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# Factors influencing number of posttreatment visits following major head and neck oncologic surgery in the elderly

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## Introduction

Often, patients that present with head and neck squamous cell carcinoma (HNSCC) are in the seventh decade of life. The incidence of newly diagnosed HNSCC in the elderly is expected to increase by more than 60% by the year 2030. Optimizing postoperative care is vital for patients as they recover from major head and neck surgery to avoid complications, minimize hospital readmissions, decrease healthcare expenditure, and to surveil for recurrence.

The aim of this study is to identify patient factors associated with an increased number of posttreatment visits in the first year after major head and neck oncologic surgery in the elderly.

## Methods

Retrospective chart review of patients 60 years or older with HNSCC of the aerodigestive system who underwent ablative head and neck surgery with at least a neck dissection with or without a free flap reconstruction between 2009-2019 at a single tertiary care was performed. The following were collected:

- Gender
- Marital status
- BMI
- Smoking/alcohol status
- Tumor characteristics
- Perioperative course
- Surgery type
- Adjuvant therapy
- Complications
- Postoperative SNF placement
- Gastric tube presence
- Tracheotomy presence

Our outcome measure was the number of posttreatment visits in the first year following surgery.

Table 1. Patient Demographics

Characteristic	Numbers	Percentage
<b>Age (mean)</b>	71.01 +/- 7.38	
<b>Gender</b>		
Male	127	66.84%
Female	63	33.16%
<b>Marital Status</b>		
Partner	102	53.40%
No partner	89	46.59%
<b>Weight loss &gt;10 pounds prior to surgery</b>		
No	113	59.16%
Yes	78	40.84%
<b>Smoking Status</b>		
Never	48	25.13%
Former	115	60.21%
Current	28	14.66%
<b>Alcohol Status</b>		
Never	95	50.00%
Former	20	10.53%
Current	75	39.47%
<b>Recurrent disease</b>		
No	155	81.15%
Yes	36	18.85%
<b>ASA Status</b>		
II	26	13.61%
III	146	76.44%
IV	19	9.95%
<b>Tumor Location</b>		
Oral Cavity	122	63.87%
Oropharynx	29	15.18%
Larynx	31	16.23%
Nasopharynx	2	1.05%
Gland	7	3.66%
<b>Surgery Type</b>		
Primary closure	45	23.56%
Pedicle	10	5.24%
Flap	89	46.60%
Laryngectomy	47	24.61%
<b>Adjuvant Therapy</b>		
No	75	39.27%
CRT or RT	116	60.73%
<b>Perioperative Complications</b>		
No	137	71.73%
Yes	54	28.27%
<b>Postoperative skilled nursing facility placement</b>		
No	159	83.25%
Yes	32	16.75%

Table 2. Univariate Analysis, Predictors of increased number of posttreatment visits

Characteristic (median, range)	Postop visits	p value
<b>Gender</b>		
Male	6(4, 17)	0.3649
Female	6(1,32)	
<b>Marital Status</b>		
Partner	6(1,19)	<b>0.0311</b>
No partner	5(1,32)	
<b>Weight loss &gt;10 pounds prior to surgery</b>		
No	6(0,19)	<b>0.0118</b>
Yes	5.5(1,32)	
<b>Smoking Status</b>		
Never	6(2,19)	<b>0.0022</b>
Former	6(4,32)	
Current	4(1,9)	
<b>Recurrent disease</b>		
No	6(4,32)	0.0826
Yes	7(2,19)	
<b>Tumor Location</b>		
Oral Cavity	6(1,19)	0.1955
Oropharynx	5(1,11)	
Larynx	5(3,32)	
Nasopharynx	6.5(6,7)	
Gland	7(3,10)	
<b>Surgery Type</b>		
Primary closure	5(1,32)	0.0914
Pedicle	6.5(3,12)	
Flap	6(5,19)	
Laryngectomy	6(1,14)	
<b>Adjuvant Therapy</b>		
No	6(1,13)	<b>0.034</b>
Yes	7(0,32)	
<b>Complications</b>		
No	6(1,17)	0.2896
Yes	6(0,32)	
<b>Postoperative skilled nursing facility placement</b>		
No	6(1,32)	<b>0.0077</b>
Yes	4.5(0,11)	
<b>G tube Placement</b>		
No	6(0,19)	0.0863
Yes	7(2,32)	
<b>Trach placement</b>		
No	6(0,32)	0.1877
Yes	6(1,14)	

Table 3. Spearman Coefficient Predictors of increased number of posttreatment visits

	Postop visit r value	Post op visit p value
<b>Age</b>	-0.00772	0.9156
<b>Miles</b>	-0.20445	<b>0.0046</b>
<b>BMI</b>	0.07076	0.3307
<b>Length of Stay</b>	0.00620	0.9323

## Results

Of 191 patients, the mean age was 71.01 +/- 7.4 years. Within a one-year postoperative period, on average patients had 6.35 +/- 3.5 clinic visits. Age, location of primary, and the extent of surgery were not factors in the number of postoperative visits.

### Factors associated with increased post-treatment visits:

- Having a partner (p=0.0311)
- Living closer to the hospital (p=0.0046)
- Not being an active smoker (p=0.0022)
- Being discharged to home versus SNF (p=0.0077)
- Receiving adjuvant therapy (p=0.034)

## Conclusions

- This study elucidates factors that may predict the likelihood that a patient makes posttreatment visits.
- Having support at home, not being an active smoker, and living closer to the hospital increases a patient's odds of making posttreatment visits.
- Age and extent of surgery were not factors associated with an increased number of posttreatment visits.

## Contact info

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