CENTEGRA CANCER PROGRAM ANNUAL REVIEW 2018

SUMMARIZING DATA FROM THE YEAR 2017

A YEAR IN REVIEW 2017

Jerry Liu, MD
Medical Oncology
Cancer Liaison Physician

FROM DR. JERRY X, LIU

Centegra Hospital –McHenry Public Reporting of Outcomes

The cancer program at Centegra continued to grow in 2017. We continued our efforts in analyzing and comparing our data to national trends by participation in the Rapid Quality Reporting System (RQRS). The cancer registrars are doing a very diligent job in submitting the required monthly data, and then responding to the alerts when received. We continue to follow reports from Cancer Program Practice Profile Reports (CP3R), which offer local providers comparative information to assess adherence to standard of care therapies for major cancers. Our outcomes data has continued to compare well and in many cases exceed local and national trends. Last year we also began to adopt the new 8th Edition of AJCC cancer staging. We are continuing our efforts in analyzing and reporting new cancer cases based on the new staging guidelines. We are also providing education and information resources for the patients and providers regarding the new staging system.

We carefully reviewed Centegra's annual cancer case volume, hospital services and resources and released this data to be displayed on the Commission on Cancer (CoC) Hospital Locator on the CoC website for public viewing. Our data shows relatively stable numbers of patients in recent years for the entire system. Since the opening of the Huntley hospital, we are seeing many new cancer cases from the new hospital, and anticipating further growth in the upcoming year. We continue to monitor patient migrations, both in and out of the systems to see what improvements we could make to increase our retention rate.

Our cancer center expansion project is already underway. Once finished, we will have a newly installed linear accelerator for radiation therapies, and also more spaces for chemotherapy infusions. These efforts will bring further growth for our cancer center by providing state of art technology and comfortable environment in caring for cancer patients.

Centegra HealthSystem
part of Northwestern Medicine

REVIEW CONTINUED

Centegra Hospital-McHenry 2016 Performance Measures

Accountability measures promote improvements in care delivery and are the highest standard for measurement. These measures are the standard of care derived from evidence-based data, including multiple randomized control trials. The Cancer Committee reviewed the most current data from cases diagnosed in 2016. The following table shows the Commission on Cancer (CoC) estimated performance rates (EPR) for each of the measures and demonstrates how Centegra Hospital – McHenry compares to facilities in the State of Illinois and all CoC facilities:

Measure Description	CoC Estimated Performance Rate	Centegra Hospital-McHenry	Illinois State	All CoC Facilities
BREAST				
BCSRT - Radiation therapy is administered within 1 year (365 days) of diagnosis for women under the age of 70 receiving breast conserving surgery for breast cancer	90%	**96.2%**	92.6%	91%
MAC - Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0M0, or stage IB - III hormone receptor negative breast cancer	N/A	**100%**	96.5%	92.6%
HT - Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1cN0M0, or stage IB - III hormone receptor positive breast cancer	90%	**90%**	93.7%	91.7%
MASTRT - Radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with = 4 positive regional lymph nodes.	90%	**100%**	89.7%	85.5%

Quality improvement measures are used to monitor the need for quality improvement or remediation of treatment provided. Evidence from experimental studies, not randomized control trials supports these measures. These measures are intended for internal monitoring of quality of patient care within a cancer program.

nBx – Image or palpation-guided needle biopsy (core or FNA) is performed to establish diagnosis of Breast Cancer.	80%	**98.90%**	92.9%	90.2%

2018 STUDY

Aslam S. Zahir, MD
Medical Oncology

Evaluation of Compliance with National Comprehensive Cancer Network (NCCN) Guidelines for Management of Breast Cancer Stage 0

Aslam S. Zahir, M.D.

Illinois Cancer Specialists

December 12, 2018

STUDY CONTINUED

Overview

Study based on CoC Standard 4.6: Each calendar year a physician completes an in-depth analysis to assess and verify that patients are evaluated and treated according to evidence-based national guidelines.

Analytic cases included: ALL Breast Cancer Cases AJCC Stage 0 for 2016 and 2017 at Centegra Hospital McHenry and Centegra Hospital Huntley [n=42].

Histologic Types:

- Intraductal carcinoma, noninfiltrating, NOS = 22
- Intraductal carcinoma plus 2 or more subtypes = 7
- Comedocarcinoma, noninfiltrating = 6
- Cribriform carcinoma in situ = 3
- Lobular carcinoma in situ = 3
- Intraductal micropapillary carcinoma = 1

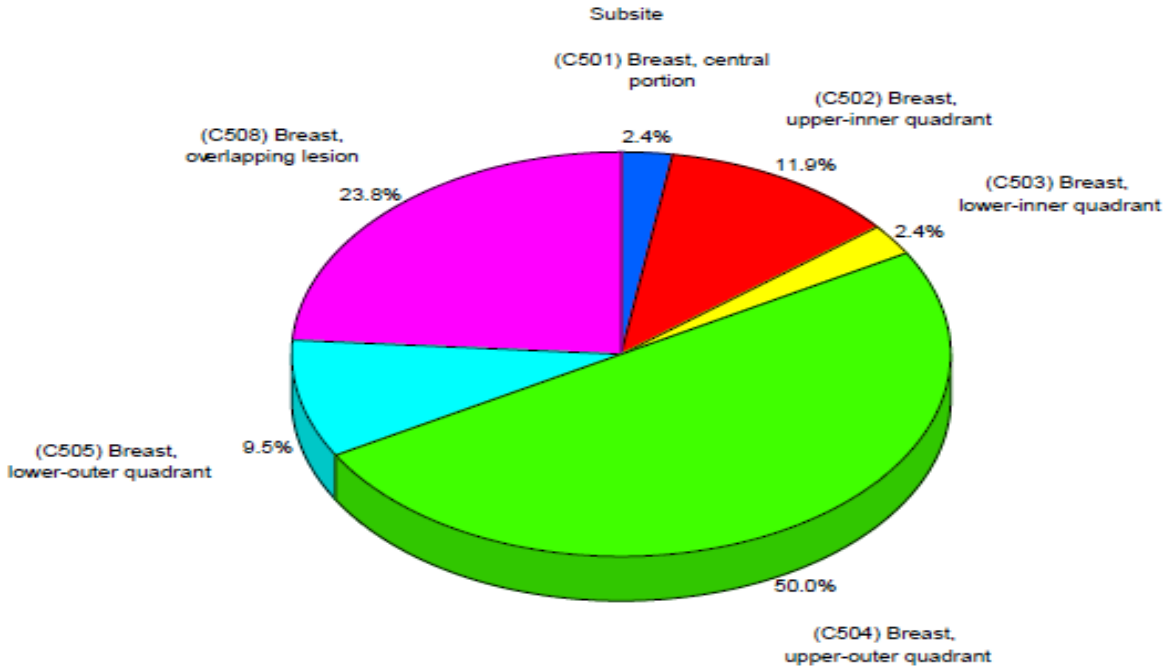
AJCC 7th Edition Stage Groupings:

- Stage 0

STUDY CONTINUED

Breast Subsites

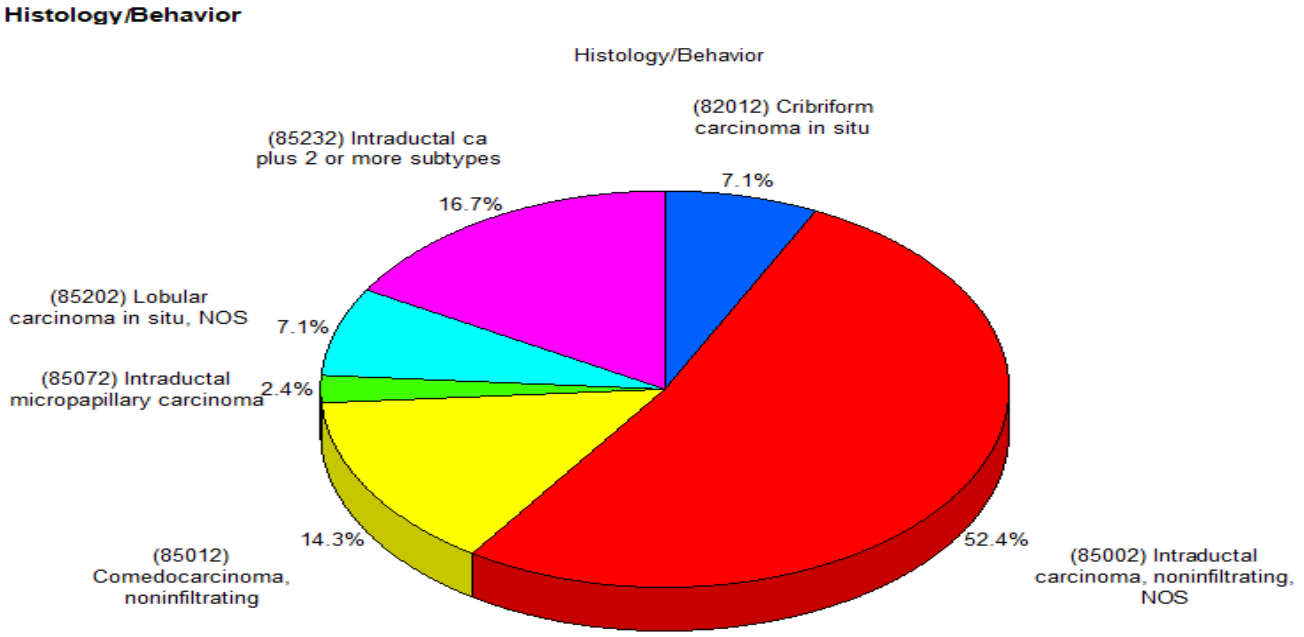
	Count	Percent (%)
(C501) Breast, central portion	1	2.38%
(C502) Breast, upper-inner quadrant	5	11.90%
(C503) Breast, lower-inner quadrant	1	2.38%
(C504) Breast, upper-outer quadrant	21	50.00%
(C505) Breast, lower-outer quadrant	4	9.52%
(C508) Breast, overlapping lesion	10	23.81%
Total	42	100%



STUDY CONTINUED

Histologies

Histology/Behavior	Count	Percent (%)
(82012) Cribriform carcinoma in situ	3	7.14%
(85002) Intraductal carcinoma, noninfiltrating, NOS	22	52.38%
(85012) Comedocarcinoma, noninfiltrating	6	14.28%
(85072) Intraductal micropapillary carcinoma	1	2.38%
(85202) Lobular carcinoma in situ, NOS	3	7.14%
(85232) Intraductal ca plus 2 or more subtypes	7	16.67%
Total	42	100%



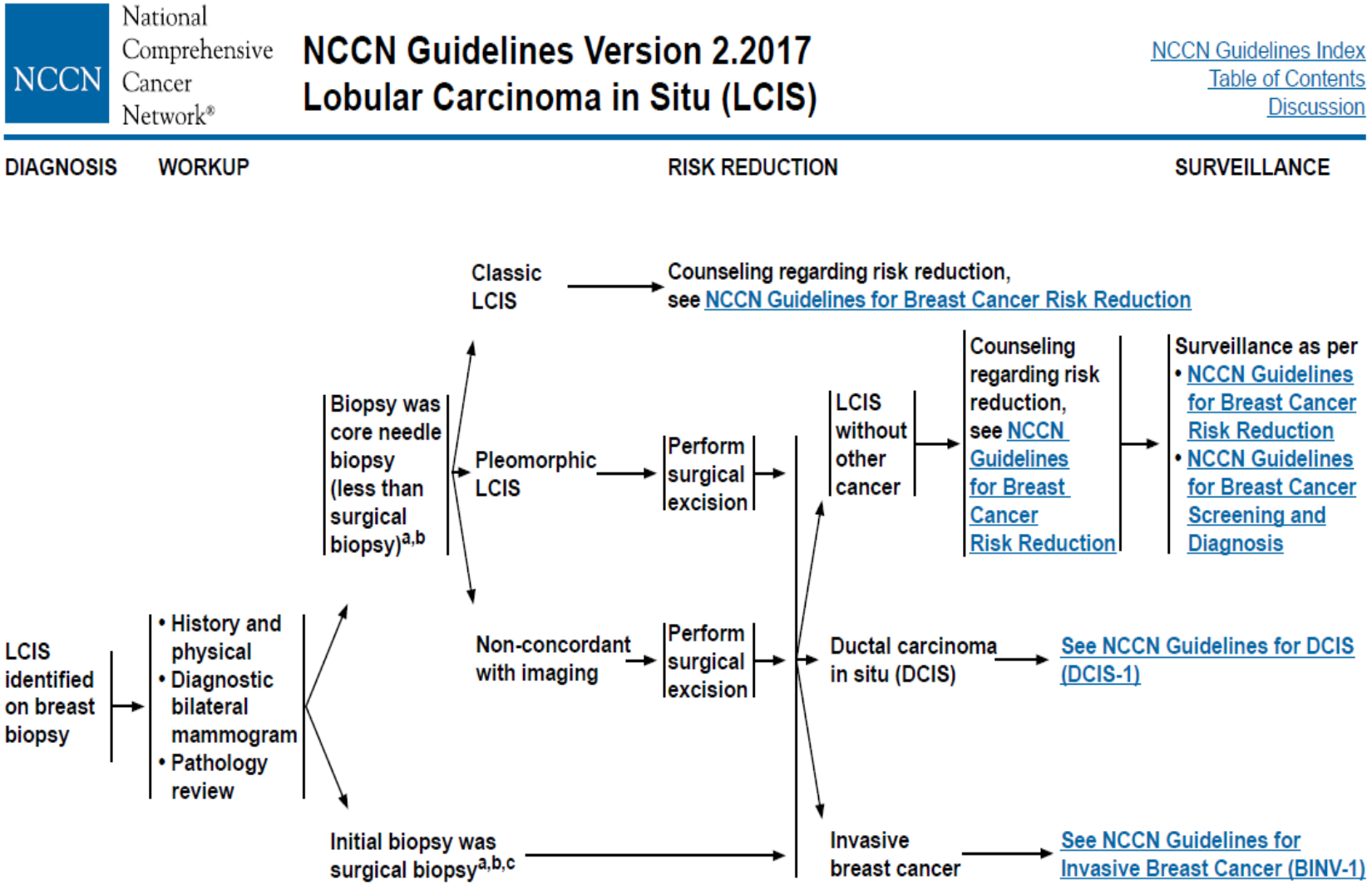
STUDY CONTINUED

Workup Criteria, First Course of Therapy and Follow-Up Surveillance

Retrospective chart review of the 42 cases conducted to determine documentation of compliance with National Comprehensive Cancer Network (NCCN) guidelines in the following workup and treatment areas:

- Age at Diagnosis
- H&P
- Diagnostic Bilateral Mammogram
- Type of Biopsy Performed
- Histology and Nuclear Grade
- ER Status
- Genetic Counseling if High Risk
- Breast MRI if indicated
- Surgical Treatment
- Radiation Treatment
- Endocrine Therapy
- Follow - Up

STUDY CONTINUED



STUDY CONTINUED

NCCN Guidelines
Lobular Carcinoma in-Situ

Work-up Criteria	Number of Cases	Number Compliant	Percentage Compliant	Notes
History & Physical	3	3	100%	
Diagnostic Bilateral Mammogram	3	3 (1 Bilateral 2 Unilateral)	100% (33% Bilateral 67% Unilateral)	• 2 Unilateral Diagnostic Mammogram, Bilateral recommended
Core Biopsy Performed	3	2	100%	• 1 Incidental Finding
Pathology Review	3	3	100%	
Breast MRI	3	1	NA	MRI as indicated

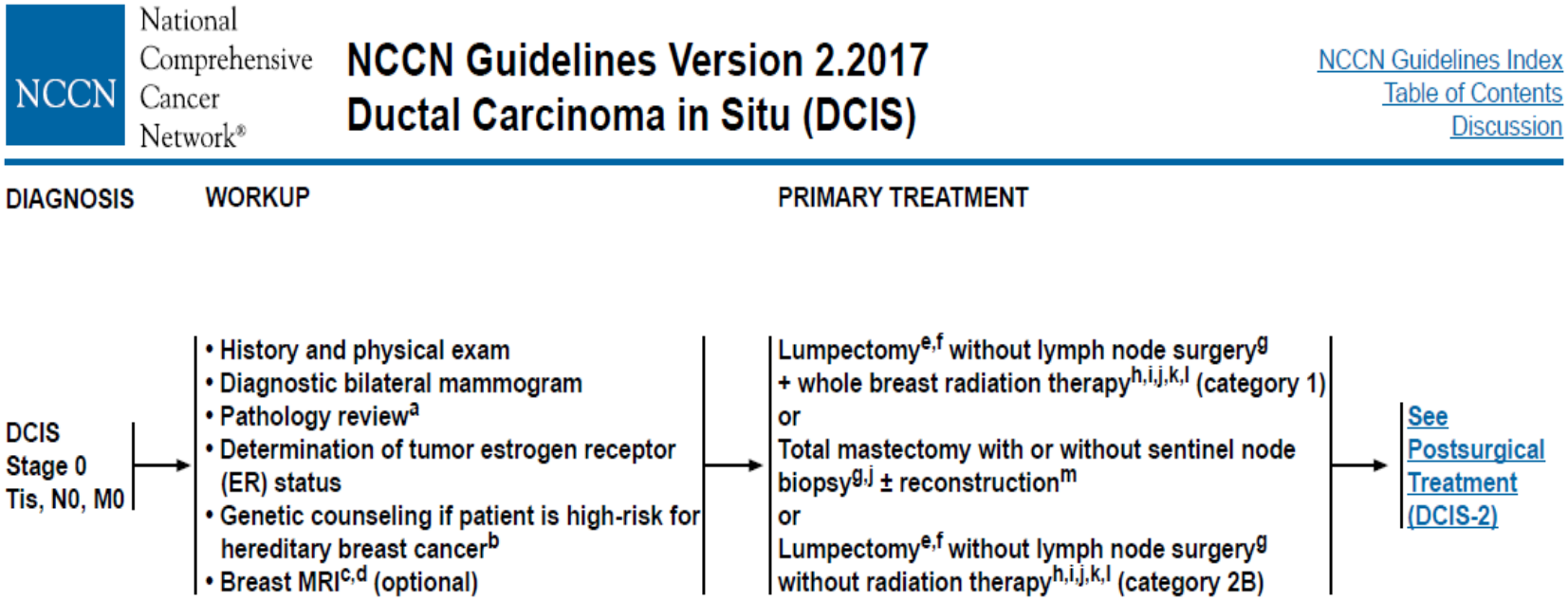
STUDY CONTINUED

NCCN Guidelines
Lobular Carcinoma in-Situ

Risk Reduction	Number of Cases	Number Compliant	Percentage Compliant	Notes
Surgical Excision	3	3	100%	
Radiation Therapy	3	0	NA Consider only	• 2 Not Recommended • 1 Refused
Endocrine Therapy	3	2	NA Consider only	Endocrine therapy to be considered

Surveillance	Number of Cases	Number Compliant	Percentage Compliant	Notes
Follow-up Mammogram	3	3	100%	

STUDY CONTINUED



STUDY CONTINUED

National Comprehensive Cancer Network®

NCCN Guidelines Version 2.2017
Ductal Carcinoma in Situ (DCIS)

NCCN Guidelines Index
Table of Contents
Discussion

DCIS POSTSURGICAL TREATMENT

Risk reduction therapy for ipsilateral breast following breast-conserving surgery:

- Consider endocrine therapy for 5 years for:
  - Patients treated with breast-conserving therapy (lumpectomy) and radiation therapy[n] (category 1), especially for those with ER-positive DCIS.
  - The benefit of endocrine therapy for ER-negative DCIS is uncertain
  - Patients treated with excision alone[n]
- Endocrine therapy:
  - Tamoxifen[o] for premenopausal patients
  - Tamoxifen[o] or aromatase inhibitor for postmenopausal patients with some advantage for aromatase inhibitor therapy in patients <60 years old or with concerns for thromboembolism

Risk reduction therapy for contralateral breast:

- Counseling regarding risk reduction

See NCCN Guidelines for Breast Cancer Risk Reduction

SURVEILLANCE/FOLLOW-UP

- Interval history and physical exam every 6–12 mo for 5 y, then annually
- Mammogram every 12 mo (and 6–12 mo postradiation therapy if breast conserved [category 2B])
- If treated with endocrine therapy, monitor per NCCN Guidelines for Breast Cancer Risk Reduction

STUDY CONTINUED

NCCN Guidelines
Ductal Carcinoma in-Situ

Work-up Criteria	Number of Cases	Number Compliant	Percentage Compliant	Notes
History & Physical	39	39	100%	
Diagnostic Bilateral Mammogram	39	37 (15 Bilateral 22 Unilateral)	95% (38% Bilateral 56% Unilateral)	• 22 Unilateral • 2 Unknown
Core Biopsy Performed	39	37	95%	• 1 Surgical Excision • 1 No Biopsy (breast too thin)
Pathology Review	39	39	100%	
• Grade	39	38	97%	• 1 No grade on pathology
• ER Status	39	39	100%	• 32 ER (+) • 7 ER (-)
Breast MRI	39	14	NA	MRI as indicated
Genetic Counseling	39	2	NA	Counseling if High Risk • 17 Not Recommended • 1 Declined • 19 Unknown

STUDY CONTINUED

NCCN Guidelines
Ductal Carcinoma in-Situ

Primary Treatment	Number of Cases	Number Compliant	Percentage Compliant	Notes
Surgical Treatment	39	37	95%	• 1 No Surgery, HT only • 1 Unknown
• Lumpectomy	29			
• Mastectomy	8			
Radiation After Lumpectomy	29	18	62% (No RT category 2B)	• 10 Not recommended • 1 Refused
Endocrine Therapy	32 ER+	18	NA Consider only	• 2 Not recommended • 7 refused • 5 Unknown
• Endocrine therapy after breast conserving surgery ER+	22	14	NA Consider only	• 2 Not recommended • 6 Refused

STUDY CONTINUED

NCCN Guidelines
Ductal Carcinoma in-Situ

Surveillance	Number of Cases	Number Compliant	Percentage Compliant	Notes
Follow-up Mammogram	39	30	77%	• 2 No mammogram documented • 7 Unknown

STUDY CONTINUED

Summary

- Work-up criteria for History and Physical was 100% compliant
- Work-up criteria for Diagnostic Mammogram was 95% compliant and 38% compliant for Bilateral Diagnostic Mammogram
- Core biopsy performed was 95% compliant and 1 was an incidental finding
- Pathology review for histology was 100% compliant
- Pathology review for grade was 97% compliant as it is not required for LCIS
- Pathology review for ER status was 100% compliant
- Breast MRI was performed in 14 cases as indicated
- Genetic Counseling was performed in only 2 cases with unknown number where counseling was indicated
- Surgical Treatment was 95% compliant
- Radiation for DCIS after lumpectomy was 62% compliant
- Endocrine therapy after breast conserving surgery in ER+ patients was 64% compliant but only needs be “considered” per NCCN guidelines
- Follow-up mammograms were 79% compliant

STUDY CONTINUED

Conclusions & Recommendations

1. In Lobular Carcinoma in Situ, the role of surgical therapy may need to be carefully decided in consultation with the patient since evidence does not support this intervention unless pleomorphic LCIS or a biopsy is non-concordant with imaging.
2. CAP protocols (checklists) have provided in depth and detailed structure for understanding the characteristics of the disease entity for optimal individual patient management.
3. In almost half of our patients, MRI led to mastectomy. MRI may overestimate the extent of disease. Therefore, surgical decisions should not be solely based on MRI findings. MRI guided biopsy should be helping to verify the extent of involvement.
4. Discussion of whole breast radiation therapy after lumpectomy with close attention to margin status as per the Category I NCCN guideline recommendation should be clearly documented in the consultation. Reasons for alternative treatment decisions should also be clearly documented.
5. Reporting should include lymph node status for patients undergoing mastectomy since future performance of sentinel lymph node dissection is not feasible.
6. Until a favorable biology is designed, endocrine therapy is appropriately used in most of our patients.
7. Genetic counseling is recommended for patients at high risk patients for hereditary breast cancer.

ACCOMPLISHMENTS IN 2017

Presentations and Workshops

Free educational presentations were offered to community organizations who request information on cancer-related topics.

Freshstart® Tobacco Cessation program in collaboration with the American Cancer Society (ACS). Four sessions were held with a total of 26 participants. Outcome: Started with 26 people and ended with 19; 35 percent quit; the other 43 percent reduced their tobacco use >50 percent.

SLIP SLOP SLAP interactive table with ACS sun safety material, UV bracelets and free sunscreen. 3 locations poolside in Crystal Lake, Huntley and McHenry. 89 contacts made.

Cancer 101 presentation to community discussing cancer screening & prevention guidelines and how cancer is diagnosed; 14 in attendance.

Nutrition as a Cancer Survivor presentations to two different Centegra breast cancer support groups; total 18 participants.

Skin Cancer: You Can Prevent It Three presentations to community organizations; overall 51 participants.

ACCOMPLISHMENTS CONTINUED

Screenings

Screenings provide an opportunity to educate community members and distribute cancer prevention materials, appropriate cancer screenings recommendations and signs and symptoms of cancer.

Colon Cancer: FOBT kits were distributed at five locations during working hours, including: Centegra Hospital– Huntley, Centegra Hospital–McHenry, Centegra Hospital– Woodstock, Crystal Lake Medical Arts, Centegra Sage Cancer Center. Outcome: A total of 60 kits were distributed, 41 were returned, 68 percent return rate, one positive for occult blood. Tests results were mailed to each person. Those with positive findings were personally called and follow-up care was discussed.

Oral, Head & Neck Cancer: Ten screenings were performed in partnership with Oral, Head & Neck Cancer Alliance, resulting in one referral for follow-up with otolaryngologists. Patients received an immediate referral for positive findings.

Skin Cancer: Six screening events were hosted in partnership with American Academy of Dermatology. A variety of doctors and physician assistants performed 97 skin cancer screenings; 41 findings required follow-up or biopsy. Patients received immediate referrals for positive findings.

Men's Screening Event offered digital rectal exam, PSA to eligible men, skin cancer screenings, oral, head and neck screenings, FOBT colon cancer screenings, low-dose CT lung screenings to eligible men and offered tobacco cessation. Cancer screening and prevention educational materials were offered. A total of 21 men registered, 14 attended (66 percent).

Women's Screening Event offered clinical breast exams, mammograms to eligible women, pelvic exams, PAP/ HPV tests, skin cancer screenings, oral, head and neck screenings, low-dose CT lung screenings to eligible women, FOBT colon cancer screenings, genetic risk questionnaires and heel bone density screenings. Cancer screening and prevention educational materials were offered. A total of 16 women registered, 16 attended (100 percent).

Lung Cancer: In 2017, the Centegra Lung CT Screening Community program performed 754 screenings. 49 had suspicious findings and 15 were positive for lung cancer (2 percent).

ACCOMPLISHMENTS CONTINUED

Partnerships

American Cancer Society
Provided educational materials during our Colorectal Cancer Awareness FOBT screening in March.
Provided education material for SLIP SLOP SLAP events and our representative attended each event.
Centegra sponsorship of ACS Relay for Life on June 17 in Crystal Lake, June 3 in Huntley and April 7 in Dundee.
Provided brochures for patient nutrition consultations including “Nutrition for the Person with Cancer” and “What to Eat During Cancer Treatment.” Brochures and educational materials were provided for cancer prevention and site-specific cancers and included male and female recommendations.

Oral, Head and Neck Cancer Alliance
Provided educational materials and screening exam forms for screening event. Announcement of our screening event was included on the Oral, Head and Neck Cancer Alliance website.

American Academy of Dermatology
Provided educational materials and screening exam forms. Results are reported to the American Academy of Dermatology.

SUPPORT SERVICES

Dedicated Cancer Support Services

The Centegra cancer program, comprised of hospital-based programs, Centegra Sage Cancer Center and Centegra Gavers Breast Center, offers various support services for patients and their family members, including:

- Financial and medication assistance
- Individual, group and family counseling
- American Cancer Society Wig Program
- American Cancer Society Look Good ... Feel Better
- Breast cancer support groups
- Caregiver support groups and education programs
- Bereavement group
- Pathfinders treatment support group
- Survivorship groups and programs
- WellBridge program offering free group fitness classes to help build strength
- Emotional and spiritual support
- Cancer resource library

- Nutrition counseling
- Home health care
- Hyperbaric wound management
- Pain management
- Rehabilitation services
- Patient Express transportation for individuals receiving services at Centegra Health System
- Hospice and palliative services via referral
- Complementary wellness programs such as yoga, water fitness and expressive arts
- National Cancer Survivors Day Celebration

REGISTRY REPORT

SUMMARIZING DATA FROM THE CALENDAR YEAR 2017

Centegra Hospital-McHenry, Centegra Hospital-Woodstock & Centegra Hospital-Huntley
Analytic Cases Seen Per Year
Figure 1

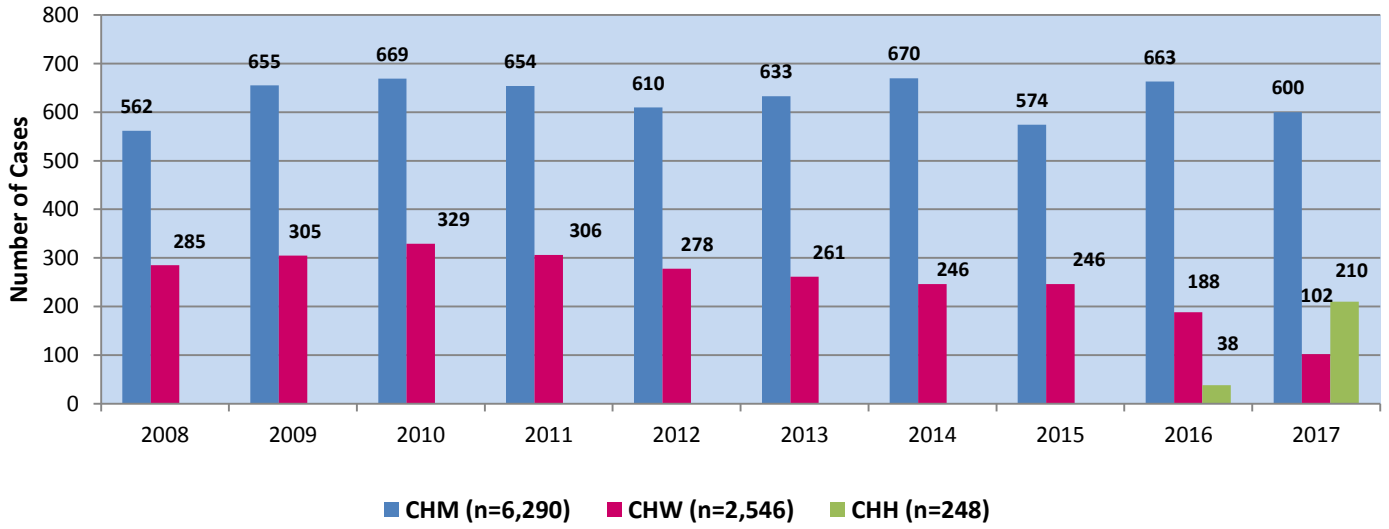


Figure 1 shows the number of analytic cases seen at Centegra Hospital-McHenry (CHM), Centegra Hospital-Woodstock (CHW) and Centegra Hospital – Huntley (CHH) in the years 2008 through 2017. In the last year, we have seen a decrease in the number of cases seen at CHM, and a decrease in the number of cases seen at CHW and an increase in the number of cases seen at our new hospital CHH.

REGISTRY REPORT

SUMMARIZING DATA FROM THE CALENDAR YEAR 2017

Centegra Hospital-McHenry, Centegra Hospital-Woodstock & Centegra Hospital-Huntley
Site Distribution for Analytic Cases 2017
(Duplicate Patient Merge Applied)
Figure 2

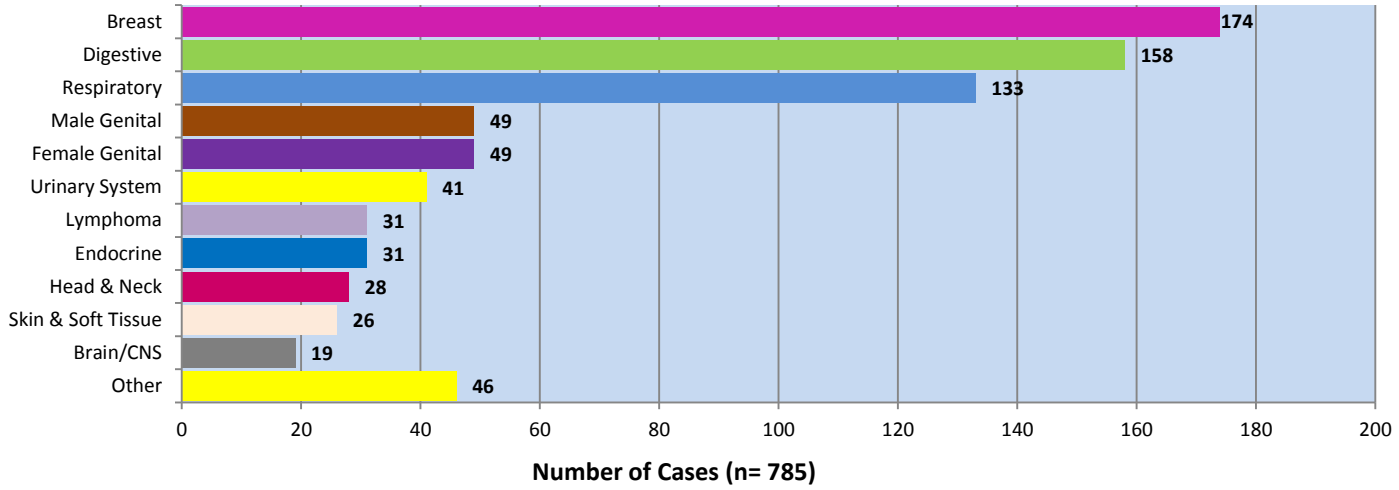


Figure 2 represents the primary site distribution of cancers seen at CHM, CHW and CHH in 2017 for all analytic cases without duplication of cases.

2017 CANCER COMMITTEE

Centegra Sage Cancer Center

Apurva A. Desai, M.D.
Medical Oncology / Palliative Care
Chairman Cancer Committee

Jerry X. Liu, M.D.
Medical Oncology / Palliative Care
Cancer Liaison Physician

2017 CANCER COMMITTEE

Apurva A. Desai, M.D.
Medical Oncology/Palliative Care
Cancer Committee Chairman

Terrence J. Bugno, M.D.
Radiation Oncology
Medical Director Radiation Oncology Services
Centegra Sage Cancer Center

Philip W. Gilroy, M.D.
Diagnostic Radiology

Jerry X. Liu, M.D.
Medical Oncology
Cancer Liaison Physician

Alexandra B. Roginsky M.D.
General Surgery

Michael B. Soble, M.D.
Medical Oncology

Chad C. Spangler, M.D.
Gastroenterology

Wendy L. Ward, M.D.
Pathology
Director, Pathology Department
Cancer Conference Coordinator

Thomas D. Weyburn, D.O.
Medical Oncology
Clinical Research Representative

Aslam S. Zahir, M.D.
Medical Oncology

Rena B. Zimmerman, M.D.
Radiation Oncology

Amy Moerschbaecher, R.N., B.S.N., M.A.
Director Oncology Service Line

Lora Anderson, R.D., C.S.O., L.D.N.
Community Outreach Coordinator

Jill Benedeck, M.S.N., A.P.N., R.N.
Oncology Nurse Manager
Quality Improvement Coordinator

Anthony Brown
Organizational Performance Improvement

Kathleen DeRoche, L.C.S.W., O.S.W.-C
Oncology Services
Psychosocial Services Coordinator

Mary Dunlop, B.S., C.T.R.
Cancer Registry

Tina Han, M.S, Ph.D.
Genetic Counselor

Ashley Lach
American Cancer Society Representative

Joseph Majercik
Rehabilitative Services

Magaly Nickles, M.S.N., A.P.N., F.N.P.-BC
CT Lung and Valve Navigator

Soraya Scroggs, R.H.I.T., C.T.R.
Cancer Registry Quality Coordinator

Jessica Sima, M.S.N., R.N., A.C.M
Oncology Nurse Navigation

Tiffany Thakkar, R.N.
Inpatient Oncology Nursing

Walter Kang, Pharm.D.
Pharmacy

Marianna Wolfmeyer, L.C.P.C., C.T., D.C.C.
Spiritual Care/Palliative Care

The Cancer Committee is a multidisciplinary standing committee consisting of members of the medical staff representing diagnostic and treatment specialties and non-physicians from administrative and supportive services.
The Centegra Cancer Committee meets quarterly and provides leadership to plan, initiate and assess all cancer-related activities within the system. The Committee establishes yearly goals and priorities.