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# A Retrospective Review of Outcomes Associated With Treatment Modalities Utilized in the Management of Diffuse Large B-Cell Non-Hodgkin's Lymphoma

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### Introduction

- Diffuse Large B-Cell Lymphoma (DLBCL) is the most common aggressive Non-Hodgkin's Lymphoma subtype<sup>1</sup>
- National Comprehensive Cancer Network (NCCN) issues peer-reviewed guidelines for DLBCL treatment<sup>2</sup>
- National Cancer Institute (NCI) publishes Surveillance,
   Epidemiology, and End Results (SEER) statistics for DLBCL<sup>3</sup>

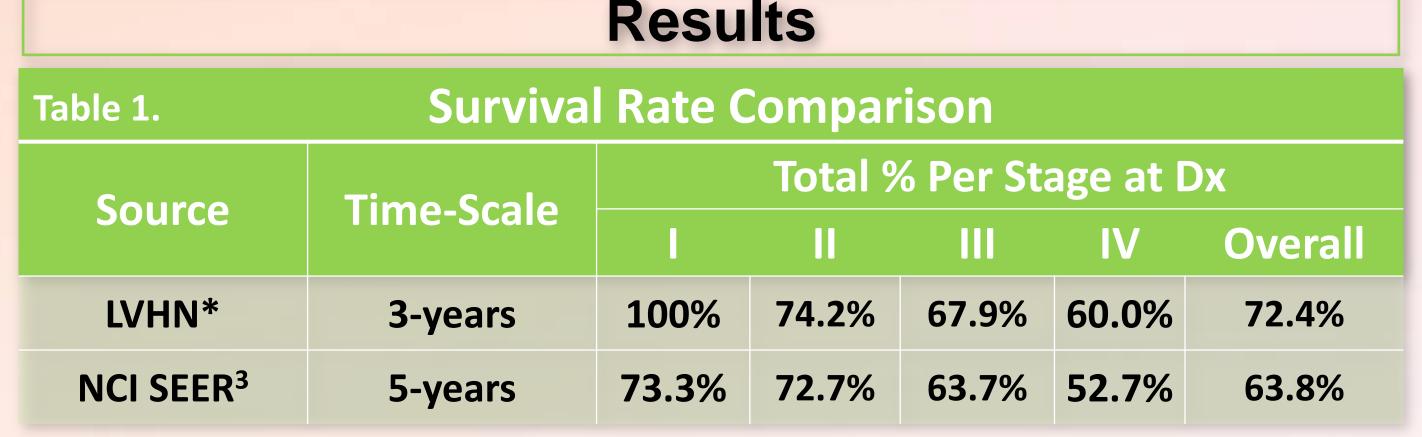
## Objectives

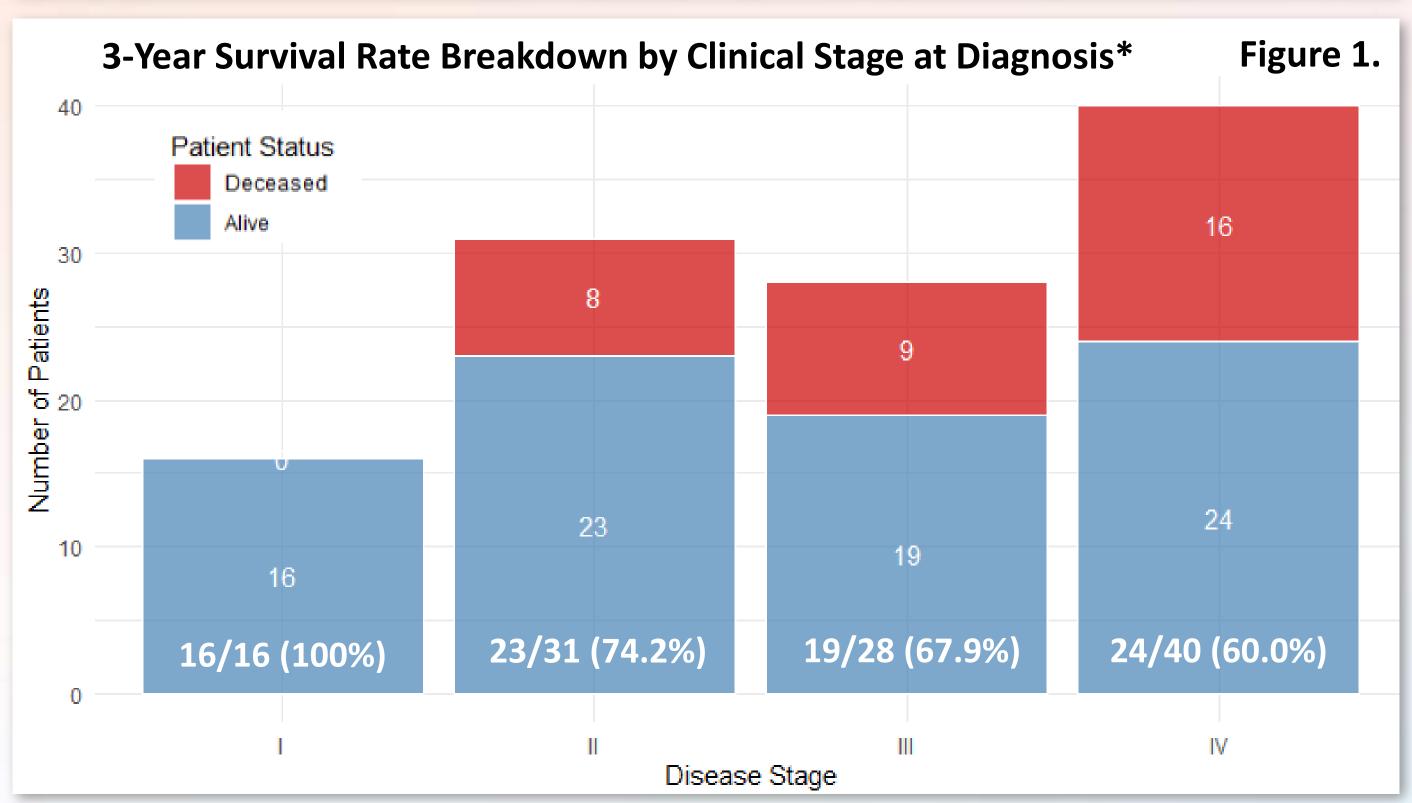
- Determine if workup and treatment for DLBCL rendered at LVHN was in compliance with NCCN guidelines
- Compare LVHN's DLBCL population trends to those published by the NCI

#### Methods

- Retrospective chart review of 269 DLBCL patients identified by LVHN's Tumor Registry from 2014 to 2018
- Utilized EPIC and Mosaiq to access electronic medical records (EMR) to record:
  - Demographic information
  - Chemotherapy regimen
  - Baseline:
    - Lugano staging (I, II, III, IV)
    - Viral testing results
    - Lactate dehydrogenase measurement
    - B symptom presence
    - PET scan completion status
    - Echocardiogram/MUGA completion status
- Removed 88 patients from initial dataset due to:
  - Initial treatment at another hospital 41 (46.6%)
  - Treatment by pediatrics unit 3 (3.4%)
  - Patient declined treatment or entered hospice without treatment – 14 (15.9%)
  - DLBCL was primary CNS disease 22 (25.0%)
  - Patient expired before treatment could be initiated 8
     (9.1%)
- Determined compliance based on NCCN guidelines<sup>2</sup> for first-line chemotherapy and workup procediures

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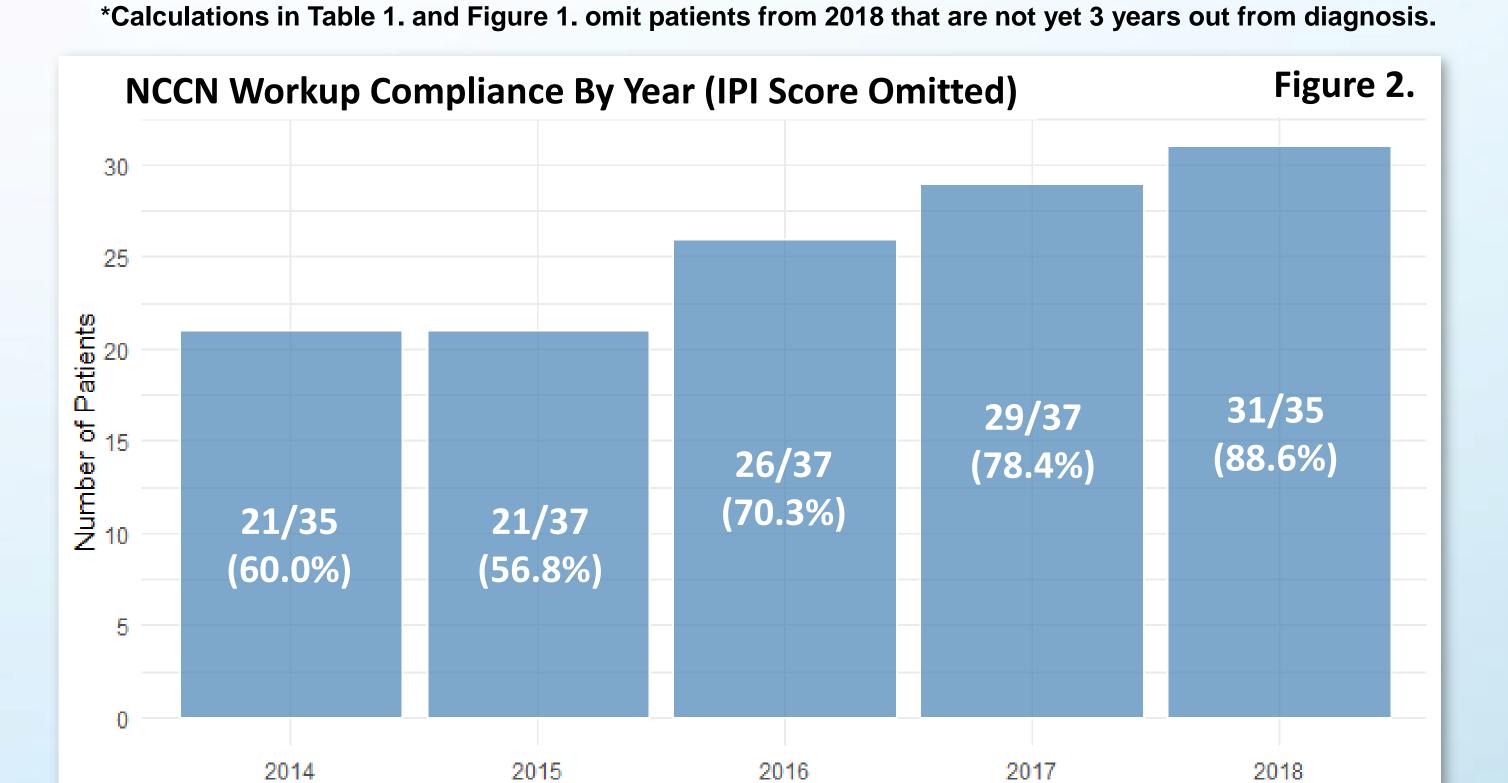


Table 2. NCCN Workup Guidelines Compliance*				
IPI Score	Compliant Patients	Total Patients	Total % Compliance	
Included	27	181	14.9%	
Omitted	128	181	70.7%	

Year of Diagnosis

\*Compliance = Documented LDH, ECOG, ± B Symptoms, PET Scan, Hepatitis B test, ECHO/MUGA [+anthracycline]

\*Compliance = First treatment modality followed NCCN flowchart <sup>3</sup> for selection based on stage group at diagnosis

Table 3. NCCN Treatment Guidelines Compliance*				
Stages at Dx	Compliant Patients	Total Patients	Total % Compliance	
I & II	61	67	91.0%	
III & IV	84	93	90.3%	

### Conclusions

- Comparison to SEER statistics:
  - LVHN's 3-year survival rates exceed all corresponding 5year metrics provided by SEER
  - DLBCL outcomes are at or exceeding national average
    - Though, direct comparison is difficult due to different time-scales
- NCCN workup:
  - Found a general absence of documented IPI scores
    - Led to a low overall workup compliance (14.9%)
    - However, IPI is a prognostic index and doesn't have large impact on care plan
      - When omitted, 70.7% of workups are compliant
- NCCN treatment:
  - Overall treatment compliance was 145/150 (90.6%)
    - Deviations from compliance can be explained case-tocase
- Overall:
  - LVHN is compliant with NCCN guidelines and provides a high standard of care for its DLBCL patients.

## Recommendations

- In 2 years, recalculate survival rates per stage to have direct comparison to 5-year SEER statistics
- Emphasize better documentation of IPI score in EMR
  - IPI scores have been documented as general prognostic statements such as "high risk"
    - Can be converted to numerical score, however nothing differentiates these statements from a general prognosis
  - NCCN occasionally uses IPI to select chemotherapy regimen
    - IPI should be consistently documented to ensure proper care

#### References

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- 2. Zelenetz, A., Et. Al. (2020, July 9). NCCN Clinical Practice Guidelines in Oncology: B Cell Lymphomas.
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