Compassionate, innovative collaborative, comprehensive care close to home.

2016 Annual Report

BLESSING Cancer Center
Accredited Comprehensive Community Cancer Program
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## BLESSING HOSPITAL COMPREHENSIVE CANCER PROGRAM
### 2016 CANCER COMMITTEE MEMBERS

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<tr>
<td><strong>Cancer Committee Chairman</strong></td>
<td><strong>Christian Zwick, DO</strong></td>
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<tr>
<td><strong>Cancer Liaison Physician/Surgeon</strong></td>
<td><strong>Harsha Polavarapu, MD</strong></td>
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<tr>
<td><strong>Diagnostic Radiologist</strong></td>
<td><strong>John Schlepphorst, MD</strong></td>
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<td><strong>Pathologist</strong></td>
<td><strong>Robert Gutekunst, MD</strong></td>
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<td><strong>Medical Oncologist</strong></td>
<td><strong>Raymond Smith, MD</strong></td>
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<tr>
<td><strong>Medical Oncologist</strong></td>
<td><strong>M. Amjad Ali, MD</strong></td>
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<td><strong>Radiation Oncologist</strong></td>
<td><strong>Mark Khil, MD</strong></td>
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<tr>
<td><strong>Cancer Program Administrator</strong></td>
<td><strong>Lori Wilkey, MBA, RTRM</strong></td>
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<tr>
<td><strong>Palliative Care Team Member</strong></td>
<td><strong>David Lockhart, MD</strong></td>
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<tr>
<td><strong>Social Worker / Psychosocial Services Coordinator</strong></td>
<td><strong>Claudia Lasys, MSW, LCSW, OSW-C</strong></td>
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<tr>
<td><strong>Cancer Conference Coordinator</strong></td>
<td><strong>Cathy Brogdon, AAS, CTR</strong></td>
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<tr>
<td><strong>Cancer Registry Quality Coordinator / CTR</strong></td>
<td><strong>Vera Bickhaus, CTR</strong></td>
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<tr>
<td><strong>Community Outreach Coordinator</strong></td>
<td><strong>Stephanie Willey, RN, BSN</strong></td>
</tr>
<tr>
<td><strong>Clinical Research Coordinator</strong></td>
<td><strong>Kelly Sorrill, CCRP</strong></td>
</tr>
<tr>
<td><strong>Oncology Nurse</strong></td>
<td><strong>Ashley Janssen, RN, BSN, OCN</strong></td>
</tr>
<tr>
<td><strong>Quality Improvement Coordinator</strong></td>
<td><strong>Heather Girouard, Performance Excellence Coordinator</strong></td>
</tr>
</tbody>
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### 2016 Active Participants

- John Arnold, MD
- Richard O’Halloran, MD
- Haley Anderson, MD
- Donna McCain, MS, RN
- Angie Loos, MSN, RN, CMSRN
- Emily McCaughey, RD, LDN
- Jo Fuller, Administrative Secretary
- Rosie Baskett, Cancer Center Financial Counselor

- Brenda Blickhan, RN, OCN
- Jennifer Micho, Cancer Registry Coordinator
- Courtney Heiser, BS, American Cancer Society
- Kristen Cook, BSN, RN-BC, Nurse Manager, Oncology
- Karen Dames, RN, BSN, Admin. Coordinator Regulatory Compliance
- Karen Kerns, MS, CCC-SLP, MBA
- Regenia Stull, RN, MSN, Associate CNO, Acute Care SVS

**Guest Participant:** Karen Weems, CNP

**Resigned Members/Participants:** Kathryn Arrambide, MD, and Donna McCain, MS, RN

### Standard 1.2: Cancer Committee Membership

The membership of the cancer committee is a multidisciplinary, representing physicians from diagnostic and treatment specialties and non-physicians from administrative and supportive services. Cancer Committee coordinators, who are responsible for specific areas of cancer program activity, are designated each calendar year.

### Standard 1.3: Cancer Committee Attendance

Each required member or the designated alternate attends at least 75% of the cancer committee meetings held during any given year and this was achieved in 2016.
BACK ROW, LEFT TO RIGHT: Dr. Harsha Polavarapu, Kelly Sorrill, Sara Heinecke, Donna McCain, Carla Smith, Karen Kerns, Sheila Hermesmeyer, Claudia Lasys, Courtney Heiser, Vera Bickhaus, Dr. Robert Gutekunst, Dr. Christian Zwick, Dr. Richard Schlepphorst, Dr. Raymond Smith, Cathy Brogdon, Heather Girouard,

FRONT ROW, LEFT TO RIGHT: Lori Wilkey, Emily McCaughey, Stephanie Willey, Sarah Pruett, Ashley Janssen, Brenda Blickhan

MULTI-DISCIPLINARY COMMITTEE
The multi-disciplinary meets twice monthly. The team consists of radiologists, pathologists, surgeons, medical, and radiation oncologists. The team reviews all breast cancer and colorectal cancer patients diagnosed at Blessing Hospital. The team brings together all of the health care providers that be involved in a patient's care to develop recommendations for the plan of care and how to proceed.

The team also includes nurses, management, and social workers to identify barriers to care and help with process improvement for improved outcomes.
The dedicated personnel that work at our Cancer Center here at Blessing Hospital can be proud of their many accomplishments for 2016. As I look back and review this information, the efforts of the nurses, providers, and staff caring for the people in our community become apparent. Allow me to highlight some of our accomplishments from the quarterly cancer committee meeting minutes as reported:

**JANUARY 2016**
- Introduced the clinical goal of exercise program to improve general health of our cancer patients – “Strength for Survivors”.
- Plan proposed as programmatic goal to broaden the “No Tobacco Program”.
- Continued high scores with compliance quality measures.
- Urology specialist proposes several quality studies approved by committee for bladder and prostate.
- Study of migration colorectal cases before and after adding colorectal surgeon.
- Proposed quality study by Pathology Department to change receptor testing for breast cancer.
- Quality Improvement, low dose CT lung screening implemented.
- Blessing and Quincy Medical Group – Implementation of guide referrals by American Cancer Society representative.
- Recommendation to initiate a physician/clinician subcommittee group at breast and colorectal multi-team meetings to discuss and document site specific staging and clinical practice decisions.

**APRIL 2016**
- Addition of new gastroenterologist to Blessing Physician Services.
- Medical Oncology assess patients to determine need for genetic counseling with referral to Siteman Cancer Center Genetic Counseling Department.
- Refocus of our navigation process toward the uninsured and underinsured as an identified barrier, specifically focusing on patient’s transportation needs.
- Continued success with utilizing psychosocial distress tool in detecting problems and directing these patients to appropriate personnel for assistance.

**JULY 2016**
- Angie Loos, new representative from Educational Services upon retirement of Donna McCain.
- Radiation Oncology Department received ACRO re-accreditation with no adverse findings or contingency plan.
- Kelly Sorrill, Certified Clinical Research Coordinator reported 31 patients enrolled in clinical trials in 2015.
- Hospice and Palliative care services working towards converting concept of palliative care as being a terminal event - look at renaming as supportive oncology to remove negative stigma.
- Lung cancer screening program (goal): - Started in January/February 2016, pilot test began with first patient screened.
- Acknowledgment of Annual Cancer Survivors event.

**OCTOBER 2016**
- Dr. Young Yu, Radiation Oncology – Retirement recognized and thanked for his many years of service and accomplishments.
• Announcement made that Dr. Robert Johnson, M.D., Radiation Oncologist, will start January 2017.
• Dr. Young Yu reported Standard 4.6, comparing treatment to NCCN guidelines. Prostate cancer evaluated in low, intermediate and high risk groups, and 51 cases from 2014 were at 100%.
• Multiple screening programs reported: Oral, skin, and colorectal.
• Chemotherapy biotherapy certificate course – incentivized through place of employment.
• Quality study met and reported by Pathology Department to bypass IHC to FISH testing for breast cancer. Only if FISH test is equivocal, would FISH reflex to IHC. This study proved to increase turn-around time and provide cost saving to most patients.
• Clinical goal: Exercise program, “Strength for Survivors” at the YMCA had 22 people complete the fitness program and 4 individuals maintained membership and continue to work out on a regular basis.
• Programmatic goal met and reported, to increase “No Tobacco” referrals by 25%. This goal was exceeded at 50% having had 12 smokers referred in 2016 vs. 6 referrals in 2015.
• Quality study – Out migration of colorectal cases before and after addition of colorectal surgeon noting 80% to 20% was met as reported.
• Bladder Cancer study noting prevalence in our community and study outcome noting T1, high grade patients were treated appropriately.
• Initiation of peer-to-peer support group on Facebook.
• New quality control plan through cancer registry where work is divided among physicians at breast and colorectal multi-team meetings affording real-time completion of this task.

RADIATION ONCOLOGY:
• New Radiation Therapy Volumetric Arc Therapy (VMAT) treatment.
• TruBeam STx Linear accelerator - Specifically treating prostate, head and neck, colorectal, and anal tumors.
• Stereotactic Radiosurgery (SRS) - Treatment of brain tumors.
• Stereotactic Body Radiation Therapy (SBRT) for lung cancer treatment.

MEDICAL ONCOLOGY:
• We lost Katherine Arrambide, M.D., who got another opportunity in Tulsa, Oklahoma. We thank her for all her years of service here in Quincy.
• We added Vitor Pastorini, M.D., as Board Certified Hematologist and Oncologist.
• This year’s cancer screening initiative focused on lung cancer screening which has rolled out nicely screening 42 patients in 2016. One patient was diagnosed with lung cancer which would have otherwise gone undetected. This was a resected Stage I cancer.
• Clinical trials are continuing to be offered to qualifying patients; trial focused on breast, lung, prostate, and other malignancies are available here in town.
• Outreach services will expand in Keokuk, Iowa, in calendar year 2017.
I am pleased to present the Cancer Liaison Physician (CLP) report for the Blessing Cancer Program for the year of 2016. I am honored to serve in this role since January 2015.

In 2016, we started reporting the Rapid Quality Reporting System (RQRS) data for the cancer committee members. RQRS is a quality improvement tool which provides assessment of adherence to quality of cancer care measures using real-time clinical data. With the help of RQRS we are able to promote and facilitate high quality patient care through adherence to clinical quality metrics providing accurate, real-time clinical data to the cancer care team.

Lung cancer remains the leading cause of cancer deaths in the United States. Given the current state of lung cancer in the United States and our region, it was clear that there was a need to implement a lung cancer screening program. We successfully implemented the computerized tomography (CT) screening program for lung cancer. This aims to positively identify patients who are at increased risk for lung cancer and offer them an option for early detection of lung cancer. In addition to the screening program, we also implemented a formal smoking cessation counseling program. The ultimate goal of the lung cancer screening program is to be able to promote early detection of lung cancer in order to improve the overall outcomes, decrease mortality rates, as well as decrease the cost of care for lung cancer patients.

Colorectal cancer remains the second leading cause of cancer deaths in the United States. As part of “80% by 2018” initiative we identified and recommended fecal immunochemical test (FIT) testing as a preferred method of screening tool over the fecal occult blood test (FOBT) for colorectal cancer screening. We were able to get the buy-in from the health system so that we will have the resources to offer this to our community.

Distress tool was implemented across all the specialties to address the emotional, financial, and spiritual needs of the patients with a diagnosis of cancer. This tool helps the cancer care team identify and objectively quantify the concerns of a cancer patient and methodically address those concerns.

A survivorship care plan initiative was implemented in the Radiation Oncology department and we have ongoing efforts to implement this across all the remaining specialties. This is given to a cancer patient after the completion of treatment. The plan aids in optimizing the care coordination, avoiding unnecessary duplication of resources, and ensuring that care does not “fall through the cracks.”

It is hard to believe that another year has come and gone. 2017 brings another exciting year for the Cancer Program. We look forward to our upcoming Commission on Cancer (CoC) Survey of the Cancer Program later this year. As the CLP, I truly appreciate the Committee Members of the Cancer Program, the support staff, Blessing administration, and the community partners for their dedication and tireless efforts to provide quality cancer treatment to the patients and families of the tri-states area.
The CP3R provides feedback to our programs to:

- Improve the quality of data across several disease sites
- Foster pre-emptive Awareness to the importance of charting and coding accuracy
- Improve clinical management and coordination of patient care in the multidisciplinary setting.

In addition, the CP3R has been specifically incorporated into the CoC 2012 Program Stands 4.4 and 4.5 where each year cancer committees are required to review the quality of patient care using the CP3R to evaluate care within and across disciplines, to discuss successful processes, and to evaluate how processes can be improved to promote evidenced based practice. The cancer committee is expected to address performance rates that fall below specific thresholds established by the CoC. Evidence of this monitoring activity should be documented in the cancer committee minutes and reflected in the CoC quality reporting tools.

### BREAST

**BCSRT (ACCOUNTABILITY)** Radiation is administered within 1 year (365 days) of diagnosis for women under the age of 70 receiving breast conservation surgery for breast surgery for breast cancer.

**HT (ACCOUNTABILITY)** Tamoxifen or third generation aromatase inhibitor is recommended or administered within 1 year (365 days) of diagnosis for women with AJCC T1c or stage IB-III hormone receptor positive breast cancer.

**MASTRT (ACCOUNTABILITY)** Radiation therapy is recommended or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with >=4 positive regional lymph nodes.

**MAC (ACCOUNTABILITY)** Combination chemotherapy is recommended or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0, or stage IB-III hormone receptor negative breast cancer.
**COLON**

**MAC (QUALITY IMPROVEMENT)** At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer.

**ACT (ACCOUNTABILITY)** Adjuvant chemotherapy is recommended, 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.

**RECTUM**

**RECRTCT (QUALITY IMPROVEMENT)** Preoperative chemo and radiation are administered for clinical AJCC T3N0, T4N0, or stage III; or Postoperative chemo and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2N0 with pathologic AJCC T3N0, T4N0, or stage III; or treatment is recommended; for patients under the age of 80 receiving resection for rectal cancer.

**LUNG**

**LCT (QUALITY IMPROVEMENT)** Systemic chemo is administered within 4 months to day preoperatively or day of surgery to 6 months postoperatively, or it is recommended for surgically resected cases with pathologic lymph node – positive (pN1) and (pN2) NSCLC.

**LNoSURG (QUALITY IMPROVEMENT)** Surgery is not the first course of treatment for cN2, M0 lung cases.
Our mission is to improve the health of our communities. The Blessing Cancer Center team is committed to providing high-quality cancer care close to home. This means bringing leading-edge technology to our region and working with a qualified and diverse team of care providers.

As you read in Dr. Zwick’s and Dr. Polavarapu’s reports, the collaborative team of Cancer Committee members ensured all of our goals were met and programs expanded to provide quality care and exceed the needs of our patients.

In light of our ongoing commitment to early diagnosis, the low-dose CT lung screening was implemented in early 2016. The program screened 42 individuals, one patient was diagnosed with State I lung cancer. You can read more about this program in nurse navigator Sarah Pruett, RN, BSN, OCN’s report.

In addition to this new screening program, we continue to focus on education and cancer screening in our region. Community Outreach Educator, Stephanie Willey, RN, BSN, brought the FOBT colorectal cancer screening to 12 locations in our 50 mile radius. The efforts successfully screened 76 individuals and uncovered 2 suspicious findings. Stephanie also oversaw skin screening with the support of dermatologist Dr. Louis Quintero, MD, and an oral cancer screening with Dr. Jenn Pritts, DMD. As always her efforts to counsel individuals struggling to quit tobacco continued and she presented “No Tobacco” education to over 860 fourth grade students.

Breast Cancer Nurse Navigator, Sheila Hermesmeyer, RN, BSN, OCN, worked with the Blessing Breast Center, Dr. Raymond Smith, and local primary care providers to introduce a new breast cancer risk assessment program. The program inputs demographic, health history, and family history of breast cancer provided by the patients into a computer program that generates a risk score. This score helps the woman and her healthcare provider determine the best screening program specific to their risk factors.

In the interest of providing holistic care, the Cancer Center also worked with the local YMCA to introduce the “Strength for Survivors” exercise program to the community. The Blessing Foundation also started to sponsor gym membership and personal training for interested patients that show a financial need. Also, oncology social worker Claudia Lasys, MSW, LCSW, OSW-C founded a peer-to-peer support group page on Facebook. While the page isn’t sponsored by Blessing Hospital or the Cancer Center, it offers patients a convenient place to connect online and support each other through the journey.

Besides these accomplishments, we celebrated the careers of Dr. Young Yu, Radiation Oncologist, and Dr. William Dougherty, Urologist. We also wish Dr. Katherine Arrambide, Medical Oncologist, the very best on her new opportunity in Oklahoma. Their impact on cancer care in this region has been great and we appreciate their years of dedicated service to our patients. We are excited to welcome Dr. Robert Johnson, Radiation Oncologist and Dr. Vitor Pastorini, Hematologist and Medical Oncologist to the community and the Blessing Cancer Center.

Our community is fortunate to have a team of dedicated oncologists, but also physicians in various specialties that make up our multi-team and physician subcommittee. These physicians are continuous champions for advancement of cancer care in our community.

As you will read in the following pages of this report, 2016 was a true reflection of our mission and a testament to the dedication of our team. We are proud to highlight their work and demonstrate our commitment to our patients and community at large.
BACK ROW, LEFT TO RIGHT: Carla Smith, Stephanie Willey, Ashley Janssen, Emily McCaughey, Rosie Scott, Sarah Pruett

FRONT ROW, LEFT TO RIGHT: Vera Bickhaus, Cathy Brogdon, Jennifer Micho, Claudia Lasys

NOT PICTURED: Lori Wilkey

LEFT TO RIGHT: Rosie (Scott) Baskett, Cindy Hoewing, Carla Smith, Mary Harris, Judy Losch, Ashley Janssen, Kaitlyn Beth, Lenora Hennen
Following his residency, Dr. Yu was in practice at Henry Ford Health System in Detroit. It was a colleague at Henry Ford that Dr. Yu says brought him “accidentally to Quincy.” A medical oncology fellow was rotating through Dr. Yu’s department. This physician planned to bring oncology care to Quincy and wanted a radiation oncologist in town with which to work. Though Dr. Yu was considering a more academic position in his field, he was attracted to Quincy and decided to open his practice here.

“At that time, internal medicine doctors were giving out some chemo treatment. Radiation oncology was a side job for radiologists,” remembers Dr. Yu. “We brought specialized cancer care to Quincy.” The development of the oncology specialties came with advances in treatments and technology. “We went from plain X-ray to CT scan, 3D, MRI,” said Dr. Yu. “Now we use PET scan; an important move in oncology.”

Dr. Yu has been instrumental in introducing numerous advances to the region. Most recently, the Radiation Oncology Department at the Blessing Cancer Center added a new linear accelerator, TruBeam STx. The technology allows the team to treat tumors with greater precision and speed to deliver higher doses of radiation with shorter treatment times.

In addition to the technological advances Dr. Yu has overseen, he’s very proud of the team assembled in the Radiation Therapy Department. In addition to himself, the care team includes Dr. Mark Khil, a board-certified Radiation oncologist; a board-certified PhD physicist; certified dosimetrists; and certified radiation therapists. Each member of the team works full-time at the Blessing Cancer Center. No other provider in the Tri-State area offers a full-time radiation therapy team that includes these specialties.

Dr. Yu is looking forward to spending time with his family in retirement. His son and daughter, both raised in Quincy, now live in Seattle and San Diego. He and his wife plan to spend time on the west coast with their children and grandchildren.

The Blessing Cancer Center Radiation Therapy Department will be under the leadership of Dr. Mark Khil who is stepping in as Medical Director. In January 2017, Dr. Rob Johnson, Radiation Oncologist will join him.
FRONT ROW, LEFT TO RIGHT: Michelle Schafer, Valerie Satterthwaite, Katie Karhlik, Dr. Robert Johnson, Dr. Mark Khil, Dr. Haifeng Tu, Lori Wilkey, Deanna Marcionetti, Lori Flesner, Carol Akers

SECOND ROW, LEFT TO RIGHT: Pamlah Teel, Kathy Rossminer, Gina Eickelschulte, Stacey Brod, Chad Powell, Megan Hale, Sara Heinecke, Wendy Hamilton

Joining Blessing Hospital in January 2017

Robert C. Johnson, MD,
Radiation Oncologist

Board Certification: American Board of Radiology - Radiation Oncology
Medical Education: University of Kansas, School of Medicine
Internship: University of Kansas, School of Medicine
Residency: University of Kansas, Department of Radiation Oncology
STANDARD 4.6: MONITORING COMPLIANCE WITH EVIDENCE-BASED GUIDELINES
MARK KHIL, MD, RADIATION ONCOLOGY

Each year, a physician member of the cancer committee performs a study to assess whether patients within the program are evaluated and treated according to evidence-based national treatment guidelines* (NCCN). Study results are presented to the cancer committee and documented in cancer committee minutes.

GOAL: Based on National Comprehensive Cancer Network (NCCN) guidelines for 2014, the goal is to compare treatment for prostate cancer in low, intermediate, and high risk groups.

CRITERIA: This is a report reviewing 2014 prostate cancer patients diagnosed and/or treated at Blessing Hospital. In order to study a more true reflection of prostate cancer patients in our community, it was voted by the cancer committee to include patients diagnosed at Quincy Medical Group who did receive treatment at Blessing Hospital. Thirty-six patients at Blessing Hospital and fifteen patients at Quincy Medical Group were assessed to see if they received treatment as recommended per NCCN guidelines.

Each patient was placed in very low, low, intermediate, high or very high risk group based on the following criteria:

**VERY LOW RISK:** Clinical Stage T1c, Gleason score <6, (treatment options depending if >20 ye, 10-20 ye or <10 ye); PSA <10 ng/ml; fewer than 3 prostate biopsy cores positive, <50% cancer in any core; PSA density <0.15 ng/mL/g.

**LOW RISK:** Clinical stage T1-T2a; Gleason score <6, (treatment options depending if >10 ye or <10 ye); PSA <10 ng/mL

**INTERMEDIATE RISK:** Clinical stage T2b-T2c or Gleason score 7 or (treatment options depending if >10 ym or <10 y); PSA 10-20 ng/mL.

**HIGH RISK:** Clinical stage T3a or Gleason score 8-10 or PSA >20 mg/mL.

**VERY HIGH RISK:** Clinical stage T3b-T4; Metastatic: Any T, N1, or T, Any N, M1.

**CONDUCTION OF STUDY:** As recommended per NCCN guidelines, very low and low risk group treatment options are active surveillance, external beam radiation therapy or brachytherapy, or radical prostatectomy plus/minus pelvic lymph node dissection if predicted probability of lymph node metastasis >2%. Based on clinical criteria, 8 patients opted for active surveillance; 4 patients were treated with prostatectomy without pelvic lymph node dissection; 1 patient had brachytherapy (interstitial seed implantation); 2 patients were treated with external beam radiation therapy.

Intermediate risk group NCCN treatment guidelines recommend radical prostatectomy and pelvic lymph node dissection if predicted probability of lymph node metastasis >2%, external beam radiation therapy +/- adjuvant hormone (4-6 months) +/- brachytherapy or brachytherapy alone. Based on clinical criteria, 3 patients were treated with radical prostatectomy; 3 patients were treated radical prostatectomy with pelvic lymph node dissection; 5 patients were treated with neoadjuvant hormone followed by external beam radiation therapy; 6 patients were treated with neoadjuvant hormone, external beam radiation therapy, and adjuvant hormone.
STANDARD 4.6: MONITORING COMPLIANCE WITH EVIDENCE-BASED GUIDELINES (CONTINUED)
MARK KHIL, MD,
RADIATION ONCOLOGY

For high risk group, NCCN guidelines recommend external beam radiation plus hormone or external beam radiation plus brachytherapy plus hormone or radical prostatectomy with pelvic lymph node dissection. Based on clinical criteria, 9 patients were treated with neoadjuvant hormone, external beam radiation therapy, followed by adjuvant hormone; 1 patient was treated with neoadjuvant hormone and radical prostatectomy with pelvic lymph node dissection.

NCCN guideline recommendations are the same for high risk with the additional option of hormone treatment alone in select patients. Based on clinical criteria, 1 patient was treated with neoadjuvant hormone, external beam radiation therapy and adjuvant hormone; 3 patients were treated with neoadjuvant hormone and external beam radiation therapy to a metastatic site; 3 patients were treated with hormone only.

OUTCOME OF STUDY: 51 / 51 = 100% prostate cancer patients diagnosed and/or treated at Blessing Hospital and Quincy Medical Group were treated in 2014 as recommended per NCCN guidelines.

ACTION PLAN: Study to be reported at the Quarterly Cancer Committee Meeting, October 6, 2016. The data criteria above will be collected for newly diagnosed cancer patients for five years to monitor ongoing treatment. Post-operative stage will also be included to look at stage in a neoadjuvant setting. These patients will be assessed for future cancer committee quality studies.

Quincy Medical Group’s Medical Hematology/Oncology team is dedicated to the care of patients with cancer and blood disorders. Our highly specialized care takes a multidisciplinary approach and focuses on quality of life for those we serve.

The medical oncology team consists of 5 board certified hematologist/oncologist and 2 certified nurse practitioners. Our team consists of approximately 40 other health care specialists including oncology certified registered nurses, licensed practical nurses, certified medical assistants, financial specialists, pharmacists, pharmacy technicians, patient excellence representatives, medical laboratory technicians, just to name a few. We have a full-time oral oncolytic nurse who specializes in assisting the providers with patients receiving oral drug therapy ensuring compliance with oral therapy is achieved.

Medical Oncology has an 18-chair infusion suite providing chemotherapy, biotherapy, immunotherapy, hormonal therapy, targeted therapy and a variety of infusion services. Medical Oncology also offers participation in clinical trials through Alliance for Clinical Trials in Oncology, sponsored by Washington University School of Medicine. This affiliation provides access to a full menu of new trials and opportunities for our patients. We believe in engaging patients with a survivorship program aimed at transitioning a cancer survivor from active treatment to long term survivor.

Quincy Medical Group Medical Oncology has been recognized by the Quality Oncology Practice Initiative (QOPI) Certification Program, an affiliate of the American Society of Clinical Oncology (ASCO). The QOPI Certification Program provides a three-year certification for outpatient hematology-oncology practices that meet the highest standards for quality cancer care. QOPI is a voluntary, self-assessment and improvement program launched by ASCO in 2006 to help hematology oncology and medical oncology practices assess the quality of the care they provide to patients. This certification for outpatient oncology practices is the first program of its kind for oncology in the United States. Oncologists can achieve certification by meeting the highest standards of care. The QOPI seal designates those practices that not only scored high on the key QOPI quality measures, but meet rigorous chemotherapy safety standards established by ASCO and the Oncology Nursing Society (ONC). The QOPI Certification Program is a project of ASCO’s Institute for Quality, an ASCO affiliate dedicated to innovative quality improvement programs. For more information, please visit: Http://qopi.asco.org/certification.html

Medical Oncology is committed to providing the best care for every patient every time. We provide personalized, compassionate care right here in Quincy at the Blessing Cancer Center and throughout the tri-state area at six different outreach sites. Our outreach sites in Keokuk, IA; Hannibal, MO; Memphis, MO, Pinkneyville, IL; Pittsfield, IL; and Rushville. IL. Additionally, medical oncology has a relationship with Siteman Cancer Center at Barnes Jewish Hospital and Washington University School of Medicine in St. Louis, MO. This direct relationship allows for ease in referrals for services not offered here such as genetic counseling and bone marrow transplant services.
Quincy Medical Group Medical Oncology Team

**Row 1:** (Left to Right) Emily Wilhoit, Mary Kay McNally, Schanan Kivett, Candy McKenzie, Christina Allen, Kassie Huls, Gerri Black, Michelle Scott

**Row 2:** (Left to Right) Judy Sparrow, Jennifer Carpenter, Beth Schullian, Lisa Harland, Amanda Fleer, Kim Lenz, Patti Alberty, Elexis Carpenter, Leslie Rees, Brenda Blickhan

**Row 3:** (Left to Right) Miranda Ramsey, Penny Hoener, Kelly Sorrill, Sarah Nolinwinkler, Deb Gable, Janelle Babcock, Wendy Buckley, Susie Grist, Holly Meyer, Lisa Knuffman, Diane Gerards

**Back Row:** (Left to Right) Dana Knox, Donna Grapman, Sarah Kramer, Kiley McGlauchlen, Lauren Kemner, Pat Owen, Lindey Spaulding
The Blessing Hospital Cancer Registry has been in existence since 1965 and the Cancer Program at Blessing Hospital first received its accreditation April 1, 1966, through the American College of Surgeons (ACoS) Commission on Cancer (CoC). Blessing Hospital Cancer Program renewed its accreditation in January of 2015 and will be up for renewal in October of 2017. The Multidisciplinary CoC was established by the American College of Surgeons (ACoS) in 1922. The CoC is a consortium of professional organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, prevention, research, education, and the monitoring of comprehensive quality care.

Blessing Hospital Cancer Registry is currently employed by three full-time cancer registrars. Registrars are data management experts who maintain statistics on patients diagnosed and/or treated with cancer and certain blood disorders at Blessing Hospital. The registry also is required to report benign brain tumors. Registrars analyze statistics and perform studies requested by physicians, administrators, and health care planners to provide support for cancer program development. Blessing's cancer registrars are members of the National Cancer Registrars Association and Cancer Registrars of Illinois and are required by the CoC to be a Certified Tumor Registrar (CTR) or become a CTR three years after the date of hire. In order to maintain CTR status, registrars comply by meeting CoC standards for continuing education.

Approved by CoC, the reportable date for data collection is January 1, 1995. This ensures better accuracy for reporting statistical data. It is mandatory by law to report cancer data to the Illinois State Cancer Registry. Other entities extract statistical information for public reporting which include, but are not limited to National Cancer Data Base (NCDB), American Cancer Society (ACS), National Cancer Institute (NCI,) SEER Program (Surveillance, Epidemiology, and End Results), and Cancer of Disease Control (CDC).

The registry maintains confidential data on patient identification, cancer identification, stage of disease at initial diagnosis, first course of treatment, first recurrence, subsequent treatment for recurrence or progression and yearly follow-up of our patients. The registry successfully maintains a follow-up rate of over 95%. Submitting accurate follow-up information is crucial in order to provide accurate statistics for survival rates. Documenting accurate information on first recurrence after initial treatment is a way of tracking standard treatment modalities.

The registry is comprised of 13,224 analytic/non-analytic cases from 1995-2015. Of this number, 3,983 patients are currently followed on an annual basis. In 2015 there were 623 cases in total added to the Cancer Registry Database System, 613 analytic and 10 non-analytic cases. This report serves as our 2016 Annual Report based on 2015 data.

The Cancer Registry would like to express our sincere appreciation to the Cancer Committee for their leadership and support to the Cancer Registry. As Cancer Registrars, we are proud to be a part of the team made up of physicians, nurses, administration, community outreach and all staff of the Cancer Program who contribute to the diagnosis, treatment and care of our patients.
Courtney is an active participant on the Cancer Committee and is our region’s representative from the American Cancer Society. Courtney serves as ACS staff support for Commission on Cancer (CoC) Programs and has been very helpful in bringing forth resources in the form of e-mail attachments and webinars to share among committee members and health care professionals. Courtney also shares information to help with the new 2015 CoC Standards; Standard 3.1 - Patient Navigation Process, Standard 3.2 - Psychosocial Distress Screening, and Standard 3.3 – Survivorship Care Plan.

Some of these resources include: “Implementing Survivor Care Plans CoC-accredited Cancer Programs” – Webinar; Colorectal Cancer Survivorship guidelines; Cancer Survivorship E-Learning Series for Primary Care Providers; Collaborative Action Plan Guide 2012: Ensuring Patient-Centered Care; ACS Partnership Report, Support of CoC Standards and Eligibility Requirements. Courtney is committed in the fight of colorectal cancer, thus having Blessing Hospital, Quincy Medical Group, and SIU Family Practice sign the 80% by 2018 colorectal cancer nationwide screening initiative. She works closely with the community outreach coordinator, Stephanie Willey, and implementing the Freshstart program on campus and has a strong working relationship with current Cancer Liaison Physician (CLP), Dr. Harsha Polavarapu, whom is instrumental in the 80% by 2018 colorectal screening initiatives. Courtney is dedicated in providing and ensuring quality services provided by ACS to our patients and staff and has proven in her efforts and commitment to be a valuable Cancer Committee team member.

CONTINUUM OF CARE STANDARDS: 3.1: Patient Navigation Process
Blessing Hospital and Quincy Medical Group direct patient referrals to the American Cancer Society.

Program Management Standards: 1.8: Monitoring of Prevention, Screening, and Outreach Activities. - ACS Support Program – Look Good...Feel Better: A free program for women, designed to address the appearance-related side effects of cancer treatment. In 2016, 19 women have participated in the Look Good...Feel Better program. Sessions take place bi-monthly at the Blessing Cancer Center.

Patient Outcomes Standards: 4.1: Cancer Prevention Program and 4.2 Cancer Screening Programs- The Commission on Cancer 80% by 2018 Initiative
The Commission on Cancer (CoC) and the ACS have worked together to improve the quality of cancer care since the founding of both organizations in 1913. As member organization of the National Colorectal Cancer Roundtable (NCCRT), the Commission and the Society are rallying around the Roundtable’s goal of increasing colorectal screening rates to 80% by 2018. The CoC encourages accredited programs to visit the NCCRT website http://nccrt.org for information and resources that will help guide the planning process for an effective colorectal screening program based on need. We also encourage you to join the more than 1000 organizations who have committed to increasing survival and reducing mortality from colorectal cancer by signing the 80% by 2018 pledge.
COMPREHENSIVE COMMUNITY CANCER PROGRAM (CCCP)
The facility accession of 500 or more newly diagnosed cancer cases each year. The facility provides a full range of diagnostic and treatment services either on-site or by referral.

COMMISSION ON CANCER MISSION
The Commission on Cancer (CoC) is a consortium of professional organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, which promotes cancer prevention, research, education, and monitoring of comprehensive quality care.

ANALYTIC: Patients Diagnosed and/or Treated at Blessing Hospital
NON-ANALYTIC: Patients Diagnosed and Treated Elsewhere During First Course of Treatment and Presented to Blessing for Subsequent Treatment. (First course of treatment is the initial plan of care which is administered after diagnoses of cancer is established).

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>RACE</th>
<th>SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE</td>
<td>FEMALE</td>
</tr>
<tr>
<td>Analytic Cases</td>
<td>308</td>
<td>305</td>
</tr>
<tr>
<td>Non-Analytic Cases</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cases</td>
<td>316</td>
<td>307</td>
</tr>
</tbody>
</table>

- The top five sites diagnosed and/or treated at Blessing Hospital in 2015 are breast, lung, prostate, colon, and bladder totaling 382 or 61.3% out of 623 cases.
- Breast was the most prevalent cancer diagnosed in 2015 with a total of 118 cases. Out of 118 cases, 115 (97.4%) were female and 3 (2.6%) were male. When compared to National, Blessing is 4.78% higher at 18.94% Vs. 14.16%, respectively.
- Lung is the second most prevalent cancer diagnosed at Blessing in 2015 with 96 cases or 15.40%. Fifty-seven (59.4%) were male and 39 (40.6%) were female. Blessing and ACS/National closely compare with Blessing only 2.02% higher than National (13.38%).
- Third top site is prostate with 59 (9.57%) new cases diagnosed and/or treated at Blessing. ACS/National is 3.78% higher for prostate cancer at 13.35%.
- Colon is the fourth top site diagnosed with 55 (8.82%) cases. Blessing is 3.19% higher for colon cancer in 2015 with National at 5.63%.
- Bladder is the fifth most frequent site at Blessing with 54 cases or 8.75%. ASC/National is 4.28% lower than Blessing with a percentage of 4.47%.
- At Blessing, there were 30 cases diagnosed/and or treated for hematopoietic diseases (lymphoma and leukemia - 4.8%). Five cases were leukemia and 25 were lymphoma. National closely compared with a total percentage of 5.03% in 2015
<table>
<thead>
<tr>
<th>SITE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
<th>BH % OF TOTAL CASES*</th>
<th>ACS/NTL EST. # OF CASES**</th>
<th>ACS/NTL EST. % OF CASES**</th>
</tr>
</thead>
<tbody>
<tr>
<td>BREAST</td>
<td>3</td>
<td>115</td>
<td>118</td>
<td>18.94%</td>
<td>234,190</td>
<td>14.16%</td>
</tr>
<tr>
<td>LUNG</td>
<td>57</td>
<td>39</td>
<td>96</td>
<td>15.4%</td>
<td>221,200</td>
<td>13.38%</td>
</tr>
<tr>
<td>PROSTATE</td>
<td>59</td>
<td>0</td>
<td>59</td>
<td>9.57%</td>
<td>220,800</td>
<td>13.35%</td>
</tr>
<tr>
<td>COLON</td>
<td>21</td>
<td>34</td>
<td>55</td>
<td>8.82%</td>
<td>93,090</td>
<td>5.63%</td>
</tr>
<tr>
<td>BLADDER</td>
<td>41</td>
<td>13</td>
<td>54</td>
<td>8.75%</td>
<td>74,000</td>
<td>4.47%</td>
</tr>
<tr>
<td>MELANOMA</td>
<td>26</td>
<td>15</td>
<td>41</td>
<td>6.57%</td>
<td>73,870</td>
<td>4.46%</td>
</tr>
<tr>
<td>LYMOPHMA</td>
<td>17</td>
<td>8</td>
<td>25</td>
<td>4.0%</td>
<td>80,900</td>
<td>4.89%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>316</td>
<td>307</td>
<td>623</td>
<td></td>
<td>1,652,770</td>
<td></td>
</tr>
</tbody>
</table>

*Percentage of Total Cases Entered Into Blessing Hospital Cancer Registry, 2015.

**Percentage of Estimated New Cancer Cases Nationwide According to American Cancer Society Facts & Figures, 2015. (Comparisons of ACS Estimated Facts & Figures has been approved by the Cancer Committee).
<table>
<thead>
<tr>
<th>PRIMARY SITE</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Cavity, Pharynx, Nasal Cavity, Eye</td>
<td>19</td>
<td>7</td>
<td>15</td>
<td>12</td>
<td>20</td>
<td>73 / 2.00%</td>
</tr>
<tr>
<td>Esophagus</td>
<td>3</td>
<td>10</td>
<td>12</td>
<td>7</td>
<td>7</td>
<td>39 / 1.00%</td>
</tr>
<tr>
<td>Stomach</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>23 / 0.80%</td>
</tr>
<tr>
<td>Small Intestine, Other Digestive Organs</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>21 / 0.70%</td>
</tr>
<tr>
<td>Colon</td>
<td>42</td>
<td>37</td>
<td>46</td>
<td>46</td>
<td>57</td>
<td>228 / 7.80%</td>
</tr>
<tr>
<td>Rectum</td>
<td>18</td>
<td>13</td>
<td>23</td>
<td>13</td>
<td>22</td>
<td>89 / 3.00%</td>
</tr>
<tr>
<td>Anus, Anal Canal &amp; Anorectum</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>22 / 0.80%</td>
</tr>
<tr>
<td>Liver &amp; Intrahepatic Bile Duct</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>20 / 0.70%</td>
</tr>
<tr>
<td>Gallbladder, Other Biliary</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>17 / 0.60%</td>
</tr>
<tr>
<td>Pancreas</td>
<td>11</td>
<td>7</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>48 / 1.60%</td>
</tr>
<tr>
<td>Peritoneum, Omentum &amp; Mesentery</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3 / 0.10%</td>
</tr>
<tr>
<td>Larynx</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>32 / 1.10%</td>
</tr>
<tr>
<td>Lung &amp; Bronchus – Other Respiratory</td>
<td>125</td>
<td>91</td>
<td>107</td>
<td>120</td>
<td>100</td>
<td>543 / 18.00%</td>
</tr>
<tr>
<td>Bones &amp; Joints</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>5 / 0.20%</td>
</tr>
<tr>
<td>Soft Tissue (Including Heart)</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>15 / 0.50%</td>
</tr>
<tr>
<td>Melanoma – Skin</td>
<td>30</td>
<td>37</td>
<td>32</td>
<td>39</td>
<td>41</td>
<td>179 / 6.00%</td>
</tr>
<tr>
<td>Breast</td>
<td>92</td>
<td>96</td>
<td>106</td>
<td>118</td>
<td>114</td>
<td>526 / 19.00%</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>11 / 0.40%</td>
</tr>
<tr>
<td>Corpus &amp; Uterus, NOS</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>51 / 2.70%</td>
</tr>
<tr>
<td>Ovary</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>23 / 0.80%</td>
</tr>
<tr>
<td>Vagina, Vulva, Female Genital Organs</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>7</td>
<td>20 / 0.70%</td>
</tr>
<tr>
<td>Prostate</td>
<td>74</td>
<td>35</td>
<td>47</td>
<td>47</td>
<td>62</td>
<td>265 / 9.00%</td>
</tr>
<tr>
<td>Testis</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>17 / 0.60%</td>
</tr>
<tr>
<td>Penis</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3 / 0.10%</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>40</td>
<td>38</td>
<td>29</td>
<td>32</td>
<td>53</td>
<td>192 / 6.60%</td>
</tr>
<tr>
<td>Kidney &amp; Renal Pelvis</td>
<td>16</td>
<td>16</td>
<td>19</td>
<td>14</td>
<td>19</td>
<td>84 / 2.90%</td>
</tr>
<tr>
<td>Ureter, Other Urinary</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>17 / 0.60%</td>
</tr>
<tr>
<td>Brain, Other -Nervous System</td>
<td>23</td>
<td>21</td>
<td>19</td>
<td>15</td>
<td>12</td>
<td>90 / 3.00%</td>
</tr>
<tr>
<td>Thyroid – Other Endocrine - Thymus</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>44 / 1.50%</td>
</tr>
<tr>
<td>Hodgkin, Non-Hodgkin Lymphoma</td>
<td>27</td>
<td>17</td>
<td>21</td>
<td>23</td>
<td>24</td>
<td>112 / 3.80%</td>
</tr>
<tr>
<td>Myeloma</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>24 / 0.80%</td>
</tr>
<tr>
<td>Leukemia</td>
<td>11</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>31 / 1.10%</td>
</tr>
<tr>
<td>Mesothelioma</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4 / 0.10%</td>
</tr>
<tr>
<td>Unknown Primary / Miscellaneous</td>
<td>16</td>
<td>13</td>
<td>4</td>
<td>16</td>
<td>10</td>
<td>59 / 2.00%</td>
</tr>
<tr>
<td>TOTALS</td>
<td>627</td>
<td>522</td>
<td>565</td>
<td>582</td>
<td>634</td>
<td>2930 / 100%</td>
</tr>
</tbody>
</table>

Registry numbers may not reflect past annual report totals due to additional cases potentially added to database.
BLESSING HOSPITAL - PRIMARY SITE 5 YEAR TRENDS

MELANOMA TREND

COLORECTAL TRENDS

UROLOGY TREND

(PROSTATE, MALE GENITALIA, BLADDER, KIDNEY, URETER)
Cancer Registry data entry for Class of Case distinguished cases that are usually included in a hospital's treatment and survival statistics (codes 00-22) from those that are not (codes 30-38). For a hospital registry, Class of Case divides cases into two groups. Analytic cases (codes 00-22) are those that are required by Commission on Cancer (COC) to be abstracted because of the program’s primary responsibility in managing the cancer. Analytic cases are grouped according to the location of diagnosis and treatment. Non-analytic cases (codes 30-38) may be abstracted by the facility to meet central registry requirements or because of a request by the facility's cancer program. Non-analytic cases are grouped according to the reason a patient who received care at the facility is non-analytic, or the reason a patient who never received care at the facility may have been abstracted.

**CLASS 00** Initial diagnosis at the reporting facility AND all treatment or a decision not to treat was done elsewhere.

**CLASS 10** Initial diagnosis at the reporting facility or in an office of a physician with admitting privileges AND part or all of first course treatment or a decision not to treat was at the reporting facility, NOS.

**CLASS 13** Initial diagnosis at the reporting facility AND part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere.

**CLASS 20** Initial diagnosis elsewhere AND all or part of first course treatment was done at the reporting facility, NOS.

**CLASS 21** Initial diagnosis elsewhere AND part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere.

**CLASS 30-38** Non-Analytic: Diagnosis and first course of treatment elsewhere, and patient presented to reporting facility for subsequent treatment for progression or recurrence of disease.
## COUNTY AT DIAGNOSIS
### MALE VS FEMALE 2015

### TOP THREE COUNTIES OF ILLINOIS 2015
**ADAMS, PIKE, AND HANCOCK**

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAMS CO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quincy</td>
<td>125</td>
<td>139</td>
</tr>
<tr>
<td>Payson</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Camp Point</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Mendon</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Liberty</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Clayton</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Ursa</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Fowler</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Plainville</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Loraine</td>
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<td>2</td>
</tr>
<tr>
<td>Coatsburg</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Golden</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>LaPrairie</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Paloma</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>164</strong></td>
<td><strong>180</strong></td>
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<table>
<thead>
<tr>
<th>PIKE CO.</th>
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<th>FEMALE</th>
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</thead>
<tbody>
<tr>
<td>Pittsfield</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Griggsville</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Barry</td>
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</tr>
<tr>
<td>Baylis</td>
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<td>2</td>
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<tr>
<td>Pleasant Hill</td>
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</tr>
<tr>
<td>Kinderhook</td>
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<td>2</td>
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<td>Pearl</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Rockport</td>
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<td>2</td>
</tr>
<tr>
<td>New Canton</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Perry</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hull</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>33</strong></td>
<td><strong>29</strong></td>
</tr>
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</table>

<table>
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<tr>
<th>HANCOCK CO.</th>
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<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warsaw</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Carthage</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Augusta</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Hamilton</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Bowen</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nauvoo</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Plymouth</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Basco</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Dallas City</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>N iota</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sutter</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>LaHarpe</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>28</strong></td>
<td></td>
</tr>
</tbody>
</table>

### MISSOURI COUNTIES

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marion</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>Lewis</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Clark</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Scotland</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Ralls</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Shelby</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Knox</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pike</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>64</strong></td>
<td><strong>51</strong></td>
</tr>
</tbody>
</table>

### IOWA COUNTIES:
Lee: 3 MALES AND 2 FEMALES.

There was one patient (MALE) from Cambridge, MA.
Transportation needs are identified as a barrier to care and the Blessing Foundation donated over $23,000.00 in 2015 to assist 325 people. ($9,475 was used specifically for 146 cancer patients). This process will continue throughout 2016.
Colorectal, Lung, Invasive Breast Cancer, Melanoma, and Bladder. Figures include invasive cancer with the exception of urinary bladder (includes in situ) and breast cancer in situ as a separate category. Incidence counts are five-year totals.

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>ADAMS COUNTY</th>
<th>HANCOCK COUNTY</th>
<th>PIKE COUNTY</th>
<th>BROWN COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BLESSING</td>
<td>ILLINOIS</td>
<td>BLESSING</td>
<td>ILLINOIS</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>MALE/FEMALE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLON AND</td>
<td>105</td>
<td>91</td>
<td>109</td>
<td>106</td>
</tr>
<tr>
<td>RECTUM</td>
<td>12</td>
<td>36</td>
<td>12</td>
<td>32</td>
</tr>
<tr>
<td>LUNG</td>
<td>141</td>
<td>169</td>
<td>184</td>
<td>155</td>
</tr>
<tr>
<td>BREAST INVASIVE</td>
<td>4</td>
<td>254</td>
<td>4</td>
<td>261</td>
</tr>
<tr>
<td>MELANOMA</td>
<td>57</td>
<td>32</td>
<td>61</td>
<td>32</td>
</tr>
<tr>
<td>BLADDER</td>
<td>82</td>
<td>21</td>
<td>90</td>
<td>24</td>
</tr>
<tr>
<td>TOTALS</td>
<td>245</td>
<td>398</td>
<td>264</td>
<td>423</td>
</tr>
</tbody>
</table>

![Blessing Hospital Data Submission Percentage](image_url)

Illinois State Cancer Registry

Invasive Colorectal, Lung, Breast, Melanoma, Bladder (includes in situ) Cancer 2009-2013

- **Adams County**: 93.5%
- **Hancock County**: 46.1%
- **Pike County**: 54.0%
- **Brown County**: 51.1%
ILLINOIS AND ADAMS COUNTY
ADULT SMOKING RATES

ILLINOIS PERCENTAGE OF SMOKERS
ILLINOIS BY COUNTY 2007-2009

ILLINOIS PERCENT 18.8%
- Significantly higher than state rate
- Significantly lower than state rate
- No difference
- Sample not large enough to generate

The community outreach coordinator monitors the effectiveness of community outreach activities on an annual basis. The activities and findings are documented in a community outreach activity summary that is presented to the cancer committee annually.

**BLESSING CANCER CENTER SCREENING AND PREVENTATIVE PROGRAMS**

Colorectal Screenings (FOBT Kits), Skin Cancer Screening, No Tobacco Education Program, Great American Smokeout (Tobacco Cessation Program), and Oral Cancer Screening

### 2016 Blessing Cancer Center Colorectal Cancer Screenings (FOBT Kits)

<table>
<thead>
<tr>
<th>FOBT Colorectal Screening Date</th>
<th>Screening Event</th>
<th>Location</th>
<th># of Kits distributed</th>
<th>Kits returned &amp; processed</th>
<th># of Negative results</th>
<th># of Positive for blood</th>
<th># Not resulted - unable to process</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/17/2016</td>
<td>Focus on the Farmer</td>
<td>Carthage, IL</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/14/2016</td>
<td>Lewis County Health Dept.</td>
<td>Monticello, MO</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>03/15/2016</td>
<td>Senior Family Resource Center</td>
<td>Quincy, IL</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/16/2016</td>
<td>Clark County Health Dept.</td>
<td>Kahoka, MO</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/17/2016</td>
<td>Palmyra Clinic</td>
<td>Palmyra, MO</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/18/2016</td>
<td>Hamilton-Warsaw Clinic</td>
<td>Warsaw, IL</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/22/2016</td>
<td>Blessing Cancer Center AM</td>
<td>Quincy, IL</td>
<td>21</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>03/22/2016</td>
<td>Blessing Cancer Center PM</td>
<td>Quincy, IL</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td></td>
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<tr>
<td>03/28/2016</td>
<td>YMCA</td>
<td>Mt. Sterling, IL</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
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<tr>
<td>03/29/2016</td>
<td>East Adams Clinic</td>
<td>Golden, IL</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td></td>
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<tr>
<td>03/31/2016</td>
<td>Illini Hospital</td>
<td>Pittsfield, IL</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>03/31/2016</td>
<td>Blessing Hospital - picked up kits during March</td>
<td>Quincy, IL</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**2016 PERCENTAGES**

<table>
<thead>
<tr>
<th></th>
<th>63%</th>
<th>94%</th>
<th>4%</th>
<th>2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 TOTALS</td>
<td>76</td>
<td>48</td>
<td>45</td>
<td>2</td>
</tr>
<tr>
<td>2015 TOTALS</td>
<td>149</td>
<td>92</td>
<td>90</td>
<td>2</td>
</tr>
</tbody>
</table>

All participants who had specimens reporting blood in the stool received a certified letter and three phone calls in follow up to the FOBT screening.
STANDARD 1.8 SCREENING PROGRAMS
COMMUNITY OUTREACH EDUCATOR REPORT
STEPHANIE WILLEY, RN, BSN

MELANOMA SKIN CANCER SCREENING
All participants with suspicious results received a certified letter in follow-up to the screening. No melanoma was diagnosed.

During 2016 the Blessing Cancer Center sponsored one free community skin cancer screening. A total of 39 participants were screened, compared to 131 participants in 2015.

<table>
<thead>
<tr>
<th>Diagnosis of melanoma</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspicious</td>
<td>7</td>
</tr>
</tbody>
</table>

Total Screened | 39 |
Appointments   | 36 |
Walk-Ins       | 3  |
No Shows       | 13 |

BLESSING CANCER CENTER ORAL CANCER SCREENING
November 17, 2016- The Great American Smoke Out

PARTICIPANTS: 13 (All with negative results)
12 with Negative results
1 with Suspicious results
12 had appointments
1 walk-in
3 cancelled/no show
0 smoking cessation participants

We had 13 participants in 2016 compared to 25 participants in 2015.

2016 No Tobacco Education
Adams County
862 fourth grade students in Adams County signed the “No Tobacco Pledge” in November 2016.
Sheila Hermesmeyer, Breast Oncology Navigator, has been a registered nurse at Blessing for 37 years and currently works with breast cancer patients by going to appointments to take notes and help explain what is happening and treatment options. In 2016, Sheila stated 70 breast cancer patients were navigated. She also helps direct patients to resources they may need. “Sometimes when the doctor starts talking, they only hear the first few words and they don’t hear much more,” she said. “It’s such a strange, scary topic anyway.”

NEW PROGRAM HOPES TO DETECT BREAST CANCER EARLY

Risk Assessment: Analysis helps women live healthier, know if they should be tested frequently. The goal of the Risk Assessment Program is to detect cancer earlier. Sheila said, “Any early detection, you have a better rate of cure, maybe less-invasive surgery or maybe less treatment.”

As part of the Risk Assessment Program, information is provided so patients can be aware of the risk factors that lead to developing breast cancer and how to identify the signs and symptoms of the disease.

Early detection is key when treating all type of cancer, and a new program started by the Blessing Breast Center hopes to improve women’s chances of detection breast cancer early for those who are at a higher risk. The Risk Assessment Program rolled out at the center during the last year. Sheila said when patients come in for a mammogram, the radiology technologist will ask them a series of questions about their demographic, health history, and family history of breast cancer. “They enter that information into a computer program that has risk models in it, and it generates a risk score. If a woman is identified being at a higher than average risk, they are provided with information on the breast cancer Risk Assessment Program”.

The information describes the factors that are likely to cause breast cancer to develop, as well as actions patients can take to lower their risk. The patients’ physicians are notified of the risk factors in order to determine what steps should be taken, which vary from lifestyle modification to a prophylactic mastectomy. The frequency of breast cancer screening could also be increased. “Maybe every six months they would do something, such as a breast MRI or a mammogram,” Sheila stated. The goal of the Risk Assessment Program is to detect cancer earlier. Sheila said, “any early detection, you have a better rate of cure, maybe less-invasive surgery or maybe less treatment.” Patients with low risk are still encouraged to have regular mammograms.

Sheila teaches MammaCare classes and in 2016, 26 women attended. These women are taught how to perform a self-breast exam. “That way they can pick up quicker any abnormality that they can bring to their doctor’s attention,” she said. Sheila also assesses patients for lymphedema to further evaluate range of motion issues. In 2016, 89 women were assessed and 3 patients were referred to rehab.

RESOURCE: A special publication by Quincy Herald-Whig, October 1, 2016, ASSESSING RISK, Breast Cancer Awareness, article by Matt Hopf, staff writer.
In 2015, a total of 96 lung cancer patients were diagnosed and/or treatment at Blessing Hospital. Lung was the second most prevalent cancer, with breast having the highest incidence.

Because of the high incidence of lung cancer in our community, a low-dose CT lung screening program was started in January/February of 2016. Pilot test began and first patient was screened. A total of 42 patients were screened in 2016.

- 16 patients with a Lung Rads score of 1 (repeat LDCT in 12 months).
- 14 patients with a Lung Rads score of 2 (repeat LDCT in 12 months).
- 9 patients with a Lung Rads score of 3 (repeat LDCT in 6 months).
- 2 patients with a Lung Rads score of 4A (2 month non-contrast CT or PET/CT now).
- 1 patients with a Lung Rads score of 4B (Recommended PET/CT or bx. This was our resected Stage I lung cancer).

Most recent data comparisons, Blessing Hospital vs. National Cancer Data Base. Although the incidence at Blessing is slightly staggered in number throughout 2004 – 2014, there still remains to be a steady number diagnosed yearly in our community. When comparing the average percentage for both non-small cell and small cell lung carcinoma, NCDB and Blessing are the same at 9.0%.
STANDARD 4.7 STUDIES OF QUALITY
COORDINATOR REPORT
HEATHER GIROUARD, PERFORMANCE EXCELLENCE

Each year, based on category, the quality improvement coordinator, under the direction of the cancer committee, develops, analyzes, and documents the required studies that measure the quality of care and outcomes for patients with cancer.

PURPOSE: The purpose of this study was to examine out-migration trends over the past four years and determine if the on-boarding of a physician with a specialized focus in colon and rectal surgery has made an impact on our patients. The study was initiated because of concerns regarding gaps in resources within our community and the need to provide high quality cancer care at our facility.

CRITERIA:
- Data two years before and two years after our colorectal surgeon was brought on board
- Patients diagnosed from August 2011 through July 2015
- All patients diagnosed with colorectal cancer
- Comparisons to the most current national benchmarks from the National Cancer Data Base (NCDB)

CONDUCTING THE STUDY: A total of 53 cases were reviewed by the cancer registry department. Date of diagnosis, class of case, procedure, surgeon, and what facility was utilized for radiation therapy or chemotherapy were all recorded. We then began to compare our data in two categories, before arrival of our colorectal surgeon, Dr. Harsha Polavarapu, and after. Dr. Polavarapu began seeing patients at Blessing Physician Services on July 12, 2013 and performed his first surgery accessioned with our facility in August of 2013.

TABLE 1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Initial diagnosis at the reporting facility and all treatment or decision not to treat was done elsewhere</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>Initial diagnosis at the reporting facility or in an office or a physician with admitting privileges and part or all of first course treatment or a decision not to treat was at the reporting facility, NOS.</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>Initial diagnosis at the reporting facility and part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Initial Diagnosis Elsewhere, Facility Involved in First Course of Treatment

| 20            | Initial diagnosis elsewhere and all or part of first course treatment was done at the reporting facility, NOS | 1             | 0             |
| 21            | Initial diagnosis elsewhere and part of first course treatment was done at the reporting facility; part of first course treatment was done elsewhere | 1             | 2             |

NOS: Not Otherwise Specified
Note: Polypectomies which are performed during colonoscopies and non-operable patients were removed from the study since those would not have a procedure documented. Non-operable patients are classified as Stage as Stage IIIB, Stage IV, or Non-Operable (Stage Unknown) due to co-morbidities.
Data from the Blessing Cancer Center Registry does indicate that a significant amount of out-migration has decreased due to the on-boarding of a colorectal specialist as indicated in Chart 1. According to Table 2, Blessing Cancer Center also began performing a more extensive list of surgical options after August 2013.
COMPARISON: Compared to the National Cancer Data Base (NCDB) of data available for 2011-2013, Blessing Cancer Center was doing better in the national average of those traveling less than 5 miles, but had opportunities in the 5-24 mile range. We anticipate new benchmarking reports for 2014-2016 will show an increase in those ranges.

ACTION PLAN: Overall assessment concludes the need to highlight gaps in resources and care services in order to curb out-migration of cancer patients in our community. Through this study we have been able to show that the resources available to our patients has a significant impact of where they seek treatment and continue to manage their care.

American College of Surgeons, NCDB Benchmark Reports 2016 National Cancer DataBase (NCDB)/Commission on Cancer (CoC) / Monday, July 18, 201
As appropriate to the cancer program category, the required percentage of patients is accrued to cancer-related clinical trials each year. The clinical trial coordinator or representative reports clinical trial participation to the cancer committee each year.

The Quincy Medical Group Research Team is dedicated to bringing state-of-the-art technology and leading edge medical treatments to our patients. By participating in clinical research, patients in the tri-state area have access to the newest drug therapies without having to travel far from home. The types of clinical trials that are conducted on site include drug interventions; procedures and observational studies to assess health outcomes. In an effort to bring the best trials to the area we joined the Alliance for Clinical Trials in Oncology as an Affiliate Member under the umbrella of Washington University School of Medicine. The Alliance for Clinical Trials in Oncology is a national clinical trials network sponsored by the National Cancer Institute.

Our trained and experienced Clinical Investigators and dedicated Certified Clinical Research Coordinators are devoted to managing clinical trial activity. A complete screening process is in place to help identify participant eligibility. It consists of the Clinical Research Coordinator reviewing the New Patient Oncology Log, working with the Oncology Intake Coordinators, utilizing the In-Patient Hospital List and system generated reports; as well as Breast / Colon Cancer Multi Team and Cancer Conference cases.

An external Institutional Review Board (IRB) monitors the conduct of each cancer related clinical research study and is responsible for oversight, ensuring that the study is conducted in an ethical manner and following protocol. The informed consent describing the study process, potential risks and benefits and the patient’s rights as a participant is obtained and signed by the patient prior to any study related activity.

In an effort to better explain clinical research to our patients, we developed our own site specific pamphlet “Clinical Research - Providing the most current and leading edge treatments to the Tri-State region”. It addresses the following: What are Clinical Trials? Who Participates? Who Monitors the Studies? Making an Informed Decision along with risks and benefits. The American Cancer Society handouts are available and verbal information is also provided by staff.

Achieving the Comprehensive Community Cancer Program accrual goal of 4% minimum or 6% for commendation is a priority and we actively seek quality studies that will hopefully, benefit our patients. For the year 2015, Clinical Research was successful in enrolling 17 patients locally and we were also able to include patients that were enrolled to studies at other sites, making a total of 6% of the analytic cases needed for the commendation level.

Active Studies:
- **Protocol ML39237** - Phase II, Single Arm Study of Atezolizumab Monotherapy In Locally Advanced or Metastatic Non-Small Cell Lung Cancer
- **Protocol GO29527** - Phase III, Open Label, Randomized Study to Investigate the Efficacy and Safety of Atezolizumab (Anti-PD-L1 Antibody) Compared with Best Supportive Care Following Adjuvant Cisplatin Based Chemotherapy in PD-L1 Selected Patients with Completely Resected Stage IB-IIIA Non Small Cell Lung Cancer
- **Protocol GO29537** - Phase III, Open Label, Randomized Study to Investigate the Efficacy and Safety of MPDL3280A (ANTI−PD-L1 Antibody) in Combination with Carboplatin + Nab-Paclitaxel for Chemotherapy Naïve Patients with Stage IV Non Squamous Non-Small Cell Lung Cancer and for Squamous Non Small Cell Lung Cancer we have **Protocol GO29437**
- **Protocol Alliance A031201** –Phase III Trial of Enzalutamide versus Enzalutamid, Abiraterone and Prednisone for Castration Resistant Metastatic Prostate Cancer
- **Protocol ONC-MA-1004** Registry for Castration Resistant Metastatic Prostate Cancer
- **Protocol AZA-MDS-006** Registry for Myelodysplastic Syndromes and Acute Myeloid Leukemia
- **Protocol FMI-CTDNA-15** Registry Circulating Tumor DNA Sample

**PROBLEM:** Increasing HER2/neu tests being reflexed from IHC to FISH, causing more turnaround time, and increases costs to patients.

**STUDY METHODOLOGY:** Dr. Robert Gutekunst, Pathologist, reviewed a total of 94 breast cancer reports that were presented at the Multidisciplinary Team conferences throughout 2015, with special attention to the Her-2/neu studies. Some of these included repeat testing on tumor from both core biopsy and definitive resections, as well as multiple or bilateral tumors in the same patient. There was a total of 9 cases that were POSITIVE by IHC, and a total of 33 that were NEGATIVE by IHC. Therefore, a definitive result was obtained by IHC in 42 cases.

There were a total of 52 cases that were EQUIVOCAL by IHC. Of these, 47 were truly 2+ equivocal results, and were reflexed to testing by FISH methodology. There were 5 cases that were 1+ "negative", but included a comment that the intensity and staining pattern were greater than a typical 1+ negative result, and were therefore also tested by FISH methodology. By FISH testing, 5 cases were POSITIVE, 41 cases were NEGATIVE, and 6 cases were EQUIVOCAL.

**SUMMARY:** 45% of the cases submitted for testing were complete at the IHC level, and 55% required FISH testing. Of those 52 cases requiring FISH testing, 79% were negative, 10% were positive and 11% were equivocal. Although the cost of testing by IHC is less expensive, only 9 cases of the entire population (9.5%) were definitively positive. An additional 5 cases (5%) were positive by FISH methodology. 6 cases were equivocal by both methods. Therefore, the overall rate of Her-2/neu positive cases was 14.5%. This is in line with national averages reported in the literature. An additional 6% were equivocal. A total of 44% of the population tested required both IHC and FISH to obtain a negative result. 35% of the population was negative by IHC alone.
Another consideration was the value of PR testing in cases of DCIS. This was discussed with the “experts” at Clarient, and they stated that they were unaware of any institutions that tested DCIS for ER only. The standard is to test for both ER and PR. There is some value in the level of positivity of the PR even in the face of a strongly positive ER result. Cases with a lower PR positive percentage may indicate a more aggressive process, especially in recurrences.

**COMPARISON WITH ASCO/CAP GUIDELINES:** According to the 2013 ASCO/CAP guideline update, the pathologist must report HER2 test result as equivocal and order reflex test on the same specimen (unless the pathologist has concerns about the specimen) using the alternative test if: (a) IHC 2+ equivocal or (b) ISH equivocal using single-probe ISH or dual-probe ISH. This assumes that there is no apparent histopathologic discordance observed by the pathologist.

**CORRECTIVE ACTION PLAN:** It appears that a reasonable approach based on our patient population would be to test for Her-2/neu by FISH methodology up front. By passing the IHC component would allow for faster TAT of the results, and would save a significant percentage of the patients the additional costs of having to perform both methods. If the FISH result is EQUIVOCAL, the recommendation would be to test those cases by IHC.

**FOLLOW-UP:** The physician clinician subcommittee reviewed and adopted the process of HER2 testing by FISH first, reflexing to IHC when appropriate. Dr. Robert Gutekunst reported at the April 7, 2016 cancer committee meeting that pathology is doing the HER2/neu by FISH primarily, reflex to IHC on equivocal. Since this change they have only had one case reflex to IHC, whereas previously there was about eleven or twelve percent reflex the other way. With FISH testing for HER2/neu, the pathologists are getting solid data and quicker turn-around time.

Bladder cancer is the most common malignancy of the urinary system. Urothelial carcinoma (previously called transitional cell carcinoma) is the most common histology of bladder cancer. In United States, there proximally 77,000 cases of bladder cancer each year and approximately 16,000 individuals die from the disease.

Environmental exposures are thought to be the leading risk factor for bladder cancer. By far the most common environmental exposure is cigarette smoking. Smoking increases the risk of a person developing bladder cancer about 4 times over that of a nonsmoker. Smoking cessation has been shown to decrease this relative risk down to about 2 times that of person who has never smoked.

The most common presenting symptom of bladder cancer is hematuria (blood in the urine) which may be visible to the naked eye or microscopic - meaning only detectable only on urine testing. Occasionally, bladder cancer presents with urinary symptoms such as frequency and urgency with or without hematuria. There are no accepted widespread screening tests currently advocated for bladder cancer.

Evaluation for a patient where there is a suspicion of bladder cancer (either with blood in the urine or persistent irritative voiding symptoms) includes upper urinary tract imaging and direct visualization of the bladder. Typically, this entails a CT of the abdomen pelvis and office-based cystoscopy along with a urine cytology in many cases.

Once bladder cancer is diagnosed, staging the cancer is completed. This involves transurethral resection of the bladder tumor - a procedure where the tumor is “scraped” out of the bladder. Basically, bladder cancer is divided into 3 different groups. Non-muscle invasive disease involves only the lining the bladder. Muscle invasive disease occurs when the cancer invades into the muscular wall of the bladder. The third group of the disease is bladder cancer that has left the bladder and is locally advanced within the pelvis, lymph nodes or even distant metastases throughout the body. Bladder cancer staging is further described later in this report.

In this report, 340 bladder cancer patients were diagnosed in Blessing Hospital over the last decade of reporting. Over that period of time, there was a general increase in the number of bladder cancers diagnosed in our community but this increase is also seen nationally.

Additionally, we have examined the treatment of high-grade non-muscle invasive bladder cancer in our community. The data shows that this sub-group of patients has been appropriately and adequately treated.

In our community, we have made a concerted effort to combat smoking - the #1 risk factor for bladder cancer. Starting in the grade schools, the community nurse educator reaches out to students encourage them to pledge to not start smoking. There has also been an aggressive effort enrolling patients into smoking cessation programs.
**PURPOSE:**
The intent of this study is to examine our patient population of those diagnosed with urinary bladder cancer and it's prevalence in our community. The study is being initiated due to concerns from our urologist, Dr. Michael Ouwenga, in which he felt we appear to have more instances than our population should.

**CRITERIA:**
- Blessing Hospital cancer registry and National Cancer Data Base urinary bladder cancer incidence comparison reports - January 2004 through December of 2014
- Blessing Hospital cancer registry and NCDB bladder cancer comparisons, age group at diagnosed - January 2004 through December of 2014.
- Blessing Hospital cancer registry – smoking status
- National Institutes of Health – bladder cancer and smoking risk

Most people who are diagnosed with bladder cancer are older in age. Nationally, the average age at diagnosis is age 72, and 90% of patients are over 55.
The data was reviewed and noted that from 2004 through 2014, NCDB Vs. Blessing does show an increase in bladder cancer. Blessing shows a slight decrease in 2013, however, in 2014 there is an increase up to 10.28% and current cancer registry data 2015 reveals 53 analytic cases, with an even higher increase at 12.8%.
Smoking is the most important risk factor for bladder cancer. Smokers are at least 3 times as likely to get bladder cancer as nonsmokers. Smoking causes about half of all bladder cancers in both men and women. At Blessing Hospital 2010-2015, 81% of men either are current smokers, have past history of smoking, or imbibe a tobacco product vs. 19% who have never smoked and for women, 56% either currently smoke or have past history of smoking and 43% have never smoked.

**CONDUCTION OF STUDY \ DATA COMPARISON:** The data was reviewed and noted that from 2004 through 2014, NCDB Vs. Blessing does show an increase in bladder cancer. Blessing shows a slight decrease in 2013, however, in 2014 shows an increase up to 10.28% and current cancer registry data 2015 reveals 53 analytic cases, with an even higher increase at 12.8%. Most people who are diagnosed with bladder cancer are older in age. Nationally, the average age at diagnosis is age 72, and 90% of patients are over 55. (1)

Smoking tobacco is the most important known risk factor for bladder cancer according to the National Institutes of Health. Even though smoking carries the same risk for men and women, men are still about 3-4 times more likely to be diagnosed with bladder cancer. Blessing Hospital reveals that 171 / 77% men and 51 / 23% women were diagnosed with bladder cancer from January 2010 through December of 2015. The higher rates of bladder cancer persist in those who never smoked as well. It is suggested that the differences in smoking rates explain only part of the higher incidence rates in American men. The researchers suggest that occupational exposures, as well as physiologic differences, may contribute to the gender disparity.

According to NIH, current cigarette smokers have a higher risk of bladder cancer than previously reported, according to new research. The study also found that the proportion of bladder cancer due to smoking in women is now the same as for men – about 50%. Blessing cancer registry data reveals 56% of women are either current or had past history of smoking and for men is 81%.

It is noted that former smokers were twice as likely to develop cancer as those who never smoked, and current smokers were 4 times more likely. As with many other smoking-related cancers, smoking cessation was associated with reduced bladder cancer risk. (2).

**CONCLUSION:** The data reveals that there is a rising incidence of bladder cancer, both nationally and locally in our community. Data also reveals that one of the main risk factors for being diagnosed with bladder cancer is either being a current smoker or having a past history of smoking.

**ACTION PLAN:** At this time plan is to continue monitoring the increase of bladder cancer patients in our community. Comparisons reveal an increase in bladder cancer; both nationally and locally in our community. One lifestyle risk factor for causing bladder cancer is smoking. Cigarette smoking is the single greatest risk factor for bladder cancer. Blessing Hospital offers a prevention program, “No Tobacco” for 4th grade students, and in 2015 the Blessing Cancer Center outreach nurse educator began a smoking cessation counseling program. Educating patients regarding genetics and family history could also help to detect bladder cancer earlier for more chance of a cure.

Dr. Michael Ouwenga noticed a potential rise of bladder cancer in our community, and it was the decision of the Cancer Committee to focus on bladder cancer as primary site for 2016 annual report. This report will be submitted into the 2016 Blessing Cancer Program Annual Report and available for review on the Blessing Hospital website.

**REFERENCE:**

URINARY BLADDER CANCER STUDY 2016  
(T1, HI GRADE DISEASE)  
DR. MICHAEL OUWENGA, MD, UROLOGY

PURPOSE:  
The intent of this study, as suggested by Dr. Michael Ouwenga from urology, is to assess if Blessing Hospital is meeting these quality measures for bladder cancer treatment:

- At the time of diagnosis, smooth muscle should be in the specimen. If not, did patient have a repeat resection.
- At the time of diagnosis, for high grade T1 disease, repeat resection should be completed. Are our patients with high grade T1 disease getting a repeat resection?

CRITERIA:  
- Blessing Hospital cancer registry urinary bladder incidence and cancer status at diagnosis from January 2012 through December 2014
- Stage at diagnosis
- Grade of disease
- Treatment modality
- Cancer Status
- Muscularis mucosa and muscularis propria documentation in pathology specimen

CONDUCTING THE STUDY:  
The criteria was reviewed by Blessing Hospital cancer registry. The focus of this study is to review T1, high grade disease. From January 2012 through December 2014, there were 21 patients with (T1) disease. Out of 21 patients diagnosed with T1 disease, 13 (62%) were high grade. Thirteen patients with T1 high grade disease were assessed for these quality measures:

- Smooth muscle (muscularis mucosa and muscularis propria) present as documented in pathology specimen
- Repeat resection of high grade, T1 disease at diagnosis and/or if smooth muscle is absent as recorded in pathology specimen

COMPARISON:  
According to “Biopsy interpretation of bladder / Jonathan I. Epstein, Mahul B. Amin, Victor E. Reuter – 2nd Ed" , larger tumors (usually greater than 1 cm) usually require hot loop resection (transurethral resection of bladder tumor, or TURBT), in which the urologist attempts to include a generous sample of the underlying muscularis propria to enable adequate pathologic staging. The specimens rendered by this procedure are often fragmented, heavily cauterized, and difficult to orient. Sections from these specimens are complicated by thermal artifact, tangential sectioning, and disruption of the tumor and normal architecture. Changes related to prior TUR may also add to the difficulty. While examining both types of specimens, it is important to note the presence or absence of muscularis propria in the specimen to assess its involvement by neoplasia and to provide feedback to the urologist regarding the adequacy or resection. It is noted that, “muscularis mucosae is seen in 18% to 83% of TURBT specimens only.” (1) For diagnosis at Blessing Hospital of T1 high grade disease, 84% had mucularis mucosae as documented in pathology specimen.
CONCLUSION:
Out of the 13 patients who had high grade disease; 12 patients had transurethral resection of bladder tumor (TURBT) and repeat TURBT and most were also treated with immunotherapy (BCG) and/or chemotherapy (Mitomycin-C) or were treated with TURBT and went on to have definitive cystectomy, depending on co-morbidities and health status. One patient was treated with TURBT and Mitomycin C and BCG X6 without repeat TURBT, but had muscularis mucosa and muscularis propria identified on deep biopsy in pathology specimen and is currently disease free. Out of these 13 patients, 8 patients are alive without disease, 4 patients expired from another cause, and one expired from bladder cancer.

Eleven out of 13 patients were assessed and noted to have muscularis mucosa and muscularis propria identified in the pathology specimen; 8 were noted to be disease free on follow-up cystoscopy and treated with either BCG and/or Mitomycin C as maintenance treatment.

Two of the 13 patients assessed either did not have muscularis mucosa or muscularis propria identified in the pathology specimen. One patient was treated with TURBT/Mitomycin-C instillation at time of surgery and repeat TURBT. Patient was disease free on follow-up cystoscopy and was treated with maintenance BCG. This patient is currently disease free. The other patient was treated with TURBT and repeat TURBT which revealed residual disease. Patient was then treated with BCG X6 and repeat TURBT. After treatment, patient was noted to be disease free on follow-up cystoscopy and is being treated with maintenance BCG. Patient is currently disease free.

It is noted that at Blessing Hospital all patients were treated appropriately for T1, high grade disease and/or absence of smooth muscle identified as documented in pathology report.

ACTION PLAN: No action plan is required other than to share this information with the cancer committee. This report will be submitted into the 2016 Blessing Cancer Program Annual Report and available for review on the Blessing Hospital website.


https://books.google.com/books?id=oQgctpxsAgC&pg=PA97&lpg=PA97&dq=Bladder+smooth+muscle+and+resection&source=bl&ots=lYWy5tsHHN&sig=tOyhozvmYVdUesolGvBEthFik&hl=en&sa=X&ved=0ahUKEwj7z9jftJFrAhXR7IMKhawzD6EQ6AEIRTAI#v=onepage&q=Bladder%20smooth%20muscle%20and%20resection&f=false
*Due to only two patients diagnosed from ages 20-39 at Blessing Hospital, these ages groups were not compared to National Cancer Data Base.
AGE AND STAGE AT DIAGNOSIS
BLADDER CANCER 2004-2014
NATIONAL CANCER DATA BASE VS BLESSING HOSPITAL

Staging

Bladder cancer can be described by its specific stage, which is how far the cancer has spread.\(^5\)

**Stage 0:** Cancer cells are found only on the surface of the inner lining of the bladder.

**Stage I:** The tumor has grown deeper into the inner lining of the bladder. However, it hasn't entered the muscle layer of the bladder.

**Stage II:** The tumor has invaded the muscle layer of the bladder.

**Stage III:** The tumor has penetrated through the muscle layer to reach tissues near the bladder, such as the prostate, uterus, or vagina.

**Stage IV:** The tumor has either: Invaded the wall of the pelvis or abdomen, but cancer hasn't entered any lymph nodes. Spread to at least one lymph node, OR Spread to other parts of the body far away from the bladder, such as the liver, lungs, or bones.

STAGE AND GRADE: BLADDER CANCER

Invasive bladder cancer
Invasive bladder cancer has spread into or through the muscle layer of the bladder. The cancer may have

- Spread into the muscle layer of the bladder (T2)
- Grown through the muscle layer (T3)
- Spread into the prostate, uterus or vagina, or into the wall of the pelvis or tummy (abdomen) (T4)
- Spread to a nearby lymph node (N1)

There were a total of 52 patients diagnosed with bladder cancer in 2015, 39 male and 9 female. For both male and female, 46.0% were diagnosed at Stage 0; 25.0% at Stage I; 17.0% Stage II; 2.0% at Stage III; 8.0% at Stage IV; 2.0% unknown stage. Twenty-three patients were stage TA or papillary urothelial carcinoma, non-invasive, and one male patient was diagnosed with Tis (see illustration of non-invasive vs. invasive bladder cancer).
BLADDER CANCER: STATISTICS

Approved by the Cancer.Net Editorial Board, 06/2015

This year, an estimated 76,960 adults (58,950 men and 18,010 women) will be diagnosed with bladder cancer in the United States. Among men, bladder cancer is the fourth most common cancer.

It is estimated that 16,390 deaths (11,820 men and 4,570 women) from this disease will occur this year. Among men, bladder cancer is eighth most common cause of cancer death.

The 5-year survival rate tells you what percent of people live at least 5 years after the cancer is found. Percent means how many out of 100. The general 5-year survival rate for people with bladder cancer is 77%. The 10-year survival rate is 70% and the 15-year survival rate is 65%.

However, survival rates depend on many factors, including the type and stage of bladder cancer that is diagnosed. For people diagnosed with non-muscle-invasive/superficial urothelial carcinoma of the bladder, the 5-year survival rate is 96%. About half of people are diagnosed with this stage. If the tumor is invasive but has not yet spread outside the bladder, the 5-year survival rate is 70%. If the cancer extends through the bladder to the surrounding tissue or has spread to nearby lymph nodes or organs, the 5-year survival rate is 34%. If the cancer has spread to distant parts of the body, the 5-year survival rate is 5%.

It is important to remember that statistics on how many people survive this type of cancer are an estimate. The estimate comes from data based on thousands of people with this cancer in the United States each year. So, your own risk may be different. Doctors cannot say for sure how long anyone will live with bladder cancer. Also, experts measure the survival statistics every 5 years. This means that the estimate may not show the results of better diagnosis or treatment available for less than 5 years.

Statistics adapted from the American Cancer Society’s publication, Cancer Facts and Figures 2016.

There were a total of 374 patients: Stage 0 = 191 (51.1%); Stage I = 80 (21.4%); Stage II = 57 (15.2%); Stage III = 11 (3.0%); Stage IV = 30 (8.0%). Five patients had unknown Stage at diagnosis.
BLESSING CANCER CENTER SERVICES  
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APPEARANCE CENTER & "LOOK GOOD...FEEL BETTER” PROGRAM:  Rosie Scott, Ext 7709 or Jo Fuller, Ext 7715.  Look Good...Feel Better teaches beauty techniques to women in active cancer treatment. For reservations, call Ext 7715

SUPPORT GROUPS:  www.blessinghospital.org has a complete listing of support groups on its website under the patient and visitors tab.
REACH FOR RECOVERY: This is a personalized service for breast cancer patients. Call Helen Zimmerman, Ext 6431 or call the Cancer Center, Ext 7715.

HOSPITALITY HOUSE: Located at 1129 Oak Street, the Quincy Hospitality House offers short term, affordable housing for patients and/or family members needing a place to stay. For information call (217)228-3022 or (217)223-1200.

TRANSPORTATION: Patients are encouraged to contact the American Cancer Society (800)252-5302 or Rosie Scott (217)223-8400 Ext. 7709 for information about transportation services.

AMERICAN CANCER SOCIETY REPRESENTATIVE: Courtney Heiser, BS, Health Systems Manager. www.cancer.org or 1-800-227-2345.

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The Blessing Cancer Center provides a holistic cancer care program with the latest in treatment, diagnostic, educational and support services. The compassion and expertise of our multidisciplinary team, combined with state-of-the-art technology in a comfortable setting, provide patients with seamless care.

The Blessing Hospital board and staff are committed to providing nationally-accredited programs and services close to home. The Blessing Cancer Center is accredited by the American College of Surgeon's Commission on Cancer. The Blessing radiation therapy team is led by board-certified physicians and accredited by the American College of Radiation Oncology. Our partner in care, Quincy Medical Group, is certified by The Quality Oncology Practice Initiative (QOPI) and provides medical oncology services by physicians board-certified in internal medicine, medical oncology, and hematology.