Reviewer's report

Title: Surgical margins and survival after head and neck cancer surgery

Version: 1 Date: 30 September 2005

Reviewer: Neil Bhattacharyya

Reviewer's report:

General

The authors have completed a population based review of surgical margin status and its impact on survival for patients with malignancies of the larynx and tongue. I think that this is a well-written manuscript worthy of publication with some revisions. I appreciate that this is a somewhat different perspective, being based on a HMO tumor Registry rather than cases presenting to an academic tertiary care center. Therefore I agree with the authors that represents more of a population based cross-sectional sampling. This is particularly valuable.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. I would like to see the staging distributions according to TNM for each of the primary sites: tongue & larynx. Furthermore, the authors should provide a breakdown with respect to oral tongue versus base of tongue. It is considerably more difficult to obtain negative surgical margins for base of tongue tumors, even for T1 lesions, and the reader needs to be made aware of the differences between oral tongue and base of tongue.

2. Please present individual Kaplan-Meier survival curves according to margin status for the tongue primary site and for the larynx primary site.

3. The authors indicate that most of the patients had squamous cell carcinoma; exactly how may patients did not have squamous cell carcinoma, and please present statistics indicating that the distribution of positive margins was not related to squamous cell carcinoma versus non-squamous cell carcinoma histologies (chi-square). For example, if the authors are including cases of base of tongue adenoid cystic carcinoma that could significantly bias the results since negative margins are quite difficult to obtain for this particular tumor type.

4. While I can conceivably understand the choice of 2 cm cut offs for small versus large tumors of the tongue, this same size cut off does not really apply the laryngeal carcinomas. A 2 cm laryngeal carcinoma is actually very large. The authors should provide a rationale for choosing tumor size at 2.0 cm as a cut off for the laryngeal lesions?

5. I'm not sure what the statement: "The overall survival probability was 31% until December 31, 2002." What does this mean? Is this something other than actuarial survival? This is not seem to be reflected by the Kaplan-Meier figure.
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.