November 2018

West Allis Memorial Hospital Cancer Program Annual Report, 1992

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ABOUT THE COVER

The logo of West Allis Memorial Hospital (the shaded area of the design on the cover) was chosen in the late 1960's from the many submitted by the now defunct E.F. Schmidt Printing Company. I put down in print, in the 1966 Cancer Program Annual Report, the extended meaning before the memory was lost. "The bottom half is a stylized M, which stands for Memorial dedicated to the memory of those who served in our wars. It is also a symbol of the broad base of community support; the foundation, if you will, upon which the hospital was built and continues to flourish. The upper half is a W and, with the central spire representing an A, stands for West Allis. Together, then, it is West Allis Memorial: but it is more. The upper gracious concave is chalice-like, signifying the fullness of the offering; the gift this hospital was meant to be. The central spire signifies the desire for excellence that is central to our mission.

These are the elements that are in our Cancer Program. The broad base of support is in the community, as well as the enthusiasm of the medical and paramedical personnel.

Nursing, dietary, rehab services, laboratory, radiology, pharmacy, medical records, administration, volunteers, and medical library services provide the broad base on which our search for excellence in patient care stands. The sharp point of the spire represents the cutting edge of technology and the constant reassessment of what constitutes excellent care. It is this constant reassessment that is the heart of intellectual curiosity and professionalism. Perhaps most important to the Cancer Program is the "chalice" portion of the logo. In appreciation of the awesome problems the patient with cancer confronts, it is this that we have to offer. Into this is poured our knowledge, our skills, our compassion, our commitment. Let's try to see that this cup "runneth over".

In 1968 the Cancer Committee created the design for the cover of the Annual Cancer Program Report which was illustrated by hospital employee, Jeri Jende. The crab which is the universal symbol for cancer and the sword which is symbolic of the fight against cancer were added to the hospital logo. This design symbolizes, in addition to the above, the underlying commitment of West Allis Memorial to the fight against cancer.

Daniel P. Colline, M.D.  
Cancer Committee Chairman  
1985-1992
This annual report marks the 15th anniversary of the approval of the West Allis Memorial Hospital Cancer Program by the American College of Surgeons. As shown by the graph on page 9, West Allis Memorial Hospital remains extremely committed to the diagnosis and care of cancer patients. While the majority of our patients do come from the West Allis community, patients from all across the Milwaukee metropolitan area use our facility for their short-term and long-term cancer care.

As was shown for the first time last year, prostate cancer remains the most common diagnosis of cancer seen at West Allis Memorial Hospital. It continues to surpass both lung and breast cancer. Our hospital has remained dedicated to the diagnosis and treatment of this very common disease in our community. All aspects of therapy for patients with prostate cancer are available at West Allis.

As in the past we have continued to participate in national studies monitoring the quality and appropriateness of services provided to our patients. The results from a review of cases of invasive prostatic carcinoma diagnosed in 1985 and 1991 form the backbone of this report. Members of the disciplines of pathology, radiology, urology and radiation oncology summarize current issues and controversies in the management of patients with prostatic carcinoma.

The care of the cancer patient remains the main focus of activity for West Allis Memorial Hospital. The multi-disciplinary team approach provides the most up-to-date information available to all patients seen within the hospital. Treatment decisions are discussed by the members of this team which provides for deciding on the most effective treatment method or methods for each patient. Our tumor registry continues its excellent work in both the short-term and long-term follow-up of patients seen at West Allis Memorial Hospital. This remains the backbone of our cancer program providing us information on where we’ve been and the expectations of where we’ll be in the future.
INTRODUCTION

The staff of West Allis Memorial understands that cancer treatment involves more than just caring for a disease - it means caring for the whole person. Every facet of cancer care requires specialists to support and educate both patients and their families and friends. It is the goal of West Allis Memorial to not only meet the patient’s physical needs but also their emotional, psychological, and spiritual needs. In order to meet that goal, program planning involves not only the aspects of care related to the physical treatment, but also a variety of programs aimed at the non-physiologic aspects of care. These programs include educational meetings, support groups for cancer survivors and families, and activities focused on self-image and self-esteem.

The entire multidisciplinary team also focuses on the needs of the community relating to cancer care. It is through educational outreach programs in prevention, screening and early detection that we can have the greatest impact on the incidence of cancer. One of the main goals is to be an educational resource to the community. The hospital’s commitment to cancer care is evident by its many achievements, accreditations and its state-of-the-art treatment and advanced technology. More important, however, the commitment to cancer care is evident in the continuum of compassionate care provided to all patients who enter through our doors, their families, and to the community that lies beyond.

The purpose of this report is to inform and to document this hospital’s experience in cancer control activities during 1992 to the physicians, health professionals, and the community.
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1992 CANCER COMMITTEE MEMBERS

MEMBER

Daniel P. Collins, M.D., Chairman
Kevin Murray, M.D., Acting Chairman
Donald Beaver, D.O.
Joseph S. Bernstein, M.D.
Donald Blatnik, M.D.
Mark Dorow, M.D.
Mark Eison, M.D.
Donald Feinsilver, M.D.
David Foley, M.D.
Jeffrey Gorelick, M.D.
Ronald Hart, M.D.
Christopher Kubat, M.D.
Terence Roth, M.D., ACOS Liaison Physician
H. Mowat Waldren, M.D.
Shelly B. Underhill, M.D.
J. Frank Wilson, M.D.
Anthony Ziebert, M.D.
David Mack
Jill Jones, R.N.
Barbara Daso, R.R.A.
Vicki Shackley, R.N.
Peggy Glander, R.N., O.C.N.
Priscilla Eckert, A.R.T., C.T.R.

SERVICE

Pathology
Radiation Oncology
Family Practice
Anesthesia
Otolaryngology
Family Practice
Diagnostic Radiology
Psychiatry
Gynecology/Oncology
Physical Medicine
Hematology/Oncology
Urology
General Surgery
Obstetrics/Gynecology
Pathology
Radiation Oncology
Internal Medicine
Senior Vice President
Ass’t. Nursing Administrator
Director of Health Information Services
Director of Quality Assessment
Oncology Nursing
Tumor Registry
CANCER COMMITTEE REPORT

Committee Responsibilities

The Cancer Committee is responsible for establishing and maintaining the appropriate administrative structure and surrounding atmosphere to provide optimal patient care. The Cancer Committee, under the chairmanship of Kevin Murray, M.D., supervises and maintains standards for the hospital’s oncology services. In 1992 the Cancer Committee met four times.

Educational Conferences

This year the Cancer Committee has accomplished organizing, conducting and evaluating weekly educational and consultative cancer conferences (tumor boards) that are hospital-wide, multidisciplinary, and patient-oriented. In addition to the tumor boards, other cancer-related educational programs were scheduled.

Quality Improvement

One of the Cancer Committee’s ongoing projects is to ensure that quality and appropriate care is provided for all cancer patients. The committee includes a liaison member of the Quality Assessment department. The Cancer Committee implements and ensures quality improvement by following a documented system of review. The review system includes methods to identify problems, opportunities to improve patient care, problem-solving steps, actions taken, and follow-up until the problems are corrected.

Registry Supervision

The committee serves as consultant and supervises the Tumor Registry. Periodically the committee conducts chart/abstract review to monitor the quality of information collected by the registry personnel.

Patient Care Evaluation Studies

In 1992, the committee participated in the American College of Surgeon’s prostate cancer long and short-term studies. Some of the results of these studies are included in this report. In addition, follow-up investigations were conducted for studies conducted in previous years to monitor the effectiveness of the problem solving activities. The results of the studies are distributed to the committees and departments that are involved in the provision of care to these patients and may have an interest in these results.

Screening Activities

The hospital’s Mammography Screening Center continued to offer low cost affordable mammography to the community. Free mammography screening was again offered to all female hospital employees without insurance coverage. From May through September a prostate cancer screening clinic was conducted for the members of the Healthy Connection. During that time 616 men participated in the screening. The screening consisted of a Prostatic Specific Antigen (PSA) blood test and a digital rectal examination by a volunteer urologist. Educational materials about prostate health were provided to all participants. The results of the examination with recommendations for course of action were sent to each participant. The exam results and a copy of the PSA report were also sent to their personal physician.

Primary Prevention Activities

Activities in this area during the year included the smoking cessation program, nutritional counseling and community education of environmental hazards.
TUMOR BOARD

Multidisciplinary Board

The primary goal of the Tumor Board is to improve the care of the cancer patient. The initial evaluation and treatment decisions are the most critical in the outcome of the patient with cancer. Because cancer is a systemic illness it can rarely be detected, diagnosed, and adequately treated by one physician. The Tumor Boards offer multidiscipline patient-oriented conferences which are prospective in nature. This ensures the patients' access to pretreatment: consultative services of all disciplines.

Continuing Education

Through attendance at Tumor Board physicians can learn about the new diagnostic modalities, changing patterns of treatment, new concepts in cancer patient management, and be aware of the clinical trials that are available locally. Continuing education credits are offered for attendance. Medical staff, students, health professionals and other related personnel are encouraged to attend.

Cases Presented

The Tumor Board generally follows a clinical case presentation with participation from both the attending physician and the local specialists who share their expertise, based on their experience, as well as the knowledge of current literature and clinical trials available. A complete presentation of medical history, physical findings, clinical course, radiographic studies and pathological findings is provided. During 1992 fifty Tumor Boards were held and 173 cases were presented. A Total of 1,893 persons were in attendance, which is an average weekly attendance of 38 persons. Physicians who wish to have a case presented at Tumor Board may do so by calling the histology lab or contacting one of the pathologists prior to the meeting. Meetings are held every Friday at noon in meeting rooms A and B.

New Equipment

A new projector for the pathology slides was installed. This has resulted in a dramatic improvement in the projection of the slides.

Continuing Medical Education Programs

In addition to the Tumor Board Conferences the following didactic Cancer Conferences were presented.

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-14-92</td>
<td>Maury Berger, M.D.</td>
<td>Myeloproliferative Disorders</td>
</tr>
<tr>
<td>3-10-92</td>
<td>Arlene Braker, M.D.</td>
<td>Cancer Rehabilitation - Focus on Post Mastectomy Patient</td>
</tr>
<tr>
<td>4-7-92</td>
<td>Beth Erickson, M.D.</td>
<td>Brachytherapy in the Treatment of Gynecologic Tumors</td>
</tr>
<tr>
<td>5-12-92</td>
<td>David Weissman, M.D.</td>
<td>The Present Day Integrated Approach to the Management of Cancer Pain</td>
</tr>
<tr>
<td>9-1-92</td>
<td>John Moulder, Ph.D.</td>
<td>Power Lines and Cancer</td>
</tr>
</tbody>
</table>
TUMOR REGISTRY REPORT

Specialized Cancer Data System

The Tumor Registry is a specialized cancer data system designed for the collection, research, management and analysis of data on all types of cancer diagnosed and/or treated at West Allis Memorial. The information collected not only contains incidence data but also the severity/extent of disease, demographic data, treatment data, recurrence information, quality of survival and lifetime follow-up information. The registry contains data collected since the official start date of January 1, 1978.

Information Networks

The medical record is no longer the only source of information about oncology patients and the services they receive. With more treatment being administered in the outpatient, office or home setting an extensive network to obtain information must be established to collect the complete information. These networks include physician offices, other hospital registries, extended care facilities, home hospice agencies, visiting nurse associations and public agencies.

Continued Growth

In 1992, 1,030 new cases were accessioned into the registry. This is a 23 percent increase over the 1991 total. This addition brings the number of cases in the registry to 9,779. In 1978, the first year of the registry, the number of cases accessioned were 440. The 1992 total is an increase of 234 percent in comparison to the 1978 total. A graph displaying the accession year distribution is contained in another portion of this report.

Lifetime Patient Follow-up

Lifetime follow-up is an important function of the registry. This annual follow-up not only provides current data on the status of each patient, but also serves as a reminder to the attending physician which patients are due for follow-up examination. The American College of Surgeons, Commission on Cancer requires that approved Cancer Programs maintain at least a 90 percent follow-up rate. A patient is considered lost-to-follow-up if no contact has been obtained within 15 months. About 55 percent of the patients in the registry have expired and 45 percent are under active follow-up. In 1992 a follow-up rate of 95 percent was maintained. A high follow-up rate assures meaningful end results reporting.

Data Utilization

Statistical reports of cancer data enables physicians who treat cancer patients to evaluate the success of specific treatment modalities as measured by the quality of the length of survival. Fundamental research on the epidemiology of cancer is initiated through the use of the accumulated data. In Wisconsin cancer is a reportable disease. Registry data are electronically transferred to the central registry. Twenty-one requests for registry data were received in 1992. These requests were from staff physicians, administration and for research projects and publications. The registry computer program was utilized to identify patients with cancer for invitation to the Cancer Survivors Day Celebration which was held in the spring of 1992 in collaboration with several other area hospitals. The registry printed and mailed out 600 invitations to cancer survivors. The Cancer Program Annual Report, which includes registry data, is distributed to the medical staff, hospital departments, and the West Allis Health Department. Analysis of registry data may point out positive or negative trends in the hospital and can be used by administration for resource planning.

Patient Care Evaluation Studies

In addition to the collection of all cancer patient information, registry personnel collected the data for the patient care evaluation studies conducted by the Cancer Committee. Studies completed in 1992 were the American College of Surgeons studies including the 1984 and the 1990 Prostate Cancer studies and the follow-up data collection of previous studies of Melaroma and Adriamycin and Stomach Cancer.
Other Activities

Registry personnel serve as staff to the Cancer Committee. Minutes and attendance of the Tumor Board Conferences are recorded by registry personnel each week. In an effort to upgrade the tumor registry computer program to meet new Cancer Program requirements, 4 registry computer programs were evaluated. Beginning with the 1992 cases, all new accessions were coded using the new International Classification of Diseases for Oncology, second edition (ICD-O-2) coding manual. The annual report is compiled by registry personnel, with contributions from staff physicians, under the direction of the Cancer Committee.

Confidentiality

Confidentiality rules concerning patient and physician identities and related medical information are strictly observed. Only group data are analyzed and published.

Organizational Activities

The Tumor Registry staff are active participants in the Wisconsin Tumor Registrar’s Association (WTRA), the National Tumor Registrar’s Association (NTRA) and the American Cancer Society (ACS). Ms. Eckert is currently serving on the ACS Southeastern District of Wisconsin, Professional Education Committee and is serving as President of WTRA. Ms. Miller is currently serving as chairman of the Membership Committee of WTRA. The Tumor Registry staff strives to develop a working relationship with organizations that care for the cancer patient.

Inquiries Welcomed

The registry staff welcomes inquiries and the opportunity to assist medical staff members to retrieve data for special studies, audits, research or personal information. Inquiries can be made by contacting registry staff.

Priscilla Eckert, ART, CTR
Sharon Miller
Telephone 328-7122
CANCER PROGRAM COMPONENTS

Oncology Unit

The inpatient Oncology Unit is a 30-bed unit dedicated to the quality care of the cancer patient. The unit is staffed with specialty-trained oncology nurses. These nurses have specialized in the care of cancer patients and their clinical experience and knowledge are impressive. Participating with the nursing staff in patient care are pharmacists, dietitians and other professionals.

Patient education is a major responsibility of the multidisciplinary team. Various educational tools, handouts, videotapes, and teaching kits are developed and revised as educational needs or products develop.

Outpatient Oncology Clinic

The outpatient Oncology Unit can accommodate up to 40 patients. Medical oncologists see and treat their patients in the outpatient clinic. Chemotherapy is a frequently used modality for the treatment of cancer. Although some regimens of chemotherapy require hospitalization, the majority can be given on an outpatient basis. Therapists also may offer cancer patients the opportunity to participate in clinic trials.

Outpatient Surgery

The outpatient surgery unit is equipped on a 24 hour basis to handle all patients' needs. Under normal circumstances, outpatients are able to go home following surgery. However, outpatients are invited to stay up to 24 hours at no additional cost.

Radiation Oncology

The Radiation Oncology division of the Radiology Department offers the cancer patient external beam therapy, interstitial and intra-cavity brachytherapy. Radiation therapists offer cancer patients the opportunity to participate in national treatment protocols.

Rehabilitation Services

The coordinated team approach by the physical, occupational and speech therapists enables attainment of patient treatment goals. The goal of this team of rehabilitation specialists is to return each individual patient to the highest level of function possible from deficiencies induced by disease or treatment and to teach relaxation techniques for the management of anxiety, pain and nausea.

Community Outreach

When cancer patients leave the direct care of the hospital, the network of support and caring that was offered to them in the hospital is extended out into the community. This network is extended not to just the cancer patients and their families, but to all patients and the community as a whole.

Home care services are arranged including everything from nursing to nutrition to equipment and therapy.

Meals Ala Wheels consists of the delivery of nourishing appetizing meals by volunteers. This program has been in existence since 1967.

Home visit services offers a wide variety of laboratory and diagnostic services, 24 hours a day, 7 days a week.

Respite care may be utilized by patients who are medically discharged from the hospital, but who prefer to stay where there is 24 hour nursing service and complete care.

Support Groups

A support group for Caregivers meets at West Allis Memorial. Many people have become a caregiver for someone who needs extra support. The opportunity to share ideas and to learn new things with other caregivers can be helpful.
American Cancer Society Reach-to-Recovery program volunteers provide rehabilitation support for women who have had mastectomies.

I Can Cope is a patient education program offered by the hospital in conjunction with the American Cancer Society. Living with cancer can be one of the hardest challenges anyone faces. I Can Cope helps cancer patients meet this challenge by clarifying cancer facts and myths, providing encouragement and practical hints through presentations and class discussions.

Positive People is a unique support group offered by West Allis Memorial. Oncology nurses, who are committed to helping people understand and cope with their disease, facilitate the meetings. The meetings are informal and include guest speakers about chemotherapy, radiation therapy, nutrition, etc. Positive People provides the opportunity for individual and group experiences with those in a similar situation.
1992 CANCER CASES
There has been a steady increase over the years in the cancer cases accessioned in the registry. In 1992 there was an increase of 194 cases. For the first time there were more men diagnosed with cancer than women. This was apparently due to the large increase in prostate cancer cases. This increase is probably artifactual because of the prostate cancer screening. Prostate cancer was 41 percent of the male cancers accessioned in 1992, and represented more than 22 percent of the total cases accessioned in 1992. Breast cancer incidence remained about the same when compared to last year. There were 30 more lung cancer cases in 1992 when compared to 1991; this represents a 28 percent increase. The number of colon cancer cases doubled in 1992 to 81 from 41 cases in 1991. The other sites remained about the same as last year. Of the 1030 cases, 965 were analytic cases and 65 were non-analytic cases.
## Site Tabulation for 1992 Cancer Cases

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Cases</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Cavity</td>
<td>23 (2.20%)</td>
<td>11 (2.0%)</td>
<td>12 (2.6%)</td>
</tr>
<tr>
<td>Pharynx</td>
<td>5 (0.47%)</td>
<td>3 (0.5%)</td>
<td>2 (0.4%)</td>
</tr>
<tr>
<td>Esophagus</td>
<td>8 (0.77%)</td>
<td>5 (0.9%)</td>
<td>3 (0.6%)</td>
</tr>
<tr>
<td>Stomach</td>
<td>13 (1.26%)</td>
<td>5 (0.9%)</td>
<td>8 (1.7%)</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>4 (0.38%)</td>
<td>1 (2.2%)</td>
<td>3 (0.6%)</td>
</tr>
<tr>
<td>Colon</td>
<td>81 (7.85%)</td>
<td>45 (8.0%)</td>
<td>36 (7.7%)</td>
</tr>
<tr>
<td>Rectum &amp; Anus</td>
<td>26 (2.52%)</td>
<td>15 (2.7%)</td>
<td>11 (2.4%)</td>
</tr>
<tr>
<td>Liver &amp; Biliary Tract</td>
<td>7 (0.67%)</td>
<td>4 (0.7%)</td>
<td>3 (0.6%)</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>1 (0.09%)</td>
<td>0 (0.0%)</td>
<td>1 (0.2%)</td>
</tr>
<tr>
<td>Pancreas</td>
<td>19 (1.84%)</td>
<td>9 (1.6%)</td>
<td>10 (2.1%)</td>
</tr>
<tr>
<td>Larynx</td>
<td>13 (1.26%)</td>
<td>9 (1.6%)</td>
<td>4 (0.9%)</td>
</tr>
<tr>
<td>Bronchus &amp; Lung</td>
<td>136 (13.20%)</td>
<td>85 (15.1%)</td>
<td>51 (10.9%)</td>
</tr>
<tr>
<td>Mediastinum &amp; Pleura</td>
<td>2 (0.19%)</td>
<td>2 (0.4%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Bone, Joints, Cartilage</td>
<td>1 (0.09%)</td>
<td>1 (0.2%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Blood &amp; Bone Marrow</td>
<td>31 (3.00%)</td>
<td>22 (3.9%)</td>
<td>9 (1.9%)</td>
</tr>
<tr>
<td>Skin</td>
<td>26 (2.52%)</td>
<td>15 (2.7%)</td>
<td>11 (2.4%)</td>
</tr>
<tr>
<td>Connective, Soft Tissue</td>
<td>4 (0.38%)</td>
<td>2 (0.4%)</td>
<td>2 (0.4%)</td>
</tr>
<tr>
<td>Breast</td>
<td>142 (13.78%)</td>
<td>1 (0.2%)</td>
<td>141 (30.3%)</td>
</tr>
<tr>
<td>Vulva</td>
<td>7 (0.67%)</td>
<td>0 (0.0%)</td>
<td>7 (1.5%)</td>
</tr>
<tr>
<td>Vagina</td>
<td>1 (0.09%)</td>
<td>0 (0.0%)</td>
<td>1 (0.2%)</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>44 (4.27%)</td>
<td>0 (0.0%)</td>
<td>44 (9.4%)</td>
</tr>
<tr>
<td>Corpus Uteri</td>
<td>34 (3.30%)</td>
<td>0 (0.0%)</td>
<td>34 (7.3%)</td>
</tr>
<tr>
<td>Ovary</td>
<td>17 (1.65%)</td>
<td>0 (0.0%)</td>
<td>17 (3.6%)</td>
</tr>
<tr>
<td>Prostate Gland</td>
<td>232 (22.52%)</td>
<td>232 (41.1%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Testis</td>
<td>9 (0.87%)</td>
<td>9 (1.6%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Kidney</td>
<td>19 (1.84%)</td>
<td>14 (2.5%)</td>
<td>5 (1.1%)</td>
</tr>
<tr>
<td>Ureter</td>
<td>1 (0.09%)</td>
<td>0 (0.0%)</td>
<td>1 (0.2%)</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>44 (4.27%)</td>
<td>36 (6.4%)</td>
<td>8 (1.7%)</td>
</tr>
<tr>
<td>Eye &amp; Adnexa</td>
<td>2 (0.19%)</td>
<td>1 (0.2%)</td>
<td>1 (0.2%)</td>
</tr>
<tr>
<td>Brain</td>
<td>12 (1.16%)</td>
<td>6 (1.1%)</td>
<td>6 (1.3%)</td>
</tr>
<tr>
<td>Other Nervous System</td>
<td>1 (0.09%)</td>
<td>1 (0.2%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Thyroid Gland</td>
<td>9 (0.87%)</td>
<td>1 (0.2%)</td>
<td>8 (1.7%)</td>
</tr>
<tr>
<td>Lymph Nodes</td>
<td>30 (2.91%)</td>
<td>16 (2.8%)</td>
<td>14 (3.0%)</td>
</tr>
<tr>
<td>Unknown Primary</td>
<td>26 (2.52%)</td>
<td>13 (2.3%)</td>
<td>13 (2.8%)</td>
</tr>
<tr>
<td><strong>Total Cases</strong></td>
<td>1030 (100.0%)</td>
<td>564 (100.0%)</td>
<td>466 (100.0%)</td>
</tr>
</tbody>
</table>
PROSTATE CANCER
Diagnostic imaging of the prostate is useful for staging of cancer of the prostate as well as monitoring the patient following treatment. Screening for prostate cancer is performed primarily by digital rectal examination. There is an important role for transrectal ultrasound in screening as well as staging of prostate cancer.

This will be discussed in a separate presentation.

The primary diagnostic imaging modalities used in staging of cancer of the prostate are bone scanning and computed tomography (CT). The bone scan is the most sensitive test for detecting clinically occult metastatic bone lesions.

CT or magnetic resonance imaging (MRI) can demonstrate a much wider variety of findings including extension of prostate carcinoma outside the prostatic capsule, extension of disease to the pelvic sidewalls, pelvic and retroperitoneal lymphadenopathy, and hepatic metastases. CT and MRI cannot demonstrate microscopic nodal metastases which have not caused lymph node enlargement. Pelvic lymphadenectomy at the time of surgery is performed to evaluate the lymph nodes for microscopic tumor metastases. Demonstration of more advanced disease than is clinically apparent has importance for the type and extent of treatment.

Bone scanning and CT are also useful in monitoring the effectiveness of therapy for prostate cancer. The ability to demonstrate recurrent or metastatic disease affects the course and nature of continued treatment.
Figure 1  MRI of pelvis - prostate gland (A) - normal anatomy

Figure 2  MRI of pelvis (coronal view) - prostate gland (A) - normal anatomy

KEY
A - Prostate gland
Figure 3  MRI of pelvis - cancer beginning to spread outside of the capsule of the prostate into the periprostatic fat (D)

Figure 4  CT scan of pelvis - prostate is irregularly enlarged. Cancer extending outside the prostatic capsule.

KEY
A - Prostate gland
Figure 5  CT scan of pelvis - enlarged seminal vesicles (B). Prostate cancer has invaded these structures growing directly from the prostate.

Figure 6  CT scan of pelvis - enlarged iliac lymph nodes (C). Prostate cancer has metastasized to those nodes.

KEY

A - Prostate gland
B - enlarged seminal vesicles
C - enlarged iliac lymph nodes
D - extension of prostate cancer outside the prostate capsule
In the United States, carcinoma of the prostate is the most common cause of cancer deaths in males. If the mortality rate as it relates to prostate carcinoma is to be reduced, it will require detection of cancer when it is still organ-confined, and instituting definitive therapy, either surgery or radiation therapy. Therefore, the goal of prostate screening is in early detection.

The two front line tests in screening involve the prostatic specific antigen, otherwise known as PSA, and the digital rectal exam. The American College of Radiology advocate that these two modalities are indicated yearly in men 50 years of age or older and in younger men in the higher risk groups.

The PSA is a serine protease produced by the prostatic tissue and normally very little is present in the general circulation. When this level is abnormal (greater than 4.0 ng), then prostate carcinoma is the differential. One commonly asked question is, "Why can’t one rely solely on the PSA or the digital rectal exam rather than both modalities? ". This answer involves the fact that the two tests are complimentary and each have their own inherent false negative rates. In addition, these two tests do not always detect the same cancers. In using both modalities, one can detect up to 78 percent more organ-confined carcinomas. Therefore, in using both tests, most significant prostate carcinomas will be diagnosed.

West Allis Memorial Hospital has been quite involved in prostatic screening for the purpose of early detection. From May 8, 1992 through September 30, 1992, 18 clinics were conducted and 616 men were screened. This consisted of serum PSA blood test and a rectal examination by a volunteer urologist. Of these 616 individuals, 28 percent of the screened population, namely 170 individuals, had abnormal findings. This consisted of 9 percent having solely an abnormality in the serum PSA, 20 percent having both an abnormal digital rectal exam and an abnormal PSA, and 47 percent noting an abnormal rectal exam with a normal PSA. In addition, 23 percent were noted to have an abnormal PSA along with benign enlargement of the prostate. These abnormalities were also age-dependent which goes along with the natural history of prostatic disease in general. Of these individuals, 93 percent did seek medical follow-up. Of these persons screened, 15 had definitive therapy for their prostate carcinoma, namely, 8 having surgery and 7 undergoing radiation therapy. It should again be stressed that prostate cancer is number two in cancer deaths and the mortality rate can be decreased, thus early detection is crucial.

Programs such as the prostatic cancer screening program at West Allis Memorial Hospital are designed to address this specific issue.
Prostatic carcinoma represents the most common malignancy in males and is the number two cause of cancer deaths in the United States. Early detection is vital in attempts at diagnosing localized carcinoma so definitive therapy, either surgery or radiation therapy, can be instituted. The diagnosis of prostate carcinoma involves first performing two complimentary tests, the serum PSA and the digital rectal examination. The American Urological Association, the American Cancer Society, and the American College of Radiology recommend these two modalities yearly for men ages 50 years or older and younger males in higher risk groups.

The PSA (prostatic specific antigen) is a serine protease produced by prostatic cells, and, in general, are in low quantities in the general circulation. It is well known that with prostatic carcinoma, the PSA level will progressively rise. If the patient exhibits an abnormal PSA (greater than 4.0 ng) or has an abnormal rectal exam, further studies are warranted. The transrectal prostate ultrasound initially thought to have a possible role in screening is now reserved for patients who exhibit an abnormal PSA or digital rectal exam, or both. This is a painless modality used for accurately and precisely directing needle biopsies and affording staging information.

The criteria for clinically localized prostate carcinoma include a normal transrectal prostate ultrasound, a normal bone scan, and frequently a CT scan of the pelvis. If clinically localized prostate carcinoma is diagnosed, then definitive therapy can be employed. Due to modern surgical advances and better knowledge of the blood and nerve supply to the prostate, surgery is more acceptable due to the reduced need for transfused blood and the risk of erectile dysfunction and urinary incontinence. Surgery to remove the prostate first involves performing a pelvic lymphadenectomy which usually involves a limited dissection, i.e., nodes from the obturator fossa. This can be done at the time of open surgery. However, again due to the modern surgical advances, these can be removed laparoscopically. However, this is done usually when the PSA approaches or exceeds 30.0 ng due to the infrequent occurrence of positive nodes with a lower level. The surgery then involves removing the prostate, the seminal vesicles, and part of the vas deferens. This is performed along with sparing of the neurovascular bundle in the appropriate candidates.

Surgery is carried out in an attempt to cure one of his prostate carcinoma. Evidence from long-term follow-up indicates that this has achieved regularity in those with negative surgical margins. Although there is up to 60 percent surgical upstaging in some studies, other studies confirm that with proper staging and patient selection, extracapsular extension or positive surgical margins are unlikely. A five year survival rate in these patients in reviewing the literature ranges from 75 percent to in excess of 90 percent, a 10 year survival rate ranges from 50 percent to 80 percent, and a 15 year survival rate ranges from 35 percent to 62 percent.

Again, early detection is crucial, and West Allis Memorial Hospital is in the forefront in this endeavor. One can only surmise that if the mortality rate can be decreased by prostate cancer which is the number two cause of cancer deaths in the United States, then early detection is crucial.
ADENOCARCINOMA OF THE PROSTATE
RADIATION THERAPY

By Kevin J. Murray, M.D.

Adenocarcinoma of the prostate is one of the most common tumors in men. In 1991, within the United States, an estimated 122,000 new cases were clinically diagnosed and 32,000 patients died of the disease. Recent epidemiological evidence has shown that the incidence in the United States is higher in the black than in the white population having one of the highest incidences of prostatic carcinoma in the world. There remains several areas of controversy in the management of patients with prostatic carcinoma. The natural history of this disease is somewhat variable and can be influenced by a multitude of prognostic factors. The diverse forms of therapy that are available can affect the quality of life and the sexual function of the patients in different degrees. Properly designed prospective clinical trials would resolve some of these issues but unfortunately have not been done to date.

The main forms of therapy for gentlemen with adenocarcinoma of the prostate include surgical resection or external beam irradiation. Generally, patients with larger tumors or tumors that have extended into the periprostatic tissues or are not felt to be good candidates for surgical resection receive irradiation. However, while large scale prospective studies have not been done to compare surgical and radiotherapy results, there is a multitude of institutional reviews which show an equivalence in the long-term survival and long-term control rates with each modality.

In an attempt to improve the results of patients treated with irradiation, we have recently participated in a Radiation Therapy Oncology Group study. This protocol looked at the addition of Zoladex and Flutamide to the use of external beam irradiation. Both of these agents are medications which block the action of testosterone which stimulates prostatic cancer growth. A total of 457 patients were entered on this national study. The early preliminary results document an increase in the local control rate and disease-free survival for patients who are treated with this combination of hormonal agents and irradiation. This information continues to be observed and if it holds up with longer follow-up, this will be incorporated within the treatment of newly diagnosed prostatic carcinoma patients.

External beam irradiation remains an important modality of therapy for gentlemen with adenocarcinoma of the prostate. While not curative in all patients, a majority of patients, however, can enjoy a long and fruitful survival. Nonetheless, since some of these gentlemen do fail following their therapy (whether it is surgical removal or radiation), further work needs to be done to determine better prognostic factors. Besides the use of various hormonal agents as a cytoreduction done in addition to radiation, there is a move towards more precise tumor delineation and delivery of irradiation. This technique, called three dimensional conformal therapy, may potentially allow for the delivery of increased amounts of radiation to the prostate with no significant change in the rate of normal tissue effects. At this point in time, this technique is being explored in 9 institutions across the country. We look forward to providing this service as soon as its benefit can be judged.
AMERICAN COLLEGE OF SURGEONS

PROSTATE CANCER STUDY RESULTS
## Tumor Grade

### 1984 Study vs. 1990 Study

<table>
<thead>
<tr>
<th>Differentiation/Grade</th>
<th>This Hospital</th>
<th>All Hospitals</th>
<th>This Hospital</th>
<th>All Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Well Differentiated, Grade I</td>
<td>8</td>
<td>32.0</td>
<td>4707</td>
<td>32.1</td>
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<tr>
<td>Mod. Differentiated, Grade II</td>
<td>12</td>
<td>48.0</td>
<td>4760</td>
<td>32.5</td>
</tr>
<tr>
<td>Poorly Differentiated, Grade III</td>
<td>3</td>
<td>12.0</td>
<td>3278</td>
<td>22.4</td>
</tr>
<tr>
<td>Undifferentiated, Grade IV</td>
<td>0</td>
<td>0.0</td>
<td>356</td>
<td>2.4</td>
</tr>
<tr>
<td>Grade Unknown</td>
<td>2</td>
<td>8.0</td>
<td>1539</td>
<td>10.5</td>
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<tr>
<td>Other Responses</td>
<td>0</td>
<td>0.0</td>
<td>26</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### Gleason's Score

<table>
<thead>
<tr>
<th>Gleason's Score</th>
<th>This Hospital</th>
<th>All Hospitals</th>
<th>This Hospital</th>
<th>All Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>12.0</td>
<td>519</td>
<td>3.5</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.0</td>
<td>636</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>12.0</td>
<td>664</td>
<td>4.5</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>16.0</td>
<td>851</td>
<td>5.8</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>20.0</td>
<td>676</td>
<td>4.6</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>8.0</td>
<td>945</td>
<td>6.4</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>4.0</td>
<td>487</td>
<td>3.3</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>4.0</td>
<td>404</td>
<td>2.8</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0.0</td>
<td>86</td>
<td>0.6</td>
</tr>
<tr>
<td>Not reported/unkn.</td>
<td>6</td>
<td>24.0</td>
<td>9146</td>
<td>62.4</td>
</tr>
<tr>
<td>Other responses</td>
<td>0</td>
<td>0.0</td>
<td>252</td>
<td>1.7</td>
</tr>
</tbody>
</table>
Histologic tumor grade of adenocarcinoma of the prostate is strongly correlated with prognosis and response to treatment. Men with low-grade (well-differentiated) tumors have a relatively good prognosis, while those with high-grade (anaplastic) tumors have a poor prognosis. The tables on the opposite page show that in this hospital there was a higher percentage of cases with reported tumor grade, both differentiation and Gleason's score, than the other hospitals in the studies. Once the histologic diagnosis of prostate cancer has been established, serum levels of PSA (Prostate-Specific Antigen) and PAP (Prostatic Acid Phosphatase) are measured to help determine the stage of disease. Until recently, serum PAP was the most useful biochemical marker for monitoring patients with prostate cancer. There is a clear correlation between elevated PAP levels and the presence of metastatic disease. Studies suggest that PSA is more sensitive than PAP for detecting prostate cancer. The tables above show the increase in the use of PSA in 1992 as compared to 1984 for all participants in the study.
### AMERICAN COLLEGE OF SURGEONS

**PROSTATE CANCER STUDIES**

**SURGICAL TREATMENT**

<table>
<thead>
<tr>
<th>TYPE OF SURGERY</th>
<th>1984 Study</th>
<th>1990 Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Hospital</td>
<td>All Hospitals</td>
</tr>
<tr>
<td>No surgical procedure</td>
<td>0 0.0</td>
<td>531 3.6</td>
</tr>
<tr>
<td>Incisional, needle or aspiration biopsy of other site</td>
<td>0 0.0</td>
<td>237 1.6</td>
</tr>
<tr>
<td>Biopsy of primary site</td>
<td>2 8.0</td>
<td>2923 19.9</td>
</tr>
<tr>
<td>Exploratory only</td>
<td>0 0.0</td>
<td>15 0.1</td>
</tr>
<tr>
<td>Bypass surgery, ostomy only</td>
<td>0 0.0</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Exploratory and biopsy</td>
<td>0 0.0</td>
<td>84 0.6</td>
</tr>
<tr>
<td>Bypass surgery, ostomy &amp; biopsy</td>
<td>0 0.0</td>
<td>5 0.0</td>
</tr>
<tr>
<td>TURP or cryoprostatectomy w/o nodes</td>
<td>15 60.0</td>
<td>8277 56.4</td>
</tr>
<tr>
<td>TURP or cryoprostatectomy w/nodes</td>
<td>2 8.0</td>
<td>270 1.8</td>
</tr>
<tr>
<td>Subtotal prostatectomy w/o nodes</td>
<td>1 4.0</td>
<td>263 1.8</td>
</tr>
<tr>
<td>Subtotal prostatectomy w/nodes</td>
<td>0 0.0</td>
<td>41 0.3</td>
</tr>
<tr>
<td>Total prostatectomy w/o nodes</td>
<td>1 4.0</td>
<td>231 1.6</td>
</tr>
<tr>
<td>Total prostatectomy w/nodes</td>
<td>4 16.0</td>
<td>1077 7.3</td>
</tr>
<tr>
<td>Cystoprostatectomy w/pelvic exenteration</td>
<td>0 0.0</td>
<td>45 0.3</td>
</tr>
<tr>
<td>Surgery of regional &amp;/or distant site(s)/node(s)</td>
<td>0 0.0</td>
<td>451 3.1</td>
</tr>
<tr>
<td>Surgery, Not otherwise specified</td>
<td>0 0.0</td>
<td>70 0.5</td>
</tr>
<tr>
<td>Unknown if surgery done</td>
<td>0 0.0</td>
<td>23 0.2</td>
</tr>
<tr>
<td>Other responses</td>
<td>0 0.0</td>
<td>133 0.9</td>
</tr>
</tbody>
</table>

23
AMERICAN COLLEGE OF SURGEONS

PROSTATE CANCER STUDIES

<table>
<thead>
<tr>
<th>Radiation Therapy planned/given</th>
<th>1984 Study</th>
<th>1990 Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Hospital</td>
<td>All Hospitals</td>
</tr>
<tr>
<td>Radiation Therapy given</td>
<td>7 28.0</td>
<td>4403 30.0</td>
</tr>
<tr>
<td>No/not recommended</td>
<td>18 72.0</td>
<td>9280 64.6</td>
</tr>
<tr>
<td>Patient refused radiation therapy</td>
<td>0 0.0</td>
<td>135 0.9</td>
</tr>
<tr>
<td>Radiation planned but not given due to complication</td>
<td>0 0.0</td>
<td>42 0.3</td>
</tr>
<tr>
<td>Unknown</td>
<td>0 0.0</td>
<td>317 2.2</td>
</tr>
<tr>
<td>Other Responses</td>
<td>0 0.0</td>
<td>289 2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hormone therapy planned/given</th>
<th>1984 Study</th>
<th>1990 Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Hospital</td>
<td>All Hospitals</td>
</tr>
<tr>
<td>Hormone therapy given</td>
<td>8 32.0</td>
<td>4503 30.7</td>
</tr>
<tr>
<td>No/not recommended</td>
<td>17 68.0</td>
<td>8687 59.2</td>
</tr>
<tr>
<td>Patient refused hormone therapy</td>
<td>0 0.0</td>
<td>98 0.7</td>
</tr>
<tr>
<td>Hormonal therapy planned, but not given due to complications</td>
<td>0 0.0</td>
<td>26 0.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>0 0.0</td>
<td>685 4.7</td>
</tr>
<tr>
<td>Other responses</td>
<td>0 0.0</td>
<td>667 4.5</td>
</tr>
</tbody>
</table>

TREATMENT OF PROSTATE CANCER

The tables on the opposite page show evidence of a change in surgical treatment patterns for prostate cancer for all hospitals in the studies. There was a decrease in the TURP (transurethral prostatectomy) without nodal dissection in 1990 and an increase in the total prostatectomies with nodal dissection. TURP without nodal dissection still remain the most common surgical treatment for prostate cancer. Biopsy only increased by 28 percent in 1990 at this hospital. There was an increase in the use of radiation therapy for the treatment of prostate cancer in 1990 in this hospital whereas there was a slight decrease evident in the other hospitals. There was decreased use of hormone therapy evident in all hospitals involved in the studies. This is probably due to the fact that prostate cancer was being diagnosed at an earlier stage in 1990.
## American College of Surgeons
### Prostate Cancer Studies
#### Survival Results

1984 Study

<table>
<thead>
<tr>
<th>Patient and Cancer Status at Last Contact</th>
<th>This Hospital</th>
<th>All Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alive, no evidence of prostate cancer</td>
<td>9</td>
<td>3570</td>
</tr>
<tr>
<td>Alive, with prostate cancer</td>
<td>2</td>
<td>1515</td>
</tr>
<tr>
<td>Alive, prostate cancer status unknown</td>
<td>0</td>
<td>1351</td>
</tr>
<tr>
<td>Dead, no evidence of prostate cancer</td>
<td>7</td>
<td>1569</td>
</tr>
<tr>
<td>Dead, prostate cancer present at death</td>
<td>7</td>
<td>5219</td>
</tr>
<tr>
<td>Dead, prostate cancer status unknown</td>
<td>0</td>
<td>1356</td>
</tr>
<tr>
<td>Other response(s)</td>
<td>0</td>
<td>88</td>
</tr>
</tbody>
</table>

West Allis Memorial survival statistics compare very favorably with the other hospitals in the study. At the conclusion of the study 44 percent of the patients were alive for both groups displayed above. The significant difference is that more patients were alive without prostate cancer in this hospital (36%) in comparison to all hospitals (24.2%).

Of those patients who had expired, a higher percentage had no evidence of prostate cancer at this hospital (28%) when compared to all hospitals (10.7%). Conversely, those expired with prostate cancer was a lower percentage at this hospital, when compared to the other hospitals in the study.
WEST ALLIS MEMORIAL HOSPITAL

PROSTATE CANCER STATISTICS

1978 - 1992
American Urologic System Stage Grouping

Incidental Finding by Pathologist and Clinically Unsuspected

- Stage A-1: 3 or less foci, well differentiated
- Stage A-2: Diffuse or more than 3 foci, poorly differentiated and more extensive than A-1

Clinically Palpable in the Prostate

- Stage B: Confined to the prostate, not otherwise specified
  - Stage B-1: Less than 2 cm involving one lobe
  - Stage B-2: Greater than 2 cm, diffusely involved
- Stage C: Extension beyond the prostatic capsule, not otherwise specified
  - Stage C-1: Extension to periprostatic tissue
  - Stage C-2: Extension to seminal vesicle(s)
- Stage D: Involvement of the pelvic lymph nodes below the aortic bifurcation
  - Stage D-1: Lymph node involvement above the aortic bifurcation and/or distant metastases to other sites
The incidence of prostate cancer at West Allis Memorial gradually increased until 1991 and 1992 when there was a dramatic increase in the number of cases accessioned. One factor that has been responsible for this acceleration is the increase in detection. More frequent use of improved diagnostic methods, such as serum testing, ultrasound, and transrectal ultrasound guided needle biopsies may also contribute to an increase in reported cases. In 1992 there was a 61 percent increase in prostate cancer, when compared to the cases in 1991.

The graph on the opposite page displays the American Urologic System stage at the time of diagnosis of the prostate cancer cases accessioned in 1992 at West Allis Memorial. This staging system identifies the tumors that were incidental findings (Stage A). Only 11 percent of the 232 cases were incidental findings. Of the total cases accessioned, in 73 percent of the cases, the tumor was confined to the prostate (Stages A and B). The number of distant stage tumors (Stage D-2) has steadily decreased over the years.
Cancer of the prostate is the most frequently diagnosed cancer among men. It is the second leading cause of cancer deaths among men, following lung cancer. Prostate cancer is primarily a disease of older men. Age-specific incidence rates show that prostate cancer is rare in men under 59, but rapidly increases in men over the age of 60 and peaks in the 70's, as demonstrated in the graphs shown above. In comparing all the prostate cancers in the registry (1978 - 1992 accessions) with the 1992 accessions the only appreciable difference is the 5% increase in the 70 - 79 year age group and the decrease of 4% in the 80 - 89 year age group of the 1992 accessions. This would indicate earlier detection as a result of the screening programs.
An invasive neoplasm confined to the organ of origin.

A neoplasm that has extended beyond the limits of the organ of origin directly into surrounding organs or tissues; into regional lymph nodes; or both direct extension and regional lymph node involvement.

A neoplasm that has spread to parts of the body remote from the primary tumor either by direct extension or by discontinuous metastasis.

Information is not sufficient to assign a stage.
When comparing the stage at the time of diagnosis of all the prostate cancer cases in the tumor registry (see opposite page) with the cases accessioned in 1992, it is apparent that prostate cancer was being diagnosed at an earlier stage in 1992. Particularly encouraging is the decrease by one-half of the cases diagnosed with distant stage cancer. Regional stage has remained about the same.

The two percent increase in the regional by direct extension stage in 1992 is probably as a result of the change in surgical treatment patterns (demonstrated on the graphs on the following pages). There was an increase in the number of radical prostatectomies, which would tend to up-stage the clinical staging by demonstrating spread of the tumor beyond the prostate capsule, not evident clinically.
In comparing the treatment combinations between all the prostate cancers cases in the registry (see opposite page) with the treatment combinations of 1992 (shown above), the most obvious difference is the increase in radiation therapy only. This would include patients with biopsy only who were treated with radiation. The percentage has doubled in this category. The category of surgery contains both those patients with transurethral resections as well as simple and radical prostatectomies. The use of hormone therapy decreased in 1992. This decrease probably correlates with the decrease in the number of patients with distant stage disease at the time of diagnosis. There was an increase in 1992 in the percentage of patients receiving no treatment.
PROSTATE CANCER
1978 - 1992
SURGERY DISTRIBUTION

Key
TURP w/o nodes
Transurethral resection without regional lymph nodes
TURP w/nodes
Transurethral resection with regional lymph node dissection
Radical prostatectomy w/o nodes
Excision of the prostate, ductus deferens, and seminal vesicles without regional node dissection
Radical prostatectomy w/nodes
Excision of the prostate, ductus deferens, and seminal vesicles with regional node dissection
Prostatectomy, NOS
Prostatectomy, not otherwise specified (includes cases that had surgery elsewhere and received adjuvant therapy here)
Other
Includes categories of less than one percent of the cases
Biopsy only
Did not have any surgical procedure

35
The graphs on this page and the opposite page are breakdowns of the surgery category in the treatment combinations for prostate cancer illustrated on the previous pages. In comparing the types of surgery performed for all prostate cancer cases in the tumor registry with the prostate cancer cases accessioned in 1992, there are some notable differences. Although there was not a change in the percentage of patients who were treated with surgery for their prostate cancer, there was a significant difference in the type of surgery performed. There was a 30 percent decrease in the transurethral resections without regional lymph node dissections and a 31 percent increase in radical prostatectomies with regional lymph node dissections. Biopsy only percentage more than doubled. This correlates with the increase in radiation therapy only category on the previous pages.
PROSTATE CANCER
10 YEAR SURVIVAL BY STAGE*
1978 - 1992

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ALL STAGES</th>
<th>LOCAL</th>
<th>REGIONAL</th>
<th>DISTANT</th>
<th>UNKNOWN</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>91%</td>
<td>94%</td>
<td>95%</td>
<td>78%</td>
<td>78%</td>
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<tr>
<td>2</td>
<td>81%</td>
<td>87%</td>
<td>90%</td>
<td>56%</td>
<td>63%</td>
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<td>3</td>
<td>72%</td>
<td>80%</td>
<td>84%</td>
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<td>4</td>
<td>63%</td>
<td>72%</td>
<td>77%</td>
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<tr>
<td>5</td>
<td>54%</td>
<td>62%</td>
<td>67%</td>
<td>21%</td>
<td>38%</td>
</tr>
<tr>
<td>6</td>
<td>47%</td>
<td>56%</td>
<td>60%</td>
<td>16%</td>
<td>34%</td>
</tr>
<tr>
<td>7</td>
<td>41%</td>
<td>49%</td>
<td>50%</td>
<td>12%</td>
<td>34%</td>
</tr>
<tr>
<td>8</td>
<td>35%</td>
<td>42%</td>
<td>43%</td>
<td>11%</td>
<td>34%</td>
</tr>
<tr>
<td>9</td>
<td>32%</td>
<td>39%</td>
<td>35%</td>
<td>10%</td>
<td>29%</td>
</tr>
<tr>
<td>10</td>
<td>26%</td>
<td>31%</td>
<td>30%</td>
<td>9%</td>
<td>29%</td>
</tr>
</tbody>
</table>

* SEER Summary staging system
Survival rate calculation by Actuarial (Life Table) Method
GLOSSARY

Accessioned
Entered into the Tumor Registry data base

ACOS
American College of Surgeons - In 1932 the American Cancer Society urged the American College of Surgeons to take the lead in setting guidelines for cancer care. Approval of hospital-based cancer programs has been the foundation for improving the quality of care of patients with cancer.

ACS
American Cancer Society

AJCC
American Joint Committee on Cancer - organized for cancer staging and end results reporting

NCI
National Cancer Institute

PCE's
Patient care evaluation studies - Evaluation of cancer patient care through the process of problem identification, problem analysis, action planning and follow-up monitoring

SEER
Surveillance, Epidemiology and End Results program of National Cancer Institute

Stage of Disease
The extent of disease determined at the time of initial workup for the first course of treatment

TNM Staging
AJCC classification to determine the extent of disease at the time of diagnostic workup for the first course of treatment
  T - Size of tumor
  N - Nodal involvement
  M - Metastasis at distant sites

Treatment:
Surgery
Operative procedure to remove all or part of cancer tissue

Radiation
Cancer-directed internal or external radiation

Chemotherapy
Includes all chemotherapeutic agents other than hormones

Hormones
Includes administration of hormones, steroids and endocrine surgery

None
Cases with no report of definitive treatment
REFERENCES

American Cancer Society, *Cancer Facts and Figures - 1992*


American Cancer Society, *Clinical Oncology Textbook*

National Institutes of Health, National Cancer Institute, *Cancer Statistics Review 1973 - 1989*
A Reputation of Respect
WEST ALLIS MEMORIAL HOSPITAL
4901 WEST LINCOLN AVENUE, P.O. BOX 27801, WEST ALLIS, WI 53227-0901, PHONE (414) 546-6000