Patient Perspectives on Timeliness of Treatment for Head and Neck Squamous Cell Carcinoma

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Abstract

Outcome Objectives: 1. Survey patients for patient-recollected time-to-treatment (prTTT) and satisfaction with their prTTT for Head and Neck Squamous Cell Carcinoma (HNSCC). 2. Analyze the association between demographic factors, tendency to underestimate or overestimate TTT ("estimator status"), and patient satisfaction with prTTT.

Methods: Ten-question surveys were collected from 56 patients who were ≤2 years out from HNSCC treatment at a single academic institution. Surveys gathered prTTT (defined as first oncologic provider visit to initiation of definitive treatment) as well as satisfaction with prTTT. For the 33 self-identifying patients, "estimator status" was determined. Nonparametric Wilcoxon Rank-Sum tests analyzed the association between demographic factors, "estimator status", and patient satisfaction with prTTT.

Results: The mean prTTT was 3.6 weeks (range 0.5-9.0 weeks). Satisfaction with prTTT was high, with 71.4%, 26.8%, and 1.8% being "very", "somewhat", and "not satisfied". For self-identifying patients, the mean prTTT was 3.9 weeks (range 1.0-9.0 weeks) whereas the mean actual time-to-treatment (aTTT) was 6.1 weeks (range 0.4 to 21.3 weeks). Overall, patients were found to underestimate their TTT on average by 1.6 ± 3.9 weeks (p=.0297). Women were also more likely to overestimate their TTT compared to men (p=.0469). Age and marital status were not significantly associated with estimator status. Overall, HNSCC patients believed their TTT was appropriate in duration (p=.0148).

Conclusions: Overall, HNSCC patients significantly underestimate their TTT when asked to recall this duration, with men being more likely to underestimate their TTT compared to women. Overall, patients were satisfied with their prTTT.

Introduction

HNSCC are one of most common epithelial malignancies of the upper aerodigestive tract, with an annual worldwide incidence estimated at 550,000 cases per year[1]. Two-thirds of HNSCC patients frequently present with advanced stage nodal disease; poor outcomes are frequently observed with a mortality rate of approximately 50%[2-4]. With concerns of rapid tumor doubling times as well as psychological morbidity associated with an oncologic diagnosis, it remains imperative to keep the TTT interval as brief as possible in order to optimize patient outcomes related to overall survival and well-being[5-6].

In recent years, the changing healthcare climate has resulted in an increased focus on efficiency of care paradigms. For example, European countries have established guidelines for HNSCC treatment initiation within 30 days of a pathologic diagnosis[7]. In our own experience, it was found that the aTTT for our HNSCC patient population was a mean of 43.3 ± 1.8 days. Due to reform demands set forth by the Patient Protection and Affordable Care Act, the Centers for Medicare & Medicaid Services have started to use the results of patient satisfaction surveys to calculate value-based incentive payments at most medical institutions[8]. As these scores continue to gain momentum in importance and visibility, understanding the role of timely initiation of care will provide opportunities for both overall practice and service improvement[9-10]. However, to date, there remains little primary literature discussing patient perspectives on TTT. Hence, the aims of this study are to determine prTTT as well as patient satisfaction with TTT.

Materials & Methods

Survey Design: This study was conducted and approved by the institutional review board at the Pennsylvania State University, College of Medicine. Intake surveys were designed by the primary authors and administered by clinical staff at the Penn State Hershey Otolaryngology Ambulatory Clinic from April 1, 2013 through January 31, 2016. Treating clinicians were not directly involved in the administration or collection of the surveys in an attempt to not bias the subsequent results. The surveys gathered patient-recollection of timeliness of their evaluation and treatment as well as patient satisfaction with TTT. To be eligible for the survey, HNSCC patients had to be at most 2 years out from their treatment initiation. A total of sixty-four surveys were collected during this time period; however, only fifty-six were found to be eligible given the above criteria. Survey items include: time to referral to an oncologic care provider, number of completed pre-treatment tests and consultations, time to completion of pre-treatment tests and consultations, satisfaction with time to completion of pre-treatment tests and consultations, prTTT, satisfaction with prTTT, and duration deemed appropriate for TTT. For questions regarding TTT, answers were reported in number of weeks. Satisfaction with TTT was reported on a scale of "very", "somewhat", or "not satisfied". Towards the end of the survey, patients were allowed to optionally provide comments regarding identifying information and their treatment experiences.

HNSCC Database Abstraction: Using a HNSCC database constructed by the authors in a previous study, the aTTT as well as various demographic factors (age, gender, and marital status) were collected and analyzed for the thirty-three patients who elected to provide identifying information.

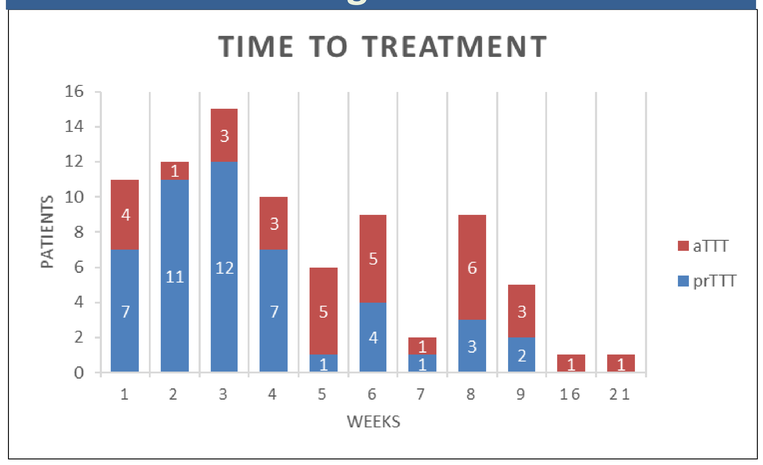
Statistical Analysis: Statistical analyses were performed using SPSS statistical software (IBM) on Windows 7. Nonparametric Wilcoxon Rank-Sum tests assessed the association between variables for all group comparisons. The level of significance was defined when $p < 0.05$.

Results

A total of fifty-six patients were surveyed, with thirty-three who elected to provide identifying information. The average age of the identified cohort was 59.70 ± 13.78 years (range 28-91 years), with a male to female ratio of 2.67:1. With regards to marital status, 66.67% of patients were married, 9.10% of patients were widowed, 18.18% of patients were separated, and 6.06% were single. A mean of 4.59 ± 2.48 pre-treatment tests and consultations (range 0-13 tests) were completed for each patient.

The mean prTTT for all patients was 3.6 weeks (range 0.5-9.0 weeks). Satisfaction with prTTT was high, with 71.4%, 26.8%, and 1.8% being "very", "somewhat", and "not satisfied". For those self-identifying patients, the mean prTTT was 3.9 weeks (range 1.0-9.0 weeks) whereas the mean aTTT was 6.1 weeks (range 0.4 to 21.3 weeks). Overall, patients were found to underestimate their TTT on average by 1.6 ± 3.9 weeks (p=.0297). Women were also more likely to overestimate their TTT compared to men (p=.0469). Age and marital status were not significantly associated with estimator status. Overall, HNSCC patients believed their TTT was appropriate in duration (p=.0148).

Figures



Discussion

Since the sentinel release of The Six Domains of Health Care Quality by the Institute of Medicine, patient satisfaction has emerged as a cornerstone for health care quality; prior pay-for-performance programs are now transitioning towards a more modern utilization of patient satisfaction as a health care quality indicator[11-12]. Furthermore, due to reform demands set forth by the Patient Protection and Affordable Care Act, the Centers for Medicare & Medicaid Services (CMS) have started to use the results of patient satisfaction surveys to calculate value-based incentive payments at most medical institutions[13]. National and state initiatives are also in place to evaluate physician effectiveness based on similar measures[14]. As patient satisfaction scores continue to gain momentum in both importance and visibility, the role of timely initiation of care will not only provide opportunities for overall practice and service improvement (i.e. increased patient retention and decreased risk of litigation) but also provide benefits from the standpoint of financial remuneration[15-16].

Conclusions

Overall, HNSCC patients significantly underestimate their TTT when asked to recall this duration, with men being more likely to underestimate their TTT compared to women. Overall, patients were satisfied with their prTTT.

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