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Mercy Cancer Center is dedicated to providing state-of-the-art comprehensive cancer care in an environment that envelops patients and families in a warm embrace of compassion. As an American College of Surgeon’s Commission on Cancer Accredited Cancer Center, Mercy Cancer Center is committed to improving survival and quality of life for cancer patients through standard-setting, prevention, research, education and the monitoring of comprehensive quality care. Mercy’s cancer committee annually develops and disseminates a report of patient and program outcomes to the public. This report will highlight many of Mercy Cancer Center’s activities for calendar year 2017.

Each year, the cancer committee, under the guidance of the Quality Improvement Coordinator, develops, analyzes and documents studies that measure the quality of care and outcomes for cancer patients. This annual report includes an in-depth analysis of the utilization of our specialized inpatient oncology unit for cancer patients. The staff in our inpatient oncology unit have special training, skills and a philosophy of care that enhances the quality of care and patient experience for oncology patients. We had recognized that some of our cancer patients were being hospitalized on units other than the oncology unit. This quality study was undertaken to learn more about the nature and root causes of the problem and to make recommendations to optimize the utilization of our specialized inpatient oncology unit.

Mercy Cancer Center is proud to participate in two specialty programs that have been developed by the American College of Surgeons: the National Accreditation Program for Breast Centers (NAPBC) and the National Accreditation Program for Rectal Cancer (NAPRC). In this annual report, Dr. Susan Beck summarizes the excellent work that has led to Mercy obtaining and maintaining full NAPBC certification. Dr. Shankar Raman describes the excellent work that has been done in our colorectal center that has led to our application for accreditation in the new NAPRC.

Mercy Cancer Center is proud to be a member of the National Cancer Institute’s Community Oncology Research Program through our affiliation with CHI’s NCORP grant. We believe that participation in clinical research is important for our patients and for our center.

This annual report contains a bibliography of the peer reviewed journal articles that members of our cancer team have authored in 2017. This annual report also summarizes the new analytic cancer cases for 2017. It highlights the large number and diverse variety of cancer cases seen at our center. Each year the statistics remind us of our responsibility to provide the highest quality of care possible. We are committed to quality and we are committed to an outstanding patient experience. In addition to our Commission on Cancer accreditation, Mercy Cancer Center has earned accreditation by the American College of Radiology in Radiation Oncology and Breast Imaging Centers.

Mercy Cancer Center is a team of dedicated professionals committed to quality care. We are proud to carry on the traditions of the Sisters of Mercy as we adhere to the values of reverence, integrity, compassion and excellence in everything we do. I hope that you find the information in this report educational and inspiring.

Sincerely,

Richard L. Deming, MD
Medical Director, Mercy Cancer Center
Chairman, Mercy Cancer Committee
Mercy Cancer Center Registry

The Mercy Cancer Center has been accredited by the Commission on Cancer of the American College of Surgeons (ACoS) since 1965 and is designated as an approved comprehensive community cancer program.

The Mercy Cancer Center is committed to making a difference for those whose lives have been affected by cancer. In an effort to continue to improve the care of cancer patients, studies are done and data is collected and reviewed.

The Cancer Registry is a component of the Mercy Cancer Center that collects, maintains and analyzes the data pertaining to cancer patients’ diagnoses or treatment at Mercy Medical Center. The information from the registry helps evaluate the success of specific treatment modalities by reviewing outcomes and survival statistics.

The Cancer Registry reviews all cancer cases seen at Mercy Medical Center. An analytic case is a patient who is diagnosed or receives any part of their first course of treatment in their cancer journey at Mercy. The information recorded is reported to the state of Iowa’s health registry and the national database for statistics and outcome studies. Mercy Medical Center diagnoses and treats a wide variety of cancer at various stages of the disease process. At right is our analytic case distribution for 2016.

The Mercy Registry Team: From left, Cindy Burgin, CTR; Heather Erb, CTR; and Shari Runkle, registry assistant. Not pictured, Nora McMurrey, CTR; and Mary Marshall, CTR.
What is the problematic quality-related issue within the cancer center program?

Some oncology physicians have shared concerns that on occasion some inpatients are being placed in beds located on patient acuity units that may not be the ideal clinical match considering patient acuity and levels of care (LOC) status. This study reviews the proper placement of oncology patients within the hospital.

These other than ideal match scenarios are likely caused by efforts to relieve pressure in the Emergency Department (ED) as cases begin to back up during high volume periods at the hospital. In addition, once these patients arrive and are placed in a unit that was not the clinically preferred location, their length of stay (LOS) often increases, further compounding the shortage of a proper unit bed situation.

Understandably, this creates unhappy patients, frustrated doctors, stressed nurses and staff, and extra movement and asset allocation in the hospital. In particular, we are exploring the question of why oncology patients are not being identified at registration and then placed in the inpatient oncology unit (8S) once admitted yet at the same time non-oncology patients are being targeted to those same beds and moved to the unit.

What is the study methodology and the criteria for evaluation? What is the data needed?

A small team performed an empirical study of patient admit data since July 2016 involving a quantitative analysis approach to determine how often patients were placed or discharged from a unit (particularly 8S) that was rated a “preferred” location. Also, the patient average Observation length of stay (LOS) was calculated as a primary metric to determine best use of the Observation LOC designation and unit location. The team will also employ Lean and Six Sigma methodologies with Utilization Review (UR) personnel deployed to the Emergency Department. Under the design, the UR staff will coordinate with the Hospitalist providers to quickly and accurately identify LOC. In addition, a new medical surgical only observation unit will receive the patients identified by UR and the Hospitalist in order to geographically cohort these patient types to potentially free other inpatient beds, particularly on 8S, so that there is a greater opportunity for the patient to be matched to the proper unit and bed.
What is the current status of the study using the identified measures and methodology?

The study is currently underway. Teams were chartered in June 2017 and began working on the issues through root cause analysis and within a PDCA cycle. As part of a pilot effort, UR was deployed to the ED in September 2017 and the new 10 additional bed Med/Surg observation unit began operating in October 2017.

Summary of the Study Findings

At present, UR in the ED has been successful in educating and coordinating recommendations for LOC with the Hospitalist physician group. In addition, the cases where UR has intervened have achieved a >90% preferred accuracy rate considering LOC selection. However, UR staffing, UR coverage hours in the ED, percentage of cases reviewed, and ability to capture and document intended LOC recommendations in electronic medical record (EMR) and logistic software platforms remain a challenge. Additionally, the Med/Surg Observation unit has not been able to realize any impact on the average LOS due to patient mix (many of the patients that have been placed in the new M/S OBS unit qualify as behavioral health cases) and lingering hesitation by unit staff to transfer patients off the floor once their LOC has changed from OBS to inpatient.

How do our results compare with national benchmarks or guidelines?

After querying numerous texts and websites for benchmarking data related to proper patient placement in combination with length of stay for oncology patients, the researcher group was unable to locate any viable statistics to utilize at a national level for the study. Efforts to work with a variety of consultative and proprietary data sources appeared to be promising at first but ultimately were not available to the project team.

Our current working hypothesis is that if the organization can reduce the OBS LOS and improve the accuracy of the placement of these OBS patient types into OBS beds, then the overall patient LOS for the hospital will decrease, thus increasing the availability of beds on units, such as 8S, when and where they are needed.

Therefore the approach related to benchmarking for this study will be to compare at the unit level the hospital's own monthly Observation LOS as well as preferred placement accuracy results to the prior fiscal year's figures. National ALOS for all LOC types will also be measured and included in the comparisons. A few other metrics will be tracked for the study as well. Refer to Table 1.

Continuous Improvement Plan

Phase I.

Part A. – Implement interface between EMR and Logistics software platforms to reduce a group of handoff steps. This will help to provide all data points in one location for Patient Flow to more effectively place patients from the start and reduce turn time from ED to IP or OBS units.

Part B. – Redo education with Hospitalist, Nursing Director, and unit staff on intent of the M/S OBS unit and importance of need to transfer patients out of unit once they qualify as IP status.

Phase II.

Part A. – Provide Hospitalist and Social Worker resources to ED. The Hospitalist positioned in the ED will help to reduce turn time between Request for Bed order and Admit order in the EMR, essential to the Patient Flow bed and unit targeting step. The Social Worker resource will provide guidance to those patients who could divert from the OBS units to the hospital’s Behavioral Health wing or community behavioral health resources outside of the hospital.

Part B. – Redesign the Patient Rounding process on the Observation unit and for all OBS LOC designated patients. This will include adjustments to intervals of rounding as well as new protocols to follow once a patient has reached a change in LOC threshold.

Follow-Up Steps to Monitor the Plan

Team meetings have been set for every two weeks and leadership meetings every week as oversight to ensure action items are being implemented. Joint report out sessions have been scheduled at 30, 60 and 90 day intervals.

| TABLE 1 |
|-----------------|-----------------|-----------------|
| NATIONAL HOSPITALS WITH > 500 BEDS | | |
| AVERAGE LENGTH OF STAY 2016 | 5.5 DAYS |
| MERCY MEDICAL CENTER ALOS 2016 | 4.54 DAYS |
| MERCY MEDICAL CENTER ONCOLOGY LOS 2016 | 7.43 DAYS |
| MERCY MEDICAL CENTER 8S OBS LOS FY 2017 | 34.69 HOURS |
| MERCY MEDICAL CENTER 8S OBS LOS FY 2018 | 33.5 HOURS |
| OBS ALOS PROJECT GOAL | 20 HOURS |
| ONCOLOGY/ 8S "PREFERRED" PATIENT PLACEMENTS – FY ’18 | 37.3% |
| ONCOLOGY/ 8S "PREFERRED" PATIENT PLACEMENTS – GOAL FY ’18 | 75% |
In April 2017, Mercy Cancer Center introduced a new instrument for fighting cancer – the TrueBeam Radiotherapy System. As the most advanced radiation therapy available, the TrueBeam linear accelerator uses high-energy radiation beams to kill tumor cells and offers physicians the ability to target smaller treatment areas and to treat patients in less time.

“The new TrueBeam linear accelerator complements the four other radiation treatment machines at Mercy Cancer Center,” said Dr. Richard Deming, Mercy Cancer Center medical director. “The TrueBeam integrates imaging and radiation delivery. It synchronizes radiation dosage, real-time tumor tracking and imaging with millimeter precision. Accuracy and precision are key components of excellence in radiation therapy.”

The TrueBeam system is just one of several recent advancements Mercy Cancer Center has made at its central campus and West Lakes locations. At the central campus location, Optical Surface Monitoring System (OSMS) – a system of cameras that precisely monitors patients with infrared tracking and localization – was added. Updated RPM technology has also been added to the two linear accelerators and the CT scanner at the West Lakes center. Three of Mercy Cancer Center’s linear accelerators will now have Volumetric Arc Therapy (VMAT), a time-saving system which allows for the linear accelerator to deliver radiation in a continuous 360-degree arc around the patient. This allows patients to be treated in roughly half the amount of time as conventional treatment techniques.

Mercy Cancer Center updates technology with new radiotherapy system
Katzmann Breast Center was recertified by the NAPBC as a comprehensive breast center in July 2017. The Breast Program Leadership Committee (BPLC) and the Breast Care Team (BCT) worked tirelessly to achieve recertification for the next three years. The changes implemented from the survey include:

- Adding another breast conference to discuss prospective cases and multidisciplinary input on the best approach to our patients’ care plan.
- As part of the Mercy Cancer Center, we will look for ways to increase the number of patients enrolled in the many clinical trials available.
- We will also ensure that the BPLC is represented in the Mercy Cancer Committee meetings throughout the year where we audit our NAPBC quality standards as well as CoC standards.
- We have developed a plan to distribute survivorship care plans to more of our patients.

The 2018 NAPBC standards manual was updated with revised requirements that will become effective in April. The BPLC and BCT will meet quarterly to review changes and ensure compliance. We will also review each of the performance measures to ensure compliance.

Dr. Torstenson and I are certified in breast ultrasound by the ASBS and ACR. This is a requirement for NAPBC and provides our patients with timely, quality care. Dr. Ruhs has been instrumental in creating a collaborative environment and has built up a full breast imaging center at Mercy West that is certified and meets NAPBC requirements.

We are excited to have the ability of breast MRI at Mercy West. Trish Steenhoek is the radiology navigator who greatly improves communication between patients and providers to facilitate quality and timely care for our breast patients. The multidisciplinary team member collaboration has been instrumental to the success and excellence of our breast program at Mercy.
The National Accreditation Program for Rectal Cancer (NAPRC) is an initiative from the Commission on Cancer of the American College of Surgeons to standardize how rectal cancer care is delivered across the country with the ultimate goal of improving patient outcomes. This was officially launched during a special panel session at the American College of Surgeons Clinical Congress in October 2017.

The rectal cancer program component of the Mercy Cancer Center was also initiated in October 2017 with the following specialty representatives:

- Drs. Brian Freeman and Abdelaziz Elhaddad representing medical oncology
- Drs. Richard Deming and George Voynov representing radiation oncology
- Drs. Roman Mirsky and George Buss representing diagnostic radiology
- Drs. Matt Andres and Clinton Crowder representing diagnostic pathology
- Drs. Soren Kraemer and myself as surgeon representatives
- Jodi Wilson, ARNP, as the rectal cancer program coordinator.

The NAPRC standards manual was recently published. We have begun putting patients through the requirements of the program, including participation in clinical trials. Performance measures are reviewed quarterly to ensure compliance. The teamwork and contribution from various members have been instrumental in rolling out this program.

We expect the application for accreditation to be submitted in early 2018 with the plan for a site visit by the surveyor later in the year. This national accreditation will make the Mercy Cancer Center one of the earliest hospitals across the United States in getting recognition for a rectal cancer program. This is a tremendous and exciting opportunity to improve rectal cancer care for our patients and to establish the Mercy Cancer Center as a leader in central Iowa and beyond.
DR. BRAD HIATT, medical oncologist, was the honorary guest at the Strands of Strength 2017 Central Iowa Annual Spring Luncheon in May. He also received an award from the National Cancer Institute as a top performer/investigator for the NCORP (NCI Community Oncology Research Program) network.

In July, the Mercy Cancer Center Radiation Oncology department was reaccredited for another three years by the American College of Radiology, under the direction of DR. PHIL COLLETIER. This is a rigorous review of the facility’s personnel, equipment, treatment planning and treatment records, as well as patient safety policies, quality control and quality assessment activities.

DR. TIM MCCOY, family practice physician and Mercy Clinics quality chairperson, was awarded a $10,000 grant through the Iowa Cancer Consortium. The grant will build on Mercy Clinics’ efforts to engage and train clinical and non-clinical staff to ensure consistent, positive message delivery to parents and patients regarding HPV vaccinations. There will also be education at the community level. Dr. McCoy collaborated with the American Cancer Society, Des Moines University, UnityPoint Health and the Iowa Department of Public Health.

DR. SUE BECK, breast surgeon and medical director of the Katzmann Breast Center, was recognized as a certified surgeon for Hidden Scar™ Breast Cancer Surgery. She is the first surgeon in central Iowa to perform this advanced approach to breast cancer surgery. She also gave a presentation to the Annual Iowa Osteopathic Medical Association in May about advances in breast cancer care using a coordinated multidisciplinary approach. Additionally, Dr. Beck guided the Katzmann Breast Center to a three-year reaccreditation as a comprehensive breast center through the National Accreditation Program for Breast Centers.

DR. RICHARD DEMING, radiation oncologist and medical director of the Mercy Cancer Center, was named a 2016 recipient of the American Cancer Society’s St. George National Medal. The St. George National Medal recognizes outstanding volunteers who have significantly contributed towards the mission of the American Cancer Society. Dr. Deming was also honored by the Iowa Medical Society with its 2017 Physician Community Service Award.
Mercy oncology surgeon delivers keynote address at international symposium

Mercy Cancer Center surgeon Jan Franko, M.D., Ph.D., delivered the only keynote lecture at the Fourth International Pressurized IntraPeritoneal Aerosol Chemotherapy (PIPAC) Symposium on Oct. 6 in Tübingen, Germany. His address focused on systemic chemotherapy for peritoneal metastasis. Dr. Franko was one of only two physicians from the United States invited to attend this conference.

PIPAC – an innovative treatment with major therapeutic potential for cancer patients – is a minimally invasive administration of aerosolized chemotherapy within the abdominal cavity, where the laws of physics allow high tissue concentrations of chemotherapy, but without the usual side effects and toxicity of systemic chemotherapy. The PIPAC symposium is held annually at various locations around the world. This year’s event included discussions on randomized controlled trials in ovarian and gastric cancer, presentation of next-generation PIPAC technologies, and results from ICH-GCP Phase-II trials in several cancers.

Dr. Franko joined Mercy in 2008, providing surgical services at Mercy’s downtown campus and Katzmann Breast Center. He is a fellowship-trained cancer and endocrine surgeon and a member of a number of prestigious medical societies. Dr. Franko was the first surgeon in Iowa to perform a cutting-edge procedure called Hyperthermic Intraperitoneal Chemotherapy (HIPEC) to treat patients with certain uncommon cancers of the abdominal cavity. He has authored more than 40 scientific articles and given more than 70 national and international presentations.
Mercy Cancer Center is proud to offer the following services to our patients and their families:

- Comprehensive team of oncology specialists
  - Radiation Oncology
  - Medical Oncology
  - Gynecologic Oncology
  - Surgical Oncology
  - Katzmann Breast Center
  - Clinical trials and research
- Nurse navigators
- Cancer resource center
- Nutritional counseling and support
- Lung screening program
- Family and genetic risk assessment
- Survivorship services
- Wellness programs
- Support groups
- Individual counseling
- Wigs, head coverings and self-esteem boutique
- Home care
- Hospice
- Palliative care

Katzmann Breast Center
Clinical trials and research

2017 Cancer Committee

Sue Beck, DO
CLP/Breast Surgeon

Elizabeth Bennigsdorf, MHA
Clinic Administration

Cindy Burgin, CTR
Oncology Registry

Richard Deming, MD
Chair/Medical Director/ Radiation Oncology

Jan Franko, MD, PhD
Surgical Oncology

Monica Gordon, MSN, RN
Quality Management

Tim Hackbart, MS
Director

Brad Hiatt, DO
Medical Oncology

Liddy Hora
American Cancer Society

Jodi Hulbert
Public Relations

Cindy Johnson, MS, CGC
Genetic Counseling

Deana Kerkove, BSN, RN, OCN, ONN
Oncology Navigation

Frank Kiener, LISW
Social Work

John Martens, MD
Radiation Oncology

Sarah McAvoy, MD
Radiation Oncology

Tim McCoy, MD
Family Medicine

Roman Minsky, MD
Radiology

Carolyn Pease, MD
Pathology

Shankar Raman, MD
Surgery

Tami Singleton, RN
Palliative Care

Helen Smith, RN, OCN
Inpatient Oncology

Julie Sulter, PharmD, BCOP
Pharmacy

Barb Wisnieski, RD
Oncology Dietary