Resident Scholarly Project

Name: Zachary Berlant
Primary Mentor: Justine Kahn
Additional Mentors: Archie Bleyer & Peter Cole
Title: Outcomes in Mixed-Cell Histology Hodgkin Lymphoma

Brief Background:
Incidence of Hodgkin Lymphoma is 3/100,000 annually, 8% of patients being 1-19 years old. Treatment is effective with risk based, response-adapted, combined modality (chemo and radiation therapy) leading to 5-year event-free survival (EFS) of 85% and overall survival (OS) of 95%. Staging of Hodgkin lymphoma is based off of location of tumor at diagnosis and risk stratification is further impacted by the presence of B symptoms and bulkiness of the tumor. Histology is not one of the factors utilized in the risk based treatment decision making.

Primary Hypothesis:
Mixed cell disease in younger children (<15yo) is associated with improved survival and Hodgkin Lymphoma specific survival compared to other histologic subtypes.

Secondary Hypothesis:
Explore survival outcomes related to race, ethnicity, & social determinants of health in children and AYAs with HL.

Overall Project Methods:
Use Surveillance, Epidemiology, and the End Results Program (SEER) database, which is made up of 1/3 of the US population and representative of the entire country, to develop a retrospective cohort of Hodgkin Lymphoma pediatric and adolescent young adult (AYA) patients. Primary outcome will be overall survival and Hodgkin Lymphoma (HL) specific survival in the population overall, by histology subtype (Mixed Cell type vs Nodular Sclerosis vs Lymphocyte depleted/rich). Secondary outcomes will be overall survival and HL specific survival based on race/ethnicity and age (Younger vs AYA). Unadjusted analyses will use Kaplan-Meier with Cox proportional hazards model.

Resident's Specific Responsibilities:
- € Writing a proposal
- € Baseline data collection
- € Data analysis
- € Writing an abstract
- € Making a presentation
- € Writing a manuscript.

Expected outcomes for resident: Abstract submission and presentation at national conference. Build familiarity with large scale datasets, cohort studies, hypothesis generation, interpretation of results. Knowledge in social determinants of health.