



2014-2015  
*Cancer Program  
Annual Report*

Including:

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*Site-Specific Analysis  
of Colorectal Cancer*



500 East Market Street, Iowa City, Iowa 52245  
[www.mercyiowacity.org](http://www.mercyiowacity.org)



## Chairman's Report

By Dr. Hamed Tewfik, Radiation Oncologist, Cancer Committee Chairman

I am pleased to introduce the 2014-2015 Cancer Program Report issued by the Cancer Committee of Mercy Iowa City. The Cancer Committee is a multidisciplinary group of physicians and staff members that provides leadership for Mercy's Cancer Program.

Our 2014-2015 report includes a focused review of colorectal cancer by Shireesh Saurabh, MD, general surgeon; a summary of activities and patient care improvements; and a listing of cancer services available through Mercy Iowa City.

### Significant events and accomplishments since the publication of our last report include:

- Mercy's Laboratory received reaccreditation by the Commission of Laboratory Accreditation of the College of American Pathologists (CAP), validating the quality of services provided.
- A second nuclear medicine camera was installed in Mercy Radiology, benefiting patients who need to have diagnostic testing scheduled.
- The Mercy Hospice Unit, open for more than six years, obtained a double bed and a bladder scanner. Both were gifts made possible by the Mercy Hospital Foundation.
- Cancer Care of Iowa City upgraded its computer system to improve health data management. The addition of a patient portal assists with patient and provider communication and allows patients to view personal health information, as well as request prescription refills.
- Recent Food and Drug Administration approvals have allowed the initiation of new chemotherapies at Cancer Care of Iowa City. Nivolumab (trade name Opdivo) is an intravenous medication for melanoma and squamous non-small cell lung cancer. Three new oral chemotherapies include: ibrutinib (trade name Imbruvica), for the treatment of chronic lymphocytic leukemia and mantle cell lymphoma; idelalisib (trade name Zydelig), a kinase inhibitor for the treatment of three types of blood cancers; and palbociclib (trade name Ibrance), a kinase inhibitor for breast cancer.
- Iowa City Cancer Treatment Center upgraded its electronic medical record in an effort to continually improve the patient experience.
- Drs. Luke Brunkhorst, DO, Hamed Tewfik, MD, John Watkins, MD, and Jessica Williams, RN,BSN,OCN, presented at the 2015 Iowa Society for Therapeutic Radiation Oncology symposium. The symposium annually gathers members of the Iowa radiation therapy community featuring a national speaker as well as local physicians and medical residents, to present and discuss what is new in the field of radiation oncology with an emphasis on quality and patient safety.
- In March 2015, Drs. Anjana Aggarwal, MD, gastroenterologist, and Shireesh Saurabh, MD, general surgeon, presented a free community program, "Why Gamble with Colorectal Cancer?" Three additional community programs on colorectal cancer were offered off-site within our service area. These outreach efforts were focused on colorectal cancer risks and the benefits of screening.
- Nathan Schneider, MD, FACS, general surgeon and Cancer Liaison Physician (CLP) to the American College of Surgeons, was the featured speaker at Surviving in Style, a women's cancer awareness event attended by hundreds of individuals. Dr. Schneider discussed the role of the surgeon in helping patients with various aspects of survivorship.
- Jessica Williams, RN, BSN, OCN, Breast Care Coordinator, participated in an expert panel discussion of the Ken Burns' documentary, "Cancer: The Emperor of All Maladies." This was a community event held in conjunction with Iowa Public Television, American Cancer Society, Iowa Cancer Consortium, and the Iowa Department of Public Health.
- The 13<sup>th</sup> Annual Endoscopy Conference was held for medical, nursing, and radiology professionals. The conference topics included colon cancer screening, gastrointestinal pathology, adjuvant therapy for colon cancer, colorectal cancer surgery, and a family's perspective on colon cancer.
- "Lilly Oncology on Canvas: Expressions of a Cancer Journey" was on display in the Mercy Hospital atrium during April and was a highlight of our annual Cancer Survivors Day. One of our patients had paintings selected to be included in two of the national collections of artwork created by those diagnosed with cancer, their family members, and healthcare providers.
- Proceeds from a Zumbathon sponsored by Body Moves Fitness and Wellness Center, Coralville, and walk/run sponsored by Team Breast Friends were donated to the Mercy Hospital Foundation. These gifts are assisting with breast cancer services and mammography. Both events had participation and support from Mercy staff and patients.

Each annual report marks time as well as changes, improvements, and ideas for the future of cancer care services. However, a constant with each report has and will be Mercy Iowa City's tradition and goal to provide care that is compassionate, respectful, and skilled.

## Statistical Summary

### Incidence of Cancer by Site

Exhibit I summarizes the incidence of cancer by site at Mercy Iowa City in the 2014 calendar year. A total of 559 cases (482 analytic, 77 non-analytic) were seen at Mercy Iowa City. Digestive system, respiratory system, breast, and genitourinary cancers collectively comprised 76% of the cases in 2014. Colorectal cancer is the subject of the site-specific analysis in this year's annual report.

### Top Cancers in Females

According to "Cancer in Iowa -2014," published by the State Health Registry of Iowa, the three most common sites of cancer in females are breast, lung, and colorectal. The three most common sites in females at Mercy Iowa City were breast, lung, and colon. In 2014, approximately 48% of all cancers diagnosed at Mercy Iowa City occurred in women. Exhibit II lists the most frequent sites of cancer in females at Mercy Iowa City in 2014. Breast cancer accounted for approximately 40% of the female cases. Lung cancer accounted for 13%, colon cancer accounted for 10%, and non-Hodgkin's lymphoma accounted for 4%.

### Top Cancers in Males

"Cancer in Iowa -2014" lists the three most common sites of cancer in males as prostate, lung, and colorectal. The three most common sites in males at Mercy Iowa City were prostate, lung, and colon. Approximately 52% of the total cancers diagnosed at Mercy Iowa City in 2014 occurred in men. Exhibit III summarizes the most common types of cancer occurring in males at Mercy Iowa City in 2014. Prostate cancer accounted for 29% of the male cases. Lung cancer was next most common in males at 12%. Colon accounted for 12%, and bladder cancer accounted for 11%.

## EXHIBIT I Incidence of Cancer by Site Mercy Iowa City, 2014

Primary Site	Analytic	Non-analytic	Combined Total	Percent of Total
Tongue	5	1	6	1.1%
Floor of mouth	0	1	1	0.2%
Mouth, other & NOS	1	0	1	0.2%
Tonsil	4	0	4	0.7%
Oropharynx	2	0	2	0.4%
Hypopharynx	1	0	1	0.2%
Esophagus	7	1	8	1.4%
Stomach	4	0	4	0.7%
Small intestine	1	1	2	0.4%
Colon	48	4	52	9.3%
Rectum, rectosigmoid	11	0	11	2.0%
Liver	2	2	4	0.7%
Gallbladder	1	0	1	0.2%
Bile ducts	4	0	4	0.7%
Pancreas	7	3	10	1.8%
Peritoneum, omentum, mesentery	1	0	1	0.2%
Larynx	4	0	4	0.7%
Lung/bronchus	66	4	70	12.5%
Pleura	1	0	1	0.2%
Leukemia	4	5	9	1.6%
Myeloma	4	1	5	0.9%
Other hematopoietic	7	0	7	1.3%
Soft tissue	2	0	2	0.4%
Melanoma of skin	8	3	11	2.0%
Other skin	1	1	2	0.4%
Breast	99	7	106	19.0%
Cervix uteri	2	1	3	0.5%
Corpus uteri	4	0	4	0.7%
Uterus NOS	3	0	3	0.5%
Ovary	7	2	9	1.6%
Vulva	0	2	2	0.4%
Prostate	59	26	85	15.2%
Testis	4	0	4	0.7%
Penis	1	0	1	0.2%
Bladder	39	0	39	7.0%
Kidney & renal pelvis	18	1	19	3.4%
Ureter	1	0	1	0.2%
Other urinary	1	0	1	0.2%
Brain	2	2	4	0.7%
Other nervous system	6	1	7	1.3%
Thyroid	7	0	7	1.3%
Other Endocrine	1	1	2	0.4%
Hodgkin's disease	3	2	5	0.9%
Non-Hodgkin's lymphoma	23	5	28	5.0%
Unknown or ill-defined	6	0	6	1.1%
<b>Totals</b>	<b>482</b>	<b>77</b>	<b>559</b>	

Source: Mercy Iowa City Cancer Database

## Cancer Committee Members

Hamed Tewfik, MD  
Chairman  
Radiation Oncology

Nathan Schneider, MD, FACS  
ACoS Field Liaison Physician  
General Surgery

James Feeley, MD  
Medical Oncology

Timothy Light, MD, FACS  
General Surgery

Colin O'Brien, MD  
Radiology

John VanRybroek, MD  
Pathology

Julie Adam, RN  
Nurse Manager, 3 West

Bruce Anderson, ARNP  
Patient Care Coordinator

Tim Bernemann M.Div.  
Director of Pastoral Care

Heidi Berns, MS, RTR  
Administrative Director of Radiology

Sally Conley, RN, OCN  
Oncology Nurse

Barb Ditzler, RN  
Nurse Manager, 3 Center

Kathy Marner, RHIT  
Tumor Registrar

Mary McCarthy, RN  
Patient Education Coordinator

Vijay Medithi, CTR  
Tumor Registrar

Laura Nielsen, LISW  
Social Worker

Cindy Penney, RN  
Administration/Vice President of Nursing

Kim Powers, RN  
Director of Quality, Patient Safety & Compliance

Sarah Schoner, RN  
Quality Management Services

Dawn Whitehill, Pharm.D., R.Ph.  
Pharmacy

Jessica Williams, RN  
Breast Cancer Coordinator

Stacey Munson, RD, LD  
Dietary Director

Shelley Walker  
American Cancer Society Representative

## Definition of Terms

**Analytic:** Cases which are first diagnosed and/or received all or part of the first course of treatment at Mercy Iowa City.

**Non-analytic:** Cases which are seen at Mercy Iowa City after diagnosis and a full course of therapy elsewhere or which were first diagnosed at autopsy.

**Stage of Disease:** A description of the extent of tumor spread determined at the first course of treatment as categorized by the Surveillance, Epidemiology, and End Results (SEER) Program.

**In-Situ:** Neoplasm that fulfills all microscopic criteria for malignancy except invasion.

**Localized:** Neoplasm that appears entirely confined to the organ of origin.

**Regional:** Neoplasm that has spread by direct extension to immediately adjacent organs or tissues, developed secondary or metastatic tumors, metastasized to distant lymph nodes, or been determined to be systemic in origin.

**Distant:** Neoplasm that has spread beyond immediately adjacent organs or tissues, by direct extension, developed secondary or metastatic tumors, metastasized to distant lymph nodes, or been determined to be systemic in origin.

**Unknown, unstageable:** Tumor cannot be assessed or is unknown, or there is not enough information to assign a stage.

**TNM Staging:** A tumor classification system published by the American Joint Committee on Cancer used to stage cases. TNM stands for tumor, node, and metastasis.

**Tumor Registry:** A cancer data system which provides a record of the diagnosis, stage, treatment, and follow-up of all types of cancer at Mercy Iowa City.

## Mercy Cancer Care Program Components

### Cancer Committee

The Mercy Iowa City Cancer Committee is a multidisciplinary committee responsible for planning and initiating all cancer-related programs and services at Mercy Iowa City. The committee is made up of physicians, nurses, and other health care professionals involved in the care of individuals with cancer. The Cancer Committee meets on a quarterly basis.

### Tumor Registry

The Tumor Registry is a complete database of all cancer cases diagnosed and/or treated at Mercy Iowa City. The data in the Registry is available for use by the Cancer Committee, medical staff, and others for special studies, audits, and research.

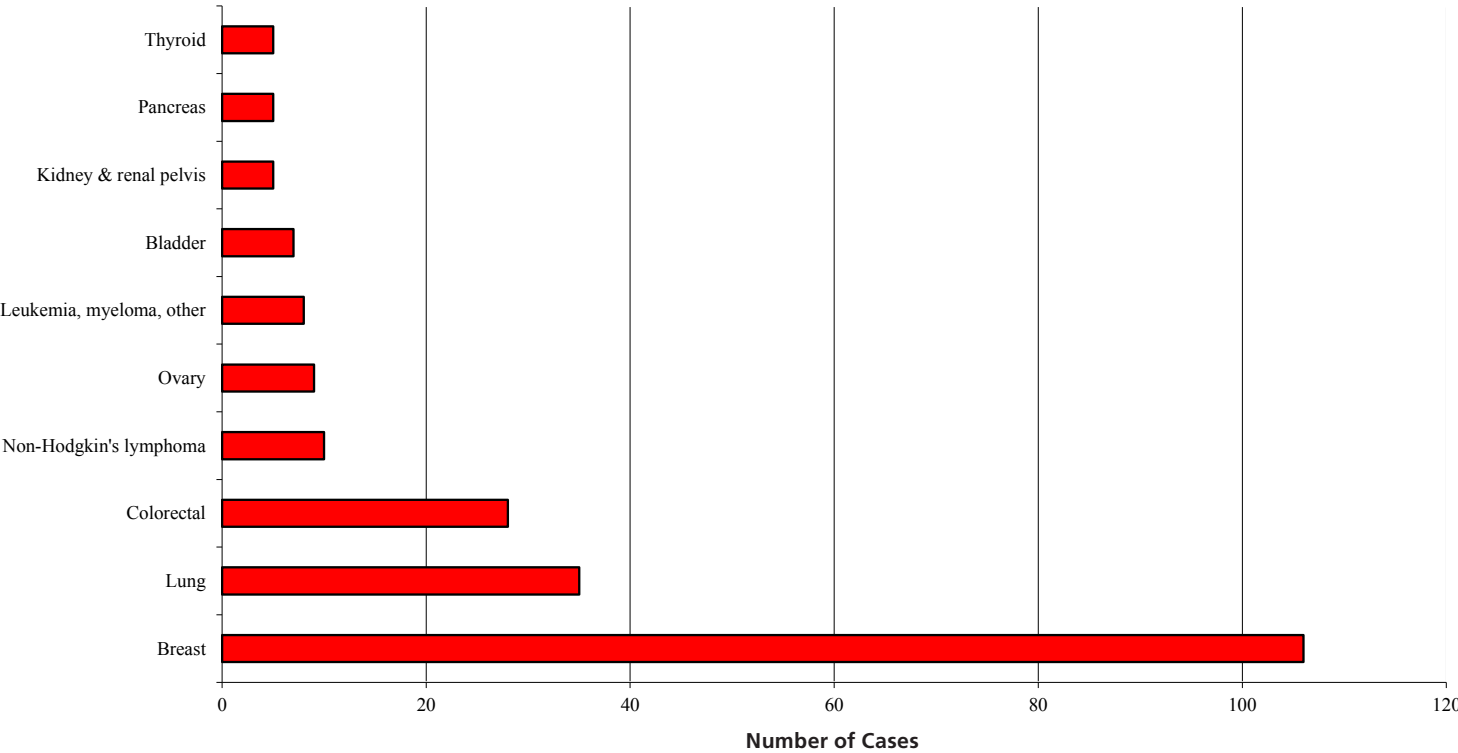
### Cancer Conferences

The Cancer Committee sponsors weekly cancer conferences which are an educational and consultative component of Mercy's Cancer Program. During 2014, 64 case studies on a variety of types of cancer were discussed, including breast, prostate, lung, colon, pancreas, lymphoma, leiomyosarcoma, and melanoma. Conferences focus on concurrent case reviews to allow for timely consultation and treatment planning. Each presentation includes review of the medical history and physical findings, clinical course, radiographic studies, and pathological interpretations.

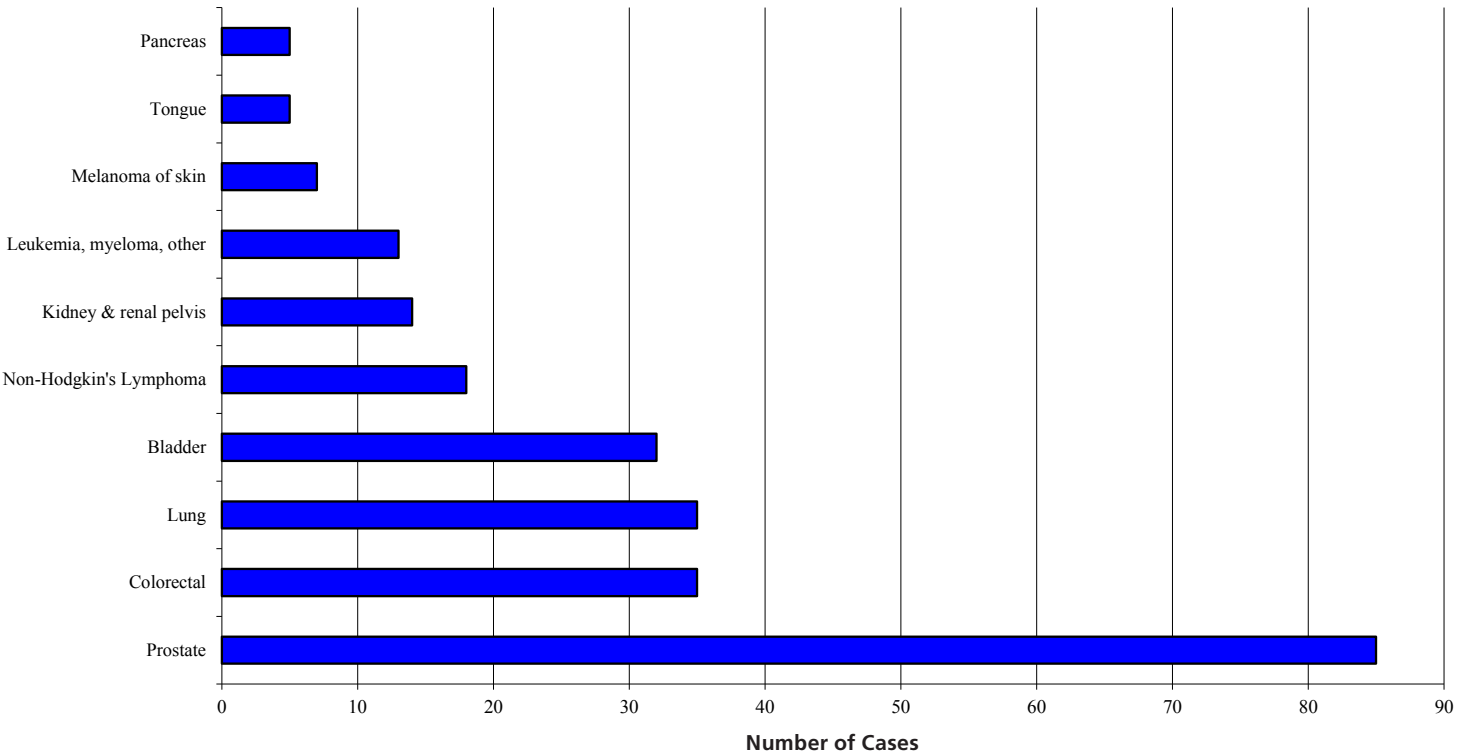
### Patient Care Evaluation Studies

The Cancer Committee conducts at least two patient care evaluation studies each year for the purpose of evaluating and improving the quality of cancer patient care at Mercy Iowa City.

**EXHIBIT II: Top Cancers Among Females at Mercy Iowa City in 2014\***



**EXHIBIT III: Top Cancers Among Males at Mercy Iowa City in 2014\***



\*Source: Mercy Iowa City Cancer Registry



## Site Specific Analysis of Colorectal Cancer

### By Shireesh Saurabh, MD, General Surgery

Colorectal cancer is the third most common cancer and the second most common cause of cancer related deaths in both men and women in the United States. According to *Cancer Prevention & Early Detection Facts & Figures 2015-2016*, published by the American Cancer Society, 132,700 men and women will be diagnosed with colorectal cancer in 2015, and 49,700 will die from the disease. In Iowa, an estimated 1490 cases will be diagnosed with colorectal cancer in 2015, and 570 will die from the disease. Approximately 4.5 percent of men and women will be diagnosed with colon and rectum cancer at some point during their lifetime, based on 2010-2012 data. The average age at diagnosis is 68. *Exhibit IV shows a comparison of age at diagnosis for colon cancer patients diagnosed in 2013 for Mercy Iowa City and other Comprehensive Community Cancer Programs. At Mercy, one outlier case under age of 20 was diagnosed with adenocarcinoid of appendix during appendectomy. In the 90 and over group, Mercy has a higher number of cases compared to other Comprehensive Community Cancer Programs. This is a reflection of the older demographic treated here.*

#### Risk Factors:

The risk of colorectal cancer increases with age. All men and women aged 50 and older should be screened by colonoscopy. Family or personal history of inflammatory bowel disease, colorectal cancer or polyps, hereditary non polyposis colon cancer (HNPCC), familial adenomatous polyposis (FAP), diet high in fat and low in fiber, obesity and smoking also increase the risk of colorectal cancer. The incidence has also been found to be higher in the African American population.

#### Symptoms:

Colorectal cancer is often a silent disease and gets detected during a routine screening exam. The most common symptom is a change in bowel habit. Other symptoms may include vague abdominal pain, blood in stool, rectal bleeding, narrow caliber stool, vomiting, weight loss and generalized fatigue.

#### Screening / Diagnosis:

Colorectal cancer usually begins as a benign polyp, which if removed early can prevent cancer from developing. Screening colonoscopy can help in detection and removal of polyps. It can also help to detect colorectal cancer at an early stage. Recommendations are for the first exam at the age of 50 or 10 years younger than the age of the family member with the diagnosis of colorectal cancer. Follow up interval for surveillance colonoscopy depends on polyp size, type and number.

Once the diagnosis of colorectal cancer is made, additional tests are required to determine the stage of cancer. This includes basic blood work, liver function tests, chest x-ray and CT scan of abdomen and pelvis. For rectal cancer endoscopic ultrasound or MRI are performed to determine the depth of penetration of the cancer in the rectal wall and lymph node involvement. Staging helps in determining a patient's prognosis. *Exhibit V shows comparison of stage at diagnosis for colon cancer for Mercy Iowa City and other Comprehensive Community Cancer Programs in 2013.*

#### Treatment Colon Cancer:

Surgery is the only curative modality for localized colon cancer. Surgery includes removal of the tumor, the major vascular pedicle, and the lymphatic drainage basin of the affected colon segment. Bowel continuity can be restored with primary anastomosis, or a temporary ostomy can also be created. Colectomy can be performed by open or laparoscopic approach. Studies have shown that laparoscopy is associated with comparable oncologic outcomes, perioperative morbidity and mortality, and faster recovery. Robotic surgery is also being performed safely for colon cancer, however there are no randomized studies comparing its outcomes with other surgical approaches.

Adjuvant chemotherapy is mostly provided to patients with lymph node positive colon cancer. There is an approximate 30% reduction in disease recurrence and 22 - 32% reduction in mortality with chemotherapy. The utility of preoperative chemotherapy in patients with primary colon cancer is unclear.

Adjuvant radiation therapy might benefit colon cancer patients with high risk of recurrence. However, there is limited high quality evidence addressing the role of adjuvant radiation therapy in colon cancer patients.

Most colorectal cancers are sporadic; however specific genetic disorders have been identified to have a strong relation to this cancer. Genetic testing is now available and high risk families can be evaluated to determine the lifetime risk of colorectal cancer.

#### Rectal Cancer:

Surgery is the mainstay of the curative therapy for resectable rectal cancer. Type of surgery depends on the location, size and stage of the tumor. Distal rectal cancer which are small in size and do not have aggressive features, they can undergo local transanal excision. Invasive rectal cancer involving upper and middle third of rectum can be treated surgically by low anterior resection (LAR). This resection includes removal of sigmoid colon and rectum to a level where the distal margin is negative for cancer, with a primary anastomosis between descending colon and distal rectum or anal sphincter. Occasionally a diverting ostomy can be placed to protect the anastomosis. For low rectal cancer, abdominal perineal resection (APR) can be performed. This includes resection of sigmoid colon, rectum and anus, and construction of a permanent colostomy. Both LAR and APR can be performed with laparoscopic and robotic approach.

Neoadjuvant chemoradiation therapy is preferred approach for patients with transmural (T3/T4) or node positive rectal cancer, particularly if they involve distal rectum. It provides a better local control, increases the likelihood of sphincter saving surgery like LAR and decreases the risk of chronic anastomotic stricture. Adjuvant chemoradiation therapy is recommended for resected stage 2 or 3 rectal cancer. It has been shown to improve survival and decrease recurrence rate.

#### Survival / Prognosis:

Important prognostic indicators for colorectal cancer include presence of distant metastasis, local tumor extent, nodal positivity, residual disease, lymphovascular, and perineural invasion.

The 5 year survival rate for colorectal cancer can be as high as 90% for stage 1 and 12% for stage 4. The earlier the diagnosis the better the prognosis.

to determine if our colorectal cancer patients received care consistent with nationally recognized treatment standards as recommended by the Commission on Cancer.

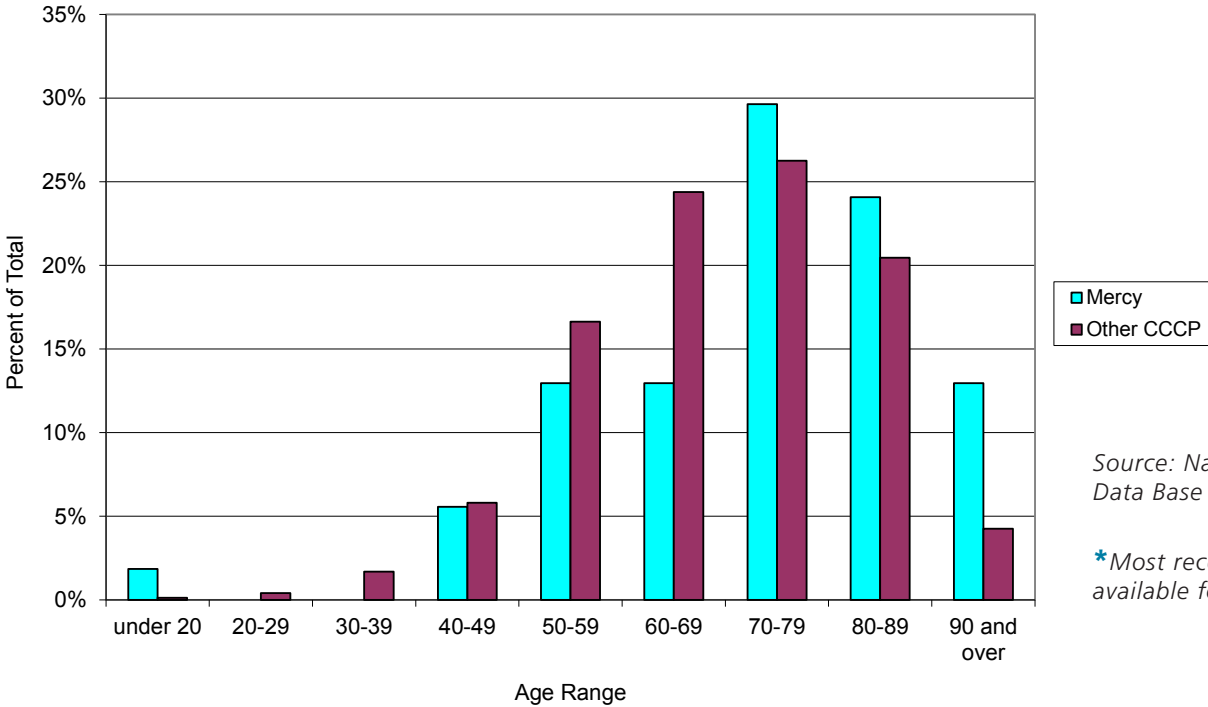
treatment standards. As a Commission on Cancer approved *Comprehensive Community Cancer Program*, Mercy Iowa City provides care comparable to care received at other Comprehensive Community Cancer Programs in the region, as well as in the nation.

### Registry Study

The Mercy Hospital Cancer Committee recommended a review study

The review study found that our colorectal cancer patients received care consistent with nationally recognized

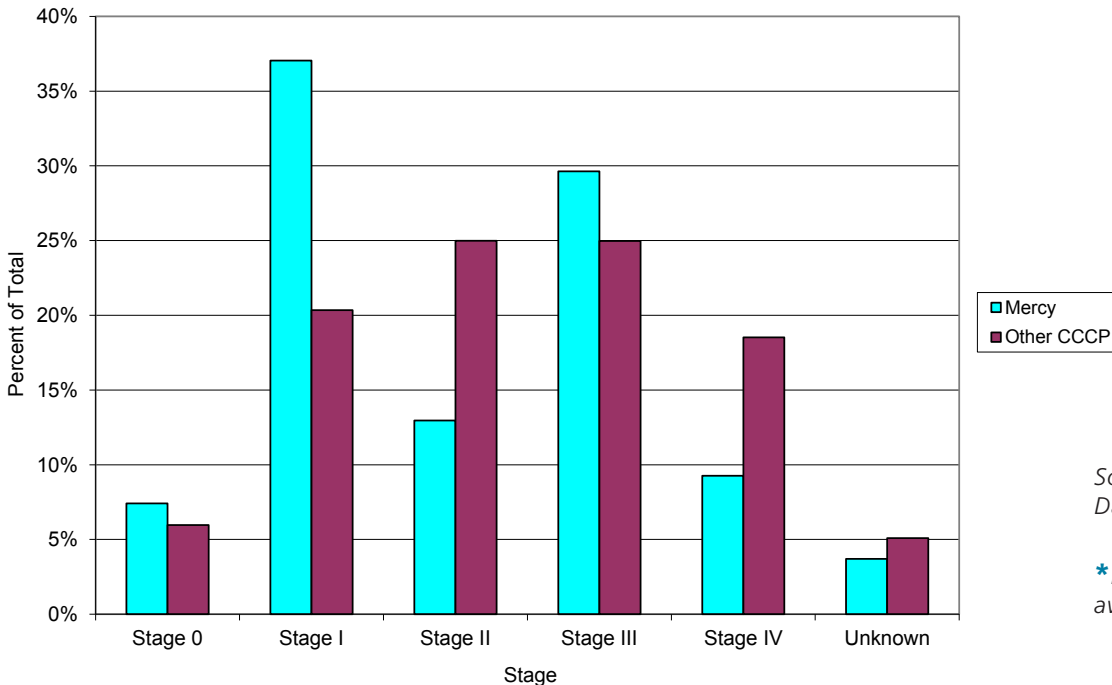
## EXHIBIT IV: Comparison of Age at Diagnosis for Colon Cancer for Mercy Iowa City and other Comprehensive Community Cancer Programs in 2013\*



Source: National Cancer Data Base Benchmark Reports

\*Most recent statistics available for comparison

## EXHIBIT V: Comparison of Stage at Diagnosis for Colon Cancer for Mercy Iowa City and other Comprehensive Community Cancer Programs in 2013\*



Source: National Cancer Data Base Benchmark Reports

\*Most recent statistics available for comparison

# Cancer Support Services at Mercy Iowa City

A full range of cancer services is available at Mercy Iowa City. More information can be obtained from Mercy On Call, 358-2767 or toll-free 1-800-358-2767.

## Diagnostic services

- Digital diagnostic and screening mammography
- Stereotactic breast biopsy
- Sentinel node injections/localizations
- Magnetic resonance imaging (MRI) of all areas, including breast MRI
- Nuclear medicine imaging and testing
- PET/CT imaging
- Ultrasound imaging
- Computed tomography (CT), including CT colonography
- Special procedures—biopsies, paracentesis, thoracentesis, epidural and joint injection procedures

## Cancer Care of Iowa City, LLC

Outpatient chemotherapy, hematology, care coordination, and educational services are provided in Cancer Care of Iowa City, LLC, located in the Mercy Cancer Center, 613 East Bloomington Street. Compassionate care is provided by medical oncology specialists in pleasant surroundings.

## Iowa City Cancer Treatment Center

Radiation therapy is provided at the Iowa City Cancer Treatment Center. Inpatients and outpatients alike are cared for by radiation oncologists and the professional staff in the center's relaxed, home-like atmosphere. Many educational materials are available there as well.

## Home Care Services

Mercy offers professional and personal services for patients and families who need extra support at home. These services include nursing and rehab services, skilled nursing, wound/ostomy nursing, nutritional counseling, home care aides, medical social worker services, and pastoral care. Mercy Home Care is Medicare/Medicaid certified.

Personal cares, 24-hour care, overnight companionship, homemaking, transportation, light housekeeping, medication reminders, and physician follow-up are also available on a private pay basis.

Mercy Lifeline is a home-based medical emergency response system. It provides a communication link for the subscriber 24 hours a day.

For information: 319-358-2740

## Finances and Insurance

Questions about insurance coverage can be directed to Mercy's Patient Financial Services: 319-339-3616.

Mercy offers a Financial Assistance Program for those who meet specific criteria; call 319-339-3907.

## American Cancer Society

The American Cancer Society and Mercy staff work together to provide such services as Look Good . . . Feel Better, Road to Recovery, Cancer Resource Network, and other information and support services.

## Mercy Hospital Foundation

Mercy Hospital Foundation has a specific fund for cancer care. Donations to the Cancer Care Fund contribute to diagnostic and education services at Mercy. The Foundation also provides the funds for diversionary and support activities.

For information: 319-339-3657

## Guest Lodging

Overnight lodging is available at a nominal cost in Mercy Guest Lodging, located on 3 Mercy North. These private rooms offer twin beds, television, telephone, and private bathroom.

For information: 319-339-3659

## The Hope Lodge

The Russell and Ann Gerdin American Cancer Society Hope Lodge in Iowa City provides supportive, non-medical accommodations at no cost during cancer treatment for adult cancer patients and their caregivers. It is located near the Ronald McDonald House and is open to patients from Mercy, University of Iowa Hospitals and Clinics, and VA Medical Center who reside 40 or more miles away from their treatment facility.

## Mercy Hospice Unit and Local Hospice Services

Mercy Iowa City provides a six-bed community hospice unit to serve the physical, emotional, and spiritual needs of patients facing the end of life and the needs of their loved ones.

Mercy's cancer care staff also works with area hospices to assist with patient care needs. Iowa City Hospice is one example of an agency that offers care and support to individuals at the end of life.

## Rehabilitation Services

Physical, occupational, and speech therapy are provided through Progressive Rehabilitation Associates, LLC. The Mercy Wound & Vein Center provides treatment and healing of chronic wounds. Enterostomal nursing therapy is also available.

## Education Services

Information on types, treatments, detection, and prevention of cancer is available through Cancer Care of Iowa City, patient care areas, and Mercy's Education Office. Mercy staff collaborate with the American Cancer Society to provide services.

## Nutrition Counseling

Mercy dietitians provide individual assistance with nutritional assessments, special dietary instructions, and basic nutritional counseling.

## Spiritual Support

Mercy's chaplains can help patients and their families when questions, fears, and concerns may seem overwhelming. Pastoral Care staff members can also help with specific religious needs, such as receiving the Catholic sacraments or arranging for clergy of any faith to visit with patients and family. Resources such as spiritual reading and music are also available through Pastoral Care.

## Social Support

HOPE Cancer Support Group welcomes people with any type of cancer and their families. The Continuing After Breast Cancer Support Group provides women with mutual support and sharing after breast cancer. Monthly meetings of both groups take place at Mercy.

Support groups for people with other specific types of cancer are available in the Iowa City area.

For information: Mercy On Call, 319-358-2767 or 1-800-358-2767