



# American Head and Neck Society - Journal Club

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### **[Postoperative opioid-prescribing practices in otolaryngology: A multiphasic study.](#)**

*Dang S, Duffy A, Li JC, Gandee Z, Rana T, Gunville B, Zhan T, Curry J, Luginbuhl A, Cottrill E, Coggiotti D.*

*from **Laryngoscope**, March 2020*

**Objectives:** To investigate opioid prescription and consumption as well as pain trends for common otolaryngologic procedures with the goal of developing future evidence-based guidelines for postoperative pain management within otolaryngology.

**Study Design:** a prospective, multiphasic study

**Methods:** Patients undergoing parathyroidectomy/thyroidectomy, parotidectomy, sialendoscopy, and transoral robotic surgery resection (TORS) over an 8-month period were surveyed on their postoperative opioid usage and pain from day of discharge to first clinic visit. They converted opioid prescriptions to standardized units of morphine milligram equivalents (MME) to standardize comparisons.

**Results:** 161 patients were surveyed. A total of 19,748 MME were prescribed: 8,588 MME (43.5%) were used and 11,159 MME (56.5%) unused. TORS surgery patients used the most. (average MME used:  $221 \pm 227$  (wide variability)); 62% used, 38% unused. Sialendoscopy average MME used:  $31 \pm 46$ ; total MME 33% used, 67% unused. Parathyroidectomy/ thyroidectomy average MME used:  $30 \pm 37$ ; total MME 34% used, 66% unused. Parotidectomy average MME used:  $43 \pm 53$ ; total MME 35% used, 65% unused. Male gender, smoking (current and former), and psychiatric medication use were significant predictors of opioid consumption in postoperative patients ( $P < 0.001$ )

**Conclusion:** Opioids are overprescribed in the post-operative period especially for non-mucosal surgeries. Guidelines for better prescribing practices are needed to avoid over prescribing or adding to the current national challenges of opioid addiction.

### Summary:

Over 50% of the opioids prescribed to patients undergoing head and neck surgery go unused. Over prescribing is a problem.

### Strengths:

- prospective study
- most common head and neck procedures accessed
- opioid type was standardized by morphine equivalents
- subgroups of male race, smokers and psych meds were identified as those who used/required more pain medication

### Weaknesses:

- Would add another category of neck dissection (another common head and neck procedure) The paper mentions that this procedure is usually not that painful. Would be helpful to document or publish pain medication requirements or lack of in these patients such that evidence based practices support and be adopted to stop prescribing narcotics in these patients.
- Are there differences in types of opioids prescribed and the amount used? In other words, if norco were prescribed would the patients have used less than if T3 were used?
- Does used of intraoperative lidocaine injection affect this?
- Consider adding an arm to the study were other non-opioid medications are used in the post op period to cut down on opioid use or at least evaluate this so it can be added to the future guidelines.

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## [Selective neck dissection in the treatment of head and neck squamous cell carcinoma patients with a clinically positive neck](#)

*López F, Fernández-Vañes L, García-Cabo P, Grilli G, Álvarez-Marcos C, Llorente JL, Rodrigo JP.*

*from The Journal of Clinical Oncology, January 2020*

The existence of nodal metastases is considered the most important clinic and pathological prognostic factor in patients with squamous cell carcinomas of the head and neck in the absence of distant metastases. Selective neck dissection refers to the preservation of one or more lymph node levels, in addition to muscle, nerve and vascular neck structures. The selective neck dissection can be performed in different ways depending on the levels resected: lateral, supraomohyoid, extended supraomohyoid, posterior or central. However, the role of selective neck dissection in cases of clinically positive necks remains unclear. The aim of this retrospective study was to assess the effectiveness and outcomes of the selective neck dissection in the treatment of patients with squamous cell carcinomas of the head and neck with clinically positive cervical lymph node metastases at diagnosis.

**Material and Methods:** The clinical data of 159 patients with squamous cell carcinomas of the head and neck who underwent a selective neck dissection with curative intent from 1998 to 2009 at the Department of Otolaryngology Head and Neck Surgery in the Hospital Universitario Central de Asturias were reviewed for this retrospective study. The patients had been diagnosed with a



squamous cell carcinoma of the head and neck (oropharyngeal, hypopharyngeal or laryngeal carcinoma) and had clinical nodal metastases at diagnosis, which were subsequently confirmed to be pathologically positive. The variables included in the study were: age, sex, tobacco and alcohol consumption, location of the primary tumor, type of surgery and the incidence of recurrence and histologic characteristics were gathered: tumor grade, pathological nodal stage, extra nodal extension, human papillomavirus status. Tumors were classified according the TNM classification of the International Union Against Cancer (7th Edition). The selective neck dissection was performed as initial treatment according the anatomical and surgical boundaries suggested by Robbins et al.

**Results:** 159 histologically confirmed squamous cell carcinomas of the head and neck with clinically positive necks that were subsequently confirmed in the final pathological analysis were included in the study. 94% were male and 6% female, with a mean age of 58 years. 97 % patients were smokers and 91% had history of alcohol consumption. The most common location of the tumor was the oropharynx with 33%, hypopharynx 30%, supraglottis 28% and glottis 9%. 41% tumors were moderately differentiated. A total of 288 selective neck dissection were performed, extra nodal extension was observed in 21 % patients and postoperative RT was administered in 65 % patients. The mean follow-up was 52 months. Recurrent disease developed in 58 % patients, 20 % of them had a local recurrence, 6% regional recurrence, 11 % had loco-regional recurrence, 21 % had distant metastases and 8 % of patients developed a second primary tumor. The regional control in the neck in absence of local recurrence was observed in 94% of patients.

The 3 and 5-year overall survival rates according to the Kaplan–Meier method for all 159 patients were 51% and 37%, respectively, and the 3- and 5-year disease specific survival rates were 57% and 50%, respectively. The 3 and 5-year regional recurrence-free survival rates were 82% and 80%, respectively.

#### **Weaknesses:**

- The retrospective nature of the study.
- The failure to use a control group treated with a comprehensive neck dissection.
- The inclusion of tumors of different subsites.

#### **Strengths:**

- The results of the study show the importance of adjuvant treatment, as the regional control in high risk cases who received postoperative radiotherapy, was similar to that obtained in low risk cases.
- The absence of differences between the 2 groups reflects that a correct indication for radiotherapy allows significant regional control with selective neck dissection, resulting in decreased morbidity.
- They could not find significant differences between irradiated and non-irradiated patients.

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## Phase II Evaluation of Aggressive Dose De-Escalation for Adjuvant Chemoradiotherapy in Human Papillomavirus–Associated Oropharynx Squamous Cell Carcinoma

Ma DJ, Price KA, Moore EJ, Patel SH, Hinni ML, Garcia JJ, Graner DE, Foster NR, Ginos B, Neben-Wittich M, Garces YI, Chintakuntlawar AV, Price DL, Olsen KD, Van Abel KM, Kasperbauer JL, Janus JR, Waddle M, Miller R, Shiraishi S, Foote RL.

from *The Journal of Clinical Oncology*, August 2019.

**Purpose:** The purpose of this study was to determine if dose de-escalation from 60 to 66 Gy to 30 to 36 Gy of adjuvant radiotherapy (RT) for selected patients with human papillomavirus–associated oropharyngeal squamous cell carcinoma could maintain historical rates for disease control while reducing toxicity and preserving swallow function and quality of life (QOL).

**Patients & Methods:** MC1273 was a single-arm phase II trial testing an aggressive course of RT de-escalation after surgery. Eligibility criteria included patients with p16-positive oropharyngeal squamous cell carcinoma, smoking history of 10 pack-years or less, and negative margins. Cohort A (intermediate risk) received 30 Gy delivered in 1.5-Gy fractions twice per day over 2 weeks along with 15 mg/m<sup>2</sup> docetaxel once per week. Cohort B included patients with extranodal extension who received the same treatment plus a simultaneous integrated boost to nodal levels with extranodal extension to 36 Gy in 1.8-Gy fractions twice per day. The primary end point was locoregional tumor control at 2 years. Secondary end points included 2-year progression-free survival, overall survival, toxicity, swallow function, and patient-reported QOL.

**Results:** Accrual was from September 2013 to June 2016 (N = 80; cohort A, n = 37; cohort B, n = 43). Median follow-up was 36 months, with a minimum follow-up of 25 months. The 2-year locoregional tumor control rate was 96.2%, with progression-free survival of 91.1% and overall survival of 98.7%. Rates of grade 3 or worse toxicity at pre-RT and 1 and 2 years post-RT were 2.5%, 0%, and 0%. Swallowing function improved slightly between pre-RT and 12 months post-RT, with one patient requiring temporary feeding tube placement.

**Conclusion:** Aggressive RT de-escalation resulted in locoregional tumor control rates comparable to historical controls, low toxicity, and little decrement in swallowing function or QOL.

### Strengths

- Most aggressive de-escalation regimen thus far with excellent LRC and PFS
- QOL data very favorable even with a few open surgical procedures when compared to historical non-surgical primary therapy
- Financial data available showing good cost effectiveness

### Weaknesses

- Small sample size
- External validity lacking – high volume center with specialized surgeons/RT
- Very carefully selected low-risk patients (i.e. non-smokers)
- Only 2-year survival data



- Extent of ECE not included

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## [Lymph node yield, depth of invasion, and survival in node-negative oral cavity cancer](#)

Zenga J, Divi V, Stadler M, Masea B, Campbell B, Shukla M, Awan M, Schultz C, Shreenivas A, Wong S, Jackson R, Pipkorn P.

from *Oral Oncology*, November 2019

In 2019, an estimated 35,130 individuals will be diagnosed with this malignancy in the United States and another 7410 will die from it. In clinically node-negative head and neck cancer, neck dissection is generally recommended when the risk of occult nodal disease is at least 20%. Currently the National Comprehensive Cancer Network guidelines support this conclusion and recommend elective neck dissection for oral cavity with less than 4 mm depth of invasion only in highly select situations based on clinical judgement. Further, these cut offs for depth of invasion and occult nodal risk in considering elective neck dissection do not account for nodal yield. In recent years, higher nodal counts from neck dissection in head and neck cancer have been associated with improved survival outcomes. The evidence for this has been most robust in oral cavity cancer in which both multi-institutional prospective trials and large database analyses have found an association with high nodal yields from neck dissection, particularly 18 or greater, and oncologic outcomes.

There is little evidence to-date, however, to interpret the effect of elective neck dissection on survival for clinically node-negative oral cavity cancer in the context of both primary tumor depth of invasion and lymph node yield from neck dissection. The objectives of this report, therefore, are to determine the association of elective neck dissection with oncologic outcomes in a large cohort of early stage oral cavity cancer patients stratified by depth of invasion, and to further determine if survival outcomes in these groups are influenced by nodal yield.

**Material and methods:** The 2015 participant user file from the National Cancer Database was analyzed for this study, including patients diagnosed between 2004 and 2015. Patients were identified using the International Classification of Diseases for Oncology, Third Edition. Topographical codes were identified for the oral cavity, including codes for tongue, floor of mouth, mandibular alveolus, buccal and retromolar trigone areas with a diagnosis of standard keratinizing squamous cell carcinoma. Based on The National Comprehensive Cancer Network guidelines and evidence from a prior randomized trial, models were stratified by depth of invasion of < 4 mm and  $\geq 4$  mm. To evaluate the limits of effectiveness for neck dissection in early stage oral cancer, an additional separate sub-analysis was performed using a threshold of 2 mm depth of invasion and factors associated with higher lymph node yields were investigated.

**Results:** There were 76,500 patients diagnosed with oral cavity squamous cell carcinoma in the National Cancer Database between 2004 and 2015, of these, 4771 patients were included in the final analysis. Median follow up was 35 months. In 60% patients underwent neck dissection, while



40% were observed. Of the 2851 patients undergoing neck dissection, 73% had a nodal yield of 18 or greater, while 17% had a nodal yield of less than 18. Of 3384 patients with primary tumor depth of invasion  $< 4$  mm, 54% underwent neck dissection, while of 1387 patients with primary tumor DOI  $\geq 4$  mm, 74% underwent neck dissection.

Patients with less than 18 nodes harvested demonstrated no significant survival difference from neck observation alone. For patients with depth of invasion  $\geq 4$  mm, young age, private insurance, low comorbidity index, pathologic T1 and N0 staging, low-/moderate-grade omission of radiotherapy and neck dissection with 18 or greater nodes harvested, were associated with improved survival. A separate sub analysis using a threshold of 2 mm depth of invasion was performed and in this patient group, neck dissection with 18 or more nodes harvested was associated with improved survival, but this difference did not reach statistical significance for patients with  $< 2$  mm depth of invasion.

### Strengths

- The results of this study confirm the survival advantage of elective neck dissection in early stage clinically node-negative oral cavity cancer, with several important qualifications.
- In patients with early T-stage clinically node negative oral cavity cancer, neck dissection with a nodal yield of 18 or more improved overall survival as compared with observation of the neck, in both patients with depth of invasion  $\geq 4$  mm and depth of invasion  $< 4$  mm tumors.
- Survival outcomes of patients with harvest of less than 18 nodes was not significantly different than observation in either group.
- The most significant factors associated with lymph node harvest of 18 or more were young age and treatment at an academic institution.

### Weaknesses

- This report excluded patients with other confounding factors at the primary site and neck which can influence oncologic outcomes, including advanced T-stage, positive margins, extracapsular extension, and the addition of chemotherapy.
- Other demographic and pathological risk factors must be considered.
- The findings will require validation in future large-scale trials.

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