



**DeCesaris**  
Cancer Institute  
**2018**  
ANNUAL REPORT

## TABLE OF CONTENTS

<b>A MESSAGE FROM THE CHAIRS</b>	<b>1</b>
<b>WELCOME DR. RIKER</b>	<b>2</b>
<b>PATIENT SUPPORT SERVICES</b>	<b>3</b>
<b>CANCER REGISTRY</b>	<b>4</b>
<b>MEASURING PERFORMANCE</b>	<b>6</b>
▶ Cancer Registry Data	6
▶ Commission on Cancer’s Rapid Quality Reporting System (RQRS)	7
▶ Summary by Body System, Sex, Class, Status and Best AJCC Stage Report	8
▶ Cancers by Diagnosis	9
▶ Cancers by Race	10
<b>ABSTRACTS</b>	<b>11</b>
<b>AAMC RESEARCH INSTITUTE</b>	<b>16</b>
<b>2018 STUDIES</b>	<b>18</b>
<b>SURVIVOR STORIES</b>	<b>20</b>
<b>HPV TASK FORCE</b>	<b>22</b>
<b>TOBACCO CONTROL</b>	<b>23</b>
<b>COMMUNITY SPOTLIGHT: LUNG SCREENING</b>	<b>24</b>
<b>COMMITTEE MEMBERS</b>	<b>25</b>

## Geaton and JoAnn DeCesaris Cancer Institute

### Focusing on a Patient's Unique Health Care Needs

The moment someone is diagnosed with cancer, that person embarks on a journey — a journey of healing. At the DeCesaris Cancer Institute Center (DCI), we're with them every step of the way. Our multidisciplinary teams of top cancer specialists work with each patient, and their loved ones, to develop a comprehensive cancer care plan to meet their unique health care needs.

We offer the latest technology in diagnostics and treatments, as well as access to innovative research and clinical trials. But we know that cancer care is more than just treatments. Along with expert care, we provide compassionate support.

DCI is a comprehensive community cancer program that is recognized regionally and nationally as a leading provider of high-quality comprehensive cancer care. Our physicians, nurses and staff stay up-to-date with the latest advancements in cancer prevention, screening, diagnosis, treatment and survivorship care. Our model of care is based on the connectivity between every aspect of treatment as well as everyone who treats and supports our patients. We deliver comprehensive cancer care from the most advanced treatments and clinical trials to financial counseling and survivorship support. We offer our patients a wide range of physical, psychosocial, emotional and spiritual resources.

Our highly skilled experts meet multiple times each week to review cases and ensure that each patient is receiving the best possible care to meet their individual needs. More than 2,000 individuals are diagnosed with cancer each year. Each day more than 350 individuals receive treatment at one of our many DCI offices or treatment centers. This is an unmistakable sign that our community has a high level of confidence in our services. The reason is simple: At the DeCesaris Cancer Institute, we don't just treat the disease — we treat the person.



**BARRY MEISENBERG, MD**  
Medical Director,  
DeCesaris Cancer Institute



**CATHERINE COPERTINO,  
BSN, MS, OCN**  
Vice President,  
Cancer Services & Palliative Care,  
DeCesaris Cancer Institute

Since the last annual report, Dr. Adam Riker was recruited to take over medical leadership of the DCI, replacing Dr. Meisenberg who became the Chair of Medicine.

## WELCOME, DR. RIKER

**ADAM I. RIKER, MD**, is the Chair of Oncology at the Anne Arundel Medical Center, Geaton and Joann DeCesaris Cancer Institute (DCI).



**ADAM I. RIKER, MD**  
Chair of Oncology

Dr. Riker is board-certified in general surgery and fellowship-trained as a surgical oncologist. His clinical specialty is focused on patients with breast cancer, sarcoma, melanoma and non-melanoma skin cancers (Merkel cell, basal cell and squamous cell carcinoma). He has participated in numerous

cancer clinical trials examining optimal immunotherapy treatment regimens for several types of cancer. He has presented his clinical and translational research findings at numerous scientific meetings, both nationally and internationally.

Dr. Riker is widely published, with over 150 peer-reviewed publications, and has written two educational textbooks, the first entitled *Breast Disease: Comprehensive Management*, in 2014, and the second in 2018, entitled *Melanoma: A Modern Multidisciplinary Approach*. He is currently working on his third book, which will highlight the importance of living a “healthy lifestyle” through optimal nutrition, as the ultimate way to fight, prevent and even reverse disease (such as diabetes and auto-immune disease), including cancer.

Dr. Riker completed his undergraduate studies and medical school at the University of South Florida in Tampa. He then went on to complete his residency program in general surgery at Loyola University Medical Center in Chicago, as well as a three-year surgical oncology fellowship at the National Institutes of Health, National Cancer Institute, Surgery Branch in Bethesda, Maryland. Dr. Riker comes to AAMC from Louisiana State University (LSU), School of Medicine (SOM), where he served as Professor of Surgery in the Department of Surgery and Chief for the Division of Surgical Oncology. He also was the Medical Director for the Cancer Service Line at the flagship hospital, University Medical Center–New Orleans, LCMC Health. Prior to this, he held numerous clinical and academic appointments within the United States and internationally, in both China and Australia.

Dr. Riker is also passionate about getting to know the communities that we live in, providing free community outreach events, educational seminars and presentations. His favorite topics range from “What causes cancer?” and “The early detection and prevention of cancer” to “Living a long, happy, cancer-free life through better nutrition and lifestyle changes.”

Dr. Riker is a proud veteran of the Armed Forces, enlisting at a young age and serving in the United States Army, and later on as a commissioned officer in the Public Health Service. Outside of work, he is an avid runner and enjoys fishing, hunting, reading, writing and traveling abroad to learn more about international models of healthcare delivery.

## PATIENT SUPPORT SERVICES

At the DeCesaris Cancer Institute (DCI), we believe that every aspect of treatment is connected. For this reason, we make sure that our patients and their loved ones receive comprehensive, multi-specialty care that addresses their needs during each step in the healing journey. From the most advanced care and clinical trials to financial counseling, our patients have access to a robust array of physical, psychosocial, emotional and spiritual resources at DCI.

### Nutrition Counseling

Nutritional support is a key component of cancer treatment at DCI. Our dietitians and nutritionists help make sure patients stay strong and nourished before, during and after cancer treatment. By educating patients about dietary requirements, meal plan design, alternative food choices and supplements, they also help patients cope with the emotional and physical stresses of cancer.

### Support Groups

Support groups provide a time and space for patients and family members to discuss feelings, concerns and attitudes in a caring atmosphere. At DCI we have a variety of professionally facilitated, educational support programs for oncology patients, survivors and their loved ones. There are support groups focused on head and neck cancer, lung cancer, prostate cancer and breast cancer.

### Survivorship Services

When patients at DCI are at the end of their treatment or in maintenance therapy, our oncology care team provides a formal survivorship visit. A designated health professional meets with the survivor at his/her routine follow-up visit to provide the survivor with an individualized Treatment Summary/Survivorship Care Plan (TS/SCP). In this integrative model, survivors continue to see their primary oncology provider and primary care provider for long-term follow-up, as well as survivorship care.

### Nurse Navigator Services

Our nurse navigators exist to provide guidance, support and direction. They serve patients and their families by streamlining

care and providing a comforting, consistent presence during a stressful time. We think of them as advocates, helping patients access multidisciplinary treatment, communicate with their primary care doctors and specialists, and translate or interpret complex care plans. Patients can choose a navigator in various specialty areas including breast, prostate, genitourinary, thoracic and gastrointestinal cancers, among others.

### Palliative Care

Palliative care focuses on relieving suffering and improving quality of life for patients and their families while they are getting treatment for an illness. At DCI, we aim to provide comfort while accounting for patient and family wishes, ideals, beliefs and culture. Our palliative care team of physicians, nurse practitioners, social workers and chaplains helps control difficult symptoms, negotiate realistic goals for care, estimate and communicate prognosis, facilitate challenging family meetings, coordinate treatment teams, and manage end-of-life situations.

### Social Services

How patients cope with their cancer diagnosis and treatment affects their progress and overall physical health. Our oncology social workers provide supportive counseling and other services to help meet patients' psychosocial needs in both inpatient and outpatient settings. They provide practical problem-solving, financial assistance information, referrals to community resources and professional guidance to support patients with the challenges that come with a cancer diagnosis. These services are an integral part of medical treatment here at DeCesaris Cancer Institute and are offered at no additional cost to the patient.

### Spiritual Care

Responding to the spiritual needs of patients and families is a priority for us. When patients are apprehensive about surgery, overwhelmed by illness or grieving, our team fosters a compassionate presence, providing spiritual and emotional support and encouraging hope. They serve as resources during times surrounding the death of a loved one, and at the point of decision-making regarding end-of-life care.

### Genetic Counseling

Awareness of risk factors can empower patients and inspire preventive behaviors. For people with a personal or family history of cancer, our genetic counselors are here to discuss factors in their history that could indicate a genetic predisposition to cancer. Our genetic counselors also provide education and support. Counselors are available to facilitate genetic testing, interpret the results and discuss the impact of genetic testing on a patient’s screening or medical management for cancer.

### Oncology Rehabilitation Services

Starting with pre-habilitation, our oncology rehabilitation program includes a comprehensive team of physical therapists, occupational therapists, speech language pathologists, nurses, nutritionists and social workers, all of whom focus on improving the quality of life for cancer survivors.

### Financial Counseling

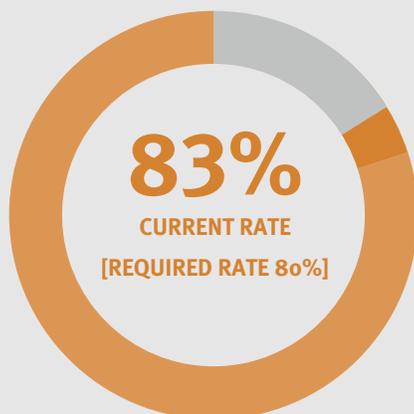
Finances are often a major concern during an illness. Our team of financial counselors works to ease that burden by helping patients navigate payment options and understand medical bills and eligibility for financial assistance. Oncology social workers also direct patients to additional financial services that meet their individual needs.

## CANCER REGISTRY

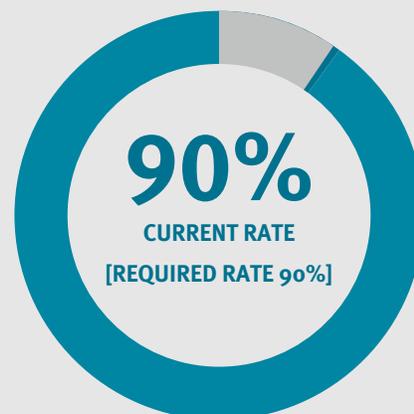
The DeCesaris Cancer Institute Cancer Registry systematically tracks the diagnosis, treatment and lifetime follow-up of our cancer patients. Researchers, physicians and health care providers use our data to improve the outcome of cancer treatment.

The Commission on Cancer (CoC) requires that cancer programs maintain an 80 percent tracking rate of all eligible cancer patients starting from the reference year (2000). The CoC also requires a 90 percent follow-up rate on all patients diagnosed with cancer within the last five years. The DeCesaris Cancer Institute continues to exceed these benchmarks.

FOLLOW-UP OF PATIENTS SINCE 2000 (22,559)



FOLLOW-UP OF PATIENTS DIAGNOSED IN THE LAST 5 YEARS (8,030)



The DeCesaris Cancer Institute Cancer Registry monitors cancer trends over time and shows cancer patterns in different populations, thus detecting high-risk groups. The registry systematically tracks the diagnosis, staging, treatment and lifetime follow-up of our cancer patients. Researchers, physicians and health care providers use our data to calculate cancer incidence, evaluate efficacy of treatment modalities, determine survival rates, conduct research on treatments, and develop targeted educational and screening programs. All our cancer registrars are certified and are part of the National Cancer Registrars Association.

The Commission on Cancer (CoC) requires that cancer programs maintain an 80 percent tracking rate of all eligible cancer patients starting from the reference year (2000). The CoC also requires a 90 percent follow-up rate on all patients diagnosed with cancer within the last five years.

**The DeCesaris Cancer Institute continues to meet or exceed those benchmarks with performance of 83 percent and 90 percent, respectively, for reference and follow-up. In 2018, our registrars analyzed 1,775 cases of cancer.**

To accomplish this high accuracy rate, our abstractors prepare abstracts for each cancer patient with demographic information and cancer type, accurately recording staging, along with treatment, follow-up, and survivorship details. In the process they review facility records, diagnostic radiology, pathology, immunotherapy, hormone, and medical and radiation records. Through many resources, they follow patients from diagnosis to survivorship and death. Once a year, the hospital registry sends this information to the Maryland Cancer Registry, the central cancer registry for the state.

### ALL TUMOR BOARDS FOR JAN–DEC 2018

CONFERENCE	TOTAL TUMOR BOARD CONF.	MED ONC.	RAD ONC.	SURGEON	PATHOLOGIST	RADIOLOGIST	CASES PRESENTED	PROSPECTIVE CASES
BRAIN/CNS	51	50	51	50	Not Required	38	430	399
GU ONCOLOGY	24	24	23	23	Not Required	Not Required	188	177
GYN ONCOLOGY	10	10	10	10	10	10	64	56
THORACIC	51	51	51	50	51	49	406	243
BREAST	49	48	49	49	49	49	139	138
GENERAL	37	37	37	37	37	36	259	229
HEMATOLOGY	11	11	Not Required	Not Required	11	Not Required	42	18
AVERAGE % ATTENDANCE		99%	100%	98%	100%	92%		
TOTAL	233						1,528 cases	1,260 cases

FOR ALL CASES REVIEWED: 1. Photographs, 2. NCCN Compliance, 3. Detection & Treatment, 4. Clinical Trials (X)Case discussion includes AJCC Staging, consideration for need of Genetic testing & counseling, Palliative, Psychosocial, Nutrition & Rehab services. Individual tumor board activity reports are available upon request.

## PRESENTING 2017 CANCER REGISTRY DATA



The DeCesaris Cancer Institute participates in the CoC's Rapid Quality Reporting System (RQRS).

This reporting and quality improvement tool provides real, clinical-time assessment of hospital-level adherence to National Quality Forum–endorsed quality of cancer care measures for breast and colon cancers.

The five rating dials display the year-to-date facility performance rate achieved in 2017. There is one rating dial for each of the measures we monitor and report through RQRS.

### READING THE DIALS

**1** The year-to-date (YTD) performance rate is based on the total number of cases for which chemotherapy was given, or was expected to be given, within the past year (365 days). For this measure, this includes all cases of patients diagnosed within the past 24 months.

**2** Gray needle points to the current YTD performance rate.

**3** Shaded areas represent the range of performance rates for other participating programs:

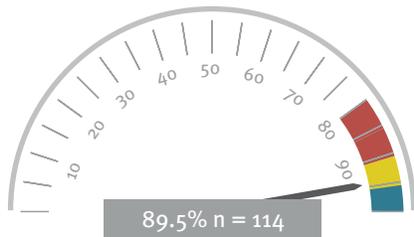
**GREEN:** Top quartile, 75th–100th percentile

**YELLOW:** 50th–75th percentile

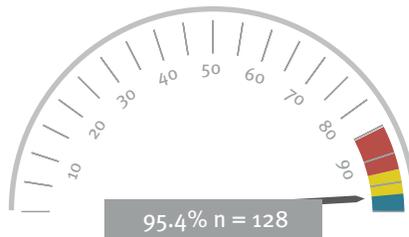
**RED:** 25th–50th percentile



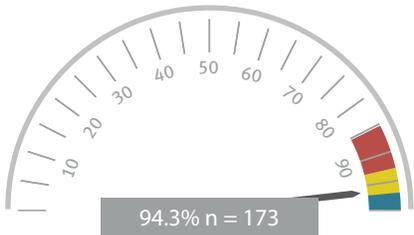
### BREAST MEASURES



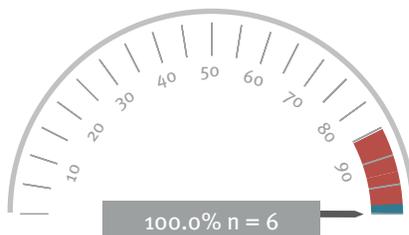
**BCSRT** — Radiation therapy is administered within one year (365 days) of diagnosis for women under age 70 receiving breast-conserving surgery for breast cancer.



**HT** — Tamoxifen or third-generation aromatase inhibitor is considered or administered within one year (365 days) of diagnosis for women with AJCC T1cNoMo or stage II or III hormone receptor–positive breast cancer.

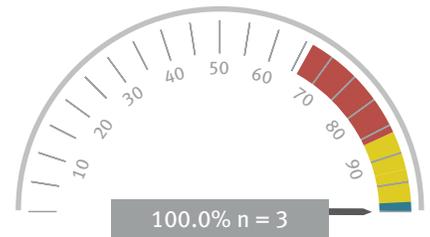


**MAC** — Combination chemotherapy is considered or administered within four months (120 days) of diagnosis for women under age 70 with AJCC T1cNoMo or stage II or III hormone receptor–negative breast cancer.

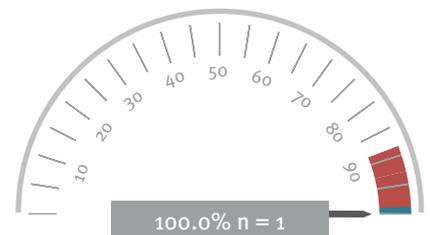


**MASTRT** — Radiation therapy is recommended or administered following any mastectomy within one year (365 days) of diagnosis of breast cancer for women with  $\geq 4$  positive regional lymph nodes

### COLON MEASURES\*



**12RLN** — At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer.



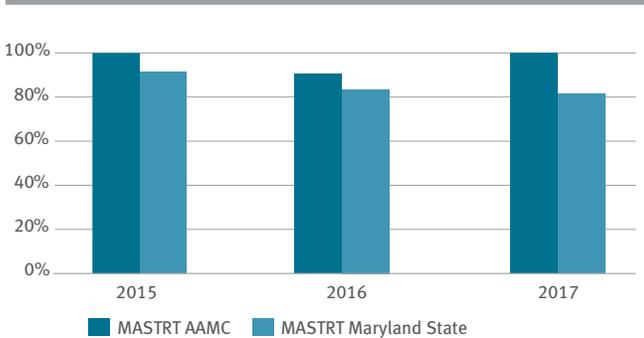
**ACT** — Adjuvant chemotherapy is considered or administered within four months (120 days) of diagnosis for patients under age 80 with AJCC stage III (lymph node–positive) colon cancer.

\*The colon cancer measure for the number of nodes removed and pathologically examined reflects the proportion of patients who were diagnosed within the last 365 days and for whom 12 or more regional lymph nodes were examined. The rates shown in these dials indicate the proportion of patients for whom adjuvant chemotherapy was expected to be started within the last 365 days.

## MEASURING PERFORMANCE: COMMISSION ON CANCER'S RAPID QUALITY REPORTING SYSTEM (RQRS)

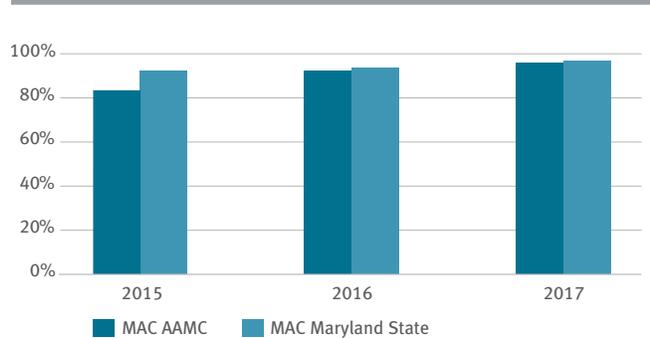
At the DeCesaris Cancer Institute, our goal is to meet and exceed national averages. These graphs reflect our ongoing commitment to continually improve the delivery of quality cancer care.

### MASTRT



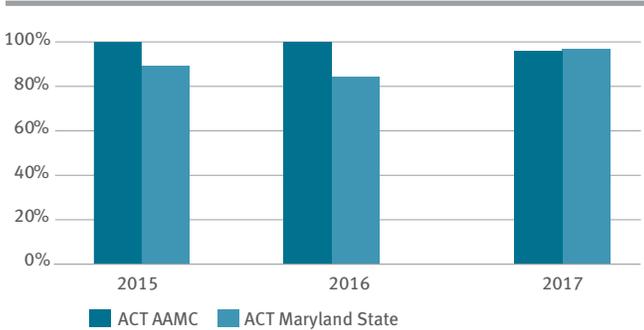
Radiation therapy is recommended or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with  $\geq 4$  positive regional lymph nodes.

### BREAST MAC



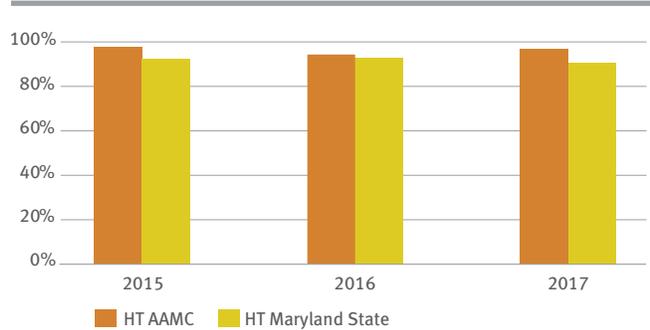
Combination chemotherapy is considered or administered within four months (120 days) of diagnosis for women under age 70 with AJCC T1cNoMo, or stage II or III hormone receptor-negative breast cancer. Performance Rate  $\geq 90\%$ .

### COLON ACT



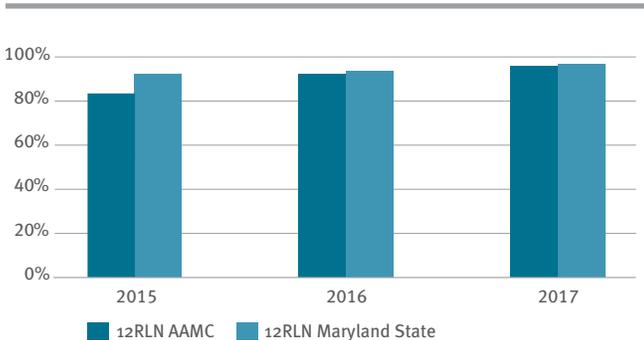
Adjuvant chemotherapy is considered or administered within four months (120 days) of diagnosis for patients under age 80 with AJCC stage III (lymph node-positive) colon cancer. Performance Rate  $\geq 90\%$ .

### BREAST HT



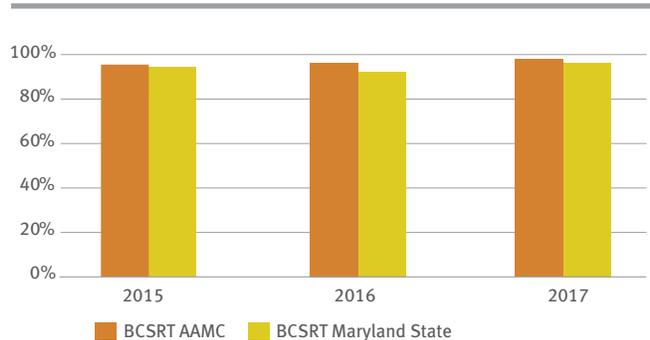
Tamoxifen or third-generation aromatase inhibitor is considered or administered within one year (365 days) of diagnosis for women with AJCC T1cNoMo, or stage II or III hormone receptor-positive breast cancer.

### COLON 12RLN



The colon cancer measure for the number of nodes removed and pathologically examined reflects the proportion of patients who were diagnosed within the last 365 days and for whom 12 or more regional lymph nodes were examined. Performance Rate  $\geq 80\%$ .

### BREAST BCS



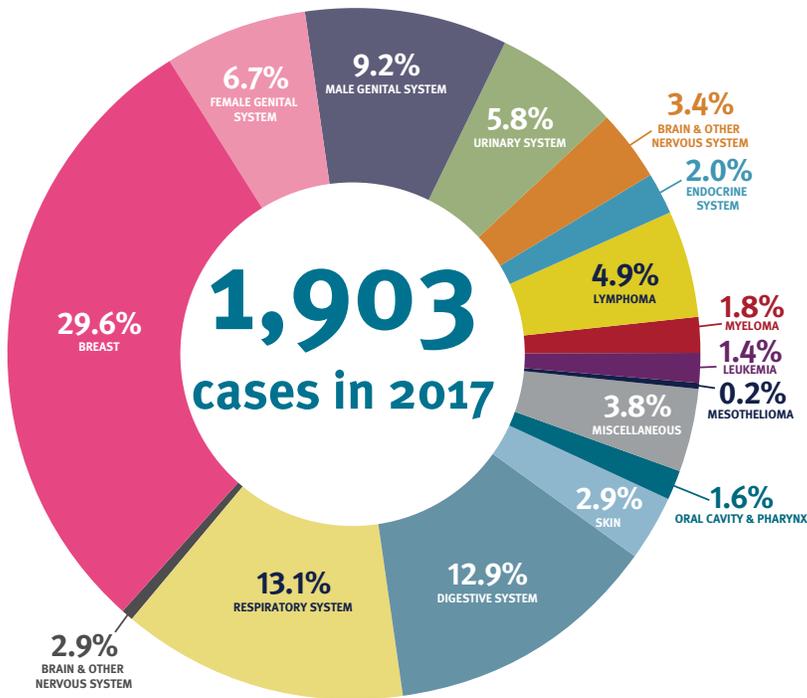
Radiation therapy is administered within one year (365 days) of diagnosis for women under age 70 receiving breast-conserving surgery for breast cancer. Performance Rate  $\geq 90\%$ .

## SUMMARY BY BODY SYSTEM, SEX, CLASS, STATUS AND BEST AJCC STAGE REPORT

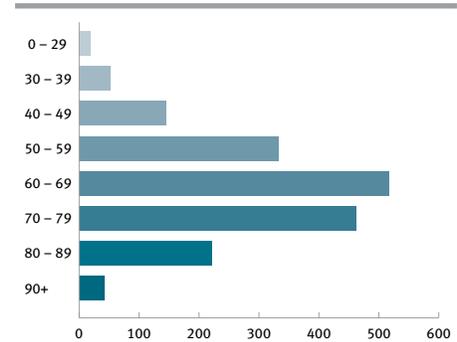
<b>2017</b>		SEX		CLASS OF CASE STATUS				STAGE DISTRIBUTION — ANALYTIC CASES ONLY						
Primary Site	Total (%)	M	F	Analy	NA	Alive	Exp	Stg 0	Stg I	Stg II	Stg III	Stg IV	88	Unk
Oral Cavity & Pharynx	30 (1.6%)	25	5	30	0	27	3	0	4	4	6	15	0	1
Digestive System	246 (12.9%)	134	112	246	0	159	87	2	30	46	58	81	14	15
Respiratory System	250 (13.1%)	116	134	250	0	172	78	2	78	23	52	82	9	4
Soft Tissue	10 (0.5%)	5	5	10	0	8	2	0	1	3	0	1	0	5
Skin Excluding Basal & Squamous	56 (2.9%)	29	27	56	0	54	2	11	21	14	7	1	0	2
Breast	564 (29.7%)	2	563	565	0	549	16	101	254	151	44	11	0	4
Female Genital System	128 (6.7%)	0	128	128	0	106	22	1	52	12	18	21	5	19
Male Genital System	176 (9.2%)	176	0	176	0	164	12	0	18	106	22	25	0	5
Urinary System	110 (5.8%)	69	41	110	0	91	19	21	33	16	9	14	2	15
Brain & Other Nervous System	65 (3.4%)	25	40	65	0	45	20	0	0	0	0	0	65	0
Endocrine System	39 (2.0%)	9	30	39	0	34	5	0	14	1	5	6	9	4
Lymphoma	93 (4.9%)	51	42	93	0	82	11	0	30	25	15	19	2	2
Myeloma	34 (1.8%)	18	16	34	0	23	11	0	0	0	0	0	34	0
Leukemia	26 (1.4%)	14	12	26	0	18	8	0	0	0	0	0	26	0
Miscellaneous	76 (4%)	47	29	76	0	52	24	0	0	0	0	0	73	1
<b>TOTAL</b>	<b>1,903</b>	<b>720</b>	<b>1,184</b>	<b>1,904</b>	<b>0</b>	<b>1,584</b>	<b>320</b>	<b>138</b>	<b>535</b>	<b>401</b>	<b>236</b>	<b>278</b>	<b>239</b>	<b>77</b>

<b>2018</b>		SEX		CLASS OF CASE STATUS				STAGE DISTRIBUTION — ANALYTIC CASES ONLY							
Primary Site	Total (%)	M	F	Analy	NA	Alive	Exp	Stg 0	Stg I	Stg II	Stg III	Stg IV	88	Unk	Oth
Oral Cavity & Pharynx	37 (2.1%)	29	8	37	0	29	8	0	8	4	10	2	3	0	0
Digestive System	304 (17.1%)	167	137	304	0	235	69	6	37	99	82	13	17	1	1
Respiratory System	218 (12.3%)	96	122	218	0	185	33	5	54	30	39	71	10	5	4
Soft Tissue	8 (0.5%)	5	3	8	0	6	2	0	0	4	0	2	1	1	0
Skin Excluding Basal & Squamous	40 (2.3%)	25	15	40	0	38	2	7	17	9	3	4	0	0	0
Breast	475 (26.8%)	3	472	475	0	465	10	78	264	70	42	12	3	5	1
Female Genital System	119 (6.7%)	0	119	119	0	112	7	0	60	10	17	20	6	6	0
Male Genital System	159 (9.0%)	159	0	159	0	155	4	0	33	80	28	15	2	0	1
Urinary System	118 (6.6%)	79	39	118	0	101	17	2	43	16	13	19	1	5	19
Brain & Other Nervous System	38 (2.1%)	17	21	38	0	33	5	0	0	0	0	0	38	0	0
Endocrine System	47 (2.6%)	12	35	47	0	46	1	0	28	3	2	1	11	2	0
Lymphoma	83 (4.7%)	46	37	83	0	75	8	0	22	10	14	23	7	7	0
Myeloma	32 (1.8%)	22	10	32	0	29	3	0	0	0	0	0	32	0	0
Leukemia	43 (2.4%)	25	18	43	0	38	5	0	0	0	0	0	43	0	0
Miscellaneous	54 (3%)	29	25	54	0	38	16	0	0	0	2	0	52	0	0
<b>TOTAL</b>	<b>1,775</b>	<b>714</b>	<b>1,061</b>	<b>1,775</b>	<b>0</b>	<b>1,585</b>	<b>190</b>	<b>98</b>	<b>566</b>	<b>285</b>	<b>269</b>	<b>259</b>	<b>221</b>	<b>32</b>	<b>26</b>

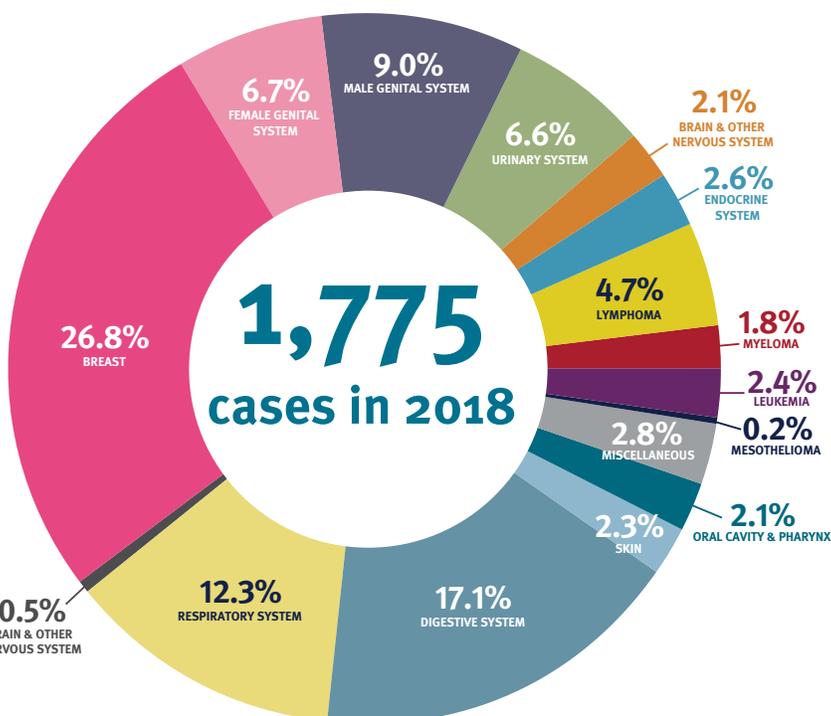
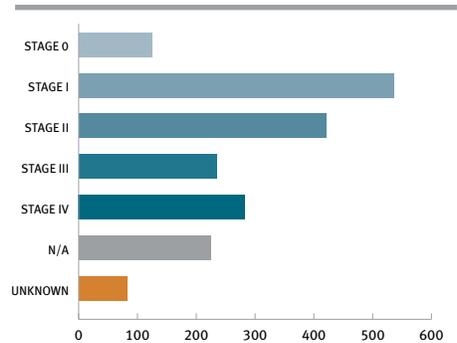
## CANCERS BY DIAGNOSIS



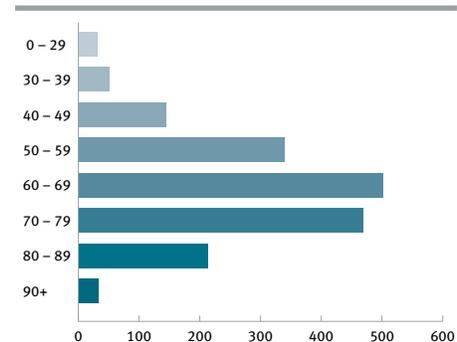
### AGE AT DIAGNOSIS (IN YEARS) — 2017



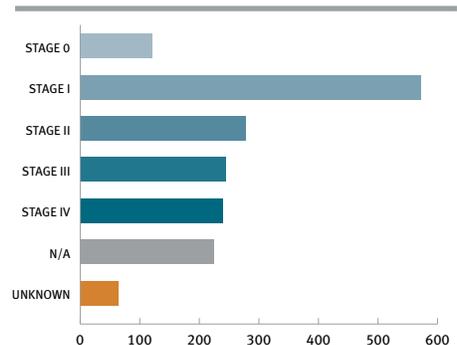
### AJCC STAGE GROUP AT DIAGNOSIS — 2017



### AGE AT DIAGNOSIS (IN YEARS) — 2018



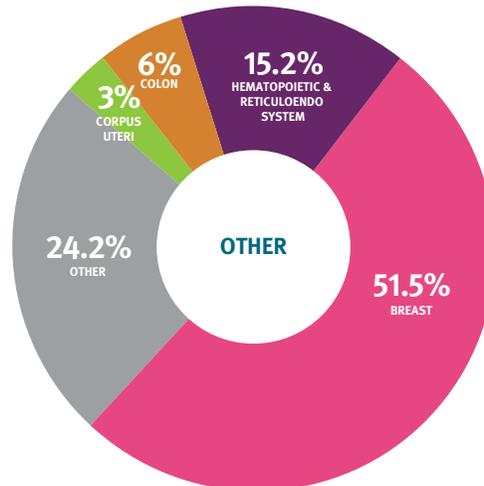
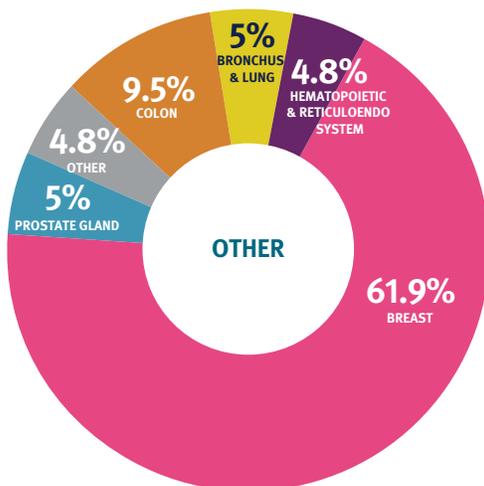
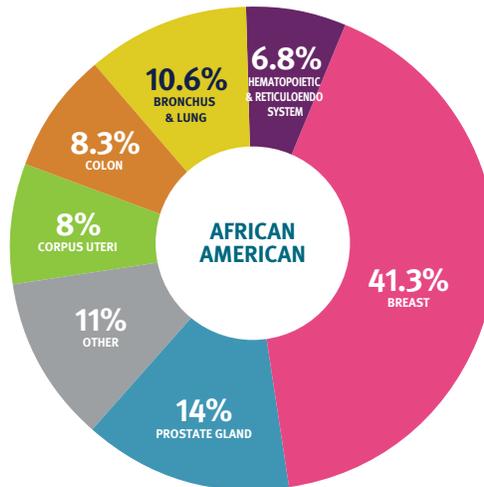
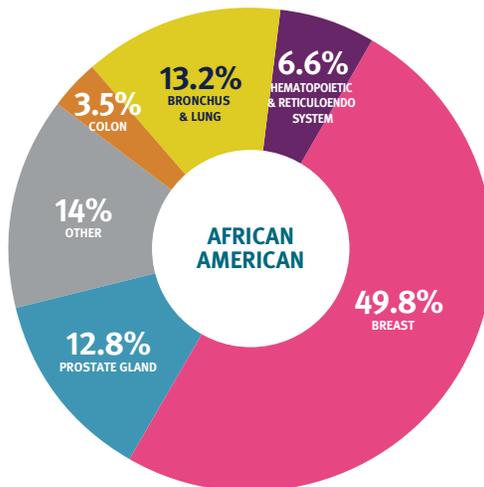
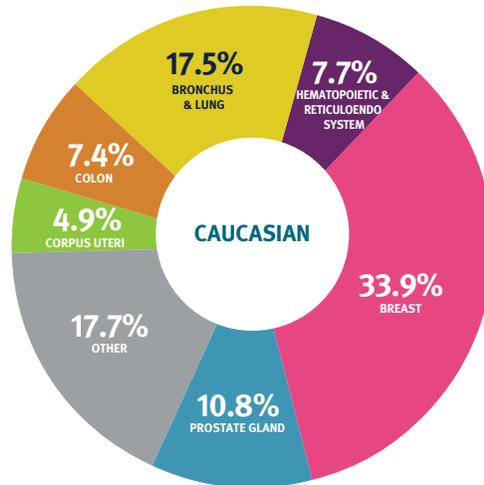
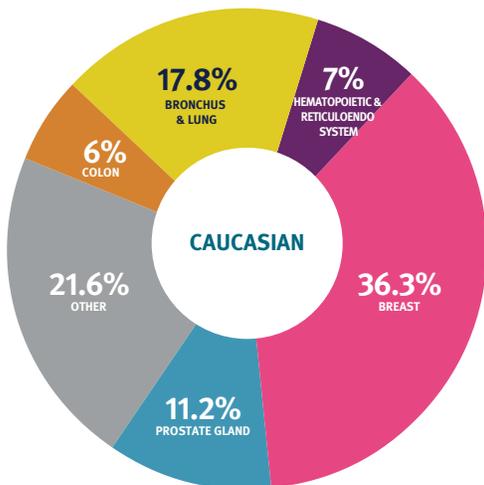
### AJCC STAGE GROUP AT DIAGNOSIS — 2018



## CANCERS BY RACE

2017

2018



## MEASURING QUALITY THROUGH SCIENTIFIC INQUIRY



John Moxley, MS, MHA, CCRP; clinical research student interns; Barry Meisenberg, MD, Medical Director, DeCesaris Cancer Institute

### An alternative method to reliably identify biopsy-positive lymph nodes after neoadjuvant chemotherapy could allow for less extensive surgery

*K. Brassard; T. Sanders, PhD; L. Martino; R. Buras, MD; W. Liang, MD; L. Tafra, MD; R. Jackson, MD, MPH*

**BACKGROUND:** A priority of breast cancer (BC) surgery is to maximize cure while minimizing complications. When BC is found in axillary lymph nodes (ALN) at the time of diagnosis, ALN dissection (ALND) is usually indicated. However, neoadjuvant chemotherapy (NCT) may clear disease from ALN and allow instead for sentinel lymph node biopsy (SLNB), which has fewer complications. When BC has spread to ALN at the time of diagnosis, this is documented with ALN needle biopsy, and the ALN is marked with a radio-opaque clip. SLNB after NCT is accurate only if the clipped ALN is retrieved. If the clipped node is not retrieved, ALND should be performed, subjecting the patient to potential complications. At AAMC, intra- or preoperative ultrasound has been used by surgeons to guide retrieval of the clipped node.

**OBJECTIVE:** To evaluate the success of retrieving the clipped ALN during SLNB after NCT.

**METHODS:** A chart review of invasive breast cancers with ALN metastasis diagnosed by needle biopsy (with clip placement), that underwent SLNB after NCT.

**RESULTS:** 81 cases were included. The clipped node was not retrieved during SLNB in 11%, and in 6% this resulted in conversion to ALND. These frequencies were not lower when using ultrasound to mark the clipped node. When compared to patients with clinically negative nodes at diagnosis, patients with a biopsy-positive node had significantly more nodes removed during SLNB.

**DISCUSSION:** Our findings are consistent with previous literature showing that the clipped, positive node is not a SLN in 23% of cases. The current method of using ultrasound to localize the clipped node does not improve rates of clipped node identification. These data suggest that surgeons sometimes remove additional nodes in an attempt to find the clipped node, which could lead to complications. A more reliable method is needed to identify clipped nodes after NCT.

## Analysis of End of Life Care Metrics for Oncology Patients

Laura Arvin; Barry Meisenberg, MD; Susanne Tameris

**BACKGROUND:** Evidence-based recommendations from oncology professional societies include hospice utilization, avoidance of ED/hospital/ICU, and discontinuation of chemotherapy use within 2 weeks of end of life (EOL).

**OBJECTIVE:** To identify and compare trends in EOL care between AAMC oncology patients and national benchmarks.

**METHODS:** Retrospective chart reviews were conducted on consecutive patients identified by Epic report who died of cancer between October 2016 and June 2018. EOL metrics were compared to two national benchmarks: Dartmouth Atlas and aggregate ASCO Quality Oncology Practice Initiative (QOPI).

**RESULTS:** 377 patients were identified, and 45 were excluded due to non-oncology deaths (37) or management outside of AAMC (8). Utilization rates for AAMC and national benchmarks are shown in the table. Data from AAMC showed no differences between < 66 or > 66 years of age.

Of 332 eligible patients, 72% (n = 239) had an advance directive or MOLST on file with a median completion date 61 days (range: 1-7059 days) before death. For those using hospice, 63% were referred from the outpatient setting and had a median/average length of stay (LOS) of 20/28 days. 37% were referred to hospice from the hospital and had a median/average LOS of 12/20 days. Of those not using hospice, 13% (n = 10) were not considered hospice appropriate at the time of death.

**DISCUSSION:** Overall, EOL metrics were more consistent with professional society recommendations than were national benchmarks. Nevertheless, improvements may be possible with regard to ED and hospital admissions and chemotherapy use at EOL. Further study of the preference of cancer patients for ED visits is warranted.

## Balancing cost and quality of life for patients with multiple brain metastases: Clinical implementation of stereotactic radiosurgery (SRS) to target multiple brain metastases in a single treatment using single-isocenter technique in the community-based setting.

Jessica L. Titherington; Charles Geraghty; Victoria Beck; Brian Hasson, PhD; Luqman Dad, MD

College of Computer, Mathematical, and Natural Sciences, University of Maryland, College Park, Department of Radiation Oncology DeCesaris Cancer Institute, Anne Arundel Medical Center

**INTRODUCTION:** In the era of cost containment, with prioritization of patient quality of life, the recently launched Brainlab Multiple Metastases Elements (MME) software provides a platform that uses a single-isocenter dynamic conformal arc (SIDCA) technique to treat up to 15 metastases and serves to integrate this paradigm into the radiation oncology clinic seamlessly. Here, we present our initial clinical experience as one of the first community centers in the world to implement the Brainlab MME software.

**MATERIALS AND METHODS:** Brainlab MME software was launched at AAMC in October 2017. Since then, 7 (33%) of 21 SRS patients with multiple metastases have been treated with this software. A retrospective review was performed to review clinical outcomes of these patients.

**RESULTS:** 5 (71%) of 7 patients with multiple metastases (mean 3, range 2-5) underwent follow-up MRI imaging. At median follow-up time of 5.8 months (range, 0-9.5), 5 (100%) of follow-up MRI images showed stable findings, with no intracranial

failure. With MME software use, the average total treatment delivery time was 18.1 minutes (range, 11.9-24.1), which is 59% shorter than that of published multi-isocenter treatment delivery time, 44.1 minutes (Huang, et al 2014). The prescribed doses were 15-24Gy in a single fraction (median, 24Gy). The mean PTV was 3.54cm<sup>3</sup> (range, 0.725-7.70) defined by margins of 1-3mm. 15 (68%) of 22 total lesions had a positive response to therapy. 6 (86%) of 7 patients underwent routine follow-up with radiation oncology. Grade  $\geq$  2 toxicity was not observed. SRS single-isocenter treatments reduced treatment costs as well; costs were reduced by 73% and 65% when compared to whole brain radiation therapy and multi-isocenter SRS treatments, respectively (see Table 1).

**DISCUSSION:** Utilizing this new paradigm to treat multiple brain metastases, we have established significant improvement in efficiency of treatment, cost containment, and most importantly, cancer local control rates.

## Evaluation of SSI Risk Prediction Models for Breast Reconstruction Outcomes at a Single Medical Institution

Eric Resnick, Kip Waite, Brandon Anderson, MD, Lorraine Tafra, MD  
The Rebecca Fortney Breast Center, Anne Arundel Medical Center

**INTRODUCTION:** Surgical site infections (SSI) constitute the majority of health-care associated infections and multiple studies have developed models to predict high risk patients<sup>1,2</sup>. SSI in breast cancer patients are significant as they can result in implant loss, patient dissatisfaction, psychosocial dysfunction, depression, and sexual dysfunction. As the Fortney Breast Center does not evaluate patients for risk assessment using a prediction model, we aim to better understand and potentially develop protocols for high-risk patients by determining the accuracy of existing SSI risk models.

**METHODS:** A retrospective review of a consecutive series of patients undergoing mastectomy with immediate reconstruction was conducted between January 2017 and June 2019 at a single institution. After establishing the inaccuracy of three SSI risk prediction models, we evaluated the Breast Reconstruction Risk Assessment (BRA) Score, a validated model that determines risk of postoperative complications for patients undergoing mastectomy with immediate tissue expander or autologous reconstruction using 27 variables covering demographics and comorbidities<sup>3</sup>. The BRA Score, developed using the National Surgical Quality Improvement Program (NSQIP) and expanded upon using the Tracking Operations and Outcomes for Plastic Surgeons Program, was

used to calculate the risk of SSI, defined as an abnormal swab and culture, after 30 and 365 days.

**RESULTS:** 643 patients with an average age of  $53.0 \pm 12.0$ , weight of  $177.0 \pm 41.6$  pounds, and height of  $64.7 \pm 2.7$  inches, were reviewed. There were 8 occurrences (1.2%) of SSI within 30 days and 12 occurrences (5.9%) within 365 days of operation. ROC curves yielded 0.57 and 0.61 area under the curve for the 30 and 365 day cohorts, respectively, correlating in a poor false positive to false negative ratio.

**CONCLUSION:** With focus extensively devoted to the BRA Score, we tested multiple existing models that failed to accurately predict patients at higher risk for SSI, possibly due to a limited number of high risk patients, likely secondary to patient selection. Therefore, we can avoid the adoption of a system that does not fit our patient population, but must conduct an analysis to develop a sound model enabling us to prophylactically treat patients at higher risk for SSI.

<sup>1</sup> Evans, HL, Gessner, BD, Schrick, EJ, Woelber, E, 'Proportion of Surgical Site Infections Occurring after Hospital Discharge: A Systematic Review'.

<sup>2</sup> Bethke, K, Bilimoria, K, Davila, A, Hansen, N, Jeruss, J, Khan, S, Khavanin, N, Kim, JY, Losken, A, Mlodinow, A, Fine, N, & Ver Halen, J, 'Abstract 46: The BRA Score Creating a General Risk Calculator for Breast Reconstruction Outcomes'.

<sup>3</sup> <http://www.brascore.org>

## Influence of Next-Generation Sequencing on Cancer Treatment Plans

Christopher Phung, Aquiera Halsey, MPH, and Jason Taksey, MD

**BACKGROUND:** An increased understanding of DNA mutations and cancer progression has led to the development of specific therapies with improved outcome and lower toxicity. Through companies such as Foundation and Caris, next-generation sequencing (NGS) allows for broad screening of markers associated with such therapies. However, at a cost of \$3,500 and \$4,500 respectively, Foundation and Caris NGS do not guarantee actionable mutations or a change in treatment plan.

**METHODS:** A retrospective study was conducted of all 177 patients with metastatic malignancy at AAMC Oncology and Hematology who had received next-generation sequencing from November 2008 to April 2019. Several parameters, such as cancer type, pre and post NGS therapies, and NGS recommended therapies, were collected from electronic records.

**RESULTS:** There has been an increase in the number of patients receiving NGS from <0.1% of new patients in 2008 to 4.6% in 2018 with patients receiving NGS after an average

of 1.7 lines of therapy. The table below demonstrates the number of patients that received an NGS report with at least one therapy recommendation, the number that received an NGS recommended therapy, and the number of cases in which the physician would not have been able to pick that therapy without NGS. Percentages are given out of the total number of patients receiving that type of NGS.

**CONCLUSION:** The majority of next-generation sequencing identified at least one potential treatment option, and a clinically significant proportion of patients were able to receive a therapy based upon NGS recommendations. We believe these results justify continued use of NGS as these therapies represent more effective and/or better tolerated treatment options tailored to patients' cancers. Additionally, in our practice, Caris NGS was more likely than Foundation NGS to lead to a change in patients' treatment plans; however, the reason remains unclear.

## The Role of the Bioethics Consult Service (BCS) among Acute Care for the Elderly (ACE) Patients

*Christopher Lawrence, David Moller, PhD, Krysti Lantz*

**BACKGROUND:** Ethical tensions can impede delivery of optimum care. The BCS addresses ethical issues such as conflict, unbeneficial care, respect for autonomy, moral distress, and patient care justice.

**OBJECTIVE:** To determine the source, causes, and outcomes of BCS consultations among ACE patients.

**METHODS:** Retrospective record review of consecutive BCS consults from July 2018 to May 2019. In addition, a BCS satisfaction survey was sent to hospitalists and nurses from the ACE unit.

**RESULTS:** 138 consults occurred among 97 ACE patients (21 patients had >1 consult). The table shows the source of

consult and types of issues discussed. Satisfaction surveys were obtained from 8 ACE nurses (Response Rate 40.0%) and 4 hospitalists (Response Rate 20.0%). The average overall satisfaction was 3.7 for ACE nurses and 4.8 for hospitalists. A two tailed t-test (p-value=.056) was performed between advance directive status and length of stay (LOS).

**DISCUSSION:** Most consults are placed by nursing and have no conflicts between interested parties. Satisfaction from hospitalists and nurses is high. Future research should be done on the relationship between advance directive status and length of stay in other units involving ethics.

## Sentinel lymph node biopsy rarely affects chemotherapy recommendations in patients with apparent early-stage breast cancer

*Nicholas Huerta, MS; Carol Tweed, MD; Laura Martino, BS; Kip Waite, BA; Hanh-Tam Tran, MD; Charles Mylander, PhD; Martin Rosman, MD; Lorraine Tafra, MD; Rubie Jackson, MD*

**BACKGROUND:** Sentinel Lymph Node Biopsy (SLNB) is a surgical procedure performed for early-stage breast cancer, to detect lymph node metastasis and guide treatment. Patients undergoing SLNB have a 25% risk of adverse effects. It would be useful to eliminate SLNB when it is unlikely to alter treatment. This study aimed to assess the influence of SLNB on further treatment recommendations, in patients with negative axillary ultrasound (AXUS), using Oncotype Recurrence Score (RS) to determine chemotherapy recommendations in postmenopausal patients with Nmi-N1 disease.

**METHODS:** We retrospectively evaluated patients treated at Anne Arundel Medical Center (2010 – 2018). Inclusion criteria were: 1) newly diagnosed ER-positive, HER2-negative, pT1-2 breast cancer, 2) negative preoperative AXUS, and 3) SLNB performed. For each case, NCCN guideline-concordant treatments were recommended, based on presumed node negativity. Recommendations were also made based on actual surgical lymph node status, employing RS to guide chemotherapy recommendations in postmenopausal patients with Nmi and N1 disease. RS, when not available, was estimated using a validated algorithm. Treatments were categorized as “not recommended,” “considered,” or

“recommended.” Recommendations for the presumed node-negative versus actual nodal status were compared.

**RESULTS:** From the total cohort of 313 patients, 48 (15%) had lymph node metastases by SLNB: Nmi=3, N1=42, N2= 1, N3=2. The mean age was 62 y (s.d. 11). Table 1 shows the proportion of patients for whom SLNB changed recommendations.

**CONCLUSION:** Other than radiation, SLNB altered recommendations in <10% of the cohort. With increasing reliance on genomic profiling to make treatment recommendations for node-positive patients, the importance of SLNB is diminishing. We recommend that omission of SLNB be considered in postmenopausal patients with T1-2 ER positive cancers with a negative axillary ultrasound, when chemotherapy would not be considered. We suggest that treatment paradigms in the future may recommend genomic profiling before axillary surgery for postmenopausal women, reserving SLNB for patients with intermediate genomic risk in whom positive SLN would change chemotherapy recommendation. This approach would require prospective evaluation. A limitation of this study is that it did not examine how SLNB results would affect recommendations for treatments such as extended endocrine therapy, ovarian suppression, or zoledronic acid.

## Superior Chemotherapy Regimen for Esophageal Cancer Patients

Riyadh Ali; Peter Graze, MD; Aquiera Halsey, MPH; and Teresa Putcher, BSN

**BACKGROUND:** There are two primary chemotherapy regimens for esophageal cancer patients: 5FU with Platin (Cisplatin or Oxaliplatin) and Carboplatin with Paclitaxel (CROSS). However, the data on which chemotherapy has been more effective at Anne Arundel Medical Center is unclear.

**OBJECTIVE:** To determine whether there is a significant difference in effectiveness between the two major chemotherapy regimens for esophageal cancer: 5FU with Platin and CROSS.

**METHODS:** Retrospective chart review of esophageal cancer patients treated at Anne Arundel Medical Center from 01/01/2010 to 12/31/2018 that did not have metastasis at diagnosis and that underwent chemotherapy.

**RESULTS:** 116 esophageal cancer patients have been diagnosed at AAMC (91 adenocarcinoma and 25 squamous cell). 109 of the 116 patients did not have metastasis at diagnosis. 70 of the 109 patients underwent chemotherapy:

56 with adenocarcinoma and 14 with squamous cell. The table shows chemotherapy regimen, radiation, surgery, and residual at surgery for adenocarcinoma and squamous cell patients without metastasis that underwent chemotherapy.

**CONCLUSION:** The data demonstrates that 5FU with Platin has a higher complete response rate at surgery for adenocarcinoma and squamous cell patients. 42.3% of adenocarcinoma patients who underwent full trimodality with CROSS had complete response while 61.5% of adenocarcinoma patients who underwent full trimodality with 5FU with Platin had complete response. In addition, 75% of squamous cell patients who underwent full trimodality with CROSS had complete response while 100% of squamous cell patients who underwent full trimodality with 5FU with Platin had complete response. Patients treated with 5FU with Platin had superior results to patients treated with CROSS at AAMC. Further analysis for efficacy of treatment includes survival data and metastases recurrence.

<b>CROSS</b>	INITIAL NUMBER OF CASES	COMPLETED RADIATION	COMPLETED CHEMOTHERAPY	SURGERY	COMPLETE RESPONSE
Adenocarcinoma	35	35	33	26	11 (42.3%)
Squamous Cell	11	11	11	4	3 (75%)

<b>5FU WITH PLATIN</b>	INITIAL NUMBER OF CASES	COMPLETED RADIATION	COMPLETED CHEMOTHERAPY	SURGERY	COMPLETE RESPONSE
Adenocarcinoma	21	21	18	13	8 (61.5%)
Squamous Cell	3	3	3	1	1 (100%)

## AAMC RESEARCH INSTITUTE

AAMC's Research Institute brings together a team of professional research nurses, research coordinators, data managers and physicians.

All research efforts carefully safeguard the rights and safety of clinical trial patients, ensuring regulatory compliance and promoting excellence in clinical practices. Our dedication to research excellence ensures we are contributing to generalizable knowledge.

Our goals for the research program are:

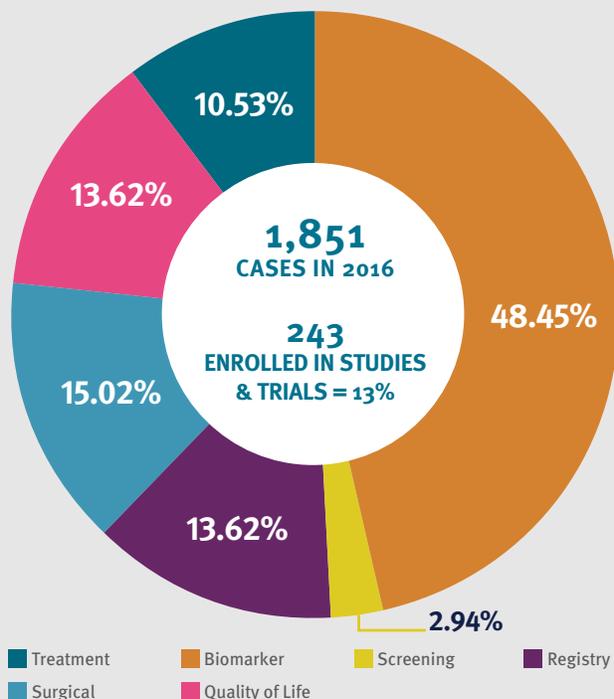
- ▶ To maintain a comprehensive menu of clinical trials so that many patients have the opportunity to participate in research studies.
- ▶ To maintain a sensitive and compassionate approach that meets all regulatory standards for discussing clinical trial options with patients.

- ▶ To search out and develop basic science liaisons and relationships to improve translational research in cancer.
- ▶ To provide opportunities to our faculty and staff for research project development, funding and support of clinical trials.

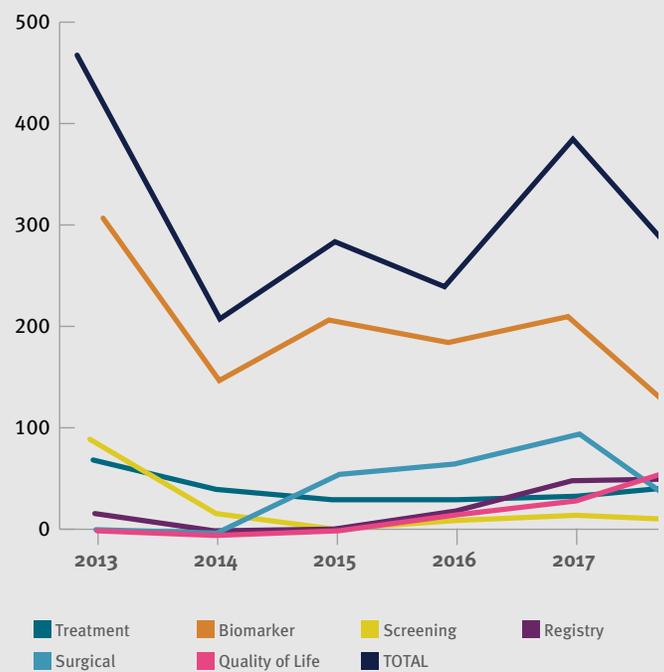
### Clinical Trials

AAMC evaluates cancer patients for clinical trial eligibility at the time of diagnosis and following surgery. Patients are also evaluated at each of their initial appointments in the specialty practices (medical and radiation oncology). Potential clinical trials for patients are also discussed at monthly tumor board meetings. At each step of the patient's journey, we want to make the most appropriate and thoughtful treatment options available to him or her, including participation in suitable clinical trials. When a patient expresses interest in participating in a clinical trial, our research staff guides him or her through each step of the process.

ONCOLOGY ENROLLMENT BY STUDY TYPE — 2016



ONCOLOGY ENROLLMENT BY STUDY TYPE — 2016

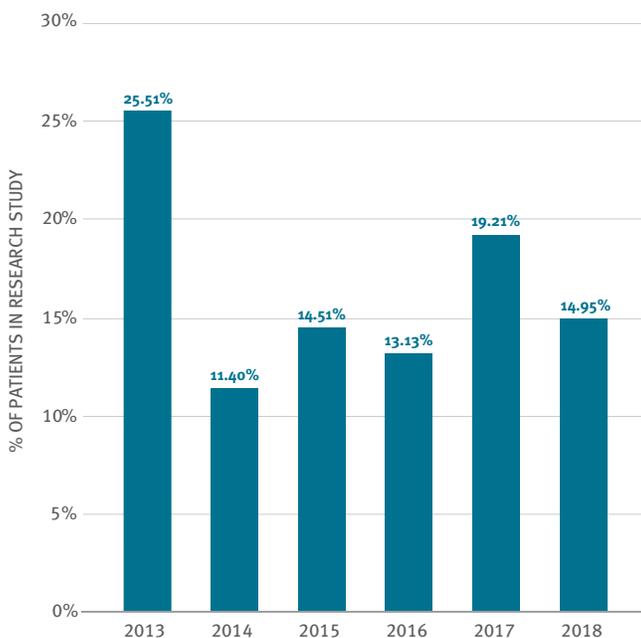


A list of active clinical trials supported by AAMC Research Institute can be found at: [www.aahs.org/Research-Institute](http://www.aahs.org/Research-Institute)

Over the years, the number and type of trials that a patient can participate in have grown. We have access to research studies in which patients can donate their blood or biopsy tissue for tumor biology research studies to learn more about how cancer develops and grows. We also participate in clinical trials that evaluate how well a new medical device or a new drug treatment works.

Annually, AAMC exceeds the CoC standard of six percent accrual to cancer-related clinical research studies. Of the 1,983 cancer cases in 2017 and 1,775 in 2018, 381 (19 percent) and 265 (15 percent), respectively, were enrolled in cancer-related research studies and clinical trials. The breakdown of patient-enrollments by study type is shown in the figure on the previous page.

#### **% OF CANCER PATIENTS ENROLLED IN RESEARCH STUDIES (6% needed for CoC commendation)**



### **Walter Reed National Military Medical Center and the Murtha Cancer Center**

Since 2006, AAMC has had a research collaboration with the Walter Reed National Military Medical Center, providing biospecimens from more than 2,000 breast cancer patients at AAMC, comprising more than 20,000 blood and tissue samples for research. AAMC has expanded this collaboration to include the Murtha Cancer Center Biobank project and Blood Profiling Atlas in Cancer (BloodPAC) Consortium.

### **Johns Hopkins Clinical Research Network**

AAMC has helped connect patients with cutting-edge treatment options through our collaboration with the Johns Hopkins Clinical Research Network (JHCRN). The JHCRN gives AAMC patients expanded access to clinical trials by facilitating a partnership between physicians at AAMC and Johns Hopkins to open clinical trials. Patients can receive the same treatment and trial options they would receive in a university setting right here in their community.

### **Clinical Research Internship**

The Research Institute offers a Clinical Research Internship that pairs bright, motivated college students with a physician mentor to complete a clinical research or quality improvement project. These projects have led to a number of publications in scientific journals and have provided valuable data used to improve the quality of care for AAMC patients.

## 2018 STUDIES

1. **Access to Transportation; Expansion of a Ride Sharing Program to Help Patients with Transportation Needs (Standard 1.5 – Cancer Program Goals)**  
*LaKeisha Jackson, LCSW-C; and Bonnie Bresnahan, RT (R)(T)*
2. **Adopting a Patient Reported Outcomes Measurement Tool Within the Rebecca Fortney Breast Center: Lesson Learned**  
*Kip Waite, BA; Linda Showalter, BS; Shannon McGowans-Pindell, BS; Devinder Singh, MD; Lorraine Tafra, MD*
3. **A Quality Improvement Study: Implementation of the Malnutrition Screening Tool (MST) to Standardize Efficacious Malnourishment Assessments Amongst Patients on the Oncology Unit**  
*Stephanie Smith, BSN, RN, OCN; Jan Clemons, MS, RN, OCN, CHPH; Megan Bowlding, MS, RN, CNL, OCN; and Leann Rossetti, BSN, RN*
4. **Benign Papilloma Excised at an NAPBC Accredited Breast Center: Analysis of Local Upgrade Rates for Use in Patient Counseling**  
*Hanh-Tam Tran, MD; Stephanie Parlacoski, BA; Lacey Stelle, MD; Jennifer Wellington, MD; Lorraine Tafra, MD; and Rubie Sue Jackson, MD*
5. **Changing the Culture of Personal Protective Equipment in Outpatient Infusion**  
*Sally Carrasco, RN; and Lynn Graze, RN, MSN, OCN, AACN*
6. **Dose Distribution in the Near Zone of a CO<sub>2</sub> Filled Breast Expander for 6MV and 10MV Photon Beams**  
*Brian Hasson, PhD; Texin Li, PhD; Charles Geraghty, MS; Jaclyn Carroll, MS*
7. **Dose Perturbation of the Metallic Reservoir from a Novel Tissue Expander Used for Post Mastectomy Radiation Therapy**  
*Texin Li, PhD; Brian Hasson, PhD; Charles Geraghty, MS; Jaclyn Carroll, MS*
8. **Dosimetric Evaluation of the Dose in the Tissues Close to a CO<sub>2</sub> Filled Breast Expander for Post Mastectomy Patients Undergoing Radiation Therapy**  
*Brian Hasson, PhD; Mary Young, MD, Texin Li, PhD; Charles Geraghty; Absan Balawi, MS, BS, CMD; Yolanda King, BS, CMD*
9. **Emergency Department Visits Among Cancer Patients: A Detailed Retrospective Analysis of 201 Visits (Standard 4.7 – Studies of Quality)**  
*Susanne Tameris; Jane Rhule, RN, CPHQ; Jessica Tan; Barry Meisenberg, MD*
10. **Getting the Most Out of the 21-gene Recurrence Score: Increasing Actionable Results with a Combined Pathologic-Genomic Model**  
*Rubie Sue Jackson, MD, MPH; Charles Mylander, PhD; Martin Rosman, MD; Lorraine Tafra, MD, FACS*
11. **Increase Advance Directive Discussions for advanced cancer patients (Standard 4.8 – Quality Improvement)**  
*Susanne Tameris and Barry Meisenberg, MD*
12. **A Model for Improving Timeliness-of-Care Within the Rebecca Fortney Breast Center (Standard 4.7 – Studies of Quality)**  
*Kip Waite, BA; Linda Showalter, BS; Lorraine Tafra, MD*

- 13. MSI Testing of Colon Cancer Patients <70 Years of Age with Stage 1 or Higher (Standard 4.6 – Monitoring Compliance with Evidence-Based Guidelines)**  
*Margaret Gallegos, MS, CGC; Bonnie Bresnahan, RT (R)(T); Barry Meisenberg, MD; Steven Proshan, MD; Robbins, MD*
- 14. No change in Contralateral Prophylactic Mastectomy Rates After Implementation of a Patient Educational Handout Based on the 2016 ASBrS Consensus Statement: An Ongoing Quality Improvement Initiative**  
*Lacey Stelle, MD; Charles Mylander, PhD; Rubie Sue Jackson, MD, MPH; Lorraine Tafra, MD*
- 15. Nomogram Incorporating Axillary Ultrasound Results Can Identify a Subgroup of Patients Unlikely to Benefit from Sentinel Lymph Node Biopsy**  
*Hanh-Tam Tran, MD; Daina Pack, MD; Charles Mylander, PhD; Laura Martino, BS; Martin Rosman, MD; Lorraine Tafra, MD; Rubie Sue Jackson, MD*
- 16. Patient Perspectives on Unplanned Cancer Admissions**  
*John Moxley, MS, MHA; Jane Rhule, RN, CPHQ; Stephanie Paracoski; Mitchell Karpman, PhD; Jessica Tan; Barry Meisenberg, MD*
- 17. Planning Comparison of Volumetric Modulated Arc Therapy and Dynamic Conformal Arc for Intracranial Fractionated Stereotactic Radiotherapy Using BrainLAB Cranial SRS and IPlan**  
*Charles Geraghty, MS; Jaclyn Carroll, MS; Texin Li, PhD; Brian Hasson, PhD*
- 18. Post-operative Stereotactic Radiosurgery of Brain Metastases: A Single-center Retrospective Review of Clinical Outcomes**  
*Zachary T. Smith; Syed U. Ashruf; Charles Mylander; Kerry J. Thompson*
- 19. Predictive Modeling Demonstrates that Routine Axillary Ultrasound, with a Proposed Management Algorithm, Does Not Increase Rates of Unnecessary Axillary Lymph Node Dissection for Patients with Breast Cancer**  
*Jennifer Wellington, MD; Ashley Alden, BS; Thomas Sanders, PhD; Rubie Sue Jackson, MD, MPH*
- 20. Post-operative stereotactic radiosurgery of brain metastases: A single-center retrospective review of clinical outcomes (Standard 4.8 – Quality Improvement)**  
*L. Dad, Z. Smith, S. Ashruf, C. Mylander, K. Thompson, C. Geraghty, B. Hasson, T. Burke. J. Radther Pract. 5, 2019.*
- 21. Quality Improvement Project to Evaluate the Effect of A New Smoking Cessation Program At Discharge from AAMC**  
*Tuesday Tynan, BSN, RN; Cathleen Ley, PhD, RN; Joanne Ebner, BSN, RN*
- 22. Symptom Management: Quality Improvement for Quality of Life (Standard 1.5 – Cancer Program Goals)**  
*Madelaine Binner, CRNP, DNP; Susanne Tameris; Cathy Copertino, RN, MS; Peggy Holston, RN*
- 23. Thickened Lymph Node Cortex May Not Be Associated with Metastasis in African Americans with Breast Cancer**  
*Hanh-Tam Tran, MD; Charles Mylander, PhD; Martin Rosman, MD; Lorraine Tafra, MD; Daina Pack, MD; Laura Martino, BS; Kip Waite, BA; Thomas Sanders, PhD; Rubie Sue Jackson, MD*
- 24. Tissue and Blood Library Establishment For Molecular, Biochemical, and Histologic Study of Breast Disease**  
*John Moxley, MS, MHA; Janet Wareham, MS, PA; Julie Joseph, BS; Lorraine Tafra, MD*
- 25. Validation of Slow CT and Comparison to Retrospective 4DCT for Motion Assessment**  
*Charles Geraghty, MS; Brian Hasson, PhD; Jason Burch, MS; Lee Myers, PhD*

## SURVIVOR STORIES

### COLON CANCER SURVIVOR BRIAN PAGE

Life after cancer can be a very exhilarating yet complicated time in someone's life. From the time you get the diagnosis, you become extremely focused on the fight of your life. Everyone you know rallies around you and it's an all-out war against this invader. At the end of your journey, God willing, you get the news and results everyone has been working toward and praying for — you're cancer-free. Then it's back to everyday life.

I call it the “cancer hangover.” My wife compares it to the lead-up and excitement you feel during Christmastime and the feeling you have the day right after. She said the significant other also experiences this culmination of intense emotions, dedication and support.

**“It took a lot of patience, a lot of faith, a lot of support and a comprehensive plan from the doctors to be where I am today.”**

Throughout my journey with colon cancer, I kept a journal of sorts with notes in my phone. I find it inspiring to go back and read what I thought in that moment. My notes read: Don't wait until you are faced with your own mortality to be the son, husband, father, friend, neighbor and person you can be. Live life. Allow yourself to love, strive and achieve. Find patience and peace in life's challenges. Accept your defeats and learn from your mistakes. Appreciate life's victories no matter how small, and be your own biggest fan and critic. Be patient and know that others are going through daily challenges as well. Don't be afraid of self-analysis and to be critical of yourself. But make sure you also appreciate the positives and come up with a plan for improvements. Find what inspires you, absorb its strength and allow it to usher you forward. You can be a hero starting now. Your actions create the costume. Finding inspiration is easy. It's remaining inspired that is the true test. Only coming from the lion's mouth can we learn to roar. A day's challenge is only as challenging as we make it. A worry

will drag you down. Confronting it will raise you up. Sometimes you have to ask yourself, in an honest firsthand opinion, what you can do to be the person you know you can be.

We grow stronger in the face of adversity, wiser in the wake of mistakes and kinder with hearts open. The better “you” is around the corner, the same one you have been around before. I am one of the lucky ones. After a shocking diagnosis, I was able to complete my cancer treatment plan and am happy to say I continue to be a cancer survivor. It took a lot of patience, a lot of faith, a lot of support and a comprehensive plan from the doctors to be where I am today.

Listen to your body and seek help if something isn't right. We all have our own challenges in life; it's important to work your way through each battle in order to win the war. Take things one step at a time and prepare yourself to succeed. I'm grateful for the opportunity to share my story so others may be able to learn from my experiences and know that they can overcome what lies ahead.

**“A day's challenge is only as challenging as we make it.”**



## SURVIVOR STORIES

### OVARIAN CANCER SURVIVOR NANCY LONG

Nancy Long initially dismissed her early symptoms of ovarian cancer, chalking each one up to something else entirely.

Fatigue? Indigestion? The Annapolis woman thought life stresses were to blame. A colonoscopy came back clear. But when she began to have horrible abdominal bloating, she knew something wasn't right. She had a pelvic sonogram, and her disease was so far advanced that her ovaries weren't even visible. A blood test then detected elevated levels of CA-125, a protein in the blood that may indicate ovarian cancer and other kinds of cancer. Nancy was diagnosed with stage 3C ovarian cancer, meaning it had spread outside of the ovaries and into other organs. She was in surgery within a week, followed by 18 months of chemotherapy.

**“I wish every physician would talk to their patients about this.”**

**“I should have known the signs and symptoms,” she says, as at that time she was a nurse practitioner at a gynecologist’s office.**

Now at age 70, she has been cancer-free for 13 years. “I should have known the signs and symptoms,” she says, as at that time she was a nurse practitioner at a gynecologist’s office. The problem with ovarian cancer, though, is that the symptoms — constipation, tiredness, bloating, back pain, urinary tract issues — can so often be symptoms of something else entirely. There’s also no effective screening test for ovarian cancer.

Now, as a longtime volunteer with the Central Maryland chapter of the National Ovarian Cancer Coalition (NOCC), Nancy is committed to raising awareness of this form of cancer that strikes one in 75 women. Last year, 14,000 women died of ovarian cancer in the United States. Nancy is one of the organizers of the chapter’s 10th Annual Run/Walk — Together in TEAL — Ending Ovarian Cancer. September is National Ovarian

Cancer Awareness Month. Since 2009, Nancy has seen the event grow from 400 people in Quiet Waters Park in Annapolis to 2,000 participants. The chapter uses the money raised to fund its three main goals: awareness, help for survivors and research. Judeth Davis, a nurse navigator with AAMC’s DeCesaris Cancer Institute, says Nancy is a tireless advocate for ovarian cancer awareness and education.

“She leads our chapter of the NOCC with passion and relentlessness,” Judeth says. “She provides literature about early detection and warning signs, and she offers support to countless women and their loved ones as they face this challenge.”

Nancy says many myths surround ovarian cancer. For instance, many women think their yearly physical would alert them if something was wrong. But the truth is, a Pap smear won’t detect ovarian cancer. Others also believe an ovarian cancer diagnosis is a death sentence. And while it is the most deadly gynecological cancer, Nancy says patients still have reason to be hopeful. “I’ve been alive and well for 13 years,” she says. Still, fewer than 20 percent of ovarian cancer cases are detected early, when the prognosis is best. So it’s best to always talk to your doctor about your health concerns, no matter how insignificant you may think they are.

“I wish I hadn’t taken it upon myself to self-diagnose,” Nancy says.

Nancy Long, pictured second from the left, is a volunteer with the National Ovarian Cancer Coalition’s Central Maryland Chapter



## MARYLAND CANCER CONTROL PLAN 2018

### AAMC HPV Task Force Established

Every year in the United States, 31,000 women and men are diagnosed with a cancer caused by an HPV infection. Generally, these cancers aren't detected until later stages when they're difficult to treat. Most could be prevented by the HPV vaccination. The DeCesaris Cancer Institute at Anne Arundel Medical Center (AAMC) established the AAMC HPV task force to align strategies with the Maryland Comprehensive Cancer Control Plan and increase the rates of HPV vaccinations.

The CDC recommends 11- to 12-year-olds get two doses of the HPV vaccine to protect against cancers caused by HPV. However, only 48.1 percent of children in Maryland are completing the process. The AAMC HPV task force aims to increase this number by boosting awareness of HPV cancer and educating providers and parents on the importance and effectiveness of the HPV vaccine.

**OBJECTIVE** Increase HPV vaccination and completion by 10 percent in 2018

**AUDIENCE** Preteens (children 11 to 12 years old) and their parents; providers

**MESSAGE** HPV vaccine is cancer prevention

#### IMPLEMENTATION

- ▶ Increase awareness
- ▶ Educate providers
- ▶ Engage cancer experts and leaders
- ▶ Educate communities
- ▶ Implement system changes

Only 48 percent of children in Maryland are completing the HPV vaccinations.

**CALL TO ACTION** Talk to your doctor about vaccinating your 11- to 12-year-old sons and daughters against HPV.

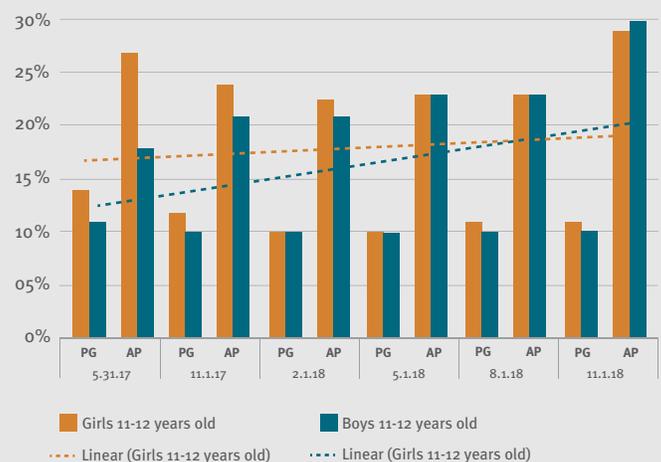
### HPV VACCINATION INITIATION DATA 2018

Pediatric Group (PG) & Annapolis Pediatrics (AP)  
Data Collection Initiated in FY17



### HPV VACCINATION COMPLETION DATA 2018

Pediatric Group (PG) & Annapolis Pediatrics (AP)  
Data Collection Initiated in FY17



## TOBACCO CONTROL EFFORTS

### Training Health Care Professionals in Evidence-Based Tobacco Treatment

Health care professionals play a key role in reducing preventable tobacco-related death and disability. With more than a billion patient interactions annually, there is tremendous potential for health care professionals to have an even greater impact on this insidious health issue.

At AAMC, we capitalize on this potential by training our professionals in evidence-based tobacco treatment. They use this training to advance programs that help our community control tobacco use. These programs center around developing an understanding of addiction, exploring barriers to change, talking about tobacco use and the health consequences of smoking, and creating an environment supportive of tobacco treatment services.

In 2018, we trained eight new providers in evidence-based tobacco treatment. Our tobacco control efforts included:

- ▶ Become Tobacco-Free Classes
- ▶ Individual Counseling
- ▶ Teen Tobacco Road Show

Our multidisciplinary team approach drives our ability to deliver the highest-quality care tailored to each patient's needs. A variety of programs have been implemented through our Spine Pathway.

#### BECOME TOBACCO-FREE CLASSES

Six classes per year  
with an average  
cessation rate of

**41%**



#### TEEN TOBACCO ROAD SHOW

**2,508**  
school-aged youth  
reached with tobacco  
avoidance education



#### INDIVIDUAL COUNSELING

122 clients in 2017  
with an average  
tobacco cessation  
rate of

**37%**



#### QUIT RATE



The quit rate for classes is one year of follow-up and for individual counseling it is six months of follow-up.

**COMMUNITY SPOTLIGHT**

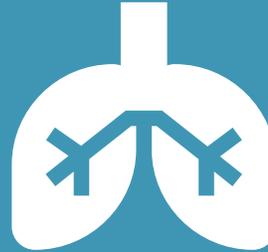
**LUNG SCREENING**

Lung cancer is the deadliest form of cancer in the United States, and the lung cancer mortality rates at AAMC exceed both state and national rates. For this reason, AAMC continues to educate providers and the community about lung cancer screening.

The DeCesaris Cancer Institute has used the Rapid Access Chest and Lung Assessment Program (RACLAP) since 2010. RACLAP is designed to quickly identify, evaluate and manage early-stage lung cancer. Thanks to a grant from the Bristol-Myers Squibb Foundation, AAMC will continue to expand lung cancer prevention and screening services within high-risk populations in Maryland counties, including Prince George’s County.

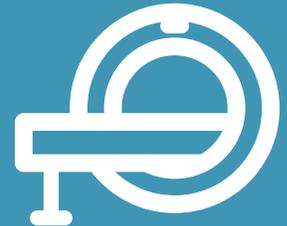
AAMC has been designated a lung cancer screening center of excellence by the Lung Cancer Alliance. The Thoracic Program coordinator collects lung screening data and follow-up on all positive findings.

**LDCT LUNG SCREENINGS 2018**



**TOTAL SCANS**  
**922**

**BASELINE SCANS**  
**517**



**ANNUAL SCANS**  
**405**  
**CASES**

**MALIGNANT FINDINGS**  
**13**



**STAGE I: 8**  
**STAGE II: 2**

**STAGE III: 2**  
**STAGE IV: 1**

## 2019 COMMITTEE MEMBERS

### **BARRY MEISENBERG, MD**

Chair, Quality Improvement Coordinator

### **JOANNE EBNER, RN, BSN**

TTS Community Outreach Coordinator

### **JOHN MOXLEY, MS, MHA, CCRP**

Clinical Research Coordinator

### **LAKEISHA JACKSON, LCSW-C**

Psychosocial Services Oncology Manager

### **HANK NELOMS, CTR**

Cancer Conference Quality Coordinator

## Required Physicians

### **LUQMAN DAD, MD**

Cancer Liaison Physician

### **JASON TAKSEY, MD**

Hematology Oncology

### **SANFORD ROBBINS, MD**

Chief Pathologist

### **STEPHEN CATTANEO, MD**

Thoracic Surgeon

### **ANGEL TORANO, MD**

Radiation Oncologist

### **AMY SARINA, MD**

Diagnostic Radiology

### **LORRAINE TAFRA, MD**

Medical Director of the Breast Center,  
Breast Surgeon

## Required Members

### **CATHERINE COPERTINO, BSN, MS, OCN**

Vice President, Oncology Service Line

### **AQUIERA HALSEY, MPH**

Manager, Oncology Quality Data Analytics

### **MARGARET GALLEGOS, MS, CGC**

Genetics Professional/Counselor

### **LISA-MARIE BROWN, MD**

Palliative Lead Physician

### **JAMES CALDWELL, PHD**

Director, Pharmacy

### **KYLEEN TICE, MSPT**

Manager, Outpatient Rehabilitation Services

### **MAUREEN SHACKELFORD, RD, LD**

Registered Nutritionist/Dietician

### **SHIRLEY KNELLY, MS, CPAQ, LDADC**

Chief Patient Safety & Compliance Officer

### **JAN CLEMONS, RN, MSN, OCN**

Director, Inpatient Oncology

## Members

### **BONNIE BRESNAHAN, RT(R)(T)**

Director, Outpatient Oncology

### **CYNTHIA SCOTT**

Palliative Nurse Practitioner

### **PETER GRAZE, MD**

Hematology Oncology

### **STEVEN PROSHAN, MD**

Colorectal Surgeon

### **BRIAN HASSON, PHD**

Chief Medical Physicist

### **DAWN GOODBURN**

Marketing Strategist, Public Relations &  
Marketing

### **JACKIE SHANAHAN, RN, OCN**

Nurse Navigator

### **MADELAINE BINNER, MBA, CRNP, DNP**

Oncology Nurse Practitioner

### **MARIA GERONIMO, RN, MSN, MBA**

Thoracic Program Coordinator

### **SUSAN HULL**

AAMC Oncology Surgery

### **ALICIA BOGAN, CTR**

Cancer Registry

### **TERESA PUTSCHER, RN, BSN, OCN**

Nurse Navigator

### **RACHEL SERIO**

American Cancer Society Representative

### **MONICA JONES, MD**

Women & Children's Division Chair

### **AMY LOPES, MSM, OTR/L**

Oncology Rehab Program Coordinator

### **KAY LAVORINI, RN**

Registered Nurse

### **SUSANNE TAMERIS**

Director, Ambulatory Oncology



2001 MEDICAL PARKWAY  
ANNAPOLIS, MD 21401

## **GIVING TO AAMC – GIVING TO THE COMMUNITY**

As a nonprofit organization, AAMC honors its tax-exempt status and fulfills its responsibilities to the community through programs and activities providing treatment, promoting health and responding to the community's needs. Call our Foundation at 443-481-4747 or visit [askAAMC.org/foundation](http://askAAMC.org/foundation) to learn how your gift can make a difference in the health of your community.