

# Doctors Hospital Cancer Committee 2008 ANNUAL REPORT



**Doctors Hospital**  
OhioHealth

Doctors Hospital's Cancer Program is accredited by the American College of Surgeons Commission on Cancer as a Teaching Hospital Cancer Program with commendations in clinical research and community education. This accreditation means we offer total cancer care, including state-of-the-art diagnosis, treatment, and follow-up that meets or exceeds quality standards.

Doctors Hospital is an advanced community-focused osteopathic teaching hospital committed to providing exceptional medical and surgical care with ease of access to high quality specialty services.

Doctors Hospital is a part of OhioHealth, a faith-based, not-for-profit healthcare family and the leading healthcare provider in central Ohio.



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Tumor Board .....	Thomas Anderson, DO; Chairman
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Radiation Oncology.....	Thomas Anderson, DO
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### Thyroid Cancer Outcomes Study

## CANCER COMMITTEE MEMBERSHIP 2008

Cancer Committee Chairman	Sanjay Yadav, MD
Cancer Conference Chairman	Thomas Anderson, DO
Physician Liaison	Mark Cripe, DO
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Quality Improvement Coordinator	Janette Chow, RN, CPHQ
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Pastoral Care	Robin Walton, Chaplain
Pathology	Ruth Anker, DO
Palliative Care	Gavin Baumgardner, DO
Pastoral Care	Robin Walton, Chaplain
Radiology	Jeff Rodgers, DO
Research Nurse	Michele Dillow, RN
Social Services	Jeanne Porecca, LSW
Surgery	Richard Costin, DO

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Ambulatory – Breast Health	Janet Scott
American Cancer Society	Merilyn Rostel
Family Practice	David Dewalt, DO
Hospice	Lisa Lerdon and Vicki Caldwell
Thoracic Surgery	Dale Levy, MD

## Cancer Committee

It is our pleasure to share 2008 highlights of the Doctors Hospital Cancer Program with you. Many of our patients say that Doctors Hospital is the “best kept secret on the West side”, but we do not intend to keep our program a secret! This report allows you to see for yourself at least a thumbnail overview of the significant contribution that Doctors Hospital makes to cancer care.

Our motivated and dedicated team of physicians, nurses, and multi-disciplinary staff provides excellent care, teaching and support for our patients with cancer; and our accreditation by the American College of Surgeons Commission on Cancer and the American College of Radiology demonstrate commitment to quality and service. As a member of the OhioHealth family, we are proud of the recognition as one of the “Fortune 100 Best Companies to work for”; but we are also extremely pleased at the very high ratings our patients have given us via the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) system. Our quality benchmarking with similar hospitals are very favorable and as we strive for excellence we believe that we are truly making a significant difference for our patients.

### Key programs and achievements for 2008:

- On-site genetic counseling
- Expansion of the lung cancer nurse navigator program
- New stereotactic breast biopsy system
- Improved utilization of hospice services by 50%
- Implementation of Intensity Modulated Radiation Therapy
- Community Forum for Cancer Education, Prevention and Early Detection
- Community skin cancer screening event
- Ninth annual community prostate screening event
- Conversion to electronic medical records
- Development of cancer screening guideline pocket reference cards for primary care physicians

Quality audits and studies are an integral component of our cancer program and showed excellent outcomes in the areas of time to treatment for both breast and lung cancer; collaborative staging by our registrars and physicians; colon and breast cancer treatment, and utilization of Oncotype DX testing for breast cancer.

The Cancer Program is a valuable asset to the patients, staff, physicians and community; and it is our honor to provide services to meet their needs as we endeavor to improve the health and quality of life of those we serve.

Sanjay Yadav, MD  
Chairman, Cancer Committee

Teri Parker RN, MSN, OCN  
Site Director, Cancer Services

## Physician Liaison & Community Outreach

Doctors Hospital continues its tradition of commitment to the Columbus community as a not-for-profit charity-based organization. Our collaboration with the American Cancer Society has increased and we are appreciative of their support, especially Marilyn Rostel and Kathleen Gough. We are also appreciative to the Komen Foundation as well as Astra-Zeneca, Genentech, Pfizer, Sanofi-Aventis, and Abbott representatives for their ongoing support. The cancer program provided multiple outreach programs in 2008.

### Prevention:

- Smoking cessation continues to be an ongoing initiative serving the neighboring community and patients of Doctors Hospital. Quit for Good is a smoking cessation program of The Breathing Association with grant funding by the Tobacco Use and Prevention Fund. In June 2007, the outpatient tobacco treatment specialist began to make inpatient visits, working in collaboration with the Respiratory Therapy Department.
- The Breast Health Nurse program continues to be one of the outstanding services at Doctors Hospital. It continues to grow in volumes since the opening of the Women's Imaging Center in 2004. In addition to providing staff education, the breast health nurse has taught breast self-examination classes to community groups, including a Somali interpreter group, several times during the year.
- Low cost or free mammography is available through the American Cancer Society BEST program at off-campus locations and through the State of Ohio Breast and Cervical Cancer Prevention program [BCCP]. Eligible patients may also access the Doctors Hospital charity care financial assistance program.
- Breast cancer awareness information is provided in the hospital during the month of October to coincide with National Breast Cancer Awareness Month. A large scale marketing/educational campaign took place in September, addressing such topics as early detection, digital mammography, Oncotype DX and clinical trials. These efforts included television pieces that aired during the national program "Stand Up 2 Cancer".
- In collaboration with the American Cancer Society, the Great American Smoke-out event was held in November. This coincided with Lung Cancer Awareness month. Educational material was presented on prevention, early detection, smoking cessation and cancer detection and treatment options. A "cold turkey" drawing was held for participants in an educational quiz.
- In March, a week-long community and staff educational display was presented in the cafeteria on the topic of colon cancer awareness and early detection. A quiz and drawing for a Healthy Eating cookbook took place as well. Dr Layth Saymeh presented a lecture to medical house staff on the guidelines for colorectal cancer screening and Dr. Seth Levin provided a Lunch & Learn program to members of the community and hospital staff.

### Early Detection:

- For the ninth consecutive year, Doctors Hospital provided free prostate screening with digital rectal examinations (DRE) and prostate-specific antigen (PSA) screening. American Cancer

Society guidelines were followed and the educational material provided was also from the ACS. Three physicians (Drs. Stephen Fisher, Robert Lewis and Thomas Anderson) donated their time and expertise to this event which served 56 men this year. 10 were advised to seek additional evaluation for abnormal PSA, DRE or symptoms. Given the extreme weather and wide-scale power outages that took place during the week, this was an excellent response.

- The first skin cancer screening event was held in May to coincide with the American Cancer Society's skin cancer awareness month. Three Board certified dermatologists and a plastic surgeon volunteered their time to screen 47 participants. 12 were advised to seek additional follow-up for biopsy. American Cancer Society guidelines and educational materials were used.

**Outreach:**

- Members of Cancer Services joined the breast cancer awareness efforts through The Susan B. Komen Race for the Cure as part of OhioHealth Team Ohio.
- Through a joint Komen grant with Riverside Methodist Hospital and Grant Medical Center, a breast cancer support group was provided on campus from June 2007 through December 2007. With the new grant year, we began to offer free massages to women with breast cancer. The response was impressive. The grant also provided funds for temporary assistance with financial support, transportation needs, medications and supportive devices.
- Cancer Services developed entire year of educational programs designed with the community in mind: The 2008 Doctors Hospital Community Cancer Forum for Education, Prevention, and Early detection. The following presentations were given:
  - "What's new in the diagnosis and surgical treatment of breast cancer"
  - "New options in the treatment of breast cancer (Oncotype)"
  - "What you should know about radiation therapy"
  - "The role of genetics and your risk of cancer"
  - "What you need to know about colorectal screening and prevention"
  - "Your guide to community resources and financial assistance"
  - "One step at a time, dealing with loss during the first year"

Mark Cripe, D.O.  
Physician Liaison, Cancer Committee

## Cancer Registry

The cancer registry is a key component of the Commission on Cancer approved Cancer Program at Doctors Hospital. The registry collects demographics, cancer identification, treatment, and follow-up data on each cancer patient diagnosed and/or treated at Doctors since 1995. This data is utilized by physicians, the cancer committee, hospital administration, and other healthcare professionals.

Doctors Hospital contracts with CHAMPS Management Services of the Center for Health Affairs in Cleveland, OH to staff the cancer registry with a Certified Tumor Registrar.

The Commission on Cancer requires cancer registries to maintain follow-up of all its analytic cancer patients. This follow-up allows for the evaluation of treatment outcomes. At the end of 2007 there were 4,835 patients in the registry since the reference year of 1995. 1,434 of these were actively being followed. The follow-up rate at the end of 2007 was 87% since the reference year and 91% for the last five years. These percentages exceed the follow-up rates of 80% and 90% respectively established by the Commission on Cancer.

In 2007, there were a total of 348 cases accessioned. 332 cases were analytic (initial diagnosis and/or treatment at DH). 16 cases were non-analytic (treated at DH for recurrences or progression of disease). [Figure 1]

The 5 major sites at Doctors Hospital for 2007 are Breast (74 cases), Lung/Bronchus (63 cases), Colon (38 cases), Thyroid (23 cases), and Kidney/Renal Pelvis (16 cases). [Figure 2]

A majority of the patients (73%) lived in Franklin County with the major population (47%) residing within the city of Columbus. [Figures 3 & 4]

Registry data is submitted to the Ohio Cancer Incidence Surveillance System (OCISS) monthly and the National Cancer Data Base (NCDB) yearly.

The Medical and Administrative Staff are encouraged to contact the registry for a wide array of collected data that could be beneficial in their efforts to continually improve the care of the cancer patient at Doctors Hospital.

Melissa Smith, RHIT, CTR  
Champs Management Services

**Figure 1**

**Doctors Hospital  
2007 Cases  
Site Distribution**

Primary Site	Total Cases	Sex		Class of Case	
		M	F	Analytic	Non-Analytic
Breast	80	0	80	74	6
Lung/Bronchus	64	35	29	63	1
Colon	38	22	16	38	0
Thyroid	23	3	20	23	0
Kidney/Renal Pelvis	17	7	10	16	1
Non-Hodgkin's Lymphoma	12	6	6	11	1
Unknown Primary	12	9	3	12	0
Larynx	10	7	3	10	0
Other Oral Cavity	9	5	4	7	2
Rectum	8	4	4	8	0
Pancreas	8	5	3	8	0
Bladder	6	4	2	4	2
Other Digestive System	5	1	4	5	0
Corpus Uteri	5	0	5	4	1
Stomach	4	4	0	4	0
Leukemia	4	3	1	4	0
Multiple Myeloma	4	1	3	4	0
Cervix Uteri	4	0	4	4	0
Prostate	4	4	0	3	1
Other Brain & CNS	4	0	4	4	0
Other/III-Defined	4	2	2	4	0
Testis	3	3	0	2	1
Tongue	3	3	0	3	0
Ovary	3	0	3	3	0
Esophagus	2	2	0	2	0
Anus/Anal Canal	2	0	2	2	0
Melanoma	2	1	1	2	0
Other Skin	2	2	0	2	0
Other Endocrine	2	1	1	2	0
Connective/Soft Tissue	1	1	0	1	0
Liver	1	1	0	1	0
Brain (Malignant)	1	1	0	1	0
Hodgkin's Disease	1	1	0	1	0
<b>Total</b>	<b>348</b>	<b>138</b>	<b>210</b>	<b>332</b>	<b>16</b>

Source: Doctors Hospital, 2007 cases

<b>Figure 2</b>						
<b>Doctors Hospital</b>						
<b>2007 Analytic Cases</b>						
<b>Top Five Sites</b>						
<b>SITE CODE</b>	<b>MALE</b>		<b>FEMALE</b>		<b>TOTAL</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
<b>Breast</b>	0	0%	74	100%	74	100%
<b>Lung/Bronchus</b>	34	54%	29	46%	63	100%
<b>Colon</b>	22	58%	16	42%	38	100%
<b>Thyroid</b>	3	13%	20	87%	23	100%
<b>Kidney/Renal Pelvis</b>	7	44%	9	56%	16	100%
Source: Doctors Hospital, 2007 analytic cases						

Figure 3 Doctors Hospital 2007 Analytic Cases County Distribution

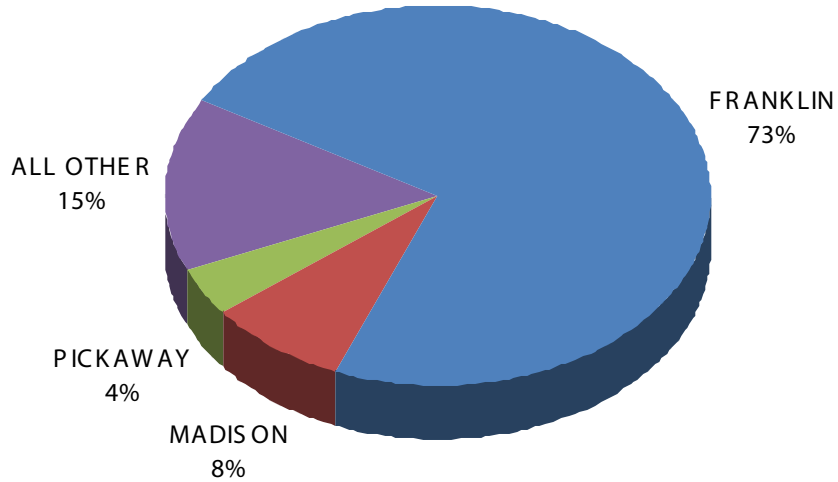
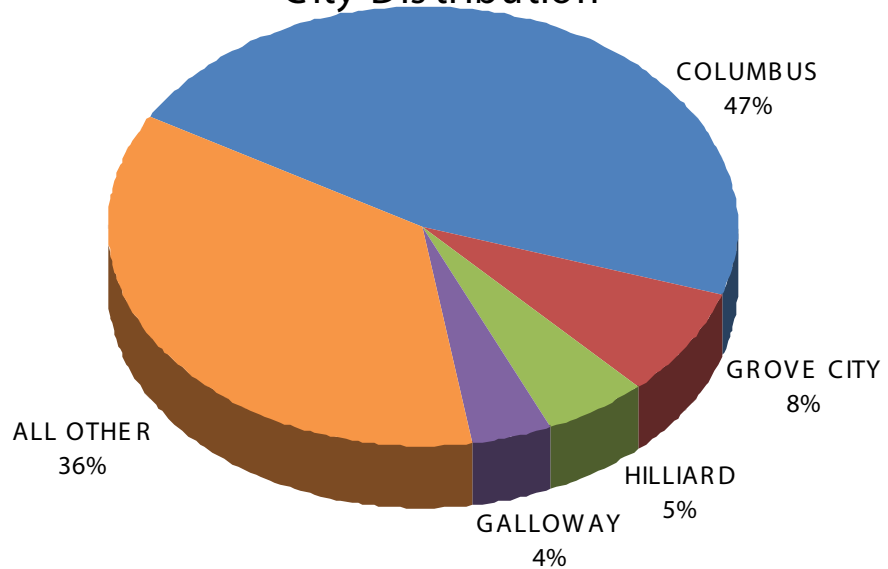


Figure 4

Doctors Hospital 2007 Analytic Cases City Distribution



## **Tumor Board**

Doctors Hospital Tumor Board meets at 7:00 A.M. each Tuesday to prospectively present malignant cases diagnosed at our institution. The weekly conference is attended by members of the Divisions of Community Based Health; Hospital-based physicians, Internal Medicine, and Surgery. The Departments represented include the Departments of Cardio-thoracic Surgery, ENT, General Surgery, Gastroenterology, Internal Medicine, Medical Oncology, Pathology, Pulmonology, Radiation Oncology, and Radiology. The conference is also attended by representatives from cancer services, clinical trials, pharmaceutical companies, breast health, genetics and Doctors hospital residents, interns and medical students.

The weekly forum presents cases submitted by attending physicians and all breast cancers diagnosed each week at our institution, as part of our continuing participation in the Ohio Health Breast Program. The third Tuesday of each month is designated for specific cases related to malignancies within the mediastinum and thoracic cavity. This once-monthly conference has grown exponentially and several months throughout 2008 it was necessary for thoracic cases to also be presented an additional week. As a component of the Lung Care Center, we offer quarterly thirty minute didactic lectures on pulmonary oncology on the fourth Tuesday.

Approximately 100 cases are completed each quarter, nearly 100% prospectively. Emphasis is placed on the top five cancer sites at Doctors Hospital which are breast, lung, colorectal, thyroid and renal pelvis/kidney.

Thomas M. Anderson, D.O.  
Cancer Conference Coordinator

## Quality Improvement

Cancer Services reports to the Doctors Hospital Performance Improvement Committee semi-annually, a sub-committee of the Medical Executive Committee. The department scorecard monitors numerous quality indicators and outcomes such as physician staging, internal auditing processes, lung cancer treatment timeliness, breast cancer time to detection, and cancer registry activity to name a few. Emphasis is on evidence-based practice metrics such as those from the American College of Surgeons Commission on Cancer, the Healthcare Advisory Board and the National Comprehensive Cancer Network.

Several studies and activities took place to evaluate the quality and improve the efficacy of various components of cancer care. The following represent just a few of this year's topics:

- **Oncotype DX** – to determine the percentage of eligible patients with breast cancer who were offered this test to facilitate treatment decision-making. Oncotype DX is a test that identified the likelihood of breast cancer recurrence, thus providing helpful information that is helpful when determining treatment options. Results: 100% of eligible patients were offered and/or completed this valuable testing.
- **Hospice** – to improve the access to – and utilization of hospice services for inpatients. Referrals to HomeReach Hospice increased nearly 50% between FY2007 and FY2008. This improvement demonstrated that more patients had benefited specialized end-of-life care.
- **Lung cancer timeliness of treatment** - When the Doctors Hospital Lung Care Center was established, one of the goals was to expedite patients' time to their first appointment. The program averaged 7.1 days for the first specialist appointment in a 12-month period in 2007-2008. 63% of patients with lung cancer received treatment within 30 days, compared to <50% in 2005. The observed rate nationally is up to 126 days.
- **Breast "time to detection"**- to measure the time lapsed from the day of the abnormal screening exam to the day of final pathology. The FY2008 average was 9.1 days. This ongoing metric, which has evolved in recent years and no longer excludes weekends, shows a commitment to excellent customer service and rapid diagnosis by the breast health team of mammographers, breast health nurse, radiologists, pathologists, and surgeons.
- **Staging audit** - to compare registrar collaborative staging with physician AJCC staging. In this evaluation of the new collaborative staging process, initial results matched 78.5%. After reconciliation, the match was 92%. The conclusion was that Doctors Hospital has a process in place for collecting complete and accurate stage information in order to ensure adequate data for treatment decisions.
- **Radiation therapy** – to determine if loss of skin integrity secondary to radiation therapy necessitated breaks in treatment. Over a 12-month period, 99.2 % of all patients, and 100% of all breast patients, undergoing radiation therapy experienced no break in treatment due to skin integrity problems.

Janette Chow, RN, CPHQ  
Quality Improvement Coordinator

## **Radiation Oncology - Hobbs Oncology Center**

Doctors Hospital patients requiring radiation oncology services are treated at the Hobbs Oncology Center, a freestanding center located on the campus of Doctors Hospital; however, it resides in the OhioHealth Neighborhood Care division. The facility is staffed by board-certified radiation oncologists, medical physicists, medical dosimetrists, and registered licensed radiation therapists.

The facility provides external beam radiation therapy services and consultative services for therapeutic nuclear medicine. Our facility houses a dual energy Siemens linear accelerator with both a 6MV and 10MV photon beam energies and 5 – 14 MEV electron energies. The unit is equipped with the IMPAC treatment and verification system for patient safety and data collection. All treatment simulations are completed on a single slice Siemens CT scanner with LAP lasers patient positioning system lined to the 3D Pinnacle treatment planning system. This system permits scanning and treatment marks to be placed on the patient without their needing to leave our facility. Hobbs Oncology has acquired the Kodak digital film system which has permitted the center to become film-less with all digital reconstructive radiographs and portal films to be maintained and viewed on this system. The center will be adding View Station through the IMPAC system later in 2008 to permit film viewing on any IMPAC equipped computer.

Our center has instituted the solid IMRT program for our patients with prostate, anal, rectal, head and neck, and upper GI cancers. This program began in late 2007 and will continue to increase the usage of this new treatment modality throughout 2008. Our facility continues to host the PET/CT each Tuesday so that Doctors Hospital patients can conveniently receive this test on this campus. We have also begun to fuse the PET/CT images into the 3D treatment planning computer to heighten our planning ability.

Our facility continues to host the annual Prostate Screening event in September, the American Cancer Society Look Good Feel Good Program, and serves as the site for breast cancer patients to receive complimentary massages funded through the OhioHealth Komen grant. For the first time, Hobbs hosted the community skin cancer screening event in May.

I wish to personally commend the staff of the Hobbs Oncology Center for their dedication to our patients as they have consistently maintained a 99% Press Ganey score over the past several years, the highest in the OhioHealth Neighborhood Care Division.

Thomas M. Anderson, D.O.  
Medical Director

## Breast Health Nurse Program

OhioHealth's breast program provides a complete approach to care. Our multi-disciplinary team of experts provides education at many levels throughout the continuum of diagnosis to treatment. We offer genetic counseling, access to clinical trials, minimally invasive biopsy, free second opinion clinic, pre-treatment conference, lymphedema and massage therapy and on-site radiation and chemotherapy.

The Women's Imaging Center is located at 5131 Beacon Hill, Suite 180 on the Doctors Hospital Campus. This facility opened with total combined services in February 2005. We offer on-site registration, digital mammography, and bone DEXA as well as stereotactic and ultrasound breast biopsies, breast ultrasound, obstetrical dating and pelvic studies.

An on-site radiologist performs immediate review of all diagnostic studies while the patient is present in order to decrease anxiety. Press Ganey customer services surveys consistently reflect patient satisfaction over 90%. Our surgeons continue to see our BIRAD 4-5 patients within two working days with appointment coordination by the breast health nurse. Our mammographers maximize the operations of the digital machine to its highest efficiency. In fiscal year 2008, 5,070 mammograms were performed: 4,039 screening and 1,031 diagnostics. The time from abnormal screening mammogram to final pathology report averaged just 9.2 days.

### Highlights for the year:

- 100% referral rate to Reach to Recovery from the American Cancer Society.
- Somali Women's Health Education program
- Staff nurses on the 5<sup>th</sup> floor were given a review of the care of a post-op breast patient in 2008.
- Breast Self Exam and review was presented to the women at the Galilee Missionary Church in May 2008.
- Over 90 first graders at West Broad Elementary heard about nursing as a career on May 9, 2008.
- Race for the Cure and American Cancer Society Making Strides walk to raise funds
- Funding by the Susan Komen Foundation provided 30 massages for patients with breast cancer at Hobbs Oncology.
- OhioHealth associates were encouraged to "Clock in for Detection" via the Pink Patrol campaign during Breast Cancer Awareness month.

Andi Bell RN, BSN, RNC  
Breast Health Nurse

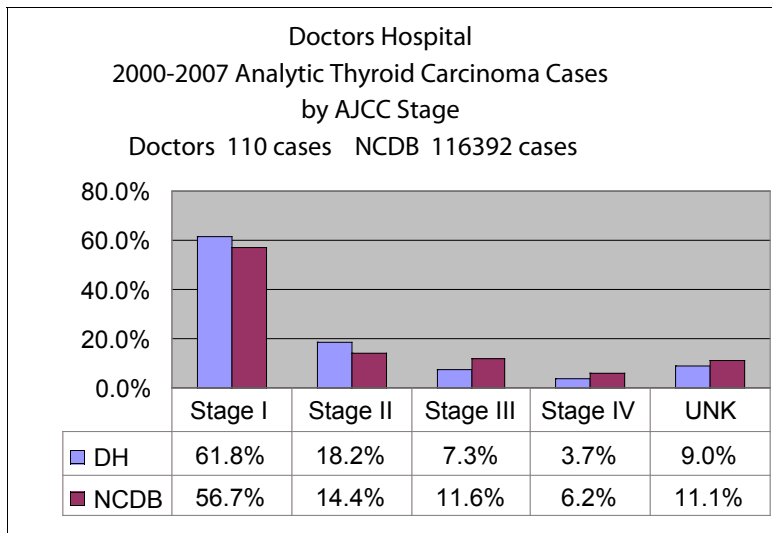
## **Thyroid Carcinoma – Outcomes Analysis**

Thomas Anderson, DO, FACRO, FAOCR

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The diagnosis of thyroid cancer has dramatically increased in the past twenty years in the United States with an estimated 2.4 fold increase; however, the deaths from thyroid cancers has remained stable at a rate of 0.5 per 100,000 population. Ohio's diagnosis rate has been reported at 7 per 100,000 for years 2001-2005 at while the national average is 9.1 per 100,000 population. Ohio's annual death from thyroid cancer remains consistent with the national average of 0.5 per 100,000. Ohio's average annual adjusted new thyroid cancer diagnosis rate demonstrates a higher incidence for Caucasians per 100,000 than African Americans and Asian/Pacific Islanders, and remains consistent with the national average of a 3:1 ratio of females to males. The National Cancer Institute and the American Cancer Society estimates 37,340 new cases of thyroid cancer in 2008 and 1,590 cases of thyroid cancer related deaths. The impressive rise in thyroid cancer obligates all medical professional to attempt to investigate the potential etiologies for this rise to determine if this is environmental or simply reflects the development of better and improved medical screening and diagnostic modalities.

The Doctors Hospital Cancer Registry reviewed all analytic thyroid cancers at this facility in years 2000-2007. 110 cases were identified with the majority (61.8%) presenting at time of initial treatment as Stage I, thus correlating with state and national averages for increased diagnoses but very low deaths rates. Only 4 (3.7%) presented to Doctors Hospital as Stage IV at diagnosis. Compared to the National Cancer Database (NCDB), Doctors Hospital diagnosed more stage I and II thyroid cancers and fewer stage III and IV.

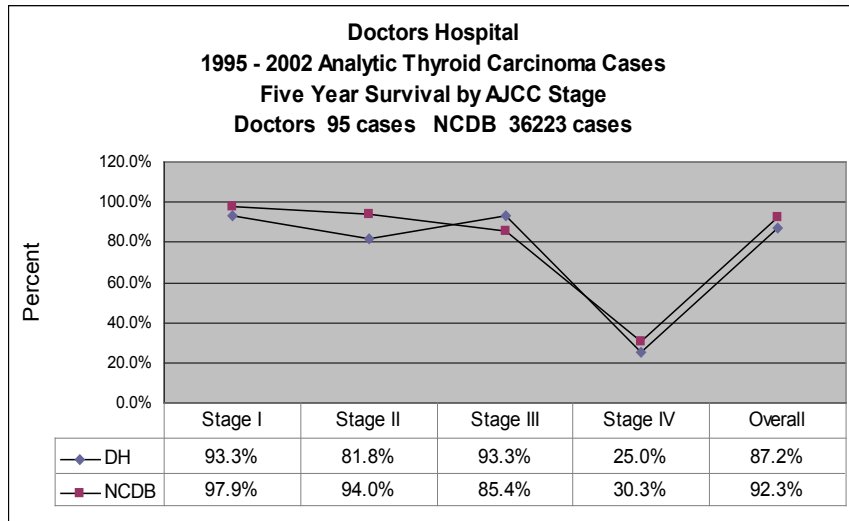


Source: Doctors Hospital Cancer Registry, 2000-2007; NCDB, CoC, ACOS benchmark reports, v.9

**DH number of analytic thyroid cases by AJCC stage 2000-2007:**

	Stage 0	Stage I	Stage II	Stage III	Stage IV	Unknown	Total
Thyroid	0	68	20	8	4	10	110

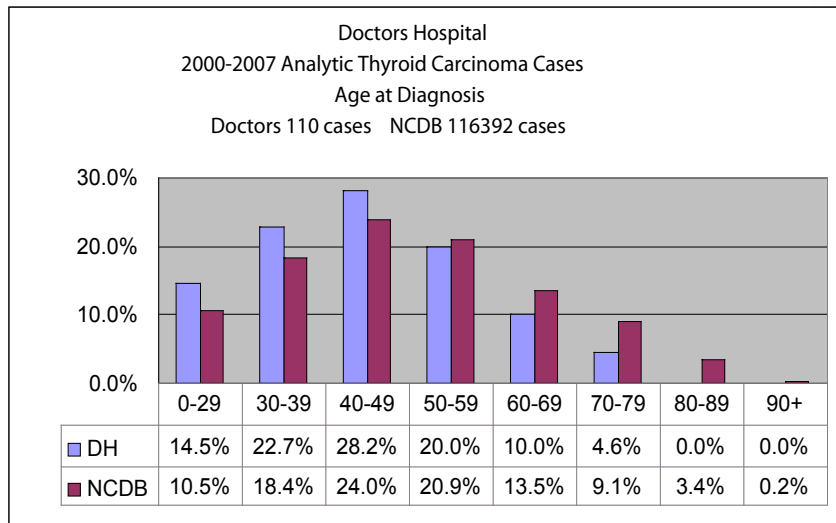
Thyroid cancer presents with four distinct histologic types including papillary, follicular, medullary, and anaplastic. Papillary cancer, which begins in the follicular cells, comprises eighty percent (80%) of all thyroid cancers in the United States. Most persons can be cured with treatment. Papillary thyroid cancer histology was the most frequently diagnosed at Doctors Hospital in years 2000-2007. Follicular carcinoma comprises fifteen percent (15%) of all thyroid cancers and like papillary begins in the follicular cells and similarly reflects a good prognosis if treated. Medullary carcinoma, which begins in the C cells of the thyroid, makes up about three percent (3%) of thyroid cancer diagnoses. These tumors secrete abnormally high levels of calcitonin. These cancers are often associated with a genetic syndrome and tend to grow slowly. Anaplastic carcinomas, which begin in the follicular cells, fortunately comprise only two percent (2%) of all thyroid cancers. This type often spreads very rapidly with a very low survival rate.



Source: Doctors Hospital Cancer Registry 1995-2002; NCDDB, CoC Survival reports.

The management of thyroid cancer has been well established with a combined modality approach with multiple medical specialties including surgery, endocrinology, nuclear medicine, and radiation oncology. The 2008 NCCN guidelines provide recommendations regarding surgical management and post surgical therapeutic interventions. The majority of thyroid cancers diagnosed at Doctors Hospital are presented at a multidisciplinary tumor board with review of the established NCCN recommendations. The Doctors Hospital tumor registrar reviews the stage and age of diagnosis for each cancer.

The graph below compares the patient age at diagnosis at Doctors Hospital to the national average. In each age group under 50 years, Doctors Hospital diagnosed approximately 4% more patients than the national average. This may be due to improved surveillance.



Source: Doctors Hospital Cancer Registry, Analytic cases 2000-2007; NCD, CoC, ACOS Benchmark Reports, v.9.

A younger age at the time of diagnosis often will correlate with an earlier stage of disease and subsequently improved survivability. Suspected thyroid nodules should be imaged either with ultrasound or nuclear scans and suspicious lesions should undergo fine needle aspiration or surgical excision. If a malignancy is confirmed, definitive surgical intervention is completed, most commonly a total thyroidectomy. A continual debate however does exist surrounding the appropriate surgical extent for a well differentiated thyroid carcinoma. Various studies have suggested that for early (low stage thyroid cancer) a thyroid lobectomy is sufficient. However, recent data has suggested that the 20-year recurrence free survival is less in patients undergoing less than a total or near total thyroidectomy. Most advocate a total or near total thyroidectomy. The total thyroidectomy or near total thyroidectomy permits a much easier post treatment surveillance to determine the need for post operative iodine ablation and for measurements of post operative serum thyroglobulin and serum thyroglobulin antibody levels.

Patients at Doctors Hospital following definitive surgery will either undergo institution of either a short acting thyroid hormone replacement or will not be given thyroid hormone replacement until the post operative testing is completed. Most commonly patients are prepared utilizing a thyroid withholding technique and prepared with a low iodine diet. Patients will obtain hematological profiles consisting of a thyroid profile, measurement of serum thyroglobulin level and thyroglobulin antibodies and a pregnancy test, if applicable. Patients will complete a thyroid scan to measure uptake in the thyroid bed (residual thyroid tissue) and receive Iodine-131 to complete a whole body iodine scan to determine the need for iodine ablation. Patients demonstrating measurable serum thyroglobulin (>1.0 ng/ml) and/or radiographic evidence of residual thyroid tissue or distance metastatic disease receive high dose iodine ablation. Patients must abide with the important post iodine radiation protection instructions for a seven day period following the therapeutic dose. Following the ablative dose, patients will resume a regular diet, 72 hour post treatment and begin thyroid hormone replacement, 96 hours following treatment. A five to seven day follow-up whole body iodine scan will be completed to assess the depositing of the radioactive iodine.

Following the successful Iodine 131 ablation, patients are followed closely with monitoring of their thyroid stimulation hormone (TSH), and most often require gradual dose escalation of thyroid hormone replacement. Doctors Hospital patients will undergo re-evaluation of their serum thyroglobulin levels and repeat whole body iodine scans to determine the success of the first ablation and to detect residual thyroid tissue which may determine the need for a repeat iodine ablation. Patients will be treated with iodine therapy until no residual uptake is noted on the iodine whole body scanning and the serum thyroglobulin level become non-measurable.

Patients who have successfully completed Iodine-131 ablation with a negative scan and non-measurable serum thyroglobulin are followed with the use of recombinant rhTSH (Thyrogen) scans eliminating the need for thyroid medication withholding. Patients are followed as per the approved guidelines for the use of rhTSH (Genzyme Corporation). The use of rhTSH received an additional indication, for the primary management of patients with well differentiated thyroid cancer following a total thyroidectomy, in December 2007 by the FDA. This approval now permits the administration of rhTSH to select patients, who are medically unable to tolerate hypothyroidism, to receive ablative treatment following preparation with a low iodine diet and intramuscular rhTSH.

The management of thyroid cancer requires a multidisciplinary team approach and requires close treatment follow-up as patients are very frequently cured with a very low incidence of recurrence. Patients are encouraged to be diligent in their post treatment examinations and to always maintain the appropriate thyroid hormone replacement levels. Physicians must be alert to thyroid abnormalities and be prepared to direct patient for appropriate evaluations.

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