

# Prostate Cancer Outcomes Analysis Report

By

Stephen Mann, MD, Medical Director of Oncology, Unity Hospital  
and Cancer Liaison Physician,

Mercy and Unity Hospitals' Cancer Program

Presented at the May 25, 2010 Cancer Committee Meeting

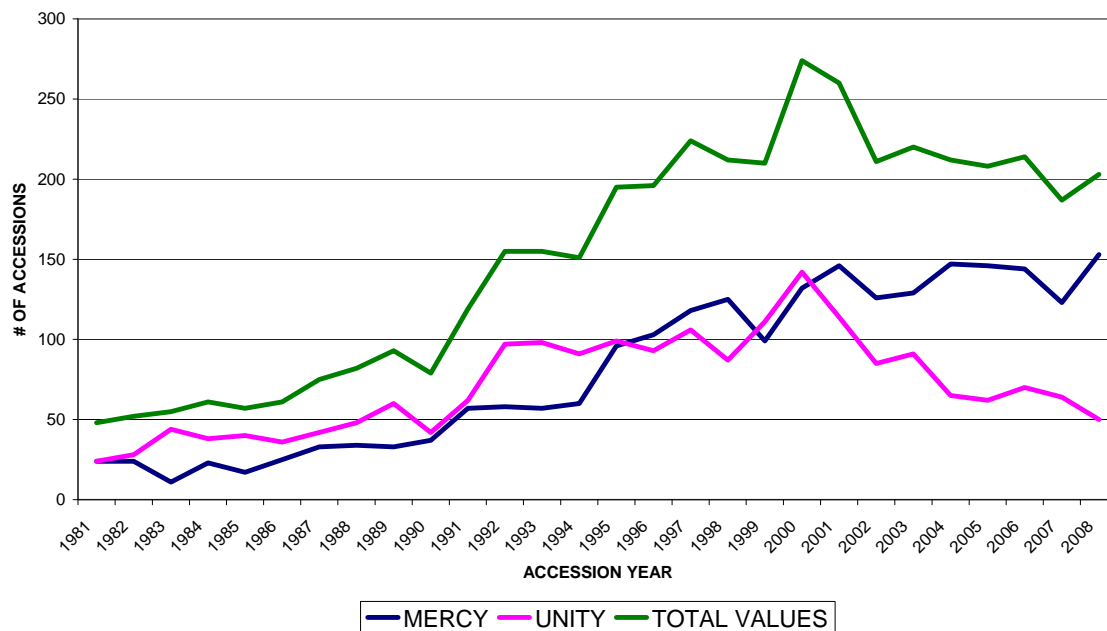
The following is an update on prostate cancer incidence, treatment, and outcomes since our last report in May 2007.

## Incidence:

As seen in Figure 1, prostate accession volumes have remained flat at Mercy with continuing decline at Unity. There were 3 times as many diagnoses in 2008 at Mercy compared to Unity. The difference reflects urologist preference for performing prostatectomy at Mercy because of the availability of minimally invasive technology.

Figure 1

### MERCY AND UNITY PROSTATE ACCESSIONS 1981 to 2008



Both here and nationally, there was a surge in prostate cancer diagnoses around 10 years ago with subsequent decline. This reflected an initial increase in diagnoses from widespread PSA screening. Furthermore, mortality from prostate cancer has declined nationally in recent years, perhaps due to increased detection of early stage cases resulting from more frequent screening. Nevertheless, routine annual PSA screening of all men over 50 remains controversial.

**Stage at Diagnosis:**

As seen in Table 1, since 2000 the vast majority of prostate cancers have been potentially resectable. Stage 1 or 2 cases comprised 80% of the total nationally and 85% at Mercy and Unity. Initial course of treatment has been prostatectomy for 43% of cases at Mercy and Unity vs. 38% nationally.

Table 1

<i>Stage of Prostate Cancer Diagnosed in 2000 to 2007</i>					
<b>Mercy and Unity Hospitals</b>					
<b>vs. All Types Hospitals in All States</b>					
<b>All Diagnosed Cases</b>					
#	Stage	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	<b>0</b>	.	68	.	0.01%
2.	<b>I</b>	22	17444	1.28%	1.65%
3.	<b>II</b>	1441	821757	83.93%	77.87%
4.	<b>III</b>	139	82396	8.10%	7.81%
5.	<b>IV</b>	80	51603	4.66%	4.89%
6.	<b>NA</b>	.	236	.	0.02%
7.	<b>UNK</b>	35	81774	2.04%	7.75%
<b>Col. TOTAL</b>		<b>1717</b>	<b>1E+06</b>	<b>100%</b>	<b>100%</b>

**Treatment:**

Because many men diagnosed with prostate cancer are elderly, treatment decisions are frequently individualized based on a patient's life expectancy and comorbidities. Nevertheless, organizations such as the National Comprehensive Cancer Network have published several general guidelines:

- ❖ Low risk patients (organ confined, Gleason score  $\leq 6$ , PSA  $< 10$ ) with life expectancy  $< 10$  years can be followed. If life expectancy is  $> 10$  years, consider primary surgery or radiation.
- ❖ Intermediate risk patients (organ confined, Gleason score 7, PSA 10-20) should receive surgery or radiation with 4-6 months of androgen deprivation therapy (ADT), especially if their longevity is  $> 10$  years.
- ❖ For high risk patients (extra-prostatic extension (T3), Gleason score 8-10, PSA  $> 20$ ), treatment is 3-D conformal radiation and 2-3 years of ADT.
- ❖ After prostatectomy for high risk disease (T3 or positive margin), adjuvant radiation therapy should be employed.
- ❖ For those with castration recurrent prostate cancer and bone metastases, zometa every 3-4 weeks should be strongly considered to slow further spread in the bones.

Table 2 shows the first course of prostate cancer treatment at Mercy and Unity with comparisons to national results. Surgery only was employed here about 5% more frequently than nationally. Radiation therapy, however, was employed here much less as initial therapy than nationally (20% vs. 38%). Furthermore, initial observation was chosen more frequently here than nationally (26% vs. 13%). Review of our cases may reveal more indolent disease at diagnosis or disease in the elderly (life expectancy  $< 5$  years).

Table 2

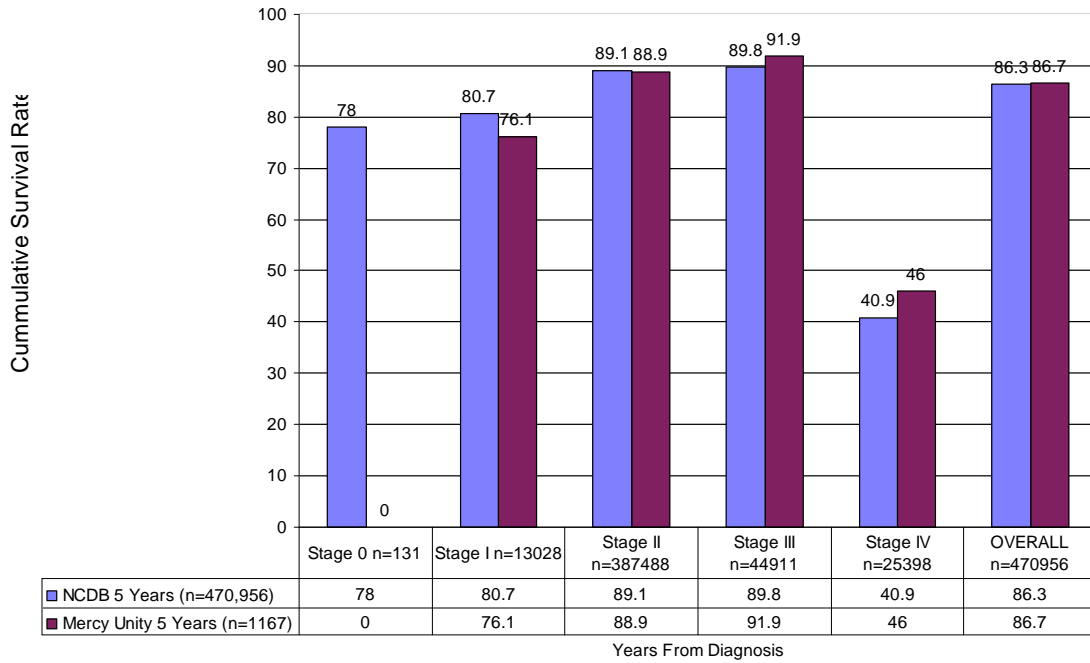
<b><i>First Course Treatment of Prostate Cancer Diagnosed in 2000 to 2007</i></b>					
<b>Mercy and Unity Hospitals</b>					
<b>vs. All Types Hospitals in All States</b>					
<b>All Diagnosed Cases</b>					
<b>#</b>	<b>First Course Treatment</b>	<b>My (N)</b>	<b>Oth. (N)</b>	<b>My (%)</b>	<b>Oth. (%)</b>
1.	<b>Surgery Only</b>	738	404382	42.98%	38.32%
2.	<b>Radiation Only</b>	177	213105	10.31%	20.19%
3.	<b>Radiation &amp; Hormone Therapy</b>	161	186311	9.38%	17.66%
4.	<b>Hormone Therapy Only</b>	173	52403	10.08%	4.97%
5.	<b>Other Specified Therapy</b>	16	60547	0.93%	5.74%
6.	<b>No 1st Course Rx</b>	452	138530	26.32%	13.13%
<b>Col. TOTAL</b>		<b>1717</b>	<b>1055278</b>	<b>100%</b>	<b>100%</b>

**Outcomes:**

Figure 2 shows 5-year survivals from prostate cancer by stage for the Mercy and Unity experience vs. national data. Overall, the comparisons are very close, with a slightly better outcome here for our stage IV patients. Note the relatively high 5-year survival for all cases of 86%.

Figure 2

Observed Survival For Prostate Cases Diagnosed in 1998 - 2002  
National Cancer Data Base from 1406 Facilities [National] vs.  
Mercy and Unity Hospitals [Local]



**Mercy Unity N values by Stage: Stage 0 (n=0), Stage I (n=42), Stage II (n=889), Stage III (n=143), Stage IV (n=51)**