

# Esophageal cancer treatment Comparison to NCCN guidelines

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**Data Source:** Cancer registry information on esophageal or GE junction cancers from 2003 through 2005. National Cancer Database.

**Reason for Report:** To determine if locally we are following NCCN guidelines and achieving appropriate survival outcomes. The study looked at Stage I-III and adenocarcinoma cases only.

**Findings:** During this time period, there were 36 cases of esophageal or GE junction cancers. Thirteen of these cases were stage 4 and 2 were squamous cell cancers. These 15 cases were excluded from this study.

The remaining 21 cases included the following treatment distribution:

- 8 had surgery (one expired due to post op complications)
- 2 had combined chemo and radiation therapy
- 8 had radiation therapy alone (3 offered radiation alone; 5 offer chemo/radiation but refused chemo)
- 1 refused recommended combined chemo/radiation therapy
- 2 had no treatment (1 expired while in hospital)

All of the surgical patients who survived surgery, 7/8 (87.5%) had appropriate care for stage according to NCCN guidelines. Two were staged as T1, N0 and observed post op. Two were staged as T2, N0 and observed post op. Two were staged as T2, N1 and treated with post op radiation and chemotherapy. One was staged as T2, N0 and treated with pre op radiation and chemotherapy.

Of the remaining 13, 5 (38.5%) patients agreed to treatment (the other 7 refusing part or all of recommended treatment and 1 expired on comfort care). There were only 2 (40%) who received appropriate care with combined radiation/chemotherapy. One patient had consult in Seattle and the rest of their treatment is unknown but assumed treatment refused. Unless these patients are deemed medically unfit on further chart review, they violated NCCN guides. (3 had radiation alone.)

The study next looked at what type of staging studies were done. The one patient that was treated in Seattle was excluded from this portion of the study. There were 19 cases reviewed. The NCCN guidelines state that all patients should have an esophagogastro-duodenoscopy (EGD), CT of chest and abdomen, endoscopic ultrasound, and PET scan. The following is what was found:

- 19/19 (100%) had EGD
- 18/19 (94.7%) had CT of chest & abdomen (1 had CT of chest only)

3/19 (15.8%) had endoscopic ultrasound (not available locally)  
 6/19 (31.6%) had PET scan (This was not related to year of diagnosis hence unrelated to availability of PET).

TREATMENT of Esophagus Cancer Diagnosed 2003  
 All Reported Cases - HOSP. TYPE: Comprehensive Community Cancer Program  
 St. Joseph Hospital, Bellingham, WA vs. Hospitals in State of Washington - Data From 14 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
<b>TREATMENT</b>				
Surgery Only	9	2	8.74	20.00
Radiation Only	11	3	10.68	30.00
Radiation & Chemotherapy	40	2	38.83	20.00
Surgery, Radiation & Chemotherapy	15	1	14.56	10.00
Chemotherapy Only	7	1	6.80	10.00
Other Specified Therapy	2	0	1.94	0.00
No 1st Course Rx	19	1	18.45	10.00
<b>Total</b>	103	10	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

**Outcome:** Of the 21 patients diagnosed with Stage I-III adenocarcinoma of the GE junction, 8 (38.1%) are still alive as of January 2006. 6/8 (75%) are alive without evidence of disease. The following treatment courses were given for these patients:

- 2/6 (33.3%) had surgery alone (both Stage I)
- 1/6 (16.7%) had radiation alone (refused chemo)
- 3/6 (50%) had surgery, radiation & chemotherapy

Of the 13 that expired, 2 (15.4%) had no evidence of disease at death (1 treated with surgery alone and was Stage 1; 1 treated with radiation refusing chemo and was Stage III).

**Other interesting facts:**

- The average age of patients by treatment is as follows:
  - 55 for those receiving surgery, radiation and chemotherapy
  - 69 for those receiving radiation and chemotherapy

The average age of patients receiving only radiation therapy is as follows:  
 71 for those offered medical oncology consult (5 pt age 51to 99)  
 84 for those not offered medical oncology consult (all over 80 years old)  
 The age range for all patients diagnosed with Stage I-III adenocarcinoma of the GE junction is 50-99.

STAGE of Esophagus Cancer Diagnosed 2003  
 All Reported Cases - HOSP. TYPE: Comprehensive Community Cancer Program  
 St. Joseph Hospital, Bellingham, WA vs. Hospitals in State of Washington - Data From 14 Hospitals

STAGE	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
0	2	0	1.94	0.00
I	10	0	9.71	0.00
II	23	5	22.33	50.00
III	24	2	23.30	20.00
IV	19	2	18.45	20.00
Unknown	25	1	24.27	10.00
<b>Total</b>	103	10	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

**Conclusions:** The care of GE Junction cancers at St. Joseph Hospital, as compared to NCCN Guidelines, is most likely typical for a Community Hospital. The guidelines state that patients with non metastatic disease ought to be treated with surgery, radiation plus chemotherapy or all three modalities. According to NCCN Guidelines those who had surgery, received the appropriate care 87% of the time. On the other hand we had a disproportion of patients who received radiation alone as compared to the recommended combined radiation plus chemotherapy. This less than NCCN standard of care can be explained by the fact that 62.5% of the radiation alone patients refused chemotherapy and the minimum age of patients who were not referred for a chemotherapy consult was over 80.

When looking at our results compared to the national cancer database (NCDB), more of our patients received surgery or radiation alone than the other comprehensive community

cancer program (CCCP) facilities. The stage of our patients was reportedly lower than the other facilities as well. This is most likely explained by our under performance in the recommended NCCN staging recommendation. Many of our patients did not receive a PET scan (only sporadically available in our community during the study period) or a esophageal ultrasound (which still requires a Seattle area referral).

It is most likely we will not reach NCCN Guideline standards for radiation/chemotherapy due to the age and physical condition of our patients who would not be seen in a NCCN-like facility. We will only do a better job in staging when we have CT/PET on a regular basis, and esophageal ultrasound is available in the community.

References:

1. National Comprehensive Cancer Network, Inc. Uterine Cancer Treatment Guidelines. Available at: [www.nccn.com/professionals/physicians\\_gls/f\\_guidelines.asp](http://www.nccn.com/professionals/physicians_gls/f_guidelines.asp). Accessed June 2006.
2. National Cancer Database at the American College of Surgeons Commission on Cancer. Available at: [www.facs.org/cancer/index.html](http://www.facs.org/cancer/index.html)