Site Review of Renal Cancer
Morton Hospital

Kidney cancer is the site for the in-depth review for 2010 at Morton Hospital. The Morton Hospital kidney cancer data for the years 2005 and 2009 were reviewed, and also compared with National Cancer Data Base (NCDB) kidney cancer data from 2008. Our patient demographics, cancer stage and grade, treatment modalities and survival results parallel national statistics.

In the year 2005, 15 cases of kidney cancer were diagnosed and/or received part of their initial course of treatment at Morton Hospital. Of these patients, 10 (67 percent) were males and five (33 percent) were female. This gender breakdown is similar to the 2008 NCDB kidney data (62 percent male and 38 percent female). The 19 cases diagnosed or first treated at Morton Hospital in 2009 had a very different breakdown: six (32 percent) male and 13 (68 percent) female. This is a very startling difference from the normal gender breakdown for kidney cancer, which documents the prevalence of kidney cancer in men.

The age breakdown for these cases is detailed in the table below:

	0-29	40-49	50-59	60-69	70-79	80-89	90+
2005	0	3	3	3	3	3	0
2009	1	1	7	6	0	2	2
Totals	1	4	10	9	3	5	2

For the years we reviewed, the majority of the patients (29 percent) were diagnosed between the ages of 50 and 59, and 26 percent were diagnosed between the ages of 60 and 69. This is similar to the data from the National Cancer Data Base (NCDB) for 2008, with 28 percent of their kidney cancer cases diagnosed in patients in their 60s, which was their highest incidence data group by age.

The breakdown of the histology of the kidney cancer cases seen at Morton Hospital in 2005 and 2009 are as follows: 29 percent Clear Cell Adenocarcinoma, 53 percent Renal Cell Carcinoma, 12 percent Papillary Adenocarcinoma, 3 percent were a more specific variant of Renal Cell Carcinoma and 3 percent were an Intracystic Carcinoma, NOS. This histologic breakdown is also seen in the top three histologic types in the NCDB data, with 38 percent of their cases being Clear Cell Adenocarcinoma, 32 percent Renal Cell Carcinoma and 9 percent Papillary Adenocarcinoma.

Stage at diagnosis is often used to determine the efficacy of screening efforts in a community and the availability of health treatments for local residents. Although screening programs for kidney cancer are not standard, it is still informative to review the stage at presentation of these patients.

	AJCC 1	AJCC 2	AJCC 3	AJCC 4	UNKNOWN	TOTAL
2009	12(63%)	4(21%)	0(0%)	2(11%)	1(5%)	19
2005	9(60%)	1(7%)	1(7%)	2(13%)	2(13%)	15
2008 NCDB	53%	8%	12%	15%	10%	39,659 total cases

The 2008 NCDB data for stage at presentation of kidney cancers correlate fairly well with our data. At Morton Hospital, there were only three unstaged cases, which documents our adherence to the staging standards for accredited cancer programs. It is gratifying to note that the majority of our patients presented with early stage, curable disease.

Treatment analysis is a key component of any study done on cancer registry data. The following tables provide treatment information by stage for our kidney cancer cases. Surgery alone was the only treatment for our patients, which points out the continued unfulfilled search for effective adjuvant agents.

	AJCC 1	AJCC 2	AJCC 3	AJCC 4	UNK
2009	3 No Surgery 4 Partial Nephrectomies 3 Total Nephrectomies 2 Radical Nephrectomies	1 No Surgery 2 Total Nephrectomies 1 Radical Nephrectomy	None	2 No Surgery	1 No Surgery
2005	1 Thermal Ablation 3 Partial Nephrectomies 2 Total Nephrectomies 3 Radical Nephrectomies	1 Partial Nephrectomy	1 Nephrectomy plus en bloc Resection of Other Organ(s)	1 No Surgery 1 Nephrectomy (NOS)	1 No Surgery 1 Partial Nephrectomy

The 2008 NCDB data also demonstrates the ineffective adjuvant therapy for kidney cancer, with surgery alone in 77 percent of patients and only 12 percent receiving “other specified therapy”, 69 percent of which were for Stage IV patients, and then 10 percent received no treatment. Interesting to note that of the 10 percent that did not receive treatment, 33 percent of those were Stage I patients - who are potentially curable by surgery - and 34 percent were predictably Stage IV patients. Their most common surgical procedure was radical nephrectomy (43 percent), and partial nephrectomy was the second most common surgical procedure at 20 percent. This benchmark NCDB data

demonstrates treatment for kidney cancer at Morton Hospital follows national standards; surgical resection being the primary treatment modality for kidney cancer.

Finally, we must review survival statistics for our kidney cancer patients. Since our numbers are so small, and when broken down by stage, the numbers become even smaller, and thus the results are not statistically significant, just overall survival was reviewed. Morton Hospital overall survival for years 2005 to 2009 (total of 59 cases) is 49 percent. NCDB data documents a 62 percent overall survival for all stages combined for the year 2003. However, given the small numbers of Morton Hospital patients, we must use caution when examining these results, as these are not necessarily statistically significant differences.

In conclusion, comparison of kidney cancer data from Morton and the National Cancer Data Base demonstrates the national standard of care is available at Morton Hospital.