

MD Anderson Cancer Center at Cooper  
ANNUAL REPORT 2014



MD Anderson  Cooper  
~~Cancer Center~~

Making Cancer History®

Dear Friend,

For the physicians, nurses and staff at MD Anderson Cancer Center at Cooper, 2014 will be remembered as a year of transformation. While we launched our partnership with MD Anderson Cancer Center and opened our new cancer center in Camden in the fall of 2013, for many of us the tangible effect of these initiatives didn't fully impact our lives until 2014 — when our patient volumes grew tremendously, the depth and scope of our programs expanded and we became immersed in working with our new medical record systems and business operations structure.

Transformation demands innovation, and in 2014 our team did an extraordinary job of being positive, flexible and creative in managing and succeeding in this changing environment — continually focused on the enhancement of our program and, most importantly, the treatment and care of our patients.

In 2014, thanks to the commitment and dedication of our team, we were able to achieve significant successes, including:

- 20% overall increase in new patient volumes.
- Successful physician recruitment in key disease-site specialties.
- Restructured and refocused clinical trials program.
- Increased number of patients originating beyond our traditional service areas.
- Highly visible regional advertising campaign.
- Increased consumer awareness of and preference for MD Anderson Cooper cancer services.

We look with eagerness and anticipation for the new year. We have set high, but attainable, goals for customer service, quality care and patient outcomes and are well positioned to move into 2015 and achieve those goals.

I am honored to lead MD Anderson Cancer Center at Cooper. Our success is not based on any one individual, program or initiative, but on the comprehensive, coordinated effort our team puts forth every day, for every patient.

Sincerely,



**Generosa Grana, MD, FACP**  
Director, MD Anderson Cancer Center at Cooper

# Cancer Registry Report

The MD Anderson Cancer Center at Cooper Cancer Registry is responsible for the accurate, timely collection of cancer patient data. This data is used for evaluation of patient outcomes. MD Anderson Cooper is accredited by the American College of Surgeon's (ACoS) Commission on Cancer (CoC) and the National Accreditation Program for Breast Centers (NAPBC). The CoC is responsible for establishing standards to ensure high quality, multidisciplinary and comprehensive cancer care delivery in hospitals throughout the United States, granting accreditation to only those facilities that have voluntarily committed to provide the best in cancer diagnosis and treatment and are able to comply with the rigorous standards.

The Registry reports specifics of diagnosis, stage of disease, medical history, patient demographics, laboratory data and tissue diagnosis; and medical, radiation and surgical methods of treatment for each cancer diagnosed at their facility. The data is used to observe cancer trends and provide a research base

for studies into the possible causes of cancer with the goal of reducing cancer incidence and death.

Registry data also serves as an ongoing resource to the Cancer Committee in determining the most effective allocation of resources, in determining community education and outreach initiatives and in monitoring program quality.

The Registry provides vital statistics and information to clinicians and researchers as well as local, state and national cancer databases and cancer-related organizations. This contribution of information advances the body of knowledge in the field of cancer and ultimately has a positive impact on cancer patient care.

For Cooper's data to be comparable to those collected at other programs around the country, the registrars adhere to data rules established by the collecting and credentialing organizations. Keeping up with these changes can be challenging, but Cooper Cancer Registrars understand the significance of their work and are experts in their field.

## Cancer Registry Department Staff

Peggy Carnuccio, CTR, *Manager*  
Jacqueline Ellis-Riffle, CTR, *Cancer Registrar*  
Annette Harley, CTR, *Cancer Registrar*

Brian Palidar, CTR, *Cancer Registrar*  
Karen Staller, CTR, *Cancer Registrar*

## Cooper University Hospital Cancer Committee\*

### REQUIRED Physician Members

**Umur Atabek, MD**  
Cancer Liaison  
Surgery

**Todd Seigel, MD**  
Radiology

**Generosa Grana, MD**  
Cancer Committee Chair  
Cancer Conf. Coordinator  
Hematology/Medical Oncology

**Tamara LaCouture, MD**  
Radiation Oncology

**Roland Schwarting, MD**  
Pathology

### REQUIRED Non-Physician Members

**Kristin Brill, MD**  
Breast Program

**Margaret Carnuccio, CTR**  
Manager, Cancer Registry

**Yinyin (Shirley) Yao, MS, CGC**  
Genetics Counselor

**Jackie Ellis-Mullin, CTR**  
Cancer Registry QA Coordinator

**Kim Krieger, BA, CCRP**  
Research Coordinator

**Laura Mathern, MPH**  
PI Representative

**Evelyn Robles-Rodriguez, APN-C**  
Community Outreach Coordinator

**Barbara Sproge, MSN**  
Palliative Care Educator

**Christine Winn, FACHE**  
SVP, Cancer Program

**Ann Steffney, MSN, RN, OCN**  
Quality Improvement Coordinator

**Carol Stratton, MSPT, ATC, CLT**  
Rehabilitation Services

**Leslie Tarr, MSW, CSW, OSW-C**  
Social Worker & Psychosocial  
Services Coordinator

### Other Attendees

**Jessica Bennett, CPE**  
Chaplain, Pastoral Care

**Susan Breslin, RN**  
Clinical Infusion Manager

**Frank DelRossi, CSW**  
Outpatient Social Worker

**Tondalya DeShields, RN**  
Oncology Outreach Program

**Angela Frantz, RN**  
Breast Nurse Navigator

**Virginia Girard, RN**  
Nursing Educator

**Linda Goldsmith, RD**  
Outpatient Dietitian

**Annette Harley, CTR**  
Cancer Registrar

**Susan Hunter, APN**  
Hematology/Medical Oncology

**Dianne Hyman, MSN**  
Breast Nurse Navigator

**Frank Koniges, MD**  
Surgery

**Lisa McLaughlin, MSW**  
Outpatient Social Work

**Cori McMahon, PsyD**  
Behavioral Medicine,  
Hematology/Medical Oncology

**Alicia Michaux, RD**  
Outpatient Dietitian

**Alice O'Brien, RN**  
Leuk/Lymph Nurse Navigator

**Brian Palidar, CTR**  
Cancer Registrar

**Beth Rachkis**  
Marketing/Communications

**Dave Rodman**  
Oncology Pharmacist

**Mary Rooney, RN**  
GU Nurse Navigator

**Francis Spitz, MD**  
Surgery

**Karen Staller, CTR**  
Cancer Registrar

**Pat Stienes**  
Radiology

**Jackie Sutton**  
Pharmacy

**Nick Stamatiades**  
Sr. Director, Finance/Operations

**Colleen Tegeler**  
Radiation Therapy

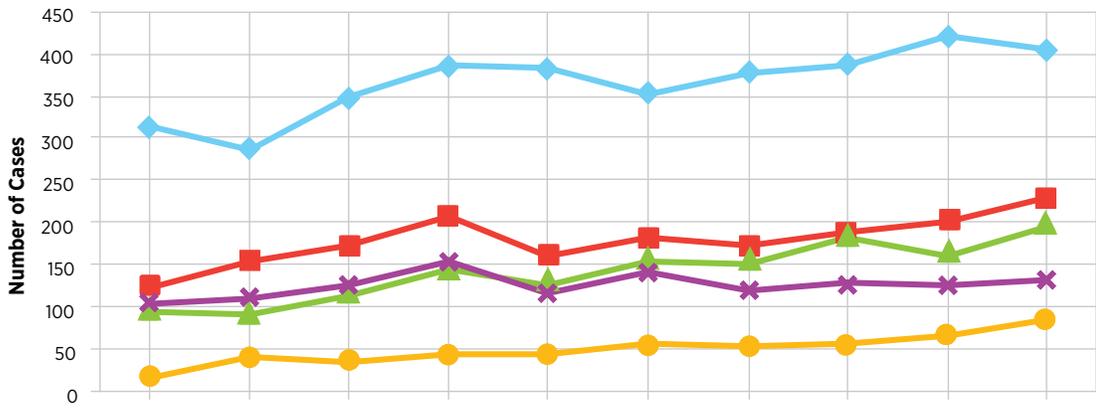
**Colleen Thornton**  
American Cancer Society

**Jackie Tubens, MSN**  
GI Nurse Navigator

**David Warshal, MD**  
Gynecologic Oncology

\*Committee members at time of publication.

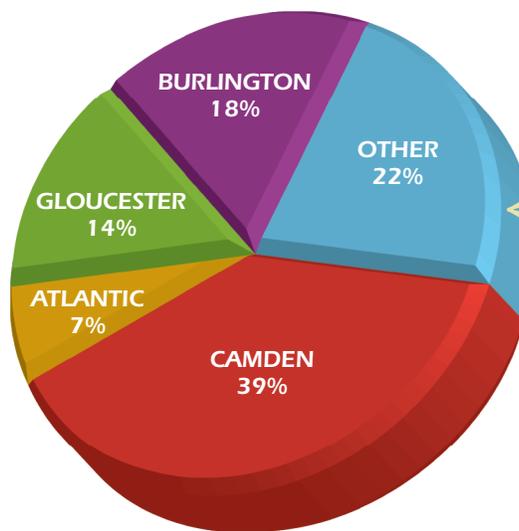
**Top Five Cancer Sites TOTAL ANALYTICAL CASES 2004-2013**



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>◆ Breast</b>	313	286	347	386	384	351	377	385	421	404
<b>■ Lung</b>	122	154	172	206	159	181	174	188	202	229
<b>▲ Corpus Uterus</b>	95	91	114	145	126	154	150	182	161	196
<b>✕ Colon/Rectum</b>	104	109	127	154	117	142	121	130	126	133
<b>● Pancreas</b>	15	40	35	45	44	56	53	57	65	86

**Patient's County of Residence at Diagnosis 2013 ANALYTICAL CASES**

County	Count	Percent
Camden	800	39.40%
Burlington	369	18.20%
Gloucester	275	13.56%
Atlantic	135	6.66%
Other	449	22.18%
<b>TOTAL</b>		<b>100.00%</b>



Cape May	3.45%
Cumberland	4.24%
Hunterdon	0.10%
Mercer	1.78%
Middlesex	0.10%
Monmouth	0.20%
Ocean	1.92%
Salem	3.11%
Somerset	0.10%
Out of State	2.81%
Unknown	0.64%

CANCER REGISTRY REPORT

**MD Anderson Cancer Center at Cooper**  
**2013 ANALYTIC CASE DISTRIBUTION – BY SITE, SEX, AJCC STAGE**

Primary Site	Total Cases	Sex		AJCC Stage						
		Male	Female	Stage 0	Stage I	Stage II	Stage III	Stage IV	88	Unk
<b>ORAL CAVITY &amp; PHARYNX</b>	<b>54</b>	<b>39</b>	<b>15</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>9</b>	<b>30</b>	<b>0</b>	<b>4</b>
Lip	1	1	0	0	0	0	0	1	0	0
Tongue	23	17	6	1	0	2	3	17	0	0
Salivary Glands	3	3	0	0	0	0	2	1	0	0
Floor of Mouth	4	3	1	1	2	0	1	0	0	0
Gum & Other Mouth	3	1	2	0	1	1	0	0	0	1
Nasopharynx	3	0	3	0	0	0	1	1	0	1
Tonsil	6	5	1	0	0	0	0	5	0	1
Oropharynx	4	3	1	0	0	1	1	1	0	1
Hypopharynx	7	6	1	0	0	1	1	4	0	0
<b>DIGESTIVE SYSTEM</b>	<b>345</b>	<b>179</b>	<b>166</b>	<b>9</b>	<b>60</b>	<b>90</b>	<b>71</b>	<b>88</b>	<b>11</b>	<b>16</b>
Esophagus	23	18	5	0	5	7	6	2	0	3
Stomach	19	9	10	0	3	3	4	7	1	1
Small Intestine	10	7	3	0	2	0	4	4	0	0
Colon Excluding Rectum	96	55	41	5	21	17	25	27	0	1
Cecum	20	13	7	1	6	2	7	4	0	0
Appendix	5	1	4	1	1	1	0	2	0	0
Ascending Colon	8	5	3	1	0	3	2	2	0	0
Hepatic Flexure	5	3	2	0	2	0	2	1	0	0
Transverse Colon	12	5	7	1	0	3	5	3	0	0
Splenic Flexure	2	0	2	0	0	1	0	1	0	0
Descending Colon	7	5	2	0	2	2	1	2	0	0
Sigmoid Colon	30	18	12	1	9	3	8	9	0	0
Large Intestine, NOS	7	5	2	0	1	2	0	3	0	1
Rectum & Rectosigmoid	37	14	23	1	7	9	11	7	0	2
Rectosigmoid Junction	6	2	4	0	1	1	1	3	0	0
Rectum	31	12	19	1	6	8	10	4	0	2
Anus, Anal Canal & Anorectum	11	7	4	1	1	7	1	0	0	1
Liver & Intrahepatic Bile Duct	18	13	5	0	5	2	3	4	4	0
Liver	17	13	4	0	5	2	3	3	4	0
Intrahepatic Bile Duct	1	0	1	0	0	0	0	1	0	0
Gallbladder	10	5	5	0	0	2	5	3	0	0
Other Biliary	16	8	8	0	4	7	0	3	0	2
Pancreas	85	41	44	2	12	35	4	26	0	6
Peritoneum, Omentum & Mesentery	14	0	14	0	0	1	8	5	0	0
Other Digestive Organs	6	2	4	0	0	0	0	0	6	0
<b>RESPIRATORY SYSTEM</b>	<b>245</b>	<b>121</b>	<b>124</b>	<b>0</b>	<b>71</b>	<b>24</b>	<b>43</b>	<b>102</b>	<b>1</b>	<b>4</b>
Nose, Nasal Cavity & Middle Ear	1	1	0	0	0	0	0	1	0	0
Larynx	15	12	3	0	1	2	3	8	1	0
Lung & Bronchus	229	108	121	0	70	22	40	93	0	4
<b>BONES &amp; JOINTS</b>	<b>11</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>
Bones & Joints	11	8	3	0	6	2	0	3	0	0
<b>SOFT TISSUE</b>	<b>49</b>	<b>25</b>	<b>24</b>	<b>0</b>	<b>17</b>	<b>6</b>	<b>19</b>	<b>2</b>	<b>2</b>	<b>2</b>
Soft Tissue (including Heart)	49	25	24	0	17	6	19	2	2	2
<b>SKIN EXCLUDING BASAL &amp; SQUAMOUS</b>	<b>41</b>	<b>20</b>	<b>21</b>	<b>5</b>	<b>12</b>	<b>6</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>3</b>
Melanoma -- Skin	39	20	19	5	12	5	6	8	0	3
Other Non-Epithelial Skin	2	0	2	0	0	1	0	0	1	0
<b>BASAL &amp; SQUAMOUS SKIN</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
Basal/Squamous cell carcinomas of Skin	1	0	1	0	0	0	0	0	0	1
<b>BREAST</b>	<b>404</b>	<b>6</b>	<b>398</b>	<b>90</b>	<b>145</b>	<b>99</b>	<b>38</b>	<b>23</b>	<b>0</b>	<b>8</b>
Breast	404	6	398	90	145	99	38	23	0	8

**MD Anderson Cancer Center at Cooper**  
**2013 ANALYTIC CASE DISTRIBUTION – BY SITE, SEX, AJCC STAGE** (continued)

Primary Site	Total Cases	Sex		AJCC Stage						
		Male	Female	Stage 0	Stage I	Stage II	Stage III	Stage IV	88	Unk
<b>FEMALE GENITAL SYSTEM</b>	<b>347</b>	<b>0</b>	<b>347</b>	<b>10</b>	<b>192</b>	<b>20</b>	<b>79</b>	<b>33</b>	<b>3</b>	<b>9</b>
Cervix Uteri	44	0	44	2	21	3	9	8	0	1
Corpus & Uterus, NOS	196	0	196	0	140	9	29	12	1	5
Corpus Uteri	186	0	186	0	137	8	27	10	1	3
Uterus, NOS	10	0	10	0	3	1	2	2	0	2
Ovary	64	0	64	0	8	6	36	12	0	1
Vagina	5	0	5	1	3	1	0	0	0	0
Vulva	29	0	29	7	16	0	4	0	0	2
Other Female Genital Organs	9	0	9	0	4	1	1	1	2	0
<b>MALE GENITAL SYSTEM</b>	<b>82</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>47</b>	<b>5</b>	<b>6</b>	<b>0</b>	<b>3</b>
Prostate	71	71	0	0	13	47	4	5	0	2
Testis	10	10	0	0	8	0	1	0	0	1
Penis	1	1	0	0	0	0	0	1	0	0
<b>URINARY SYSTEM</b>	<b>113</b>	<b>68</b>	<b>45</b>	<b>20</b>	<b>37</b>	<b>19</b>	<b>10</b>	<b>20</b>	<b>2</b>	<b>5</b>
Urinary Bladder	54	38	16	19	6	13	2	9	0	5
Kidney & Renal Pelvis	57	30	27	1	31	6	7	11	1	0
Other Urinary Organs	2	0	2	0	0	0	1	0	1	0
<b>BRAIN &amp; OTHER NERVOUS SYSTEM</b>	<b>57</b>	<b>26</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>0</b>
Brain	16	10	6	0	0	0	0	0	16	0
Cranial Nerves Other Nervous System	41	16	25	0	0	0	0	0	41	0
<b>ENDOCRINE SYSTEM</b>	<b>96</b>	<b>26</b>	<b>70</b>	<b>0</b>	<b>50</b>	<b>8</b>	<b>11</b>	<b>4</b>	<b>20</b>	<b>3</b>
Thyroid	76	19	57	0	50	8	11	4	0	3
Other Endocrine including Thymus	20	7	13	0	0	0	0	0	20	0
<b>LYMPHOMA</b>	<b>79</b>	<b>44</b>	<b>35</b>	<b>0</b>	<b>28</b>	<b>9</b>	<b>11</b>	<b>22</b>	<b>1</b>	<b>8</b>
Hodgkin Lymphoma	9	5	4	0	2	1	2	3	0	1
Non-Hodgkin Lymphoma	70	39	31	0	26	8	9	19	1	7
NHL - Nodal	49	28	21	0	11	8	9	18	0	3
NHL - Extranodal	21	11	10	0	15	0	0	1	1	4
<b>MYELOMA</b>	<b>17</b>	<b>11</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>
Myeloma	17	11	6	0	0	0	0	0	17	0
<b>LEUKEMIA</b>	<b>46</b>	<b>26</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>0</b>
Lymphocytic Leukemia	12	11	1	0	0	0	0	0	12	0
Acute Lymphocytic Leukemia	3	3	0	0	0	0	0	0	3	0
Chronic Lymphocytic Leukemia	9	8	1	0	0	0	0	0	9	0
Myeloid & Monocytic Leukemia	30	13	17	0	0	0	0	0	30	0
Acute Myeloid Leukemia	20	7	13	0	0	0	0	0	20	0
Chronic Myeloid Leukemia	8	5	3	0	0	0	0	0	8	0
Other Myeloid/Monocytic Leukemia	2	1	1	0	0	0	0	0	2	0
Other Leukemia	4	2	2	0	0	0	0	0	4	0
Other Acute Leukemia	1	1	0	0	0	0	0	0	1	0
Aleukemic, Subleukemic & NOS	3	1	2	0	0	0	0	0	3	0
<b>MESOTHELIOMA</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mesothelioma	3	3	0	0	0	0	2	0	0	1
<b>KAPOSI SARCOMA</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
Kaposi Sarcoma	1	1	0	0	0	0	0	0	1	0
<b>MISCELLANEOUS</b>	<b>37</b>	<b>19</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>
Miscellaneous	37	19	18	0	0	0	0	0	37	0
<b>Total</b>	<b>2,028</b>	<b>704</b>	<b>1,324</b>	<b>136</b>	<b>642</b>	<b>335</b>	<b>304</b>	<b>341</b>	<b>199</b>	<b>67</b>

# Measuring Quality

*How do patients know if they are receiving good quality health care?*

*How do physicians and nurses identify the steps that need to be taken for better patient outcomes?*

*And how do insurers and employers determine whether they are paying for the best care that science, skill and compassion can provide?*

## Performance measures

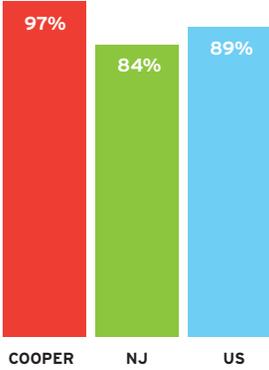
Performance measures give the health care community a way to assess quality of care provided against recognized standards. While quality measures come from many sources, those endorsed by the National Quality Forum (NQF) have become established as among the best. An NQF endorsement reflects rigorous scientific and evidence-based review, input from patients and their families, and the perspectives of people throughout the health care industry.

One of the ways MD Anderson Cancer Center at Cooper assesses the quality of the care we give to our cancer patients is to compare our performance in NQF standards to those of other hospitals in New Jersey and the United States.

National Quality Forum has established six measures for quality care in breast, colon and rectal cancer. Below you will find how MD Anderson Cooper compares to other hospitals in New Jersey and across the U.S. in these critical performance measures.

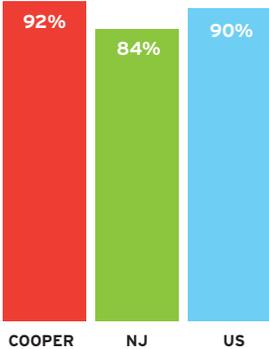
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## Performance for NQF Breast Care Measures



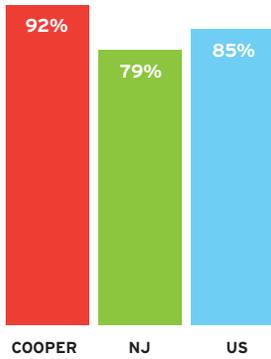
### National standard for breast conserving surgery and radiation therapy

Radiation therapy is administered within one year (365 days) of diagnosis for women under the age of 70 receiving breast conserving surgery for breast cancer. MD Anderson Cancer Center at Cooper’s compliance with this standard was at 97%, compared to the state norm of 84% and the national norm of 89%.

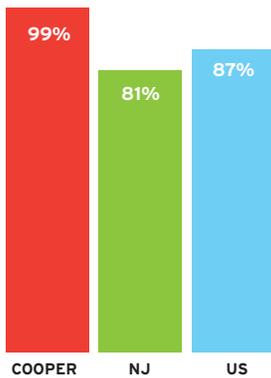


### National standard for chemotherapy in hormone receptor negative breast cancer patients

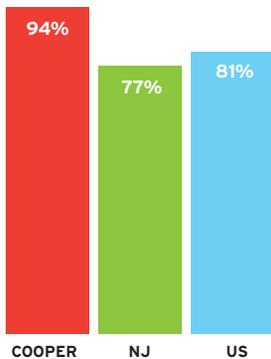
Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0M0, or stage II or III hormone receptor negative breast cancer. MD Anderson Cancer Center at Cooper’s compliance with this standard was at 92%, compared to the state average of 84% and national norm of 90%.



**National standard for Tamoxifen or third generation aromatase inhibitor in hormone receptor positive breast cancer patients**  
 Tamoxifen or third generation aromatase inhibitor is considered or administered within one year (365 days) of diagnosis for women with AJCC T1cN0M0, or stage I hormone receptor positive breast cancer. MD Anderson Cancer Center at Cooper's compliance with this standard was at 92%, compared to the state norm of 79% and the national norm of 85%.

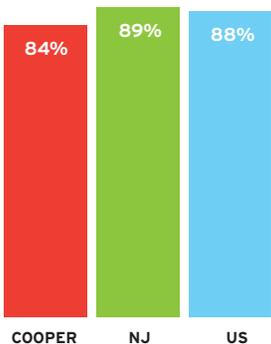


**National standard for Image or palpable-guided needle biopsy (core of FNA) is performed to establish diagnosis of breast cancer**  
 MD Anderson Cancer Center at Cooper's compliance with this standard was at 99%, compared to the state norm of 81% and the national norm of 87%.



**National standard for evaluating radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with  $\geq 4$  positive lymph nodes**  
 MD Anderson Cancer Center at Cooper's compliance with this standard was at 94%, compared to the state norm of 77% and the national norm of 81%.

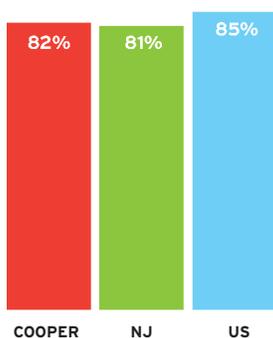
## Performance for Colon and Rectal Cancer NQF Measures



**National standard for regional lymph nodes in surgically resected patients**  
 At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer. The compliance rate for MD Anderson Cancer Center at Cooper was at 84%, compared to the state norm of 89% and the national norm of 88%.

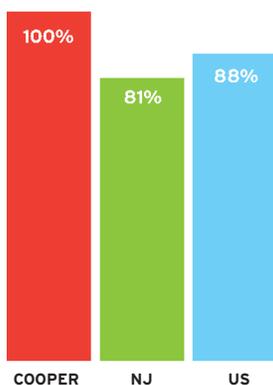
## Measuring Quality (continued)

### Performance for Colon and Rectal Cancer NOF Measures (continued)



#### National standard for adjuvant chemotherapy for node positive patients

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. The compliance rate for MD Anderson Cancer Center at Cooper was at 82% compared to the state norm of 81% and the national norm of 85%.



#### National standard for radiation therapy of stage III rectal cancer

Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 with clinical or pathologic AJCC T4N0Mo or stage III receiving surgical resection for rectal cancer. The compliance rate for MD Anderson Cancer Center at Cooper was at 100%, compared to the state norm of 81% and the national norm of 88%.



# Pancreatic Cancer Report

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## Epidemiology

In the year 2014, it is estimated that 46,420 people will be diagnosed with pancreatic cancer and 39,590 people will die of the disease in the United States. For the last five-year period for which data is available (2006-2011), there were 7,778 cases of pancreatic cancer in the state of New Jersey, with 444 of these cases originating in Camden County. Nationwide, pancreatic cancer is the fourth most common cause of cancer-related death in both men and women with mortality rates relatively unchanged over the last ten years. Nationally, the incidence of pancreatic cancer has increased on average by 1% per year.

## Risk Factors

Although the predisposing factors associated with pancreatic cancer remain poorly understood, it is known that cigarette smoking, obesity, chronic pancreatitis, heavy alcohol consumption and occupational exposure to chemicals such as beta-naphthylamine and benzidine increase the risk of developing the disease. It is believed that increasing rates of obesity, coupled with an aging population, has contributed to the slow but consistently increasing rate of pancreatic cancer in the U.S. Rates of pancreatic cancer are similar in men and women, though there is an increased rate of pancreatic cancer among African Americans compared to Caucasian Americans.

Approximately 10% of pancreatic cancer is believed to be genetically-linked and inheritable. In particular, there is clearly an increased rate of pancreatic cancer in those individuals with Peutz-Jeghers syndrome, familial pancreatitis, Familial Malignant Melanoma syndrome, Lynch syndrome, and BRCA1 and BRCA2 mutations.

## Screening

Multiple studies have looked at the use of endoscopic ultrasound, CT and MRI to screen high-risk individuals for pancreatic cancer. For the purpose of these studies, a high-risk individual was defined as a person with a first-degree relative having a history of pancreatic cancer. These studies showed that screening asymptomatic, high-risk patients can lead to the detection of early pre-cancerous lesions. If detected, these lesions can be treated aggressively with surgical resection, thereby preventing the development of pancreatic cancer. Unfortunately, the overall sensitivity of these screening techniques is low. In these studies even with yearly screening, several patients developed metastatic pancreatic cancer while under close observation. Currently, there is no effective screening test for pancreatic cancer available to patients at average risk of developing the disease.

## Cancer Registry

In 2013, 79 patients with pancreatic adenocarcinoma were seen at the MD Anderson Cancer Center at Cooper, an increase of almost 40% since 2009 when 57 patients with pancreatic adenocarcinoma were seen.

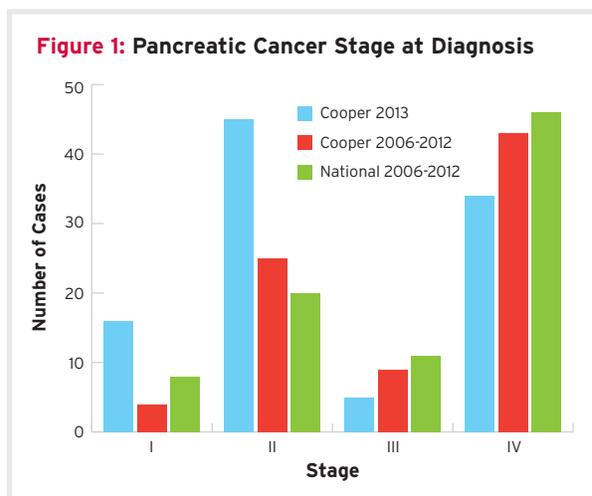
## Pancreatic Cancer Report *(continued)*

### *Age at diagnosis 2013 vs (2006-2012), MD Anderson Cooper vs National Averages*

In 2013 the average age of diagnosis at MD Anderson Cooper was 67. This is consistent with national trends of pancreatic cancer being diagnosed in the sixth and seventh decade of life. The national average age of diagnosis is 72.

### *MD Anderson Cooper patients by Ethnicity 2013 vs (2006-2012), MD Anderson Cooper vs National Averages*

In 2013, 78.8% of patients seen for pancreatic adenocarcinoma at MD Anderson Cooper were Caucasian and 17.6% were African-American. These figures are similar to nationwide numbers, where 78.22% were Caucasian and 12.17% were African-American.



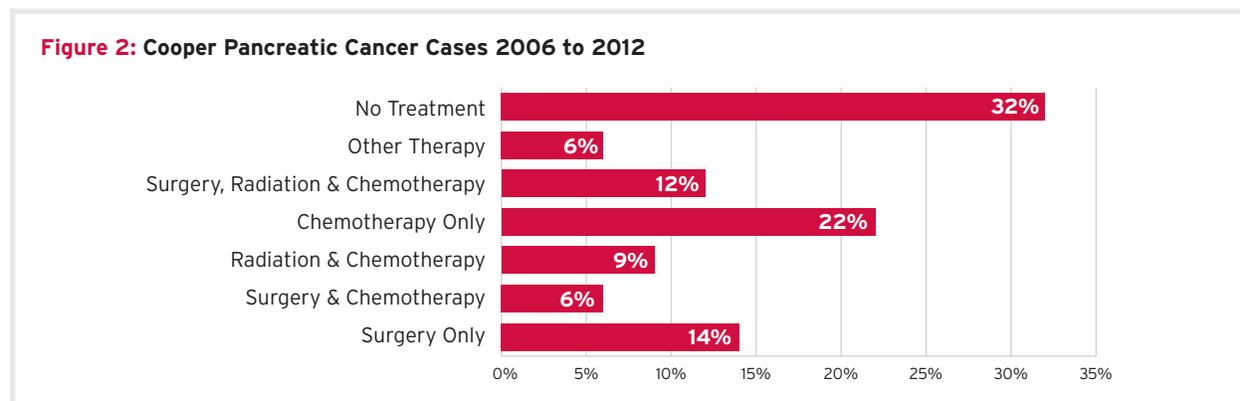
### *Stage at Diagnosis 2013 vs 2006-2012, MD Anderson Cooper vs National averages*

In 2013, 47 of the 79 cases (59%), seen at MD Anderson Cooper were diagnosed with either stage I or II pancreatic adenocarcinoma. Patients with stage I and II disease are potentially surgical candidates. Currently, surgery is the only known cure for pancreatic cancer with or without the use of chemotherapy and radiation. The number of stage I and II patients seen in 2013 represents a sharp increase from the period between 2006 and 2012 when only 33% of patients seen at Cooper were early-stage, with approximately 50% of patients seen having stage IV, metastatic disease. (See Figure 1.)

## Treatment

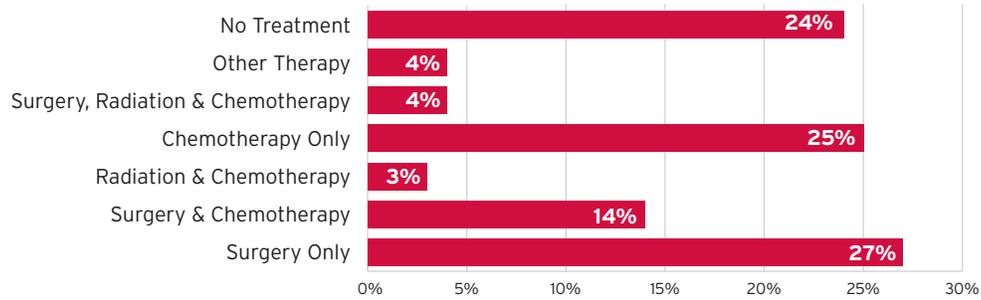
The first-line treatment of pancreatic adenocarcinoma is surgery if the tumor is resectable and the patient is healthy enough to undergo the procedure. Tumors arising in the head of the pancreas are treated with a Whipple procedure, also known as a pancreaticoduodenectomy, which traditionally removes the head of the pancreas, the distal stomach, the first and second portions of the duodenum, the common bile duct and the gallbladder. Pancreatic adenocarcinoma of the tail can be removed via a distal pancreatectomy. Chemotherapy and radiation therapy may be used neoadjuvantly (before surgery) or adjuvantly (after surgery). These treatments may also be used as definitive treatment for those patients who cannot undergo surgery.

From 2006-2012, surgical resections were performed in 79 of 247 Cooper patients with pancreatic adenocarcinoma. 21% received radiation therapy and 49% received chemotherapy. 32% received no therapy at Cooper for their pancreatic cancer. (See Figure 2.)



In 2013 at MD Anderson Cooper, 72% of patients seen with pancreatic adenocarcinoma received some form of therapy, with 43% undergoing a surgical procedure. The remaining patients who received treatment underwent various combinations of chemotherapy and radiation for definitive or palliative treatment. Twenty-two of the 79 patients with pancreatic cancer did not receive any form of treatment. (See Figure 3.)

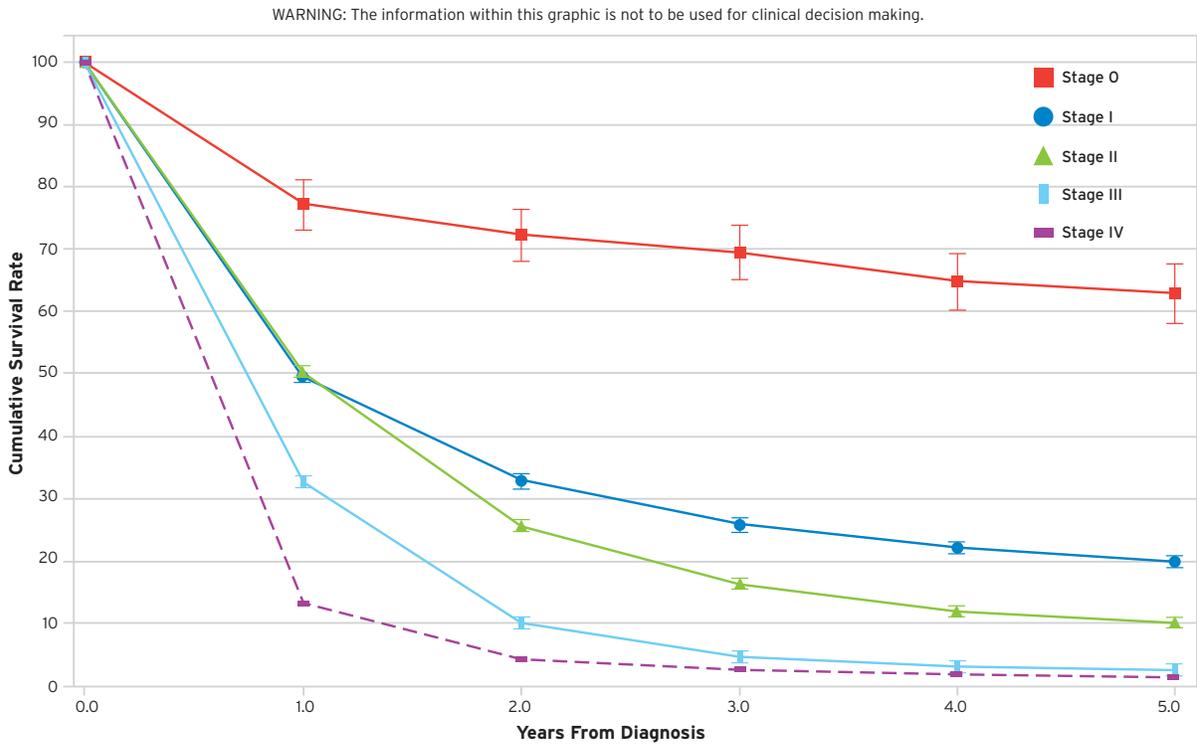
**Figure 3: MD Anderson Cooper Pancreatic Cancer Cases 2013**



### Survival Data

Nationally, the five-year overall survival for patients with invasive pancreatic cancer remains low at less than 25%. This remains true even for those patients with early stage disease. Patients with pre-invasive, 'in-situ' disease, have the best prognosis over time, while the majority of patients with metastatic pancreatic cancer, stage IV, at the time of diagnosis will succumb to their disease within the first year of diagnosis. (See Figure 4)

**Figure 4: Observed Survival for Pancreas "C250," "C251," "C252," "C253," "C254," "C257," "C258," "C259"**  
Cases Diagnosed in 2003-2007 Data from 1463 Programs (National)



### Comprehensive Care at MD Anderson Cancer Center at Cooper

MD Anderson Cooper is South Jersey's leading provider in the detection, diagnosis and treatment of pancreatic cancer. The Gastrointestinal Cancer Program combines state-of-the-art, compassionate medical care with innovative science to provide the best possible outcomes for patients.

Each patient seen at MD Anderson Cooper is evaluated by our multidisciplinary care team. Each of our patients is under the care of an entire team of experts, consisting of:

## Pancreatic Cancer Report *(continued)*

### Comprehensive Care at MD Anderson Cancer Center at Cooper

- Surgical oncologists
- Medical oncologists
- Radiation oncologists
- Gastroenterologists and advanced endoscopists
- Interventional radiologists
- Palliative care team
- Pathologists
- Radiologists
- Nurse navigator
- Nurse practitioner
- Nutritionists
- Clinical research coordinators
- Social workers

MD Anderson Cooper brings together MD Anderson Cancer Center's world-renowned expertise and Cooper's regional leadership in a partnership that opens up a broader range of options for cancer patients in South Jersey, Delaware and the greater Philadelphia region.

Our multidisciplinary gastrointestinal cancer team meets weekly to review each patient's case with a comprehensive evaluation and an individualized treatment plan using MD Anderson's proven treatment approach. Each recommendation is based on comprehensive research and specialized cancer expertise. This partnership provides access to more clinical trials for more cancers to give patients more options in collaboration with national and regional cancer specialists.

MD Anderson Cooper offers a full spectrum of radiation oncology treatment options including external beam radiation therapy and CyberKnife® radiosurgery. The CyberKnife system is designed to pinpoint and destroy tumors using high doses of radiation with sub-millimeter accuracy.

Our medical oncologists offer patients the most advanced chemotherapy treatments and access to groundbreaking clinical trials that give patients options that may not be available elsewhere in the region.



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