RTOG 1008
A Randomized Phase II/Phase III Study of Adjuvant Concurrent Radiation and Chemotherapy versus Radiation Alone in Resected High Risk Malignant Salivary Gland Tumors

Treatment:
- **Arm I**
  - 3D-CRT or IMRT 5x week for 6-6.5 weeks. Cisplatin IV over 60 minutes on days 1, 8, 15, 22, 29, 36, and 43 during radiotherapy.
- **Arm II**
  - 3D-CRT or IMRT 5x week for 6-6.5 weeks

**DISEASE CHARACTERISTICS:**
- Pathologically proven diagnosis of a malignant major salivary gland tumor of the following histologic subtypes:
  - High-grade mucoepidermoid carcinoma
  - Salivary duct carcinoma
  - High-grade adenocarcinoma
- Surgical resection with curative intent within 8 weeks prior to registration
- All patients must have a Medical Oncology evaluation within 4 weeks prior to registration
- Pathologic stage T3-4 or N1-3 or T1-2, N0 with a close (≤ 1 mm) or microscopically positive surgical margin; patients must be free of distant metastases based upon the following minimum diagnostic workup:
  - History/physical examination within 8 weeks prior to registration
  - Radiologic confirmation of the absence of hematogenous metastasis within 12 weeks prior to registration; at a minimum, contrast CT imaging of the chest is required (PET/CT is acceptable)
- No patients with residual macroscopic disease after surgery
- No patients with salivary gland malignancies originating from the minor salivary glands
- No patients with histologies other than high-grade mucoepidermoid carcinoma, high-grade adenocarcinoma, or salivary duct carcinoma

**PATIENT CHARACTERISTICS:**
- Zubrod performance status 0-1
- Absolute neutrophil count (ANC) ≥ 1,800 cells/mm³
- Platelets ≥ 100,000 cells/mm³
- Hemoglobin ≥ 8.0 g/dL (the use of transfusion or other intervention to achieve hemoglobin ≥ 8.0 g/dL is acceptable)
- Serum creatinine < 2.0 mg/dL
- Total bilirubin < 2 x the institutional upper limit of normal (ULN)
- Aspartate aminotransferase (AST) or alanine aminotransferase (ALT) < 3 x the institutional ULN
- Negative serum pregnancy test within 2 weeks prior to registration for women of childbearing potential
- Women of childbearing potential and male participants who are sexually active must practice adequate contraception during treatment and for 6 weeks following treatment
- Not pregnant or nursing
- Patients must be deemed able to comply with the treatment plan and follow-up schedule
- Patients must provide study specific informed consent prior to study entry, including consent for mandatory tissue submission for central review
- No prior invasive malignancy (except non-melanomatous skin cancer) unless disease free for a minimum of 3 years (for example, carcinoma in situ of the breast, oral cavity, or cervix are all permissible)
- No severe, active co-morbidity, defined as follows:
  - Unstable angina and/or congestive heart failure requiring hospitalization within the last 6 months
  - Transmural myocardial infarction within the last 6 months
  - Acute bacterial or fungal infection requiring intravenous antibiotics at the time of registration
  - Chronic obstructive pulmonary disease exacerbation or other respiratory illness requiring hospitalization

Hepatic insufficiency resulting in clinical jaundice and/or coagulation defects (coagulation parameters are not required for entry into this protocol)

Acquired immune deficiency syndrome (AIDS) based upon current Centers for Disease Control (CDC) definition (HIV testing is not required for entry into this protocol)

Protocol-specific requirements may also exclude immunocompromised patients

Pre-existing ≥ grade 2 neuropathy

No significant pre-existing hearing loss, as defined by the patient or treating physician

**PRIOR CONCURRENT THERAPY:**

- See Disease Characteristics
- No prior systemic chemotherapy or radiation therapy for salivary gland malignancy (prior chemotherapy for a different cancer is allowable)

- No prior radiotherapy to the region of the study cancer that would result in overlap of radiation therapy fields
- No prior organ transplant
- No concurrent hematopoietic growth factors (e.g., G-CSF or pegfilgrastim) during radiotherapy
- No concurrent erythropoiesis-stimulating agents