUTH</u>		<u>FLORIDA</u>		<u>NATIONAL</u>	
	<u>CASES</u>	<u>PERCENT</u>	<u>CASES</u>	<u>PERCENT</u>	<u>CASES</u>	<u>PERCENT</u>
BREAST	1,011	14.7%	18,170	14.6%	252,710	15.0%
LUNG	619	9.0%	19,000	15.2%	222,500	13.2%
PROSTATE	1,181	17.2%	12,830	10.3%	161,360	9.6%
COLORECTAL	554	8.1%	9,930	8.0%	135,430	8.0%
BLADDER	185	2.7%	6,430	5.2%	79,030	4.7%

NH LYMPHOMA CORPUS	218	3.2%	5,410	4.3%	72,240	4.3%
UTERI MELANOMA	283	4.1%	4,230	3.4%	61,380	3.6%
LEUKEMIA	144	2.1%	7,610	6.1%	87,110	5.2%
CERVIX	212	3.1%	5,070	4.1%	62,130	3.7%
ALL OTHERS	58	0.8%	1,040	0.8%	12,820	0.8%
<u>TOTAL CASES</u>	<u>6,868</u>	<u>100.0%</u>	<u>124,740</u>	<u>100.0%</u>	<u>1,688,780</u>	<u>100.0%</u>

Tri-county area includes Orange, Osceola and Seminole counties.

Sources: American Cancer Society, Cancer Facts & Figures 2017; FHCI Cancer Registry

FHCI Patients – Race by Ethnicity

RACE	NON-SPANISH		MEXICAN		PUERTO RICAN		CUBAN		SOUTH OR CENTRAL AMERICAN - NOT BRAZIL		OTHER SPANISH		SPANISH, NOT OTHERWISE SPECIFIED; HISPANIC, NOT OTHERWISE SPECIFIED; LATINO, NOT OTHERWISE SPECIFIED		SPANISH SURNAME ONLY		DOMINICAN REPUBLIC		UNKNOWN WHETHER SPANISH OR NOT		ALL OTHERS	TOTAL VALUES		
	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
WHITE	5823	(81.8 %)	44	(0.62 %)	185	(2.6 %)	47	(0.66 %)	42	(0.59 %)	7	(0.1 %)	871	(12.23 %)	14	(0.2 %)	9	(0.13 %)	60	(0.84 %)	17	(0.24 %)	7119	(82.42 %)
BLACK	940	(97.21 %)	1	(0.1 %)	7	(0.72 %)	7	(0.72 %)	0	(0 %)	0	(0 %)	5	(0.52 %)	1	(0.1 %)	1	(0.1 %)	4	(0.41 %)	1	(0.1 %)	967	(11.2 %)
AMERICAN INDIAN, ALEUT, ESKIMO	12	(80 %)	1	(6.67 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	2	(13.33 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	15	(0.17 %)
CHINESE	10	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	10	(0.12 %)
JAPANESE	2	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	2	(0.02 %)
FILIPINO	20	(95.24 %)	0	(0 %)	0	(0 %)	1	(4.76 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	21	(0.24 %)
HAWAIIAN	3	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	3	(0.03 %)

KOREAN	2	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	2	(0.02 %)		
VIETNAMESE	18	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	18	(0.21 %)		
LAOTIAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
HMONG	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
KAMPUCHEAN (CAMBODIAN)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
THAI	3	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	3	(0.03 %)		
ASIAN INDIAN OR PAKISTANI, NOT OTHERWISE SPECIFIED	38	(97.44 %)	0	(0 %)	1	(2.56 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	39	(0.45 %)		
ASIAN INDIAN	9	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	9	(0.1 %)		
PAKISTANI	4	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	4	(0.05 %)		
JMICRONESIAN, NOT OTHERWISE SPECIFIED	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
CHAMORRAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
GUAMANIAN, NOT OTHERWISE SPECIFIED	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
POLYNESIAN, NOT OTHERWISE SPECIFIED	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
SAMOAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
TONGAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
MELANESIAN, NOT OTHERWISE SPECIFIED	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
FUJI ISLANDER	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
NEW GUINEAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
OTHER ASIAN	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)		
PACIFIC ISLANDER, NOT OTHERWISE SPECIFIED	46	(93.88 %)	0	(0 %)	0	(0 %)	2	(4.08 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	1	(2.04 %)	49	(0.57 %)
PACIFIC ISLANDER, NOT OTHERWISE SPECIFIED	3	(100 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	3	(0.03 %)
OTHER	129	(51.39 %)	1	(0.4 %)	12	(4.78 %)	2	(0.8 %)	4	(1.59 %)	1	(0.4 %)	82	(32.67 %)	0	(0 %)	0	(0 %)	19	(7.57 %)	1	(0.4 %)	251	(2.91 %)
UNKNOWN	83	(68.6 %)	0	(0 %)	1	(0.83 %)	1	(0.83 %)	0	(0 %)	1	(0.83 %)	7	(5.79 %)	0	(0 %)	1	(0.83 %)	25	(20.66 %)	2	(1.65 %)	121	(1.4 %)
Any Others	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	0	(0 %)	1	(100 %)	1	(0.01 %)
Overall Totals	7145	(82.73 %)	47	(0.54 %)	206	(2.39 %)	60	(0.69 %)	46	(0.53 %)	9	(0.1 %)	967	(11.2 %)	15	(0.17 %)	11	(0.13 %)	108	(1.25 %)	23	(0.27 %)	8637	(100 %)

NOS stands for not otherwise specified.

Source: FHCI Cancer Registry

FHCI Primary Cancer Site Table

Digestive system cancer was the most frequently diagnosed cancer at FHCI in 2017, with colon cancer representing more than 25 percent of those diagnoses. Digestive system cancer was more prevalent among male patients than female.

Primary Site	Total	Class		Gender		AJCC Stage						
		Analytical	Non-Analytical	Male	Female	0	I	II	III	IV	Unk	N/A
All Sites	8599	6868	1731	4596	4003	419	1614	1280	1153	1313	1657	1163
Oral Cavity	242	208	34	180	62	1	12	14	33	117	53	12
Lip	5	5	0	3	2	0	1	2	0	1	1	0
Tongue	84	70	14	73	11	1	4	6	9	45	19	0
Oropharynx	20	17	3	16	4	0	0	0	3	11	6	0
Hypopharynx	3	1	2	2	1	0	0	0	0	2	1	0
Other	130	115	15	86	44	0	7	6	21	58	26	12
Digestive System	1702	1415	287	1001	701	62	323	291	329	348	311	38
Esophagus	93	75	18	76	17	4	12	13	26	20	17	1
Stomach	130	99	31	86	44	1	21	18	14	34	42	0
Colon	449	380	69	256	193	28	62	76	120	86	77	0
Rectum	217	174	43	128	89	8	50	34	56	25	44	0
Anus/Anal Canal	44	39	5	18	26	3	4	16	12	2	7	0
Liver	208	174	34	144	64	0	36	23	38	39	42	30
Pancreas	390	317	73	215	175	15	112	75	37	113	38	0
Other	171	157	14	78	93	3	26	36	26	29	44	7
Respiratory System	867	695	172	471	396	1	181	63	147	347	121	7
Nasal/Sinus	12	9	3	7	5	0	1	1	0	5	4	1
Larynx	73	58	15	61	12	1	15	6	7	27	17	0
Other	12	9	3	8	4	0	1	0	2	5	2	2
Lung/Bronc-Small Cell	116	97	19	54	62	0	20	6	18	58	14	0
Lung/Bronc-Non Small Cell	582	480	102	310	272	0	136	47	109	225	65	0
Other Bronchus & Lung	72	42	30	31	41	0	8	3	11	27	19	4

Blood & Bone Marrow	646	370	276	369	277	0	2	2	1	4	5	632
Leukemia	339	212	127	191	148	0	2	2	1	4	5	325
Multiple Myeloma	170	105	65	105	65	0	0	0	0	0	0	170
Other	137	53	84	73	64	0	0	0	0	0	0	137
Bone	14	11	3	5	9	0	2	1	0	4	5	2
Connect/Soft Tissue	32	25	7	17	15	0	5	3	2	8	11	3
Skin	255	158	97	141	114	58	48	9	12	21	95	12
Melanoma	234	144	90	125	109	58	47	9	12	18	84	6
Other	21	14	7	16	5	0	1	0	0	3	11	6
Breast	1174	1011	163	9	1165	190	412	272	78	69	152	1
Female Genital	585	494	91	0	585	6	213	38	111	96	113	8
Cervix Uteri	83	58	25	0	83	1	20	8	15	19	20	0
Corpus Uteri	314	283	31	0	314	0	163	19	46	38	46	2
Ovary	138	109	29	0	138	0	16	7	44	33	37	1
Vulva	29	26	3	0	29	4	10	2	2	2	9	0
Other	21	18	3	0	21	1	4	2	4	4	1	5
Male Genital	1516	1216	300	1516	0	1	139	496	322	115	442	1
Prostate	1478	1181	297	1478	0	0	137	491	318	115	417	0
Testis	32	29	3	32	0	0	2	4	4	0	22	0
Other	6	6	0	6	0	1	0	1	0	0	3	1
Urinary System	567	449	118	400	167	100	114	22	53	51	224	3
Bladder	261	185	76	199	62	91	47	16	16	22	69	0
Kidney/Renal	289	247	42	188	101	4	67	4	37	27	148	2
Other	17	17	0	13	4	5	0	2	0	2	7	1

Brain & Cns	265	213	52	123	142	0	0	0	0	0	2	263
Brain (Benign)	16	14	2	8	8	0	0	0	0	0	0	16
Brain (Malignant)	97	83	14	62	35	0	0	0	0	0	1	96
Other	152	116	36	53	99	0	0	0	0	0	1	151
Endocrine	281	240	41	106	175	0	94	11	13	31	68	64
Thyroid	217	193	24	65	152	0	94	11	13	29	67	3
Other	64	47	17	41	23	0	0	0	0	2	1	61
Lymphatic System	328	254	74	195	133	0	66	57	48	97	51	9
Hodgkin's Disease	45	36	9	21	24	0	5	16	6	9	7	2
Non-Hodgkin's	283	218	65	174	109	0	61	41	42	88	44	7
Unknown Primary	100	88	12	52	48	0	0	0	0	0	2	98
Other/III-Defined	25	21	4	11	14	0	3	1	4	5	2	10

Number of cases excluded: 38

This report EXCLUDES CA in-situ cervix cases, squamous and basal cell skin cases, and intraepithelial neoplasia cases.

Source: FHCI Cancer Registry

Accredited by the American College of Surgeons Commission on Cancer

The American College of Surgeons Commission on Cancer (CoC) is a consortium of professional organizations dedicated to improving survival and quality of life of patients with cancer through standard setting, prevention, research, education and the monitoring of comprehensive care. Over 50 leading cancer care organizations, including the American Cancer Society, are partnered with the CoC on patient-centered initiatives. Across the United States, more than 1,500 cancer programs are CoC accredited, with more than 70 percent of patients with cancer in the nation receiving their care at CoC-accredited programs. *Florida Hospital* has been a continually accredited CoC program since 1989, demonstrating an important commitment to providing all patients with access to services they need, from diagnosis through treatment, rehabilitation and survivorship care.

The National Cancer Database (NCDB) collects data from CoC-accredited cancer programs nationwide. The repository allows programs to compare patient characteristics, cancer types, treatment and outcomes with similar programs. The National Quality Forum (NQF) has identified and endorsed quality metrics reported as indicators of quality oncology care. Based on these indicators, the CoC measures cancer program performance with current CoC quality reporting tools – the Cancer Program Practice Profile Reports (CP³R). By comparing adherence to and consideration of standards of care for specific tumor site populations at quarterly Comprehensive Cancer Committee meetings, quality improvement opportunities that aid in diminishing disparities in care are initiated. No patient identifiers are collected in order to generate the CP³R.

Data are collected for breast, colon, rectum, gastric, lung, cervix, ovary, endometrium, kidney and bladder cases. To date, thresholds of compliance with providing or considering specific indicators are in place for breast, colon, rectum, gastric and lung primary tumor sites. The summary report released by the NCDB provides a performance report for *Florida Hospital* compared with national and Florida state results, as well as those of cancer programs in the same CoC category as *Florida Hospital* – Academic Comprehensive Cancer Programs (ACAD). This data is reviewed at quarterly Comprehensive Cancer Committee meetings at *Florida Hospital Cancer Institute*. More information on the CP³R process and CoC accreditation is available at <http://www.facs.org>.

FHCI CANCER PROGRAM PRACTICE PROFILE REPORTS

Performance Rates

			2015 Performance Rates - Percentages			
Site	Measure	CoC Benchmark Compliance Percentage Rate	National	Florida	Same Type CoC Program (Academic Comprehensive Cancer Program)	Florida Hospital Cancer Institute

Bladder	BL2RLN - At least 2 lymph nodes are removed in patients under 80 undergoing partial or radical cystectomy (Surveillance)	Not Applicable	92.9	92.2	95	100
Bladder	BLCSTRI - Radical or partial cystectomy; or tri-modality therapy (local tumor destruction/excision with chemotherapy and radiation) for clinical T2,3,4 N0 M0 patients with urothelial carcinoma of the bladder, first treatment within 90 days of diagnosis (Surveillance)	Not Applicable	59.9	47.5	66.3	45.5

Bladder	BLCT - Neo-adjuvant or adjuvant chemotherapy recommended or administered for patients with muscle invasive cancer undergoing radical cystectomy (Surveillance)	Not Applicable	67	67.1	68	50
Breast	BCS - Breast conservation surgery rate for women with AJCC clinical stage 0, I, or II breast cancer (Surveillance)	Not Applicable	64.6	62.8	63.2	61.6
Breast	nBx - Image or palpation-guided needle biopsy (core or FNA) of the primary site is performed to establish diagnosis of breast cancer (Quality Improvement)	80	92.7	89.2	93.1	83.5

Breast	HT - Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1c or stage IB-III hormone receptor positive breast cancer (Accountability)	90	93.8	90.2	93.9	90.2
Breast	MASTRT - Radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with ≥ 4 positive regional lymph nodes (Accountability)	90	90.9	86.5	91.7	96.6

Breast	BCSRT - Radiation is administered within 1 year (365 days) of diagnosis for women under the age of 70 receiving breast conservation surgery for breast cancer (Accountability)	90	91.1	86.7	91.8	96.6
Breast	MAC - Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0, or stage IB - III hormone receptor negative breast cancer (Accountability)	Not Applicable	92.9	89.7	92.2	85.9

Colon	ACT - Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC stage III (lymph node positive) colon cancer (Accountability)	Not Applicable	90.1	82.2	89.6	75.6
Colon	12RLN - At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer (Quality Improvement)	85	91.4	90.1	93.2	93.5

Rectum	<p>RECRTCT - Preoperative chemo and radiation are administered for clinical AJCC T3N0, T4N0, or Stage III; or Postoperative chemo and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2N0 with pathologic AJCC T3N0, T4N0, or Stage III; or treatment is considered; for patients under the age of 80 receiving resection for rectal cancer (Quality Improvement)</p>	85	89.3	87.4	89.3	94.1
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Gastric	G15RLN - At least 15 regional lymph nodes are removed and pathologically examined for resected gastric cancer (Quality Improvement)	80%	58.3	53.1	65.9	75
Kidney	PD1RLN - At least 1 regional lymph node is removed and pathologically examined for primary resected unilateral nephroblastoma (Surveillance)	Not Applicable	94.8	no data	92.2	no data
Lung	10RLN - At least 10 regional lymph nodes are removed and pathologically examined for AJCC stage IA, IB, IIA, and IIB resected NSCLC (Surveillance)	Not Applicable	42.8	38.7	47.4	50

Lung	LNoSurg - Surgery is not the first course of treatment for cN2, M0 lung cases (Quality Improvement)	85%	93	91.9	92.4	97.5
Lung	LCT - Systemic chemotherapy is administered within 4 months to day preoperatively or day of surgery to 6 months postoperatively, or it is considered for surgically resected cases with pathologic lymph node-positive (pN1) and (pN2) NSCLC (Quality Improvement)	85%	93.3	92.8	92.5	95.8

Cervix	CERRT - Radiation therapy completed within 60 days of initiation of radiation among women diagnosed with any stage of cervical cancer (Surveillance)	Not Applicable	78.6	82.8	79.9	90.9
Cervix	CERCT - Chemotherapy administered to cervical cancer patients who received radiation for stages IB2-IV cancer (Group 1) or with positive pelvic nodes, positive surgical margin, and/or positive parametrium (Group 2) (Surveillance)	Not Applicable	89	92.8	89.7	95.2

Cervix	CBRRT - Use of brachytherapy in patients treated with primary radiation with curative intent in any stage of cervical cancer (Surveillance)	Not Applicable	74.5	75.9	79.2	93.8
Endometrium	ENDCTRT - Chemotherapy and/or radiation administered to patients with Stage IIIC or IV Endometrial cancer (Surveillance)	Not Applicable	83.4	77.3	87.2	91.4
Endometrium	ENDLRC - Endoscopic, laparoscopic, or robotic performed for all Endometrial cancer (excluding sarcoma and lymphoma), for all stages except stage IV (Surveillance)	Not Applicable	75.3	80.5	73.6	71.6

Ovary	OVSAL - Salpingo-oophorectomy with omentectomy, debulking/cytoreductive surgery, or pelvic exenteration in Stages I-IIIC Ovarian cancer (Surveillance)	Not Applicable	72.2	72.7	72.3	70
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As of February, 2018

Source: National Cancer Data Base

CENTER FOR INTERVENTIONAL ENDOSCOPY

Robert Hawes, MD

Medical Director

Institute for Minimally Invasive Therapy

Shyam Varadarajulu, MD

Medical Director

Center for Interventional Endoscopy

Ji Young Bang, MD

Medical Director

Center for Interventional Endoscopy – Research

Udayakumar Navaneethan, MD

Since the founding of the Center for Interventional Endoscopy (CIE) in 2012, significant progress has been made in fulfilling its core mission: to provide high-quality clinical care, conduct cutting-edge clinical research, and train the next generation of endoscopists. In 2017, CIE retained its status as the largest-volume endoscopic ultrasound (EUS) unit in North America and is the fourth-largest program globally. Endoscopic Retrograde Cholangiopancreatography (ERCP) volume exceeded 1,638, and more than 600 endoscopic mucosal resection procedures were performed.

CIE's research portfolio remains robustly vibrant, with eight randomized trials and six prospective clinical studies evaluating cutting-edge endoscopic interventions or novel technology. Faculty published 19 peer-reviewed manuscripts, with four abstracts selected for podium presentations at the Digestive Diseases Week and the Pancreas Club Annual Meeting. The team published research findings in high-impact journals, such as the *Annals of Surgery* and *GUT*, and was recognized with awards at the United European Gastroenterology Week, Vienna, and the Pancreas Club Annual Meeting.

In its seventh year, CIE has moved into the next phase of its mission: initiation of novel procedural services, evaluation of new techniques in clinical trials, and integration of digital technology in endoscopic education. The third space endoscopy program was launched with the performance of per-oral endoscopic myotomy (POEM) procedures.

2017 Highlights

- Doctors from CIE gave nine scientific presentations at five national and international conferences.
- Orlando Live Endoscopy was the single largest symposium, with 233 delegates from 24 countries attending, and 10 experts from nine countries performing 42 procedures.
- 90 percent abstract-to-manuscript conversion rate for publication in high-impact peer-reviewed clinical journals.
- Six studies were honored and awarded at four national and international conferences.

Publications

Bang JY, Hasan M, Navaneethan U, Hawes R, Varadarajulu S. Lumen-apposing metal stents (LAMS) for pancreatic fluid collection (PFC) drainage: may not be business as usual. *Gut*. 2017 Dec;66(12):2054-2056. doi: 10.1136/gutjnl-2016-312812. Epub 2016 Aug 31. PubMed PMID: 27582509; PubMed Central PMCID: PMC5749339.

Bang JY, Hasan MK, Navaneethan U, Sutton B, Frandah W, Siddique S, Hawes RH, Varadarajulu S. Lumen-apposing metal stents for drainage of pancreatic fluid collections: When and for whom? *Dig Endosc.* 2017 Jan;29(1):83-90. doi: 10.1111/den.12681. Epub 2016 Jun 15. PubMed PMID: 27199157.

Bang JY, Hebert-Magee S, Hasan MK, Navaneethan U, Hawes R, Varadarajulu S. Endoscopic ultrasonography-guided biopsy using a Franseen needle design: Initial assessment. *Dig Endosc.* 2017 May;29(3):338-346. doi: 10.1111/den.12769. Epub 2016 Dec 20. PubMed PMID: 27878861.

Bhatia V, Varadarajulu S. Endoscopic ultrasonography-guided tissue acquisition: How to achieve excellence. *Dig Endosc.* 2017 May;29(4):417-430. doi:10.1111/den.12823. Epub 2017 Mar 22. Review. PubMed PMID: 28140485.

Feng Y, Navaneethan U, Zhu X, Varadarajulu S, Schwartz I, Hawes R, Hasan M, Yang A. Prophylactic rectal indomethacin may be ineffective for preventing post-endoscopic retrograde cholangiopancreatography pancreatitis in general patients: A meta-analysis. *Dig Endosc.* 2017 May;29(3):272-280. doi: 10.1111/den.12779. Epub 2017 Jan 3. Review. PubMed PMID: 27914176.

Navaneethan U, Edminister T, Zhu X, Kommaraju K, Glover S. Vedolizumab Is Safe and Effective in Elderly Patients with Inflammatory Bowel Disease. *Inflamm Bowel Dis.* 2017 Apr;23(4):E17. doi: 10.1097/MIB.0000000000001071. PubMed PMID: 28296827.

ASGE Technology Committee, Maple JT, Pannala R, Abu Dayyeh BK, Aslanian HR, Enestvedt BK, Goodman A, Komanduri S, Manfredi M, Navaneethan U, Parsi MA, Smith ZL, Thosani N, Sullivan SA, Banerjee S. Interventional EUS (with videos). *Gastrointest Endosc.* 2017 Mar;85(3):465-481. doi: 10.1016/j.gie.2016.11.021. Epub 2017 Jan 20. Review. PubMed PMID: 28117034.

Njei B, McCarty TR, Varadarajulu S, Navaneethan U. Cost utility of ERCP-based modalities for the diagnosis of cholangiocarcinoma in primary sclerosing cholangitis. *Gastrointest Endosc.* 2017 Apr;85(4):773-781.e10. doi: 10.1016/j.gie.2016.08.020. Epub 2016 Aug 30. PubMed PMID: 27590963.

Navaneethan U, Lourdasamy D, Gutierrez NG, Zhu X, Vargo JJ, Parsi MA. New approach to decrease post-ERCP adverse events in patients with primary sclerosing cholangitis. *Endosc Int Open.* 2017 Aug;5(8):E710-E717. doi: 10.1055/s-0043-102398. Epub 2017 Aug 7. PubMed PMID: 28791317; PubMed Central PMCID: PMC5546902.

Navaneethan U, Njei B, Zhu X, Kommaraju K, Parsi MA, Varadarajulu S. Safety of ERCP in patients with liver cirrhosis: a national database study. *Endosc Int Open.* 2017 Apr;5(4):E303-E314. doi: 10.1055/s-0043-102492. PubMed PMID: 28393104; PubMed Central PMCID: PMC5383432.

Patient Referral Statistics

Patients are referred to CIE for expert care from across the United States and internationally. In 2017, patients were referred from 30 states, two U.S. territories and six countries. More than 50 percent of patients treated at CIE originated from outside the Orlando tri-county area.

- Total Number of Procedures: 8,288
- 6,797 Florida Patients
 - 2,555 Patients from Orlando Tri-County
 - 4,242 Patients from outside Orlando Tri-County
- 109 patients from outside of Florida (from 30 States)
- Two patients from U.S. territories (Puerto Rico and Virgin Islands)
- 13 international patients
 - Brazil, England, Spain, Venezuela, India, Canada

ONCOLOGY CLINICAL PERFORMANCE IMPROVEMENT

Meiling Wu, MSN, RN, BSN, MSN

Project Manager

Clinical Performance Improvement

Florida Hospital Cancer Institute

Westley Sheng

Clinical Quality Improvement Coordinator

Clinical Performance Improvement

Florida Hospital Cancer Institute

Poster Presentations

Hwang C, Wu M; “Impact of Subspecialization on the Use of Hypofractionated Whole Breast Radiation for the Treatment of Early Stage Breast Cancer”; 27th Annual Interdisciplinary Breast Cancer Conference, Las Vegas; March 11-15, 2017.

Barr L, Burner HM, Wu M; “A Method to Integrate an Institutional Database with Multiple Practice EHRs”; ASCO Quality Symposium Conference, Orlando; February 2017.

CONTINUING MEDICAL EDUCATION

Tumor Boards

A total of 2,863 cases were presented at 393 Tumor Boards in 2017, and 99.5 percent of those presented were prospective. Most Tumor Boards (354) were available through video conference at multiple satellite locations. All tumor boards are available for video conference upon request.

Journal Clubs

Two Head and Neck Journal Club programs, with co-moderators Henry Ho, MD; and Lee Zehngebot, MD; were held on March 30 and Aug. 31. Two Urology Journal Club programs, with co-moderators Vipul Patel, MD; Jeffrey Brady, MD; and Inoel Rivera MD; were held on April 20 and Nov. 9.

Best of American Society of Clinical Oncology (ASCO®) Annual Meeting

The FHCI’s Best of ASCO® 2017 Annual Meeting is a two-day program licensed by the American Society of Clinical Oncology.

Program directors: Tarek Mekhail, MD; Louis H. Barr, MD; and Matthew Biagioli, MD. Invited faculty speakers: David J. Adelstein, MD, Cleveland Clinic; Rachid Baz, MD, H. Lee Moffit Cancer Center; G. Thomas Budd, MD, Cleveland Clinic; Steven M. Horwitz, MD, Memorial Sloan Kettering Cancer Center; Thomas Hutson, DO, Charles A. Sammons Cancer Center; John M. Kirkwood, MD, University of Pittsburgh Cancer Institute; Nancy Lee, MD, Memorial Sloan-Kettering Cancer Center; John L. Marshall, MD, Georgetown University Medical Center; Derek Raghavan, MD, Levine Cancer Institute; and Ayalew Tefferi, MD, Mayo Clinic College of Medicine. Faculty speakers from FHCI: Bruce H. Haughey, MBChB; Herbert B. Newton, MD, and Mark Socinski, MD. Held at Hyatt Regency Grand Cypress, Orlando, June 24-25, 2017.

Oncology Grand Series – Werner Auditorium at Florida Hospital

August: “Management of Metastatic Disease to the Liver from Colon Cancer” with moderator J. Pablo Arnoletti, MD, and guest speaker Timothy Pawlik, MD, Ohio State University Wexner Medical Center. Speaker panel: Timothy Pawlik, MD; Sebastian de la Fuente, MD; Ahmed Zakari, MD; John Monson, MD and Timothy Pawlik, MD.

October: “The Role of Stem Cell Transplantation in Multiple Myeloma” with moderator Tarek Mekhail, MD, and speaker Steven Goldstein, MD.

ONCOLOGY NURSING

2017 Highlights

- FHCI oncology patients were cared for by 42 oncology-certified nurses (adult-patient care), three certified pediatric oncology nurses, and 16 certified pediatric nurses.
- Eighty-four nurses were certified through the FHCI Chemotherapy Workshops for Oncology Nurses.
- In 2017, 306 nurses were re-certified through 90-minute FHCI Chemo Blitz sessions held 26 times at seven Florida Hospital locations.
- FHCI’s Oncology Nursing Conference was attended by 135 nurses.
- The National Pediatric Chemotherapy and Biotherapy Provider Course was completed by 23 nurses.

Oncology Inpatient Discharges by Campus

Campus	Oncology Inpatient Discharge
Florida Hospital Orlando	3,876
Florida Hospital Altamonte	966
Florida Hospital Apopka	19
Florida Hospital East Orlando	389
Florida Hospital Winter Park	454

Florida Hospital Kissimmee	256
Florida Hospital Celebration	1,642
Total	7,602

Source: Florida Hospital Research

PATIENT SUPPORT AND COMMUNITY OUTREACH

Cancer Resource Libraries

A team of 25 to 35 volunteers staff the FHCI Cancer Resource Libraries, providing patients, health care professionals and the community access to more than 400 pamphlets, books and DVDs about cancer and its treatment, side-effect management, support and coping, self-esteem and prevention. The libraries also feature CancerHelp interactive computers with touch-screen navigation for easy access to the latest information from the National Cancer Institute. Educational resources have been expanded to include an online library containing teaching videos for chemotherapy, radiation and surgical patients. The community has access to these resources as well. The library also provides educational materials in support of community events.

Head and Neck Cancer Awareness Week

In April, the Head and Neck Program again participated in the national Head and Neck Cancer Awareness Week to raise awareness and offer risk assessments.

COMMUNITY PARTNERSHIPS AND EVENTS

FHCI supported and participated in several community health events through key partnerships:

- American Cancer Society
 - Relay for Life (Central Florida Market)

American Lung Association

- Cars for the Cure
- Fight for Air Climb
- Lung Force Expo Orlando
- Lung Force Run/Walk

Colon Cancer Coalition

- Get Your Rear in Gear 5K

Leukemia & Lymphoma Society

- Man of the Year
- Light the Night

Pancreatic Cancer Action Network (PANCAN)

- PurpleStride Pancreatic Cancer Awareness 5K

Melissa Vosburg Foundation

- Melissa's Race to Battle Brain Cancer

Ongoing Events

- Bone Marrow Transplant Reunion
- City of Orlando Wellness Expo
- Colorectal Cancer Awareness Month – Employee Events
- Corporate and Employee Health Fairs
- Florida Hospital Pink Out Campaign
- Florida Hospital Pink on Parade 5K

PHILANTHROPY

Generosity Heals

About Florida Hospital Foundation

Florida Hospital is a tax-exempt, community-benefit organization, providing exceptional health care. We create excellence through partnerships with thousands of people who give in different ways. Generosity has been part of our legacy since Florida Hospital was founded in 1908. Join us as we continue to dedicate ourselves to the great purpose of providing hope and healing for people in our community and beyond. We invite you to experience how Generosity Heals.

Community support helps strengthen oncology services at Florida Hospital and ultimately supports our mission to extend the healing ministry of Christ. In 2017, more than \$2 million was raised to support cancer care through Florida Hospital Foundation. These gifts were used to develop clinical and translational research initiatives and comprehensive oncology programs, as well as to help uninsured and underserved patients.

Through the support of generous donors and community partners, our Integrative and Creative Arts Therapies Program now has an innovative space on the Orlando campus to support monthly creative art support groups as well as complimentary individual sessions for oncology patients. Our creative arts therapists use live music and art media during the therapy process, improving a cancer patient's overall quality of life and wellbeing – physiologically, emotionally, neurologically and spiritually. This program and build out of this new space were fully funded through philanthropy in 2017.

Community contributions also helped purchase new radiation therapy equipment to support brachytherapy services. Over 3,000 cancer patients received vital financial assistance, and an additional 2,660 women received scholarships for screening mammograms and further diagnostic testing to detect breast cancer. Other generous contributions allowed us to conduct clinical and translational cancer research, offer support through our Cancer Resource Libraries, and facilitate image recovery through our Eden Spas.

2017 Funding Sources

Major Gifts	\$1,435,638.24
1908 Society	\$193,491.76
Annual Fund	\$178,450.70
Events	\$107,470.05
Grants	\$94,319.72

Total	\$2,009,370.47
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Source: Florida Hospital Foundation

Fundraising Trend for FHCI: 2007-2017

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
\$1,796,272	\$1,608,022	\$2,075,368	\$1,503,610	\$3,275,435	\$1,575,159	\$2,343,494	\$2,393,727	\$4,501,487	\$1,516,245	\$2,009,370

Source: Florida Hospital Foundation

Thank you to our generous donors!

Recognized for cumulative giving in 2017

PHILANTHROPIST

Gifts of \$1,000,000+

Dr. and Mrs. Ben and Margaret Guedes
Kids Beating Cancer, Inc.

HUMANITARIAN

Gifts of \$500,000 - \$999,999

Runway to Hope and The NeJame Family

VISIONARY

Gifts of \$250,000 - \$499,999

The Estate of Homer Allen

CENTURION

Gifts of \$100,000 - \$249,999

DS Services of America, Inc.

LEADER

Gifts of \$50,000 - \$99,999

Delta Delta Delta Alumni Association
Fraternal Order of Eagles, Grand Aerie
Just In Queso Foundation

INVESTOR

Gifts of \$25,000 - \$49,999

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David and Gena Collis
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Florida State Auxiliary, Inc. Fraternal Order of Eagles
Market Traders Institute, Inc.
Melissa Vosburg, Inc.
Peter and Linnae Williams

BENEFACTOR

Gifts of \$10,000 - \$24,999

The 4R Foundation, Inc.
4R Restaurant Group, LLC
Absolute Thinking, Inc.
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Dr. Analia Castiglioni
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The Susan G. Komen Breast Cancer Foundation, Inc.
Benjamin E. and Mary L. Ramsey
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Track Shack of Orlando

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Gifts of \$1,000 - \$9,999

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Peter and Rebecca DeRosa
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John O'Hey
One Blood
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Symantec Corp.
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UCF Athletic Ticket Office
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Westgate Resorts Foundation, Inc.
Dr. Jennie Yoon and Mr. Larry Buchanan
Jazlyn Zombo

Your Legacy

As a donor and friend supporting Florida Hospital, you're making an investment in the future of cancer care. Financial contributions directly impact the lives of those battling cancer and assist our expert clinical team by providing necessary cutting-edge technology and personalized care to enhance our clinical outcomes, reduce the cost of health care and lead to more cancer cures. These outcomes are integral on our journey towards becoming a National Cancer Institute designated cancer center.

We hope you will consider a contribution and leave a legacy of hope and healing through Florida Hospital. For more information about ways to give, contact Florida Hospital Foundation at (407) 303-2784 or via email to FoundationInfo@FLHosp.org.

2017 LEADERSHIP

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Dr. Joseph Ma, Pathology and Neuropathology
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