**Purpose/Objectives**

- Taste dysfunction (dysgeusia) in patients receiving radiotherapy (RT) leads to decline in numerous quality of life outcomes.
- How to measure this robustly remains a challenge that needs to be addressed to enable effective approaches to prevent or to treat this complication.
- This study seeks to characterize the ability to measure and characterize radiation-induced dysgeusia with a patient reported outcome measure of asking patients to provide a relative percentage of their taste function.

**Materials/Methods**

- Prospectively collected data at the point of care in our institutional Oncospace database.
- Clinicians asked patients at each time point, percent of preserved taste function, on a 1-100 scale. Data were collected at baseline, weekly through radiotherapy, and at every three months through 24 months.
- The average assessment of percent taste function at each time point was plotted from baseline to 24 months.
- A multivariate analysis was conducted to assess for patient, tumor, or treatment factors with respect to taste function.
- Included: Nasopharynx, oropharynx, hypopharynx, larynx, oral cavity cancers.
- Exclusion: Thyroid cancer, skin cancer, early stage larynx cancers, salivary cancers, rare sinonasal tumors, lymphomas. Re-RT courses, Those that did not have the PRO data collected at OTV and fu, Patients that did not have both L/R parotid dosimetry/DVH data

**Results**

Taste function recovered at a rate of 0.8 points improvement for every 10 days post RT
For every increase in 1 Gy in total dose, the taste function recovered 0.4 points lower
Post surgery, patients had TREND in less change in taste function over time
Advanced nodal stage: 11 points decline from baseline compared with early N stage

**Conclusions**

- 1. The PRO of % Taste Function was a good way of characterizing the trajectory of changes in taste function over the course and recovery of RT.
- 2. Taste function became progressively worse and reached its low point at the end of radiotherapy, slowly increasing to approaching baseline level function after 24 months in all-comers.
- 3. Mean parotid dose, Total Dose, and Advanced Nodal Stage were the only significant findings affecting taste function on MVA.
- 4. Surgical patients had less absolute change in taste function than definitive chemoRT patients.
- 5. Next steps include taste function relationship to xerostomia and mucositis and localization of taste function