SURVEILLANCE SCREENING IS ASSOCIATED WITH IMPROVED SURVIVAL IN HEAD AND NECK CANCER PATIENTS
Stacey Fedewa, MPH, Juan Li, Kevin Ward, PhD, Amy Y Chen, MD; Emory University School of Medicine, Emory University Rollins School of Public Health

Importance: Post-treatment surveillance of head and neck cancers (HNC) may only include physical exam and not routine imaging. However, there may be a benefit of surveillance imaging among patients with head and neck cancers (HNC), but it has not been quantified.

Objective: To examine cause-specific survival among HNC by surveillance status.

Design: Retrospective study using Georgia Surveillance, Epidemiology and End Results (SEER) data linked with Medicare claims from 2001-2004.

Setting: Population-based claims-linked cancer registry

Patients: 641 patients diagnosed with HNC (larynx, oral cavity, pharynx, salivary gland, paranasal sinuses and nasal cavity) between 2001-2004 in the Georgia SEER Registry. All patients were enrolled in Medicare Parts A&B for at least 2 years after diagnosis and survived at least 6 months after diagnosis.

Interventions: Not applicable.

Main Outcome Measures: 5 year cause-specific survival by surveillance status (yes/no). Surveillance was defined as having a CT, PET or PET-CT between 6 to 24 months after diagnosis. Kaplan Meier Survival Curves were used to estimate survival and Cox Proportional Hazard models were used to estimate hazard ratios (HR) and 95% Confidence Intervals (CI).

Results: 154 patients (24%) received post-diagnosis screening. Approximately 75% and 64% of patients receiving surveillance screening and no screening survived, respectively (p=0.0003). Adjusted for sociodemographic, treatment and clinical factors, the hazard of death among patients with screening was significantly lower compared to patients without screening (HR=0.40, 95%CI 0.28-0.58). When chest radiograph was included in the screening definition, 272 (42%) received screening and the adjusted hazard of death remained significantly lower among the screened (HR= 0.24, 95%CI 0.18-0.34).

Conclusions: Post treatment screening of HNC patients is associated with improved survival in this population based registry. This relationship was even stronger when we included those who only received a Chest radiograph. The results suggest that routine imaging after completion of treatment for HNC patients have a positive effect on survival and should be included in each HNC patients' survivorship plan.

Figure: Survival by Screening Status among HNC Patients, Georgia SEER-Medicare 2001-2004)
**Objective:** To assess the clinical utility and accuracy of routine surveillance head and neck magnetic resonance imaging (HN-MRI) for the detection of locoregional recurrence in patients with oral cavity squamous cell carcinoma (OCSCC) without concurrent suspicious symptoms or signs.

**Study Design:** Retrospective chart review.

**Methods:** Patient sample: 1) patients with OCSCC who underwent surgery at our institution from 2002-2012 with or without post-operative (chemo)radiation, 2) had a negative post-treatment HN-MRI within 6 months after treatment, 3) then underwent one or more routine HN-MRIs at least 6 months after treatment with no concurrent suspicious symptoms or physical exam findings, and 4) had at least 6 months of follow up subsequent to the routine HN-MRI. Accuracy metrics were then determined.

**Results:** 46 patients underwent 108 routine HN-MRIs from 6 to 48 months after surgery (primary site excision in 46 (100%), neck dissection in 41 (89.1%), postoperative radiation in 20 (43.5%), and chemotherapy in 8 (17.4%). 9 out of 46 (19.6%) did not have a baseline HN-MRI within 6 months after treatment. 1 out of 46 (2.2%) had a true positive regional recurrence, confirmed by biopsy 37 months after completion of primary treatment. 10 out of 46 (21.7%) patients experienced a false positive locoregional finding. 35 patients had true negative scans throughout the follow up period. Zero patients had a false negative scan. Thus, the negative predictive value (NPV) and sensitivity was 100%; the positive predictive value was 9.1%; the specificity was 77.8%.

Of the 10 patients who had a false positive finding, 2 patients had a negative subsequent fine-needle aspiration biopsy, and the other 8 patients had negative subsequent imaging, including HN-MRIs and positron emission tomography-computed tomography. All 10 patients had more than 6 months of follow up after the false positive scan without any further concern for disease recurrence. Patients who had a false positive finding tended to have been treated more often with post-operative radiation (7 out of 10 (70%) compared to the 12 out of 35 (34.3%) p=0.07) patients who had true negative findings. The average number of surveillance scans conducted on each patient group within 24 months following definitive treatment was 2.4 (range: 1-4) for patients with false positive scans and 1.7 (range: 1-4) for patients with true negative scans (p=0.07).

**Conclusion:** Routine HN-MRI for the detection of locoregional recurrence of OCSCC, while reassuring with a NPV and sensitivity of 100%, may have too high of a false positivity rate and expense to justify a 2.2% rate of recurrence detection when used in patients who do not have concurrent suspicious symptoms or exam findings. Use of HN-MRI for surveillance of OCSCC may lead to increased unnecessary subsequent use of HN-MRI.
PET-CT VALUES OTHER THAN SUV MAX MAY BETTER PREDICT STAGING OF OROPHARYNGEAL SQUAMOUS CELL CARCINOMA

Eitan Prisman, MD, FRCSC, Enrique Perez, MD, FRCS, Brett Miles, MD, FACS, Mahmoudreza Fardanesh, MD, Eric M Genden, MD, FACS, Lale Kostakoglu, MD; ICAHN School of Medicine at Mount Sinai, University of British Columbia

Background: Positron emission tomography with Computed Tomography (PET-CT) is a functional imaging technique providing in-vivo localization of increased tissue metabolism. PET-CT is frequently used to stage patients with oropharyngeal squamous cell carcinoma (OPSCC) and influences the dose or extent of radiation or the addition of chemotherapy. However, there is limited study comparing PET values with final pathology in OPSCC. The variable most commonly reported, as an indicator of increased metabolism, is the maximum standardized uptake value (SUVmax). SUVmax is limited to only a single-pixel value and may adversely be affected by noise, and ignores potentially useful information regarding surrounding tissue metabolism. Other PET-CT variables, from both the primary tumor or lymph nodes, includes peak SUV -the mean SUV in a region of interest (SUVpeak), sum of the 5 hottest peaks (SUV5hp), total tumor volume -the tumor volume 50% above either the primary or lymph node SUVmax (TTV), and the total lesion glycolysis (TLG).

Objective: (1) To investigate the correlation between PET-CT variables of the primary with primary tumor size on final pathology; and adjust this correlation for HPV status and presence of lymphovascular invasion (LVI) or perineural invasion (PNI). (2) To compare lymph node (LN) PET-CT variables between individuals with or without extracapsular extension (ECE) and furthermore (3) to determine if LN PET variables significantly differed between N0, N1 and N2 pathological lymph node staging.

Methods: Preoperative PET-CT data of patients undergoing trans oral robotic surgery (TORS) and neck dissection for OPSCC were included, and PET-CT variables computed using PET software. Pearson's correlation was used to determine the primary PET-CT variable most correlated with primary tumor size on final pathology. Multivariable linear regression was used to investigate the relationship between PET-CT variables and tumor size, adjusting for HPV status and existence of LVI or PNI. The Student t-test was used to determine if the LN PET variables significantly differed between patients with or without ECE. An ANOVA was used to distinguish if the LN PET-CT variables significantly differed between lymph node stage.

Results: Seventy OPSCC individuals undergoing TORS were analyzed, including 64.2% with HPV and 33.8% with LVI or PNI. The mean primary tumor size was 2.0±1.02 cm. The primary tumor TLG most strongly correlated with tumor size (r=0.44; 95%CI: 0.23, 0.61; p<=0.01) and appeared larger than primary SUVmax (r=0.23; 95%CI: -0.01, 0.44; p=0.06). The addition of HPV status and existence of LVI or PNI did not significantly change the linear regression estimates (β1=0.010, p<=0.001; β1=0.008, p<=0.001, respectively). When comparing LN PET variables, LN SUVmax was the only variable to significantly differ between individuals with or without ECE (p=0.05). Furthermore, lymph node SUV5hp was the only variable that significantly differed between lymph node staging with mean values for N1 and N2 stage of 3.79 and 6.39 respectively (p=0.047).

Conclusions: PET-CT provides unprecedented in-vivo localization of increased tissue metabolism. PET-CT variables other then the commonly reported SUVmax, such as primary tumor TLG or the lymph node SUV5hp appear to correlate better with primary tumor size and lymph node stage respectively.
S073 TUMOR VOLUME MAY PREDICT SURVIVAL IN HPV-POSITIVE OROPHARYNGEAL CANCER
Kara Davis, MD, David A Clump, MD, PhD, Dwight E Heron, MD, James P Ohr, DO, Julie E Bauman, MD, Seungwon Kim, MD, Umamaheswar Duvvuri, MD, PhD, Jonas T Johnson, MD, Robert L Ferris, MD, PhD; University of Pittsburgh Medical Center

Objective: Increasing evidence exists that tumor volume may be a superior prognostic model than traditional TNM staging in oropharyngeal squamous cell cancer (OPSCC). It has been observed that OPSCC in the setting of human papilloma virus (HPV) positivity have a greater propensity for cystic nodal metastases, presumably larger volume with relatively smaller primary tumors. The influence of HPV status on the predictive value of tumor volume for overall survival (OS) and disease-free survival (DFS) is unknown.

Methods: Between October 2006 and September 2012, 54 patients with HPV-positive OPSCC were treated with definitive chemotherapy & intensity-modulated radiation therapy (IMRT). Records were reviewed for TNM staging and clinical data; restorable planning data was contoured for volumetric measures of the primary tumor and the involved cervical lymph nodes to define primary (pGTV), nodal (nGTV), and combined cGTV. When available, measures were corroborated with PET-CT data. Volumetric data was grouped by tertiles. Kaplan-Meier product-limit method was used to calculate overall survival (OS) and disease-free survival (DFS). The Cox proportional hazards model and log-rank tests were used to determine relationships between tumor volumes and survival outcomes. Pearson's coefficient was used to describe the correlation between primary and nodal tumor volumes.

Results: Median follow-up was 26.5 months (range 4-76 months). 47.2% (n=25) of tumors were T2 (TX=2, T1=18, T3=7, T4a=1). 49.1% (n=26) of tumors had cervical metastases staged N2b (N0=3, N1=7, N2a=7, N2c=7, N3=7). The estimated 2-year OS and DFS was 92.2% and 83.6%, respectively. N stage did not predict OS (p=0.097) or DFS (<em style="line-height:1.6em">p</em>=0.175). Similarly, T stage did not predict OS (p=0.269) or DFS (p=0.70). Overall GTV was prognostic for overall survival (p=0.009), but neither pGTV nor nGTV individually showed a similar relationship (p=0.195 and p=0.260, respectively). nGTV was the only predictor of DFS (p=0.028). There was no correlation between pGTV and nGTV (r=0.279, p=0.70).

Conclusions: Traditional TNM staging was not predictive of survival outcomes in patients with HPV-positive OPSCC. This may be related to a low sample size of patients with disease considered at higher risk in this model (T4, N2c/N3). Overall gross tumor volume was found to be predictive of OS. DFS was best predicted by nGTV.
PROGNOSTIC VALUE OF POST-TREATMENT PET SCAN IN OROPHARYNGEAL CANCER

Seo Y Moon, MD, Marianne Abouyared, MD, Audrey Cox, BS, Raphael Nwojo, MD, Phi Ho, BS, Brian Simmons, Zoukaa Sargi, MD, Chetan Nayak, MD; University of Miami, Miller School of Medicine

Background: Current treatment guideline for surveillance of oropharyngeal cancer include post-treatment PET scan at 3 months. We evaluated the prognostic value of post-treatment PET scan at 3 months by investigating the correlation with 2-year disease free survival rate.

Methods: Retrospective chart review of patients with oropharyngeal squamous cell carcinoma treated with radiotherapy with or without chemotherapy or surgery. All had pre-treatment and post-treatment PET scan at 3 months and a minimum of 2-year follow up.

Results: Seventy four patients met inclusion criteria. Of those 63 were men and 11 were women. Age ranged from 39 to 90 with a mean age of 58.9 years. Only 1 out of 74 had stage 1 oropharyngeal cancer while 3 had stage 2, 23 had stage 3 and 47 had stage 4 oropharyngeal cancer. The overall 2-year disease-free survival was 91.9%. Of the 74 patients 18 had post-treatment PET+ scan and 56 had post-treatment PET- scan. 10 patients had recurrent disease, of which 4 had post-treatment PET+ scan. Those with post-treatment PET- scan had 2-year disease-free survival rate of 94.64% while those with post-treatment PET+ scan 2-year disease-free survival rate of 83.33%. However, there was no statistically significant difference in 2-year disease-free survival for patients that were PET+ versus PET- (p=0.1502). Also post-treatment PET scan had false positive rate of 88.9%. Of the 18 patients with PET+ scans, only 2 patients showed positive for disease on biopsy while the others either had biopsy that was negative for disease or resolution on repeat scan.

Conclusion: The difference in 2-year disease-free survival rate between patients with a post-treatment PET+ vs PET- scan at 3 months is not statistically significant. This may be related to a small sample size in our study. In addition the post treatment PET false positive rate is very high (88.9%). Given these 2 observations, the prognostic value of the post treatment PET scan at 3 months for 2-year disease-free survival may be questionable.
SECOND PRIMARY LUNG CANCER AFTER HEAD AND NECK CANCER: IMPLICATIONS FOR SCREENING COMPUTED TOMOGRAPHY

Asitha D Jayawardena, BA, Mary E Charlton, PhD, Henry T Hoffman, MD, MS, Nitin A Pagedar, MD, MPH; University of Iowa

Importance:

Current practice guidelines from multiple sources recommend low-dose screening chest computed tomography (CT) for current or former smokers to assess for lung cancer. This recommendation is based on the National Lung Cancer Screening Trial (NLST), which found a relative reduction in lung cancer mortality in selected patients who underwent annual screening chest CT when compared to annual chest radiography. The study population was defined as individuals ages 55-74 years with current or recent 30-pack year smoking history. Cancers identified using screening CT were more likely to be at stages 1a, 1b, and 2a than those identified in the control group. While there is a 5-19% increased risk in second primary lung cancer (SPLC) associated with HNC, the worth of a screening test should be measured by its effect on population mortality. No studies have assessed whether patients with prior HNC derive similar benefit from screening CT compared to the NLST study population.

Objective:

To assess survival of HNC patients with subsequent early stage lung cancer.

Design and Setting:

Retrospective study of the National Cancer Institutes 18-registry Surveillance, Epidemiology and End Results database, 1983-2010.

Patients:

Between 1983 and 2010, there were 946 patients with one HNC and exactly one subsequent early stage SPLC diagnosed between ages 55-74 at least 1 year after HNC diagnosis. There were 68,918 patients identified with an early stage lung cancer between 55-74 and no other second primary cancers.

Main outcome measure:

Median survival time as determined by Kaplan-Meier estimate.

Results:

Median survival of the 68,918 patients diagnosed with early stage lung cancer at ages 55-74 was 37 months. In the group with HNC, 946 patients were diagnosed with SPLC at ages 55-74 at least 12 months after their initial head and neck cancer. Median survival of this population was 23 months (p<0.0001).

Conclusions:

The utility of a cancer screening test depends on prevalence and test characteristics but also on the magnitude of the improvement in outcomes with early diagnosis. Survival outcomes after diagnosis of
the types of lung cancer identified with screening chest CT are not as favorable in HNC survivors, calling into question the benefits of screening CT. Routine application of screening CT should not be applied to this population without further study.
Background:

According to the literature rates of recurrences for locoregionally advanced head and neck squamous cell carcinomas (HNSCC) treated by primary radiochemotherapy (RCT) may be as high as 50%. Early detection of persistent disease influences the success of surgical salvage treatment. Functional imaging with 18F-fluorodeoxyglucose positron emission tomography with Computertomography (FDG PET/CT) has shown tremendous potential to accurately predict response following RCT. The aim of our study was to analyze the diagnostic accuracy of PET/CT compared to PET/CT combined with ultrasound guided fine needle aspiration cytology (US-FNAC) in detection of persistent nodal disease after primary RCT.

Methods:

The total number of 102 patients (80 men, 22 women) with a mean age of 60 years (range 31 to 82 years) were prospectively enrolled in the study. Restaging was performed with PET/CT and US-FNAC 6 to 8 weeks after completion of the radiation regimen. The PET/CT was judged as metastatic if the uptake was clearly higher than that in the background tissue and if the uptake matched with a pathologic tissue swelling or a pathologic lymph node on the corresponding CT image. The results of the imaging modalities were compared with the histologic work-up of the neck dissection specimen as standard of reference.

Results:

For the restaging of the neck by PET/CT alone the sensitivity was 35%, the specificity 93%, the positive predictive value (PPV) 45% and the negative predictive value (NPV) 89%. US-FNAC reached a sensitivity of 59%, a specificity of 88%, a PPV of 57% and a NPV of 87%. Performing PET/CT in combination with US-FNAC significantly lowered the number of false positive and negative cases resulting in a significantly higher PPV and NPV.

Conclusion:

Early restaging with PET/CT after primary RCT in HNSCC results in acceptable NPV but low PPV due to a high number of false positive necks. Therefore the findings of PET/CT should be confirmed by US-FNAC. Early restaging with PET/CT in combination with US-FNAC leads to equally accurate results compared to the results of late restaging after 3 months published in the literature.
THE ROLE OF POST TREATMENT CHEST RADIOGRAPHY SCREENING IN HEAD AND NECK SQUAMOUS CELL CARCINOMA AND A SURVEY ON PULMONARY SCREENING PRACTICES AMONG OTOLARYNGOLOGY-HEAD & NECK SURGEONS ACROSS CANADA

Madana Jeevanandam, MD, DNB, MRCS, Abdulaziz Alrasheed, MD, Nathalie Gabra, MD, Frederick Laliberte, MD, Michael Hier, FRCSC, Martin Black, FRCSC, Alex Mlynarek, FRCSC; McGill University

BACKGROUND: Pulmonary surveillance after definitive treatment for head and neck squamous cell carcinoma (HNSCC) is essential to maximize the chance of finding cancer at a curative stage while remaining cost effective and minimizing patient exposure to unnecessary tests and morbidity.

METHODS: Between 1999-2008, 253 patients with HNSCC were screened for pulmonary malignancy with routine annual chest radiography (CXR) during the 5year post-treatment follow-up. Data on imaging, pulmonary malignancy and survival was gathered through a retrospective chart review. A nationwide survey was conducted through Canadian Society of Otolaryngology (CSO) among Otolaryngology-head and neck surgeons regarding their practices for post treatment pulmonary screening in HNSCC.

RESULTS: Fifty four patients (21.3%) developed a lung metastasis/second primary during follow-up, out of which only 13 patients (24%) were diagnosed with annual chest radiography screening and 7 patients (13%) had a histologically confirmed malignancy. Ten patients (18.5%) who had benign looking lung nodules on CXR screening had features of malignancy on computed tomography (CT) scan. Only four patients (7.4%) had symptoms which led to the detection of lung metastasis/second primary, out of which 2 patients had chest radiographic features of malignancy. The rest 50 patients (92.6%) were asymptomatic, which necessitates the need for pulmonary screening. Chest radiography on 31 patients (57%) with lung metastasis/second primary was completely normal. The 2 year and 5 year survival after lung metastasis/second primary diagnosis were 48% & 30% respectively. The detection rate of lung metastasis/second primary among non smokers with HNSCC is 9% (15 patients) which rules out the selective pulmonary screening proposition for smokers alone. Our CSO survey among Otolaryngology-head and neck surgeons showed that 27 out 31 (87%) respondents feel that routine lung screen is mandatory, out of which 23 (83%) feel that Chest radiography should be preferred versus 2 (11%) respondents who prefer low dose CT scan for annual pulmonary screening among all asymptomatic HNSCC patients during follow up. Also 17 of 32 respondents (53%) do CXR annually for 5 years. Most respondents (38%) had 21-40 years of head and neck practice in Canada.

CONCLUSIONS: Among Otolaryngologist-Head and neck surgeons in Canada, despite being the most preferred screening tool for pulmonary screening in HNSCC, the sensitivity of Annual Chest radiography to detect pulmonary metastasis/second primary is low (24%). However, pulmonary screening is essential for the early detection and prompt treatment of lung malignancy during the follow up of HNSCC. The role of Low-dose CT scan screening could possibly be evaluated
S078 VARIATION IN SURVEILLANCE IMAGING USE AND GUIDELINE KNOWLEDGE AMONG PHYSICIANS WHO TREAT HEAD AND NECK CANCER

Benjamin R Roman, MD, MSHP, Snehal G Patel, MD, David Goldenberg, MD, F C Holsinger, MD, David Myssiorek, MD, Anna Pou, MD, Marilene B Wang, MD, Samuel Swisher-McClure, MD, Alexander Lin, MD, Jatin P Shah, MD, Judy A Shea, PhD; Memorial Sloan Kettering Cancer Center Head and Neck Service; University of Pennsylvania RWJ Clinical Scholars Program/Leonard Davis Institute of Health Economics/Department of Medicine

Purpose

Routine surveillance imaging for asymptomatic patients previously treated for head and neck cancer does not improve survival and is not recommended by guidelines. Overuse of surveillance imaging has been demonstrated in oncology, but reasons for overuse are poorly understood. This physician survey seeks to determine why positron emission tomography (PET)/computed tomography (CT) scans are ordered for patients with treated head and neck cancer despite a lack of supportive evidence and guidelines. We hypothesized that use is influenced by physician characteristics and guideline knowledge. Of note, the aim was not to accurately describe levels of imaging use since it was presumed to be high, but rather to demonstrate variation and its underlying reasons.

Methods

As part of a larger study, a cross-sectional national survey was administered to all active members of the American Head and Neck Society (AHNS) and members of the American Society for Radiation-Oncology (ASTRO) who noted an interest in head and neck cancer on their membership profile. Physicians were asked to consider their patients with the following: advanced stage head and neck cancer of any subsite, treated with any modality, previously had a negative 12-week baseline post-treatment PET/CT scan, were within two years of treatment, and were asymptomatic. Physicians who endorsed getting subsequent routine surveillance PET/CT scans for such patients >=50% of the time were categorized as "high imaging users" (44.8%), while those who answered <50% of the time were "low imaging users" (55.2%). Physicians were also asked about their use of guideline-recommended TSH-screening for patients treated with neck irradiation. Bivariate analyses and multivariate logistic regression were performed to examine factors predictive of high imaging use.

Results

520 physicians responded, with a response rate of 25.9%. The majority (78.5%) endorsed using PET/CT scans for surveillance. On bivariate analysis, high imaging users have more years in practice, are more likely to be in private practice, and see a smaller volume of head and neck cancer patients. 41% of responders believe that NCCN guidelines recommend routine surveillance imaging of some kind; 25% believe PET/CT is recommended. Lack of guideline knowledge is strongly associated with high imaging use. High imaging users are also significantly less likely to use TSH screening for patients treated with neck irradiation. Results from multivariate regression are shown in Table 1. The strongest predictor (O.R. 4.51, C.I. 2.73-7.45), p<0.0001) of high imaging use was the belief that surveillance imaging is supported by guidelines.

Conclusions
This is the first study to evaluate the reasons for overuse of surveillance imaging in head and neck cancer. Sufficient variation in responses was achieved to demonstrate factors associated with high imaging use. It remains to be proven whether educational strategies aimed at guideline knowledge will decrease imaging overuse. It is possible that regardless of knowledge, many will choose to perform surveillance imaging because of their attitudes and beliefs about its value. Further research should explore the importance of this perceived value. *[Note: should this paper be selected for oral presentation, we would use an audience response system if available.]*

<table>
<thead>
<tr>
<th>Physician characteristics</th>
<th>Adjusted Odds Ratio (95% Conf. Int.)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeon (vs rad-onc)</td>
<td>0.82 (0.44-1.52)</td>
<td>0.525</td>
</tr>
<tr>
<td>Fellowship trained</td>
<td>0.78 (0.50-1.21)</td>
<td>0.261</td>
</tr>
<tr>
<td>Female</td>
<td>1.52 (0.88-2.62)</td>
<td>0.132</td>
</tr>
<tr>
<td>Every 10 additional years in practice</td>
<td>1.15 (0.95-1.38)</td>
<td>0.153</td>
</tr>
<tr>
<td>Private practice setting (vs all others)</td>
<td>1.70 (1.01-2.85)</td>
<td>0.045</td>
</tr>
<tr>
<td>Volume of H&amp;N cancer in practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-25% of practice</td>
<td>1 (reference)</td>
<td>—</td>
</tr>
<tr>
<td>26-50% of practice</td>
<td>0.91 (0.49-1.69)</td>
<td>0.763</td>
</tr>
<tr>
<td>&gt;50% of practice</td>
<td>0.86 (0.46-1.62)</td>
<td>0.642</td>
</tr>
<tr>
<td>Guideline knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Believe NCCN supports PET/CT surveillance imaging</td>
<td>4.51 (2.73-7.45)</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>