

# 2015

## ANNUAL OUTCOMES



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The Florida Hospital Cancer Institute (FHCI) is proud to present our 2015 Annual Report, including 2014 activities and Cancer Registry data.

## Vision Statement

National recognition as a Cancer Institute that provides patients access to value-based, personalized care through highly specialized, comprehensive, and innovative destination programs.

## Florida Hospital Cancer Institute Facts

- The preferred leader in cancer care in Florida, discharging more cancer patients than any other health care system in the Central Florida region\*
- More than 1,000 patients enrolled onto clinical trials annually
- Research affiliations with the National Cancer Institute (NCI), Children’s Oncology Group, Sarah Cannon Research Institute, Sanford–Burnham Medical Research Institute and University of Central Florida (UCF) College of Medicine
- Accredited as an Academic Comprehensive Cancer Program by the American College of Surgeons Commission on Cancer
- One of the most experienced radiation oncology programs in Florida, treating more than 3,000 patients annually and accredited by the American College of Radiology (ACR) for quality
- Performing more than 140 adult bone marrow transplants annually, and accredited by the Foundation for Accreditation of Cellular Therapy (FACT) for quality
- The world leader in robotic prostatectomy, utilizing Central Florida’s first da Vinci® Surgical System
- More than 10,000 cancer surgeries performed annually
- Certified by the American Society of Clinical Oncology’s (ASCO) Quality Oncology Practice Initiative for quality in medical oncology
- Accredited by the National Accreditation Program for Breast Centers (NAPBC) for excellence in breast cancer care



# Dear Colleagues and Community Members:

In 2014, the team at Florida Hospital Cancer Institute (FHCI) made significant contributions to the advancement of cancer treatment and research, while remaining laser focused on providing the highest quality care to the patients that entrusted us with their health. Our dedication earned Florida Hospital national recognition throughout 2014. The results of our work are included in this report, which I'm pleased to share with you.

***Below are some of FHCI's accomplishments for 2014:***

- Mammography centers at Florida Hospital campuses screened 55,826 women, and our Mobile Mammography bus team screened an additional 3,301 patients, which represents an increase of more than 9 percent in all screenings.
- We added a Cancer Rehab program to facilitate patient healing and provide after care that is closely aligned to our patients' oncology treatments.
- Our Thoracic Oncology program acquired the superDimension Electromagnetic Navigational Bronchoscopy system, while our Urologic Oncology program added three da Vinci Xi surgical robots with two dual teaching consoles, and also conducted the first trials of da Vinci vessel sealer and stapler.
- FHCI dedicated the renovated Multidisciplinary Cancer Center at Winter Park Memorial Hospital.

I am grateful to our partners, supporters and donors who have made this all possible. Everyone on the FHCI team looks forward to working together in the upcoming years to advance the study and treatment of cancer even further. Thank you for your continued support, and please contact me if you wish to discuss any of our 2014 outcomes or upcoming initiatives.

Warmly,

**Tarek Mekhail, MD**  
Acting Executive Director  
Florida Hospital Cancer Institute



# Bone Marrow Transplant



## Shahram Mori, MD

Medical Director, Bone Marrow Transplant Program  
Florida Hospital Cancer Institute

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

- Autologous transplants (a patient's own marrow or stem cells are used)
- Allogeneic transplants (a donor provides the blood marrow or peripheral blood stem cells)
- Pre-transplantation evaluations
- Peripheral blood stem cell collections/apheresis
- Bone marrow collections
- Post-transplant care, including graft vs. host disease (GvHD) evaluation/management
- ECP treatment (Extracorporeal Photopheresis, used for skin GvHD and cutaneous T-cell lymphoma)
- Cord blood transplants

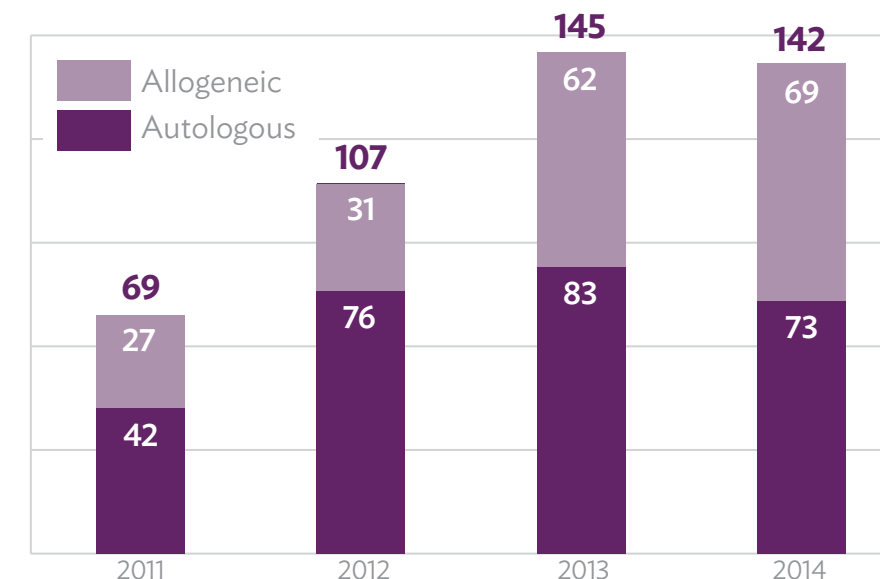
The program is accredited by the Foundation for the Accreditation of Cellular Therapy (FACT) and the National Marrow Donor Program (NMDP), and participates in Cancer and Leukemia Group B (CALGB).

### 2014 Highlights

- Performed 142 transplants — ranking second-highest in number of procedures conducted in Florida
- Now holds every center of excellence designation available for bone marrow transplant
- Added Shahram Mori; MD, PhD and Rushang Patel; MD, PhD; to the existing Bone Marrow Transplant team

## Bone Marrow Transplant Procedures

2011-2014



Source: FHCI Bone Marrow Transplant Program

## One-Year Survival after Allogeneic Transplantation

For patients who had their FIRST ALLOGENEIC transplant (cells from a related or unrelated donor/cord blood) during 2010, 2011 and 2012, the actual one-year survival of these patients is 70.9%.

Source: FHCI Bone Marrow Transplant Program







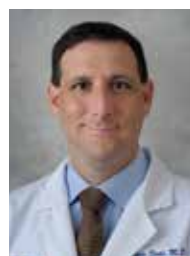
# Brain and Spine Oncology



## Sajeel Chowdhary, MD

Co-Medical Director, Brain/Spine Tumor Program  
Florida Hospital Cancer Institute

Associate Professor of Neuro-Oncology/Neurology  
University of Central Florida College of Medicine



## Melvin Field, MD

Co-Medical Director, Brain/Spine Tumor Program  
Florida Hospital Cancer Institute

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 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.

## 2014 Highlights

- Installation of Laser Interstitial Thermal Therapy in the Ginsburg InnovatOR Suite
- Ranked above 90 percent in patient satisfaction as rated by Press Ganey
- Mentored medical students and undergraduate pre-medical students from the University of Central Florida, University of South Florida and University of Florida

## Publications and Submissions

LoGalbo A., Salinas C.M., Dougherty M.,  
**Field M.**

“Developing an Interdisciplinary Community-Based Sports Concussion Management Program” in Concussion – Prog Neurol Surg.; Niranjana A, Lunsford LD (eds); Karger; Basel, CH; vol 28, p1-11; 2014.

Ryken, Timothy, **Chowdhary S.**, Newton, Herbert B. AB2014.28.

“Guidelines on the Use of Polymeric Chemotherapy in the Management of Glioblastoma: Meta-Analysis of Survival Outcomes and Safety”; NCCN Guidelines Journal and meeting abstract presentation; April 2014.

Ryken, Timothy, **Chowdhary S.**, Newton, Herbert B. AB2014.28.

“Guidelines on the Use of Polymeric Chemotherapy in the Management of Glioblastoma: Meta-Analysis of Survival Outcomes and Safety”; American Academy of Neurosurgery (AANS) abstract and poster presentation; San Francisco, CA; April 2014.

## Lectures

### February

**Dr. Melvin Field** (invited speaker); “Expanding Role of Endoscopy in Posterior Fossa Surgery – History, benefits and indications”; 24th Annual North American Skull Base Society Meeting; San Diego, CA.

**Dr. Melvin Field** (moderator); “Role of Endoscopy in the Posterior Fossa Cranial Base Surgery”; 24th Annual North American Skull Base Society Meeting; San Diego, CA.

### March

**Dr. Melvin Field** (invited speaker); “The Expanded Endonasal Approach for Tumors of the Parasellar Region”; Advances in the Management of Patients with Pituitary Tumors Meeting; Winter Park, FL.

**Dr. Sajeel Chowdhary**; “Glioblastoma Management and the Role of NovoTTF 100A System”; Christner’s Round Table Discussion and Lecture with Dr. Manmeet Ahluwalia, MD (Cleveland Clinic Foundation); Orlando, FL.

### April

Dr. Sajeel Chowdhary; Caris Lifesciences Individualized Oncology; Lecture and Advisory Board; Scottsdale, AZ.

Dr. Sajeel Chowdhary; “Glioblastoma Management and the Role of NovoTTF System: Round Table Oncology Rounds”; Nashville, TN.

### May

**Dr. Sajeel Chowdhary**; Glioblastoma Management Meeting, Christner’s Round Table Discussion; Orlando, FL.

**Dr. Sajeel Chowdhary**; Glioblastoma Presentation, Round Table Discussion and Research; ASCO 2014, McCormick Convention Center, Chicago, IL.

### July

**Dr. Melvin Field** (invited speaker and guest faculty); “Clinical Anatomy and Endoscopic Neurosurgical Approaches to the Skull Base”; 31st Annual Meeting of the American Association of Clinical Anatomists; Orlando, FL.

### October

**Dr. Sajeel Chowdhary**; “Glioblastoma Management and NovoTTF 100A System”; Tampa, FL.

### December

**Dr. Sajeel Chowdhary**; Tumor Genomics; Caris Life Sciences, Tampa, FL.

## Clinical Trials

The Use of Armodafinil (Nuvigil®) to Reduce Cancer-related Fatigue in Patients with Glioblastoma Multiforme: A Randomized, Novel Adaptive Design Study.

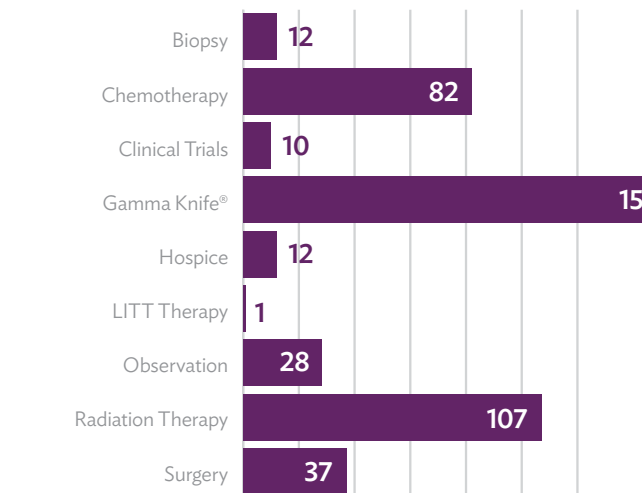
Phase I/Comparative Randomized Phase II Trial of TRC105 plus Bevacizumab versus Bevacizumab in Bevacizumab-naïve Patients with Recurrent Glioblastoma Multiforme.

Natural History of Postoperative Cognitive Function, Quality Of Life and Seizure Control in Patients with Supratentorial Low-risk Grade II Glioma.

Phase I/II Study of the Combination of BKM120 and Bevacizumab in Patients with Refractory Solid Tumors: (Phase I) and Relapsed/Refractory Glioblastoma Multiforme (Phase II).

Southeast Regional Study of Adult Brain Tumors.

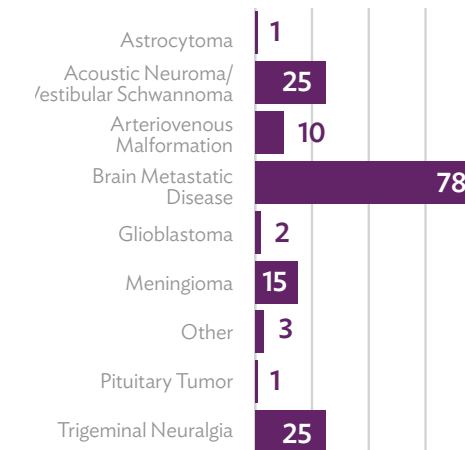
## 2014 Tumor Board Recommendations



Source: FHCI Brain/Spine Tumor Boards

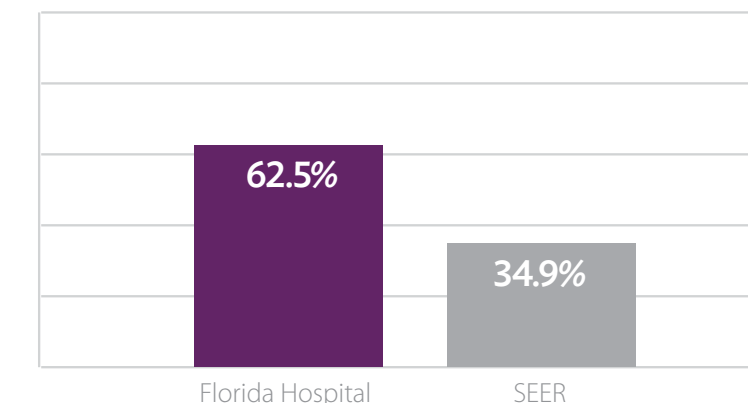
## 2014 Gamma Knife® Cases

Tumor and Diagnosis Types



Source: FHCI Tumor Board Case Presentations & Cerner Pathology Reports

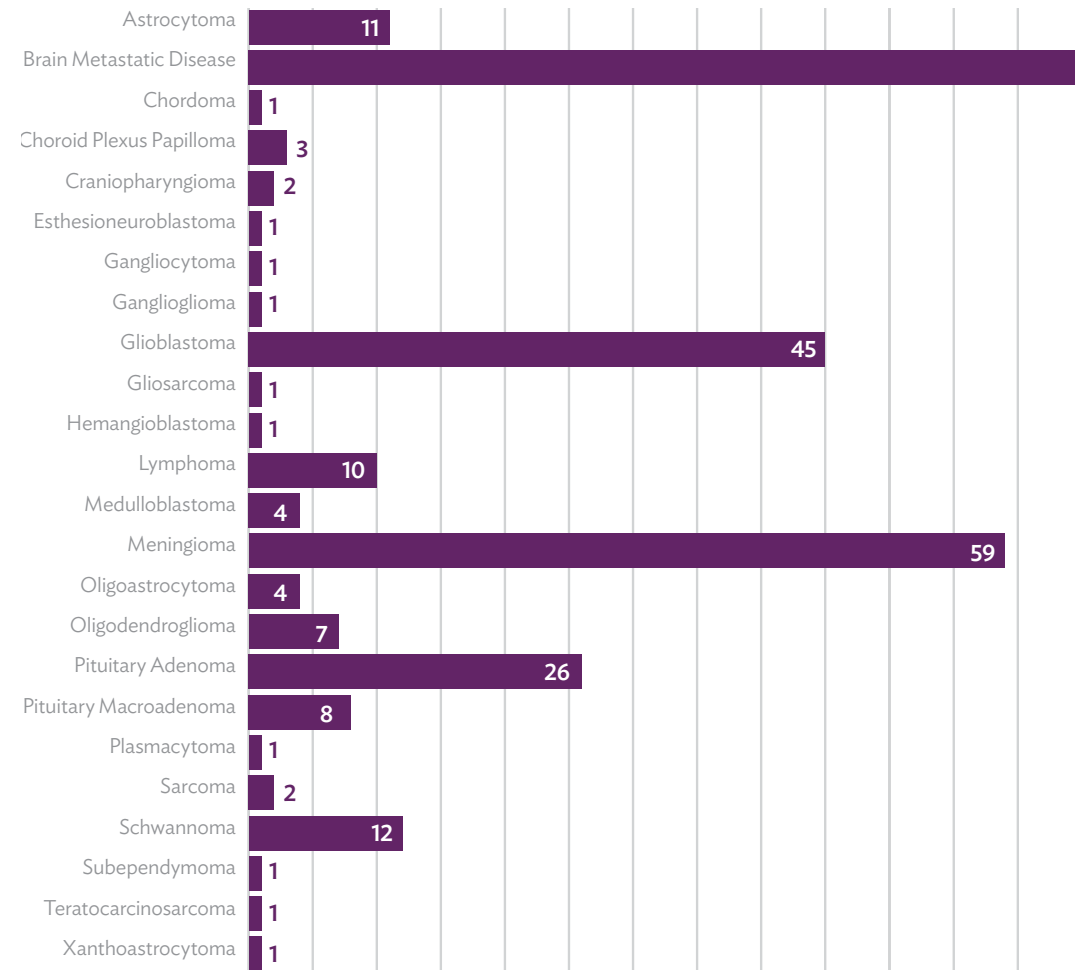
## Brain and Spine Cancer Cases Five-year Survival Cases Diagnosed 2005 – 2011



FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention).  
Source: FHCI Cancer Registry; www.SEER.gov

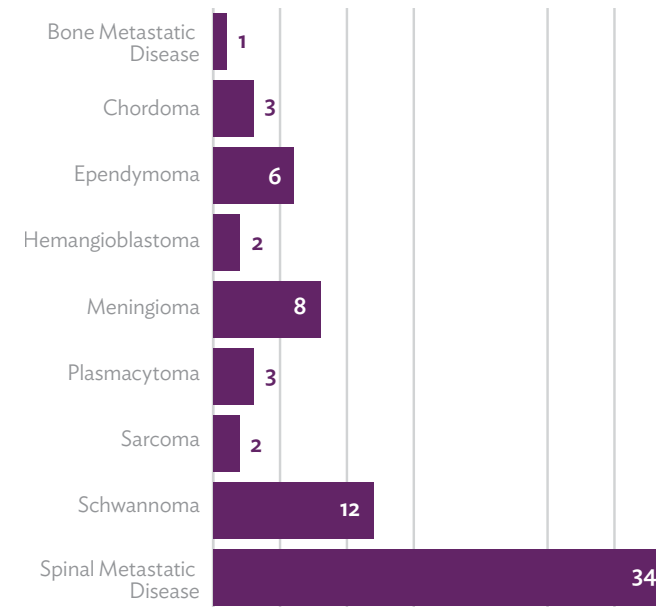


## 2014 Brain Tumor Cases



Source: FHCI Cerner Pathology Reports

## 2014 Spine Tumor Cases



Source: FHCI Cerner Pathology Reports



**Louis Barr, MD**  
 Medical Director  
 Breast Cancer Program  
 Florida Hospital Cancer Institute

As a leader in breast cancer treatment, FHCI employs a wide range of therapies to treat breast cancer, 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 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 mobile screenings and screenings to underserved women.

### 2014 Highlights

- Mammography centers at Florida Hospital campuses screened 55,826 women.
- The Mobile Mammography bus team screened an additional 3,301 patients.
- A focus on underserved, minority women resulted in 3,567 screenings, 483 procedures and 210 cancers detected. Funding was provided by the Komen Foundation, Florida Hospital Breast Care Fund and Winter Park Health Foundation.
- Survivorship care plans were initiated through the Breast Program Leadership Committee.
- Breast Cancer Care Coordinators assisted 353 newly diagnosed patients and referred 924 patients to the breast cancer care team.
- Breast cancer survivors and volunteer recruits enlisted in the Pink Army to spread breast cancer awareness and encourage screening mammograms.

### Publications and Presentations

#### January

Chiu J, Zhu X., Griffith E., Encarnacion T., Litherland S., **Barr L.**; "Comparison of Radioactive Seed and Wire Localization of Nonpalpable Breast Cancer Tumors for Surgical Excision"; poster presentation; Florida Hospital Research Forum; Orlando, FL.

#### February

Chiu J, Zhu X., Griffith E., Encarnacion T., Litherland S., **Barr L.**; "Radioactive Seed Localization of Nonpalpable Breast Lesions in an Academic Comprehensive Cancer Program Community Hospital Setting"; Southeastern Surgical Congress; Savannah, GA.

#### July

Laronga C, Gray JE, Siegel EM, Lee JH, Fulp WJ, Fletcher M, Schreiber F, Brown R, Levine R, Cartwright T, Abesada-Terk G Jr, Kim G, Alemany C, Faig D, Sharp P, Markham MJ, Shibata D, Malafa M, Jacobsen PB, "Florida Initiative for Quality Cancer Care: improvements in breast cancer quality indicators during a 3-year interval," J Oncol Pract.

#### October

**Louis Barr, MD, FACS**; "Effects of Variation of Sentinel Lymph Nodes Submitted During Breast Cancer Surgery: An Analysis of Variations and Costs"; poster presentation; ASCO Quality Symposium; Boston, MA.

**O. Ivanov, K. Wiercinski, A. Caceres, R. McLamara, C. Buffington**; "Lifestyle Issues of BRCA Mutation Carriers that May Affect Health Outcomes"; American Society of Human Genetics; San Diego, CA.

#### November

A Caceres, R McLamara, O Ivanov, C Buffington; "Effectors of Body Composition and Weight Gain Among BRCA Mutation Cancer Survivor"; press coverage of The Obesity Society conference; Boston, MA.

#### December

S.A. Litherland, PhD; Robert Reynolds, MD; **Louis Barr, MD**; Alvin J.O. Almodovar, MS; David Decker, MD; "Assay Development for Detection of Estrogen

Responsive Gene Histone Acetylation in Breast Cancer Circulating Tumor Cells"; poster presentation; San Antonio Breast Cancer Symposium, San Antonio, TX.





## Other

A. Caceres, R. McLamara, **O. Ivanov MD**, C. Buffington; "Effectors of Body Composition and Weight Gain among BRCA Mutation Cancer Survivors"; Obesity 22:2014.

Chiu J.C.; Ajmal S.; Zhu X.; Griffith E.; Encarnacion T.; **Barr LH**; "Radioactive Seed Localization of Nonpalpable Breast Lesions in an Academic Comprehensive Cancer Program Community Hospital Setting"; The American Surgeon 2014. 80:675-679.

Treated non-palpable tumors with radioactive localization and presented results at the Southeastern Surgical Congress in Savannah, Georgia, with a subsequent publication.

A Caceres, C Buffington, R McLamara, **O Ivanov**, S Friedman. Sexuality after mastectomy and bilateral salpingo-oophorectomy among BRCA patients; Florida Hospital Annual Research Symposium.

R McLamara, A Caceres, **O Ivanov**, C Buffington. Emotional and Psychological Issues of BRCA Mutations Previvors and Survivors; J Nur Oncology.

## Research

- Conducted a study of the sentinel node process at Florida Hospital and presented results as a poster presentation at ASCO Quality Symposium (Boston, Massachusetts).
- Continued cooperative research in circulating tumor cells and metastatic breast cancer that included tissue lab analysis of fresh tumor acquisition from surgery. Expect this to be an ongoing project; Dr. A. Khaled, University of Central Florida; Dr. M. Komatsu, Sanford Burnham Medical Research Institute, and Dr. S. Litherland with co-investigators from FHCI.

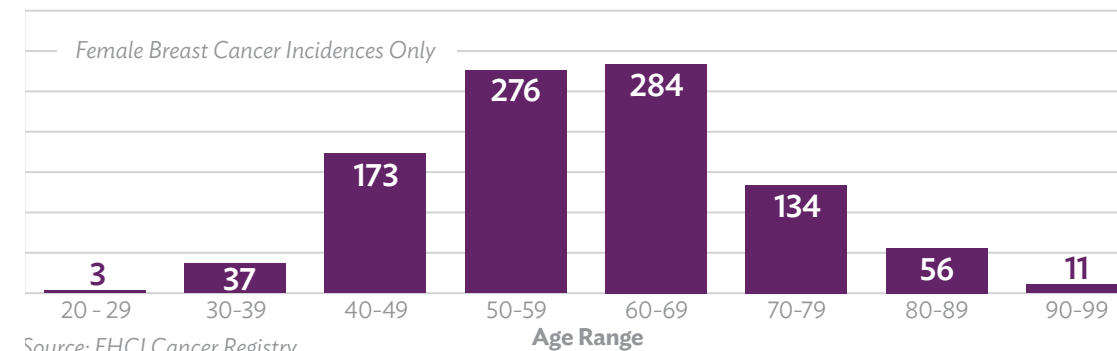
## FHCI Breast Health Center

In its first full year of operation in 2014, the FHCI Breast Health Center evaluated more than 37,696 patients and determined nearly 24 percent of them were at high risk. The Clinic anticipates providing follow-up assessments to almost 1,000 patients annually. Services include comprehensive breast cancer risk assessment, prevention, treatment and genetic counseling via Informed DNA. To make high-risk assessments more accessible, the program developed a tablet that is used in Florida Hospital's 11 mammography centers and on the mobile coach.

## 2014 Breast Cancer Cases

### Age at Diagnosis

Nearly 60 percent of all FHCI breast cancer patients were diagnosed between the ages of 50 and 69. About 4 percent of patients were under the age of 40 at diagnosis..

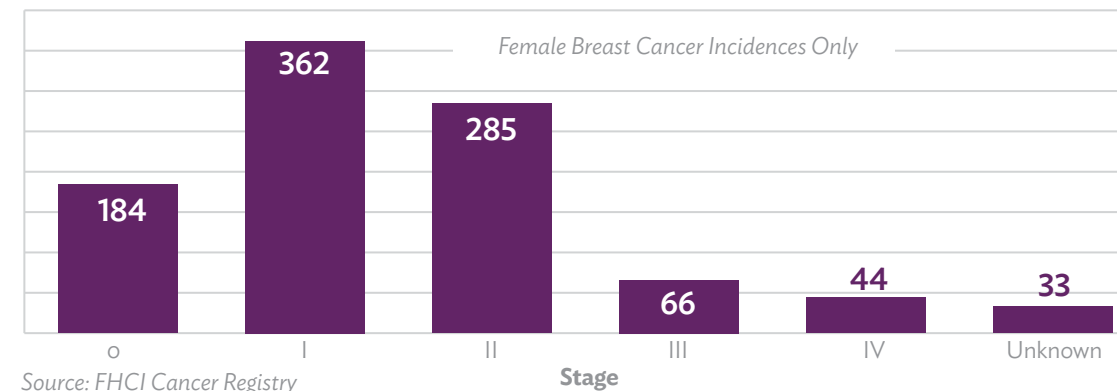


Source: FHCI Cancer Registry

## 2014 Breast Cancer Cases

### Stage at Diagnosis

Breast cancer continues to be the second-most frequent type of cancer nationwide, across Florida, and at FHCI. In 2014, 974 new cases of breast cancer were diagnosed or treated at FHCI. The largest percentage were diagnosed in early stages (0, I, II), demonstrating the effectiveness of screening efforts.



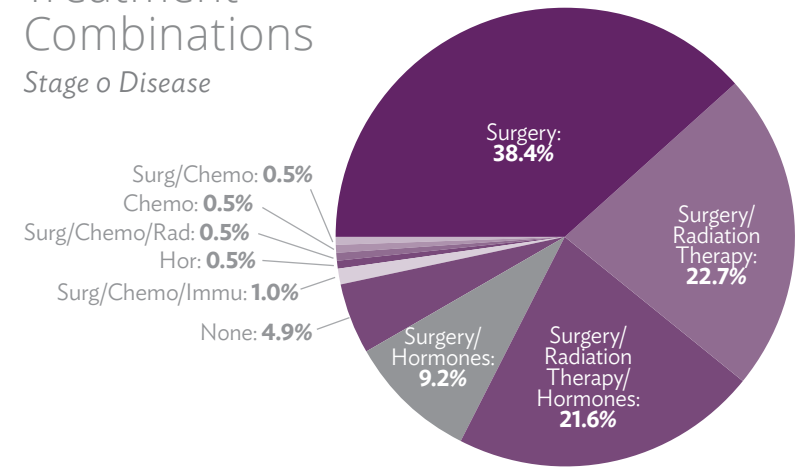
Source: FHCI Cancer Registry



# Breast Oncology

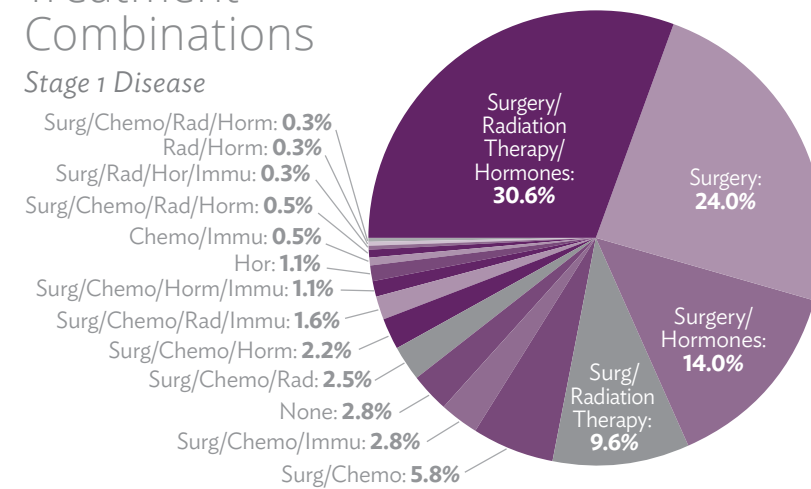
Treatment combinations received by breast cancer patients with low-stage (0, I or II) disease at diagnosis are shown in these graphs. Nearly 40 percent of patients in Stage 0 were treated with surgery alone as the first course of treatment, compared with 16 percent of Stage II patients.

## Treatment Combinations Stage 0 Disease



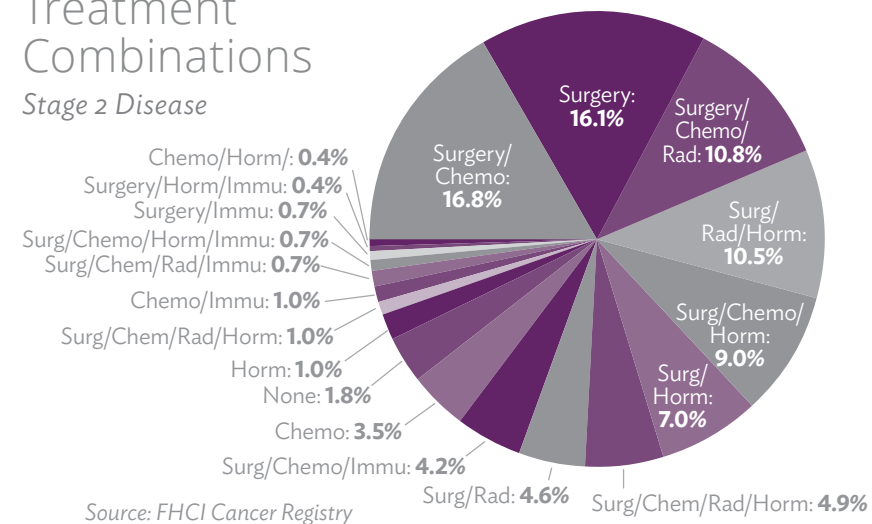
Source: FHCI Cancer Registry

## Treatment Combinations Stage 1 Disease



Source: FHCI Cancer Registry

## Treatment Combinations Stage 2 Disease



Source: FHCI Cancer Registry

## First-course Surgery Type by Stage

This chart demonstrates the type of first-course surgery received by disease stage for FHCI breast cancer patients diagnosed in 2014.

Columns and rows may not equal total noted due to rounding.

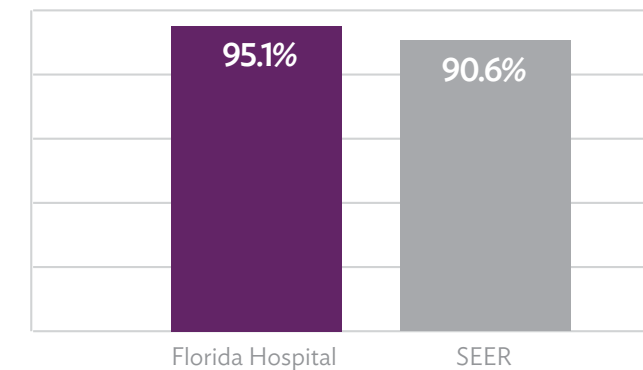
"Other" includes option of no surgery as first course of treatment.

Summary AJCC Stage Group	None		Lumpectomy		Mastectomy		Surgery, Not Otherwise Specified		Total Values	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
0	11	5.9	115	62.2	59	31.9	0	0	185	18.9
1	1	20	1	20	3	60	0	0	5	0.5
1A	16	4.8	210	63.1	107	32.1	0	0	333	34.1
1B	0	0	13	52	12	48	0	0	25	2.6
2	0	0	4	100	0	0	0	0	4	0.4
2A	15	8	100	53.5	72	38.5	0	0	187	19.1
2B	16	16.8	25	26.3	53	55.8	1	1.1	95	9.7
3	1	50	1	50	0	0	0	0	2	0.2
3A	0	0	12	30	27	67.5	1	2.5	40	4.1
3B	5	45.5	1	9.1	5	45.5	0	0	11	1.1
3C	1	7.7	0	0	12	92.3	0	0	13	1.3
4	36	81.8	2	4.5	6	13.6	0	0	44	4.5
99	15	50	8	26.7	7	23.3	0	0	30	3.1
Any Others	1	33.3	0	0	2	66.7	0	0	3	0.3
<b>Overall Totals</b>	<b>118</b>	<b>12.1</b>	<b>492</b>	<b>50.4</b>	<b>365</b>	<b>37.4</b>	<b>2</b>	<b>0.2</b>	<b>0</b>	<b>0</b>

Source: FHCI Cancer Registry

## Breast Cancer Five-year Survival Cases Diagnosed 2005-2011

Five-year survival rates at FHCI exceeded those of nine surveillance, epidemiology and end-results (SEER) registries.



FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention). Source: FHCI Cancer Registry





# Gastrointestinal, Pancreatic and Hepatobiliary Oncology



## Ahmed Zakari, MD

Medical Director  
Gastrointestinal Cancer Program  
Florida Hospital Cancer Institute  
Chief of Hematology/Oncology Division  
Florida Hospital  
Assistant Professor  
University of Central Florida College of Medicine



## Matthew Albert, MD

Medical Director, Colon & Rectal Surgery, Florida Hospital  
Cancer Institute  
Director, Florida Hospital Colorectal Fellowship Program



## 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

## 2014 Highlights

- Performed 73 pancreatic surgeries, including 40 pancreaticoduodenectomies and 27 distal pancreatectomies.
- 246 pancreatic cancer cases, 151 liver and bile duct cancer cases, and 94 gastric cancer cases evaluated at FHCI.
- Invented TAMIS (Transanal Minimally Invasive Surgery).
- Invented RTS (Robotic Transanal Surgery).
- 150 robotic assisted colon and rectal resections for cancer.
- 145 TAMIS resections for early stage rectal cancer and polyps.
- 355 oncologic resections in 2012-2013.
- 95 percent of elective abdominal surgery performed laparoscopically.
- CCRS surgeons traveled to 16 U.S. cities and 10 countries to teach and train TAMIS.

## Publications

De la Fuente S.G., **Arnoletti J.P.** Beyond cytology: “Why and When the Oncologist Requires Core Tissue”; *Gastrointestinal Endoscopy Clinics of North America*; 24:9-17, 2014.

Kim H., **Arnoletti J.P.**, Christein J., Heslin M.J., Posey J.A., Pednekar A., Beasley T.M., Morgan D.E. “Pancreatic Adenocarcinoma: A Pilot Study of Quantitative Perfusion and Diffusion Weighted Breath-hold Magnetic Resonance Imaging”; *Abdominal Imaging*; 39:74-752, 2014.

Bang J.Y., Holt B.A., Hawes R.H., Hasan M.K., **Arnoletti J.P.**, Christein J.D., Wilcox C.M., Varadarajulu S. “Outcomes after Implementing a Tailored Endoscopic Step-up Approach to Walled-off Necrosis in Acute Pancreatitis”; *British Journal of Surgery*, 101:1729-38, 2014.

Cantileno P., Vanerio P., Cossa J., Liford Pike P., Valiñas R., de la Fuente S.G. “Role of Magnetic Resonance Cholangiography in the Diagnosis of Choledocholithiasis”; *Revista Latinoamericana de Cirugía*; ISSN 2007-6517 Vol. 4 /No. 2/ 2014.

Agee N., de la Fuente S.G., **Arnoletti J.P.**, Eubanks W.S., Blazer D.G., Pappas T.N., Scarborough J.E. “Ascites is a Risk Factor for Increased Postoperative Morbidity and Mortality in Patients that Undergo Pancreatic Necrosectomy for Acute Pancreatic Necrosis”; *Journal of Surgical Research*; 186 (2), 2014

**Atallah S.**, Martin-Perez B., Keller D., Burke J., Hunter L. “Natural-Orifice Transluminal Endoscopic Surgery”; *British Journal of Surgery*; 2014; DOI: 10.1002/bjs.9710.

**Atallah S., Nassif G.**, Larach S. “Stereotactic Navigation for TAMIS-TME: Opening the Gateway to Frameless, Image-Guided Abdominal and Pelvic Surgery”; *Surgical Endoscopy*; June 28, 2014; e-published ahead of print.

**Atallah S.**, Martin-Perez B., Pinan J., Quinteros F., Schoonyoung H., Albert M., Larach S. “Robotic Transanal Total Mesorectal Excision: A Pilot Study”; *Tech Coloproctol*; November 2014; 18(11):1047-53. doi: 10.1007/s10151-014-1181-5; e-published June 24, 2014.

Martin-Perez B., Andrade-Ribeiro G.D., Hunter L., **Atallah S.** “A Systematic Review of Transanal Minimally Invasive Surgery (TAMIS) from 2010 to 2013”; *Tech Coloproctol*; September 2014; 18(9):775-88; doi: 10.1007/s10151-014-1148-6; e-published May 7, 2014.

**Atallah S.** “Robotic Transanal Minimally Invasive Surgery for Local Excision of Rectal Neoplasms”; (*British Journal of Surgery* 2014; 101: 578-581); April 2014; 101(5):581; doi: 10.1002/bjs.9467.

**Atallah S.**, Martin-Perez B., **Albert M., deBeche-Adams T., Nassif G.**, Hunter L., Larach S. “Transanal Minimally Invasive Surgery for Total Mesorectal Excision (TAMIS-TME): Results and Experience with the First 20 Patients Undergoing Curative-Intent Rectal Cancer Surgery at a Single Institution”; *Techniques in Coloproctology*; May 2014; 18(5):473-80; doi: 10.1007/s10151-013-1095-7; e-published Nov. 23, 2013.

**Atallah S.** “Transanal Minimally Invasive Surgery for Total Mesorectal Excision”; *Minimally Invasive Therapy and Allied Technologies*; January 2014; 23(1):10-6; doi: 10.3109/13645706.2013.833118; e-published Sept. 1, 2013.

**Atallah S.**, Quinteros F., Martin-Perez B., Larach S. “Robotic Transanal Surgery for Local Excision of Rectal Neoplasms”; *Journal of Robotic Surgery*; June 2014, Volume 8, Issue 2, p193-194.

## Peer-Written Publications – Invited Reviewers

**Atallah S.** – *British Journal of Surgery*; *Clinical Anatomy*; *Colorectal Cancer*; *Digestive Surgery*; *Journal of Gastrointestinal Surgery*; *Journal of Robotic Surgery*; *Techniques in Coloproctology*; *World Journal of Surgical Oncology*, *Diseases of the Colon & Rectum*.

**Albert M.** – *Surgical Endoscopy*.

## Presentations and Invited Lectures

Watkins L., Veldhuis P., Eubanks S., **Arnoletti J.P.**, de la Fuente S.G. “Hospital Readmissions Rates Following Open and Laparoscopic Cholecystectomy”; oral presentation, Americas Hepato-Pancreato-Biliary Association Annual Meeting, February 2014; Miami Beach, FL.

Tilahum Y., Xiang Zhu, Litherland S., Veldhuis P., Decker D., Simonds A., Eubank S., **Arnoletti J.P.**, de la Fuente S.G. “Tumor Stage at Presentation and Access to Surgery is Not Influenced by Race in Pancreatic Cancer Patients”; oral presentation, Americas Hepato-Pancreato-Biliary Association Annual Meeting, February 2014; Miami Beach, FL.

Agee N., Veldhuis P., Eubanks S., **Arnoletti J.P.**, de la Fuente S.G. “Regionalization of HPB Cancer Treatment within the State of Florida According to the American College of Surgeons Commission on Cancer Accreditation”; poster presentation, Americas Hepato-Pancreato-Biliary Association Annual Meeting, February 2014; Miami Beach, FL.

Tilahum Y., Veldhuis P., Eubanks S., **Arnoletti J.P.**, de la Fuente S.G. “General Surgery Resident Participation in Complex Pancreatic Cases”; oral presentation, Americas Hepato-Pancreato-Biliary Association Annual Meeting, February 2014; Miami Beach, FL.

Zenoni S., Veldhuis P., Eubanks S., de la Fuente S.G., **Arnoletti J.P.** “The Use and Utility of Abdominal CT Scans in the Immediate Postoperative Period Following Pancreatic Resections”; poster presentation, Americas Hepato-Pancreato-Biliary Association Annual Meeting, February 2014; Miami Beach, FL.

**Arnoletti J.P.** “Update in Pancreatic Cancer Treatment – Best of ASCO 2014”; June 2014; Orlando, FL.

**Arnoletti J.P.** “Digestive Surgery Course: Robotic Surgery”; National Gastroenterology Week; Mexican Society of Gastroenterology; November 2014; Cancun, Mexico.

**Arnoletti J.P.** “Digestive Surgery Course: Hepatobiliary Surgery”; National Gastroenterology Week; Mexican Society of Gastroenterology; November 2014; Cancun, Mexico.

# Gastrointestinal, Pancreatic and Hepatobiliary Oncology

**Arnoletti J.P.** “Minimally Invasive Management of Pancreatic Diseases”; master lecture; National Gastroenterology Week; Mexican Society of Gastroenterology; November 2014; Cancun, Mexico.

de la Fuente S. “Surgical management of Gastrointestinal Stromal Tumors”; The North Meets the South, First Annual Medical and Surgical Symposium; Florida Hospital Orlando; February 2014; Orlando.

de la Fuente S. “ERAS in Pancreatic Surgery: Pre- and Intraoperative strategies”; invited speaker; Society of Surgical Oncology Annual Meeting, March 2014, Phoenix.

de la Fuente S. “Management of Pancreatic Cystic Lesions”; Argentinean Congress of Surgery, November 2014, Buenos Aires, Argentina.

de la Fuente S. “Enhanced Recover after Pancreatic Surgery”; Argentinean Congress of Surgery, November 2014, Buenos Aires, Argentina.

## Organized Lectures/ Events

**deBeche-Adams T.** “Evolving Techniques for Colorectal Diseases”; invited lecturer; 1st Annual North Meets South: A Gastrointestinal Medical and Surgical Symposium; February 2014; Orlando, FL.

**Albert M.** “How Do We Measure Outcomes in Colorectal Surgery? Are We Looking at the Right Things? Room Set-Up & Equipment: Options & Requirements (for laparoscopic colonic surgery)”; “TAMIS Surgery: Opportunities & Results”; speaker; February 2014; Las Vegas, NV.

**Atallah S.** “Advisory Panelist for the implementation of sDNA as a Screening Modality for Colon Cancer;” invited lecturer; National Advisory Board for Colon Cancer Screening; March 2014; Celebration, FL.

**Atallah S., Albert M.** “Debating the Treatment of Metastatic Rectal Cancer”; invited professor and panelist; Florida Hospital Cancer Institute; April 2014; Orlando, FL.

**Atallah S.,** Quinteros F., Schoonyoung H., Martin-Perez B., Hunter L., Larach S. “Real-Time Intraoperative Endoscopic Fluorescence Imaging for Evaluation of Perfusion in the Setting of Ischemic Colitis”; podium presentation; Society of American Gastrointestinal and Endoscopic Surgeons; April 2014; Salt Lake City, UT.

Schoonyoung H., Quinteros F., Martin-Perez B., Hunter L., **Nassif G., deBeche-Adams T., Larach S., Albert M., Atallah S.** “Defining the Learning Curve for Transanal Minimally Invasive Surgery”; poster presentation; Society of American Gastrointestinal and Endoscopic Surgeons; April 2014; Salt Lake City, UT.

Martin-Perez B., Quinteros F., Schoonyoung H., Hunter L., **Nassif G., Albert M., Atallah S.** “Transanal minimally Invasive Surgery (TAMIS) for Full-Thickness Excision of an Upper Rectal Neoplasm, Requiring Laparoscopic Assistance for Suture Closure of a Peritoneal Violation”; poster presentation; Society of American Gastrointestinal and Endoscopic Surgeons; April 2014; Salt Lake City, UT.

**Atallah S., Nassif G.,** Martin-Perez B., Larach S. “Transanal Total Mesorectal Excision with Real-Time, Image-Guided Dtereotaxy”; poster presentation; Society of American Gastrointestinal and Endoscopic Surgeons; April 2014; Salt Lake City, UT.

Martin-Perez B., **Albert M., Atallah S., deBeche-Adams T., Nassif G.,** Quinteros F., Schoonyoung H., Quinteros F., Larach S. “Transanal Minimally Invasive Surgery: Review of the First 100 Patients”; poster presentation; American Society of Colon and Rectal Surgeons; May 2014; Hollywood, FL.

**Atallah S.** “Lecture and Hands-On Lab Training for Surgeons on Advanced Rectal Cancer Surgery”; invited lecturer and instructor; Inaugural Transanal TME Course (USA) at UCSD – Center for The Future of Surgery; May 2014; La Jolla, CA.

**Albert M.** “Transanal Minimally Invasive Surgery (TAMIS)”; “Live Surgery-Robotic Transanal Intersphincteric APR (TAMIS I-APR)”; speaker; 14th Nordic Postgraduate Course in Colorectal Surgery; June 2014; Aarhus, Denmark.

**Albert M.** “Innovations in Coloproctology: TAMIS for Low Resection”; speaker; June 2014; Hospital Waldfriede, Berlin, Germany.

**Atallah S.** “Robotic Transanal Rectal Cancer Surgery”; invited lecturer; European Association of Endoscopic Surgeons; June 2014; Paris, France.

**Albert M.** “Transanal TME: A New Era in Rectal Cancer Surgery”; speaker; Tripartite Colorectal Meeting; June 2014; Birmingham, UK.

**Atallah S.** “Robotic Transanal NOTES”; invited lectureship; Natural Orifice Surgery Consortium for Assessment and Research; July 2014; Chicago, IL.

**Albert M.** “TAMIS: Transanal Minimally Invasive Surgery and Transanal TME”; invited speaker; Piedmont Society Meeting; August 2014; Amelia Island, FL.

**Albert, M.** Invited lecturer professor; 21st International Meeting of the Centre for Colorectal Disease; September 2014; Dublin, Ireland.

Martin-Perez B., **Albert M., Atallah S.,** Hunter L., **deBeche-Adams T., Nassif G.,** Larach S. “TAMIS Hybrid Technique”; podium presentation; European Society of Coloproctology Conference; September 2014; Barcelona, Spain.

**Albert M.** “New Approach for Rectal Diseases. TAMIS, taTME and Proctectomy”; lecturer; Hospital Clinic; September 2014; Barcelona, Spain.

## Courses

Arnoletti J.P., de la Fuente S. (chairs). Second Annual HPB and Upper Gastrointestinal Surgical Symposium; May 15-16, 2014; Florida Hospital Orlando.



de la Fuente S.G. First International Symposium of Minimally Invasive Techniques of the GI Tract, Interaction Between Surgeons and Gastroenterologists; San Jose, Costa Rica.

## Book Chapters

de la Fuente S.G. “Pancreatic Neuroendocrine Tumors”; Spanish; in PROACI, Argentinean Association of Surgery; 2014.

Atallah S., Albert M. “Robotics in General Surgery” in Robotic Transanal Surgery; Springer New York, 2014. 261-266.

Burke J., Albert M. “Transanal Minimally Invasive Surgery (TAMIS): PROS and Cons of this Evolving Procedure” in Seminars in Colon & Rectal Surgery; e-published Oct. 20, 2014; DOI: <http://dx.doi.org/10.1053/j.scrs.2014.10.009>.



# Gastrointestinal, Pancreatic and Hepatobiliary Oncology

## Research Grants

Litherland S., Arnoletti J.P. "Portal Vein Circulating Tumor Cell Analyses in Pancreatic Cancer"; Florida Hospital Foundation; 2014

Atallah S. "MD Biomarker Characterization and ex vivo Treatment Sensitivity Studies in Colorectal Cancer: Fresh Tissue and Blood Analyses."

Atallah S. "Transanal Minimally Invasive Total Mesorectal Excision (TAMIS-TME) Using Real Time Intraoperative Stereotactic Navigation: A Retrospective Chart Review Analyses."

Attalah S. "Robotic Transanal Surgery: A Retrospective Chart Review Analyses."

Albert M. "TAMIS: A Retrospective Review of Our First 100 Patients."

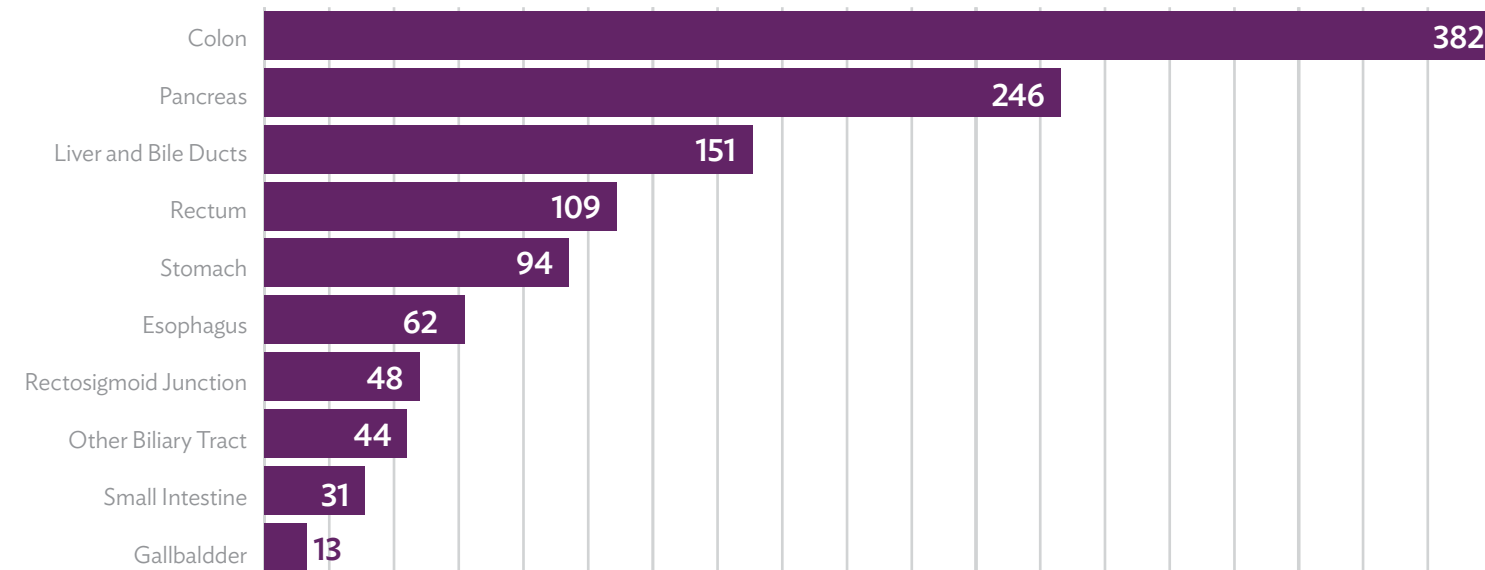
Attalah S. "TAMIS for Total Mesorectal Excision."

Attalah S. Appendectomy; Initial Experimentation in a Cadaveric Model Using a Transcecal Approach."

Albert M. "Prospective Registry for Colorectal Surgery."

## 2014 Gastrointestinal Cancer Cases

by Tumor Site

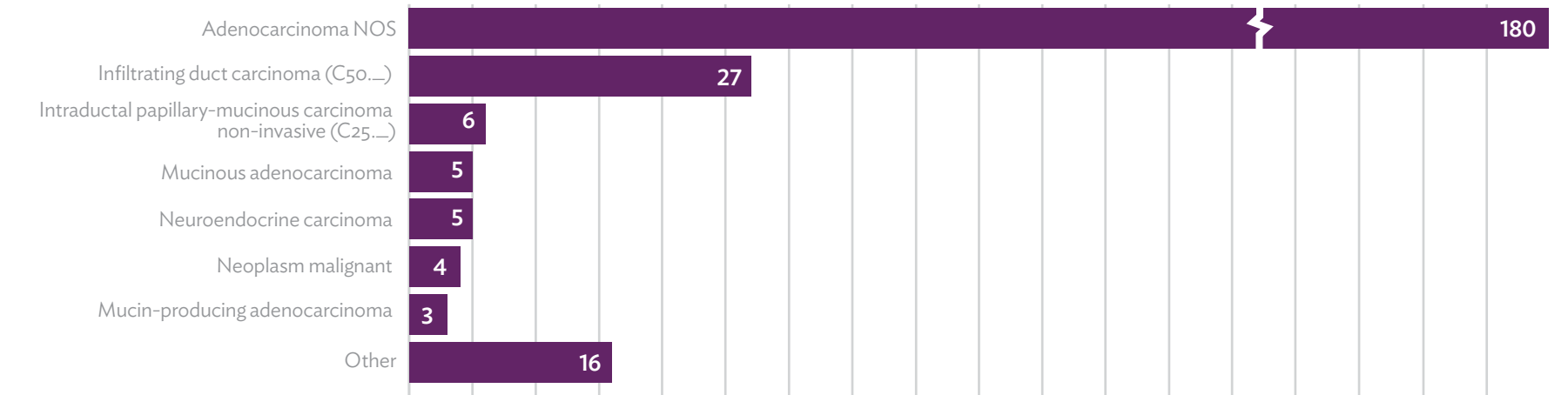


\*Analytical cases: patients having been diagnosed only at FH; diagnosed and treated with part or all of their first course of treatment at FH; OR diagnosed elsewhere and treated with part or all of their first course of treatment at FH | Total analytical caseload was 6674

2014 Total Analytical Colon, Pancreas, Liver & Bile Ducts, Rectum, Stomach, Esophagus, Rectosigmoid Junction, Other Biliary Tract, Small Intestine and Gallbladder Caseload was 1180  
Source: Gastrointestinal Program Database.

## 2014 Pancreatic Cancer Cases

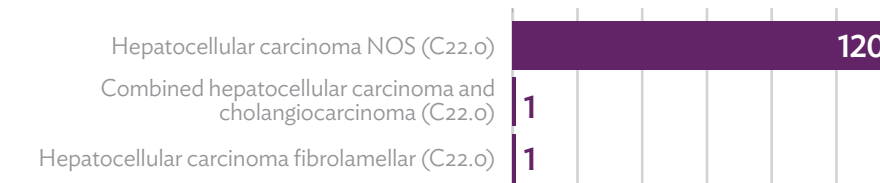
by Tumor Site



Source: Gastrointestinal Program Database.

## 2014 Hepatocellular Cancer Cases

by Tumor Site



Source: Gastrointestinal Program Database.





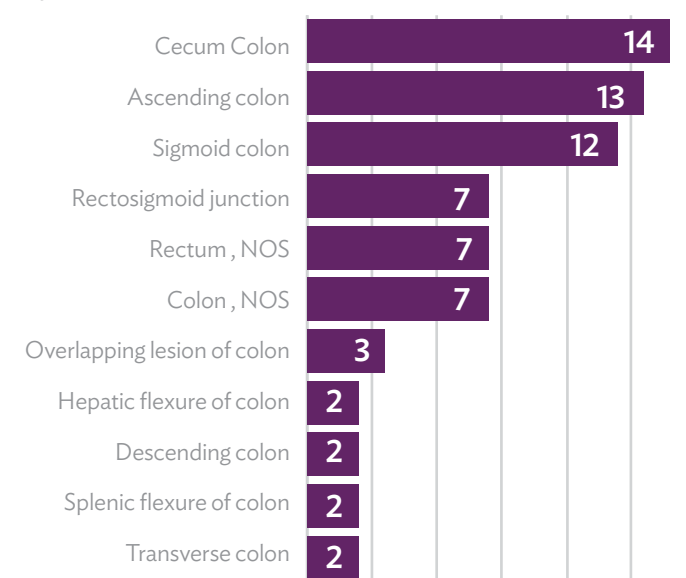
## 2014 Cholangiocarcinoma Cases

Primary Site/Histology Cross Tabulation

Site	Cholangiocarcinoma		Combined hepatocellular carcinoma and cholangiocarcinoma		TOTAL VALUES	
	Cases	(%)	Cases	(%)	Cases	(%)
Liver	2	66.7%	1	33.3%	3	6.8%
Intrahepatic bile duct	23	100.0%	0	0.0%	23	52.3%
Extrahepatic bile duct	18	100.0%	0	0.0%	18	40.9%
<b>TOTAL CASES</b>	<b>43</b>	<b>97.7%</b>	<b>1</b>	<b>2.30%</b>	<b>44</b>	<b>100%</b>

## 2014 Colorectal Cancer Cases with Hepatic METS at Diagnosis

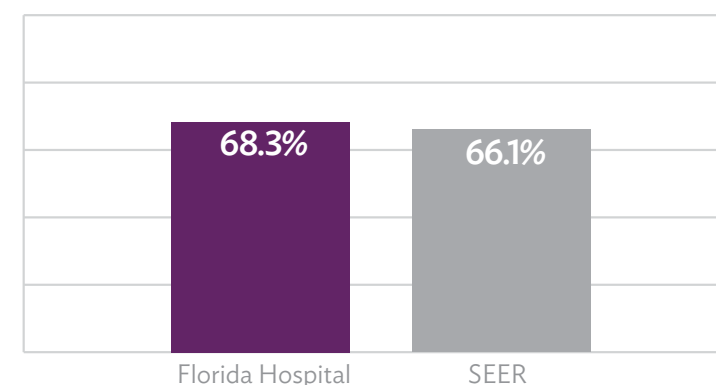
by Tumor Site



Total colorectal cancer cases was 539.  
Source: Gastrointestinal Program Database.

## 2014 Colorectal Cancer Five-year Survival

Cases Diagnosed 2005-2011



FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of the Centers for Disease Control and Prevention.)  
Source: FHCI Cancer Registry, www.seer.gov



**Robert Holloway, MD, FCOG, FACS**  
Co-Medical Director, Gynecologic Oncology Program  
Florida Hospital Cancer Institute



**James Kendrick, MD, FCOG**  
Co-Medical Director, Gynecologic Oncology Program  
Florida Hospital Cancer Institute

The Florida Hospital Gynecologic Oncology (FHGO) Program at FHCI is internationally recognized for excellence in clinical research, robotic surgery innovation and treatment, and novel laboratory investigations into cellular immune therapy for ovarian cancer.

More than 1,800 gynecologic surgeries are performed each year by attending surgeons and fellows-in-training, in addition to the more than 3,000 outpatient clinic visits that are annually attended by the group. FHCI ranks in the top five robotic programs by volume, and our gynecologic oncologists have developed several robotic surgery techniques. Surgeons from around the world have attended Florida Hospital's advanced robotic training courses, and the group's seminal research publications in robotic surgery outcomes are widely quoted in peer-reviewed literature. Because of affiliations with NRG Oncology, a national oncologic clinical research organization; several university research affiliations, and industry-sponsored research consortiums, our patients have access to the most advanced oncologic therapies available.

## 2014 Highlights

- Florida Hospital was ranked No. 9 in the nation by U.S. News & World Report for Gynecology for 2014-15.
- Dr. Ketura Preya A. Wisner joined as a fellow in July from Chicago, where she completed a four-year obstetrics and gynecology residency at Midwestern University/Resurrection Healthcare Consortium.
- Dr. Corinne N. Jeppson successfully completed her three-year Gynecologic Oncology Fellowship Program and entered practice in San Antonio, Texas.
- Dr. Robert W. Holloway continued on the Society of Gynecologic Oncology (SGO) board of directors and on the Florida Cancer Control Research Advisory Council (CCRAB), representing the Florida Obstetrics and Gynecology Society. He also received the Castle Connolly “Top Doctors” Recognition Award.
- Dr. Glenn E. Bigsby IV served as chair of the Scientific Program Committee at the Florida Society of Gynecologic Oncology (FSGO). He continued to serve as program director of Gynecologic Oncology Fellowship at Florida Hospital.
- Dr. James E. Kendrick continued to serve on the Executive Council of Florida Hospital Medical Group (FHMG).
- Dr. Neil J. Finkler continued as chief medical officer of FHMG.
- Dr. Sarfraz Ahmad continued to serve on the board of directors of the American Association for Clinical Chemistry (AACC), Florida Section.
- Patient accrual continued on the FDA Investigational Device Exemption study titled “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, Sarfraz Ahmad, Bigsby, Kendrick and Lorna Brudie).
- Physicians regularly hosted visiting surgeons, professors and medical residents for observations of robotic surgery.
- Faculty appointments were maintained at the UCF College of Medicine (Drs. Finkler, Holloway, Bigsby, Kendrick, Brudie, Ahmad and Ajit Gubbi) and the FSU College of Medicine (Drs. Finkler, Holloway, Bigsby, Kendrick, Brudie and Ahmad).
- Dr. Lorna A. Brudie served on the Florida Hospital Urogynecology Program Committee, Orlando, as well as on the Florida Hospital Celebration Health Women’s Institute Leadership Committee, Celebration.
- Dr. Sarfraz Ahmad served on the Committee of Judges, Student Research Awards - Oral Presentation and Poster Contests for the Annual Meeting of AACC, Washington, D.C.
- Drs. Ahmad, Bigsby, Brudie, Finkler, Holloway and Kendrick served as reviewers for several peer-reviewed, national/international scientific journals (e.g., Gynecologic Oncology, British Journal of Cancer, International Journal of Gynecologic Oncology, Archives of Obstetrics and Gynecology, Journal of Robotic Surgery, Journal of American College of Surgery, Surgical Endoscopy, Indian Journal of Experimental Biology, etc).
- Dr. Sarfraz Ahmad was elected president of the Association of Scientists of Indian Origin in America for a two-year term. He also served as an International Examiner for a PhD Thesis in Biotechnology at Acharya Nagarjuna University, Guntur, Andhra Pradesh, India.
- Drs. Finkler, Holloway, Bigsby, Kendrick, Brudie and Ahmad served on the Scientific Panel of Experts, Ovarian Cancer Alliance of Florida, Longwood.
- Shimoni Kacheria, BS, a UCF College of Medicine student, worked on her Focused Inquiry Research Experience (FIRE) Module project titled “Quality-of-Life Assessment in Patients with Locally Advanced Cervical Cancer.” She also received the Hearing of Ovarian Whisper (HOW) Foundation Scholarship Award, known as the Dr. Robert C. Knapp Medical Student Award.
- Dr. Wei Wang from Nanfang Hospital, Southern Medical University, Department of Gynecology and Obstetrics, Guangzhou, China, worked as a visiting physician observer/international scholar to gain advanced gynecology/oncology surgical and research experience (March-July).
- Dr. Sarika Gupta, from Dharamshila Hospital and Research Center, New Delhi, India, worked as a physician observer/trainee to gain surgical and clinical outcomes research experience (July 2014-June 2015).
- Several other medical, undergraduate and high school students from institutions across Florida regularly participated in short-term research and clinical rotation/elective requirements to gain gynecology/oncology surgical and research experience.

## Published Research

Berek J.S., Edwards R.P., Parker L.P., DeMars L.R., Herzog T.J., Lentz S.S., Morris R.T., Akerley W.L., **Holloway R.W.**, Method M.W., Plaxe S.C., Walker J.L., Friccius-Queche H., Krasner C.N. “Catumaxomab for the Treatment of Malignant Ascites in Patients with Chemotherapy-refractory Ovarian Cancer: A Phase II Study”; International Journal of Gynecological Cancer; 24: 1583-1589.

Grendys E.C. Jr., Florica J.V., Orr Jr. J.W., **Holloway R.W.**, Wang D., Tian C., Chan J., Herzog T.J. “Overview of a Chemoresponse Assay in Ovarian Cancer”; Clinical & Translational Oncology; 16: 761-769.

Gubbi A., **Kendrick J.E.**, Finkler N.J. “The Role of Bevacizumab in Recurrent, Platinum-sensitive Ovarian Cancer”; Expert Reviews of Anticancer Therapy; 14: 1105-1113.

James J.A., Rakowski J.A., Jeppson C.N., Stavitzski N.M., **Ahmad S.**, **Holloway R.W.** “Robotic Transperitoneal Infra-renal Aortic Lymphadenectomy in Early-stage Endometrial Cancer”; Gynecologic Oncology; Dec. 27; in press; DOI: org/10.1016/j.ygyno.2014.12.028.

Han L., Wang W., Lu J., Kong F., Ma G., Zhu Y., Zhao D., Zhu J., Shuai W., Zhou Q., Chen P., Ye L., Tao J., **Ahmad S.**, Li F., Sun J. “AAV-sBTLA Facilitates HSP70 Vaccine-triggered Prophylactic Antitumor Immunity Against a Murine Melanoma Pulmonary Metastasis Model in Vivo”; Cancer Letters, 354: 398-406.

Hudry D., Ahmad S., Zanagnolo V., Narducci F., Fastrez M., Ponce J., Tucher E., Lécuru F., Conri V., Leguevaque P., Goffin F., **Holloway R.W.**, Lambaudie E., with the collaboration of the SERGS Group. “Robotically Assisted Para-aortic Lymphadenectomy: Surgical Results - A Cohort Study of 487 Patients”; International Journal of Gynecological Cancer; in press; DOI: 10.1097/IGC.000000000000373.

Al-Husaini H., Hussein H., Darwish A., Ahmed M., Eltigani A., Edesa W., Elhassan T., Omar A., Elghamry W., Al-Hashem H., Al-Hayli S., Madkhali I., **Ahmad S.**, Al-Badawi I.A. “Gestational Trophoblastic Neoplasia: Treatment Outcomes from a Single Institutional Experience”; Clinical & Translational Oncology; Nov. 15; in press; DOI 10.1007/s12094-014-1251-1.

Al-Badawi I.A., Alshankiti H., **Ahmad S.** “Single Incision Laparoscopic Surgery in Pregnancy”; CRSLs (Case Report - Society of Laparoendoscopic Surgery), e2014.00404. DOI: 10.4293/CRSLs.2014.00404.

Ansari A., Ahmad S., James J.A., Jeppson C.N., **Holloway R.W.** “Robotic-assisted Laparoscopic Resection of Cornual Ectopic Pregnancy: Description of a Surgical Technique and Review of the Literature”; Journal of Reproductive Medicine, in press.

**Kendrick J.E. IV, Ahmad S., Holloway R.W.** “Robotic Pelvic and Aortic Lymphadenectomy for Gynecologic Malignancies - One Approach”; Robotic Surgery: Practical Examples in Gynecology (Kilic SG, Ertan AK, Kose MF, Eds.), de Gruyter Publisher, Berlin; pp. 221-236.

Al-Badawi I.A., Alshankiti H., **Ahmad S.** “Single Incision Laparoscopic Surgery in Pregnancy: A Case Report and Review of the Literature”; Proceedings of the 18th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI), Oct. 24-27, Vienna, Austria; Monduzzi Editoriale: International Proceedings Division (Ben-Rafael Z, Ed.), Bologna, Italy; pp. 271-276.

## Research Abstracts Published and Presented at Scientific Meetings

**Holloway R.W.**, James J.A., Jeppson C.N., Gubbi A., Takimoto E.L., Stavitzski N.M., **Ahmad S.** “Pelvic Sentinel Lymph Node Status and Risk of Aortic Nodal Metastasis in Patients with Endometrial Cancer”; poster presentation, 50th Annual Meeting of the American Society of Clinical Oncology (ASCO); May 30-June 3; Chicago; A-5597.

Makker V., Filiaci V.L., Chen L.-M., Darus C., **Kendrick J.E.**, Sutton G., Moxley K., Aghajanian C. “Phase II Evaluation of Dalantercept, a Soluble Recombinant Active Receptor-like Kinase 1 (ALK1) Receptor Fusion Protein, for Treatment of Recurrent/Persistent Endometrial Cancer: GOG-0229N”; poster presentation, 50th Annual Meeting of the American Society of Clinical Oncology (ASCO); May 30-June 3; Chicago; A-5594.

Sankpal U.T., Ingersoll S.B., Bhat V.B., **Ahmad S.**, **Holloway R.W.**, Basha R. “Relevance of Sp1 and Surviving Expression in Epithelial Ovarian Cancer Patients and Their Usefulness as Potential Therapeutic Targets”; poster presentation, 105th Annual Meeting of the American Association for Cancer Research, April 5-9, San Diego; A-1354.

James J.A., Jeppson C.N., Gubbi A., Takimoto E.L., Stavitzski N.M., **Ahmad S.**, **Holloway R.W.** “Pelvic Sentinel Lymph Node Mapping and Aortic Nodal Status in Endometrial Cancer: Does Infra-renal Aortic Lymph Node Metastasis Really Occur in Isolation?”; poster presentation, 45th Annual Meeting on Women’s Cancer of the Society of Gynecologic Oncology; March 22-25; Tampa; A-336.



Jeppson C.N., James J.A., Gubbi A., **Kendrick J.E., Ahmad S., Holloway R.W.** “Weight Loss in Preparation for Robotic-assisted Surgery in the Management of Low-grade Stage I Uterine Carcinoma: Clinical Outcomes”; poster presentation, 45th Annual Meeting on Women’s Cancer of the Society of Gynecologic Oncology; March 22-25; Tampa; A-425.

**Holloway R.W.,** Bigsby G.E., Ghurani G.B., **Kendrick J.E.,** James J.A., Jeppson C.N., Gubbi A., Stavitzski N.M., Ahmad S. “Robotic Surgery 6-year Analysis of Annual Peri-operative Outcomes for Patients with Endometrial Cancer”; poster presentation, 45th Annual Meeting on Women’s Cancer of the Society of Gynecologic Oncology; March 22-25; Tampa; A-500.

Ingersoll S.B., Srivastava M., Ali G., Mohiuddin Z., Boone E.R., **Ahmad S.,** Banks R.K., Finkler N.J., Edwards J.R., **Holloway R.W.** “Cytokine-induced Killer Cells from Ovarian Cancer Patients Expanded Ex Vivo in the Presence of IL-7 Improve Survival in a Xenograft Mouse Model of Ovarian Cancer”; poster presentation; 45th Annual Meeting on Women’s Cancer of the Society of Gynecologic Oncology (SGO); March 22-25; Tampa; A-296.

**Ahmad S., Holloway R.W.** “Development of Clinical Outcomes Research Skills in Gynecology/Oncology”; presentation; Junior SEERSS Session of the 3rd International Congress in Robotic Surgery, organized by the South Eastern European Robotic Surgery Society (SEERSS); Oct. 2-4; Sofia, Bulgaria.

**Ahmad S., Holloway R.W.** “Robotic Research in Gynecology/Oncology: Florida Hospital Experience”; presentation; “Gynecology I” session of the 3rd International Congress in Robotic Surgery, organized by SEERSS; Oct. 2-4; Sofia, Bulgaria.

**Ahmad S.** “Hypercoagulability in Ovarian Cancer: Laboratory and Clinical Perspectives”; Plenary Lecture 44; 4th International Meeting on Pharmacy & Pharmaceutical Sciences; Sept. 18-21; Istanbul, Turkey.

**Ahmad S.** “Hypercoagulability in Ovarian Cancer: Laboratory and Clinical Perspectives”; abstracts, program book; 5th International Conference on Translational Cancer Research; Feb. 6-9; Vigyan Bhawan; New Delhi; P-20.

Basha R., Ingersoll S.B., Sankpal U.T., Bhat V.B., **Holloway R.W., Ahmad S.** “Targeting Sp1 and Surviving for Enhancing the Therapeutic Efficacy in Epithelial Ovarian Cancer”; abstracts and program book; 5th International Conference on Translational Cancer Research; Feb. 6-9; Vigyan Bhawan, New Delhi; Symposium 45.

## Invited Lectures and Training Programs

### January

**Dr. Robert W. Holloway** (invited lecturer): Three presentations at the Japanese Robotic Society Meeting; Jan. 11; Fukuoka, Japan.

**Dr. Robert W. Holloway** (presentation): Florida Hospital Research Forum Annual Meeting, organized by the Florida Hospital Nicolson Center and Florida Hospital Research Services; Jan. 24; Orlando.

### March

**Dr. Robert W. Holloway** (proctor): 45th Annual Meeting on Women’s Cancer; March 22-25; Tampa.

**Dr. Lorna A. Brudie** (invited speaker): “Work-up and Management of Endometrial Hyperplasia and Abnormal Uterine Bleeding”; Florida Hospital Ob-Gyn Grand Rounds; March 26; Orlando.

### April

**Dr. Robert W. Holloway** (invited speaker): Advanced Robotic Surgery Training Program; Brazilian National Cancer Institute Hospital and Samaritano Hospital Systems; April 11-14; Rio de Janeiro, Brazil.

**Dr. Robert W. Holloway** (invited speaker): 3rd Biennial Miami Robotics Symposium; April 25-26; Miami.

### June

**Dr. Robert W. Holloway** (invited speaker): “Best of ASCO” Annual Meeting, organized by FHCI; June 28-29; Orlando.

### September

**Dr. Sarfraz Ahmad** (invited plenary speaker, International Scientific Advisory Committee): 4th International Meeting on Pharmacy and Pharmaceutical Sciences; e. 18-21; Istanbul, Turkey.

### October

**Drs. Robert W. Holloway and Sarfraz Ahmad** (invited speakers, academic advisory board members): International Congress in Robotic Surgery; Oct. 3-4; Sofia, Bulgaria.

**Dr. Lorna A. Brudie** (invited speaker): “Do You Know Physician Expectations of Nursing Care for the Pre- and Post-gynecologic Oncology Surgery Patients in the Treatment Continuum, Including Chemotherapy and Radiation Therapy?” Oncology Nurses Conference; Oct. 19; Orlando.

### November

**Dr. Sarfraz Ahmad** (invited speaker): Symposium on Obstetrics, Gynecologic and Reproductive Medicine in Saudi Arabia: Challenges and Opportunities; Nov. 11-13; Riyadh, Saudi Arabia.

**Dr. Robert W. Holloway** (invited speaker, and live surgery demonstration and broadcast): 21st Hong Kong International Cancer Congress; Nov. 20-21; Hong Kong.

## Awards/Honors/Recognitions

Award/Honor	Organization	Awardee(s)	Mentors
1st Place, “Basic and Clinical Research” Poster Presentation Award	Florida Hospital 2014 Graduate Medical Education (GME) Research & Quality Improvement Day	Drs. Jeffrey A. James, Corinne N. Jeppson, Ajit Gubbi, Erica L. Takimoto, Sarfraz Ahmad, and Robert W. Holloway; and Nicole M. Stavitzski BS	
SGO Travel Award (\$1,500)	Florida Society of Clinical Oncology (FLASCO)	Dr. Jeppson	Drs. Holloway, Bigsby, Kendrick, Brudie, Ahmad
Clinical Robotic Fellowship Award	Intuitive Surgical, Inc., Sunnyvale, Calif.	Dr. Gubbi	Drs. Holloway, Ahmad, Bigsby, Ghurani, Kendrick
Dr. Robert C. Knapp Student Scholarship Award	Hearing of Ovarian Whisper (HOW) Foundation, Jupiter, FL	Shimoni Kacheria, BS	<b>Drs. Holloway and Ahmad</b>
Nomination for <i>Doctor Honoris Causa</i> Degree Award	Medical University of Pleven, Pleven, Bulgaria	<b>Dr. Holloway</b>	
<i>Recognition Diploma</i> for the Educational & Scientific Degree (PhD) in Biochemistry	Medical University of Pleven, Pleven, Bulgaria	<b>Dr. Ahmad</b>	

## Active Research Grants

Funding Agency	Project Title	Investigators	Amount (\$)	Period
Donors/Foundation	Gynecologic Oncology Research	<b>Drs. Holloway, Bigsby, Kendrick, Brudie, Ahmad</b>	Variable	2013-14



## Educational and Research Collaborations

Active collaboration with the SGO Clinical Outcomes Registry (COR) program (Drs. Holloway, Bigsby, Kendrick, Brudie, Ahmad).

Active collaboration with the Caris Life Sciences Inc.'s Caris Molecular Intelligence Registry program for biomarkers assessments and correlation with gynecologic cancer patient outcomes (Drs. Holloway, Bigsby, Kendrick, Brudie, Ahmad).

Active collaboration with Society of European Robotic Gynecological Surgery (SERGS) investigators on research projects related to clinical outcomes of gynecologic oncology procedures (Drs. Holloway, Ahmad).

Active collaboration with Drs. Floor J. Backes and Jeffrey M. Fowler at Ohio State University on survival outcomes analysis and translational research studies on uterine malignancy (Drs. Holloway, Ahmad, Brudie).

Active collaboration with University of North Texas Health Science Center, Fort, Texas (Riyaz M. Basha, PhD) on ovarian cancer-related translational research projects (Drs. Ahmad, Holloway).

Active collaboration with Dr. Deborah A. Altomare at University of Central Florida, Orlando, on ovarian cancer-related translational research projects (Drs. Holloway, Ahmad).

Active collaboration with Dr. Angeles Alvarez Secord at Duke University Cancer Institute on gynecologic cancer outcomes (Drs. Holloway, Ahmad).

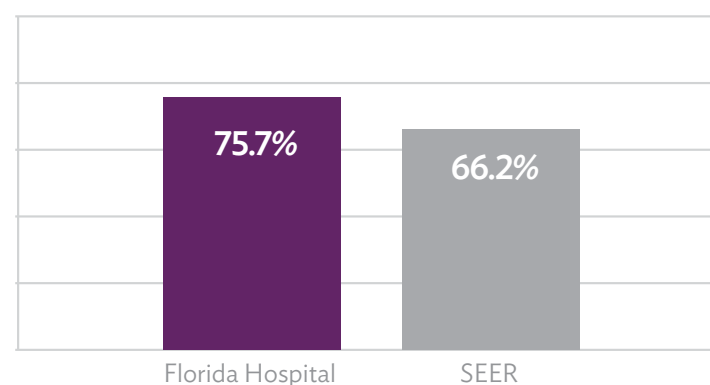
Mentored UCF medical student Shimoni Kacheria on Focused Inquiry Research Experience (FIRE) projects related to clinical outcomes studies in gynecologic oncology (Drs. Holloway, Ahmad).

Mentored other Florida medical students, including those from UCF, Florida State University, and Nova Southeastern University during clinical rotations/electives (Drs. Holloway, Ahmad, Bigsby, Kendrick, Brudie).

## Gynecologic Cancer Five-year Survival by Year

Cases Diagnosed 2005-2011

In 2014, five-year survival rates for patients with gynecological cancer treated at FHCI exceeded those measured by nine national cancer registries.

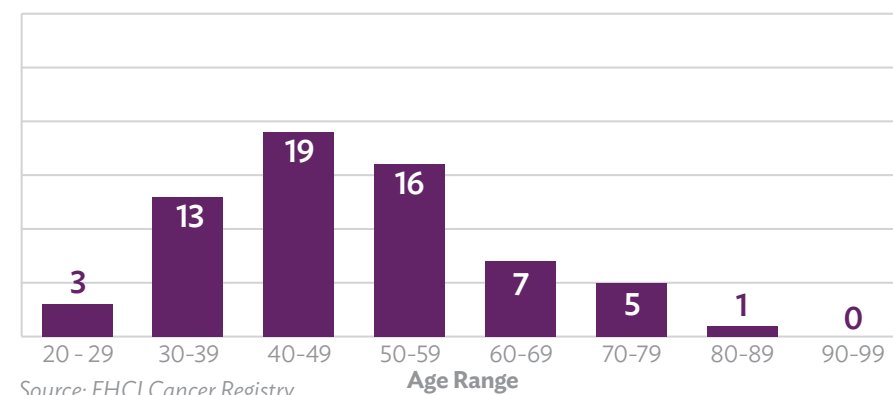


FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention). Gynecological cancer includes cervix, uterus and ovarian cancers. Source: FHCI Cancer Registry; www.SEER.gov

## 2014 Cervical Cancer Cases

Age at Diagnosis

The most common age range for cervical cancer patients at FHCI in 2014 was 40 to 49, a slight decline over the previous year when the most commonly diagnosed age range was 50 to 59.

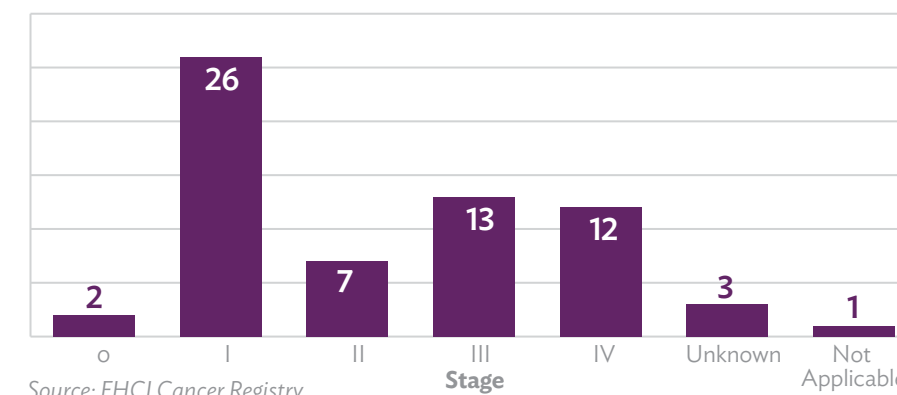


Source: FHCI Cancer Registry

## 2014 Cervical Cancer Cases

Stage at Diagnosis

Nearly 41 percent of patients were diagnosed with stage I disease.

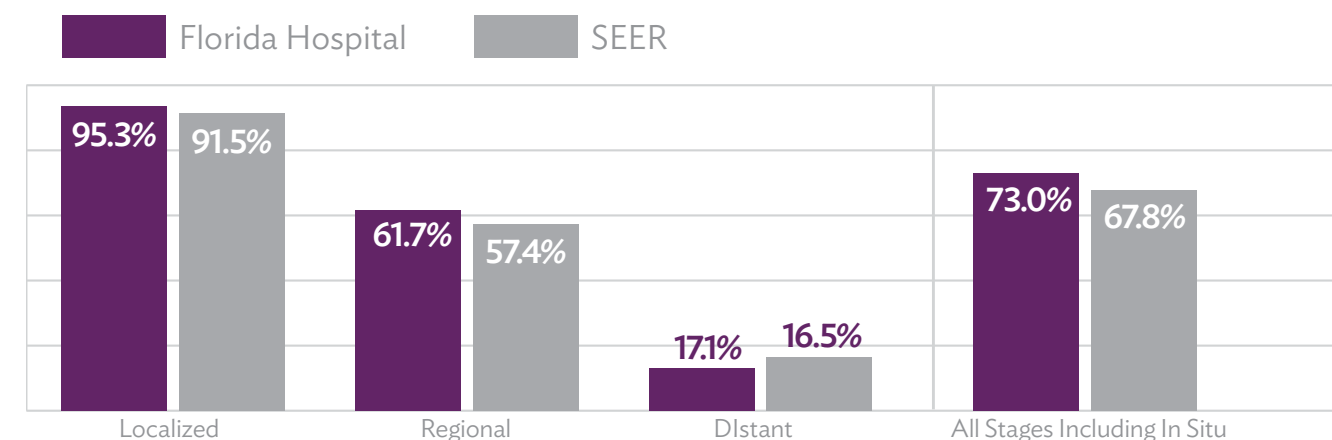


Source: FHCI Cancer Registry

## Cervical Cancer Five-year Survival

Cases Diagnosed 2005-2011

Five-year survival rates for cervical-cancer patients treated at Florida Hospital exceeded those measured in nine national cancer registries in all categories measured.



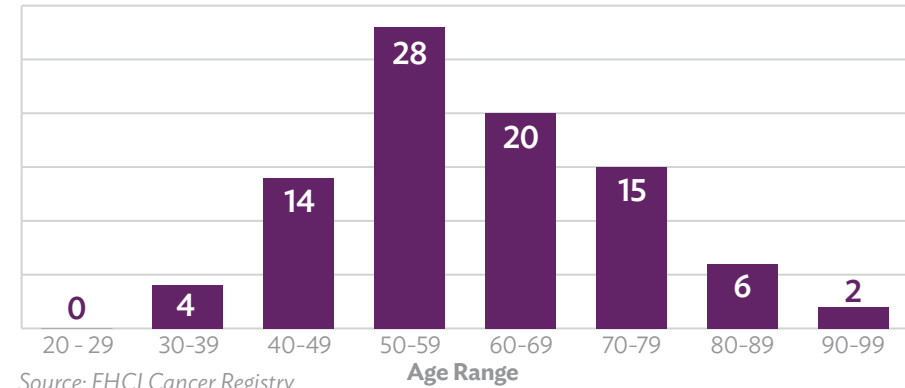
FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention). Gynecological cancer includes cervix, uterus and ovarian cancers. Source: FHCI Cancer Registry; www.SEER.gov

# Gynecologic Oncology

## 2014 Ovarian Cancer Cases

### Age at Diagnosis

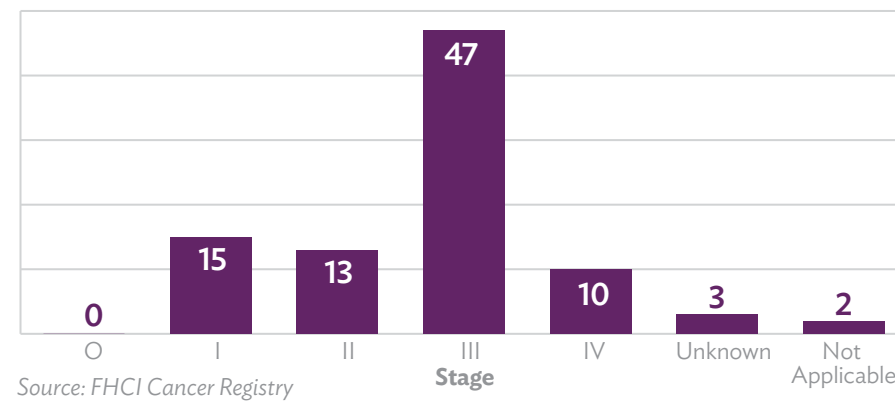
Of ovarian cancer patients diagnosed at FHCI in 2014, more than 50 percent were between the ages of 50 and 69. The most common age range was 50 to 59, representing 31 percent of patients.



## 2014 Ovarian Cancer Cases

### Stage at Diagnosis

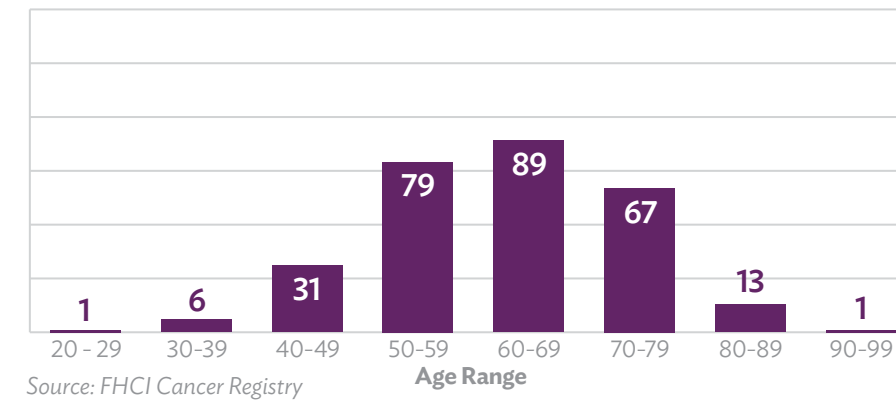
In 2014, diagnosis of ovarian cancer at FHCI continued to occur most frequently in the late stages. More than 50 percent of the 90 ovarian cancer patients at were diagnosed with advanced, stage III disease.



## 2014 Uterine Cancer Cases

### Age at Diagnosis

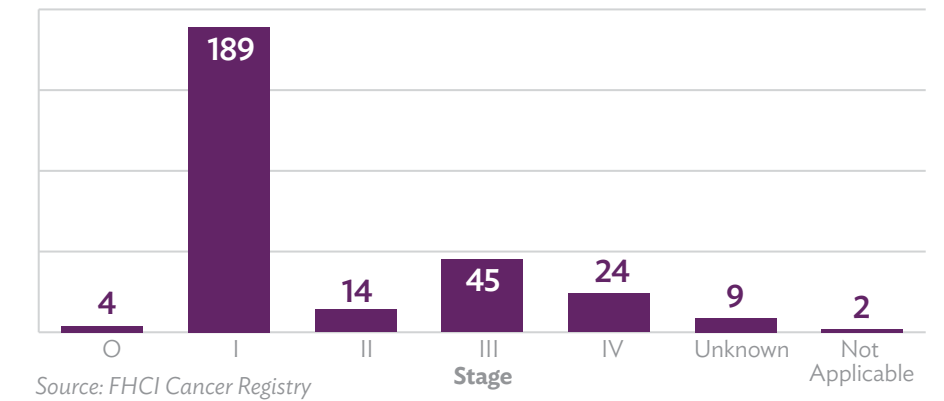
About 31 percent of patients diagnosed with uterine cancer at FHCI in 2014 were ages 60 to 69, making this the most common age range for this type of cancer. Another 28 percent were diagnosed between the ages of 50 and 59 years.



## 2014 Uterine Cancer Cases

### Stage at Diagnosis

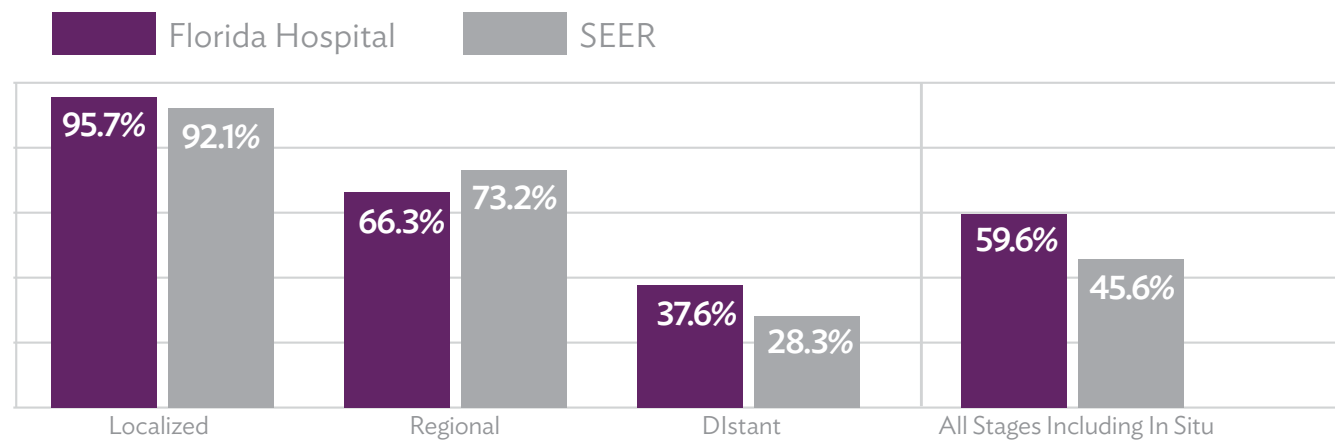
Sixty-six percent of uterine cancer patients were diagnosed with stage I disease at FHCI.



## Ovarian Cancers Five-year Survival by Stage

### Cases Diagnosed 2003-2006

Overall, five-year survival for patients with advanced-stage ovarian cancer at the FHCI was significantly better than the national average.

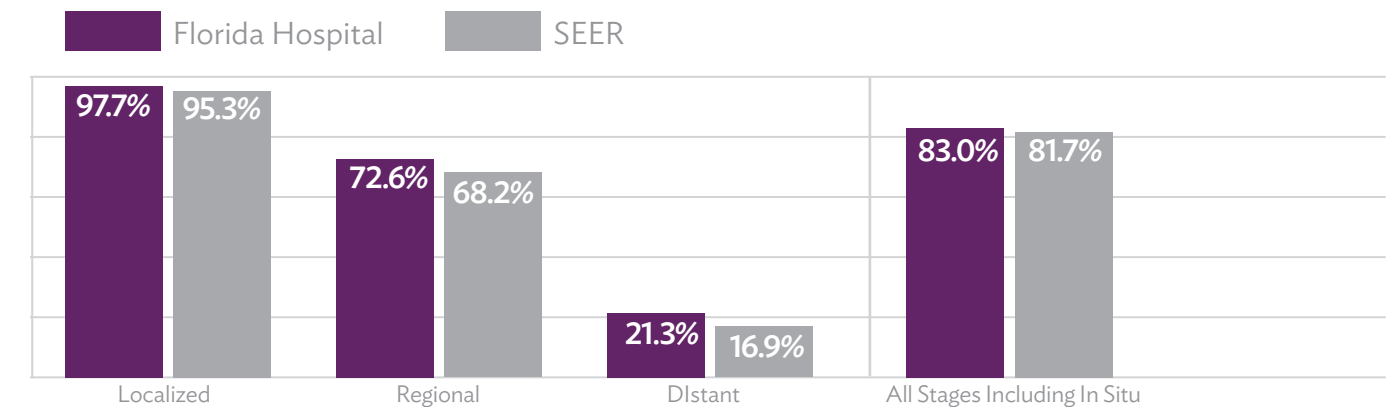


FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention). Gynecological cancer includes cervix, uterus and ovarian cancers. Source: FHCI Cancer Registry; www.SEER.gov

## Uterine Cancers Five-year Survival by Stage

### Cases Diagnosed 2003-2006

Overall, five-year survival for patients with uterine cancer at the FHCI meets or exceeds the national average and showed significantly improved survival outcomes in Stage IV cases.



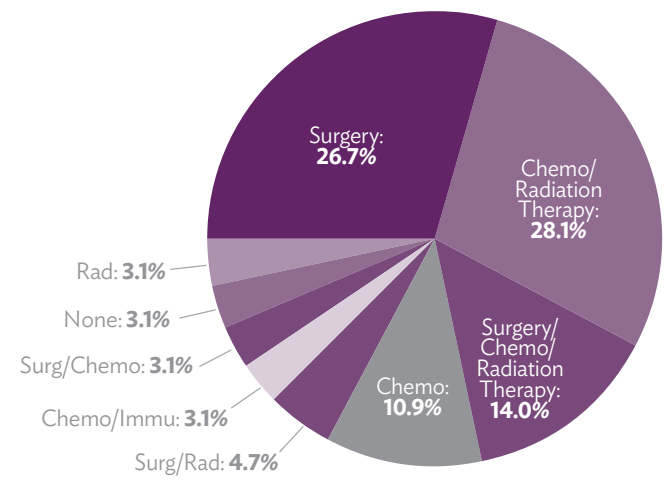
FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention). Gynecological cancer includes cervix, uterus and ovarian cancers. Source: FHCI Cancer Registry; www.SEER.gov

# Gynecologic Oncology

## FHCI 2014 Analytical Cervical Cancer Treatment Combinations

Treatment Combinations

Surgery alone was most frequently used to treat patients diagnosed with cervical cancer at FHCI in 2014. This was closely followed by a combination of chemotherapy and radiation.

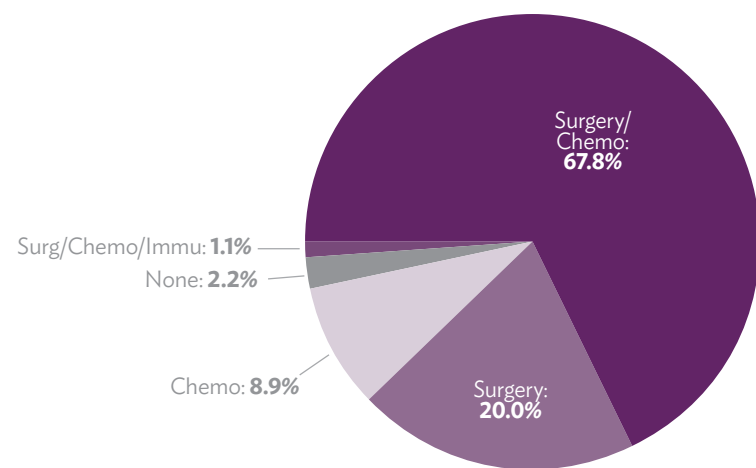


Source: FHCI Cancer Registry

## FHCI 2014 Analytical Ovarian Cancer Treatment Combinations

Treatment Combinations

Surgery and chemotherapy combined were the most common therapies used to treat ovarian cancer at FHCI.

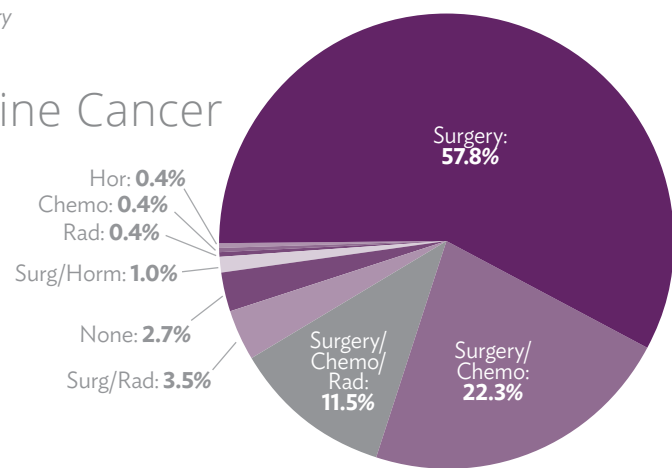


Source: FHCI Cancer Registry

## FHCI 2014 Analytical Uterine Cancer Treatment Combinations

Treatment Combinations

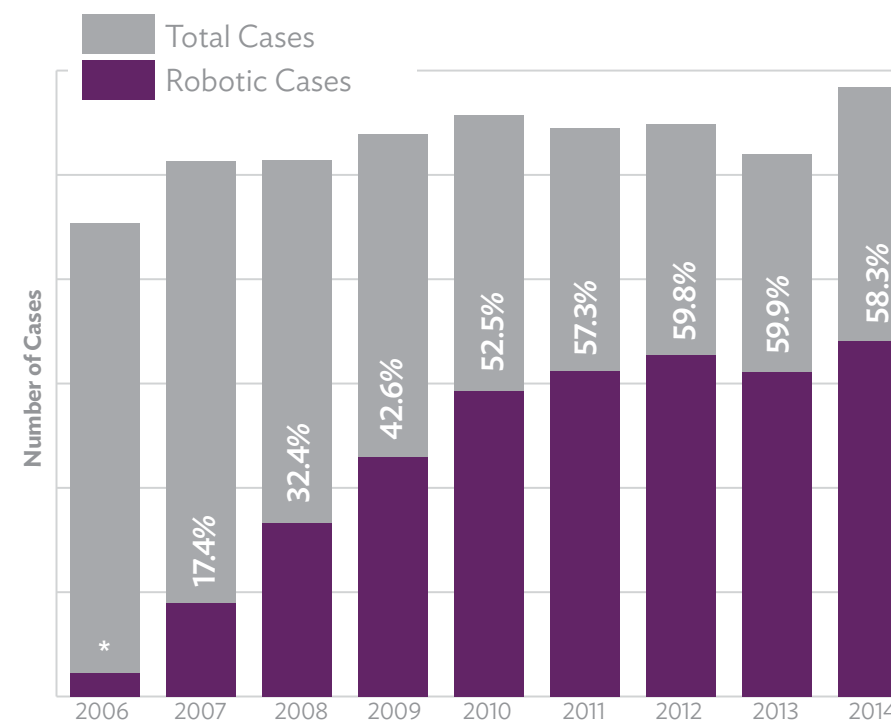
Nearly 60 percent of patients with uterine cancer treated at FHCI underwent surgery alone.



Source: FHCI Cancer Registry

## Gynecological Cancer Surgeries Robotic Procedures vs. Total Procedures

Robotic surgeries continued to represent the greatest number of surgical procedures used to treat patients with gynecologic cancer at FHCI, representing more than 58 percent in 2014.



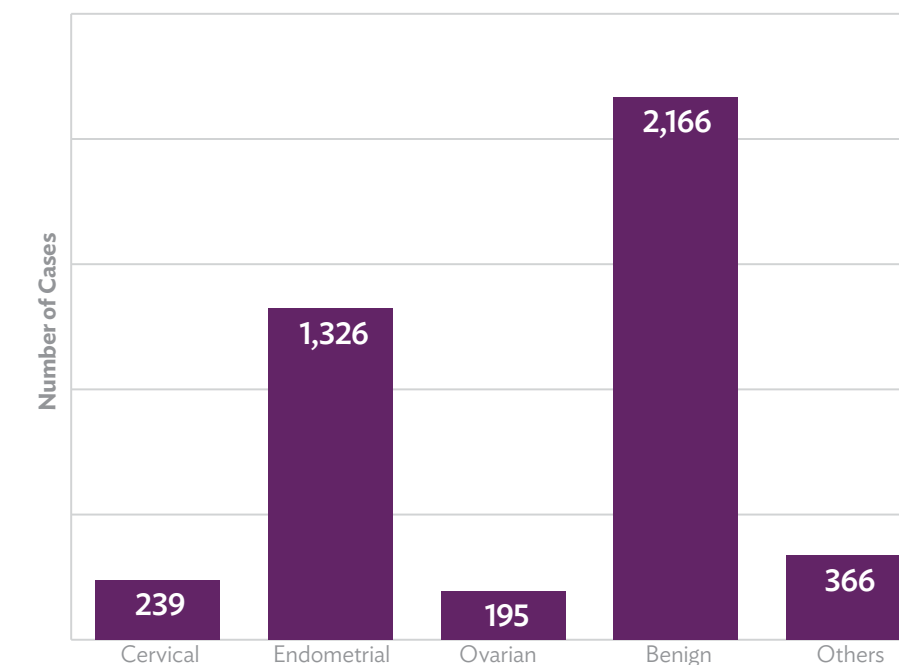
\* <8 months data

Source: Florida Hospital Gynecologic Oncology Database.

## Gynecologic Oncology Robotic Surgery By Cancer Type

By Cancer Type

Endometrial cancer was the most frequently treated using robotic surgery when compared with other gynecologic types at FHCI.

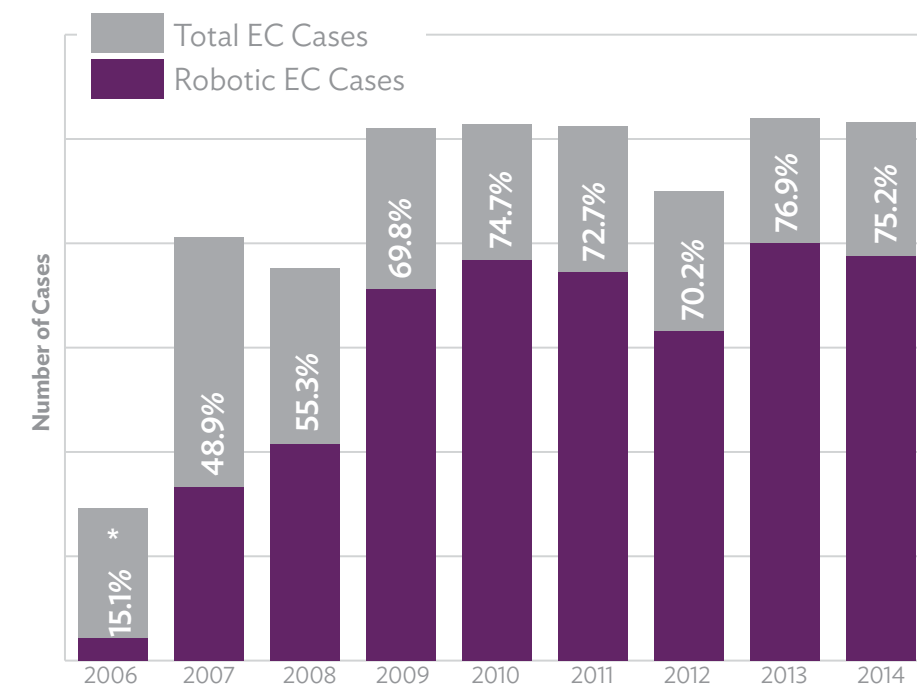


Source: Florida Hospital Gynecologic Oncology Database.

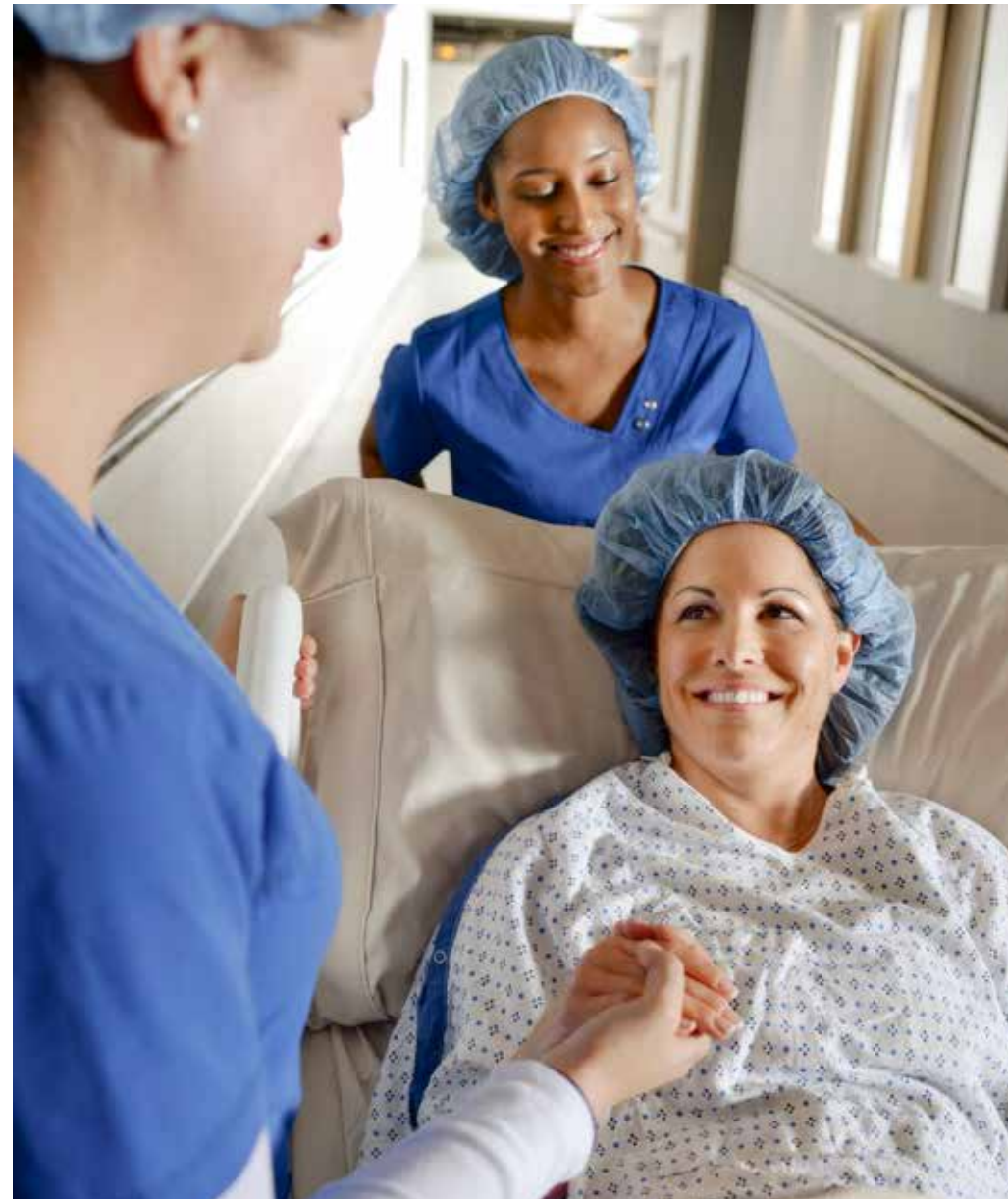


## Gynecologic Oncology Robotic Surgery For Endometrial Cancer

More than 75 percent of endometrial cancers were treated using robotic surgery at FHCI in 2014, approximately the same number as cases as within the last five years.



\* First 6-months date since the initiation of Robotics Program  
Source: Florida Hospital Gynecologic Oncology Database.



### Henry Ho, MD

Co-Director, Head and Neck Surgery,  
Florida Hospital Cancer Institute

President, The Ear, Nose, Throat and Plastic Surgery Associates,  
P.A., Associate Professor Otolaryngology, University of Central  
Florida College of Medicine, Associate Professor of Surgery,  
Florida State University College of Medicine



### Jeffery Magnuson, MD

Co-Director, Head and Neck Surgery,  
Florida Hospital Cancer Institute

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

Physicians at the FHCI Head and Neck Cancer Program treat more head and neck cancer cases than any other care center in Florida. Our multidisciplinary approach, supported by video-conferenced tumor boards and biannual journal clubs, ensures that patients receive leading-edge, evidenced-based care. Our team offers a complete array of diagnostic and therapeutic options, from free-flap reconstruction and minimally invasive skull base surgery to the latest in chemoradiation therapy and clinical trials. The Head and Neck Cancer Program is well-positioned to maintain its leadership as it consistently strives to improve patient care.

### 2014 Highlights

- Continued head and neck surgery fellowship training program.
- Continued using the Clinical Pathway for Neck Dissection developed in 2013 to standardize the evaluation, performance and post-operative management of common procedures.
- Continued the Head and Neck Quality Metrics Annual Report for Neck Dissection implemented 2013, some of which is highlighted in this report.
- Dedicated the renovated Multidisciplinary Cancer Center at Winter Park Memorial Hospital on Nov 11.

### Publications

- Asher S.A., White H.N., Illing E.A., Carroll W.R., **Magnuson J.S.**, Rosenthal E.L.; "Intraluminal Negative Pressure Wound Therapy For Optimizing Pharyngeal Reconstruction"; JAMA Otolaryngol Head Neck Surgery; February 2014; 140(2):143-9. doi: 10.1001/jamaoto.2013.6143.
- Crawford J.A., Montevechi F, Vicini C., **Magnuson J.S.**; "Transoral Robotic Sleep Surgery: The Obstructive Sleep Apnea-hypopnea Syndrome"; Otolaryngol Clinics of North America; June 2014; 47(3):397-406. doi: 10.1016/j.otc.2014.03.004. E-published April 18, 2014.
- Dean N.R., Rosenthal E.L., Morgan B.A., **Magnuson J.S.**, Carroll W.R.; "Harmonic Scalpel vs. Electrocautery and Surgical clips in Head and Neck Free-flap Harvesting"; Ear Nose Throat Journal; June 2014; 93(6):E36-9.
- Ford S.E., Brandwein-Gensler M., Carroll W.R., Rosenthal E.L., **Magnuson J.S.**; "Transoral Robotic vs. Open Surgical Approaches to Oropharyngeal Squamous Cell Carcinoma by Human Papillomavirus Status"; Otolaryngol Head Neck Surgery; Oct. 2014; 151(4):606-11. doi: 10.1177/0194599814542939. E-published July 21, 2014.
- Chung T.K., Rosenthal E.L., **Magnuson J.S.**, Carroll W.R.; "Transoral Robotic Surgery for Oropharyngeal and Tongue Cancer in the United States"; Laryngoscope; January 2015; 125(1):140-5. doi: 10.1002/lary.24870. E-published Aug. 5, 2014.



# Head and Neck Oncology

## Presentations

### January

Dr. **J.S. Magnuson**; “Staple Assisted Endoscopic Management of Zenker’s Diverticulum”; Triological Society Combined Sections Meeting; Miami; Jan. 10-12.

### February

Dr. Henry Ho; “Robotic Surgery in the Treatment of Head and Neck Cancer”; University Club; Orlando; Feb. 27.

### March

Dr. J.S. **Magnuson**; “The TORS team: Anesthetic and OR staff”; Obstructive Sleep Apnea Syndrome Surgery (OSAS) Surgery International Course; Orlando; March 2-4.

### April

Dr. J.S. **Magnuson** (panelist); “Advances in Robotic Surgery and Notes”; 18th WCBIP/WCBE World Congress; Kyoto, Japan; April 14-17.

### May

Dr. J.S. **Magnuson** (panelist); “Robotics – Luxury Or Necessity: TORS or TLM for HPV Positive OPSCC”; COSM Triological Society 117th Annual Meeting Program; Las Vegas; May 15-16.

Dr. J.S. **Magnuson** (panelist); “Transoral Robotic Surgery for Oropharyngeal and Tongue Cancer in the United States”; COSM Triological Society 117th Annual Meeting Program; Las Vegas; May 15-16.

### July

Dr. J.S. **Magnuson** (panelist); “Resection of Recurrent Primary Lesions–Open vs. Robotic Resection”; Fifth World Congress of IFHNOS and Annual Meeting of the AHNS; New York City; July 26-30.

### August

Dr. J.S. **Magnuson**; “TORS Thyroidectomy”; TRI Society Meeting of the Head and Neck Cancer Societies of Australia and New Zealand, Hong Kong and Singapore; Darwin, Northern Territory, Australia; Aug. 14-16.

Dr. J.S. **Magnuson** (panelist); “Thyroid Discussion of Clinical Cases”; TRI Society Meeting of the Head and Neck Cancer Societies of Australia and New Zealand, Hong Kong and Singapore; Darwin, Northern Territory, Australia; Aug. 14-16.

### September

Dr. J.S. **Magnuson**; “State of the Art in Robotic ENT”; Minimally Invasive Surgery Week 2014; Society of Laparoendoscopic Surgeons Annual Meeting; Las Vegas; Sept. 10-13.

Dr. J.S. **Magnuson**; “Transoral Endoscopic Head & Neck Surgery”; AAO-HNSF Annual Meeting & OTO Expo; Orlando; Sept. 21-24.

### October

Dr. Henry Ho; “Update on Head and Neck Cancer”; Winter Park Hospital, Winter Park; Oct. 22.

Dr. J.S. **Magnuson**; “Live Transoral Robotic Lateral Oropharyngectomy and BOT Resection Using Fresh Cadaver”; Fourth International Robotic Surgery Symposium in Head & Neck Cancer; Seoul, Korea; Oct. 18-19.

Dr. J.S. **Magnuson**; “Transoral Robotic Sleep Surgery and Bleeding After TORS”; Fourth International Robotic Surgery Symposium in Head & Neck Cancer; Seoul, Korea; Oct. 18-19.

Dr. J.S. **Magnuson**; “Live Surgery”; Fourth International Robotic Surgery Symposium in Head & Neck Cancer; Seoul, Korea; Oct. 18-19.

Dr. J.S. **Magnuson**; “Transoral Robotic Surgery: First Line Treatment for Oropharyngeal Cancer”; First Oriental Conference of Otolaryngology – Head & Neck Surgery; Shanghai, China; Oct. 23-25.

Dr. Henry Ho; “Community Head and Neck Cancer Education and Risk Assessments”; Winter Park Civic Center, Winter Park; Oct. 27.

### November

Dr. J.S. **Magnuson**; “Evaluation of Nutritional Status post Trans-Oral Robotic Surgery (TORS) for Oropharyngeal Carcinoma”; FSO-HNS 2014 Annual Fall Meeting; Orlando; Nov. 7-9.

Dr. Henry Ho; “Long-Term Dysphagia After Treatment for Head & Neck Cancer Part 1: Oral Cavity & Pharynx”; ASHA Annual Convention; Orlando; Nov. 21.

## Clinical Trials

Opened Phase II Randomized Trial of Transoral Surgical Resection Followed by Low-dose or Standard-dose IMRT in Resectable p16+ Locally Advanced Oropharynx Cancer.

## Community Outreach

Hosted a community event to build awareness of human papillomavirus, partnering with University of Central Florida and the YMCA; more than 80 people screened; April 2014.

Presentation by Dr. Henry Ho; “Head and Neck Assessment” for Head and Neck Cancer Awareness Month; Winter Park YMCA, Winter Park; April 2014.



# Head and Neck Oncology

## 2014 Head and Neck Cancer Cases

### Site by Gender at Diagnosis

Head and neck cancer incidences by disease site historically vary between males and females. As seen in 2014 data, more than three times as many women as men were diagnosed with and/or treated for thyroid cancer. Men were nearly four times as likely to be diagnosed with cancer of the tongue. In fact, cancers diagnosed in the mouth occur at nearly twice the rate for men as women.

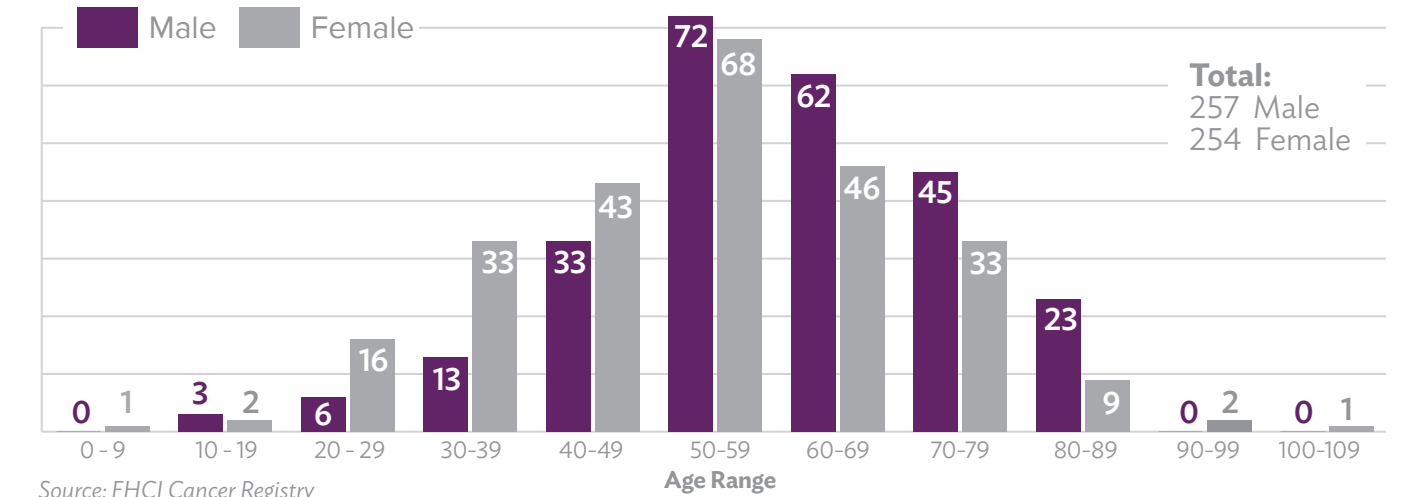
Site	Male	Female	Total
Lip	4	0	4
Base of Tongue	22	5	27
Other Parts of the Tongue	22	15	37
Gum	1	1	2
Floor of Mouth	5	5	10
Palate	2	3	5
Other/Unspecified Parts of Mouth	4	2	6
Parotid Gland	8	6	14
Tonsil	1	1	2
Oropharynx	29	5	34
Nasopharynx	7	4	11
Pyiform Sinus	5	3	8
Hypopharynx	2	0	2
Other Oral Cavity	3	1	4
Nasal Cavity & Middle-ear	4	1	5
Accessory Sinuses	5	0	5
Larynx	4	3	7
Trachea	27	14	41
Connective Subcutaneous Other Soft Tissue	5	2	7
Thyroid Gland	48	159	207
Skin	34	10	44
Lymph Nodes	15	14	29

Source: FHCI Cancer Registry

## 2014 Head and Neck Cancer Cases

### Age by Gender at Diagnosis

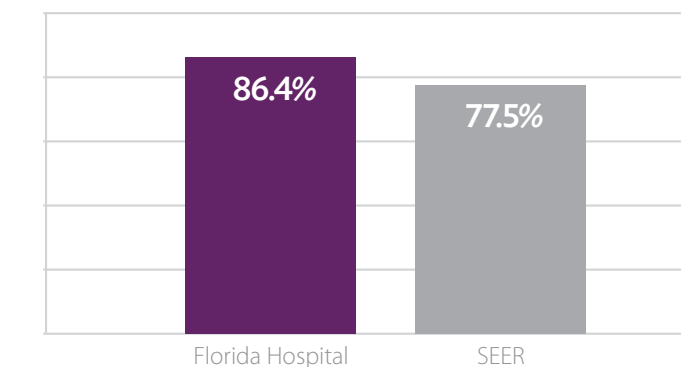
Although total cases diagnosed demonstrated no gender difference, the age at which men and women were diagnosed with head and neck cancer varied significantly, with women more likely to be diagnosed between the ages of 20-49 and men more likely to be diagnosed after age 50.



## Head and Neck Cancers Five-year Survival

### Cases Diagnosed 2005 - 2011

Five-year survival rates for head and neck cancer at FHCI exceeded national averages from nine Surveillance, Epidemiology and End-Results (SEER) registries.



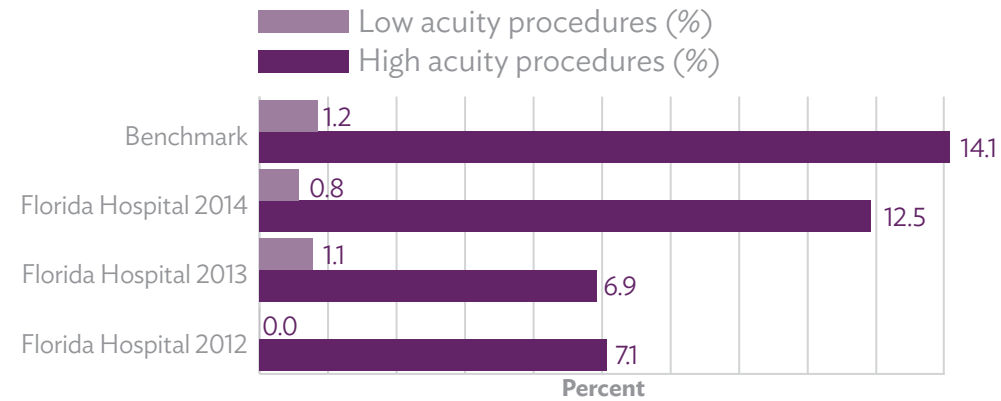
FHCI vs. nine Surveillance, Epidemiology and End-Result registries, part of Center for Disease Control. Head and neck cancers include oral, cavity, pharynx, larynx, eye and orbit and thyroid. Source: FHCI Cancer Registry; www.SEER.gov.





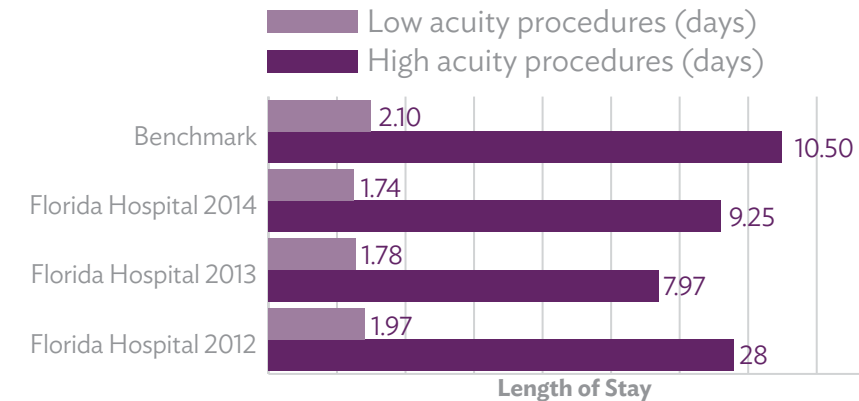
## 2014 Head and Neck Quality Metrics Report

Site Infection



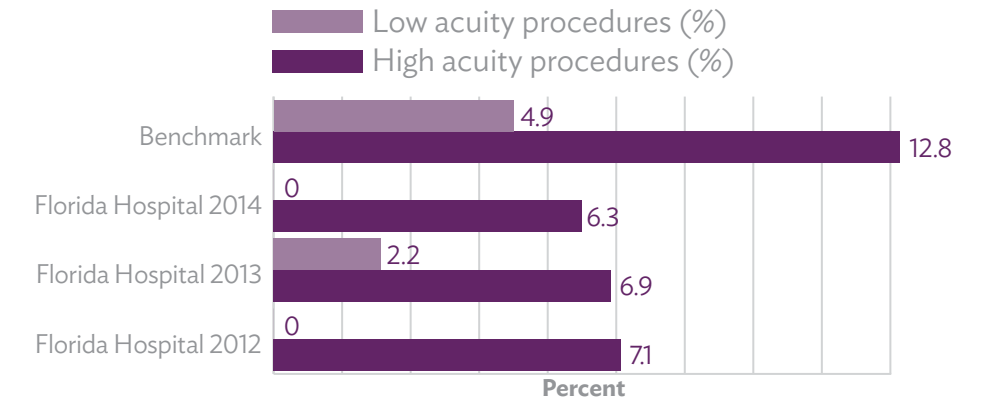
Source: FHCI 2014 Head and Neck Quality Metrics Report

Length of Stay



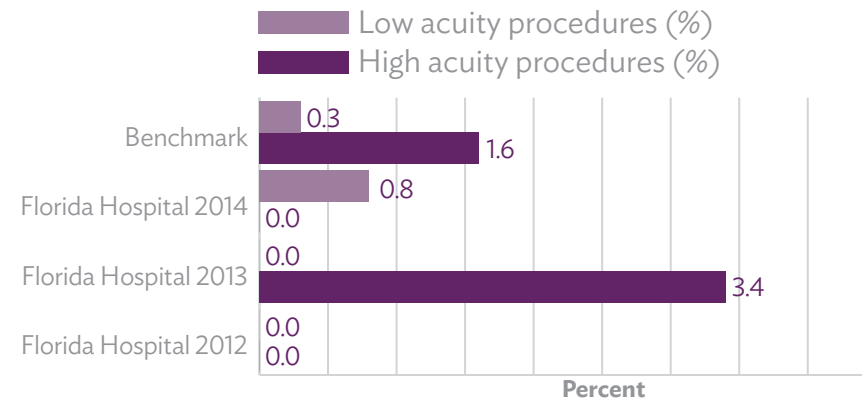
Source: FHCI 2014 Head and Neck Quality Metrics Report

Readmission Within 30 Days of the Operation



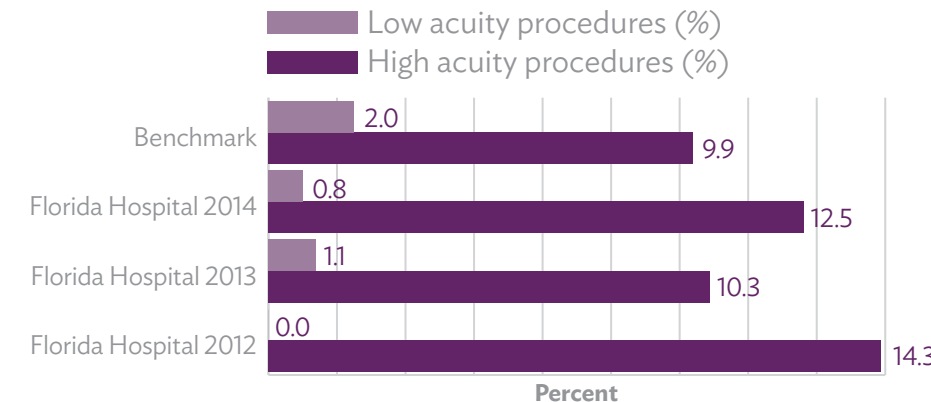
Source: FHCI 2014 Head and Neck Quality Metrics Report

30 Day Mortality



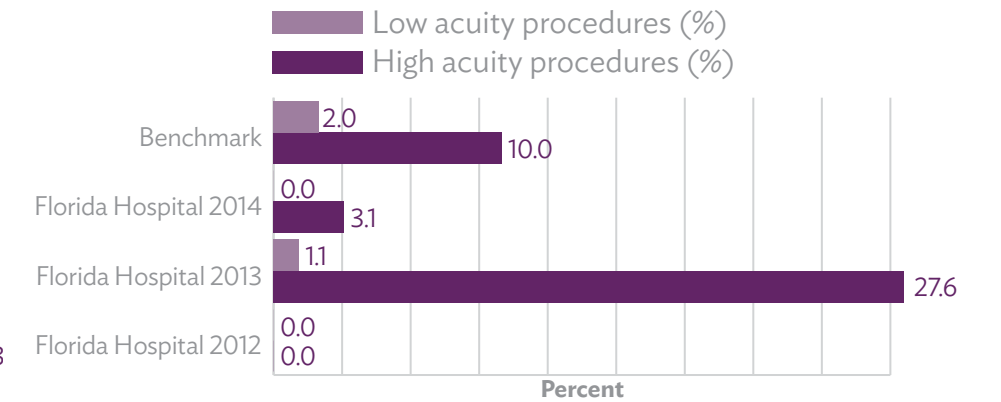
Source: FHCI 2014 Head and Neck Quality Metrics Report

Return to OR Within 7 Days of the Operation



Source: FHCI 2014 Head and Neck Quality Metrics Report

Use of Blood Products



Source: FHCI 2014 Head and Neck Quality Metrics Report



**Fouad Hajjar, MD**  
 Medical Director, Children's Center for  
 Cancer and Blood Diseases



**Dennis Borrero, MD**  
 Children's Center for Cancer and  
 Blood Diseases

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 are able to offer the latest clinical trials available.

### 2014 Highlights

- Continued active membership in Children's Oncology Group
- Enrolled 21 new patients into FHCI pediatric oncology clinical research trials and saw 80 patients in follow-up trials
- Received the Scientific Leadership National Institutes of Health National Clinical Trials Network Grant (Dr. Betsy Poon)
- Ranked one of the largest neurofibromatosis multidisciplinary clinics in the country

COG NCTN Network Group Operations Center; National Institute of Health; National Clinical Trials Network through Children's Hospital of Philadelphia on behalf of Children's Oncology Group.

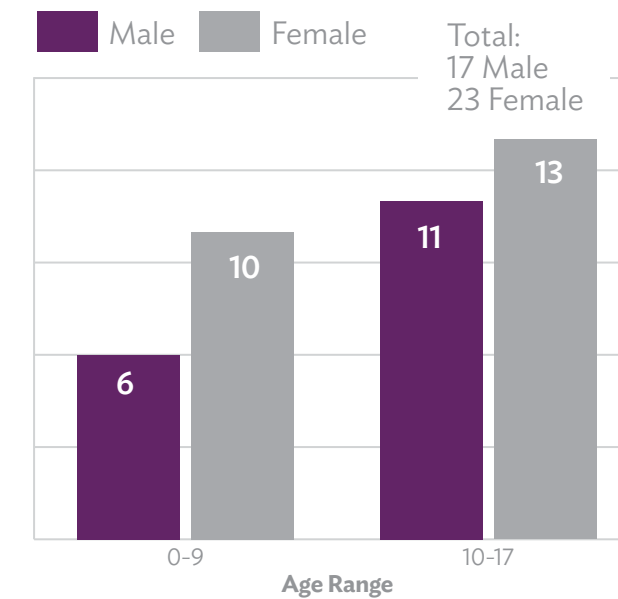
National Institute of Health: NCI Community Oncology Research Program.

Scientific Leadership; National Institute of Health: National Clinical Trials Network through Children's Hospital of Philadelphia on behalf of Children's Oncology Group.

## 2014 Pediatric Cancer Cases

### Age by Gender at Diagnosis

This graph shows the incidence by age and gender for pediatric cancers diagnosed at FHCI in 2014.

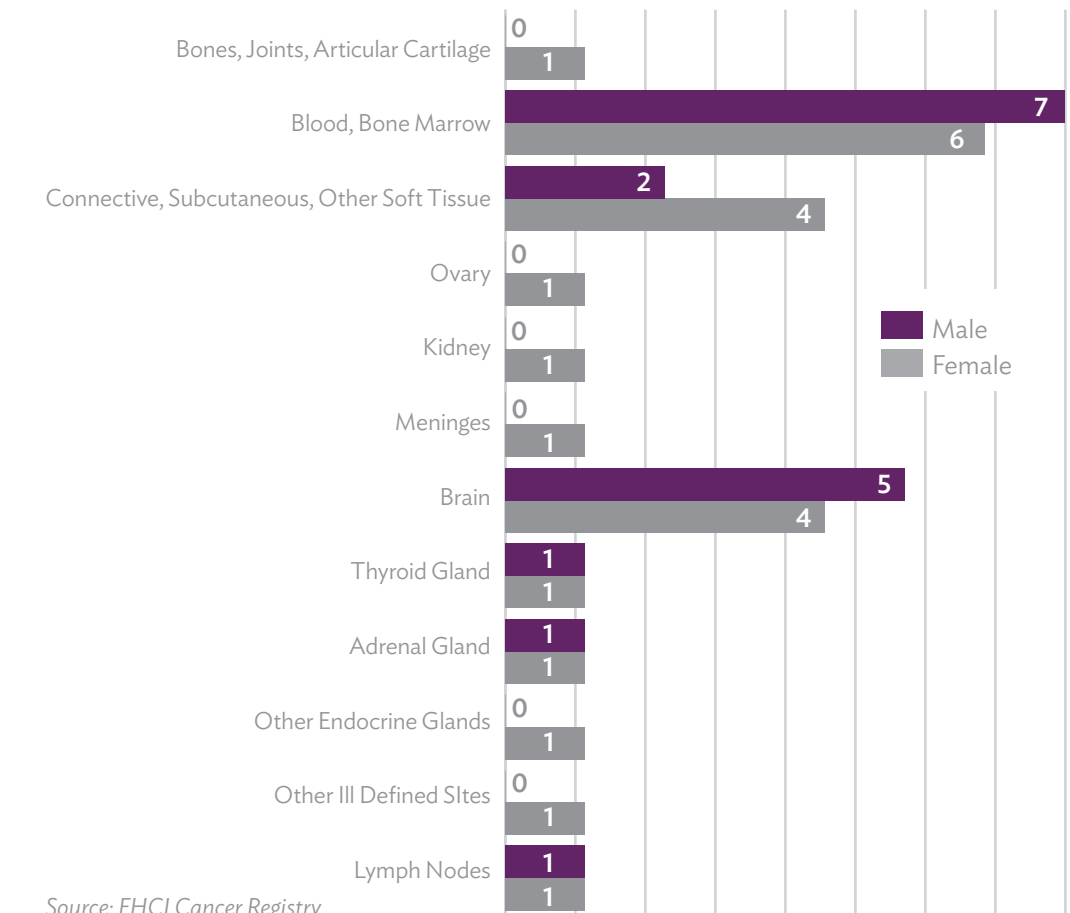


Source: FHCI Cancer Registry

## 2014 Pediatric Cancer Cases

### Primary Tumor Site by Gender

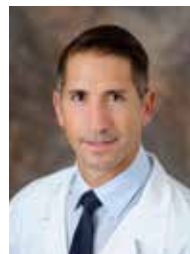
Childhood cancer cases represent less than 1 percent of all new cancer diagnoses in the United States annually (Cancer Facts and Figures, 2011). Childhood-cancer incidence rates have increased slightly by 0.6 percent each year from 2007 to 2011. However, cancer remains a leading cause of death in children, second only to accidents. This graph shows the incidence by disease type and gender for pediatric cancers diagnosed at FHCI in 2014.



Source: FHCI Cancer Registry



# Radiation Oncology



**Matthew Biagioli, MD, MS**  
Medical Director  
Florida Hospital Cancer Institute

In 2014, Florida Hospital Cancer Institute welcomed a new group of Radiation Oncologists to Central Florida: Radiation Oncology Specialists (ROS). A Florida Hospital Medical Group practice, the Radiation Oncology team offers extensive experience and expertise in a wide range of radiation therapies at 12 locations across the Central Florida market. By placing a high value on evidence-based medicine, the team employs a disease-specific approach that ensures patients are evaluated by physicians with additional expertise in that particular discipline of oncology.

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

## Physician Team:

<i>Johnny Ray Bernard, Jr., MD</i>	<i>Charles Hodge, MD</i>	<i>Margarita Racska, MD</i>
<i>Matthew Biagioli, MD</i> Medical Director	<i>Aamir Hussain, MD</i>	<i>Nikhil Rao, MD</i>
<i>Luis Carrascosa, MD</i>	<i>Catherine Hwang, MD</i>	<i>Kunal Saigal, MD</i>
<i>Afshin Forouzannia, MD</i>	<i>Anudh Jain, MD</i>	<i>Samir Sejpal, MD</i>
<i>Mark Harvey, MD</i>	<i>Shravan Kandula, MD</i>	<i>Ravi Shridhar, MD</i>

## 2014 Highlights

Treated 2,500 patients with innovative therapies such as:

- Gamma Knife® radiosurgery, in collaboration with Neurosurgery.
- Stereotactic Spine Radiosurgery procedures, in collaboration with Neurosurgery.
- Radiation immunotherapy.
- Stereotactic Body Radiation Therapy program, for cancers of the lung, pancreas and liver.
- MRI-based brachytherapy, including:
  - MRI-guided, nerve-sparing, high-dose radiation brachytherapy for prostate cancer.
  - MRI-guided high-dose radiation brachytherapy for gynecological cancer.
- External beam radiation therapy
- Intensity-modulated radiation therapy
- Volumetric Modulated arc therapy

## Publications

Vapiwala N., Dutta P., **Biagioli M.C.**; "Radiation Therapy and Prostate Cancer"; Chapter 18, University of Pennsylvania Clinical Manual of Urology; Elsevier 2014.

Mellon E.A., Javedan K., Strom T.J., Moros E.G., **Biagioli M.C.**, Fernandez D.C., Wasserman S.G., Wilder R.B.; "A Dosimetric Comparison of Volumetric-modulated Arc Therapy with Step-and-Shoot Intensity Modulated Radiation Therapy for Prostate Cancer"; Practical Radiation Oncology (in press).

**Rao N., Shridhar R.**, Hoffe S.E.; "Late Effects of Pelvic Radiation for Rectal Cancer and Implications for Survivorship"; Seminars in Colon and Rectal Surgery 2014; 23:38-43.

Hoffe S.E., **Rao N., Shridhar R.**; "Neoadjuvant vs. Adjuvant Therapy for Resectable Pancreatic Cancer: The Evolving Role of Radiation"; Seminars in Radiation Oncology 2014; 24(2):113-125.

**Shridhar R.**, Chan E., Eng C., Silva N., Tsikitis L., Hedland S., Chuong M.D., Thomas C.R.; "Anal Cancer"; American Cancer Society Textbook of Cancer; 2014.

**Shridhar R.**, Almhanna K., Hoffe S.E., Biagioli M., Coppola D., Meredith K.L.; "Esophageal Cancer"; American Cancer Society Textbook of Cancer; 2014.

Hall W.A., Prabhu R.S., Crocker I.R., Dhabban A., Ogunleye T., **Kandula S.**, Xiaojun J., Curran W.J., Shu H.G.; "Repeat Whole Brain Radiation Therapy with a Simultaneous Infield Boost: A Novel Technique for Reirradiation"; Journal of Radiotherapy, vol. 2014, Article ID 403945, 8 pages, 2014. doi:10.1155/2014/403945.

Evans A.J., Lee D.Y., **Jain A.K.**, Razi S.S., Park K., Schwartz G.S., Trichter F., Ostenson J., Sasson J.R., Bhora F.Y.; "The Effects of Metallic Tracheal Stents on Radiation Dose in the Airway and Surrounding Tissues"; Journal of Surgical Research; 2014; 189(1): 1.

Parker G., LeBaron V., Krishnan M.S., Shiloh R.Y., **Racska M.**, Pacold M.E., Spektor A., Balboni T.A.; "Palliative Care Issues Encountered by Radiation Oncologists Caring for Advanced Cancer Patients"; Palliative Care in Oncology Symposium 2014; Journal of Clinical Oncology; 32, 2014 (Supplement 31; Abstract 14).

Mellon E.A., Springett G.M., Hoffe S.E., Hodul P., Malafa M.P., Meredith K.L., Fulp W.J., Zhao X., **Shridhar R.**; "Cancer"; Jan. 3, 2014; e-published ahead of print; PMID: 24390779.

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## Presentations

### January

“A Genomic Assay of Tumor Radiosensitivity”; GI ASCO 2014 Esophagogastric Task Force Face to Face Meeting, San Francisco.

Gopi Kesaria Prithviraj, Kathryn Anissa Baksh, William J. Fulp, Ken Meredith, Sarah E. Hoffe, **Shridhar R.**, Almhanna K.; “Carboplatin and Paclitaxel as First-line Treatment of Unresectable or Metastatic Esophageal or Gastric Cancer”; *Journal of Clinical Oncology*, 32, 2014 (suppl 3; abstr 140); 2014 ASCO Gastrointestinal Cancers Symposium, San Francisco.

Abbott A.M., Strom T.J., Saeed N., **Shridhar R.**, Hoffe S.E., Almhanna K., Meredith K.; “Robotic-assisted Ivor-Lewis Esophagectomy in the Elderly Patient”; *Journal of Clinical Oncology* 32, 2014 (suppl 3; abstr 93); 2014 ASCO Gastrointestinal Cancers Symposium, San Francisco.

**Shridhar R.**, Freilich J., Hoffe S.E., Almhanna K., Fulp W.J., Yue B., Meredith K.L.; “Survival Impact of Esophagectomy after Chemoradiation for Adenocarcinoma of the Esophagus”; *Journal of Clinical Oncology*; 32, 2014 (suppl 3; abstr 132); 2014 ASCO Gastrointestinal Cancers Symposium, San Francisco.

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Freilich J., Mellon E.A., Springett G.M., Meredith K., Hodul P.J., Malafa M.P., Fulp W.J., Zhao X., Hoffe S.E., **Shridhar R.**; “Outcomes of Adjuvant Radiotherapy and Lymph Node Dissection in Elderly Patients with Pancreatic Cancer Treated with Surgery and Chemotherapy”; *Journal of Clinical Oncology* 32, 2014 (suppl 3; abstr 332); 2014 ASCO Gastrointestinal Cancers Symposium, San Francisco.

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“Management Strategies to Minimize Acute and Long Term Side Effect of Head and Neck Radiation Therapy”; Staffileno Head and Neck Cancer Symposium for Dentist 2014, Northwestern Memorial Hospital, Chicago.

### February

“A Genomic Assay of Tumor Radiosensitivity”; Radiation Therapy Oncology Group 2014 Group Meeting, San Diego.

### May

Dawson G., Greener A., Reyes-Dawson D., Malhotra S., Winbrom S., Reddy S., **Jain A.**, Kelly M.; “Bone Health in Prostate Cancer Patients: An Opportunity for Screening and Intervention”; American Society for Clinical Oncology 50th Annual Meeting; Chicago.

### September

**Kandula S.**, Switchenko J., Fasola C., Mister D., Yu D., Zelnak A., Torres M.A.; “The Influence of Receptor Status on Locoregional Recurrence Risk among Breast Cancer Patients with Positive Lymph Nodes Following Neoadjuvant Chemotherapy and Mastectomy”; ASTRO 2014 Annual Meeting, San Francisco.

### November

**Kandula S.**, Cordova J.S., Schreiber E., Crocker I., Holder C., Shim H., Shu H.K. (poster presentation); “The Impact of Integrating Volumetric MR Spectroscopic Imaging in Radiation Treatment Planning for Glioblastoma”; 2014 Annual Society for Neuro-Oncology Scientific Meeting, Miami.

“Spine Radiosurgery: Rationale and Techniques New Treatment Paradigms for Neoplastic CNS Disease”; Florida Hospital CME Series, Citrus Club, Orlando.





**Tarek Mekhail, MD, MSc, FRCSI, FRCSEd**  
*Medical Director, Thoracic Cancer Program  
Florida Hospital Cancer Institute*



**Joseph Boyer, MD**  
*Thoracic Surgical Director, Thoracic Cancer Program  
Director of Minimally Invasive and Robotic Surgery  
Florida Hospital Cancer Institute*

The FHCI offers thoracic cancer patients access to a multidisciplinary team approach and cutting-edge technology with minimally invasive procedures such as robot-assisted lobectomy.

### 2014 Highlights

- 15 new clinical trials were opened, with 57 patients enrolled in thoracic cancer trials
- 239 cases were presented in 46 tumor boards with 100 percent multidisciplinary team approach
- Acquisition of the superDimension Electromagnetic Navigational Bronchoscopy system
- Achieved a zero percent mortality rate in pneumonectomy, mediastinoscopy and esophagectomy surgery
- Of 579 total surgical cases, 71 percent were without postoperative complications
- Compliance with National Comprehensive Cancer Network (NCCN) guidelines maintained at 75 percent

### Publications

Solomon B.J., Mok T., Kim D.W., Wu Y.L., Nakagawa K., **Mekhail T.**, Felip E., Cappuzzo F., Paolini J., Usari T., Iyer S., Reisman A., Wilner K.D., Tursi J., Blackhall F.; PROFILE 1014 Investigators. “First-line Crizotinib vs. Chemotherapy in ALK-positive Lung Cancer”; *New England Journal of Medicine*; Dec. 4, 2014; 371(23):2167-77. doi: 10.1056/NEJMoa1408440.

Wakelee H., Zvirbule Z., Braud F., Kingsley D., **Mekhail 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 (nsNSCLC): Results from a Phase II, Placebo-controlled Study (GO27821); 2014 Chicago Multidisciplinary Symposium in Thoracic Oncology.

Nakagawa L., Mok T., Kim D., Wu Y., Solomon B., **Mekhail T.**, Felip E., Cappuzzo F., Paolini J., Usari T., Tursi J., Blackhall F.; “First-line Crizotinib vs. Pemetrexed + Cisplatin/carboplatin in Asian Patients with Advanced ALK+ NSCLC in PROFILE 1014”; 12th Annual Meeting JSMO, July 2014.

Mok T., Kim D., Wu Y., Solomon B., Nakagawa K., **Mekhail T.**, Felip E., Cappuzzo F., Paolini J., Usari T., Tursi J., Blackhall F.; First-line Crizotinib vs. Pemetrexed-cisplatin or Pemetrexed-carboplatin in Patients (pts) with Advanced ALK-positive Non-squamous Non-small Cell Lung Cancer (NSCLC): Results of a Phase III Study (PROFILE 1014); *Journal of Clinical Oncology*; 32:5s, 2014 (suppl; abstr 8002).

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Blackhall F.H., Felip E., Cappuzzo F., Kim D.W., Wu Y., Solomon B., Nakagawa K., **Mekhail T.**, Paolini J., Usare T., Iyer S., Reisman A., Wilner K., Tursi J., Mok T.S.; “Impact of Crizotinib on Patient-reported Symptoms and Global QOL Compared with Platinum-Based Chemotherapy in a Phase III Study of Treatment-Naïve Advanced ALK-positive NSCLC; ESMO 2014, poster discussion.



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Almhanna K., Hoffe S., Strosberg J., Dinwoodie W., Meredith K., Shridhar R. Concurrent chemoradiotherapy with Protracted Infusion of 5-fluorouracil (5-FU) and Cisplatin for Locally Advanced Resectable Esophageal Cancer; Journal of Gastrointestinal Oncology; February 2015; 6(1):39-44. doi: 10.3978/j.issn.2078-6891.2014.101. PMID: 25642336 [PubMed].

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## Presentations

“Overall and Intracranial Efficacy Results and Time to Symptom Deterioration in PROFILE 1014: 1st-line Crizotinib vs. Pemetrexed-platinum Chemotherapy in patients with Advanced ALK-positive Non-squamous Non-small Cell Lung Cancer; Solomon B.J., Felip E., Blackhall F.H., Mok T.S., Kim D.W., Wu Y.L., Nakagawa K., **Mekhail T.**, Paolini J., Usari T., Iyer S., Reisman A., Wilner K.D., Tursi J., Cappuzzo F.; ESMO 2014; proffered paper session.

“Impact of Crizotinib on Patient-reported Symptoms and Global QOL Compared with Platinum-Based Chemotherapy in a Phase III Study of Treatment-Naïve Advanced ALK-positive NSCLC”; Blackhall F.H., Felip E., Cappuzzo F., Kim D.W., Wu Y., Solomon B., Nakagawa K., **Mekhail T.**, Paolini J., Usare T., Iyer S., Reisman A., Wilner K., Tursi J., Mok T.S.; ESMO 2014; poster discussion.

“First-line Crizotinib vs. Pemetrexed-platinum Chemotherapy in Asian Patients with Advanced ALK-positive NSCLC”; Mok T., Kim D., Wu Y., Solomon B., Nakagawa K., **Mekhail T.**, Felip E., Cappuzzo F., Paolini J., Usari T., Wilner K., Tursi J., Blackhall F.; 55th Annual Meeting of JLCs, November 2014.

“First-line Crizotinib vs. Pemetrexed-cisplatin or Pemetrexed-carboplatin in Patients (pts) with Advanced ALK-positive Non-squamous Non-small Cell Lung Cancer (NSCLC): Results of a Phase III Study”; Mok T., Kim D., Wu Y., Solomon B., Nakagawa K., **Mekhail T.**, Felip E., Cappuzzo F., Paolini J., Usari T., Tursi J., Blackhall F.; poster session; 2014 ASCO Annual Meeting.

“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 (nsNSCLC): Results from a Phase II, Placebo-controlled Study (GO27821)”; Wakelee H., Zvirbule Z., Braud F., Kingsley D., **Mekhail T.**, Schütte W., Lena H., Lawler W., Braiteh F., Cosgriff T., Kaen D., Boyer M., Hsu J., Phan S., Novello S.; 2014 Chicago Multidisciplinary Symposium in Thoracic Oncology.

“Interim Phase 2 Results of Study CO-1686-008: A Phase 1/2 Study of the Irreversible, Mutant Selective, EGFR Inhibitor Rociletinib (CO-1686) in Patients with Advanced Non-small Cell Lung Cancer”; Soria J., Sequist L.V., Goldman J.W., Wakelee H.A., Gadgeel S.M., Varga A., Yu H.A., Solomon B.J., Ou S.H., Papadimitrakopoulou V., Oxnard G.R., Horn L., Dziadziuszko R., Chao B., Spira A.I., Liu S., **Mekhail T.**, Matheny S., Litten J., Camidge R.D.; plenary session; 2014 EORTC-NCI-AACR, Barcelona, Spain.

## Case Mix of Thoracic Surgery Procedures

Thoracic Cancer Types		Benign	
Lung	210	Lung	119
Metastatic	55	Mediastinum	60
Mediastinum	18	Pleura	83
Esophageal	11	Other	7
Pleura	5	Esophageal	6
		Trauma	5
<b>Total</b>	<b>299</b>	<b>Total</b>	<b>280</b>

Source: FHCI Thoracic Surgery Database

## Robotic Procedures Case Breakdown

Procedure	Cases
Lobectomy	57
Wedge Resection	17
Thymectomy	6
Mediastinal Mass Resection	5
Segmentectomy	2
Mediastinal Mass Bx	1
Diaphragmatic Hernia Repair	1
Bilobectomy	1
Thoracic Duct	1
Sympathectomy	1
Esophageal Wall Lesion	1
<b>Totals</b>	<b>93</b>

Source: FHCI Thoracic Surgery Database

## Lung Cancer Primary Procedures

Resections		Biopsy		Other	
Lobectomy	106	Mediastinoscopy	45	Pericardial Window	5
Bilobectomy	11	Chamberlain	4	Decortication	1
Pneumonectomy	10	Pleural Bx	3	Other	3
Wedge(s)	9	Mediastinal LN	1		
Segmentectomy	10	Mediastinal Mass	1		
Sleeve Resection	1				
<b>Total</b>	<b>147</b>	<b>Total</b>	<b>54</b>	<b>Total</b>	<b>9</b>

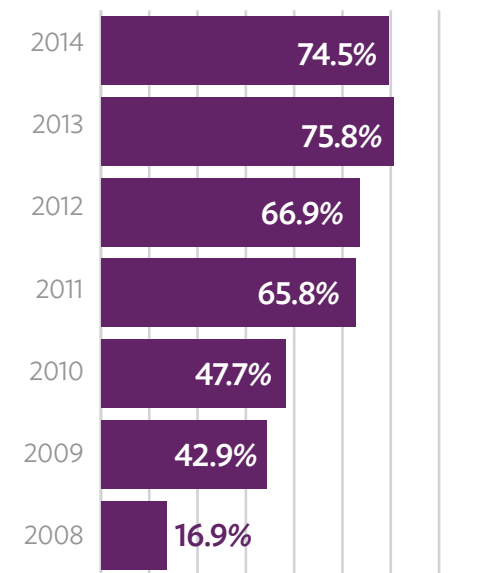
Source: FHCI Thoracic Surgery Database



## National Comprehensive Cancer Network Guideline Compliance

Seven-Year Trend

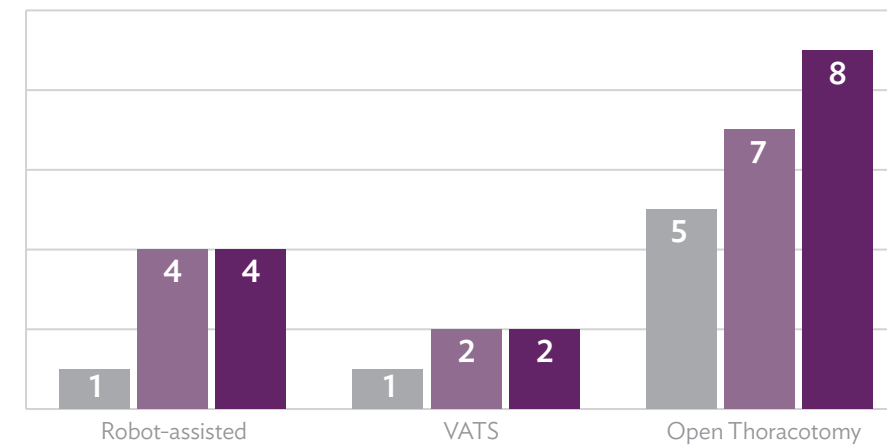
Compliance with National Comprehensive Cancer Network (NCCN) guidelines reached 74.5 percent in 2014.



Source: FHCI Thoracic Surgery Database

## Lobectomy Analysis – Length of Stay and Chest Tube

Legend: Chest Tube Days (light purple), Post-operative Length of Stay (medium purple), Overall Length of Stay (dark purple)

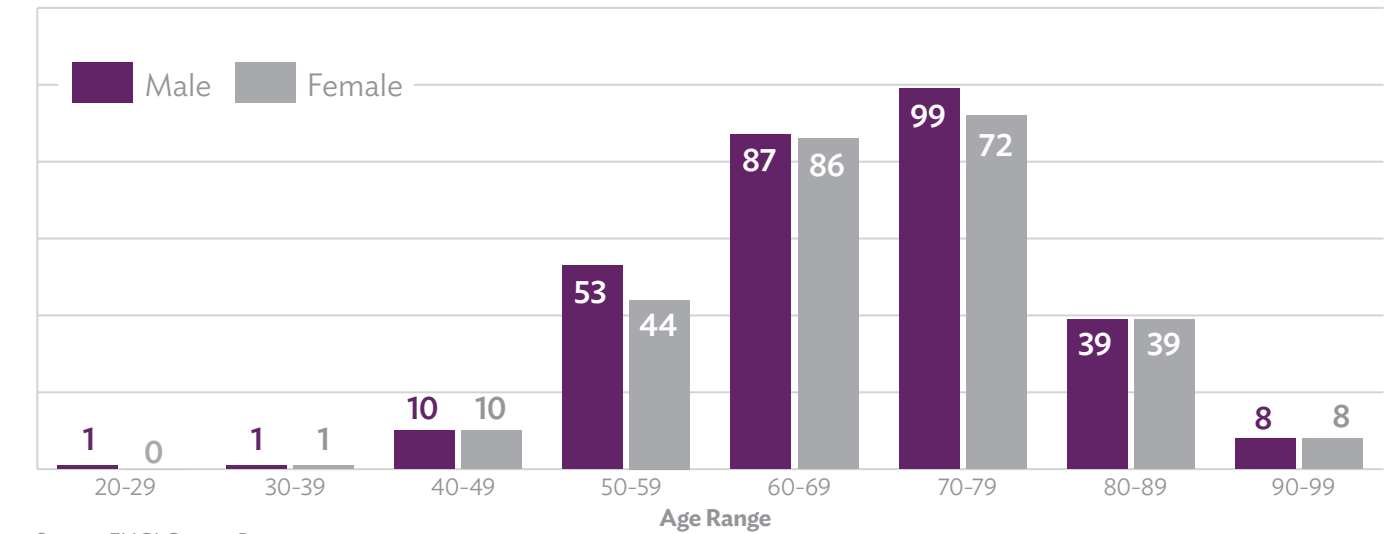


Source: FHCI Thoracic Surgery Database

## 2014 Lung Cancer Cases

Age by Gender at Diagnosis

In 2014, lung cancer was the most frequently diagnosed cancer in the state of Florida. Across the nation and at the FHCI, it is the third-most common cancer, with 578 new cases seen at FHCI. Both men and women were diagnosed mostly in their 60s and 70s.

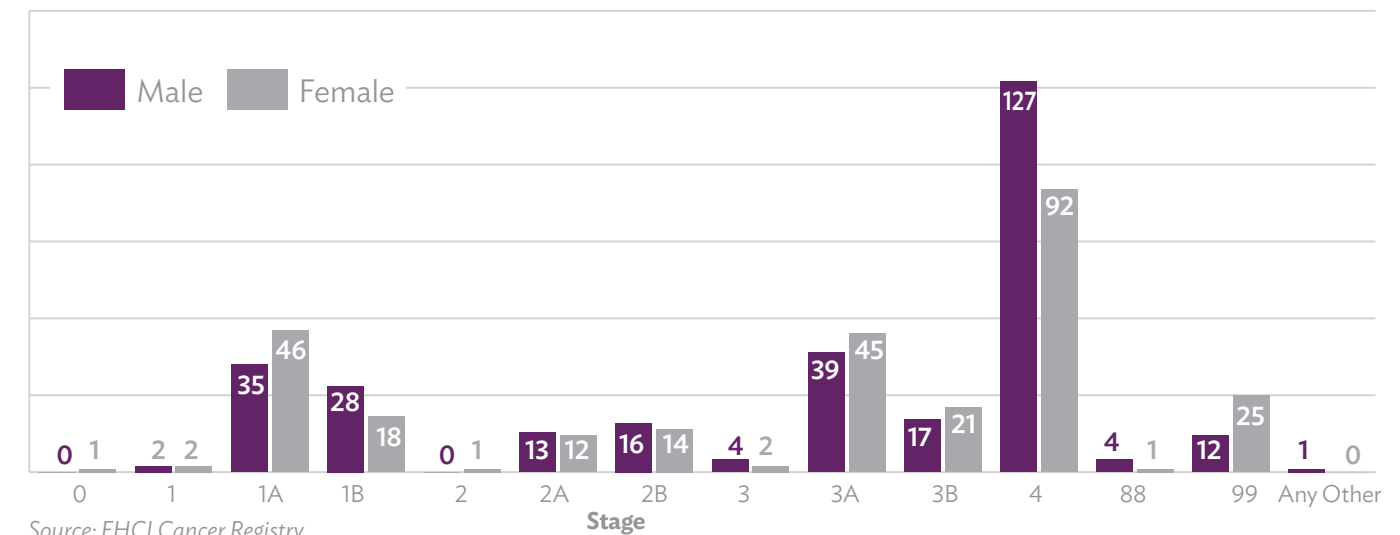


Source: FHCI Cancer Registry  
Chart depicts number of patients.

## 2014 Lung Cancer Cases

Stage by Gender at Diagnosis

More than 60 percent of men and women diagnosed at FHCI in 2014 were in an advanced stage of lung cancer (III or IV).

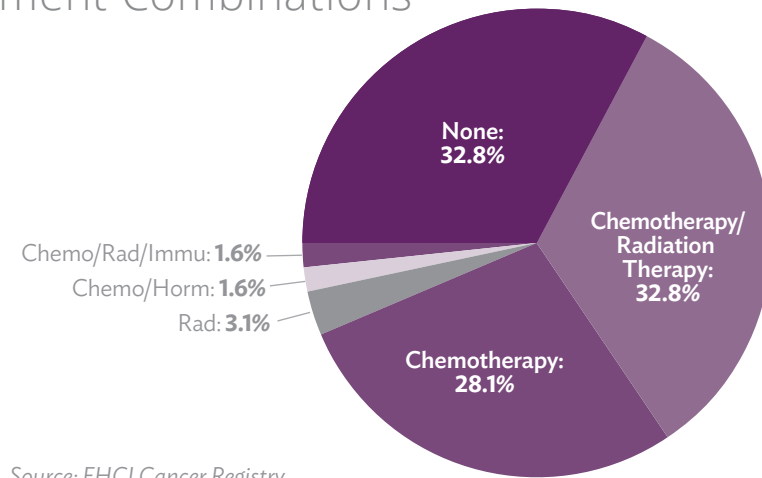


Source: FHCI Cancer Registry  
Chart depicts number of patients.

## Lung Cancer Treatment Combinations by Disease Type

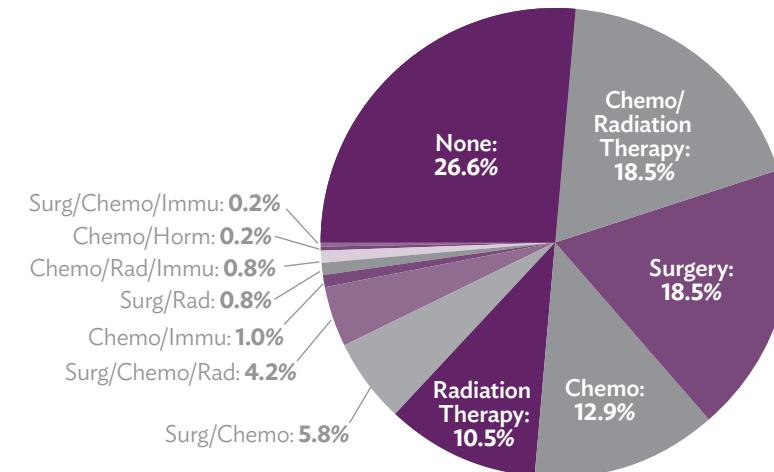
The two major types of lung cancer are non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC). Disease-specific treatment combinations given to FHCI patients in 2014 are summarized in these charts.

### 2014 Small Cell Lung Cancer Cases Treatment Combinations



Source: FHCI Cancer Registry

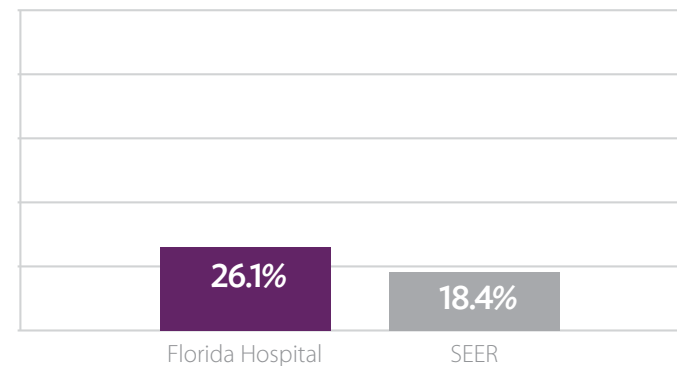
### 2014 Non-Small Cell Lung Cancer Cases Treatment Combinations



Source: FHCI Cancer Registry

## Lung Cancer Cases Five-year Survival

Cases Diagnosed 2005 - 2011



FHCI vs. nine SEER registries (SEER = surveillance, epidemiology and end results, part of Centers for Disease Control and Prevention).

Source: FHCI Cancer Registry; www.SEER.gov.



### Vipul Patel, MD, FACS

Medical Director, Global Robotics Institute  
Medical Director, Urologic Oncology Program  
Florida Hospital Cancer Institute



### Inoel Rivera, MD, FACS

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

FHCI is one of the most experienced centers worldwide for robotic prostatectomy, a less-invasive, robotic-assisted surgery that increases the level of surgical precision and improves the recovery process. Our team helps aggressively and successfully battle urologic cancers, including prostate, kidney, ureters, bladder and penile cancers.

### 2014 Highlights

- Performed 1,139 robotic surgeries
- Added three da Vinci Xi surgical robots with two dual teaching consoles.
- Conducted first trials of da Vinci vessel sealer and stapler.
- Assisted with future technical launches, including da Vinci SP, a single port robot prototype (Drs. Vipul Patel, Eduardo Parra-Davila and Scott Magnuson).
- Developed operating room efficiency and training courses in conjunction with Florida Hospital Nicholson Center.

### Publications

#### January

Abdul-Muhsin H., Giedelman C., Samavedi S., Schatloff O., Coelho R., Rocco B., Palmer K., Ebra G., **Patel V.R.**; "Perioperative and Early Oncological Outcomes after Robot-assisted Radical Prostatectomy (RARP) in Morbidly Obese Patients: A Propensity Score-matched Study"; BJU International, 113: 84-91.

#### February

**Patel V.**, Samavedi S.; "Prostate Cancer: Superior Outcomes after a Long Learning Curve with RARP"; Nature Reviews Urology; doi:10.1038/nrurol.2014.10.

#### May-June

Ruparel R.K., Taylor A.S., Patel J., **Patel V.R.**, Heckman M.G., Rawal B., Leveillee R.J., Thiel D.D.; "Assessment of Virtual Reality Robotic Simulation Performance by Urology Resident Trainees"; Journal of Surgical Education, Volume 71, Issue 3, 302-308.

Kang S.G., Cho S., Kang S.H., Haidar A.M., Samavedi S., Palmer K.J., **Patel V.R.**, Cheon J.; "The Tube 3 Module Designed for Practicing Vesicourethral Anastomosis in a Virtual Reality Robotic Simulator: Determination of Face, Content and Construct Validity".

#### September-October

Ou Y.C., Yang C.K., Chang K.S., Wang J., Hung S.W., Tung M.C., Tewari A.K., **Patel V.R.**; "The Surgical Learning Curve for Robotic-assisted Laparoscopic Radical Prostatectomy: Experience of a Single Surgeon with 500 Cases in Taiwan, China"; Asian Journal of Andrology; 216(5):728-34; doi: 10.4103/1008-682X.128515.PMID:24830691.

#### October-December

Samavedi S., Abdul-Muhsin H., Pigilam S., Sivaraman A., **Patel V.R.**; "Handling Difficult Anastomosis: Tips and Tricks in Obese Patients and Narrow Pelvis"; Indian Journal of Urology, Vol. 30, Issue 4.

### Other Publications

Bongyong L., Mazar J., Aftab M.N., Qi F., Shelley J., Li J.L., Govindarajan S., Valerio F., Rivera I., Thurn T., Anh Tran T., Kameh D., **Patel V.R.**, Perera R.J.; "Long Noncoding RNAs as Putative Biomarkers for Prostate Cancer Detection"; Journal of Molecular Diagnostics, <http://dx.doi.org/10.1016/j.jmoldx.2014.06.09>.

## Presentations and Invited Lectures

### February

**Dr. Vipul Patel** – Two live robotic prostatectomies; lecture: “Robotic Radical Prostatectomy – Lessons Learned from Over 7000 Cases: Step-by-Step Technique”; International Clinical Congress, Lisbon, Portugal.

**Dr. Vipul Patel** – “The Art of Nerve Sparing” (live robotic radical prostatectomy); lecture: “Nerve-Sparing Radical Prostatectomy: An Anatomic Approach”; Fifth Annual Advanced International Robotic Urology Symposium, Charlotte, N.C.

### March

**Dr. Vipul Patel** – “Safety of Live Robotic Surgery Transmission”; “Contribution of Laparoscopic Surgical Experience Perioperative and Oncological Outcomes in High Risk Elderly Patients 70 Years of Age and Over”; 78th Annual SESAUA Conference, Hollywood, FL.

### April

**Dr. Vipul Patel** – “Technical Aspects of Robot Assisted Prostatectomy”; “Safety of Selective Nerve Sparing in High-risk Prostate Cancer during Robotic Prostatectomy”; “Predictors for Oncological Outcomes after Radical Prostatectomy”; “Age Stratified Comparative Analysis of Perioperative, Functional and Oncological Outcomes in Patients after RARP (propensity score matched study)”; “Treatment of High-Risk Prostate Cancer”; “Perioperative and Oncological Outcomes in High-Risk Elderly Patients”; “Impact of Prior Abdominal Surgery on Robotic-assisted Radical Prostatectomy”; “Morbidity and Functional Outcomes of Treatments for Prostate Cancer”; “Continence Outcomes RARP in Suboptimal Patients”; “Critical Evaluation of Established Markers in Prostate Cancer”; “Identification and Characterization of Long Noncoding RNA Markers for Prostate Cancer Detection”; EAU, Stockholm, Sweden.

### May

**Dr. Vipul Patel** – (live case) “Nerve-sparing Robotic Radical Prostatectomy”; panel: “Troubleshooting and Intra-op Complications”; lecture: “Optimizing Potency Recovery during Surgery, Techniques and Outcomes”; moderator (video): “Partial Nerve Sparing in High Risk Prostate Cancer; (video) “Salvage Prostatectomy”; moderator: “Patient Management Questions and Answers Panel: Use of Hemostatic Agents/ Use of Drains and Cystograms/Use of Neuroprotective Agents/Management of Post-op Bleeding/Management of Post-op Urinary Leak/Lymphocele Prevention and Management/ Penile and Continence Rehabilitation; Advanced Robotic Urology Course, Orlando, FL.

**Dr. Vipul Patel** – “Age Stratified Comparative Analysis of Perioperative, Functional and Oncological Outcomes in Patients after RARP (propensity score matched study)”; American Urological Association Annual Meeting, Orlando, FL.

**Dr. Vipul Patel** – “Technical Innovations to Improve Nerve Preservation”; Challenges in Laparoscopy, Barcelona, Spain.

### August

**Dr. Vipul Patel** – “Decipher in Post-Prostatectomy Clinical Care: A New Genomic Approach”; “Update on RALP”; 2014 FUS Florida Urological Association, Miami, FL.

### September

**Dr. Vipul Patel** – “The Use of Bidirectional Barbed Suture During RARP”; “Safety of Live Robotic Surgery Transmission in Urology”; “Safety of Selective Nerve Sparing in High-risk Prostate Cancer During Robotic Prostatectomy”; “Continence Outcomes RARP in Suboptimal Patients”; “Impact of Prior Abdominal Surgery in RARP”; “Midterm Functional and Oncological Outcomes of RARP in D’amico High-Risk Patients”; Perioperative and Oncological Outcomes in High-risk Elderly Patients”; 2014 WCE World Congress of Endourology, Taipei, Taiwan.

**Dr. Vipul Patel** – (lecture) “Renal Physiology”; video: “Pyeloplasty and Partial Nephrectomy”; lecture: “Complications in Renal Surgeries”; 2014 Congreso de la Sociedad Panameña de Urología, Panamá City, Panamá.

**Dr. Vipul Patel** – (live surgery) “Robotic Radical Prostatectomy”; ERUS, Amsterdam, the Netherlands.

### October

**Dr. Vipul Patel** – (video) “Nerve Sparing Robotic Radical Prostatectomy”, lecture: “Challenging Situations During Robotic Prostatectomy: Tips & Tricks”; Cleveland Clinic Urology Course Cleveland, OH.

## Conferences

- International Clinical Congress, Lisbon, Portugal; Feb. 13-15.
- 5th Annual Advanced International Robotic Urology Symposium, Charlotte, N.C.; Feb. 28-March 1.
- 78th Annual SESAUA Conference, Hollywood, FL.; March 21-22.
- EAU, Stockholm, Sweden; April 11-15.
- Advanced Robotic Urology Course, Orlando, FL; May 15-16.
- American Urologic Association Annual Meeting, Orlando; May 17-21.
- Challenges in Laparoscopy, Barcelona, Spain; May 30-31.
- FUS Florida Urological Association, Miami; Aug. 30.
- WCE World Congress of Endourology, Taipei, Taiwan; Sept. 2.
- Congreso de la Sociedad Panameña de Urología, Panamá City; Sept. 11.
- Cleveland Clinic Urology Course, Cleveland; Oct. 10.

## Research Studies

**Dr. Vipul Patel** was the principal investigator on the following studies except where indicated:

**Urologic Robotic Surgery Outcomes Registry** – More than 5,500 robotic surgeries registered, **Dr. Vipul Patel**.

**Nadia Pros Vue Field Trial Experiment** – 27 enrolled. An FDA-cleared in-vitro diagnostic assay for determining the rate of change of serum total prostate-specific antigen over a period of time. ProsVue slope is indicated for use as a prognostic marker in conjunction with clinical evaluation as an aid identifying those patients at reduced risk for recurrence of prostate cancer for the eight-year period following radical prostatectomy; **Dr. Vipul Patel**.

**Exosome** – 160 enrolled. Correlation of the Urine Exosome Gene Expression Profile with Clinical Pathology of Prostate Cancer in the Prostatectomy Specimen both Before and After Surgery; **Dr. Vipul Patel**.

**RNA Biomarker Discovery and Development for the Detection and Treatment of Prostate Cancer** – 24 enrolled. Partnership study with **Dr. Ranjan Perera** at Sanford Burnham Prebys Medical Discovery Institute, Lake Nona; **Dr. Vipul Patel**.

**CIRB CALGB 90203** – 1 enrolled. A Randomized Phase III Study of Neo-adjuvant Docetaxel and Androgen Deprivation Prior to Radical Prostatectomy vs. Immediate Radical Prostatectomy in Patients with High-Risk, Clinically Localized Prostate Cancer; Dr. Vipul Patel.

**Role of Obesity in Prostate Cancer Progression** – 11 enrolled. Exploring the hypothesized association between adipose tissue inflammation and prostate inflammation in vivo in humans, as well as the role of adipose tissue in prostate cancer progression; **Dr. Vipul Patel**.

**Registry for Surgical Port Placement Template** – 88 enrolled (Dr. Michael McDonald, principal investigator). A registry to objectively capture patient characteristics, surgical type and port placement measurements along with subjective comments and scoring by the surgeon in order to develop a port placement system; Dr. Vipul Patel.

**Genome DX-Assessing the Impact of Decipher on Practice Decision-making in Prostate Cancer after Surgery** – 7 enrolled. Post-operative prognostic test performed on surgical specimens from men treated surgically with radical prostatectomy for clinically localized prostate cancer. By analyzing the underlying biology of cancer and using the genomic information that lies within individual patients. Decipher enables superior management and personalized therapeutic decision-making for prostate cancer patients with adverse features after surgery; **Dr. Vipul Patel**.

**A Retrospective Evaluation of the Use of Dehydrated Human Amnion/Chorion Membrane as a Barrier Over the Cavernosal Nerves during Nerve-sparing Robotic-assisted Radical Prostatectomy** – 81 enrolled. A retrospective chart review to evaluate the effectiveness of dHACM by comparing potency and continence outcomes as evidenced by comparison of post-operative AUA and SHIM scores, as well as post-operative days to potency and continence in patients who had nerve-sparing RARP procedure with dHACM application to the cavernosal nerve bundles to those patients registered in our IRB-approved Urologic Outcomes Registry with nerve sparing RARP procedure without dHACM application; **Dr. Vipul Patel**.



## Education: Academic Courses

- Southeastern Section Residents Course, January 2014 at Nicholson Center - Course offered to 40 residents free of charge through sponsorship.
- American Urological Association course at Nicholson Center; May.
- Dr. Kenneth J. Palmer presented on prostate to 300 attendees at UCF LIFE; November.

## Community Outreach

- Lake Highland Preparatory School - Hosted 40 high school students who observed a prerecorded surgery, listened to a presentation on robotics and experienced the robotics simulators hands-on; November.

## URO-ONCOLOGY LEADERSHIP COMMITTEE

### 2014 Highlights

- Published GU-Oncology Quality Review: Partial Nephrectomy.
- Developed FHCI Active Surveillance Guidelines.
- Developed survivorship patient care plans for kidney and bladder cancers.
- Dr. Steve K. Williams, uro-oncologist, joined Florida Urology Associates and Florida Hospital Cancer Institute.
- Developed the OR efficiency and training courses with Nicholson Center.

### Community Outreach Initiatives

- Man to Man Prostate Cancer Support Group, Dr. Jeff Brady (moderator).
- 18th Annual Black Men's Health Summit; July.
- Prostate Cancer Awareness Month - Rock n' Run 5K Race; September.
- City of Orlando Wellness Expo: "Men's Health - Check your Engine"; September.
- Gaylord Palms Employee Health Fair - Men's Health.
- Prostate Cancer Awareness Night with the Orlando Magic; Dr. Vipul Patel; November.

## Publications

**Patel V.**, Lee B.Y., Mazar J., Aftab M.N., Qi F., Shelley J., Li J.L., Govindarajan S., Valerio F., **Rivera I.**, Thurn T., et al; "Long Noncoding RNAs as Putative Biomarkers for Prostate Cancer Detection"; Journal of Molecular Diagnosis, 16, 615-626.

## Research Studies

"Clinical, Non-intervention Study of the Cxbladder® Urine Test for the Detection of Recurrent Urinary Tract Urothelial Carcinoma (UC)."

"A Randomized, Double-Blind, Parallel, Placebo-Controlled, Phase 4, Multicenter Study to Assess Efficacy and Safety of VESIcare® (Solifenacin Succinate) to Improve Urinary Continence of Subjects after Robotic-assisted Radical Prostatectomy."

"Virtue® Male Sling Fixation Study for the Treatment of Stress Urinary Incontinence after Surgical Prostatectomies (Dr. Jeff Brady)."

"Tumor Collection from Routine Nephrectomy for Subjects with Advanced Stage RCC."

## Local Research Collaborations

UCFNanoScience Technology Center (Qun Huo, PhD): "A Gold Nanoparticle-Enabled Blood Test for Early Stage Cancer Detection and Risk Assessment."

Sanford Burnham Prebys Medical Discovery Institute, Lake Nona (Ranjan Perera, PhD): "Long Noncoding RNAs as Putative Biomarkers for Prostate Cancer Detection."

Cancer and Leukemia Group B (CALGB). CALGB is funded by the federal government through the National Cancer Institute: MEAL Study.

## Presentations

Dr. Jeff Brady; "Hard to Treat Sexual Dysfunction"; Southeastern Section of American Urology Association Annual Meeting: Scientific Program; Hollywood, FL; March.

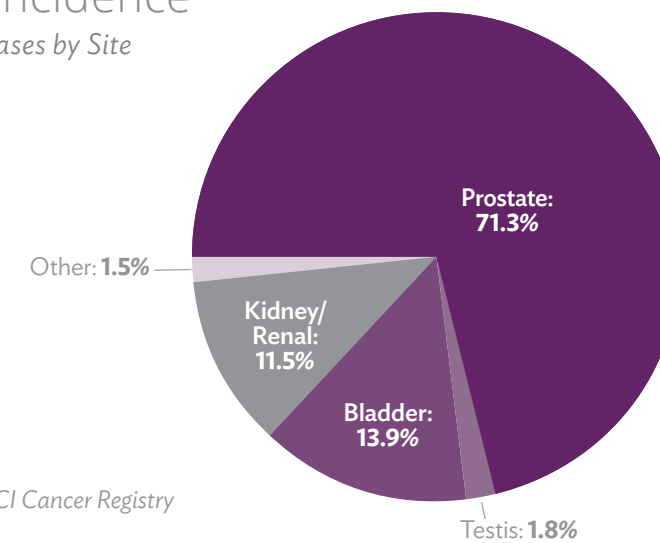
Dr. Jeff Brady; "Genito-Urinary Reconstruction"; Florida Urologic Society; Miami, FL; August.

Dr. Jeff Brady; "Artificial Urinary Sphincter Update"; Florida Urologic Society; Miami, FL; August.

Dr. Inoel Rivera; "Prostate Cancer Update"; Pan American Medical Association of Central Florida 2014 Annual Meeting. Palm Coast, FL; September.

## 2014 Genitourinary Cancer Case Incidence

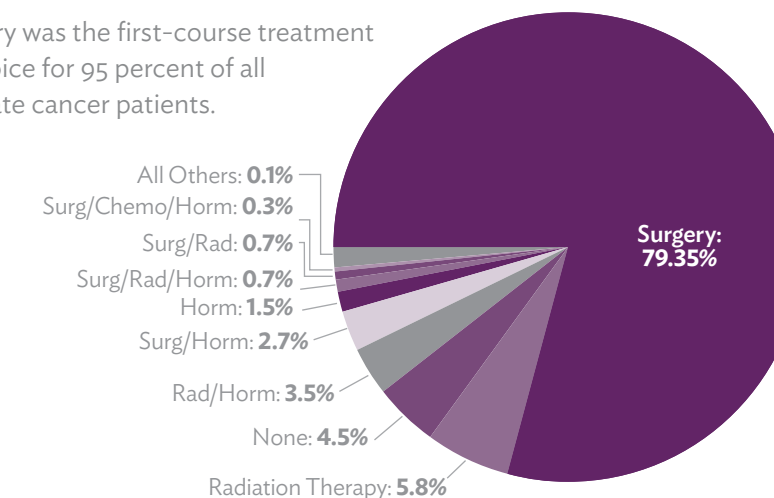
Urology Cases by Site



Source: FHCI Cancer Registry

## 2014 Prostate Cancer Treatment Combinations

Surgery was the first-course treatment of choice for 95 percent of all prostate cancer patients.

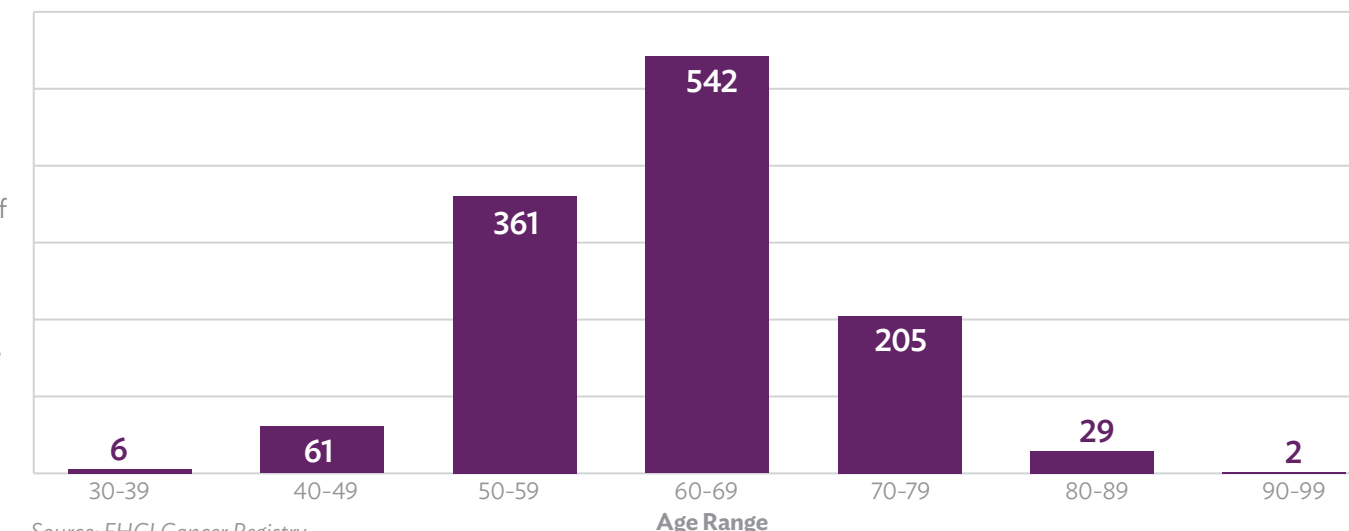


Source: FHCI Cancer Registry

## 2014 Prostate Cancer Cases

Age at Diagnosis

Prostate cancer remained the most frequently diagnosed or treated type of cancer at FHCI in 2014, with 1,470 new cases. The most common age range at diagnosis was 60 to 69 years, with diagnosis most likely occurring in stage II of the disease.

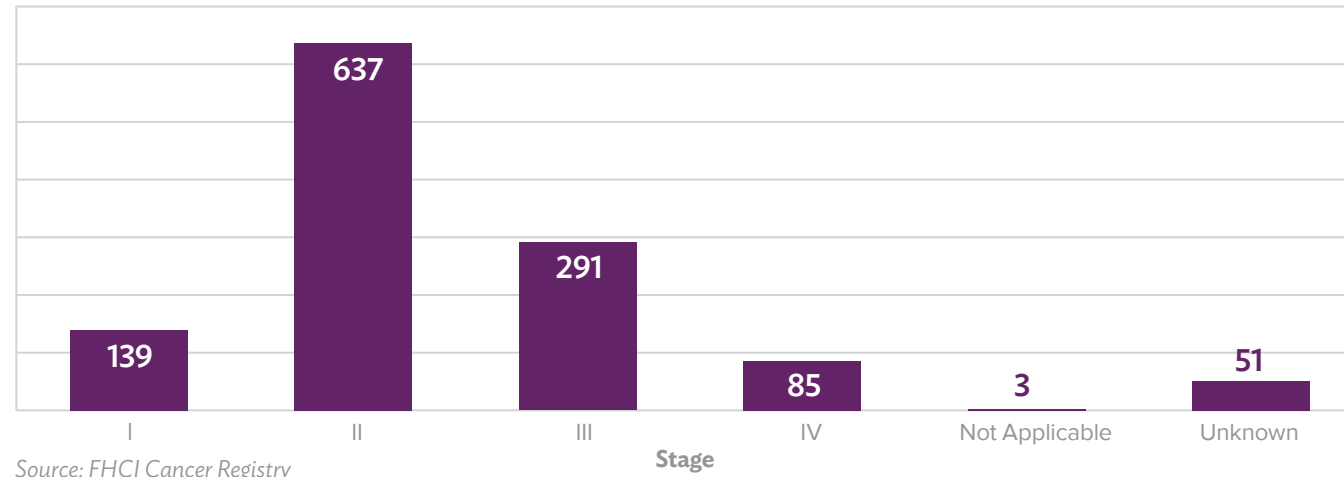


Source: FHCI Cancer Registry

## 2014 Prostate Cancer Cases

### Stage at Diagnosis

More than 50 percent of prostate cancer patients at FHCI in 2014 had stage II disease at diagnosis. The early stage at diagnosis may be due to screenings, annual physical exams and attention to warning signs.

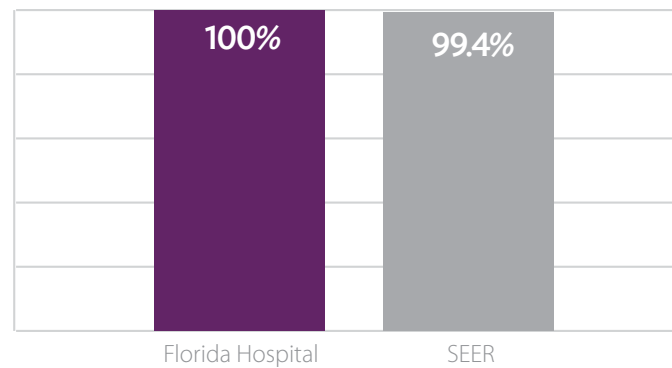


Source: FHCI Cancer Registry

## 2014 Prostate Cancer Five-year Survival

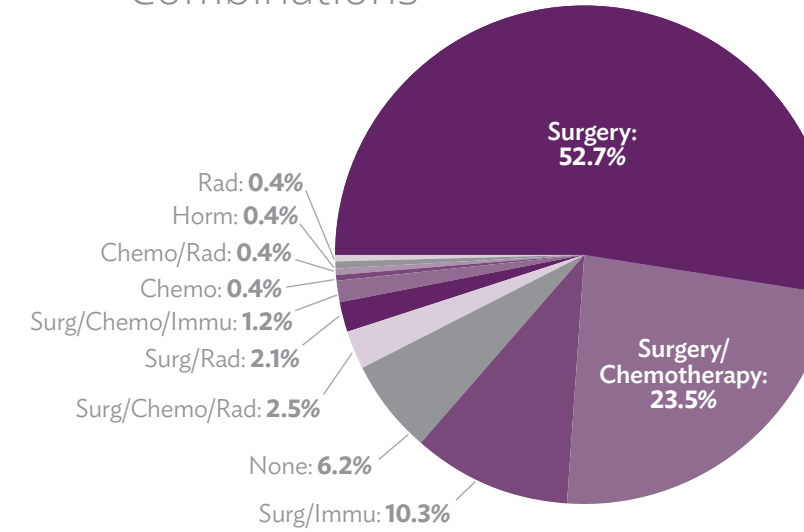
### Cases Diagnosed 2005-2011

FHCI patients demonstrated a higher survival rate compared to nationwide data.

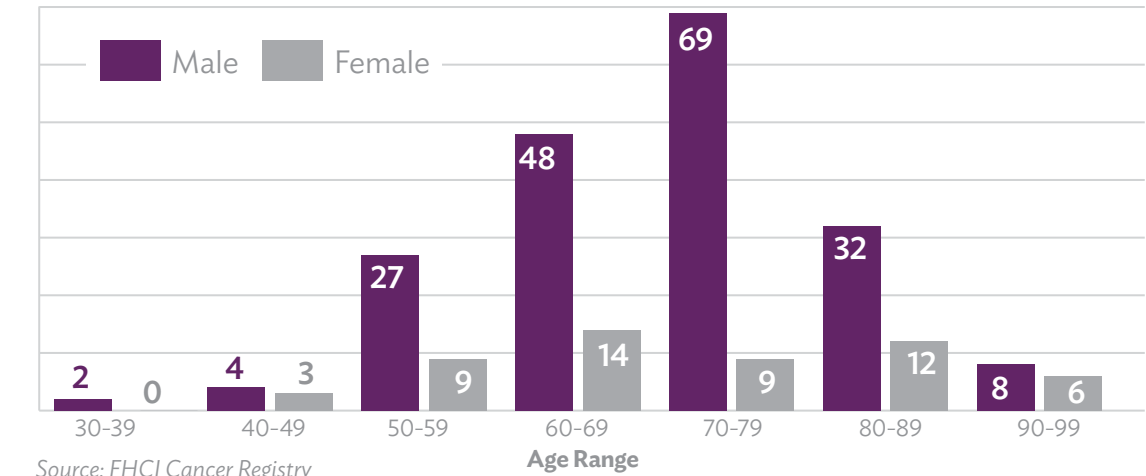


FHCI vs. nine SEER registries (SEER = surveillance, epidemic end results, part of the Centers for Disease Control and Prev.  
Source: FHCI Cancer Registry; www.SEER.gov.

## 2014 Bladder Cancer Treatment Combinations

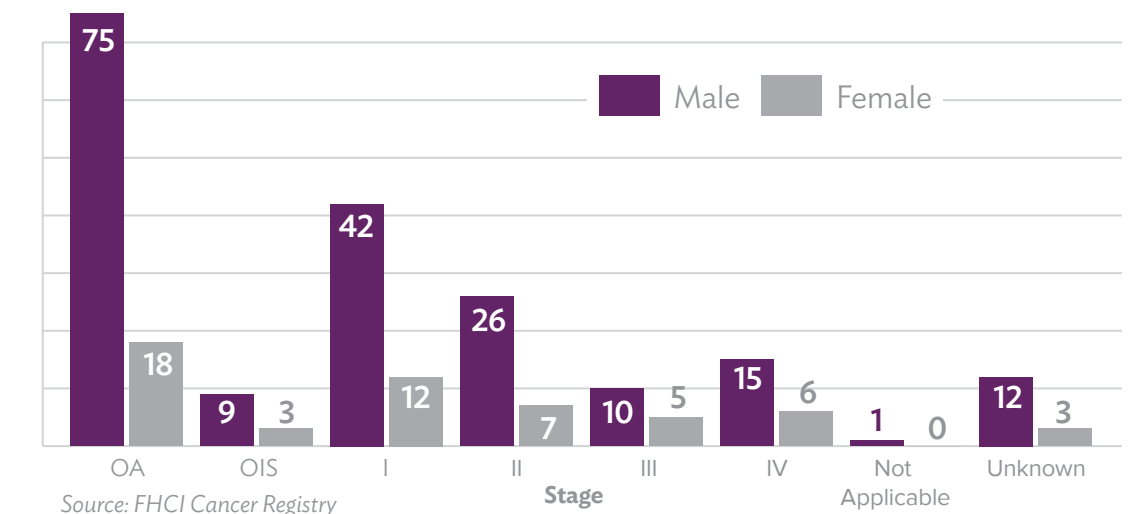


## 2014 Bladder Cancer Cases Age at Diagnosis



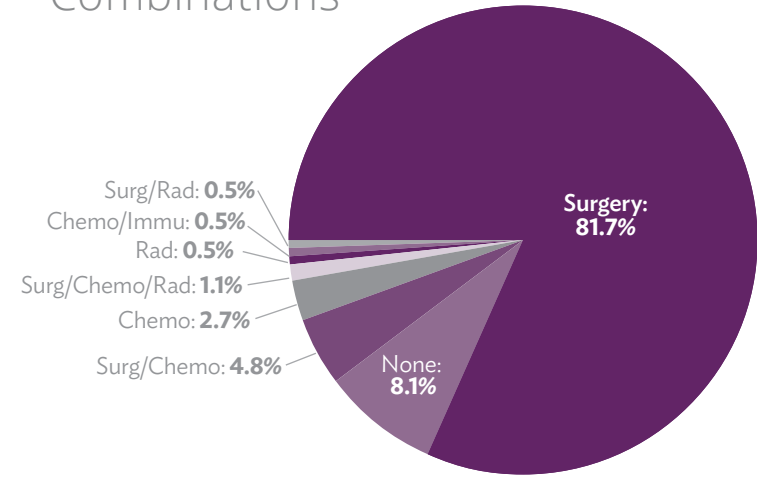
Source: FHCI Cancer Registry

## 2014 Bladder Cancer Cases Stage at Diagnosis



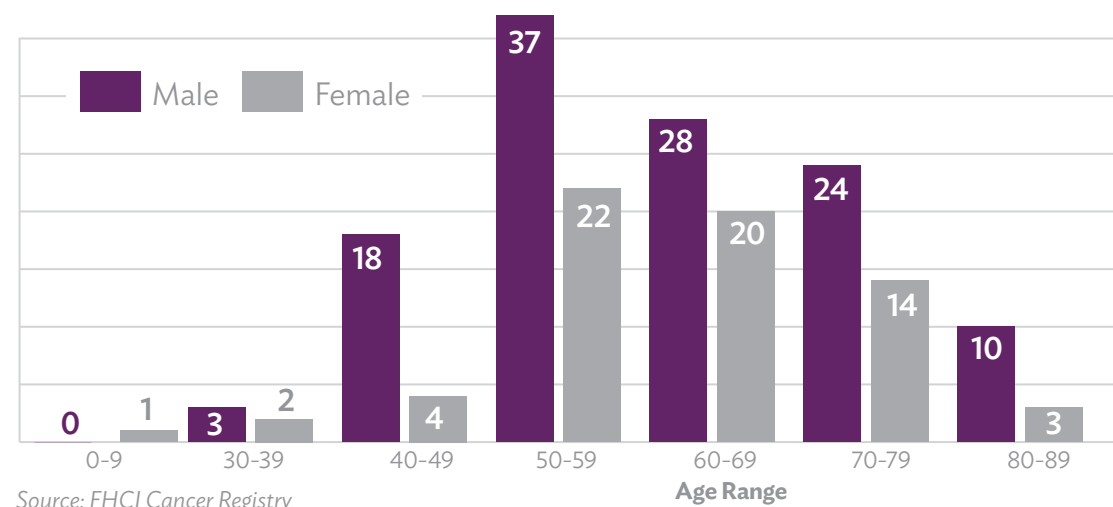
Source: FHCI Cancer Registry

2014 Kidney Cancer Treatment Combinations



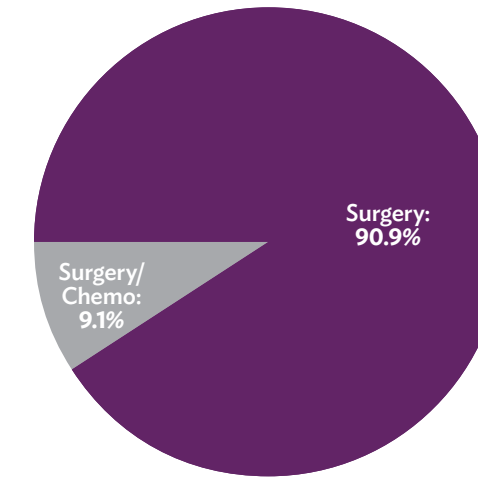
Source: FHCI Cancer Registry

2014 Kidney Cancer Cases Age at Diagnosis



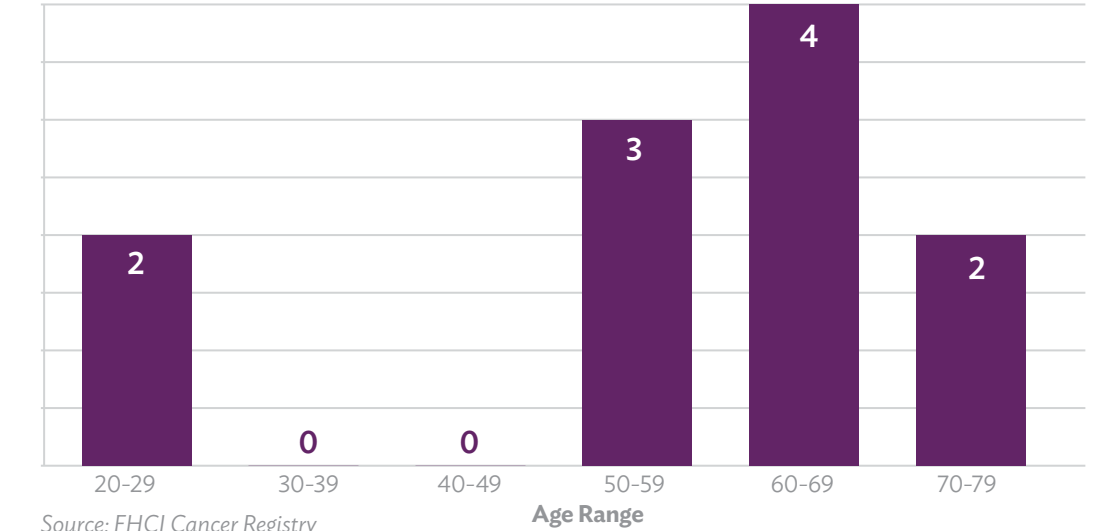
Source: FHCI Cancer Registry

2014 Penile Cancer Treatment Combinations



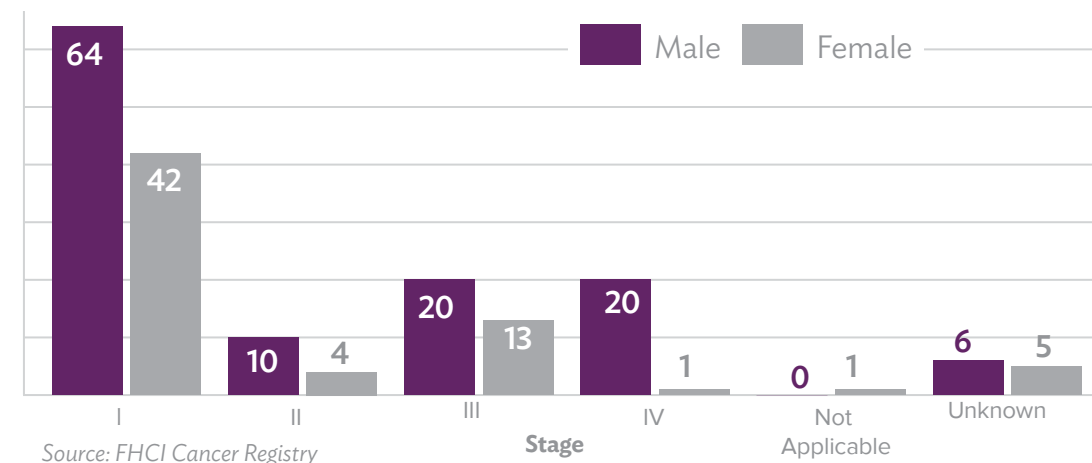
Source: FHCI Cancer Registry

2014 Penile Cancer Cases Age at Diagnosis



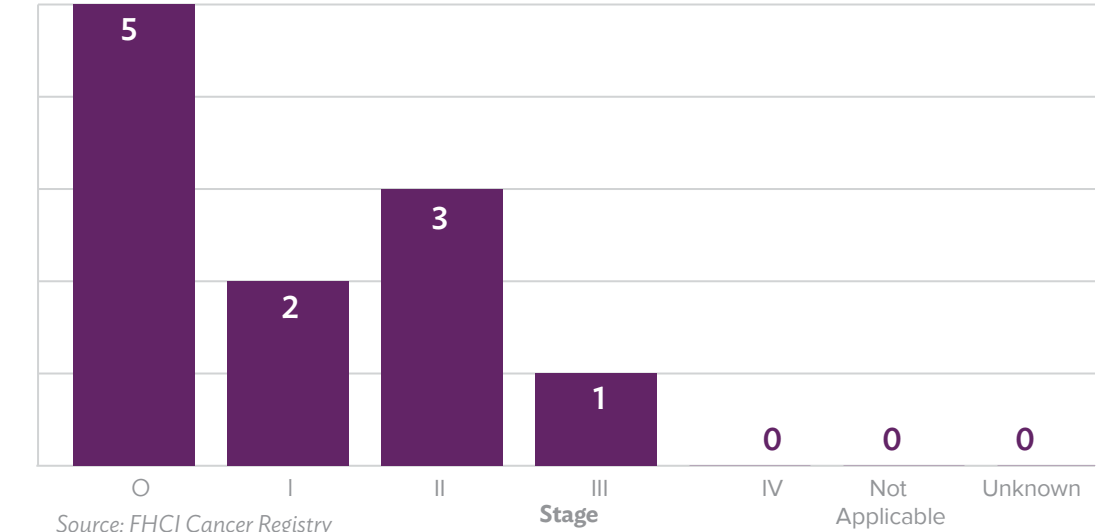
Source: FHCI Cancer Registry

2014 Kidney Cancer Cases Stage at Diagnosis



Source: FHCI Cancer Registry

2014 Penile Cancer Cases Stage at Diagnosis

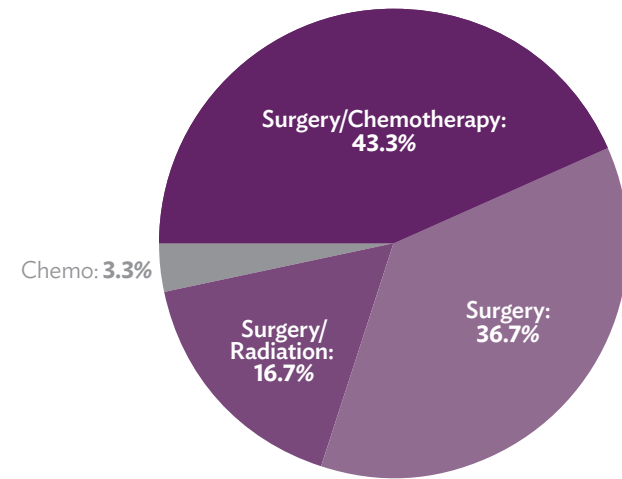


Source: FHCI Cancer Registry



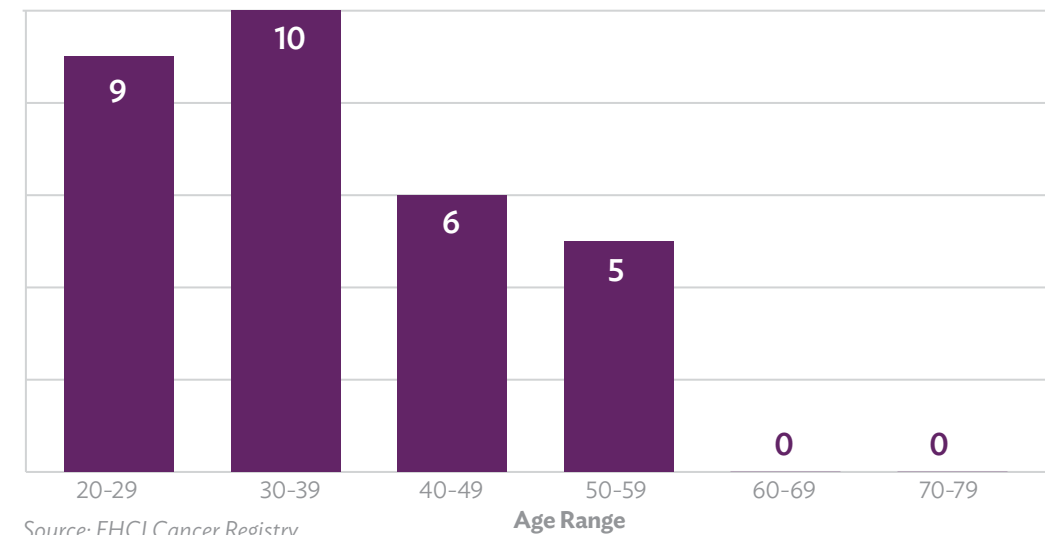


## 2014 Testicular Cancer Treatment Combinations



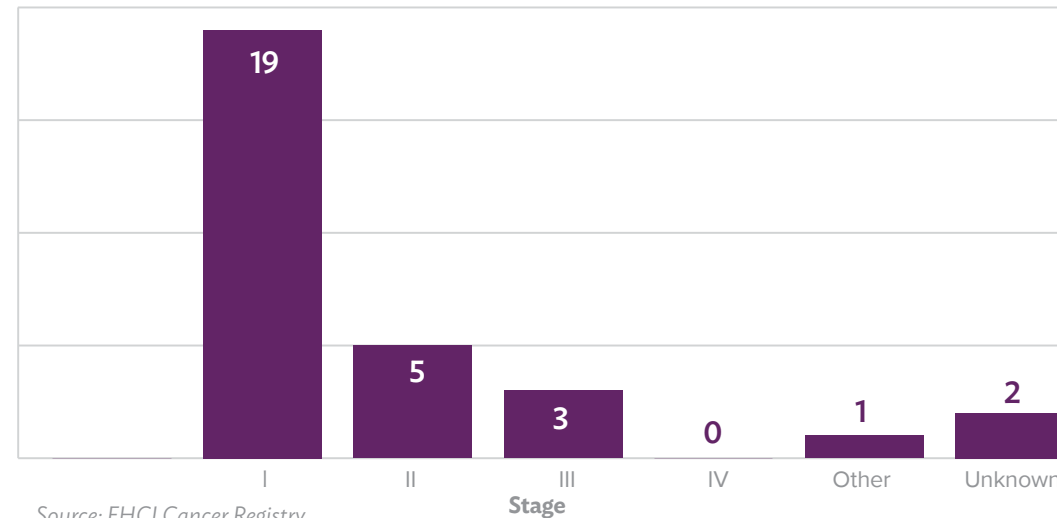
Source: FHCI Cancer Registry

## 2014 Testicular Cancer Cases Age at Diagnosis



Source: FHCI Cancer Registry

## 2014 Testicular Cancer Cases Stage at Diagnosis



Source: FHCI Cancer Registry



**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 new 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 that 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.

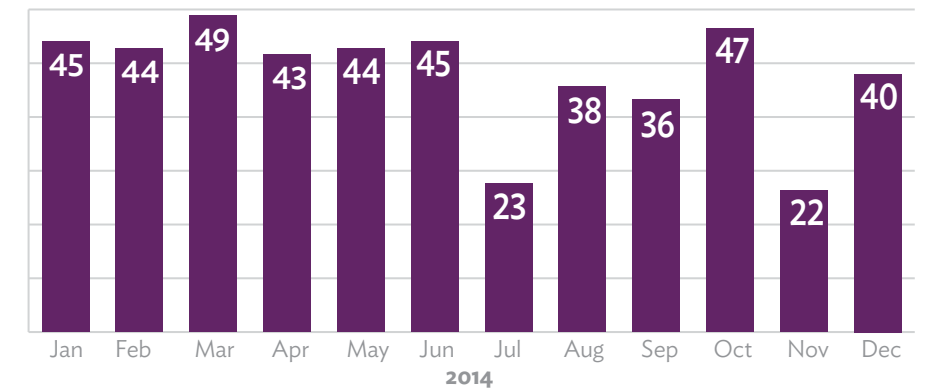
The program's goals are to begin rehabilitation at diagnosis in order to assess the functional baseline, prevent or decrease physical deficits that may result from cancer treatments, and serve as a resource to the patient throughout treatment to maximize quality of life.

## 2014 Highlights

- Began offering cancer rehabilitation services at 14 of Florida Hospital's outpatient rehabilitation locations and treated 476 patients.
- Ranked in the top 90th percentile in Press Ganey patient satisfaction score.

## Referrals to Cancer Rehabilitation

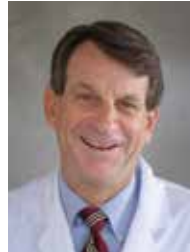
Referrals to cancer rehabilitation grew 35 percent in 2014, reaching 476 patients.



Cancer Rehab Program Database



## Clinical Research



**Lee Zehngebot, MD**

Medical Director, Clinical Research Program  
Florida Hospital Cancer Institute

Clinical trials are carefully designed and executed investigations of new medical treatments. They offer patients the most advanced therapies available. The FHCI Clinical Research Program has provided access to more than 100 clinical trials at any given time for adult and pediatric patients since 1989. We're a recipient of the American Society of Clinical Oncology (ASCO) Community Clinical Trials Award, with a professional staff of 10 oncology-certified research nurses and eight certified clinical research professionals.

Our research partners include the following:

- NIH/NCI National Clinical Trial Networks
  - Alliance National Cancer Institute
  - National Research Group (NRG)
  - Children's Oncology Group (COG)
  - Cancer Trials Support Unit (CTSU)
- Industry/pharmaceutical-sponsored trials
- Sarah Cannon Research Institute
- National Bone Marrow Donor Center/Bone Marrow Clinical Trial Network (BMT CTN)

### 2014 Highlights

- Transitioned to a Main Member of the newly reorganized NIH/NCI National Clinical Trial Network. Full member of Alliance; NRG; COG. We continue to engage in clinical trials programs and grants that offer access to the latest NCI research to diagnose, prevent and treat cancer.
- Continued Alliance Board of Directors membership (Dr. Zehngebot).
- Opened more than 50 new clinical trials, including NCI NCTN, Sarah Cannon Research Institute and industry-sponsored trials.
- Enrolled 267 patients in adult and pediatric oncology trials.
- Became a Main Member of the Alliance.
- Became a Main Member of NRG.
- Received highest rating in quality assurance audit with NRG.
- Continued use of the independent NCI CIRB for all pediatric and phase III audit trials. Expanded use of other Central IRBs to facilitate quicker new study start up.



## FHCI Translational Research Core

**Mimi Shao, MBA**

Manager, Translational Research Core  
Florida Hospital Cancer Institute

FHCI's Translational Research Core supports collaborative research efforts focusing on biological discoveries and effective new approaches that improve patient care and health. We collaborate with established external research partners, including Sanford Burnham Prebys Medical Discovery Institute, the National Cancer Institute-Designated Cancer Center in La Jolla, Calif., and the Lake Nona campus in Orlando. We also continue to strengthen ties with researchers at the University of Central Florida's Burnett School of Biomedical Sciences, College of Medicine.

### Our research mission, "Transforming Discovery into Care," strives to:

- Establish strategic and mutually beneficial partnerships with eminent research institutions that bring premier bench-discovery science to Florida Hospital bedside care.
- Provide external scientists and researchers with access to FHCI's active and large patient base, clinical data, archived/fresh biospecimens, and translational research physicians and research staff.
- Elevate the level of science at FHCI to that of a recognized and respected partner in the scientific research community.

Our partnerships have produced research that has been published in scientific journals and presented at national meetings. Our research efforts with the Burnett School of Biomedical Sciences received funding from the National Breast Cancer Research Foundation (BCRF) in 2014-2015. This enables retrospective and prospective research studies to be conducted in searching for new and better biomarker studies for the early detection and possible prevention of cancer.

Our unique partnership with the Florida Hospital Clinical Diagnostic Pathology group provides access to extensive diagnostic tissue archives from eight Central Florida hospitals. We are able to obtain extensive clinical data and retrospective and prospective research studies used in the early detection and prevention of cancer. Work processes established in 2014 provided internal and external researchers with access to fresh biospecimens for Florida Hospital Institutional Review Board-approved studies.

### Translational Research Core Team:

Alvin JO Almodovar, MS

Ryan Sause, CHT(ASCP)

Mimi Shao, MBA

Elizabeth Griffith, CCRC, CCRP

## Partnerships/Collaborations

- Sanford Burnham Prebys Medical Discovery Institute
- University of Central Florida, Burnett School of Biomedical Sciences, College of Medicine
- University of Central Florida, Nanoscience Technology Center
- Baylor University
- M.D. Anderson Cancer Center
- Moffitt Cancer Center
- Nano Discovery, Inc.
- Phi Beta Psi
- University of Miami, Miller School of Medicine
- Wake Forest University

## Principal Investigator-Initiated Research Projects

- Breast Oncology (Louis Barr, MD; David Decker, MD; Na'im Fanaian, MD; Rhonda Harmon, MD; Sally Litherland, PhD; Robert Reynolds, MD; Alric Simmonds, MD)
- Cellular Therapy (Yasser Khaled, MD; Sally Litherland, PhD)
- Cellular Therapy - Multiple Myeloma (Chung-Che (Jeff) Chang, MD, PhD; Yasser Khaled, MD; Sally Litherland, PhD; Shahram Mori, MD, PhD; Melhem Solh, MD)
- Colorectal Oncology (Sam Atallah, MD; Na'im Fanaian, MD)
- Gastrointestinal, Pancreatic and Hepatobiliary Oncology (Ahmed Zakari, MD)
- Gynecologic Oncology - Ovarian (Robert Holloway, MD; Sarfraz Ahmad, PhD; Susan Blades-Ingersoll, PhD)

- Gynecology, Advanced and Minimally Invasive (Georgine Lamvu, MD, MPH)
- Hispanic Outcomes in Lung Cancer (Terek Mekhail, MD)
- Lung Cancer (Chung-Che (Jeff) Chang, MD, PhD; Terek Mekhail, MD; Sally Litherland, PhD)
- Pancreatic Cancer (Juan Pablo Arnoletti, MD, FACS; Chung-Che (Jeff) Chang, MD, PhD; Na'im Fanaian, MD; Sebastian de la Fuente, MD; Sally Litherland, PhD)
- Radiation Oncology (Kunal Saigal, MD)
- Thoracic Oncology (Joseph Boyer, MD; Terek Mekhail, MD)
- Tissue Micro-Array Development/Cancer Biomarker Analysis (Juan Pablo Arnoletti, MD, FACS; Louis Barr, MD; Na'im Fanaian, MD; Sally Litherland, PhD)
- Urologic Oncology (Inoel Rivera, MD)

## Clinical Research Projects

- Gynecologic Oncology (Robert Holloway, MD; Sarfraz Ahmad, PhD)

## Publications

Litherland S.A., Barr L., Reynolds R., Griffith E., Sause R., Encarnacion T., Almodovar A. J. O., Zhu X., Dickstein S., Shao Y., Fanaian N., Decker D.A.; "Detection of Estrogen Responsive Breast Cancer Circulating Tumor Cells: Assay Development for Anti-Hormone Therapy Resistance"; *Journal of Cancer Therapy*, 2015, 6, 773-782.

Almodovar A.J.O, Zhu X., Litherland S.A., Decker D.A.; "Promestriene: Affects GREB1 Expression in Estrogen Sensitive Breast Cancer Cells"; *Journal of Cancer Therapy*, 2015, 6, 767-772.

Chiu J., Ajmal S., Zhu X., Griffith E., Encarnacion T., Barr L.; "Radioactive Seed Localization of Nonpalpable Breast Lesions in an Academic Comprehensive Cancer Program Community Hospital Setting"; *The American Surgeon*, 80(7), 675-679.

Lee B., Marza J., Aftab M.N., Qi F., Shelly J., Li J.-L., Govindarajan S., Valerio F., Rivera I., Thurn T., Tran T.A., Kameh D., Patel V., Perera P.R.; "Long Noncoding RNAs as Putative Biomarkers for Prostate Cancer Detection"; 2014, *Journal of Molecular Diagnostics*. 16(9): 615-626.

Zhu X., Decker V., Almodovar A.J., Litherland S.A., Decker D.A.; "Ethnicity Disparities of Breast Cancer within an Insured Population"; 2014, *The Breast Journal*, 20(3):331-332.

Decker D.A., Reynolds R.B., Molthrop D.C., Griffith E., Encarnacion T., Lee E., Zhu X.; "Obesity and Non-adherence Correlate with Elevated Serum Estradiol Levels in Postmenopausal Women Receiving Adjuvant Aromatase Inhibitor Therapy"; 2014, *The Breast Journal*, 20(5): 553-554.

Zheng T., Pierre-Pierre N., Yan X., Valerio F., Rivera-Ramirez I., Almodovar A.J.O, Griffith E., Decker D.A., Huo Q.; "A Gold Nanoparticle-Enabled Blood Test for Early Stage Cancer Detection and Risk Assessment"; *American Chemical Society Journal-Applied Materials and Interfaces*.

## Presentations

Elizabeth Griffith BAS, CCRC, CCRP (presenter); "Assay Development for Detection of Estrogen Responsive Gene Histone Acetylation in Breast Cancer Circulating Tumor Cells"; Elizabeth Griffith BAS, CCRC, Alvin JO Almodovar, MS, Robert Reynolds, MD, Xiang Zhu, MS, Louis Barr, MD, DA Decker, MD, SA Litherland, PhD. The Society of Clinical Research Associates (SOCRA) Annual Conference 2015-Sept. 19, 2015, Denver.

Xiang Zhu (presenter); "Gail Models Overestimate Breast Cancer Risk - A Critical Correction"; Fourth International Breast Cancer Prevention Symposium; Purdue University, West Lafayette, Ind.; Oct. 16-17, 2014.

## Posters

Griffith E. (presenter); "Assay Development for Detection of Estrogen Responsive Gene Histone Acetylation in Breast Cancer Circulating Tumor Cells"; Griffith E., Almodovar A.J.O, Reynolds R., Zhu X., Barr L., Decker D.A., Litherland S.A.; The Society of Clinical Research Associates (SOCRA) Annual Conference; Sept. 18-20, 2015; Denver.

Litherland S.A. (presenter); "Myeloid Derived Suppressor Cell Populations and Pancreatic Ductal Adenocarcinoma Circulating Tumor Cell in Portal Venous Circulation"; Zhu X., Arnoletti J.P., de la Fuente S., Veldhuis P., Varadarajulu S., Griffith E., Encarnacion T., Sause R., Almodovar A.J.O., Fanaian N., Chang J., Dickstein S., Shao Y., Litherland S.A.; Second Annual Florida Hospital Research Forum, Florida Hospital Orlando; April 23-24, 2015.

A.J.O. (presenter); "Assay Development for Detection of Estrogen Responsive Gene Histone Acetylation in Breast Cancer Circulating Tumor Cells"; Litherland S.A., Reynolds R., Barr L., Almodovar A.J.O., Decker D.A.; Second Annual Florida Hospital Research Forum, Florida Hospital Orlando; April 23-24, 2015.

Zhu X. (presenter); "Gail Models Overestimate Breast Cancer Risk - A Critical Correction"; Second Annual Florida Hospital Research Forum, Florida Hospital Orlando; April 23-24, 2015.

Litherland S.A. (presenter); "Myeloid Derived Suppressor Cell Populations and Pancreatic Ductal Adenocarcinoma Circulating Tumor Cell in Portal Venous Circulation"; Zhu X., Arnoletti J.P., de la Fuente S., Veldhuis P., Varadarajulu S., Griffith E., Encarnacion T., Sause R., Almodovar A.J.O., Fanaian N., Chang J., Dickstein S., Shao Y., Litherland S.A.; Keystone Symposia on Molecular and Cellular Biology, Banff, B.C., Canada; Feb. 8-14, 2015.





Almodovar A.J.O. (presenter); “Assay Development for Detection of Estrogen Responsive Gene Histone Acetylation in Breast Cancer Circulating Tumor Cells”; Litherland S.A., Reynolds R., Barr L., Almodovar A.J.O., Decker D.A.; San Antonio Breast Cancer Symposium; San Antonio, Texas, Dec. 9-13, 2014.

MacSweeney M. (presenter); “Development and Implementation of a Breast Cancer Risk Identification and Reduction Program in a Large Health Care System”; MacSweeney M., Roorda H., Zhu X., Lippert R., Guardiola I., Burrell N., Dejesus L., Scarletto A., Decker D.A.; San Antonio Breast Cancer Symposium, San Antonio, Texas; Dec. 9-13, 2014.

Chiu J. (presenter); “Radioactive Seed Localization of Nonpalpable Breast Lesions in an Academic Comprehensive Cancer Program Community Hospital Setting”; Chiu J., Ajmal S., Zhu X., Griffith E., Encarnacion T., Barr L.; Annual Scientific Meeting and Postgraduate Course Program, Southeastern Surgical Congress, Savannah, Ga.; Feb. 22-25, 2014.

Litherland S.A. (presenter); “Evaluating Epigenetic Gene Regulation in Circulating Tumor Cells over Time and During Treatment”; Litherland S.A., Griffith E., Encarnacion T., Almodovar A.J.O., Zhu X., Dickstein S., Shao Y., Sause R., Blaydes-Ingersoll S., Gaitan J., Arnoletti J.P., de la Fuente S., Chang C.C., Khaled Y., Reynolds R., Mekhail T., Decker D.A.); Keystone Symposia-Cancer Epigenetics, Santa Fe, New Mexico; Feb. 4-9, 2014.

Griffith E. (presenter); “Radioactive Seed Localization of Nonpalpable Breast Lesions in an Academic Comprehensive Cancer Program Community Hospital Setting”; Chiu J., Ajmal S., Zhu X., Griffith E., Encarnacion T., Barr L.; First Annual Florida Hospital Research Forum, Florida Hospital Orlando; Jan. 24, 2014.

Khin T. (presenter); “Helicobacter pylori and the pathogenesis of Gallbladder Carcinoma”; Gaitan J., Guarda L., Chang J., Sause R., Litherland S.A., Herrera V.; First Annual Florida Hospital Research Forum, Florida Hospital Orlando; Jan. 24, 2014.

Almodovar A.J.O. (presenter); “Promestriene Effects on Estrogen Sensitive Breast Cancer Cell Proliferation In Vitro”; Almodovar A.J.O., Litherland S.A., Courtneidge S., Decker D.A.; First Annual Florida Hospital Research Forum, Florida Hospital Orlando; Jan. 24, 2014.

## Genetics Counseling

Although the majority of cancers are sporadic, about 5 to 10 percent of them are hereditary. The Florida Hospital Genetic Counseling Program helps identify patients at risk for cancer due to inherited factors and gives them the opportunity to reduce their risk through screening and prevention. The program is staffed by an intake coordinator who then refers patients to a genetic counseling resource. Referral to our Breast Health Center is done based on a risk assessment tool and is staffed by our ARNP. Additional consultation is performed and includes reports to the patient and her primary care physician.



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 the patient’s presenting symptoms, diagnostic work-up, clinical and pathologic stage, treatments, and lifelong follow-up. 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 System (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 2014

*National Comparison of the 10 Most Prevalent Cancer Sites*

Estimated Cancer Cases from the American Cancer Society Cancer Fact & Figures 2014

Primary Site	Florida Hospital		Florida		National	
	#	%	%	#		
Breast	1,144	13.9%	15,480	13.5%	232,670	14.0%
Lung	722	8.8%	17,960	15.7%	224,210	13.5%
Prostate	1,470	17.8%	16,590	14.5%	233,000	14.0%
Colorectal	628	7.6%	10,230	8.9%	136,830	8.2%
Bladder	287	3.5%	5,800	5.1%	74,690	4.5%
Non-Hodgkin’s Lymphoma	281	3.4%	5,050	4.4%	70,800	4.3%
Uterus	325	3.9%	3,410	3.0%	52,630	3.2%
Melanoma	259	3.1%	5,320	4.6%	76,100	4.6%
Leukemia	292	3.5%	3,810	3.3%	52,380	3.1%
Cervix	76	0.9%	960	0.8%	12,360	0.7%
All Others	2,754	33.4%	29,950	26.1%	499,870	30.0%
<b>Total Cases</b>	<b>7,124</b>	<b>100.0%</b>	<b>114,560</b>	<b>100.0%</b>	<b>1,596,670</b>	<b>100.0%</b>

Number may not equal 100% due to rounding.



## Intraoperative Sentinel Lymph Node Evaluation by Touch Prep in Breast Cancer: A Literature Review and Comparison with Florida Hospital Performance (2014-2015)

Na'im Fanaian, MD  
Florida Hospital Pathology

Adherence to national evaluation and treatment guidelines is integral to quality and outcomes evaluations of cancer programs. Each year, a physician member of our Comprehensive Cancer Committee completes a study to determine whether patients at our program are evaluated and treated according to evidence-based guidelines. Pathologist Na'im Fanaian, M.D. has retrospectively reviewed 525 breast cancer patients who underwent sentinel lymph node biopsy in our program. This review determined the degree to which the outcomes of the evaluation of sentinel lymph nodes via intraoperative touch preparation were similar to findings in other national, as well as international, studies.

Data from Florida Hospital were reviewed to determine the sensitivity, specificity and overall accuracy of intraoperative evaluation of sentinel lymph nodes in patients with breast cancer, and comparison was made to other studies from the literature.

	Number of Patients	Sensitivity	Specificity	Accuracy
Comparison Study A	150	54%	100%	54%
Comparison Study B	71	48%	100%	48%
Comparison Study C	117	57%		57%
Comparison Study D	133	57%		57%
Comparison Study E	Pooled data: 31 articles	63%	99%	
Comparison Study F	2137	53%	99%	53%
Comparison Study G	385	55%	100%	55%
Comparison Study H	133	81%	100%	
Comparison Study I	118	66%		
Comparison Study J	381	63%		
Comparison Study Ka	4438	63%	99%	
Comparison Study Kb	180	33%	98%	
Comparison Study Kc	133	73%	100%	
Comparison Study Kd	2137	53%	99%	
Comparison Study Ke	896	73%	100%	
<b>STUDY-WIDE AVERAGE</b>	<b>815</b>	<b>59%</b>	<b>99%</b>	<b>54%</b>
<b>FLORIDA HOSPITAL</b>	<b>525</b>	<b>82%</b>	<b>100%</b>	<b>97%</b>

Objective: To ensure that cancer patient evaluation meets or exceeds the rates shown in other similar studies.  
Measurement: 525 analytical breast cancer patients having sentinel lymph node biopsy at Florida Hospital.  
Method: Retrospective review.

## Summary

Seventeen false negative intra-operative results were identified. These were further evaluated. Three were found to have had prior neoadjuvant therapy and failed to yield diagnostic cells on the touch prep. Three were from invasive lobular carcinoma which failed to yield diagnostic cells on the touch prep. Eight were from invasive ductal carcinomas which failed to yield diagnostic cells on the touch prep. Three cases had malignant cells on touch prep which were missed at the time of intraoperative evaluation.

Analytical breast cancer patients evaluated with intraoperative touch prep (with or without frozen section) of sentinel lymph nodes by a pathologist at Florida Hospital were found on retrospective review to have met and exceeded the average rates for sensitivity, specificity and accuracy in comparison with other national and international studies.

A full report was made to the Florida Hospital Comprehensive Cancer Committee and Breast Program Leadership.

## 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 the survival and quality of life of patients with cancer through standard setting, prevention, research, education and the monitoring of comprehensive care. More than 50 leading cancer-care organizations, including the American Cancer Society, are partnered with the CoC on patient-centered initiatives. Across the U.S., more than 1,500 cancer programs are CoC accredited, with more than 70 percent of patients with cancer in the U.S. 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, or 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 currently for breast, colon, rectum, gastric, lung, cervix, ovary and endometrium cases. To date, thresholds of compliance with providing or considering specific indicators are in place for only breast and colon primary tumor sites. The 2013 summary report released by the NCDB in August 2015 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, or ACAD. More information on the CP3R process and CoC accreditation is available at <http://www.facs.org>.

# Cancer Registry Data

## FHCI 2041 Patients - Race by Ethnicity

Race	Non-Spanish		Spanish, Nos; Hispanic, Nos; Latino, NOS		Puerto Rican		South Or Central American-Not Brazil		Unknown Whether Spanish Or Not		Mexican		Cuban		Dominican Republic		Other Spanish		Spanish Surname Only		All Others		Total Values	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
White	4816	86.3	532	9.5	98	1.8	53	0.9	19	0.3	26	0.5	17	0.3	10	0.2	4	0.1	3	0.1	1	0	5579	84
Black	673	97.4	7	1	2	0.3	2	0.3	4	0.6	0	0	1	0.1	1	0.1	0	0	0	0	1	0.1	691	10.4
American Indian Aleut Eskimo	18	94.7	1	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0.3
Chinese	12	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0.2
Japanese	5	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.1
Filipino	18	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0.3
Hawaiian	5	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.1
Korean	3	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Vietnamese	18	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0.3
Thai	2	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Asian Indian or Pakistani NOS	6	85.7	0	0	0	0	0	0	1	14.3	0	0	0	0	0	0	0	0	0	0	0	0	7	0.1
Asian Indian	14	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0.2
Polynesian NOS	2	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Other Asian	29	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0.4
Pacific Islander NOS	2	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Other	95	75.4	22	17.5	6	4.8	0	0	2	1.6	0	0	1	0.8	0	0	0	0	0	0	0	0	126	1.9
Unknown	60	53.6	35	31.3	2	1.8	3	2.7	10	8.9	0	0	0	0	0	0	2	1.8	0	0	0	0	112	1.7
Any Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Overall Totals</b>	<b>5778</b>	<b>87</b>	<b>597</b>	<b>9</b>	<b>108</b>	<b>1.6</b>	<b>58</b>	<b>0.9</b>	<b>36</b>	<b>0.5</b>	<b>26</b>	<b>0.4</b>	<b>19</b>	<b>0.3</b>	<b>11</b>	<b>0.2</b>	<b>6</b>	<b>0.1</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>6644</b>	<b>100</b>

Source: FHCI Cancer Registry

NOS means not otherwise specified



# Cancer Registry Data

FHCI 2014 Primary Site Table

Primary Site	Total	Class		Sex		AJCC Stage						
		Analytical	Non-Analytical	Male	Female	0	I	II	III	IV	UNK	N/A
<b>All sites</b>	<b>8238</b>	<b>6633</b>	<b>1605</b>	<b>4286</b>	<b>3952</b>	<b>492</b>	<b>1814</b>	<b>1597</b>	<b>1126</b>	<b>1078</b>	<b>1009</b>	<b>1122</b>
<b>Oral cavity</b>	<b>201</b>	169	32	141	60	2	35	21	28	86	22	7
<b>Lip</b>	<b>5</b>	4	1	5	0	0	3	1	0	0	1	0
Tongue	75	64	11	52	23	2	15	10	12	29	5	2
Oropharynx	13	11	2	9	4	0	1	0	5	5	2	0
Hypopharynx	4	4	0	3	1	0	1	0	0	2	1	0
Other	104	86	18	72	32	0	15	10	11	50	13	5
<b>Digestive system</b>	<b>1459</b>	1192	267	841	618	67	293	312	267	288	216	16
Esophagus	100	62	38	73	27	0	18	9	33	11	29	0
Stomach	105	88	17	71	34	1	29	14	21	22	17	1
Colon	436	358	78	218	218	31	75	98	83	86	63	0
Rectum	192	155	37	121	71	19	50	27	49	25	22	0
Anus/anal canal	37	29	8	15	22	9	5	9	6	2	5	1
Liver	172	149	23	124	48	0	36	39	28	35	25	9
Pancreas	298	244	54	157	141	7	56	86	26	85	37	1
Other	119	107	12	62	57	0	24	30	21	22	18	4
<b>Respiratory system</b>	<b>790</b>	634	156	415	375	4	151	67	146	306	106	10
Nasal/sinus	13	10	3	9	4	0	3	1	2	1	2	4
Larynx	49	40	9	32	17	3	10	5	6	18	7	0
Lung/bronchus	722	578	144	370	352	1	137	60	137	284	97	6
Other	6	6	0	4	2	0	1	1	1	3	0	0
<b>Blood &amp; bone marrow</b>	<b>578</b>	347	231	321	257	0	3	1	5	5	4	560
Leukemia	292	200	92	154	138	0	3	1	5	5	3	275
Multiple myeloma	139	89	50	81	58	0	0	0	0	0	1	138
Other	147	58	89	86	61	0	0	0	0	0	0	147
<b>Bone</b>	<b>9</b>	4	5	6	3	0	2	1	0	0	6	0
<b>Connect/soft tissue</b>	<b>41</b>	37	4	22	19	0	12	10	2	6	9	2
<b>Skin</b>	<b>273</b>	183	90	169	104	67	76	18	21	15	65	11
Melanoma	259	172	87	155	104	67	72	18	17	15	64	6
Other	14	11	3	14	0	0	4	0	4	0	1	5

Primary Site	Total	Class		Sex		AJCC Stage						
		Analytical	Non-Analytical	Male	Female	0	I	II	III	IV	UNK	N/A
<b>Breast</b>	<b>1144</b>	974	170	12	1132	189	373	305	77	58	142	0
<b>Female genital</b>	<b>626</b>	520	106	0	626	37	272	47	138	58	68	6
Cervix uteri	76	64	12	0	76	2	29	9	13	14	8	1
Corpus uteri	325	287	38	0	325	4	201	16	47	27	30	0
Ovary	123	90	33	0	123	0	16	16	56	12	23	0
Vulva	61	44	17	0	61	29	21	1	3	2	5	0
Other	41	35	6	0	41	2	5	5	19	3	2	5
<b>Male genital</b>	<b>1519</b>	1246	273	1519	0	6	218	696	301	105	190	3
Prostate	1470	1205	265	1470	0	0	195	688	297	105	182	3
Testis	37	30	7	37	0	0	21	5	3	0	8	0
Other	12	11	1	12	0	6	2	3	1	0	0	0
<b>Urinary system</b>	<b>542</b>	461	81	392	150	120	176	54	59	53	78	2
Bladder	287	243	44	227	60	114	58	37	15	23	39	1
Kidney/renal	237	203	34	154	83	1	114	15	41	29	36	1
Other	18	15	3	11	7	5	4	2	3	1	3	0
<b>Brain &amp; cns</b>	<b>326</b>	266	60	125	201	0	0	0	0	0	2	324
Brain (benign)	21	13	8	10	11	0	0	0	0	0	0	21
Brain (malignant)	83	72	11	47	36	0	0	0	0	0	0	83
Other	222	181	41	68	154	0	0	0	0	0	2	220
<b>Endocrine</b>	<b>296</b>	258	38	85	211	0	148	21	26	12	12	77
Thyroid	217	207	10	49	168	0	148	21	26	11	11	0
Other	79	51	28	36	43	0	0	0	0	1	1	77
<b>Lymphatic system</b>	<b>320</b>	243	77	180	140	0	53	44	48	82	88	5
Hodgkin's disease	39	32	7	23	16	0	2	9	12	5	9	2
Non-hodgkin's	281	211	70	157	124	0	51	35	36	77	79	3
<b>Unknown primary</b>	<b>88</b>	78	10	48	40	0	0	0	0	0	0	88
<b>Other/ill-defined</b>	<b>26</b>	21	5	10	16	0	2	0	8	4	1	11

Number of cases excluded: 26

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

Source: FHCI Cancer Registry



# FHCI Cancer Program Practice Profile Reports

Site	Measure	CoC Benchmark Compliance Percentage Rate	National Percentage	Florida Percentage	Same Type CoC Program (Academic Comprehensive Cancer Program) Percentage	FHCI Percentage
Breast	BCS - Breast conservation surgery rate for women with AJCC clinical stage 0, I, or II breast cancer (Surveillance)	Not Applicable	62.6	63.6	61.7	61.8
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	88.6	83.5	88.9	82.6
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	88.6	82.8	88.4	91.1
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	83.3	77.4	84.2	92.1
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	90	84.4	89.7	91.3
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)	90	91.2	88.3	90.4	91.5
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)	90	87.1	81	86.4	90.7
Colon	12RLN - At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer (Quality Improvement)	85	89.8	88.7	92.1	85
Rectum	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)	Not Applicable	84.4	77.3	84.3	73.1

Site	Measure	CoC Benchmark Compliance Percentage Rate	National Percentage	Florida Percentage	Same Type CoC Program (Academic Comprehensive Cancer Program) Percentage	FHCI Percentage
Gastric	G15RLN - At least 15 regional lymph nodes are removed and pathologically examined for resected gastric cancer (Quality Improvement)	Not Applicable	53.7	42.5	61.1	33.3
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	40.4	34.8	47.1	52.4
Lung	LNoSurg - Surgery is not the first course of treatment for cN2, M0 lung cases (Quality Improvement)	Not Applicable	91.3	89	90.7	93.9
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)	Not Applicable	86.5	82	85.6	80.8
Cervix	CERRT - Radiation therapy completed within 60 days of initiation of radiation among women diagnosed with any stage of cervical cancer (Surveillance)	Not Applicable	78.7	85.7	78.1	61.5
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	87.1	92.1	87.5	92
Cervix	CBRR - Use of brachytherapy in patients treated with primary radiation with curative intent in any stage of cervical cancer (Surveillance)	Not Applicable	67.6	66.5	70.5	64.3
Endometrium	ENDCTRT - Chemotherapy and/or radiation administered to patients with Stage IIIC or IV Endometrial cancer (Surveillance)	Not Applicable	77.7	71.9	80.7	78.6
Endometrium	ENDLRC - Endoscopic, laparoscopic, or robotic performed for all Endometrial cancer (excluding sarcoma and lymphoma) for all stages except stage IV (Surveillance)	Not Applicable	69.7	71	66.3	68.2
Ovary	OVSAL - Salpingo-oophorectomy with omentectomy, debulking/ cytoreductive surgery, or pelvic exenteration in Stages I-IIIC ovarian cancer (Surveillance)	Not Applicable	66.5	69.2	67.2	77.2
Ovary	OVCT - Chemotherapy started within 42 days (before or after) the date of most definite surgery in Stages IA-IV ovarian, fallopian tube, or peritoneal cancers (Surveillance)	Not Applicable	41.6	42.1	42.6	48.9



# Center for Interventional Endoscopy



**Robert Hawes, MD**  
 Medical Director  
 Institute for Minimally Invasive Therapy



**Shyam Varadarajulu, MD**  
 Medical Director  
 Center for Interventional Endoscopy

## Patient Referrals

- Total Number of Patients: 5,409
- Total Florida Patients: 5,255
- Tri-County: 2,467
- Non Tri-County: 2,942
- Out-of-State Patients: 143
- International Patients: 11
- Jamaica, Virgin Islands, Canada, Grand Cayman, Uruguay, Puerto Rico, United Kingdom, Trinidad
- 39 states

## Publications

**Varadarajulu S.**, Holt B.A., Bang J.Y., **Hasan M.K.**, Logue A., Tamhane A., **Hawes R.H.**, Hebert-Magee S.; "Training Endosonographers in Cytopathology: Improving the Results of EUS-guided FNA"; *Gastrointestinal Endoscopy* 2015; 81: 104-10.

**Varadarajulu S.**, Bang J.Y., Holt B.A., **Hasan M.K.**, Logue A., **Hawes R.H.**, Hebert-Magee S.; "The 25-Gauge EUS-FNA Needle: Good for On-site but Poor for Off-site Evaluation? Results of a Randomized Trial"; *Gastrointestinal Endoscopy* 2014; 80: 1056-63.

**Navaneethan U.**, **Hasan M.K.**, Lourdasamy V., Njei B., **Varadarajulu S.**, **Hawes R.H.**; "Single-operator Cholangioscopy Targeted Biopsies in the Diagnosis of Indeterminate Biliary Strictures: A Systematic Review;

Bang J.Y., Holt B.A., **Hawes R.H.**, **Hasan M.K.**, Arnoletti J.P., Christein J.D., Wilcox C.M., **Varadarajulu S.**; "Outcomes after Implementing a Tailored Endoscopic Step-up Approach to Walled-off Necrosis in Acute Pancreatitis"; *British Journal of Surgery* 2014; 101: 1729-38.

Dhir V., Itoi T., Khashab M.A., Park D.H., Yuen Bun Teoh A., Attam R., Messallam A., **Varadarajulu S.**, Maydeo A.; "Multicenter Comparative Evaluation of Endoscopic Placement of Expandable Metal Stents for Malignant Distal Common Bile Duct Obstruction by ERCP or EUS-guided Approach"; *Gastrointestinal Endoscopy* (in press).

The Center for Interventional Endoscopy (CIE) at Florida Hospital was established in 2012. Our state-of-the arts unit integrates therapeutic endoscopy with minimally invasive surgery to provide the highest quality of care for patients with complex digestive diseases.

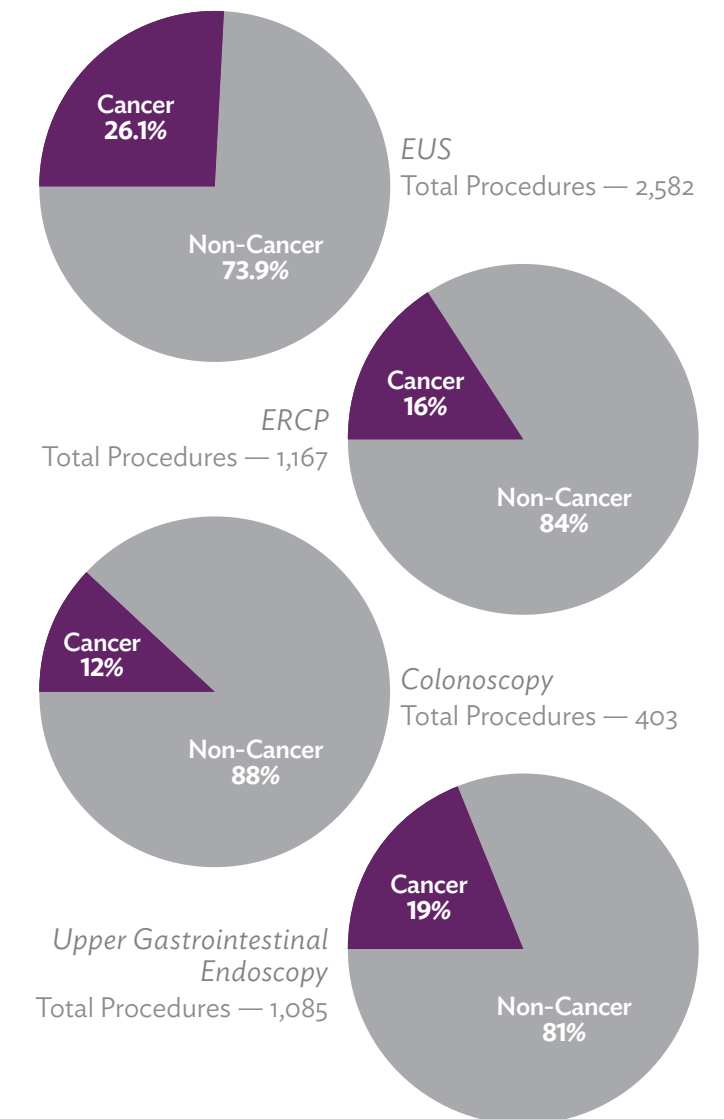
Three years since inception and 18 months since our unit was inaugurated, we are the No. 1 endoscopic ultrasound unit in the United States by volume, performing 2,582 procedures. We are also Florida's largest ERCP unit, with a total of 5,500 interventional procedures. Since 2012, we have published 79 peer-reviewed manuscripts - 33 in 2014 alone. Our vibrant research portfolio includes eight ongoing randomized trials, four prospective clinical trials, and several others to commence in 2015.

We look forward to the center continuing to grow while fulfilling its mission to provide world-class clinical care, perform cutting-edge clinical research, and train the next generation of endoscopists and minimally invasive surgeons.

## Status Of Active Clinical Trials

Name Of The Trail	Sponsor	Design	Enrollment Goal	Current Enrollment
Comparison of On-Site vs. Off-Site Evaluation of Cholangioscopy-Guided Biopsies of the Bile Duct	Florida Hospital	Randomized	66	13
Randomized Trial Comparing 22 and 25 G Needles for Pancreatic Mass FNA with and without suction	Florida Hospital	Randomized	352	204
Multicenter Randomized Trial Comparing Covered Metal and Plastic Stents for Preoperative Biliary Decompression in Pancreatic Cancer	Florida Hospital	Randomized	114	53
Prophylactic Octreotide to Prevent Post Duodenal EMR and Ampullectomy Bleeding	Florida Hospital	Randomized	124	20
Reduction in Symptomatic Esophageal Stricture Formation Post-Two Stage Complete Barrett's Excision for High Grade Dysplasia or Early Adenocarcinoma with Short-Term Steroid Therapy: A Randomized, Double-Blinded, Placebo- Controlled, Multicenter Trial	Florida Hospital	Randomized	126	2
Safety of Endoscopic Resection of Large Colorectal Polyps: A Randomized Trial	VA Medical Center	Randomized	>20	16
Lipidomics, Proteomics, Micro RNAs and Volatile Organic Compounds Biomarkers in Bile and Serum in the Diagnosis of Malignant Biliary Strictures	Florida Hospital	Prospective	500	Pending

## 2014 Cancer Related Endoscopic Procedures







# Oncology Clinical Performance Improvement



**Rose Fan Ting Yue, RN, BSN, LHCRM**  
Project Manager  
Clinical Performance Improvement  
Florida Hospital Cancer Institute



**Meiling Wu, MSN, RN, BSN, MSN**  
Project Manager  
Clinical Performance Improvement  
Florida Hospital Cancer Institute

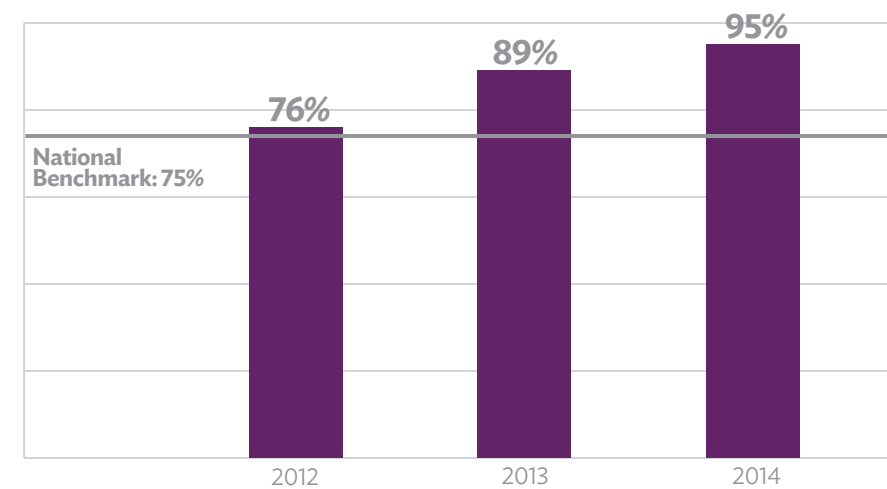
At FHCI, quality care refers to the entirety of a patient's experience. The core mission of our Quality Improvement Initiative is to continuously improve research, training and patient care. We achieve this with a comprehensive review and evaluation process. Members of our Quality Improvement team use data to analyze, assess and improve the structure, function and outcomes of the entire system. Tumor site leadership sets goals, measures performance, and analyzes patient outcomes to improve care.

## Accreditation Awards

FHCI holds multiple accreditations that recognize the cancer program for quality patient care and best practices. The Institute is accredited by the American College of Surgeons Commission on Cancer as an Academic Comprehensive Cancer Program. The Radiation Oncology Program is accredited by the American College of Radiology. The Breast Program is accredited by the National Accreditation Program for Breast Centers. Two of FHCI's Medical Oncology practices are certified by the American Society of Clinical Oncology (ASCO) Quality Oncology Practice Initiative (QOPI).

## Quality Oncology Practice Initiative Accreditation Standards Overall Quality Measures Score

For the third consecutive year, FHCI Medical Oncology reached National Accreditation Standards adopted from American Society of Clinical Oncology-Quality Oncology Practice Initiative.

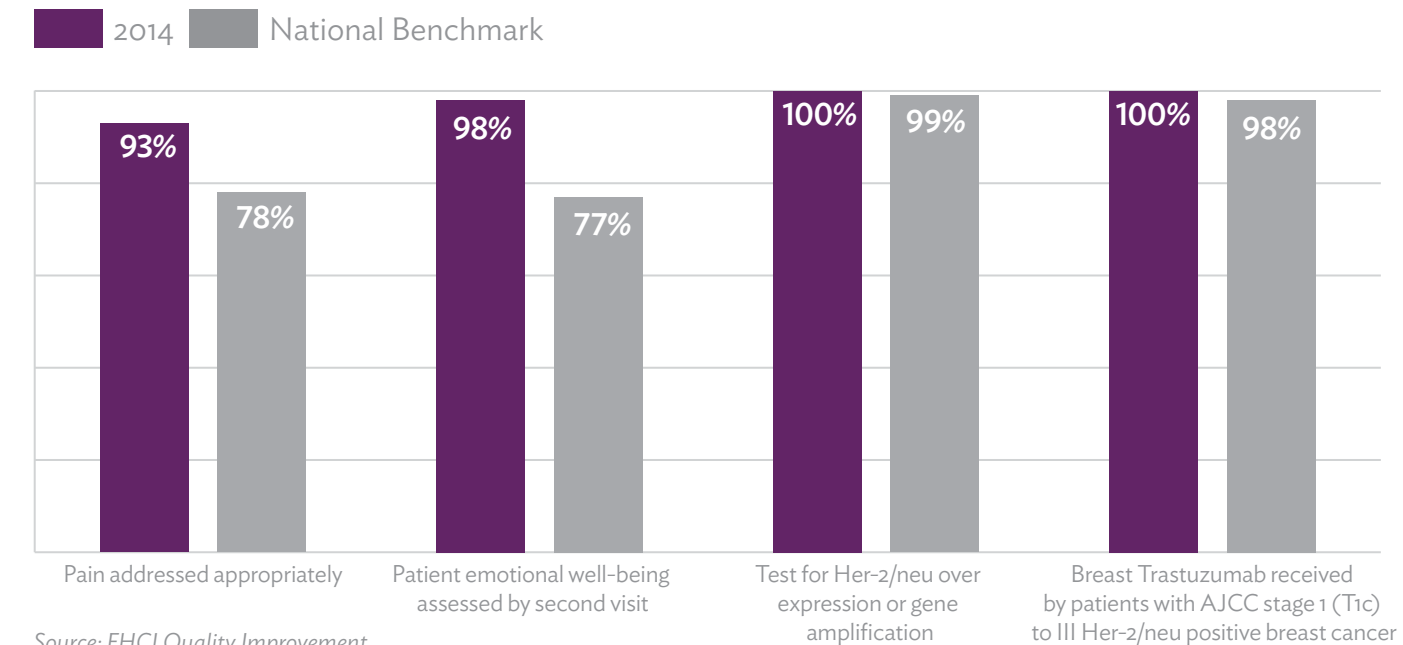


Source: FHCI Quality Improvement

## Quality Oncology Practice Initiative Breast Cancer Treatment Compared to National Standard

Cases Diagnosed in 2014

FHCI continued to meet or exceed national benchmarks set for quality breast cancer treatment, performing well above the standard for assessment of both pain and emotional well-being.



Source: FHCI Quality Improvement

# Oncology Clinical Performance Improvement

## Presentations

“Effects of Variation of Sentinel Lymph Nodes Submitted During Breast Cancer Surgery: Analysis of Practice Variation and Costs” American Society of Clinical Oncology (ASCO) Quality Symposium; Boston, MA; Oct. 17 2014.

## Focus Study

The Quality Improvement team has continued to conduct all quality studies according to the standards of American College of Surgeons (ACS) Commission on Cancer (CoC), American Society Clinical Oncology (ASCO) Quality Oncology Practice Initiative (QOPI), National Accreditation Program for Breast Center (NAPBC) and American College of Radiology (ACR). In addition, the Quality Improvement team launched focus studies in 2011 to improve patient care, comparing its performance with national standards and evidence-based practice guidelines. Cancer sites addressed by the focus studies included breast, kidney, pancreatic and others. Annual monitoring provides a reference for progress.

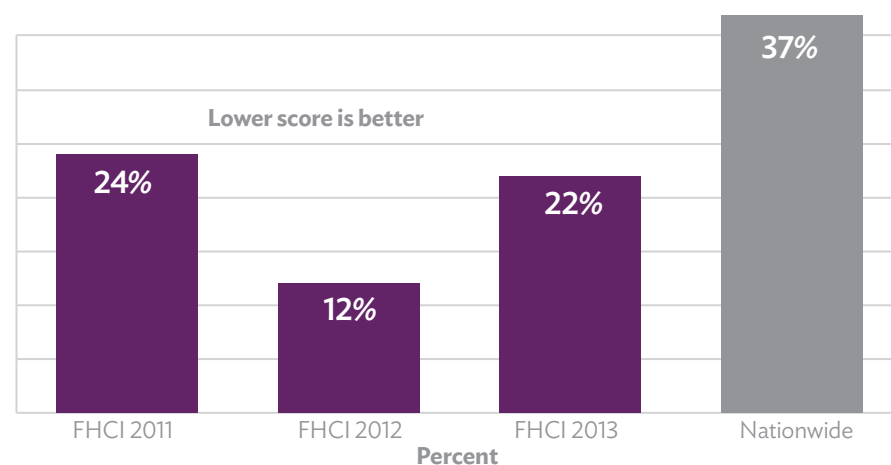
## Breast Cancer Focus Study FHCI Compared with National Standards

Cases Diagnosed in 2011, 2012 and 2013

When the study began in 2011, FHCI showed demonstrated strong improvement of its already stellar performance for quality care to patients with breast cancer in stages I or II. For the three-consecutive-years study, FHCI surpassed the national standard of care.

## Breast Cancer Cases Stage I and Stage II with Diagnostics

Includes PET, CTs and Bone Scans



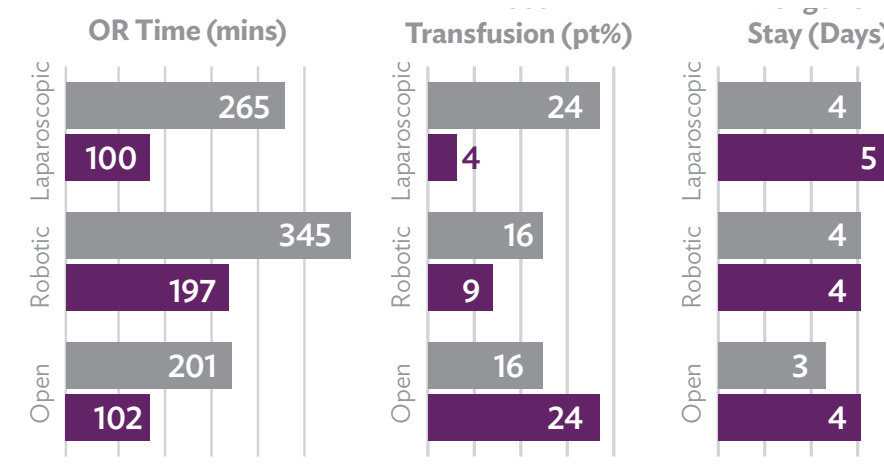
## Kidney Cancer Focus Study FHCI Compared with National Standards

Surgical Treatment

Because of our extensive experience in surgical procedures, including advanced robotics, patients undergoing Radical Nephroureterectomy at FHCI spent significantly less time in surgery – ranging from approximately 1½ to 2½ hours less than the national standard, depending on the surgical process. FHCI patients undergoing Radical Nephroureterectomy at FHCI were also less likely to require an intraoperative blood transfusion.

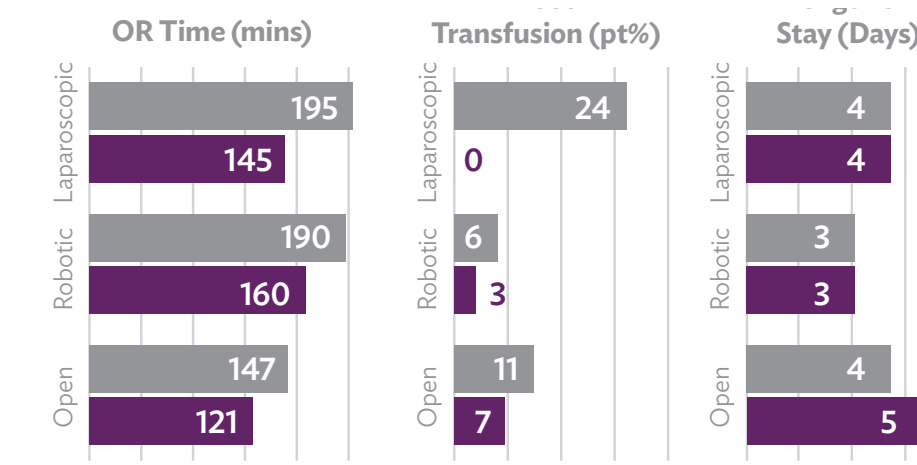
## Kidney Cancer Surgical Treatment Compared with National Standard

Cases Diagnosed in 2010 to 2012 Radical Nephroureterectomy



## Kidney Cancer Surgical Treatment Compared with National Standard

Cases Diagnosed in 2010 to 2013 Partial Nephroureterectomy



■ National Benchmark ■ FHCI



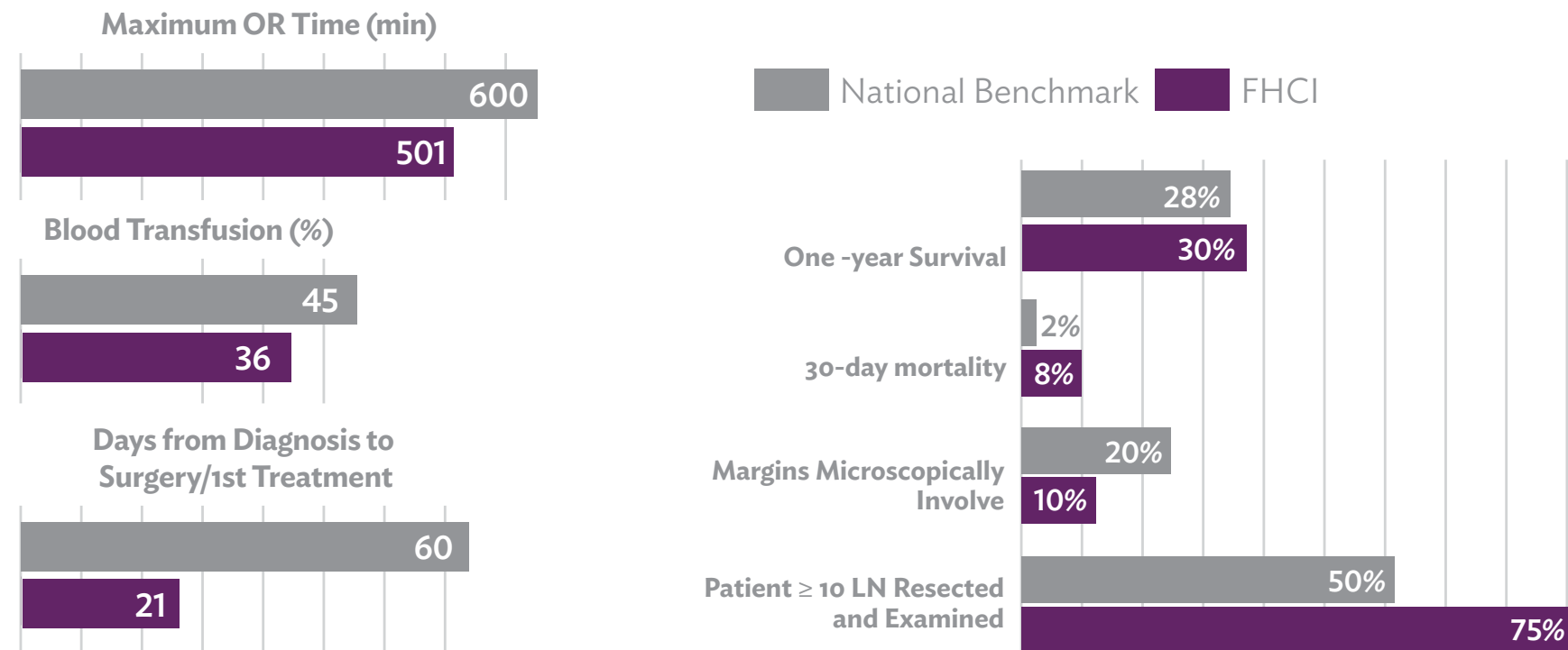
## Pancreatic Cancer Focus Study FHCI Compared with National Standards

*Surgical Treatment*

FHCI surpassed national benchmarks for pancreatic cancer treatment, including shorter operating-room times and higher survival rates.

## Pancreatic Cancer Surgical Treatment Compared with National Standard

*Cases Diagnosed in 2012*



Source: FHCI Quality Improvement

Source: FHCI Quality Improvement

## Tumor Boards

A total of 1,832 cases were presented at 296 Tumor Boards in 2014; 98 percent were prospective. Most Tumor Boards (228) 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 were held with co-moderators Henry Ho, MD, and David Diamond, MD; Three Urology Journal Club programs were held with co-moderators Vipul Patel, MD; Jeffrey Brady, MD; Allan Klaiman, MD, and Inoel Rivera, MD.

## Best of ASCO® Annual Meeting

The FHCI's Best of ASCO® 2014 Annual Meeting is a two-day program licensed by the American Society of Clinical Oncology. Program directors: Tarek Mekhail, MD; David Decker, MD; Louis H. Barr, MD, and Robert Sollaccio, MD. Invited faculty speakers: G. Thomas Budd, MD, Cleveland Clinic; Cristina Gasparetto, MD, Duke University Medical Center; Steven Horwitz, MD, Memorial Sloan-Kettering Cancer Center; David Mason, MD, Cleveland Clinic Foundation; Sumanta Pal, MD, City of Hope Comprehensive Cancer Center; Derek Raghavan, MD, University of North Carolina School of Medicine; Wasif Saif, MD, Tufts Medical Center; Gregory Videtic, MD, Cleveland Clinic Foundation and Everett Vokes, MD, University of Chicago Medical Center. Faculty speakers from FHCI - J. Pablo Arnoletti, MD; Robert Holloway, MD; Tarek Mekhail, MD, and Lee Zehngbot, MD.

## Other CME Events

**Colorectal Cancer:** Chairperson - Ahmed Zakari, MD

“Are We Ready For Prime Time? Debating the Management of Metastatic Rectal Cancer with Surgeons and Oncologists,” with Axel Grothey, MD, Professor of Oncology, Division of Medical Oncology, Mayo Clinic; and Anthony Senagore, MD, Chairman, Surgical Disciplines, Central Michigan University School of Medicine.

Case presentations reviewed by panel of experts: Ahmed Zakari, MD; J. Pablo Arnoletti, MD; Matthew Albert, MD; Sam Attalla, MD; Matthew Hesh, DO; Bryan Clary, MD, and Michael Morse, MD.

**Pancreatic Cancer:** Chairperson - J. Pablo Arnoletti, MD

“Personalized Therapy for Pancreatic Cancer: It’s Closer Than You Think,” with James Fleming, MD, Professor, Chief, Pancreas Surgery, Department of Surgical Oncology, Medical Director, Perioperative Services, the University of Texas MD Anderson Cancer Center.

Case Presentations reviewed by panel of experts: J. Pablo Arnoletti, MD; Sebastian de la Fuente, MD; Nicholas Feranec, MD; James Fleming, MD; Robert H. Hawes, MD, and Ahmed Zakari, MD.





## 2014 Highlights

- 31 oncology-certified nurses (adult).
- 405 nurses certified through FHCI Chemotherapy Workshop for Oncology Nurses and through annual recertification (adult).
- 141 nurses attended the FHCI's Oncology Nursing Conference.
- 122 nurses attended a total of 8 sessions of FHCI Chemotherapy Workshop for Oncology Nurses.
- A 1½-hour annual recertification class was held 25 times at 7 campuses.
- 3 certified pediatric oncology nurses.
- 30 certified pediatric nurses.
- 37 nurses completed the National Pediatric Chemotherapy and Biotherapy Provider Course.

## 2014 Oncology Inpatient Discharges

by Campus

Discharges	Campus
Orlando	3,941
Altamonte	986
Apopka	19
East Orlando	380
Winter Park	581
Kissimmee	159
Celebration	1,461
<b>Total</b>	<b>7,527</b>

Source: Florida Hospital Marketing



## Cancer Resource Libraries

The Cancer Resource Libraries offer free access to an extensive collection of publications about cancer, as well as interactive cancer education using touch-screen computers. In 2014, the libraries distributed approximately 53,000 publications in support of patient education and participated in 32 community outreach events. Each campus library is staffed by community volunteers.

## Black Men's Health and Wellness Expo

Men from throughout the community attended this event in 2014 to learn about prostate cancer and men's health. A total of 171 men age 40 or older took advantage of free prostate cancer screenings.

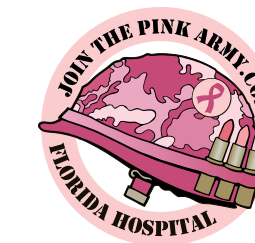
BPH	22
Abnormal DRE exams	31
Abnormal PSA reports	12

## 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 increase awareness and offer risk assessments.

## Pink Army

FHCI's Pink Army, a unified outreach effort to end breast cancer, continues to grow stronger each year. "Foot soldiers" executed 77 events in 2014, focused primary in and around October for Breast Cancer Awareness month. Because of these and other Pink Army efforts, more than 3,300 incremental breast screening were conducted in 2014. Mobile screening locations ranged from malls to churches, gyms to vacation resorts and business offices to sheriff's offices.



## 2014 Pink Army Events by Month

Months	Events
August	1
September	11
October	54
November	9
December	2
<b>Total</b>	<b>77</b>

Source: Florida Hospital Marketing



### Community Partnerships and Events

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

- Adventist University
- Agape Church
- Bethel Haitian SDA Church
- Church of God
- Church of God In Christ Women's Conference
- Church of God Prophecy
- Crooms Academy - Sanford Riverwalk 5k
- Express Labs of Orlando - Banding Together
- Falu's Bodacious Dance Studio
- Fresh Ministry
- HGV Parc Soleil Benefits Fair
- Hilton Grand Vacation Club Tuscany - Benefits Fair
- Hilton Grand Vacations SeaWorld
- Lakeview SDA Haines City
- Maitland Ladies Club Pink Event
- Medical Mission Trip
- Mount Pleasant Missionary Baptist Church
- New Bethel AME Church
- Oviedo Mall Breast Cancer Awareness
- Pink Link
- Pink Party Latin - Kissimmee/Celebration
- Seventh-Day Adventist Health Fair
- Sharing the Hope
- Sisters Network Block Walk
- Soloman's Porch



### About Florida Hospital Foundation

Florida Hospital is one of America's largest, not-for-profit health care systems, providing exceptional health care to the communities it serves. 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 Cancer Institute and ultimately supports Florida Hospital's mission to provide the best patient care possible. In 2014, more than \$2.3 million was raised for FHCI 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, FHCI achieved notable successes in 2014. Their contributions allowed us to conduct innovative cancer research, offer support through our Cancer Resource Libraries, provide breast cancer care for uninsured and underserved patients, and facilitate image recovery through our Eden Spa.

### Cancer Research

Donor support enabled innovative benchmark research initiatives focusing on cancer affecting the breast, lung and pancreas, as well as gynecologic cancers, thoracic cancers and cellular therapy.

### Breast Cancer Care

In 2014, the Jennie Yoon-Buchanan, MD, Breast Care Fund enabled 918 uninsured patients to receive breast cancer screenings. Fourteen were diagnosed with breast cancer and were offered further treatment. Florida Hospital's Pink Army campaign raised more than \$200,000 for breast cancer care and increased awareness for the early detection of breast cancer.

### Eden Spa

This one-of-a-kind spa was able to assist 107 uninsured or underinsured patients battling cancer. The support of our Founding 100 donors helped these cancer survivors maintain their dignity and physical appearance through the donation of 336 garments and/or wigs. Eden Spa also provided more than \$75,000 in products from operational funds.

### Drug Replacement Program

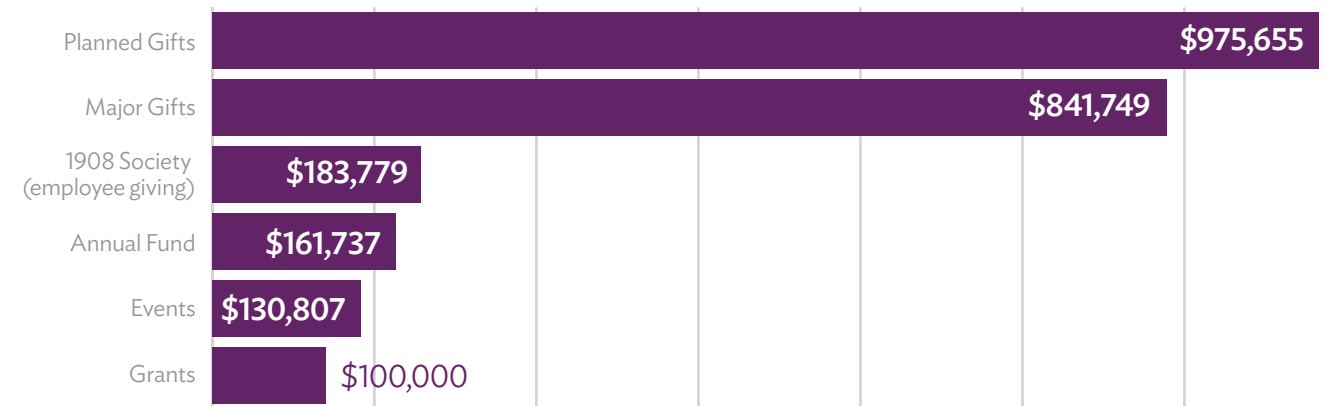
The FHCI Drug Replacement Program (DRP) assists Florida Hospital chemotherapy patients who don't have insurance and are ineligible for government assistance. The DRP works with physicians and the Florida Hospital Pharmacy to enroll patients in programs that provide free medications from pharmaceutical companies. Throughout treatment at FHCI, the DRP team ensures continued therapy and arranges coverage to support changes in treatment plans. In 2014, the DRP recouped \$4.6 million in medications and assisted 114 patients.



## 2014 Fundraising Accomplishments

- Total Raised = \$ 2,393,727
- 140 Donors contributed \$1,000 or more

## 2014 Funding Sources



Source: Florida Hospital Foundation

## Fundraising Trend for FHCI: 2004-2014



Source: Florida Hospital Foundation

### Humanitarian

Gift of \$500,000 – \$999,999

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

### Centurion

Gift of \$100,000 – \$249,999

Athina Dever  
The Susan G. Komen Breast Cancer Foundation, Inc.  
Runway To Hope and The NeJame Family

### Leader

Gift of \$50,000 – \$99,999

The Rita and Jeffrey Adler Foundation  
Ingeborg Ellzey

### Investor

Gift of \$25,000 – \$49,999

Comprehensive Energy Services, Inc.  
Peter and Linnae Williams

### Benefactor

Gift of \$10,000 – \$24,999

Absolute Thinking, Inc.

Dr. Pablo Arnoletti  
Bloomingdale's  
Noah and Patricia Breakstone  
Casselberry Jazzercise  
Celgene Corporation  
Coach Rob's Benefit Bash, Inc.  
Deloitte Services, LP  
Delta Delta Delta Alumni Association  
Dorothy's Family  
Inga Ellzey Chis Foundation

The FINFROCK Family of Companies  
Edward and Connie Gilbert  
Give Hope Foundation, Inc.  
Market Traders Institute, Inc.  
Navigant Consulting  
Borron and Beppy Owen  
In Loving Memory of Maribeth Raiskin  
Rock Pink, Inc.  
Chuck and Margery Pabst Steinmetz  
Track Shack of Orlando  
Tri-City Electrical Contractors

### Patron

Gifts of \$1,000 – \$9,999

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Adrenaline Media  
David and Judy Albertson  
Anne and George Andrews, II  
Dr. Thomas and Dr. Diane Andrews  
Anthony and Jessica Aslanian  
Baker & Hostetler, LLP  
Beads for Beats, Inc.  
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Charles Perry Partners, Inc.  
Chrome Angels of Central Florida, Inc.  
CNA Foundation  
Corinthian Colleges  
Dr. and Mrs. Bruce R. Crossman, Jr.

Eugene and Debbie Curcio  
CureSearch for Children's Cancer  
Delta Delta Delta Alumnae Chapter  
Wayne Densch Charities, Inc.  
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Richard and Elizabeth Dvorak  
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Fifth Third Bank  
Florida Society of Clinical Oncology  
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Orange County Professional Fire Fighters  
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Royal Oak Homes  
Gary and Pamela Sain in memory  
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## Your Legacy

By supporting the Florida Hospital Cancer Institute, 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 leading-edge technology to address and advance treatment options.

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



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Leslie Aldrich, FHCI Administrator  
Carlos Alemany, MD  
Nick Archer  
Juan Pablo Arnoletti, MD  
Louis Barr, MD  
Matthew Biagioli, MD  
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Christopher Rush, MD  
Eric Saunders, MD  
Robert Sollaccio, MD  
Ahmed Zakari, MD  
Lee Zehngebot, MD

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Matthew Biagioli, MD  
Michael Radi, MD  
Christopher Rush, MD  
Robert Sollaccio, M.D.  
Lee Zehngebot, MD

### Ancillary Professional Members

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Heather Burner, CTR, Cancer Registry Quality Coordinator  
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Martha Cuffel, Corporate Relations/Conference Coordinator  
Carol Duryea, RN, Social Worker/Psychological Services Coordinator  
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Dorothy Hardee, Health Systems Manager, American Cancer Society  
Laura Podschun  
Helen Roorda, RN, BSN, OCN, Patient Education/Community Outreach Coordinator  
Shaun Smith, RN, Pain Control/Palliative Care  
Rose Yue, RN, Quality Improvement

## For More Information

2501 North Orange Avenue, Suite 289  
Orlando, FL 32804  
(407) 303-2000  
(800) 375-7761  
[FloridaHospitalCancer.com](http://FloridaHospitalCancer.com)



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