1992 CANCER COMMITTEE MEMBERS

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## Annual Program Statistics

- Cancer Registry Report
- Presentations and Instructional Sessions
- St. Luke's Medical Center Cancer Conferences
- Community Education
During 1992, the Cancer Committee continued to function as a multi-disciplinary committee by overseeing and monitoring the Oncology Program at St. Luke’s Medical Center. A Task Force for programmatic development in the area of breast cancer and a Tumor Board Task Force for improvement of our weekly tumor conferences were formed. We supported obtaining a clinical research coordinator for the Oncology Program and a clinical nurse specialist whose expertise was prevention and early detection of cancer and pain management.

Monitoring activities of the committee included reporting of the short-term and long-term Patient Care Evaluations through the American College of Surgeons on cancer of the pancreas and cancer of the prostate. In-house studies were performed on prostate cancer and multiple myeloma with all results being discussed at Cancer Committee meetings. In addition, the committee oversaw the pilot program for Beta Indicators under the direction of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) within medical records.

Educational efforts for the medical staff included a Security Bank Cancer Lectureship Series and a Surgical Oncology Roundtable Series. Due to the continued support of the Vince Lombardi Golf Classic, resources were made available for public education forums on prostate, breast, colon, skin, ovarian and cervical malignancies as well as screening and prevention programs. The 1992 Golf Classic and the second Award of Excellence Dinner recognizing Bob Hope were both resounding resources.

Efforts in conjunction with the American Cancer Society included sponsoring a Bike-a-Thon and an inspirational television program on Profiles in Survival.

Much as the Cancer Committee monitors, oversees, and evaluates the program within the institution, the American College of Surgeons (ACoS) does the same to evaluate the efforts of the Cancer Committee in performing their assigned roles. We are pleased to report that we were site visited and received an unqualified three year accreditation.

The Oncology Program at St. Luke’s Medical Center has again experienced a year of growth in patient services, an increase in patient numbers, new programmatic development in the area of oncology, and continued cancer education of the medical staff and community.

Marcia J.S. Richards, MD
Chairperson, Cancer Committee
Colon cancer remains difficult to treat largely due to the inability to establish an early diagnosis. This disease is responsible for approximately 60,000 deaths per year, and 150,000 new cases are diagnosed every year. Approximately 5% of all Americans will develop colon cancer in their lifetime.

Several factors may be associated with the development of colon cancer. Incidence appears to increase with age, doubling with each decade after age 50. Colon polyps, which are benign growths in the lining of the colon, are well accepted forerunners to colon cancer. Certain types of polyps called adenomas appear to slowly progress to colon cancer. As with colon cancer, the risk of polyps increases with age.

Genetic factors may also be important. Individuals with first degree relatives having colon cancer and/or polyps have two to four times the increased risk. Rare, hereditary polyp syndromes, will all evolve into colon carcinoma, unless they are treated.

Other bowel disorders also carry an increased risk of colon cancer. A patient with chronic inflammatory bowel disease, especially ulcerative colitis, has a significantly increased risk of colon cancer compared to the normal population. Also, individuals with a prior history of colon malignancy have increased likelihood of a second episode.

Numerous environmental factors have been postulated as contributing to the development of colon cancer. The most important of these appears to be a contribution from diet, although this is very controversial. Underdeveloped countries with high fiber diets have less incidence of colon cancer. Conversely, diets high in fat may impart a greater risk of colon cancer, as is seen in more industrialized countries. Although animal studies have suggested a protective benefit to dietary fiber, this has not been demonstrated in human studies.

Thomas G. Malloy, MD

According to Cancer Facts & Figures - 1987:

The incidence of colon cancer tends to increase with age. The majority of patients are thought to be diagnosed after the age of 40 with approximately 94% of all cases occurring after the age of 50. These figures appear to be consistent with those here at St. Luke's Medical Center where 92.2% of the patients diagnosed in 1987 and 94.9% of the patients diagnosed in 1992 were over 50 years old. A screening program is more likely to be successful if a subgroup of patients at high risk developing the disease can be identified. Since the graphs show a majority of patients being diagnosed over the age of 50, a target group can be identified. Screening for this group could make a difference in survival if the patients are diagnosed earlier.
Cancer of the colon is the second most common malignancy affecting men and women. The natural history of this cancer is that more than half of all patients will present with an advanced stage of disease and that more than half of all patients will ultimately succumb to the cancer. To improve these outcomes, physicians recommend certain screening tests. Screening should allow recognition of cancer at an earlier, more treatable stage. Also, since cancer of the colon arises from within pre-existing benign growths called polyps, recognition and removal of these polyps will interrupt the polyp-cancer sequence and protect patients from ever developing cancer. Two simple tests are currently recommended for most patients over the age of fifty.

Fecal occult blood testing consists of preparing several small paper envelopes with a smear of stool which is tested chemically for the presence of blood. The test is convenient and simple. If one or more of the specimens reveal blood, a thorough study of the colon is recommended. The test is done annually.

Flexible sigmoidoscopy is the examination of the rectum and lower portion of the colon with a flexible instrument. This test takes ten to twenty minutes and may be briefly uncomfortable, but it is far more pleasant than the much maligned rigid-proctoscope which sigmoidoscopy has largely replaced. It is recommended to be done to patients at intervals of three to five years. Patients who participate in screening can do so with the knowledge that both tests have been shown to discover more treatable cancers and to save lives in the populations studied.

Certain persons have a greater than average risk of developing colon cancer. Patients with a strong family history of cancer, inflammatory bowel disease or those who have had a colon polyp removed in the past should discuss with their doctors the advisability of having even more thorough testing to screen for colon cancer.

Lane A. Kistler, MD

According to a Professional Education Publication from the American Cancer Society, only a small percentage of patients present with a local (lesion limited to the mucosa) stage of cancer. The majority of patients present to their physician with more advanced disease following the start of symptoms such as rectal bleeding, blood in the stool, or change in bowel habits. The diagnosis of colon cancer at St. Luke’s appears similar to that described by the American Cancer Society. In 1987, 62.7% of the patients presented with regional or distant disease and in 1992, 69.1% of the patients presented with regional or distant disease.
Every year there are 60,000 deaths due to colon cancer in the United States, making colorectal cancer the second most common cause of death in this country. Unfortunately, most colon cancers are advanced and incurable by the time symptoms develop. It is generally believed that the majority of colon cancers arise from pre-existing adenomatous polyps. Detection and removal of these polyps has been shown to significantly decrease the incidence of subsequent colon cancer.

The role for radiologic imaging of colon cancer has been primarily directed at the detection of cancer in the symptomatic patient with barium enema or for staging of colon cancer with computed tomography. Obviously, it would be preferable to detect polyps or early cancer while they are still curable. The traditional method of screening for colon cancer, testing for fecal occult blood, has proven inaccurate due to its lack of sensitivity and specificity. Recently, there has been renewed interest in finding a more effective screening test. Flexible sigmoidoscopy in conjunction with fecal occult blood testing has received the most support. However, this approach has a major flaw; it only allows evaluation of half or less of the colon. Forty percent or more of colon cancers arise in portions of the colon beyond the reach of the sigmoidoscope. There are two examinations available today that evaluate the entire colon; colonoscopy and the barium enema. The ability of the barium enema to detect polyps 1.0 cm or larger (which is considered the critical size) or to detect early cancer is comparable to the ability of colonoscopy. The wider availability, lower complication rate, and lower cost (compared to colonoscopy) are strong arguments for the use of barium enema as the preferred method to screen the entire colon.

There are some in the field that have speculated a greater potential impact from screening for colon cancer than could be realized from screening for breast cancer. The question of who and when to screen is yet to be completely resolved, and further study is required. It is clear that individuals with parents or siblings with colon cancer would definitely benefit from screening. It appears probable that patients 50 years and older would benefit from screening every 3 to 5 years.

David L. Olson, MD
SURGICAL TREATMENT FOR COLON CANCER

Carcinoma of the colón has remained a major health hazard in the United States and most Western Countries. Recent data reveals that greater than 150,000 people will be afflicted over one year, with nearly half that number dying of the disease. Since the turn of the century, surgery has continued to play the major role in the curative treatment of colon cancer. Despite its limitations, conventional surgical treatment accounts for more cures in large bowel cancer than all other forms of treatment combined. While new modalities and treatments from the various disciplines may steadily contribute to an increasing cure rate in future decades, surgery will remain a mainstay of treatment for this disease in the foreseeable future.

Patient preparation begins with an evaluation of the patient’s risk for general anesthesia and abdominal surgery. Preparation of the colon prior to operation is intended to reduce the incidence of wound sepsis and of septic intra-abdominal complications.

The principles of operative treatment are based on the concepts that cancer of the large bowel is rarely spread by hematogenous routes. It spreads predominantly by metastasizing first to adjacent lymph nodes and beyond. Locally invasive tumors invading adjacent organs are also potentially curable through surgical resection. Based on the anatomical work of Rouviere we know that the lymph node architecture of the large bowel mainly follows the arterial anatomy of the colon. Lymphatic flow is cephalad and in general, metastases can be found within a given distribution adjacent to the primary tumor. Downward progression of the tumor beyond five centimeters from the distal margin, as well as metastases to secondary lymph node basins can occur when the proximal primary lymph nodes are already involved by tumor. Thus an adequate resection not only involves the tumor with adequate margins but the lymph node bearing area and the mesentery. Venous ligation prior to manipulation of the tumor at the level at which mesenteric arterial vessels are ligated, and ligating the bowel proximally and distally are concepts that have been used in the surgical treatment of colon cancer.

In this era of minimally invasive surgery, the role of laparoscopy and laparoscopy assisted colon resection is just beginning. How this will add to the armamentarium of the general surgeon and reduce morbidity in the treatment of colon cancer is a most exciting prospect for the future.

William R. Deshur, MD

5 YEAR SURVIVAL
BY GENERAL SUMMARY STAGE

Survival rates published in Cancer Facts & Figures - 1987, reveal a five year survival rate of 53% for colon cancer patients with all stages of disease. This rate is also reflected here at St. Luke’s Medical Center (please see graph above) where a five year survival has been done of patients diagnosed in 1987 and followed through 1992.
Colonoscopy For Colon Cancer

Overall, the mortality rate for colorectal cancer approaches 60%, however, it has been shown that detection of early lesions can reduce this mortality rate nearer to 20%. If we are to enhance survival and the quality of life in patients involved with this disease, earlier detection, and preferably, prevention of malignant or potentially malignant lesions within the colon is paramount.

Unfortunately, early colon cancer and its predecessors, the polypoid tubular adenoma or tubulovillous adenoma, are often present without the appearance of any symptoms such as abdominal pain, change in bowel habit or gross rectal bleeding. It becomes most important then, that if we are to prevent the appearance of colon cancer or halt its progression early in its course, we need to identify patients at risk and employ methods of screening which are the most effective.

Since the etiology of colon cancer is still unknown, this disease cannot be primarily prevented. Our current strategy focuses on detection of pre-malignant polyps or early cancer. Those patients with a family history of first degree relatives (siblings or parent) with polyps or colon cancer ought to be carefully followed and screened as well as those patients who have already had colon polyps or colon cancer before. In addition, patients who have had screening fecal occult blood testing and resultant sigmoidoscopy or barium enema which have shown polypoid lesions need to have these lesions removed and examined microscopically. The modality which is employed by surgeons and gastroenterologists to that end is the colonoscope.

Colonoscopes and other endoscopic instruments which are used to “look into” the gastrointestinal tract have been in use for many years. The early instruments such as the rigid gastroscope or proctoscope have, by and large, been replaced since the mid-1970's by flexible instruments. Initially, these instruments employed fiber optic technology allowing the endoscopist to illuminate and view the gastrointestinal tract. Over the last five years, the development of video endoscopes has made the visual resolution and comfort of the procedure both for the physician and patient significantly better.
The colonoscopic experience can be divided into three stages: the preparation, the procedure, and the post-procedure period.

**Preparation:**
It's essential that the gastrointestinal tract be completely clean for adequate visualization and therapy. Most preparation is done with an oral lavage accomplished by ingestion of a polyethylene glycol solution just prior to the procedure. This non-absorbable liquid literally rinses out the gastrointestinal tract. Alternatively, in patients without a history of renal disease and in generally good health, Fleet Phospha-Soda can be employed.

**Procedure:**
Once the patient has been cleansed, the procedure begins. The patient is placed in the left lateral position, sedated with intravenous tranquilizers and pain medication and after a digital rectal exam the colonoscope is inserted and steered through the gastrointestinal tract to its furthest point, the cecum. Subsequently the colonoscope is slowly withdrawn and examination is done for polypoid or malignant lesions. Polyps, which often look like mushrooms with a stalk of variable length and a head, are snared with a wire loop. Electrocautery is applied and they are removed and cauterized. Small, flat polyps can be removed with a forceps.

**Post-Procedure:**
The post-procedure period is primarily concerned with observation for any of the complications of colonoscopy and polypectomy which include post-polypectomy bleeding, adverse drug reactions or perforation. These risks fortunately are very rare but are considerably serious and the patient is forewarned to watch for any rectal bleeding, abdominal pain, fever, nausea or vomiting post-procedure.

Recent studies have confirmed what has been suspected for some time, that removal of small non-malignant adenomatous polyps from the colon does reduce the risk of later development of colon cancer. Colonoscopy has become a valuable tool in the prevention and early detection of this disease which affects almost 150,000 patients in the United States per year. Identification of patients at risk and removal of significant polyps before they have evolved into malignancy offers our best hope at controlling and even reducing the incidence of this disease.

Jeffrey M. Weber, MD
Surgery for colon cancer is curative in 50% of patients with resectable disease. The remaining patients will relapse in the liver, peritoneum or lung and ultimately die of their disease, having a median survival of 8 months from the appearance of metastatic disease. The possibility of recurrence can be predicted by the extent of disease penetration through the bowel wall and presence of lymph node metastasis. Prognosis is also adversely affected by obstruction or perforation. Age is not a factor, since those over 70 have an acceptable morbidity, mortality and long term survival with standard resections and chemotherapy programs.

Adjuvant Chemotherapy
The long term survival rates for patients treated for Duke’s B disease with surgery alone are 70% to 80%. These patients do not require adjuvant chemotherapy unless there is associated obstruction or perforation. The majority of patients with Duke’s C lesions, however, have microscopic distant metastasis at the time of the surgery and do benefit from adjuvant chemotherapy programs. The early clinical trials reported an 8% improvement in survival with MOF chemotherapy, which includes Mitomycin, Oncovin and 5-Fluorouracil (5-FU). Subsequent trials of 5-FU and Levamisole, a biological response modifier, have demonstrated a 12% improvement in survival from 50% to 63%. Current trials using 5-FU and Leucovorin are expected to provide even further benefits, based on their greater effectiveness in patients with advanced metastatic disease. Hepatic infusions of chemotherapy showed promise in early adjuvant trials but this has not been confirmed by subsequent trials. There is a high rate of biliary sclerosis and gastrointestinal complications with this infusion treatment. Hepatic radiation was evaluated by the GITSG (GI Tumor Study Group) but did not lead to a decrease in hepatic metastasis or an improvement in survival.
Advanced Disease
Some patients present with regionally advanced disease and are at higher risk for local recurrences. Radiation therapy may be able to improve disease control in these patients if it is added to effective chemotherapy. This concept is now being tested in a randomized controlled trial. Ten to twenty percent of patients with extensive metastatic disease significantly benefit from treatment with 5-FU used as a single drug. Three trials have shown that adding Cis-Platin to 5-FU confers no benefit. Adding Leucovorin to 5-FU, however, leads to a significantly higher response rate. This was recently confirmed by a meta analysis of 9 clinical trials. This chemotherapy combination is now being tested in the adjuvant setting to determine its impact on survival. Current clinical trials are aimed at improving these results by modulating the effect of 5-FU through the addition of PALA, Methotrexate or Interferon. All patients with metastatic disease should be evaluated for participation in these research programs since they incorporate the most effective treatments available while at the same time answer research questions of critical importance to all future patients.

Ronald D. Hart, MD

According to a Professional Education Publication from the American Cancer Society, surgical treatment has been the mainstay of therapy for colorectal cancer since 1908 when the first abdominoperineal resection was performed. Radiation therapy was first used in the management of colorectal cancer in 1914 and in recent years has been accepted as an adjuvant modality. The role of chemotherapy in treating advanced cases is currently under study. Combinations of chemotherapy and immunologic agents have recently been described as beneficial in postoperative patients with known positive lymph nodes. As the bar graphs show, surgery alone is still the most common treatment used here at St. Luke's with chemotherapy being the second most common. Studies are underway to prove if adjuvant therapy may play an important role in the future survival of colon cancer patients.
Knowledge of the genetic and biological events involved in colorectal polyp and tumor formation is progressing rapidly. Numerous molecular studies support the theory that adenocarcinoma of the colon begins as a pre-malignant lesion, the adenomatous polyp, and progresses through multiple genetic alterations into invasive carcinoma.

It has long been noted that some colon cancers appear to have familial patterns. Familial adenomatous polyposis coli (APC) is a prime example. It is an autosomal dominantly inherited disease in which numerous benign colorectal polyps develop, and if left untreated progress uniformly into invasive cancer. In 1987, the gene responsible for APC was mapped by cytogenetics and found to occur on chromosome 5. A mutation in this gene has been found to be responsible for development of the disease. Other primary genetic changes implicated in the progression from adenoma to carcinoma include mutations or deletions in the MCC gene (Chromosome 5Q), the "ras" genes, DCC genes (18Q), and the p53 gene (17P). Genetic alterations in colorectal tumors include both activation of oncogenes (ras) - positive regulators of cell growth - and inactivation of tumor suppressor genes (DCC, p53).

Further progress in the understanding of the genetic alterations responsible for colorectal cancer will allow earlier diagnosis, cost effective screening for those high risk individuals, as well as novel therapy aimed at blocking oncogene activation or possibly restoring suppressor gene function. There is considerable optimism that preventing colorectal cancer at the genetic level may be a possibility in the future.

David Dozer, MD

The graphs below present the eight most frequent colon cancer histologies in 1987 and 1992. Adenocarcinoma is by far the most common histology found for each year.

David Dozer, MD
In 1994, approximately 157,000 new cases of colorectal cancer will be diagnosed with 60,000 related deaths. With the United States identified as a high-risk country for colorectal cancer, measures for screening and early detection are under constant investigation.

One of the main objectives of the newly expanded Gastrointestinal Endoscopy Unit located in the Diagnostic and Treatment Center at St. Luke's Medical Center is the detection of precancerous lesions.

With the advent of fiberoptic endoscopy, a gastroenterologist is able to pass a flexible, lighted fiberoptic tube to visualize and biopsy most of the gastrointestinal tract where cancer develops.

Examination of the entire colon can be performed through a procedure called colonoscopy. Last year, 1,350 colonic examinations were performed in the Diagnostic and Treatment Center to detect premalignant lesions.

Generally a colonoscopy is scheduled for patients who have abnormal colon x-rays, anemia, gastrointestinal tract bleeding, personal history or family history of colon polyps, inflammatory bowel disease, family history of colon cancer or patients whose stools test positive when screened for the presence of occult blood.

Recent studies revealed a 33% reduction in mortality from colorectal cancer can be achieved by annual fecal occult blood testing with follow-up colonoscopies scheduled for patients with positive test results. Also statistics published from the “National Polyp Study” showed that removal of colonic polyps significantly reduced the incidence of colon cancer by 90%.

Data from several studies currently under investigation suggest that as many as 70% of all colon cancers are genetically determined. In 2-3 years, blood tests will enable a physician to determine if a patient is at high risk for developing colon cancer. Thus, individuals in the high-risk category can be carefully screened through colonoscopy.

Thus, through screening and the state-of-the-art technology available at the St. Luke’s Medical Center Gastrointestinal Department, the early detection, treatment and prevention of colon cancer will continue to show considerable progress.

Joseph E. Geenen, MD

According to Cancer Facts & Figures - 1992, and the National Cancer Data Base - 1992:

The site of most colorectal cancers appear to be shifting higher in the colon; for this reason, longer, flexible, instruments are being used, as well as the rigid scope. The National Cancer Data Base notes a suggested cephalad migration of colon cancer. NCDB data from 1985 and 1988 published in 1992 reveals an increase in cancers of the ascending colon and cecum with a decrease in cancers of the descending colon and sigmoid. In a comparison to St. Luke’s Medical Center, a similar increase is seen in the cecum, ascending colon and hepatic flexure from 1987 to 1992.
In 1992, St. Luke’s Medical Center held the Surgical Oncology Roundtable Series. This roundtable series provided physicians and surgeons the opportunity to gain information on the most current approaches to treating head and neck, lung, colon and prostate cancers. Speakers included Dr. William Panje, Dr. Stephen Hazelrigg, Dr. Victor Fazio, and Dr. Howard Winfield. One-hour lectures were presented followed with short roundtable discussions with a panel of experts from St. Luke’s Medical Center. The topics discussed included the management of advanced head and neck cancer, the role of thoracoscopy in lung cancer, ileo-anal anastomosis, and laparoscopic lymph node dissection of obturator nodes for prostate cancer staging. This series provided physicians and fellow healthcare team members the opportunity to listen and interact with experts from multidisciplinary areas.

Nanette M. Johnson, RN, BSN
Focus of Malcolm Mitchell’s Visit

The incidence of malignant melanoma is growing at a rate faster than any other cancer except lung cancer in women. Surgery remains a successful treatment of the primary tumor, but disseminated melanoma has been resistant to standard therapies such as chemotherapy and radiation therapy. The five year survival rate for patients with distant disease is a dismal five percent.

The unsatisfactory response to traditional treatments for metastatic disease has stimulated investigation into other modalities, particularly immunologic approaches. One such approach utilizing a melanoma vaccine, was the topic of a presentation given by Malcolm Mitchell, MD, of the University of Southern California. Dr. Mitchell presented “The Biological Treatment of Cancer” in June at St. Luke’s Medical Center. His visit here coincided with the start of St. Luke’s participation in a nationwide Phase III Clinical Trial comparing the melanoma vaccine Melacine® with conventional chemotherapy for the treatment of disseminated melanoma. Dr. Mitchell concentrated his remarks on current studies using a therapeutic vaccine against melanoma which he developed. This vaccine, known as Melacine® is a type of active specific immunotherapy which works by activating the immune response and targeting malignant cells for destruction. A mixture of lysates of two allogeneic melanoma cell lines is combined with an adjuvant called DETOX, and is injected intramuscularly once a week. Phase I and II trials with Melacine® conducted by Dr. Mitchell have shown that the vaccine is immunogenic, as evidenced by an increased number of cytolytic T lymphocytes directed against melanoma antigens. Dr. Mitchell stated it is not completely known which antigens prompt the immune system to attack the cancer cells, but once isolated, it would be “just a matter of simple chemistry to create synthetic agents”.

Earlier Phase I and II trials conducted by Dr. Mitchell showed favorable clinical responses in twenty-four percent of patients. Toxicities from Melacine® were minimal, consisting primarily of soreness at the injection site and rare flu-like symptoms.

Although current use of this vaccine is in patients with measurable disease, Dr. Mitchell stated Melacine® may ultimately find its primary indication in the adjuvant setting.

Studies using this and other immunotherapeutic approaches are being conducted by the Immunotherapy Program in an effort to find more effective treatment for this deadly disease.

Carol A. Rausch, RN, OCN
Cancer Research Nurse
Immunotherapy Program
Adenoma: A benign neoplasm of the epithelial tissue in which the tumor cells form glands or gland-like structures in the stroma; tending to compress rather than infiltrate or invade adjacent tissue.

Adenomatous polyp: A polypoid adenoma that consists of benign neoplastic tissue derived from glandular epithelium.

Adjunct: A substance which aids another, such as an auxiliary remedy.

Allogenic: Pertaining to different gene constitutions within the same species.

Analytic Cases: Cases which are first diagnosed and/or given their first course of treatment at St. Luke’s Medical Center.

Barium: A type of contrast, radiopaque medium, used for radiographic study of the lower intestinal tract.

Benign: A term for a tumor that does not normally threaten a person’s life (that is, a tumor that is not cancerous and does not attack).

Cancer: A tumor that attacks and poses a serious threat to a person’s life.

Carcinogenic Agents: Cancer producing substances.

Cephalad: In a direction toward the head.

Chemotherapy: Treatment with powerful drugs that attack cancer cells.

Colon: The part of the large intestine extending from the cecum to the rectum.

Colonoscope: An elongated endoscope, usually fiberoptic.

Colonoscopy: The visual examination of the inner surface of the colon by means of a colonoscope.

Combined Therapy: Refers to any combination of surgery, radiation, chemotherapy, hormone therapy or other therapy administered jointly as a single course of treatment.

Cytogenetics: The scientific study of the relationship between chromosomal aberrations and pathological conditions.

Diagnostic Only: Cancer related treatment was not given; this may occur for many reasons; for example, the patient refused treatment, or the patient’s general condition is unsatisfactory for treatment.

Distant Stage: A neoplasm that has spread to other organs or lymph nodes from the primary tumor.

Enema: A rectal injection for clearing out the bowel.

Endoscope: A device consisting of a tube and optical system for observing the inside of a hollow organ or cavity.

Epidemiology: The study of epidemics and epidemic diseases.

First Course of Treatment: The tumor directed treatments started within the first four months after diagnosis.
Gastroenterologist: A specialist concerned with the function and disorders of the stomach and intestines

Hematogenous: Pertaining to anything produced from, derived from or transported by the blood

Histology: The study of cells and microscopic tissues

Immunology: The science concerned with the phenomena of immunity, induced sensitivity and allergy

In situ: A tumor classified microscopically as in situ, non-invasive, pre-invasive, non-infiltrating, intraductal, intraepithelial or intraepidermal

Laparoscopy: An examination of the interior of the abdomen by means of an instrument that is comparable to an endoscope by means of which the peritoneal cavity can be inspected

Local Stage: Tumor restricted to the organ of origin, but may be invasive or infiltrating within the organ of origin

Lymph: A nearly clear fluid collected from tissues around the body and returned to the blood via the lymphatic system

Lymph Nodes: Small bean-shaped structures scattered along the vessels of the lymphatic system. The nodes filter bacteria and cancer cells that may travel through the system

Lysate: A material produced by the destructive process of lysis

Malignant: A term for a tumor that can threaten a person's life; that is, a tumor that is cancerous. Malignant has the same meaning as cancerous

Metastasis: The spread of cancer from its original site to distant areas. The cancer cells are carried to distant sites by blood and lymph

Non-Analytical: Cases which are seen at St. Luke's Medical Center after the first course of treatment

Occult Blood: Blood found in the feces, in amounts too small to be seen but detectable by chemical tests

Oncologist: A physician who specializes in treating cancer

Polyp: A general descriptive term with reference to any mass of tissue that bulges or projects outward from the normal surface level

Polypoid Lesion: A polyp form, a lesion resembling a polyp in gross features

Radiation Therapy: Treatment with high-energy radiation from x-rays or other sources of radiation

Regional Stage: A tumor that has extended beyond the limits of the organ of origin into 1) surrounding organs or tissues by direct extension, 2) regional lymph nodes by metastasis, or 3) a combination of 1 and 2 and appears to have spread no further
**Recurrence**: The return of cancer after a disease-free interval

**Sepsis**: The presence of various pus-forming and other pathogenic organisms, or their toxins, in the blood or tissues

**Sigmoidoscopy**: The inspection, through an endoscope, of the interior of the sigmoid colon

**Stage**: A term used to describe the size and extent of spread of the cancer

**Staging**: Tests conducted to determine the stage of cancer

**Surgery**: The partial or total removal of the tumor excluding a biopsy

**Ulcerative Colitis**: A chronic, recurrent ulceration of the colon and rectum, with rectal bleeding, mucosal abscesses, inflammatory pseudopolyps, abdominal pain and diarrhea
REFERENCES


In 1992, 1,460 new patients were accessioned into the St. Luke's Medical Center Registry: 1,284 analytic, 176 non-analytic. The registry data base now includes over 20,000 cases of which 5,000 patients are actively being followed annually. With the assistance of physicians, office staff, area hospitals and fellow Cancer Registries we have maintained a 98% follow-up rate of these patients. The remaining 2%, our lost to follow-up patients, are well within the 10% allowed by the American College of Surgeons. In the past year, we have again welcomed and appreciated the opportunity to retrieve over 30 requests and inquiries for our registry data base to be used for special studies, audits, and research by medical staff, administration and marketing. We have also participated in Long/Short Term Patient Care Evaluation Studies on Pancreatic and Prostate Cancer as well as a hospital based Quality Assurance study of Multiple Myeloma. The graphs and charts throughout this 1992 Cancer Program Report will present a brief overview of cancer diagnosis and treatment at St. Luke's Medical Center. Additional information is available to requestors by directing inquiries to the Cancer Registry Staff at 649-6720.

Sandy Blixt, R.R.A.
Cancer Registrar
This primary site distribution presents breast cancer as the most frequently diagnosed cancer site in 1992 followed by prostate, lung and skin cancer respectively. Skin cancer includes all basal cell and squamous cell carcinomas as well as melanomas. Colon cancer continues to be one of the top five cancer sites diagnosed and treated here at St. Luke’s Medical Center. Colon cancer and rectal cancer are sometimes combined when discussed but have been listed separately for this site distribution. More details regarding colon cancer are available throughout this annual report or by contacting the Cancer Registry.

This age distribution presents the age group of 55 to 84 as the largest percentage of accessioned population at St. Luke’s Medical Center. These patients from ages 55 to 84 make up 75% of the total number of new cases for 1992.

Total Number of Patients
Accessioned: 1,460
Female: 748
Male: 712
1992 CANCER ANNUAL REPORT STATISTICS

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>72</td>
</tr>
<tr>
<td>Local</td>
<td>675</td>
</tr>
<tr>
<td>Regional</td>
<td>372</td>
</tr>
<tr>
<td>Distant</td>
<td>277</td>
</tr>
<tr>
<td>Unknown</td>
<td>64</td>
</tr>
<tr>
<td><strong>1460</strong></td>
<td></td>
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</tbody>
</table>

1992 GENERAL SUMMARY STAGE
FOR ALL SITES

1992 General Summary Stage
For Top 5 Sites

BREAST (246 patients)

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>21</td>
</tr>
<tr>
<td>Local</td>
<td>130</td>
</tr>
<tr>
<td>Regional</td>
<td>82</td>
</tr>
<tr>
<td>Distant</td>
<td>12</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td><strong>246</strong></td>
<td></td>
</tr>
</tbody>
</table>
### PROSTATE (195 patients)

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Local</td>
<td>134</td>
<td>68.7%</td>
</tr>
<tr>
<td>Regional</td>
<td>36</td>
<td>18.5%</td>
</tr>
<tr>
<td>Distant</td>
<td>22</td>
<td>11.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Total: 195

### LUNG (186 patients)

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Local</td>
<td>31</td>
<td>16.7%</td>
</tr>
<tr>
<td>Regional</td>
<td>70</td>
<td>37.6%</td>
</tr>
<tr>
<td>Distant</td>
<td>30</td>
<td>43.0%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Total: 186
### 1992 CANCER ANNUAL REPORT STATISTICS

#### SKIN (178 patients)

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>12</td>
</tr>
<tr>
<td>Local</td>
<td>157</td>
</tr>
<tr>
<td>Regional</td>
<td>5</td>
</tr>
<tr>
<td>Distant</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>178</td>
</tr>
</tbody>
</table>

#### COLON (97 patients)

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In situ</td>
<td>3</td>
</tr>
<tr>
<td>Local</td>
<td>26</td>
</tr>
<tr>
<td>Regional</td>
<td>41</td>
</tr>
<tr>
<td>Distant</td>
<td>26</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>97</td>
</tr>
</tbody>
</table>
PRESENTATIONS AND INSTRUCTIONAL SESSIONS

Nursing

“Implementing a Case Management Nursing Model in the Ambulatory Oncology Clinic”, Myrtle M. Harlson, RN, OCN, Vince Lombardi Cancer Clinic

“Hematopoietic Growth Factor-Primed Peripheral Stem Cell Collection for Use in Patients with Solid Tumors following High Dose Chemotherapy/Radiation Therapy”, Angela D. Klimaszewski, MSN, RN, OCN, Cancer Research Coordinator

“Strategies for Obtaining Third-Party Reimbursement for Investigational ABMT”, Angela D. Klimaszewski, MSN, RN, OCN, Cancer Research Coordinator

Clinical Trials: The Role of the Oncology Nurse in the Community Hospital Setting, Carol A. Rausch, BSN, RN, OCN, Research Nurse Specialist, Immunotherapy

“Landscape Architecture for Oncology Nurses: Redesigning Professional Environment”, Barbara Ritter, BSN, RN, OCN, Linda R. Burnworth, RN, MS, OCN, Columbus, OH

“Cancer Rehabilitation: Utilizing Existing Services to Enhance Your Cancer Program”, Barbara Ritter, BSN, RN, OCN

An Innovative Continuing Education Conference Attendance and Reimbursement Application Package for Oncology Units, Barbara Ritter, BSN, RN, OCN

“Nursing Care of Patients Undergoing Autologous Bone Marrow Transplant for Breast Cancer: Comparison of Two Protocols”, Pamela Schroeder, BSN, RN, OCN

“Increasing Independence in Bone Marrow Transplant Patients Through Contracting”, Pamela Schroeder, BSN, RN, OCN

Orientation: Evaluation Form Using Charting by Exception, Peggy Todryk, RN, Oncology Unit
ST. LUKE'S CANCER CONFERENCES

Tumor Board Conference

Conferences were held on the first, second and fourth Mondays of every month at noon. They were patient oriented, multi-disciplinary cancer conferences with an average attendance of 45. For more information or any questions, please call 649-6720.

Head and Neck Tumor Conference

Conferences were held on the third Monday of every month at noon. They were held to discuss selected difficult head and neck tumors from a multi-disciplinary approach. For more information or any questions, please call 649-3900.


April 23, 1992  Cushing's Syndrome and the Adrenal Neoplasm
D. Lynn Loriaux, MD.
University of Oregon Health Sciences

June 10, 1992  The Biological Treatment of Cancer
Malcolm S. Mitchell, MD.
University of Southern California Cancer Center

September 17, 1992  Helper T-Cell Subsets and their Regulation of Immune Response
Susan Swain, Ph.D.
University of California - San Diego

November 12, 1992  Immunotropins in Cancer Therapy
Ellen Vitetta, Ph.D.
University of Texas Southwestern Medical Center
Surgical Oncology Roundtable Series

May 12, 1992  Contemporary Management of Advanced Head and Neck Cancer
William R. Panje, MD.
Chairman, Department of Otolaryngology/Head and Neck Surgery
University of Chicago
Chicago, IL

June 16, 1992  The Role of Thoracoscopy in Lung Cancer
Stephen R. Hazelrigg, MD.
Cardiothoracic Surgery
St. Luke's Medical Center
Milwaukee, WI

July 7, 1992  Ileo-Anal Anastomosis
Victor W. Faizio, MD., F.R.A.C.S., F.A.C.S.
Chairman
Department of Colorectal Surgery
The Cleveland Clinic Foundation
Cleveland, OH

September 15, 1992  Laparoscopic Lymph Node Dissection of Obturator Lymph Nodes For Prostate Cancer Staging
Howard N. Winfield, MD.
Associate Professor
Department of Urology
University of Iowa Hospital and Clinics
Iowa City, IA
Vince Lombardi Cancer Clinic Presents:
1992 Community Education and Screening Series

January 23, 1992
“Prostate Disease: What You Need To Know”
Presented by:
Howard Lewis, MD., Radiation Oncologist
Barry Usow, MD., Urologist

February 20, 1992
“Breast Cancer Update”
Presented by:
David Czarnecki, MD., Radiologist
Paul Loewenstein, MD., Reconstructive Surgeon
Wendy Mikkelsen, MD., Surgeon
Marcia Richards, MD., Radiation Oncologist
Robert Taylor, MD., Medical Oncologist

March 19, 1992
“Colon Cancer: Prevention, Detection And Treatment”
Presented by:
William Deshur, MD., Surgeon
Ajit Divgi, MD., Medical Oncologist
Jan Avakian-Kopatich, RN, Enterostomal Therapist
Mitchell Pincus, MD., Radiation Oncologist

April 21, 1992
“Skin Cancer And Melanoma: Rays Of Hope”
Presented by:
James Bruckman, MD., Radiation Oncologist
John P. Hanson, MD., Medical Oncologist
Kathy Stokes, MD., Dermatologist

May 6, 1992
“Ovarian Cancer: Are You At Risk?”
Presented by:
Ronald Hart, MD., Medical Oncologist
Julie O'Reilly, MD., Obstetrician/Gynecologist
William Pao, MD., Radiation Oncologist
Kerry Twite, RN., Clinical Nurse
Specialist-Oncology

June 4, 1992
“Cervical Cancer And The Older Woman”
Presented by:
Ajit Divgi, MD., Medical Oncologist
Julie O'Reilly, MD., Obstetrician/gynecologist
James Taylor, MD., Radiation Oncologist