

Endometrial Cancer Treatment

January 2006

By Shelly Smits, RHIT, CCS, CTR
Summary by Ian Thompson, MD

Data Source: Cancer registry information on uterine cancer diagnosed 1/1/2000 to 12/31/2004.

Reason for Report: To determine if St. Joseph Hospital is treating uterine cancers in the same manner as advised by regional gynecological oncology experts.

Study Summary: The treatment of early stage adenocarcinoma of the endometrium remains controversial. Many GYN oncologists recommend that every patient needs a complete nodal staging as part of the surgical approach and there remains uncertainty among radiation oncologists as to who benefits from adjuvant radiation and what type.

The NCCN guidelines at first glance seem to address the first issue by recommending nodal staging for almost everyone. But in the test, the expert panel recognized that many patients have significant co-morbidities and the yield of positive nodes is so low for many sub-groups that nodal staging may not be required. In fact, the NCCN guideline pathway offers two distinct pathways, one for those with nodal staging, and one for those without.

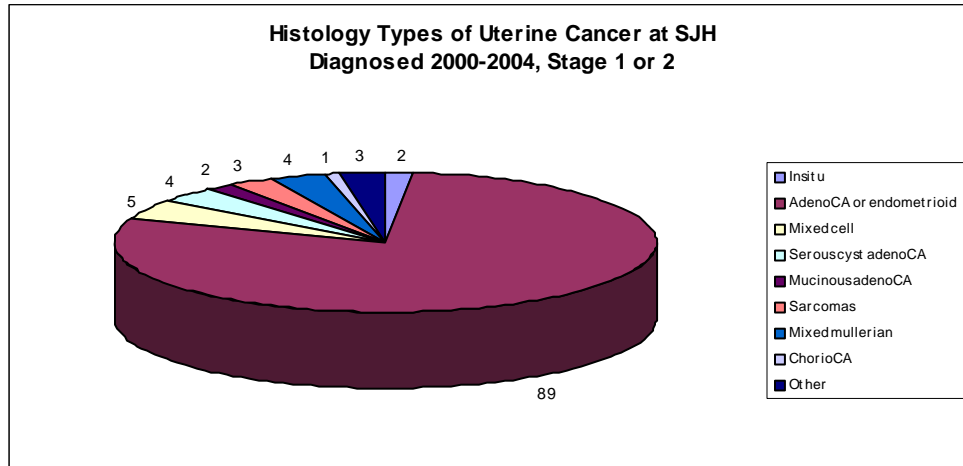
In comparing the management of St. Joseph Hospital early stage adenocarcinoma of the endometrium to NCCN guidelines, 2% received radiation that was not recommended. 10% of patient where radiation was considered mandatory did not receive radiation, and 2% did not receive surgery that is documented in the Cancer Registry. Six of 23 patients (26%) where radiation was considered optional received radiations. These results recognize that the patten of care in this community is in substantial agreement with NCCN guidelines.

The outcome of our patients is also exemplary. Our 5-year survival rate is 91% compared to 87% in the literature. Our local recurrence rate is 1 of 82 (1.2%) compared to 1% in the literature and our overall recurrence rate is 4.8% as compared to 10% in the literature.

This review concludes that patient managed by St. Joseph Hospital physicians are receiving the standard of care in surgical and radiation management with excellent outcomes. Improvements in outcomes by referral to Seattle GYN oncologists would have little impact.

Findings: During this time period, there were 124 cases of uterine cancer. There were 115 clinically staged as 1 or 2. Only 2 (1.74%) of those were upstaged at surgery to Stage 3 or 4. For the majority of this report the 113 Stage 1 or 2 cases are referenced.

This chart shows the breakdown by histology type:

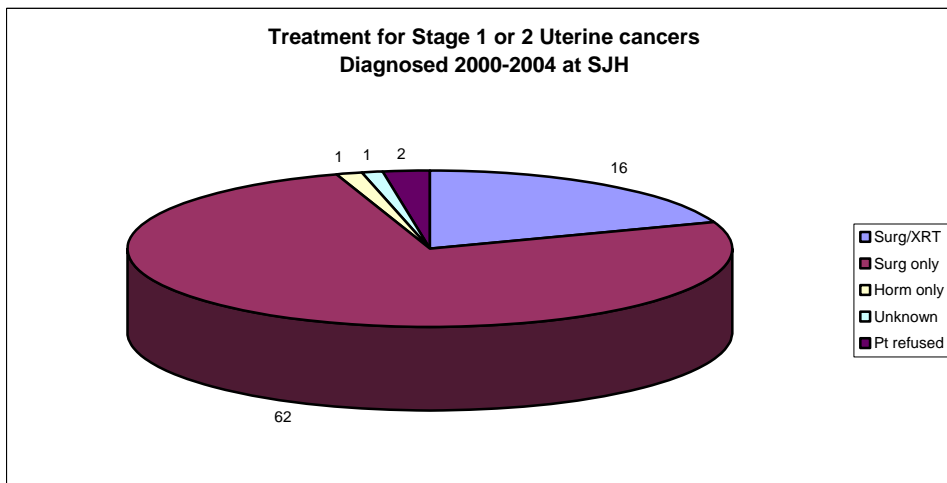


Of the 89 adenocarcinomas, 82 (92.11%) were stage 1 or 2; 7 (7.9%) were unknown stage. (Average age at diagnosis is 64.)

Stage 1 or 2 Adenocarcinoma: Current Survival is 91% in 5 years. The 5-year survival rate noted in the literature is 87%.

- 7/82 (8.5%) have expired (average age at diagnosis = 84)
 - 2/82 (2.4%) had recurrences & died with disease
 - 2/82 (2.4%) had no evidence of disease at death
 - 3/82 (3.6%) cancer status unknown at death
- 4/82 (4.8%) had recurrences (2 (2.4%) lung, 1 sacrum, 1 (1.2%) abdominal ascites). The mean survival of those with recurrence is 29.7 months. The literature shows a 10% recurrence rate with 1% of those recurring in the pelvis.
 - 2/4 (50%) Died with disease
 - 2/4 (50%) Alive with disease as of December 2005

Chart below shows treatment breakdown for the 82 adenocarcinomas mentioned above:



For the above cases, the following is a breakdown of those receiving lymph node dissections at the time of surgery for staging purposes:

Surgery alone = 13/62 (20.9%) had lymph node dissections

Surgery/XRT = 10/16 (62.5%) had lymph node dissections

For the adenocarcinomas that received radiation therapy:

11/16 (68.75%) treated locally

4/16 (25%) at Swedish Hospital in Seattle (all with brachytherapy)

1/16 (6.25%) at University of Washington Medical Center (all with brachtherapy)

Looking at the adenocarcinomas treated with radiation therapy locally, the following information is known:

11/11 (100%) had TAH/BSO

7/11 (63.6%) had washings done during surgery (all negative)

2/11 (18.2%) had cervical invasion

5/11 (45.4%) had no lymph nodes removed at surgery

1/11 (9.1%) had positive lymph node (this pt actually upgraded to Stage 3C) None of the 82 patients mentioned above had positive lymph nodes.

FIGO upgrades have been noted in the literature to be common after surgery. For the adenocarcinomas in this study there were 11/78 (14.1%) patients who had upgrades; 3/78 (3.8%) who had downgrades. Only 2/ 11 (18.2%) of those upgrades received postoperative radiation therapy.

Final surgical FIGO grade in patients who received radiation therapy:

FIGO I 4/11 (36.4%)

FIGO II 4/11 (36.4%)

FIGO III 1/11 (9.1%)

This chart shows the type of radiation therapy delivered by depth of myometrial invasion.

Adenocarcinoma of Endometrium, SJH cases for 2000-2004				
Stage/Grade/LN sample	NCCN Recomm	# of Pt	# surg	# with adj
IA/1 or 2/yes	Surg alone	8	8	0
IB/1 or 2/yes	Surg or vag XRT	5	5	1 to abd*
IB/3/yes	Surg with XRT	1	1	1
IC/1 or 2/yes	Surg with XRT	3	3	3
IC/3/yes	Surg with XRT	1	1	0
IIA/1 or 2/yes	Surg with XRT	3	3	2
IIB/3/yes	Surg with XRT	1	1	1
IA/1 or 2/no	Surg alone	31	29	1
IB/1/no	Surg alone or XRT	17	17	2
IB/2/no	Surg with XRT	3	2	1
IIA/1 or 2/no	Surg with XRT	3	3	0
IC/1 or 2/no	Surg alone or XRT	3	3	3
IC, IIA or IIB/3/no	Surg with XRT	3	3	1

*Patient had clear cell component

This table demonstrates that 2/82 (2.4%) patients were over treated with radiation therapy. 8/82 (10%) did not have radiation as recommended by NCCN guidelines. 2/82 (2.4%) did not receive recommended surgery (1 patient's surgery status unknown since patient left area.) Of the 4 patients that recurred, 1 (25%) did not receive the recommended treatment.

Other interesting facts:

Average age at diagnosis:

- Expired patients = 83 (range = 77-90)
- Alive, NED = 64 (range = 35-89)
- Alive, with disease = 61 (2 patients)
- Alive disease unkn = 73 (1 patient)

Below is a comparison of St. Joseph Hospital with other Comprehensive Community Cancer Centers that report to the Commission on Cancer:

TREATMENT of Uterus Cancer Diagnosed in 2000 & 2001

All Reported Cases - HOSP. TYPE: Comprehensive Community Cancer Center

St. Joseph Hospital, Bellingham, WA vs. Hospitals in All States - Data From 906 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
TREATMENT				
Surgery Only	12,543	31	62.56	70.45
Radiation Only	197	1	0.98	2.27
Surgery & Radiation	4,470	7	22.30	15.91
Surgery & Chemotherapy	598	0	2.98	0.00
Radiation & Chemotherapy	21	0	0.10	0.00
Chemotherapy Only	69	0	0.34	0.00
Surgery, Radiation & Chemotherapy	411	0	2.05	0.00
Other Specified Treatment Combinations	1,166	2	5.82	4.55
No 1st Course Rx	574	3	2.86	6.82
Total	20,049	44	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v3.0

References:

1. Muntz, Howard. Endometrial Cancer: Contemporary Management of Early Stage Disease. 2006 Jan; Educational Session.
2. Kirby, Tyler O, Leath III, Charles A, Kilgore, Larry C. Surgical Staging in Endometrial Cancer. *Oncology*. 2006 Jan; 20(1):45-63.
3. National Comprehensive Cancer Network, Inc. Uterine Cancer Treatment Guidelines. Available at: www.nccn.com/professionals/physicians_gls/f_guidelines.asp. Accessed January 2006.

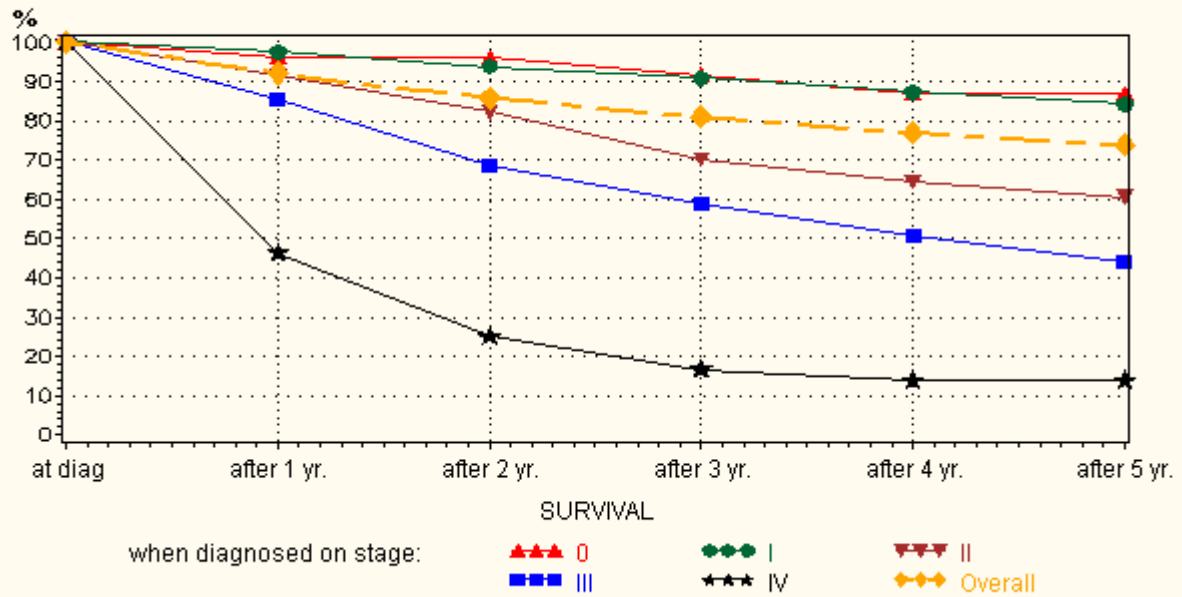
HISTOLOGY of Uterus Cancer Diagnosed in 2000 & 2001

All Reported Cases - HOSP. TYPE: Comprehensive Community Cancer Center

St. Joseph Hospital, Bellingham, WA vs. Hospitals in All States - Data From 906 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
HISTOLOGY				
Neoplasm, NOS	26	0	0.13	0.00
Carcinoma, NOS	100	0	0.50	0.00
Squamous Cell Carcinoma, NOS	17	0	0.08	0.00
Adenocarcinoma, NOS	7,093	8	35.38	18.18
Adenocarcinoma in Adenomatous Polyp	8	0	0.04	0.00
Clear Cell Adenocarcinoma, NOS	91	0	0.45	0.00
Endometrioid Carcinoma	8,661	25	43.20	56.82
Serous Cystadenocarcinoma, NOS	16	0	0.08	0.00
Papillary Serous Cystadenocarcinoma	312	1	1.56	2.27
Adenosquamous Carcinoma	35	0	0.17	0.00
LeiMyosarcoma, NOS	256	0	1.28	0.00
Stromal Sarcoma, NOS	123	0	0.61	0.00
Mullerian Mixed Tumor	327	0	1.63	0.00
Carcinosarcoma, NOS	144	0	0.72	0.00
Other Specified Types	2,840	10	14.17	22.73
Total	20,049	44	100.00	100.00

Five Year Surv. Rates for Uterus Cancer Cases Diagnosed in 1995 and 1996
 ACS Division: Great West / Data Reported from 25 Hospitals
 Hospitals of Type: Comprehensive Community Cancer Center



Source: NCDB, Commission on Cancer, ACoS. Survival Reports, v2.0 – January 30, 2006

Five Year Survival Table for Uterus Cancer Cases Diagnosed in 1995 & 1996

ACS Division: Great West / Data Reported from 25 Hospitals

Hospitals of Type: Comprehensive Community Cancer Center

Stage	Cases	At dx	1 yr	2 yr	3 yr	4 yr	5 yr	95% Confidence Interval
0	53	100	96.13	96.13	91.74	87.06	87.06	77.14 - 96.98
I	1375	100	97.46	93.76	90.80	87.27	84.30	82.16 - 86.44
II	165	100	91.40	82.21	70.18	64.43	60.65	52.51 - 68.79
III	176	100	85.41	68.35	58.92	50.69	44.08	35.94 - 52.22
IV	82	100	46.30	25.06	16.71	13.92	13.92	5.86 - 21.98
Overall	2018	100	92.07	85.72	80.91	76.84	73.76	71.64 - 75.88

Source: NCDB, Commission on Cancer, ACoS/ACS.

Survival Reports, v2.0 - January 30, 2006