Treatment patterns among patients with relapsed/refractory (R/R) diffuse large B-cell lymphoma (DLBCL) who are ineligible for transplantation – a real-world study using French PMSI

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INTRODUCTION

- Diffuse Large B-Cell Lymphoma (DLBCL) is the most frequent non-Hodgkin lymphoma, with more than 5,000 new cases diagnosed each year in France. Rituximab associated immunochemotherapies are the most frequent 1st line treatment (1).
- High-dose chemotherapy associated with autologous stem cell transplantation (ASCT) is the standard of care for 2nd line refractory/relapsed management (R/R-DLBCL). However, due to ASCT eligibility criteria, most R/R patients are ASCT-ineligible, with few therapeutic alternatives (2-3).
- French real-world data on R/R-DLBCL are limited, notably regarding its epidemiology and clinical burden.

➢ **This study aimed to describe R/R-DLBCL management in ASCT-ineligible patients, notably the number of hospital stays, the length of stay and the in-hospital mortality rate.**

METHODS

Descriptive, retrospective, longitudinal study using secondary data from French hospital Database (PMSI).

- PMSI database exhaustively includes French hospital-related claims irrespective to healthcare insurance system or hospital settings (public/private). Data from medicine, surgery and obstetric; (MCO); home care (HAD) ; post-acute care and rehabilitation (SSR) have been used to carry out this study
- DLBCL cohort: patients with ≥1 DLBCL-related stay between 2017 and 2020 (ICD-10 code C83.3). Among them, incident R/R-DLBCL were identified, using validated French national cancer institute (INCa) algorithm and treatment sequences (4).
- Patients with R/R-DLBCL were followed for ≥24 months or until inpatient death.
- Three groups were targeted:
  – (G1) ASCT-ineligible due to age (≥70y) and/or comorbidities,
  – (G2) post-ASCT relapse,
  – (G3) other ASCT-ineligible.

RESULTS

Among the 18,513 newly diagnosed DLBCL patients with sufficient follow-up over 2017-2020, 10,087 (54.5%) relapsed (R/R) before two years

- Most of them (54.4%, n=5,488) were ASCT-ineligible due to old age or comorbidities, while 5.6% had a previous ASCT **(Figure 1).**

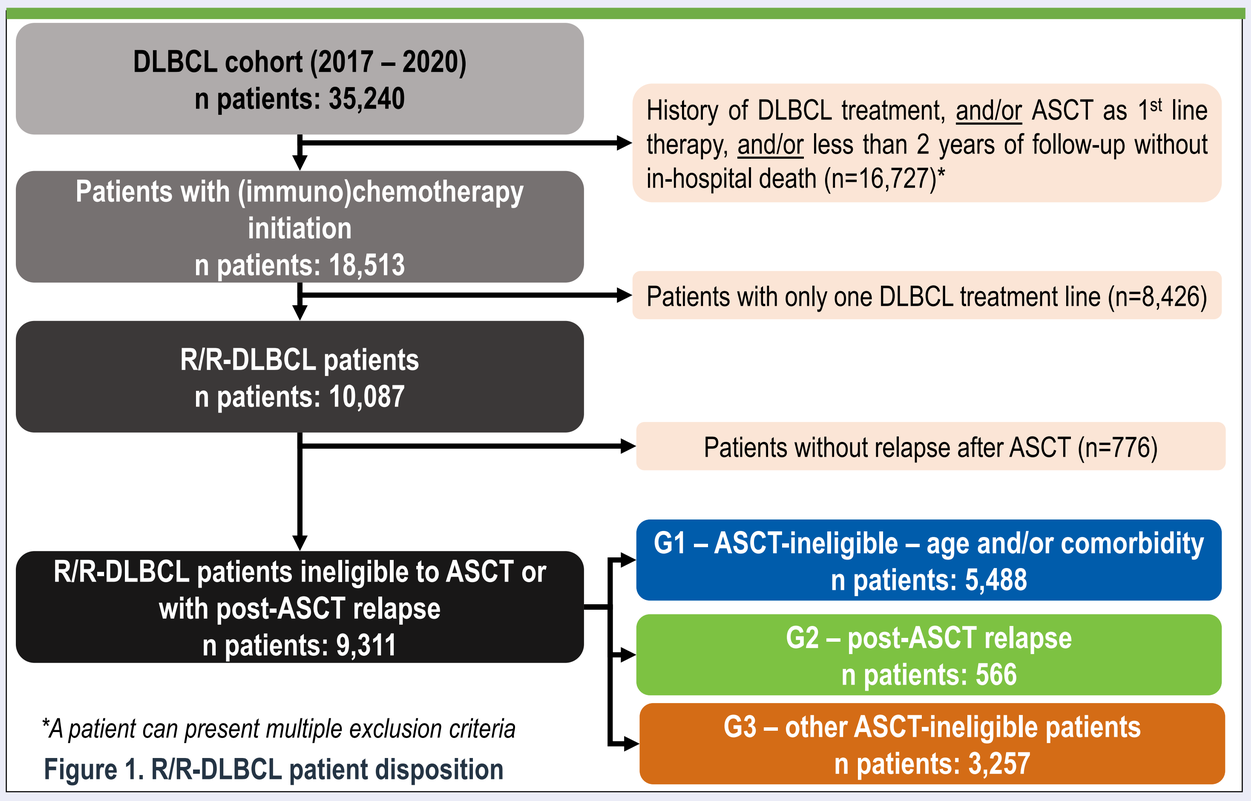


Figure 1. R/R-DLBCL patient disposition

- Recurrence/relapse occurred slightly later among patients from G1 subgroup with a median (Q1–Q3) time to R/R of 6.0 (5.0–14.0) months **(Figures 3)**.
- Length of stays were similar among G1 and G3 subgroups (99.0 (56.0 - 167.0) and 76.0 (37.0 - 140.0) in median, respectively). ***Patients from G2 subgroup had slightly more frequent (39.0 (28.0–57.0)) and longer (160.0 (110.0–238.5) days) hospital stays in median, due to ASCT management*** **(Figures 4 and 5).**

Figure 3: Time distribution between DLBCL diagnosis and R/R status (months)

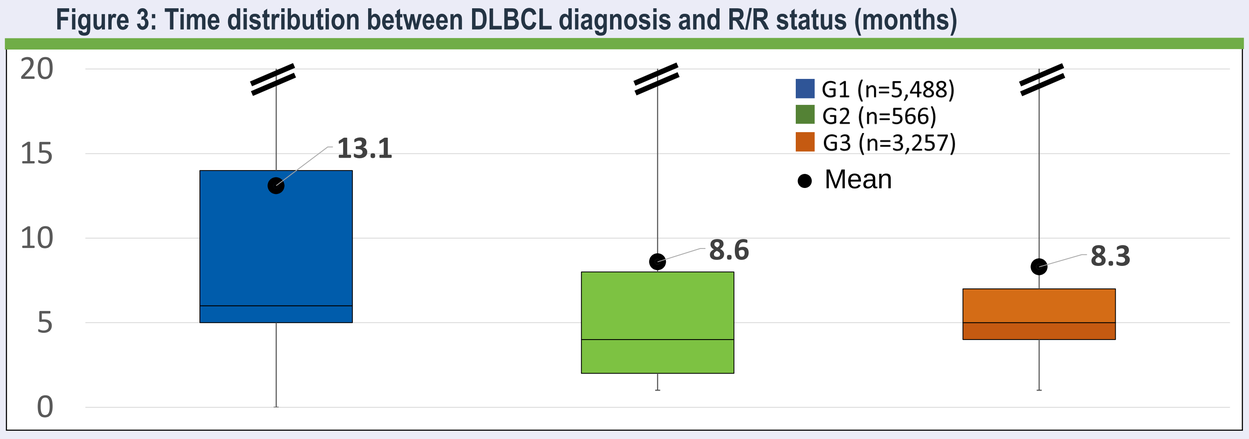


Figure 4: Number of stays, overall stays (dark) and chemotherapy stays (light) over follow-up

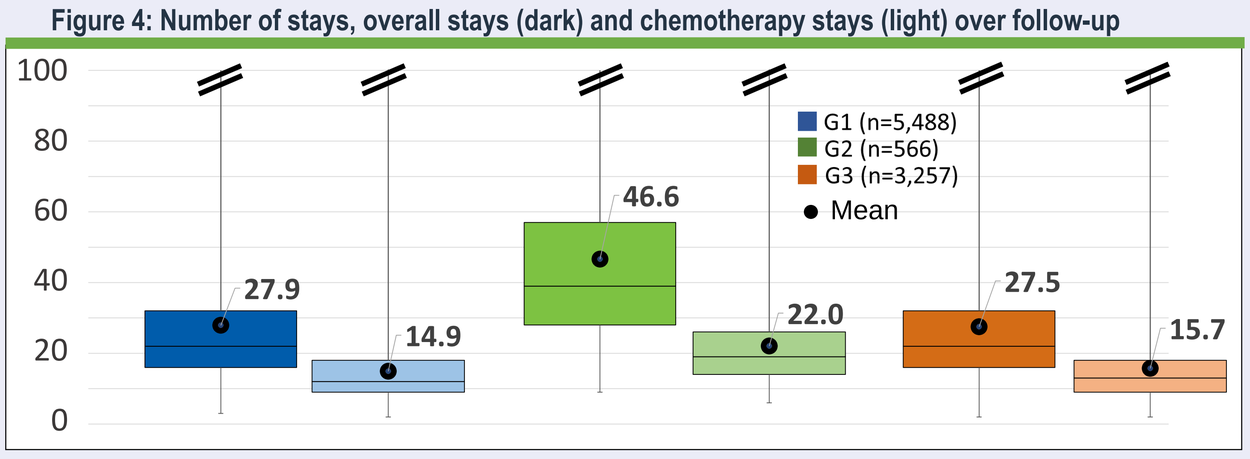
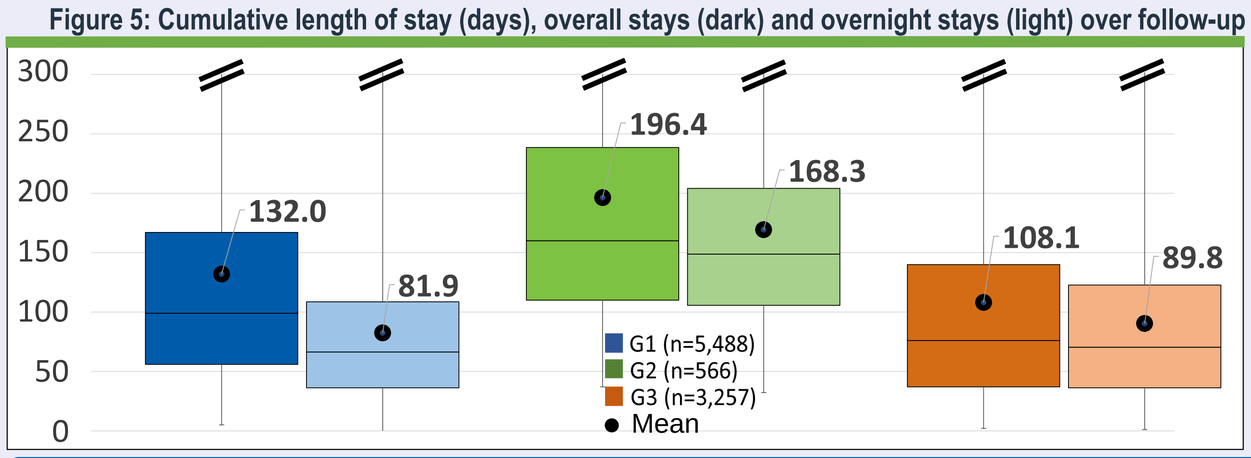


Figure 5: Cumulative length of stay (days), overall stays (dark) and overnight stays (light) over follow-up



Median (Q1–Q3) age at R/R status in G1 was 76.0 (71.0–81.0), higher than other subgroups which had similar median ages around 59 years.

- Sex ratio was around 1.4, with 40% of women **(Table 1)**
- In G1 subgroup, heart, liver and kidney failures were encountered among around 13% of patients, while being close to 0% in other subgroups **(Figure 2 – Table 1).**

Figure 2: Age distribution at R/R-DLBCL status (years)

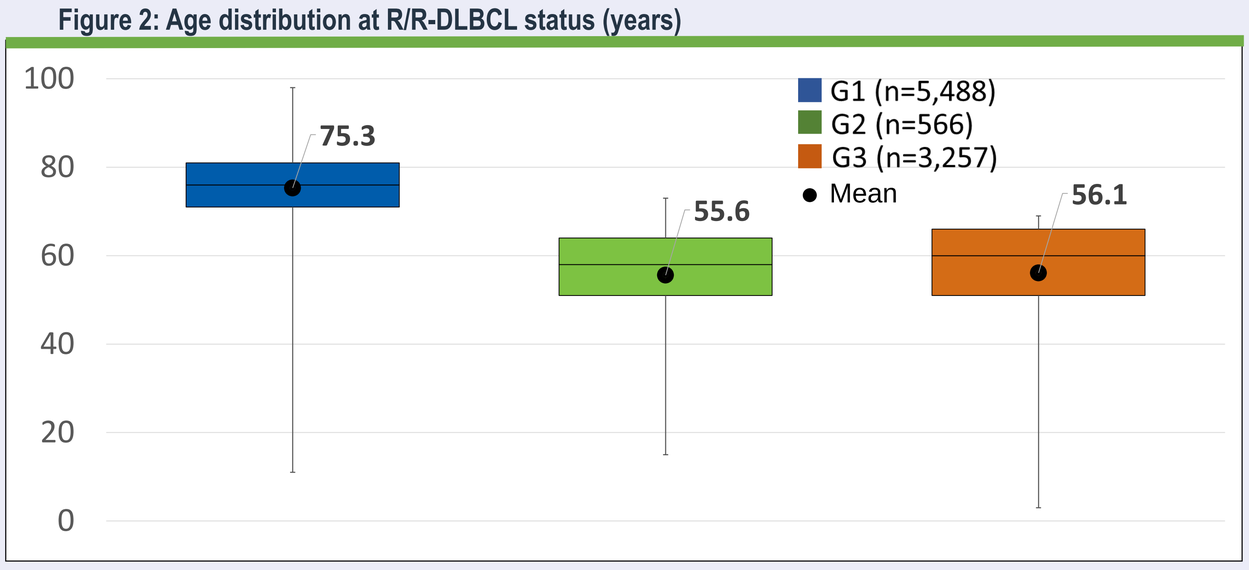


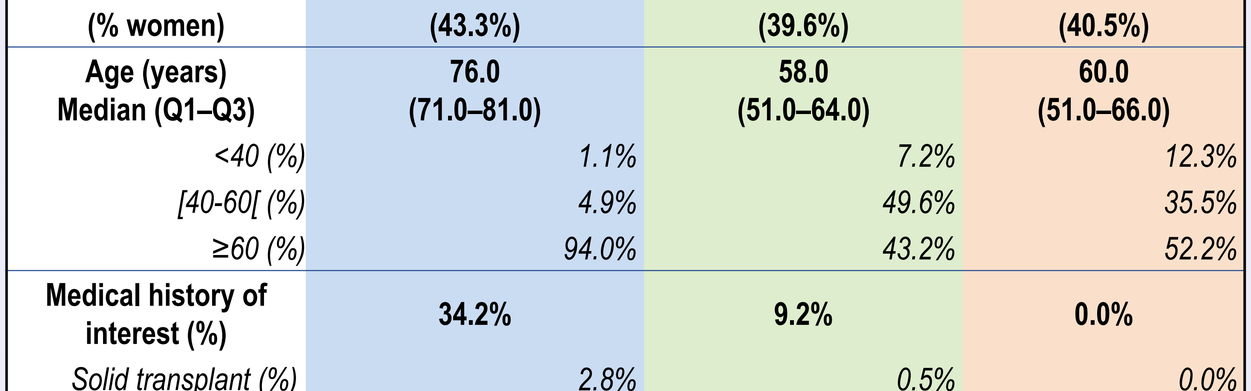
Table 1: Main characteristics of R/R-DLBCL patients

	G1 (n=5,488)	G2 (n=566)	G3 (n=3,257)
Follow-up (months) Median (Q1–Q3)	**31.0 (17.0–48.0)**	**48.0 (31.0–74.0)**	**60.0 (51.0–66.0)**
Sex-ratio (% women)	**1.3 (43.3%)**	**1.5 (39.6%)**	**1.5 (40.5%)**
Age (years) Median (Q1–Q3)	**76.0 (71.0–81.0)**	**58.0 (51.0–64.0)**	**60.0 (51.0–66.0)**
<40 (%)	*1.1%*	*7.2%*	*12.3%*
[40-60[(%)	*4.9%*	*49.6%*	*35.5%*
≥60 (%)	*94.0%*	*43.2%*	*52.2%*
Medical history of interest (%)	**34.2%**	**9.2%**	**0.0%**
Solid transplant (%)	*2.8%*	*0.5%*	*0.0%*
Heart failure (%)	*14.9%*	*2.3%*	*0.0%*
Hepatic failure (%)	*12.5%*	*5.3%*	*0.0%*
Renal failure (%)	*12.7%*	*1.8%*	*0.0%*

Patients from G2 subgroup seemed more likely to require ICU than patients from other subgroups, due to ASCT itself **(Figure 6).**

- Similarly, almost 50% of G2 patients had to be transferred to other hospitals, probably for transplantation.
- Patients from G1 subgroup were more likely to die in hospital than other subgroups **(Figure 6).**

Figure 6: Proportion of patients with ≥1 events of interest over follow-up



CONCLUSION

- This study highlights the extensive hospital management of ASCT-ineligible patients with R/R-DLBCL before 2021.
- R/R-DLBCL patients spend an important time (>100 days) in hospital, notably older and frailer ones, for whom limited therapeutically alternatives exist.
- These hospital patterns reflect the clinical practice before 2021 and could have evolved, notably with the ongoing generalization of CAR-T cell therapy for eligible patients as second line treatment.

Disclosure

Di Blasi: Speaker – Gilead, Novartis, Janssen, Pfizer - Travel and accommodation: Gilead **Thieblemont:** Speaker – Novartis, BMS/Celgene, Bayer, AbbVie, Gilead Sciences, Roche, Janssen, Kite, Incyte, Amgen, Takeda – Travel and accommodation: Novartis, BMS/Celgene, Bayer, AbbVie, Gilead Sciences, Roche, Janssen, Kite, Amgen, Takeda – Research grant: Janssen, Roche – Consultancy/honoraria: Novartis, BMS/Celgene, Bayer, AbbVie, Gilead Sciences, Roche, Janssen, Kite, Incyte, Amgen, Takeda **Haioun:** Honoraria – Miltenyi, Roche, Celgene, Incyte, Pfizer, Gilead, Janssen – Travel and accommodation: Roche, Janssen **Mayaud:** Employee and stock ownership – Incyte Corporation **Sackmann Sala:** Employee and stock ownership – Incyte Corporation**, Diez-Andreu:** Employee – stève consultants (commissioned by Incyte Corporation to conduct these analyses), **Bugnard:** Employee – stève consultants (commissioned by Incyte Corporation to conduct these analyses)**, Goguillot –** Employee – stève consultants (commissioned by Incyte Corporation to conduct these analyses **Chillotti:** Employee – stève consultants (commissioned by Incyte Corporation to conduct these analyses)**,**), **Finzi:** Employee and stock ownership – Incyte Corporation**, Bénard:** Employee and stock ownership – stève consultants (commissioned by Incyte Corporation to conduct these analyses)**.**

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