

## Introduction

- Hodgkin Lymphoma (HL) is a prominent B-cell neoplasm, impacting global and Saudi populations.
- The aim of our study is to evaluate the clinical characteristics and outcomes of patients newly diagnosed with HL in Saudi Arabia.

## Objectives

- Primary Outcomes:** Identifying the patient's clinical features: histopathology, risk category, disease stage, and favorable and unfavorable risk factors.
- Secondary Outcomes:** Complete response (CR) post the initial chemotherapy, Complications post-chemotherapy, Time from HL initial diagnosis to either refractory or relapse (R/R), Progression-free survival (PFS), and Overall survival rate (OS).

## Methods

- Study Design:** A retrospective, descriptive multicenter cohort study, with IRB number NRC23R-637-10.
- Inclusion Criteria:** Patients aged 16 years or older, Newly diagnosed at three tertiary care hospitals in Saudi Arabia with HL, between January 2016 to December 2021.
- Exclusion Criteria:** Patients Diagnosed with nodular lymphocyte-predominant HL, Received unknown chemotherapy regimens, Following in another primary center or had incomplete data.
- Statistical analysis:** Shapiro-Wilk test and graphical representation (histograms and Q-Q plots) were used to compare numerical variables. Kaplan-Meier plot was used to estimate progression-free survival.

## Results

Figure 1: Eligibility criteria flow diagram.

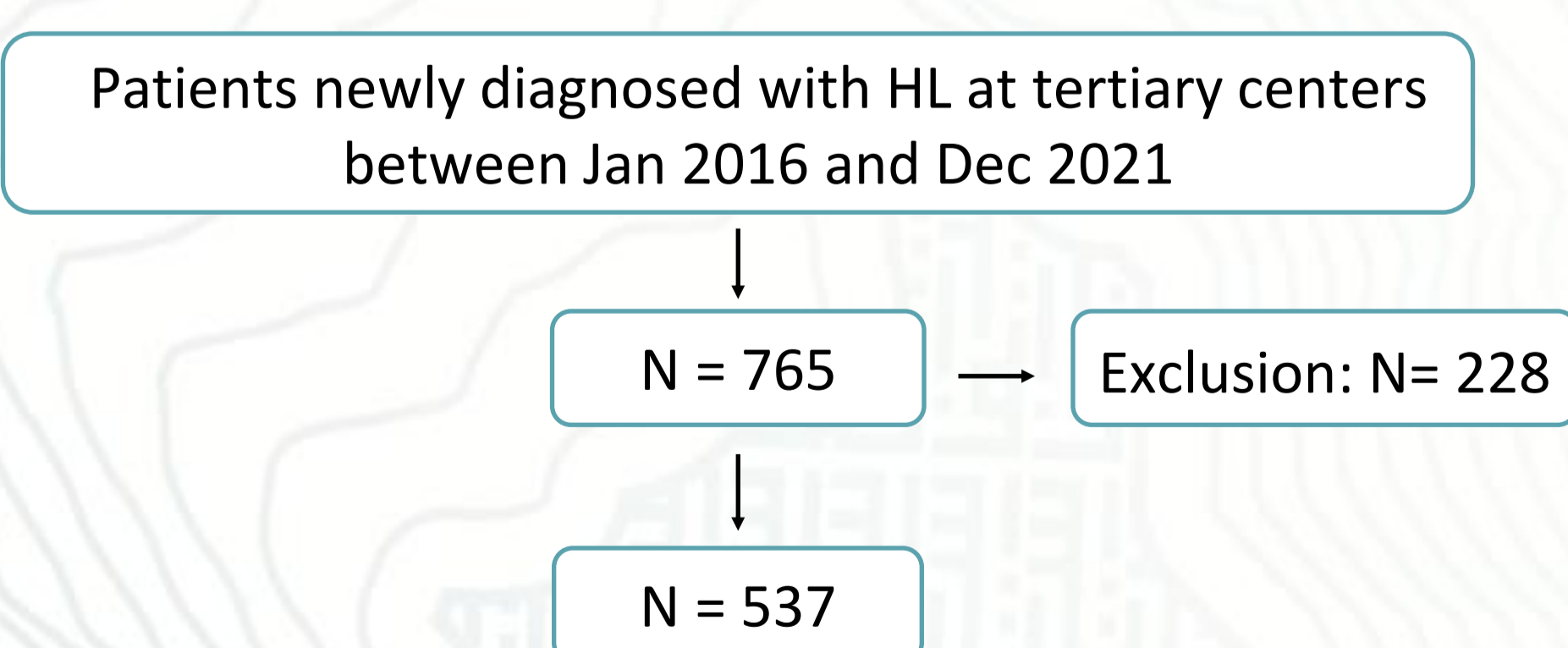


Table. 1 Baseline characteristic of newly diagnosed cHL patients

| Baseline Characteristics              | Overall (N=537) |
|---------------------------------------|-----------------|
| Age at diagnosis (Years), mean (SD)   | 34.27 (15.7)    |
| Gender – Male, n (%)                  | 289 (53.9)      |
| Comorbidities, n (%)                  |                 |
| Diabetes mellitus                     | 61 ( 11.4)      |
| Hypertension                          | 42 ( 7.8 )      |
| Type of histopathology for cHL, n (%) |                 |
| Nodular sclerosis                     | 419 (81.7)      |
| Mixed cellularity                     | 79 (15.4)       |

Con't Table. 1 Baseline characteristic of newly diagnosed cHL patients

| Baseline Characteristics                             | Overall (N=537) |
|--|-----------------|
| Bulky mediastinal disease or >10cm adenopathy, n (%) | 155 ( 30.6 )    |
| Nodular sites > 3, n (%)                             | 245 (48.7 )     |
| Erythrocyte sedimentation rate >50 mm/hr, n (%)      | 282 ( 56.1 )    |
| Phenotypes, n (%)                                    |                 |
| CD30   | 486 ( 90.5 )    |
| CD15   | 391 ( 72.8)     |
| PAX-5  | 323 ( 60.1)     |
| MUM-1  | 166 ( 30.9 )    |

\*Other phenotypes including: CD1, CD5, CD4, CD8, CD38, CD68, CD7, CD21, P53, BCL9, BCL12, FACIN, ALK1, EBER

Figure. 2 Initial Stage At The Time Of Diagnosis

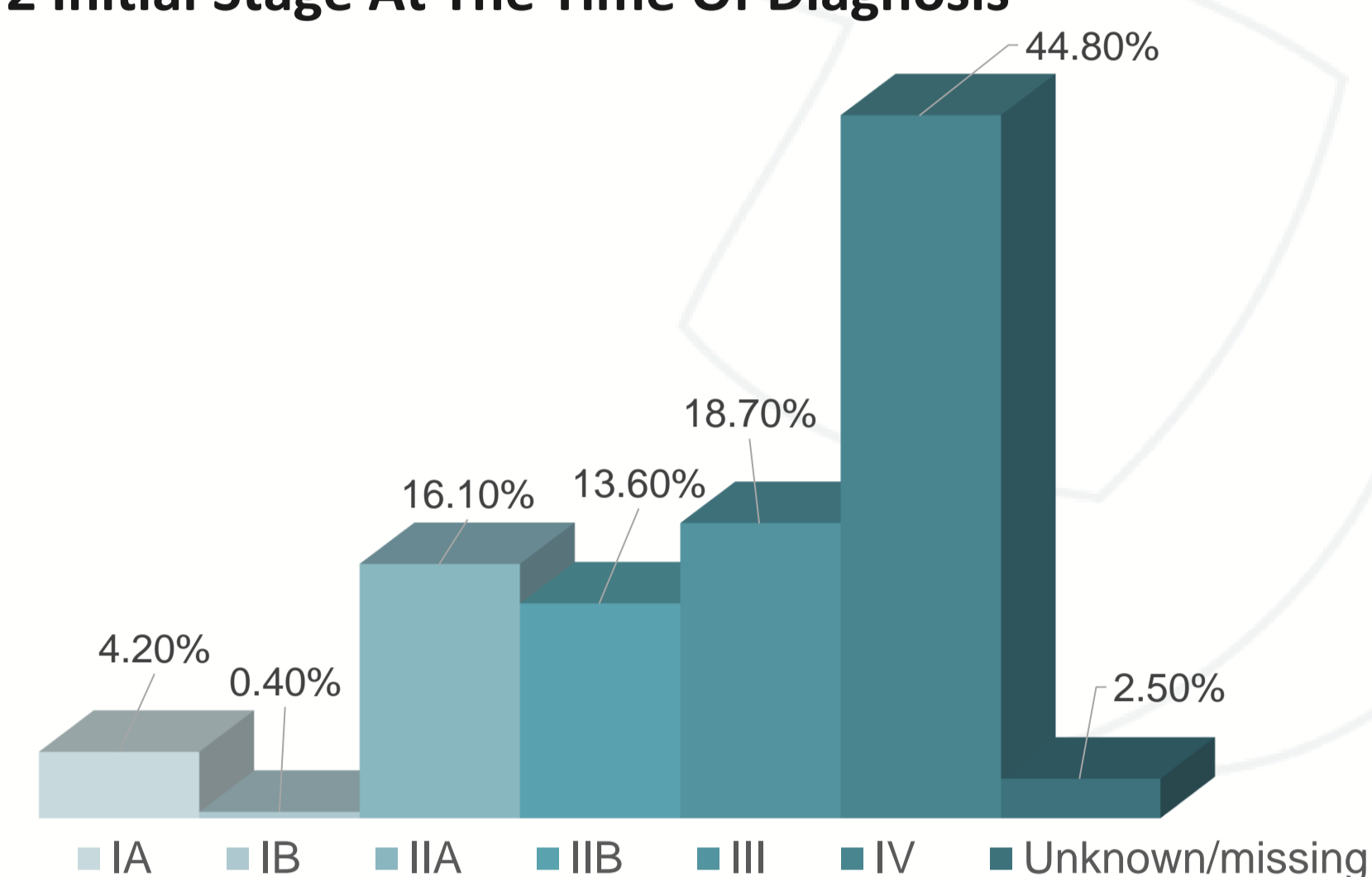


Table. 2 Initial chemotherapy regimens and response assessment in newly diagnosed cHL patients

| Regimens and assessment          | Overall (N=537) |
|----------------------------------|-----------------|
| Initial chemotherapy used, n (%) |                 |
| ABVD                             | 456 ( 84.9 )    |
| AAVD                             | 32 ( 5.96 )     |
| Radiotherapy, n (%)              | 75 (14.0)       |

ABVD = doxorubicin, bleomycin, vinblastine, and dacarbazine, AAVD = brentuximab vedotin, doxorubicin, vinblastine, and dacarbazine

Table. 3 Clinical outcomes of newly diagnosed cHL patients

| Outcomes  | Overall (N=537) |
|---|-----------------|
| Overall response rate (CR/PR), n (%)            | 417 (90.1)      |
| Complete response post chemotherapy (CR), n (%) | 387 (83.6)      |
| Overall survival rate, n (%)                    | 501 (94.9)      |
| Disease relapse/refractory, n (%)               | 95 (17.7)       |

Figure. 3 PFS for the entire cohort

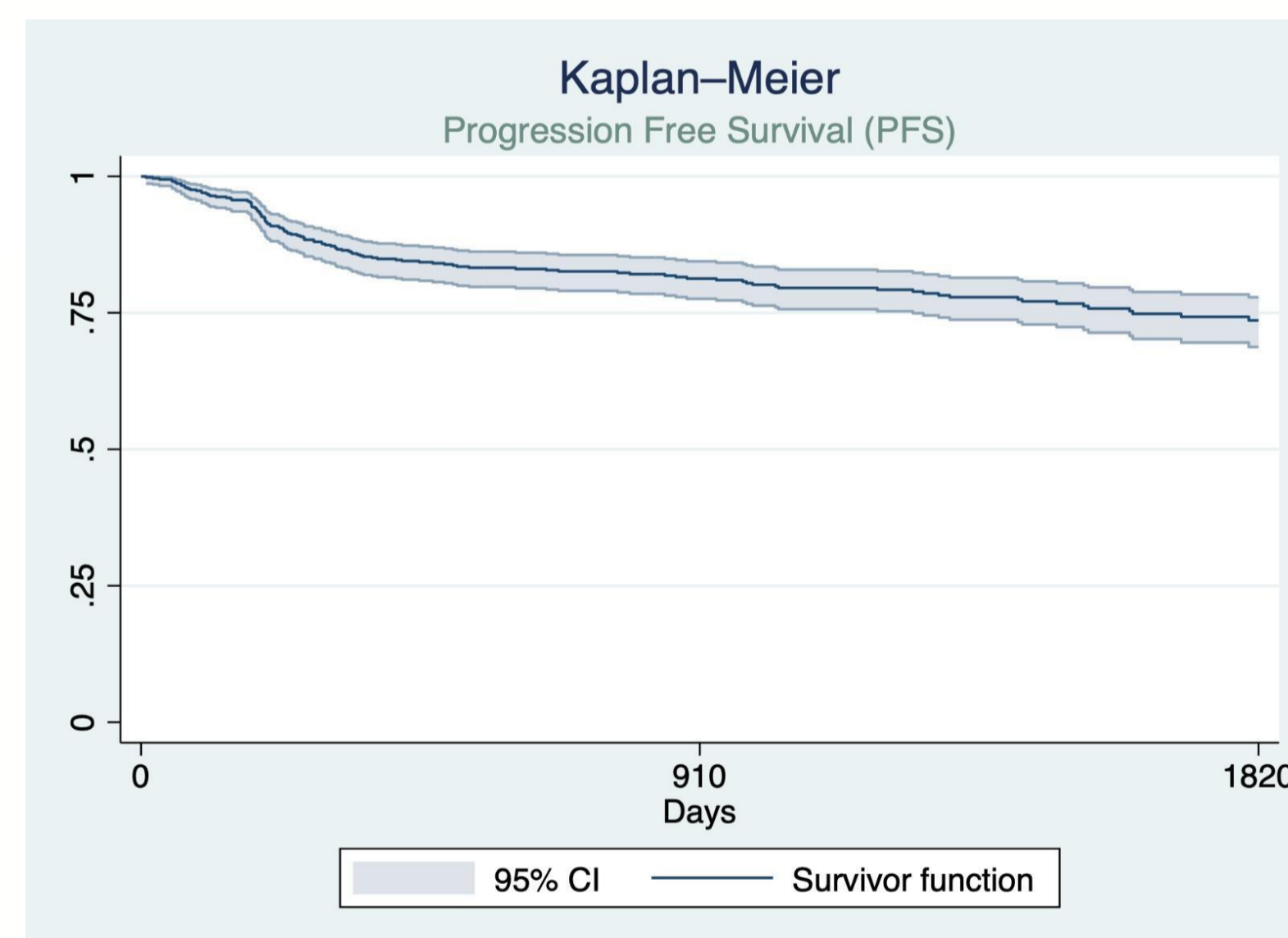


Table 4: Complications post initial chemotherapy

| Complications   | Overall (N=537) |
|---|-----------------|
| Bleomycin induced pulmonary toxicity, n (%)                       | 51 (9.5)        |
| Liver injury, n (%)   | 23 (4.3)        |
| Hospital admission within 6 months of initial chemotherapy, n (%) | 126 (23.5)      |

## Conclusion

- This study provides insights into the clinical features and outcomes of Saudi HL patients. The predominance of the nodular sclerosis subtype and high response rates to ABVD chemotherapy align with global trends, emphasizing the effectiveness of standard treatments for HL in Saudi Arabia.
- Follow-up of long-term survival remains critical due to the unique demographics of the Saudi population and adaptation of new advances in HL treatments.

## References

