The Cancer Program

Accredited with Commendation as a Community Hospital Cancer Program by the American College of Surgeons Commission on Cancer

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2013 Annual Report
Our 2013 annual report is a summary of 2012 activities and discussions conducted by the Cancer Committee, an overview of cancer services provided by Iredell Health System, and a look at the most frequent cancer sites during 2012.

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The Cancer Committee is a multidisciplinary standing committee consisting of members of the active medical staff representing Family Practice, Gynecology, Internal Medicine, Hematology/Oncology, Orthopedics, Pathology, Radiation Oncology, Radiology, and Surgery. Non-physician members include representatives from Pastoral Care, Administration, Dietary and Nutritional Services, Nursing, Medical Records, Quality Improvement, Patient and Family Services and the Cancer Registry.

The Iredell Health System Cancer Committee meets quarterly and provides leadership to plan, initiate, stimulate, and assess all cancer-related activities within the Iredell Health Care System. The Committee establishes yearly goals and priorities.
Goal

The major goals of the cancer program of Iredell Health System are:

• decrease the morbidity and mortality of patients with cancer;
• improve the quality of patient care; facilitate a community-wide, comprehensive, multidisciplinary approach to the management of the cancer patient in order to meet and exceed the requirements of the American College of Surgeons’ Commission on Cancer for a comprehensive, community cancer care program.

Methods of reaching this goal include the following:

• improving cancer control efforts in the areas of prevention, early diagnosis, pretreatment evaluation, staging, continuing treatment, rehabilitation, and surveillance for recurrent and multiple primary cancers;
• improving the quality of survival;
• enhancing all aspects of caring for the terminally ill patient.

Mission Statement

The mission of Iredell Health System (IHS) is to support our community’s journey toward optimal health, to provide an excellent experience for our patients and their families, and to deliver high quality, affordable health services.
Report from the Cancer Liaison Physician

Gayla Lowery, MD

Iredell Health System’s Cancer Program is in its twenty second year and remains committed to providing quality and compassionate care to the cancer patients of Iredell and surrounding counties. This effort is not limited only to inpatients and outpatients in our care, but also includes outreach programs. While 78% of our patients come from Iredell county, a seven-county area is served.

Much of improvement in national statistics on cancer mortality and morbidity has been due to improved early detection in several cancers. Iredell Health System has actively developed outreach programs to improve cancer control efforts in the areas of prevention and early diagnosis. Increased awareness of patients and cancer their caregivers of available technology for cancer detection, symptoms and signs that could indicate a cancer, and the importance of regular screening for breast, colon, and prostate cancer is important in continued of cancer control and quality of survival. In the last year, Iredell Health System’s Cancer Program has continued to emphasize prevention and early detection with educational programs for the community. Over 19,000 people participated in programs that included cancer education, breast health awareness, skin cancer prevention, smoking cessation, PSA and colon cancer screening education. Iredell Health System remains committed to being a tobacco free institution and continued to offer programs in tobacco/smoking cessation in 2012.

The Cancer Program of Iredell Health System promotes a comprehensive, multidisciplinary approach to the management of the cancer patient. The Cancer Conference is led by Dr. Roger Roark, Chairman of the Cancer Committee. The conference provides an opportunity for discussions of individual patients and exploration of additional treatment options in their care. Didactic presentations of the literature increases knowledge base of physicians, and analysis of our local results promotes the continued improvement of our program and ability to care for cancer patients.

The Cancer Conference encourages consultation and discussion among the different modality specialists including surgery, chemotherapy and radiation therapy, and therefore promotes the use of multimodality treatment programs. The increasing use of multiple modalities in the care of cancer patients has resulted in the improved outcomes for patients suffering with cancer. Local statistics indicate that Iredell Health System’s Cancer Program continues with the delivery of multimodality cancer care. In 2012, 71% of esophageal cancer patients, 100% of anorectal cancer patients, 70% of lung cancer patients and 76% breast cancer patients were treated with combined modality therapy. Treatment outcomes statistics reviewed at Cancer Conference compare favorably with national statistics.

Iredell Health System remains committed to a high standard of cancer care including improved diagnosis, staging, and surveillance of the cancer patient following treatment. Quality of survival is promoted through support groups facilitated at the hospital. As a cancer specialist it is a privilege to be one of the physicians and staff actively involved in the ongoing efforts of the Cancer Program of Iredell Health System to provide the highest quality of care for our patients with cancer.

Cancer Conference

The multidisciplinary Cancer Conference is held on the fourth Tuesday of each month. Cases are presented and discussed by Medical Oncologists, Surgeons, Pulmonologists, Pathologists, Radiologists, Radiation Oncologists, as well as other specialists and Primary Care Physicians. Support services are also represented at the Cancer Conference.

Didactic material including treatment guidelines, current case histories, Clinical AJCC Stage, MRI and CT scans, X-rays, pathology photos and slides are presented at multi-specialty discussions where dialogue is encouraged. Data from our Cancer Registry is presented primarily as a retrospective analysis of a number of cases, histologic subtypes, types of therapy, cancer care outcome and survival data so that it can be compared to regional and national statistics. Category 1 CME credit approval is provided by Wake Forest University School of Medicine for the Cancer Conference.
Chaplain

The chaplain provided pastoral care to cancer patients and their families throughout 2012. A concerted effort was made to initiate pastoral visits with each newly diagnosed cancer patient. Patients with recurrent cancers and patients receiving treatments were also of highest priority for pastoral visitation.

The chaplain addressed the emotional and spiritual needs of patients and their families. These needs were met through pastoral visits, referrals to local pastors, distributing literature and/or videos, and offering Wednesday prayer meetings.

Additional means of providing pastoral services included Sunday morning worship services and Bible studies twice a week. The “Living with Cancer Support Group” meets monthly, providing ministry to staff, patients, families and community. The group has been in operation since 1999 and is available to anyone that has had a diagnosis of cancer and their support person.

Clinical Trials

Treatment Trials are available to patients. Both Medical and Radiation Oncologists are members of the Southeast Cancer Control Consortium, which is part of the Community Cancer Oncology Program (CCOP), based in Winston-Salem, NC. A wide variety of trials from all major research groups are accessible for patients. A Clinical Trials Coordinator is available to assist the Oncologists and patients in enrolling in Clinical Trials.
Community Wellness Cancer Prevention Programs

**Objectives:**

1. Coordinate/present community programs related to cancer awareness and cancer prevention, such as the following:
   - Fresh Start (smoking cessation classes)
   - Taking Control: Reducing Your Risks of Cancer
   - Cancer Concerns for Men — Colorectal, Prostate, Testicular, Skin, Lung
   - Cancer Concerns for Women — Skin, Ovarian, Lung, Breast, Cervical
   - Low-fat Eating/Cooking for Cancer Prevention
   - Collaboration with Healthy Carolinians in conjunction with Iredell County Public Health Department

2. Make information on cancer available to people in the community via pamphlets, videos, articles from health-related publications. Make referrals to local cancer support groups.

3. Assess needs and provide classes and screenings for local businesses and industries associated with cancer risk reduction/cancer prevention, such as the following:
   - self-breast exam education
   - mammography (in cooperation with Women’s Health Center)
   - weight management and nutrition programs associated with reducing cancer risk (working with clinical dieticians)
   - exercise (utilizing expertise of exercise physiologist, exercise specialist)
   - stress management
   - annual prostate screening clinic (September is Men’s Health Month)
   - LiveStrong in conjunction with YMCA of Iredell County

4. Coordinate various screening opportunities and clinics associated with cancer risk reduction/detection as appropriate:
   - self-breast exam clinic
   - prostate screening
   - testicular exam clinic
   - skin cancer screening
   - colorectal cancer screening

5. Assist local school systems with efforts to increase staff and student awareness of cancer prevention, per request, with the following activities:
   - skin cancer awareness
   - self-breast exam education
   - testicular self-exam education
   - cancer associated with alcohol abuse
   - nutrition and cancer prevention
   - AIDS info/education
   - hazards of tobacco use (smoking and chewing)

6. Participate/coordinate local American Cancer Society programs which promote education for cancer prevention:
   - “Look Good Feel Better” program for women going through cancer treatment
   - “Reach To Recovery” program with volunteers who visit cancer patients
   - “Fresh Start” smoking cessation program
   - Referrals to local “Living With Cancer” support group headed by Tom Sherrod, IHS Chaplain

7. Utilize health information gathered through IHS employee health screenings to target group education-awareness for specific cancer prevention:
   - Coordinate “Lunch & Learn” programs on topics such as nutrition, exercise, weight management, smoking cessation
   - Display/bulletin boards with health messages
   - Coordinate opportunities for group participation in activities that reduce risk of cancer: Weight Loss Competition, Water Aerobics Class
   - Employee Fitness Room utilization, healthy options in IHS cafeteria, employee participation in area bike rides, walk/running events
   - IHS Employee Wellness Nurse meets with individual employees to set goals for lifestyle improvement/cancer risk reduction
Support Groups

Cancer Companions®
Established in the Iredell County area in conjunction with other area hospitals, Cancer Companions provides cancer patients, family members and caregivers with updated information about a variety of topics including understanding cancer, cancer treatments, dealing with the side effects of cancer treatments, community resources and more. For information, call the American Cancer Society at 1-800-ACS-2345.

Look Good . . . Feel Better®
This American Cancer Society program assists women who are undergoing cancer treatment as they learn to cope with the appearance-related side effects of treatment and to regain a sense of self-confidence and control over their lives. Each participant receives a free LGFB bag with full size cosmetics. The program is offered at various times throughout the year. For information about the next LGFB session, please call our Wellness Department at 704-878-4550.

Reach to Recovery®
This volunteer program has been in effect for many years at Iredell Memorial Hospital. The physician notifies volunteers when they have a patient who needs a visit. The volunteer provides emotional support and gives comfort and reassurance to the cancer patient during their cancer journey. Each patient receives a Reach to Recovery bag, which includes a pillow and area resources, support groups and other information. Call the American Cancer Society at 1-800-ACS-2345 for more information.

Continuous Quality Improvement
The objective of the Continuous Quality Improvement program is to help ensure that optimal care is provided to all cancer patients by reducing risks, hazards, and expense within the hospital through:

- establishing a planned and systematic approach to monitor, analyze, and improve performance;
- coordinating the integration of all quality improvement activities;
- implementing a system for evaluation of information collected through ongoing monitoring and utilization of comparative data sources to identify trends, problems, or opportunities for improvement;
- documenting improved patient care and improving patient outcomes through continuous quality improvement efforts;
- assuring communication and reporting of the Quality Improvement Activities Committee to the Quality Coordinating Council to which it reports.

The Living with Cancer Support Group
Meets at noon on the 4th Tuesday of each month in the One West Living Room at Iredell Memorial Hospital. For info, call Tom Sherrod, MDiv, 704-873-5661, extension 3414.

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Diagnostic Radiology

The Radiology Department at Iredell Memorial Hospital offers full radiographic services including CT, Diagnostic Radiology, Mammography, MRI, Nuclear Medicine, PET/CT and Ultrasound, all of which are useful in the diagnosis of cancer.

The Department of Radiology maintains a commitment of providing quality radiographic services to Iredell and surrounding counties.

Our Women's Health Center (WHC) provides screening mammography on a self-requested basis and stereotactic breast biopsy services. The WHC also offers a comprehensive patient and community education program about breast disease.

The department also performs ultrasound and MRI guided vacuum assisted breast biopsies to provide options for less invasive procedures to diagnose breast cancer.

Nursing Services

The Chemotherapy Program at Iredell Memorial Hospital is staffed by registered nurses who have completed a chemotherapy nurse certification course through the National Oncology Nursing Society. In addition, several of the nurses from both the inpatient and outpatient departments are Oncology Certified through the National Oncology Nursing Society. The primary goal of an oncology nurse is to improve the quality of life for the cancer patient. The philosophy of the Infusion Care Services staff is to provide excellent quality nursing care, with skill and compassion and to give emotional support to the patients and their families.

Other goals and therapies include the following:

- providing direct patient care using the nursing process;
- safe administration and handling of the chemotherapy drugs selected by the oncologists for both inpatients and outpatients — the Oncology Nursing Society Cancer Chemotherapy Guidelines are used as a reference for our Policies and Procedures;
- individualized patient and family education before, during, and after chemotherapy sessions;
- providing emotional, mental, and spiritual support to the patient and family by working with the hospital chaplain and social workers;
- maintaining communication and cooperation with the pharmacy staff and the oncologists to ensure efficient implementation of a chemotherapy regimen;
- assessing central venous access devices for blood testing for laboratory, radiation therapy, and assisting staff nurses in troubleshooting problems with central venous access devices;
- education in the care of, and maintenance of peripherally inserted central catheters.
- assisting patients in coordinating their care with appointments and support services
- working in collaboration with the hospital Wellness Department in providing community cancer support education

Nursing services' administrative responsibilities include developing and revising related oncology policies and procedures, conducting staff inservices and providing educational support to other patient service departments, and also in the evaluation of new equipment and supply items.

Chemotherapy administration and supportive therapy with blood products, antibiotics, and diagnostic procedures are available for both inpatients and outpatients at Iredell Memorial Hospital. Since 1989, these services for outpatients have been provided in the Infusion Care Services Center.
Nutrition Support Services

The Clinical Dietitian works closely with cancer patients during the course of treatment. All patients are screened within 24 hours for such nutritional risks as the inability to eat, unintentional weight loss, decreased appetite, tube feeding or total parenteral nutrition, and skin breakdown. Cancer patients are also placed on the Cancer Pathway, which is an automatic consult for the Clinical Dietitian.

After a thorough clinical assessment; recommendations are made regarding the patient’s energy and protein needs, intake while in the hospital and tolerance to the prescribed diet and/or supplements. The Clinical Dietitian then implements a care plan accordingly.

Patient and Family Services

The Patient and Family Services Department conducts utilization review activities, provides discharge planning and social services to patients. Any healthcare provider can make referrals to the Patient and Family Services Department for discharge planning or social services. Screening criteria are utilized upon admission to identify those patients at high-risk for discharge planning needs. Upon receipt of any referral, the Care Coordinator or Medical Social Worker reviews the patient’s chart, and consults with the Physician and/or pertinent staff to obtain more information regarding the referral.

The primary areas of direct services available to patients, their families, and the hospital, are the following:

- continuity of care planning
- referral to appropriate community resources
- referral to appropriate resources for financial assistance
- fulfillment of requests for assessments/social histories
- assessment for counseling needs
- coordination of adoption procedure

All ages of patients are served. Outpatient and emergency discharge planning and social services are available upon direct Physician request.

Interdisciplinary Care Planning is achieved through the Plan of Care in the electronic health record. Each discipline is responsible for reviewing the Plan of Care and documenting progress toward goals. The Care Coordinator/Social Worker is responsible to document any problem addressed by their discipline and document the progress toward the goal. Interdisciplinary meetings are also held weekly on patients with a length of stay of seven days or greater. Care Coordinators and Social Workers are available to act in an anticipatory or advisory role for the Cancer Committee and can act in an anticipatory or advisory role for the Community Alternative Program (CAP), Stroke Support Group and the Oncology Support Group.

The Patient and Family Services Department staff consists of an RN Patient and Family Services Coordinator, RN Care Coordinators, Discharge Planners, and Social Workers.
Patient and Family Education

The Patient and Family Services Department participates in the overall patient/family education process providing specific information as it relates to continuity of care post discharge and utilization review processes. Care Coordinators and Social Workers help provide and coordinate educational activities and resources to meet post-hospital needs. This is an interdisciplinary process both inside and outside of the hospital.

Resources may be financial, home health, durable medical equipment, support services or extended care facilities. Patients/families will be provided with sufficient information regarding providers, anticipated coverage of services, and discharge options in order to allow them to make an informed choice regarding discharge plans.

When patients are sent home with durable medical equipment, the provider of the service gives instructions on its use or operation. Home health agencies provide teaching materials as appropriate, as well as hands-on instructions, if needed. The department, in turn, provides appropriate medical information to agencies/facilities as requested and needed for continuity of care.

The Social Worker who holds a Master of Social Work degree has responsibility for those units where potential exists for more in-depth skills and understanding of the grieving process, death and dying, pain, patient and family adjustment to chronic illness, and the regulation of protective services issues and adoption. These units include the following:

- 4 North - Oncology, Renal, Pediatric patients
- 3 North – Pediatric Patients
- The Birth Place
- Intensive Care

If a patient transfers to another unit after a Care Coordinator and/or Social Worker has initiated service with the patient, the Care Coordinator and/or Social Worker assigned to a patient will usually change when the patient is transferred to another acute unit or the skilled nursing unit. Continuity of care is assured through staff communication and documentation in the medical record and services provided to date. Patient assignments may vary depending upon work load, individual patient need, and personal request from patient, family member, or physician.

Discharge Planning

In order to encourage the most efficient use of available health services and facilities, all necessary assistance is provided to the physician in his timely planning for post-hospital care. The Discharge Plan outlines how this process will be conducted.

Length of stay meetings are held a weekly and are attended by the interdisciplinary team, such as Patient and Family Services Coordinator, Care Coordinators, Social Workers, HBSNF Care Coordinator, Pharmacist, Dietitian, Nurse Clinicians, and other Nursing representatives as indicated. Other hospital personnel may be asked to attend as needed. Patients to be discussed are identified by length of stay greater than 7 days or by recommendation of Care Coordinator, Social Worker and/or Charge Nurse. During meetings, the disciplines involved in patient’s care collaborate on the Discharge Planning Program. Progress toward discharge is documented in the Electronic Health Record in the Interdisciplinary Team Meeting Form.

The Discharge Planning members will utilize a system of interdepartmental communication whereby those persons involved with discharge planning are kept informed as to activities in other departments and committees and remain knowledgeable of current community resources available to assist patients and families with post-hospital planning.
Pharmaceutical Services

Iredell Memorial Hospital’s Pharmacy Department provides medications to patients, provides educational information to physicians, nurses, and other hospital staff, and establishes guidelines for the safe handling of chemotherapy drugs and waste by all hospital personnel. Pharmacy services are available 24 hours per day and a pharmacist is present at all times.

Pharmacists interact daily with nurses and patients to provide chemotherapy drugs at the right dose and at the right time. Preparation of chemotherapy is reviewed for accuracy by pharmacy and nursing staff members before administration to the patient. Chemotherapy agents are compounded in a clean room that is compliant with USP Chapter 797.

Procedures for the Safe Handling of Chemotherapeutic Agents are established and reviewed by pharmacists annually. Chemotherapy agents are stored separately from other medications. Chemotherapy spill kits are available.

A wide variety of anti-infectives are available to treat infections in the immunocompromised patient. Pharmacokinetic monitoring of serum drug levels is available for patients receiving aminoglycosides and vancomycin. Narcotics, non-steroidal anti-inflammatory drugs, patient controlled analgesia, and epidurals are available for use in the management of primary and breakthrough pain in the cancer patient. Anti-emetic drugs and colony stimulating factors are available to treat nausea and decreased white blood cells often seen with certain chemotherapy agents.

Radiation Therapy

The J. Allen Knox Radiation Therapy Center provides patient care for the treatment of cancer. The Radiation Oncologists work in conjunction with other specialists and primary care physicians to develop comprehensive treatment plans. The department continues to examine new treatment modalities, equipment and techniques to maintain the delivery of high quality, convenient radiation therapy treatments to area residents. The radiation therapy department continues participation in protocols through the Southeast Cancer Control Consortium. These protocols include cancer treatment studies as well as cancer control protocols and quality of life studies.

A new state of the art linear accelerator has been installed. The True Beam provides an increased number of beam energies for treatment. It also has improved imaging capabilities to allow for more precise treatment delivery. These advances in treatment energy and imaging allow the delivery of treatment to more precise targets with extreme accuracy and better sparing of normal tissue. The treatment course can, in some cases, be dramatically reduced with Stereotactic Body Radiation Therapy (SBRT) treatment planning and treatment with impressive tumor response rates.

An Electronic Medical Record (EMR) has also been implemented, along with upgrades, to continue to insure patient safety and efficiency of treatment delivery.

With the services of Wake Forest University Physicists on site in the department, the radiation therapy department is able to offer the latest technology and to assure the quality and accuracy of treatment.

The center provides education to cancer patients and citizens of Iredell County through participation in local support groups and civic meetings. We also help connect patients with other local agencies when they need assistance with finances or transportation.
Women’s Health Center

The Women’s Health Center continues to serve women meeting the American Cancer Society guidelines for screening mammography. This is a low cost service for which patients may schedule their own appointments to receive their annual mammogram, as well as breast cancer education. A personal consultation can be provided for education on breast self exam, as well as videos or literature. Patients are also assisted in resolving concerns they may have regarding their breast health. Personnel will assist them in contacting their physician if a diagnostic mammogram is needed, or will assist them in obtaining a physician for those who do not have a healthcare provider. In 2012, we received 6 phone calls from women with various breast concerns. Our personnel maintained contact with these women, guiding each to an appropriate source, until their concern was resolved.

Many women have come to appreciate the opportunity of having their bone density screening through our Center as well. This test is provided to women with their doctor’s order, and the appointment can be coordinated with the screening mammogram. Our facility also offers patients and their surgeons the option of a stereotactic breast biopsy, rather than an open surgical biopsy. This type of biopsy is much less invasive, creates less scarring in the breast tissue, and the patient can have her procedure completed in less than two hours. In 2012, we performed 24 stereotactic biopsies.

In 2012, we provided 6552 screening mammograms at the Women’s Health Center, and 427 screening mammograms in the radiology department. A diagnosis of breast cancer was found in 71 of the women provided with mammography services through Iredell County Health Care System.

Throughout the year we have provided educational material to various community, employee, and church health fairs. This material is provided free of charge. We have also assisted numerous low income patients obtain mammograms through our mammography fund. In 2012, we were able to provide mammograms, both screening and diagnostic for approximately 61 women, who otherwise could not have afforded it financially, through our mammography fund. We are also working closely with the NAACP who has received grant money from the Susan G. Komen Foundation, Charlotte affiliate, in order to provide mammograms to patients in need of financial assistance. In 2012 this grant money allowed 131 women receive mammography services from our facility.
The Cancer Registry staff collects, manages, analyzes, and disseminates information on all cancer patients diagnosed and/or treated within Iredell Health System. This information is used to assist in evaluating our diagnostic and therapeutic efforts and to assess the quality of care provided to the cancer patients. The Registry is one component of the IHS Cancer Program, which is approved by the American College of Surgeons (ACoS) Commission on Cancer (COC) as a Community Hospital Cancer Program.

The primary functions of the Cancer Registry are:

- to register all patients with malignant neoplasms and certain benign tumors of the brain and central nervous system;
- to conduct lifetime follow-up on patients with invasive cancers;
- to provide cancer information to staff physicians, hospital administrators, and researchers (local, state, and national);
- to report newly diagnosed cancer cases to the North Carolina Central Cancer Registry (NC-CCR) for our staff physicians as described in the North Carolina General Statutes 130A-209 through 130A-212.

The Registry accessioned 401 cases in 2012, bringing the total number of cases in the database to 9819 since our reference date of January 1, 1989.

Performing annual lifetime follow-up directly benefits patients as it reminds the physician and the patient of the need for continued medical surveillance. This is important in order to assure early detection of a possible recurrence, or to diagnose a new primary malignancy. During 2012, the Cancer Registry staff maintained an average follow-up rate of over 90%.

This was the 17th year that the IHS Cancer Program participated in the National Cancer Data Base (NCDB) of the ACoS Commission on Cancer. We submitted patient data for 1996, 2001, 2004 and 2011. The benefits of participating include an annual review of patient care nationally, a general summary report of our hospital’s care patterns for comparison to the national data, and a data edit report to ensure quality of our cancer data. The NCDB provides a useful benchmark for patient care and continuous quality improvement efforts of the IHS Cancer Program. Collected data are used to evaluate therapies and their outcomes, which may assist our physicians to better plan treatment strategies for cancer patients in their care.
Quality of Data Studies

During 2012, several data studies were completed. These included the following:

- 2012 Casefinding Audit and the Data Study: Compliance for Diagnostic Evaluation and Evaluation of First Course of Treatment in accordance to the National Comprehensive Cancer Network Guidelines for Resectable Colon Cancer Patients Diagnosed in 2012
- Data from the Cancer Program Practice Profile Reports (CP3 R(V2)) for Breast Colon and Rectal Cancer were reviewed and reported quarterly to ensure that performance levels do not fall below the guidelines set forth by the Commission on Cancer.

The National Comprehensive Cancer Network® (NCCN®) is an alliance of 21 of the world’s leading cancer centers, working together to develop treatment guidelines for most cancers, and dedicated to research that improves the quality, effectiveness, and efficiency of cancer care. NCCN offers a number of programs to give clinicians access to tools and knowledge that can help guide decision-making in the management of cancer.

The Diagnostic Evaluation parameters are but not limited to:

- Documentation of Family History
- Documentation of CEA, Chemistry Profile, chest/abdominal/pelvis CT results
- Documentation of pathological review

The First Course of Treatment Evaluation* parameters are but not limited to:

First course of treatment decided on tumor characteristic logarithm listed in the NCCN Guideline Index (Version 1.2014) for providers. Treatment decisions are based on AJCC Stage (tumor size and depth of invasion, presence of axillary lymph node metastasis, and presence of distant metastasis), patient age and overall health of patient.

A total of thirty-two (32) breast cases were reviewed for the diagnosis year, 2012. Six (6) cases were removed from the study because surgery was not an appropriate treatment option. The remaining twenty-six (26) cases were reviewed for both Diagnostic Evaluation parameters and First Course of Treatment Evaluation parameters. The study revealed that the appropriate diagnostic evaluation was performed 96% (25 cases) of the time and appropriate treatment was performed in 92% (24 cases) of the cases. It should be noted that one (1) patient refused recommended treatment options. One (1) patients had significant comorbid conditions that would contraindicate treatment.

In addition to NCCN data studies, data from Cancer Program Practice Profile Reports (CP3R(V2)): for Breast, Colon and Rectal Cancers was reviewed and used as Quality of Data study.

The CP3R(v2) for breast and colorectal cancer is directed toward assuring the completeness of data for breast and colorectal cancer patients recorded in each cancer program’s registry as a central means to facilitate accurate comparisons of clinical performance among Commission on Cancer-Accredited Cancer Programs. The CP3R(v2) provides a case-by-case review of breast and colorectal cancer cases reported to the NCDB and identifies cases that lend themselves to the evaluation of concordance for the following measures:

- Radiation therapy is administered within 1 year (365 days) of diagnosis for women under age 70 receiving breast conserving surgery for breast cancer.
- Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0M0, or Stage II or III hormone receptor negative breast cancer.
- Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1cN0M0, or Stage II or III hormone receptor positive breast cancer.
- At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer. Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer.
- Radiation therapy is considered or administered within 6 months (180 days) of diagnosis for patients under the age of 80 with clinical or pathologic AJCC T4N0M0 or Stage III receiving surgical resection for rectal cancer.
Quality of Data in the Cancer Registry

The Cancer Registry staff continually strives for data quality through a variety of monitoring systems. In 2012, as in past years, a minimum of 10% of the newly diagnosed cases were reviewed by the Cancer Committee. The team members verify accurate recording of the class of case, primary anatomic site, histology, stage of disease, and treatment by comparing the completed abstract with the patient’s medical record.

In addition to the Cancer Committee review, the Cancer Registry software, Electronic Registry Systems (ERS), has extensive built-in data validation edits at the time of data entry that contribute to high quality data. These include, interfield edits (inconsistent entry between two data items), missing data edits, and the use of “smart menus” that direct the appearance of certain other menus. ERS also provides global edit checking functions whereby a group of cases may be selectively assessed at any time for accuracy and completeness.

The global edit program is used extensively when preparing a data file for export to NC-CCR or the NCDB. The NC-CCR provides another level of quality assurance by providing independent assessment of accuracy and completeness of incidence cases submitted to the State. Periodically the NC-CCR staff will perform re-abstracting and case finding audits for IHS.

TNM Staging Requirements

IHS believes that documentation of extent of disease at the time of treatment planning is fundamental to good care. Beginning in 1995 the ACoS Commission on Cancer required that all analytic cases be staged by the managing physician using the AJCC system. The elements T(tumor), N(node), and M(metastasis) must be assigned by the physician and appear in the medical record. To facilitate this, the appropriate staging form is attached to the pathology report of all newly diagnosed cases and sent to the floor if an inpatient or to Medical Records Department if an outpatient. Iredell Memorial Hospital includes physician staging as a deficiency item for chart completion. In addition, every cancer case is independently restaged by the Cancer Registrar during the abstraction process. Any discrepancy is reviewed and resolved using the approved procedure.
2012 Cancer Registry Statistics

The total number of cancer cases in 2012 was 401. Eighty-eight percent (365 cases) were analytic (defined as cases that were first diagnosed and/or received all or part of their first course of treatment within IHS). The statistics contained in this report are based on analytic cases only.

Patent Demographics 2012

Male patients numbered 194 (53.15%) and females 170 (46.85%). Racial distribution was: White 73.0%, Black 9.0%, and 17.0% all others.

Geographically, the 2012 referral pattern was mainly from Iredell County (78%), Alexander (12%), Wilkes (1.9%), Rowan (1.6%), Davie (1.1%) and Yadkin (1.0%). Referral from all other counties in North Carolina totaled 2.3%

Distribution of 2012 Patients by County of Residence at Diagnosis (N = 365)

<table>
<thead>
<tr>
<th>Counties</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iredell</td>
<td>78.0%</td>
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<tr>
<td>Alexander</td>
<td>12.0%</td>
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<tr>
<td>Wilkes</td>
<td>1.9%</td>
</tr>
<tr>
<td>Rowan</td>
<td>1.6%</td>
</tr>
<tr>
<td>Davie</td>
<td>1.1%</td>
</tr>
<tr>
<td>Yadkin</td>
<td>1.0%</td>
</tr>
<tr>
<td>All Other</td>
<td>2.3%</td>
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</table>
Distribution by Age at Diagnosis

Age distribution of the 2012 patients is illustrated below. The mean age at diagnosis was 65.5 years.

Distribution of Cancer Cases by Age and Gender in 2012 at Iredell Memorial Hospital (N=365)
Primary Anatomic Site & Histology Summaries:
Breast Cancer led the list of malignancies diagnosed in 2012 (representing 21.0%), followed by Lung (16%) Prostate (14%), and Colorectal (14%).

For 2012, the solid tumors represented 96% (341 cases), the lymphatic malignancies 2% (8 cases), and the hematologic malignancies 4% (16 cases). Table 1 shows the distribution of cases by anatomic site, sex, and AJCC TNM* stage. Table 2 is a comparison of IHS cases with North Carolina and USA data.

<table>
<thead>
<tr>
<th>SITE NAME</th>
<th># of Cases</th>
<th>AJCC STAGE</th>
<th></th>
<th></th>
<th></th>
<th>**UNK/N/A</th>
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<td>Prostate Gland</td>
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<td>Overall Totals</td>
<td>365</td>
<td>21</td>
<td>76</td>
<td>76</td>
<td>34</td>
<td>79</td>
</tr>
</tbody>
</table>

* T(tumor), N(node), and M(metastasis) **UNKNOWN/NOT APPLICABLE ~ Includes Histologically Unconfirmed Cases
## Table 2 - 2012 Comparison Data for Selected Sites
Iredell Memorial Hospital, North Carolina, and USA

<table>
<thead>
<tr>
<th>Site</th>
<th>IHS</th>
<th>NC*</th>
<th>USA**</th>
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</thead>
<tbody>
<tr>
<td>Total Number of Patients</td>
<td>365</td>
<td>51,860</td>
<td>1,638,910</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Prostate</td>
<td>14.0</td>
<td>15.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Breast</td>
<td>21.0</td>
<td>13.7</td>
<td>13.8</td>
</tr>
<tr>
<td>Lung</td>
<td>16.0</td>
<td>15.3</td>
<td>14.8</td>
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<tr>
<td>Colorectal</td>
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<td>8.0</td>
<td>8.8</td>
</tr>
<tr>
<td>Bladder</td>
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<td>4.5</td>
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<td>Uterus</td>
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<td>2.9</td>
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<td>Melanoma</td>
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<td>4.7</td>
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<tr>
<td>Lymphoma</td>
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<td>4.0</td>
<td>4.3</td>
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<tr>
<td>Leukemia</td>
<td>4.0</td>
<td>2.7</td>
<td>2.9</td>
</tr>
</tbody>
</table>

*Note: The above are selected sites chosen for comparison. They will not total 100%.*

** Projected USA data from American Cancer Society Cancer Facts and Figures, 2012.
Glossary of Terms

Accessioned
Added to the Cancer Registry database in the year that the patient was first diagnosed/treated within Iredell Health System for this primary cancer

AJCC
American Joint Committee on Cancer. AJCC Staging: Classification scheme for cancer, established by the American Joint Committee on Cancer, that defines: (T) extent of primary tumor; (N) absence or presence and extent of regional lymph node metastasis; and (M) absence or presence of distant metastasis

Analytic
Cases diagnosed and/or receiving part or all of first course of treatment within Iredell Health Care System

Class of Case
A determination of the patient’s diagnosis and treatment status at first admission to Iredell Memorial Hospital with a cancer diagnosis

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

First Course of Treatment
The initial tumor-directed treatment or series of treatments, initiated or planned within four months after diagnosis

Histology
Classification of the type of malignancy through microscopic examination of tissue

In Situ
Neoplasm meets all criteria for malignancy except invasion. Intraepithelial, noninvasive, non-infiltrating

Localized
Neoplasm entirely confined to the organ of origin

Non-Analytic
Cases diagnosed elsewhere and receiving first course of treatment elsewhere, and subsequent treatment within Iredell Health Care System

Primary Site
The anatomical location within the human body considered the point of origin for the malignancy

Regional
Neoplasm has spread by direct extension to immediately adjacent organs or tissues and/or has metastasized to regional lymph nodes or organs and appears to have spread no further

Stage of Disease
The extent to which the disease has spread

Survival
All survival statistics are calculated using the actuarial method for observed survival rates (accounts for all deaths, regardless of cause) and includes patients with observation for varying lengths of time and those lost to follow-up

Unstaged
Stage is said to be unknown when it cannot be determined from the medical record or a medical authority due to insufficient information.

References & Bibliography


Cancer Facts & Figures NC – 2012 NC DEHNR, State Center for Health & Environmental Statistics.

Commission on Cancer, Facility Oncology Registry Data Standards (FORDS), American College of Surgeons, 2010.


National Cancer Data Base Annual Review of Patient Care 2012, American Cancer Society.
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www.iredellmemorial.org