

Loma Linda University Medical Center- Murrieta

Cancer Program

2018 Public Reporting of Outcomes (Standard 1.12)

Cancer Care



The best cancer care requires highly skilled and compassionate providers who understand the complexity of your needs.

At Loma Linda University Medical Center – Murrieta, our multi-disciplinary clinical team is committed to developing an individualized care approach that meets each patient’s unique needs and diagnosis.

To do this, we rely on the same whole person healing approach – mind, body and spirit - that has made Loma Linda University Health a world-renowned name for over a century.

Your Care Team

Patients in our cancer program count on the support of a multi-disciplinary team of highly trained clinical experts:

- Surgical Oncologists
- Medical Oncologists
- Radiation Oncologists
- Radiologists
- Nurse Navigator
- Nutrition

Cancer Conditions We Treat:

- Breast
- Prostate
- Testicular
- Skin (Melanoma)
- Colorectal
- Uterine
- Lung
- Pancreatic
- Lymphoma
- Leukemia
- Bladder

Connect with the
Oncology Nurse Navigator
[951-290-4148](tel:951-290-4148)

What Is a Tumor Board?

A tumor board is an approach to treatment that brings together experts in many specialties who meet to review and talk about a patient's medical condition to identify the best treatment options for the patient.

Surgical Treatment

- Da Vinci – Robotic-Assisted Surgery
- Intravesicle Therapy for Bladder Cancer
- Minimally Invasive Surgery
- Plastic and Reconstructive Surgery

Diagnostic Services

- 3-D Breast Mammography

- Ultrasound
- MRI
- PET & CT Scan
- Bone Scan
- Nuclear Medicine
- DEXA
- Diagnostic Radiology

Women's Diagnostic Services

- 3-Dimensional Mammography
- Breast needle localization procedures
- Sentinel lymph node biopsy injection (SLNB)
- Breast ultrasound
- Ultrasound guided breast biopsy
- Stereotactic breast biopsy
- DEXA studies (bone density)
- MRI breast studies
- MRI guided breast biopsy with dynaCAD and breast coil by Invivo

Radiation Services

- 3D Conformal Radiation Therapy
- Intensity Modulated Radiation Therapy (IMRT)
- Image Guided Radiation Therapy (IGRT)
- CT Scanning and Simulation
- Stereotactic Body Radiation Therapy (SBRT)
- Respiratory Gating

Interventional Radiology Services

- Port-a-cath placements
- Thoracentesis
- Paracentesis
- Drain placement (Pleur X, Accordion, etc)
- PICC line placement
- Interventional Radiology-guided biopsy/Ultrasound guided biopsy/CT-Guided Biopsy

Patient Resources

- Cancer patient resources – [English](#) and [Spanish](#)
- Outpatient palliative care by referral
- Genetic testing and counseling by referral
- Hospice services by referral

Coping with Cancer Support Group

Our free bi- monthly support group is for anyone currently going through cancer treatment and their loved ones and caregivers.

When: 1st and 3rd Tuesday of each month.

Where: Temecula Room, Suite 210 - Professional Office Building next to the hospital 28078 Baxter Road, Murrieta CA 92563

Time: 6-7 p.m.

Appointments and Navigation

- Nurse Navigator/Cancer Program Contact: [951-290-4148](tel:951-290-4148)
- Radiation Oncology Appointments: [951-290-4162](tel:951-290-4162)
- Radiology Appointments: [951-290-4360](tel:951-290-4360)
- Women's Imaging Center: [951-290-4360](tel:951-290-4360)
- Rehabilitation Services: [951-290-6550](tel:951-290-6550)

Community Outreach Activities:

In 2018, the Cancer Program participated in a variety of community outreach and collaborative events, including:

- American Cancer Society Relay for Life: May 19-20, 2018
- Michelle's Place Event: September 23, 2018
- Susan G. Komen Walk: October 14, 2018
- Patient Navigation for Oncology is offered through LLUMCM on a weekly basis, Monday through Friday.

Education, Prevention, and Screening Activities for 2018

According to the American College of Surgeons Commission on Cancer Standard 1.12, the cancer committee should create and share a report of program outcomes to the public. The information shared should be in areas including: Prevention and Screening programs, Monitoring Compliance with Evidence-based guidelines, studies of quality and quality improvements.

April 23, 2018: Lake Elsinore Senior Center: The patient navigator for the cancer program participated in a cancer education event with the seniors at the Lake Elsinore Senior Center. There were approximately 20 persons in attendance of this event which discussed basic cancer awareness, prevention, and screening. The event was well received by the attendees and was requested to be repeated next year.

Education, Prevention, and Screening: General Cancer Screening and Prevention: April 6, 2018

A cancer screening and prevention event focusing on skin, colorectal, and general education was offered to the surrounding communities on April 6, 2018. It was attended by 32 persons varying in age, gender, and ethnicities. 18 people participated in skin checks, three of which required follow up with their primary care providers for possible intervention. 23 persons acquired colorectal testing kits through the hospital and 10 acquired genetic testing kits. 22 participant surveys were returned revealing that the majority of people gained knowledge about cancer, causes and risk factors, screening and prevention options, and the speaker and vendor reviews were favorable.

Education, Prevention, and Screening: Breast Cancer: October 5, 2018

In honor of breast cancer awareness month, the cancer program hosted a breast wellness event October 5, 2018. It was attended by 70 people, 12 men and 58 women. Of the 70 participants, 24 received vouchers for free 3-D mammograms at LLUMCM and three utilized them. Of those three mammograms, 1 was unremarkable and 2 required additional intervention.

Education, Prevention, and Screening: Lung Cancer: November 9, 2018

In honor of lung cancer awareness month, the cancer program hosted a lung cancer screening and awareness event November 9, 2018. A guest speaker, Dr. Michael Koumjian, spoke at the event about lung cancer awareness, screening, and prevention. 60 people attended the event and of those 60, 21 underwent free, low-dose CT scans of the chest. Of the 21 CTs, 15 required review by the cardiothoracic surgeon, Dr. Koumjian. Of those, 3 had recommendations for repeat CT scans in 6 months, 3 recommended 1 year follow up, and 3 met with the physician.

The rest of the scans were unremarkable. Ten of the 60 participants returned surveys about the event. The majority stated they gained knowledge about lung cancer, risk factors for lung cancer, and screening and prevention techniques. Dr. Koumjian received high ratings for his presentation and participation.

Evidence-based Compliance and Studies of Quality Improvement: Overview

The cancer committee participated in the following studies of Quality and Quality improvement for 2015-2017:

* Breast Cancer and Needle Biopsy rates (2015): **2015 Standard 4.6: Monitoring Compliance with Evidence-Based Guidelines**

Primary Site Analyzed: Breast

Evidence-Based Guideline: needle biopsy was initial method used to establish diagnosis of breast cancer. The use of needle biopsy improves cancer treatment and minimizes the number of surgical procedures to which any one individual is subjected. Benchmark: 80%

Purpose: data reviewed to determine if needle biopsy was initial method used to establish diagnosis. LLMC-Murrieta's goal is to receive a cancer program accreditation from the CoC.

Data: Women with AJCC Stage 0, I, II, or III breast cancer undergoing surgery:

Total Analytic Cases:	105
Total Diagnosed and treated at LLMC-Murrieta	18
Total Diagnosed at Outside Facility and referred to LLMC-Murrieta	87
Total Number Analytic Breast Cases	

Exclusions:

Patient refused biopsy,

Patient medically unable to hold position for image guided biopsy,

Patient requires sub-areolar excision for nipple discharge,

Lesion too superficial,

Breast too small,

Lesion inaccessible by needle biopsy,

Cancer found in prophylactic mastectomy,

Benign high risk lesion diagnosed by needle biopsy, requiring excisional biopsy

Discordant biopsy results compared to suspicious imaging

Diagnosed at Loma Linda or Staff MD Office

13 of 18 did not have needle biopsy to establish diagnosis of cancer

*9 cases excluded due to clinical findings

16/18 cases: Needle Biopsy was performed to obtain diagnosis

Compliance rating: **89%**

Diagnosed at Outside Facility

2 of 85 did not have needle biopsy to establish diagnosis of cancer

*1 of 85 excluded due to clinical findings

84/85 cases: Needle biopsy performed to establish diagnosis

Compliance Rating: **99%**

Conclusions:

The data received demonstrated that our breast cancer cases were diagnosed appropriately evidenced by the fact that both cases diagnosed here and those referred from outside facilities exceeded the established benchmark of 80%. (89% and 99% respectively)

Follow-Up:

Continue to monitor

References:

National Quality Forum: www.qualityforum.org/Measures

Commission on Cancer: <https://www.facs.org/quality-programs/cancer/ncdb/qualitymeasures>

Ascopubs.org

*Implementing the 3D mammography equipment (2015)

The Improvement: In 2015, it was decided to upgrade Loma Linda University Medical Center Murrieta's outpatient Mammography machinery to a 3D model to offer more accurate

screenings and move toward providing a higher quality of care through the use of state of the art machinery. The hospital purchased the 3D mammography machine and began performing diagnostic studies with it immediately.

The Outcome: These screenings led to the discovery of more cancers than traditional models while decreasing the number of false positives. One of the population subsets who most benefit from 3D mammograms is women with dense breast tissue, which has previously been a topic of great debate on how to best screen women with dense breasts. The community members who fell into this category were able to receive 3D mammography with the confidence that their dense breast tissue was not going to limit the exam as it would on a conventional mammogram.

The Benefits:

This new, more accurate machine now allows for more mammograms to be performed annually, with accurate results, and fewer false positives; all of which lessens the amount of needless procedures performed by the radiologist for further work up of breast cancer. With this in mind, Loma Linda University Medical Center Murrieta now offers 50 free mammograms annually to those who qualify based on a low income assessment and cash pay mammograms for 85 dollars. The hospital also partners with Michelle's Place-a local organization providing resources available to women with breast cancer and their family members. The hospital provides certificates to Michelle's Place for free and discounted mammograms annually.

* Pathology specimen turnaround times (2016)

Issue: Increasing concerns were brought to the pathologist's attention that there was an opportunity for improvement on notification of lab results such as non-critical labs and pathology results. The cancer program physician liaison, medical oncologists, and the pathologists held meetings outside of cancer committee to determine steps to improve the laboratory results notification process. The improvement results were reported back to the cancer committee and two different intervals with a verbal report from the pathologist and local oncologists that the process was much improved.

Criteria:

- * All orders for laboratory specimens
- * Communicating via "Autofax"
- * Physician practicing at Loma Linda University Medical Center Murrieta
- * Timeliness of specimen processing
- * Results analysis and interpretation

The Benefits: Pathology and non-critical specimens are an integral component to patient diagnosis and treatment planning. The ability to decrease turnaround times not only allows providers to have access to pathology at a faster rate, but it also allows them to perform clinical decision-making when they would otherwise be waiting on results. For patients who end up being cancer free; faster turnaround times allow them to know they do not have cancer sooner than the previous 7-10 days. Having a system that works to meet the needs of the pathologist and oncologists, that was developed through teamwork, also promotes better inter-professional relationships which are vital to community hospital cancer programs.

The Outcome: The pathologist, oncologists, and cancer liaison physician, worked loosely with the quality department and special consultants to review paths of success and failures in the current lab process. They were able to discuss specimen collection and transportation with nursing staff, laboratory staff, and transportation staff. A highlight was placed on weekend practices as these are low volume and high risk times, especially for specimens difficult to obtain such as bone marrow biopsies. Lab processing times and the amount of time from collection to entry into the electronic health records was also reviewed and improved. The pathologist, cancer liaison physician, and cancer conference chair were happy to report to the cancer committee that specimen turnaround times has greatly improved, an in fact, estimate that the turnaround time has decreased from a standard 7-10 days to 3-5 days.

Committee Recommendations: Create a subgroup of pathologists, medical oncologists, and the cancer liaison physician to discuss a better process for laboratory specimen collection and analysis.

Follow Up: One of the first steps take to improve communication between the lab and outside physicians was to update the fax numbers in the laboratory fax machine program “auto fax”. These numbers were verified by physicians and corrections were made to the machine as needed. Physicians were re-educated on the appropriate laboratory ordering process and given the number to the pathologist in case there were questions on how to order certain special tests or send out tests. The process of specimen collection to transportation to the Murrieta laboratory then to the Loma Linda University Health laboratory was also reviewed for analysis of potential areas of opportunity to close the loop from specimen collection to reporting.

*Documentation improvements in radiation oncology (2015 & 2016)

Issue: In 2015, we noticed that we did not get the most current allergy and medication information documented for all our radiation patients.

Rationale: Medication safety is of the utmost importance; the increased use and expansion of the use of medication to treat illness has also brought an increase in hazards, errors, and adverse events.

Allergy documentation is essential to patient safety in a hospital or clinic setting. The introduction of medication, environmental or food allergens to a patient can have harmful effects on the health and recovery of the patient.

The expectation for all our patients in the radiation department is that we keep accurate allergy and medication information in each of our outpatient radiation nursing notes. There were a disproportionate number of cases that did not have that data. It is expected that for each of our patients who complete treatment the month preceding the reporting month, we have 100% compliance with the of allergy and medication data in the patients' medical record. This measure assures the Cancer Program that the radiation oncologists treating at our facility have received the accurate, current data before the treatment is given.

Criteria:

- Audit medical records of all patients who are going to be treated in the radiation oncology department to determine if patient allergy and medication data is complete
- Determine root cause for the incomplete documentation
- Identify gaps in communication and documentation

Findings: We audited the charts of all patients' 38 in 2015, and we found that our rate of compliance with this internal program standard was 86% or 33 patients. The patients whose initial evaluation at Loma Linda University Medical Center's main campus were the patients who were lacking this documentation. Therefore, the Radiation Oncology Department was not receiving the medication and allergy lists for a portion of their patients at the time of monthly data reporting. Due to our untimely collection and documentation of data received from LLUMC, we reported the allergies and medications for certain patients, after the patients had been treated.

Recommendation: The suggestion made to increase the compliance rate includes the following steps:

Each month, the radiation oncology nurse will give the office coordinator a list of patients who completed treatment during the previous month.

The office coordinator will review the names and identify the patients who had initial evaluations and initial radiation nursing notes at LLUMC.

Those selected names will be returned to the radiation oncology nurse.

The radiation oncology nurse will contact the nurse for the treating physician at LLUMC to inquire about the initial evaluation notes.

After it is confirmed that the initial evaluations were completed at LLUMC, the physician's nurse at LLUMC will fax those records to LLUMC-M.

Once these records are received, the radiation oncology nurse will scan the note into the patient's file, making the note available for the tumor registrar to view and count toward overall compliance.

Follow-up: The success of the implemented process was reliant upon the timeliness of obtaining the initial evaluation and nursing notes before the completion of the monthly reporting period. If they were not received by that time, they were later included in the report.

Once this process was implemented we saw a total improvement of our process. We went from 86% compliance to complete compliance at 100%.

*Percutaneous Endoscopic Gastrostomy (PEG) tube utilization and outcomes (2017)

Background: In 2018, the radiation team and cancer program noticed three head and neck radiation patients encountered difficulties with timely insertion of a PEG tube, timely dietary evaluations, and/or timely initiation of tube feedings. The lack of timeliness in these cases potentially led to hospitalization for dehydration and severe protein calorie malnutrition (PCM) in all three patients. One of the patients expired, one was hospitalized twice and had three emergency room visits for dehydration and PCM, and one was hospitalized twice for PCM though he did initially refuse a PEG tube when it was offered by the radiation oncologist.

Improvement: An internal audit of radiation medicine charts was performed throughout 2018 to determine potential indicators for identifying the need for a PEG tube, the most appropriate time for a dietary consultation, and timeliness of initiation of tube feedings. Based on the findings, a protocol was created and reviewed by the radiation oncology team, radiation oncology nurses, and dietary services. The protocol was approved by the Cancer Committee in September 2018 and dietary services were approved for the outpatient setting in late September 2018. October 2018, the dietary consults began on the new head and neck patients after they signed consent for treatment and started their treatment planning.

Outcome: It was discovered that the first patient who underwent treatment after the new protocol has a dietary consult and did not lose weight, did not need a PEG tube, and did not require hospitalization. The second patient had a PEG tube placed before he started treatment but had a dietary evaluation with radiation medicine. He completed treatment without

complications and did not require hospitalization. The third patient just started treatment but had an initial 25 pound weight loss. She has had her dietary evaluation and had a plan in place should she need a PEG tube. For now, she is able to eat and maintain her weight. She will continue to be monitored.

Benefit: Nutrition management is vital for radiation patients, in particular, head and neck patients whose intake pathways may be compromised due to treatment. Patients without PEG tubes must be monitored closely to ensure malnutrition does not occur due to dysphagia, xerostomia, etc. A multidisciplinary approach is required for treatment of head and neck patients and intervention should be initiated early in the treatment process. Dieticians, nursing, physicians, home health agencies, and radiation therapists must be involved in the intervention process. Early identification of potential complications must occur in order for patients to have the best outcomes.

*Body Mass Index and relation to cancer (2017)

Standard 4.8 2017 Quality Study: *General Cancer Patients Receiving Chemotherapy, radiation therapy, hormonal therapy, or immunotherapy.*

Background: High body-mass index (BMI) has been attributed to increasing the risk for cancer and complication with cancer treatment. Specific cancers are associated with an increase incidence due to high BMI including. This study was conducted to determine if our cancer patients had a BMI equivalent to or greater than “obese” at the time of diagnosis or shortly thereafter. This baseline of information allows the cancer program to promote healthy lifestyle changes for the cancer patient and healthy lifestyle choices as a preventative measure for the community.

Improvement:

An internal audit of BMI for patients referred to the ONN was conducted for 2016. There were 349 audits performed revealing 63% of the patients were either overweight or obese according to the CDC Body Mass Index Calculator. There was a correlation between patients being overweight/obese and experiencing more complications or increased length of stay and a link between underweight patients signing on to hospice services.

In 2018, the ONN began handing out the resources, “Take Control of Your Health” and “Healthy Lifestyle Choices” by the American Cancer Society.

A plan to provide education to the surrounding community members and local primary care providers was also developed by the cancer committee. The education event was scheduled for April 6, 2018 and will host a booth focused on healthy lifestyles, cancer prevention, and nutrition. The hospital dieticians are also attending support group on March 20, 2018 and

education the attendees on healthy food choices and lifestyle modification. Physical therapy is also attending support group in 2018 to educate on mobility, fatigue management, and increasing activity for cancer patients and survivors.

Outcome: The outcome of this study demonstrates an increased awareness of the need to make healthy lifestyle choices. While the committee will not be able to see a direct correlation between the education provided and a decrease in BMI for the patients referred to the ONN, they are provided with information on interventions by committee members to make the surrounding community aware of the link between obesity and cancer. They are also aware of the education being provided to each cancer patient by the ONN on health lifestyle choices.

Benefit: Increasing awareness and knowledge about healthy lifestyle choices and cancer prevention not only benefits the community members but also has the potential to decrease the cancer burden on health care providers. Continued assessment of patient and community member feedback about healthy lifestyles will continue to be assessed and reported back to the committee as needed in 2018. The feedback for the end of 2017 and beginning of 2018 has been favorable for educational materials provided and knowledge gained about healthy lifestyle choices.

*Radiation follow-up appointment and diagnostic improvement project

Background: In 2018, the radiation nurse identified a discrepancy between physician notation of when patients where to follow up and when follow ups were occurring. An audit of 2017 revealed that 31 of 62 patients had appropriate follow-up. 22 had no record of follow up and 9 followed up after their recommended timeframe.

Improvement: The radiation medicine RN who was hired in March 2018 started an audit of patients who were to have follow up in 2018. She scheduled the patients for January to March and created a follow up process. In this follow up process, end-of-treatment summaries are printed and order sheets made with physician recommendations. Each form is placed in a folder in the appropriate month of follow up. For example, Mr. Smith is to follow up in one month from now (December) with a PET scan. The order for the PET scan and Mr. Smith's end of treatment summary go behind the December tab. As December approached, the RN calls him to get his PET scan done and schedule the follow up appointment.

Outcome: An audit of the 2018 charts shows that 65/79 patients followed up at their recommended time. The 14 who did not either moved or did not return the radiation RNs phone calls to set up the follow up appointments. The requisitions for labs and diagnostic imaging were mailed to the patient's home.

Benefit: Follow up in a timely manner allows for improved continuity of care and early identification of complications. It is important for patients to have their diagnostic imaging and labs at the time determined appropriate by the physician and follow up appointments allow for discussion of those results and potential planning for additional intervention.

Quality Improvement is ongoing at LLUMCM and promotes best practice as the cancer program compares their results to national benchmarks to strive for gold-standard of oncology care.