



## The 65th ASH Annual Meeting Abstracts

## ONLINE PUBLICATION ONLY

## 902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

**Hypertension and Related-Disorders in Hodgkin Lymphoma Patients Identified from Epic Cosmos System**John Mariano, MD<sup>1</sup>, Conrad Gleber, MD MBA<sup>2</sup>, Carla Casulo, MD<sup>3</sup><sup>1</sup> University of Rochester Medical Center, Rochester, NY<sup>2</sup> University of Rochester Medical Center, Rochester<sup>3</sup> Wilmot Cancer Center, University of Rochester, Rochester, NY

Recent advancements in Hodgkin lymphoma (HL) treatment have significantly improved disease-free survival rates. However, survivors face a higher burden of long-term comorbidities and non-oncologic mortality compared to their peers. Studying survivorship has been challenging due to the time required for comorbidities to develop, patient loss to follow-up, variable disease-specific treatments, and variations across age groups of survivors. In this context, the Cosmos system offers a validated population-based informatics approach to establishing observational relationships between therapy and longitudinal non-oncologic outcomes, with the potential to enhance clinical care.

Cosmos, a data science tool based on the Epic Electronic Medical Record (EMR) system, utilizes a HIPAA-defined limited centralized data set from various US health care systems. At the time of this submission, the data set encompasses 152,450,619 patients. A query population of 89,963 HL patients with more than one face-to-face encounter within any two-year period during the query interval was established. Validated associated ICD-10 diagnoses were assessed within the Cosmos system. The query revealed that HL patients had a median age of 56, with a male predominance (51.8%), and 35% were diagnosed between the ages of 15 and 39. Staging information was available for only 10% of patients. The most common comorbid diagnoses defined by ICD-10 were essential hypertension (45.4%), hyperlipidemia (36.1%), anemia (32.1%), GERD (32.1%), shortness of breath (31.4%), fatigue (30.1%), non-HL (30%), cough (26.3%), and anxiety (25.6%).

Further assessment of hypertension and associated disorders was conducted by querying Epic grouper terms in comparison to the general Cosmos population. The HL population had a higher prevalence of hypertension (46.1% vs. 24.5%), chronic kidney disease (14.9% vs. 5%), hypertensive renal disease (10.1% vs. 3.1%), hyperlipidemia (44% vs. 21.1%), coronary artery disease (20.7% vs. 6.2%), ischemic or unspecified stroke (4.4% vs. 1.6%), and myocardial infarction (9.6% vs. 2.8%). Notably, death dates were documented for 12.5% of the HL population (compared to 3% in the general Cosmos population), but cause of death information was limited (0.028%).

EMR informatics presents a powerful tool for rapidly generating real-time observational data, which can inform focused studies and interventions. Such data is crucial for understanding trends in treatment-related morbidity and mortality in diseases like HL, which can impact future health in survivorship. This study suggests that hypertension and related disorders may be more prevalent in the HL population compared to the general Cosmos population, warranting further directed study and validation in the future.

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