Heartland Health

The Cancer Center
At
Heartland Regional Medical Center

2007 ANNUAL REPORT
Based on 2006 Data

KIDNEY CANCER 2002 – 2006

Rony Abou Jawde, MD
Medical Oncology

Around 51,000 cases of kidney cancer were diagnosed in the United States last year. The median age of patients diagnosed with kidney cancer is around 60 years. The incidence of males to females is 3/2.

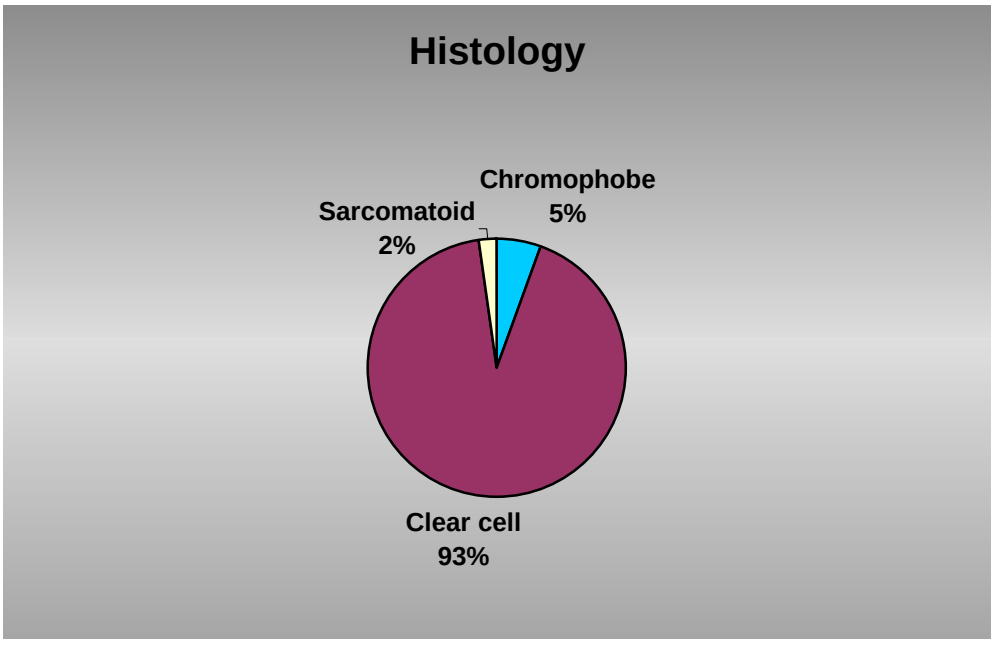
Surgery is the primary modality for treatment of localized disease, with 5 year survival ranging from 50-90% depending on stage. Thirty percent of patients present with metastatic disease, with 5 year survival of 10-15%.

Renal cell carcinoma has different histologies; clear cell, papillary, chromophobe, oncocytoma, and collecting duct carcinoma.

From 2002-2006, one hundred forty two cases of kidney cancer were diagnosed. Median age at diagnosis was 60 years. Incidence of males to females was 2/1.

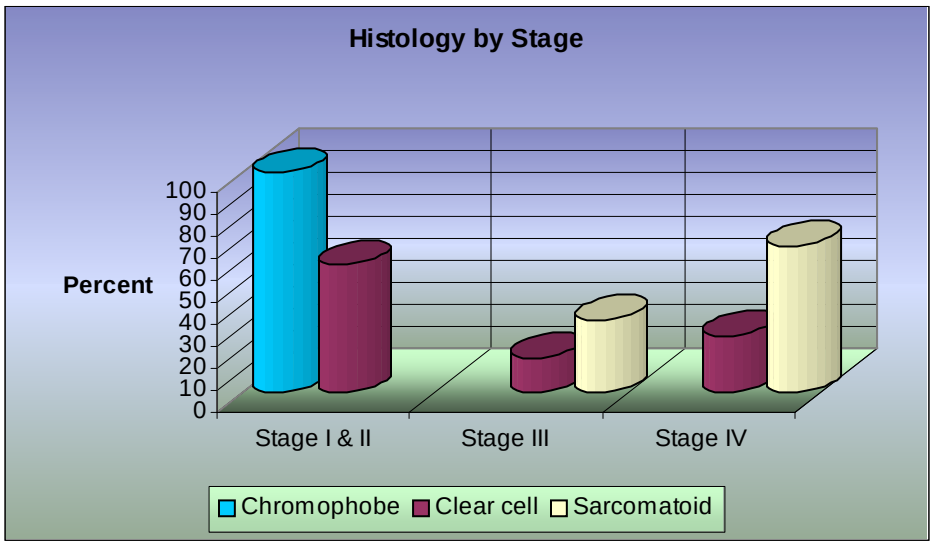
Histologicaly; 93% clear cell, 5% chromophobe, and 2% sarcomatoid. Figure 1.

Fig. 1



Fifty eight percent of clear cell cancer presented with stage I and stage II disease, 26% as stage IV, as expected nationally. Figure 2.

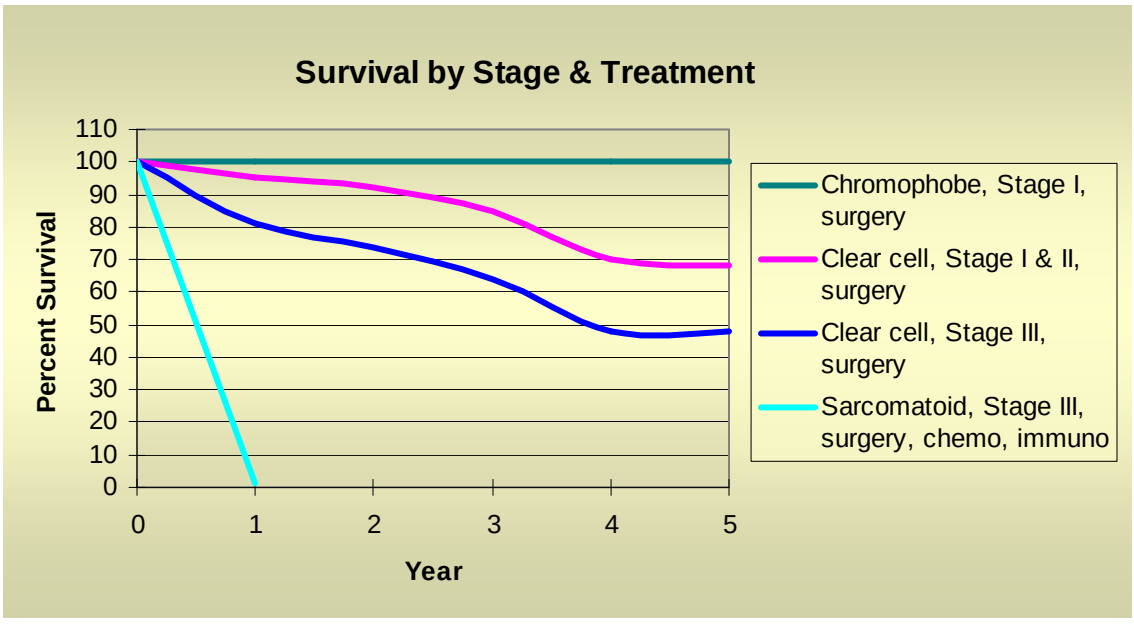
Fig. 2



Nephrectomy was the primary treatment modality for 73% of clear cell carcinoma, 100% for chromophobe type.

Five year survival for chromophobe kidney cancer was 100%, 70% for stage I/II clear cell, 50% for stage III clear cell. Unfortunately none of the kidney cancer patients with sarcomatoid features survived more than 1 year. Figure 3 These results are very comparative to published national survival rates.

Fig. 3



URINARY BLADDER CANCER 2002-2006

Lorie A. Montag, M.D.
Medical Director of Laboratory
Heartland Regional Medical Center

In the past 50 years, the incidence of bladder cancer has risen, most likely due to our aging population.

Bladder cancer is 2.5 times more common in men than in women. In men, it is the fourth most common cancer after prostate, lung and colorectal cancer. In women, it is the eighth most common cancer.

Transitional cell carcinoma of the bladder presents most commonly with painless frank hematuria. The symptom complex of bladder irritability and urinary frequency, urgency and dysurea is the second most common presentation, which generally is associated with microscopic hematuria. Other signs and symptoms include flank pain, lower extremity edema and pelvic mass.

Risk factors for bladder cancer include smoking and working in dye, rubber and leather industries and arsenic exposure in drinking water.

Bladder cancer is diagnosed by urine cytology or cystoscopy with tissue biopsy.

Management options for bladder malignancies are varied and range from conservative bladder preservation techniques (utilizing a combination of endoscopic surgical procedures with intra-vesicle chemo- or immunotherapy) to conventional radiotherapy to excisional surgery with complex urinary reconstruction.

During 2002 to 2006, 139 cases of bladder cancer were diagnosed and treated at Heartland Regional Medical Center (HRMC). By far, the most common histologic type was transitional cell carcinoma (papillary, invasive and in-situ), accounting for 95% of all cases. Three cases of small cell carcinoma and two cases of mucinous adenocarcinoma were also diagnosed. (Graph I).

Graph I

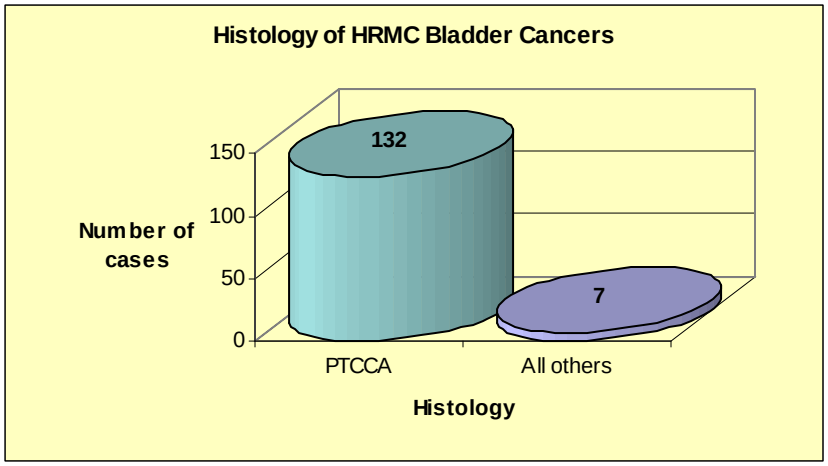


Table I depicts the first course treatment regimens by stage for Heartland Regional Medical Center cases treated in 2002 to 2006. Surgery alone was the primary first course treatment across stages. Combined surgery and chemotherapy and combined surgery, radiation and chemotherapy constituted the second most common treatment regimes.

Table I

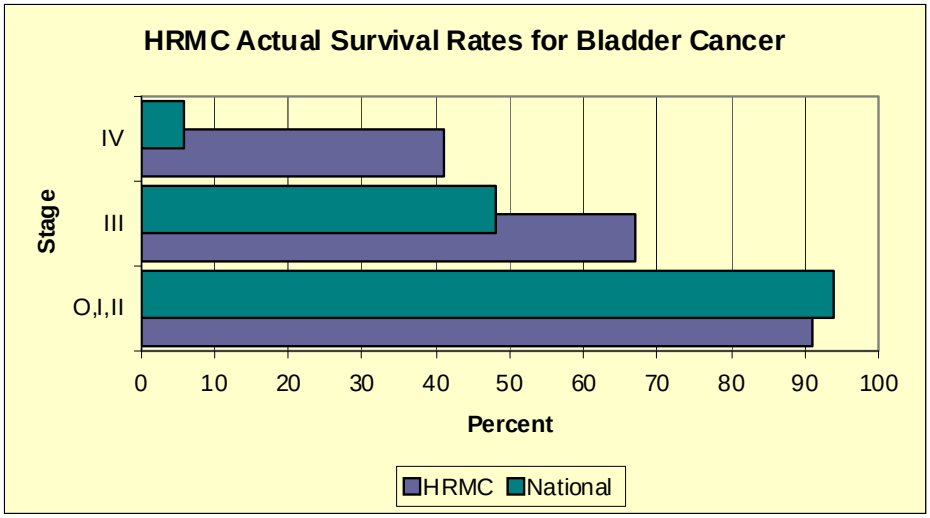
Stage	O	I	II	III	IV	Total	
Refused Tx	0	0	0	2	0	**2**	**1%**
R	0	1	0	0	0	**1**	**1%**
S	35	30	18	15	7	**107**	**77%**
S, C	0	0	3	2	4	**9**	**6%**
S, C, H	0	0	1	0	0	**1**	**1%**
S, H	0	0	0	1	0	**1**	**1%**
S, I	1	2	2	0	1	**6**	**4%**
S, R	0	0	0	2	2	**4**	**3%**
S, R, C	0	0	2	3	3	**8**	**6%**
Total	36	33	26	27	17	**139**	**100%**

R = Radiation Therapy, S = Surgery, C = Chemotherapy, H = Hormone Therapy, I = Immunotherapy

The national 5-year survival rate for localized bladder cancer is 94%. Survival rate for locally advanced disease is 48% and the survival rate for distant metastasis drops to 6%.

Actual survival rates for Heartland Regional Medical Center are illustrated in Graph II. Survival rates for Stages 0, I and II combined is 91%, which compares well with the national survival rate of 94%. For Stage III, Heartland Regional Medical Center's survival rate correlates well with national survival rate. Heartland Regional Medical Center's survival rate for Stage IV is above the national survival rate. The reason for this is unknown but may be due to fewer co-morbid factors in Heartland Regional Medical Center patients.

Graph II



Cancer Registry Report

The Cancer Registry staff at Heartland Regional Medical Center collects, maintains, and analyzes data on all patients diagnosed with or treated for cancer, benign brain tumors, and hematopoietic diseases at our hospital and all Heartland owned clinics and offices. There were 774 new cases added in 2006 and, of these, 730 were analytic* and 44 were non-analytic#.

Follow-up is required, by the American College of Surgeons, on all analytic patients on a yearly basis in order to have an accredited cancer program. The follow-up rate since our Accession Year† is at 91% which is well above the required 80%. Five-year follow-up is 93%, which is above the required 90%.

The Cancer Registry staff coordinates the weekly Tumor Conference meeting. This meeting is made up of a multidisciplinary panel of physicians who discuss diagnostic and treatment modalities for cancer patients.

The Cancer Committee is the governing body for the Cancer Registry staff. This committee is responsible for overseeing the Registry and aiding in compliance of all the Standards set forth by the American College of Surgeons in order to be an accredited cancer program.

Heartland Regional Medical Center has two certified tumor registrars. Both registrars belong to Kansas City Area Tumor Registrars Association, Missouri State Tumor Registrars Association and the National Cancer Registrars Association. The registrars are required to submit educational credits every other year to maintain their certification.

Debra McDowell, CTR
Oncology Data Coordinator

* Analytic: diagnosed and/or received part of their first course of treatment in our facility.
# Non-analytic: diagnosed and received their first course of treatment at another facility and are treated in our facility for progression or recurrence of their disease.
†. Accession Year: year first diagnosed at the reporting facility.

New Analytic Cases for 2006

Anus & Anal Canal	1
Base Of Tongue	3
Bladder	28
Bones & Cartilage Of Other	1
Brain	10
Breast	136
Bronchus & Lung	154
Cervix Uteri	6
Colon	70
Connective & Other Soft Tissue	8
Corpus Uteri	16
Esophagus	3
Gallbladder	6
Hematopoietic & Reticuloendo System	12
Kidney	22
Larynx	7
Liver & Intrahepatic Bile Duct	4
Lymph Nodes	15
Meninges	4
Oropharynx	1
Other Endocrine Glands	5
Other Parts Of Biliary Tract	5
Other Sites	2
Other Tongue	1
Ovary	8
Palate	1
Pancreas	15
Parotid Gland	1
Prostate Gland	90
Pyriform Sinus	1
Rectosigmoid Junction	5
Rectum	27
Renal Pelvis	3
Retroperitoneum & Peritoneum	1
Skin	13
Small Intestine	6
Stomach	7
Testis	6
Thyroid Gland	11
Tonsil	1
Unknown Primary Site	10
Ureter	1
Vagina	2
Vulva	1
Total	730