

Organizado por:



Clínica  
Universidad  
de Navarra

PUESTA AL DÍA  
**HEMATOLOGÍA**  
**EN 48H** [LO QUE DEBES  
CONOCER PARA TU  
PRÁCTICA CLÍNICA]  
**X EDICIÓN**

ACTUALÍZATE



48 HORAS

# Aproximación Práctica al Tratamiento del Linfoma de Hodgkin

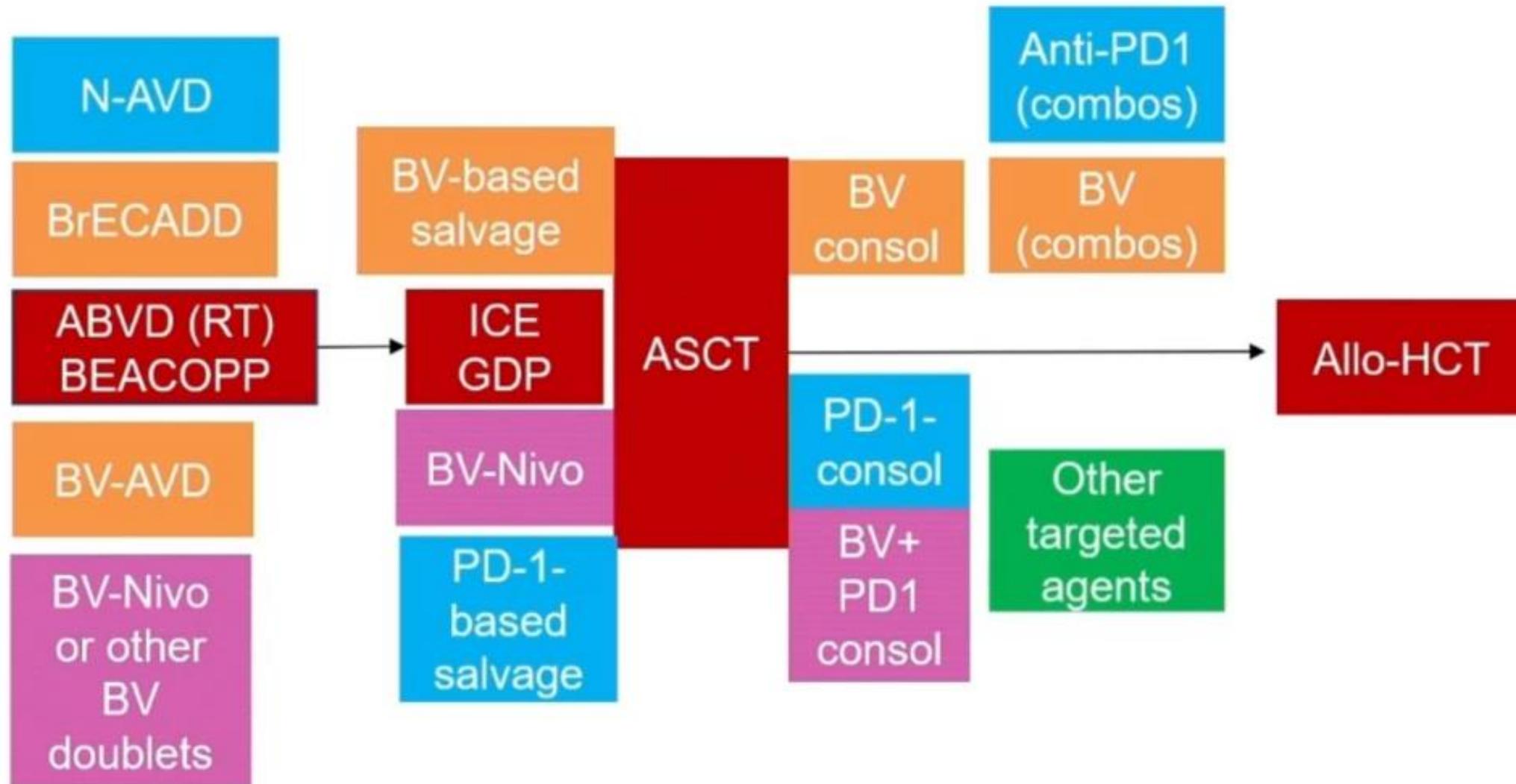
**Anna Sureda MD PhD**

*Hematología Clínica,  
Institut Català d'Oncologia – L'Hospitalet, Barcelona*

# Disclosures

- Honoraria: Takeda, BMS/Celgene, MSD, Janssen, Amgen, Novartis, Gilead Kite, Sanofi, Roche, GenMab, Abbvie, Jazz Pharmaceuticals
- Consultancy: Takeda, BMS/Celgene, Novartis, Janssen, Gilead, Sanofi, GenMab, Abbvie
- Speaker's Bureau: Takeda
- Research Support: Takeda
- Non-profit organizations: Presidency of the EBMT

# Hodgkin Lymphoma Management 2024



# Agenda

- 1st Line Treatment Strategies
  - Early Stages
  - Advanced Stages
  - Elderly patients
- Relapsed / Refractory Setting
  - Improving salvage treatment strategies
  - Auto-HCT for all relapsed/refractory patients?
  - Allo-HCT
  - New approaches

# Agenda

- 1st Line Treatment Strategies
  - Early Stages
  - Advanced Stages
  - Elderly patients
- Relapsed / Refractory Setting
  - Improving salvage treatment strategies
  - Auto-HCT for all relapsed/refractory patients?
  - Allo-HCT
  - New approaches

# Staging at Diagnosis

	EORTC / LySA	GHSB	NCIC / ECOG	NCCN 2022
<b>Factores de riesgo*</b>	<ul style="list-style-type: none"> <li>- Masa mediastínica &gt;1/3 del diámetro torácico</li> <li>- Edad ≥50 años</li> <li>- Velocidad de sedimentación globular (VSG) ≥50 sin síntomas B o ≥30 con síntomas B</li> </ul>	<ul style="list-style-type: none"> <li>a) Masa mediastínica &gt;1/3 del diámetro torácico</li> <li>b) Enfermedad extraganglionar</li> <li>c) VSG ≥50 sin síntomas B o ≥30 con síntomas B</li> <li>d) ≥3 áreas ganglionares</li> </ul>	<ul style="list-style-type: none"> <li>- Histología diferente a PL / EN</li> <li>- Edad ≥40 años</li> <li>- VSG ≥50</li> <li>- ≥4 áreas ganglionares</li> </ul>	<ul style="list-style-type: none"> <li>- Masa mediastínica &gt;1/3 o &gt;10 cm</li> <li>- VSG ≥50 o cualquier síntoma B</li> <li>- ≥3 áreas nodales</li> </ul>
<b>Favorable</b>	Estadios I-II supradiaphragmáticos sin factores de riesgo	Estadios I-II sin factores de riesgo	Estadios I-II sin factores de riesgo	Estadios I-II sin factores de riesgo
<b>Desfavorable</b>	Estadios I-II supradiaphragmáticos con ≥1 factor de riesgo	Estadios I o IIA con ≥1 factor de riesgo  Estadio IIB con c) o d) pero sin a) y b)	Estadios I-II con ≥1 factor de riesgo	Estadios I-II con ≥1 factor de riesgo (diferenciando entre enfermedad voluminosa y otros factores de riesgo)

	EORTC / LySA	GHSB	NCIC / ECOG	NCCN 2022
<b>Estadios avanzados</b>	- Estadios clínicos III-IV	<ul style="list-style-type: none"> <li>- Estadios clínicos IIB con masa mediastínica voluminosa o con enfermedad extranodal</li> <li>- Estadios clínicos III-IV</li> </ul>	<ul style="list-style-type: none"> <li>- Estadios clínicos I-II con enfermedad voluminosa</li> <li>- Estadios clínicos III-IV</li> </ul>	<ul style="list-style-type: none"> <li>- Estadios IIB, III y IV</li> <li>- Estadio IIA con enfermedad voluminosa</li> </ul>

# 1<sup>st</sup> Line Treatment Strategies. Early Stages

## Without Adverse Prognostic Factors

En los estadios localizados con pronóstico favorable se recomienda el tratamiento con 2 ciclos de ABVD seguidos de 20 Gy de IF-RT. **Grado de recomendación A**

En el caso de optar por una estrategia de tratamiento guiada por PET tras 2 ciclos de ABVD:

- Si PETi negativa (puntuación de Deauville 1-2), los pacientes pueden ser tratados con un total de 3-4 ciclos de ABVD sin RT (asumiendo una pérdida de eficacia relativamente pequeña).
- Si PETi es positiva (Deauville 3-5) las opciones recomendadas incluyen un total de 4 ciclos de ABVD + 30Gy IF-RT (estudio RAPID) o completar tratamiento con BEACOPP<sub>e</sub> x 2 + IF-RT 30 Gy (estudios EORTC / LySA / FIL H10 y CALGB 50604). **Grado de recomendación A**

Si la PETi es positiva con Deauville 5, la recomendación de los elaboradores de esta guía es realizar biopsia si es posible: en caso de no evidenciar enfermedad, proceder como en Deauville 3-4; si mostrase persistencia del LH, considerar tratamiento de rescate como enfermedad refractaria. **Buena práctica clínica**

## With Adverse Prognostic Factors

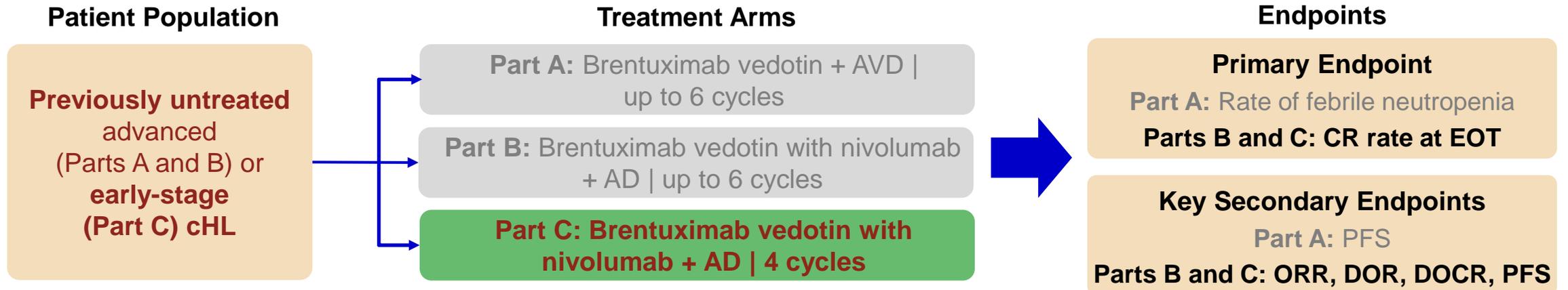
En los estadios localizados con pronóstico desfavorable se recomienda el tratamiento combinado de ABVD durante 4 ciclos seguido de IF-RT (30 Gy). **Grado de recomendación A**

En el caso de optar por una estrategia de tratamiento guiada por PET:

- (a) Atendiendo a los resultados del estudio EORTC / LySA / FIL H10U se recomienda 2 ciclos de ABVD seguido de PET:
- Si PET negativa, completar tratamiento con 2 ciclos de ABVD más 30Gy IF-RT ó completar con 4 ciclos de ABVD (sin RT)
  - Si PET positiva, completar tratamiento con 2 ciclos de BEACOPP<sub>e</sub> más 30Gy IF-RT
- (b) Atendiendo a los resultados del estudio de Jonhson y cols. los pacientes con PET negativa tras 2 ciclos de ABVD pueden completar tratamiento con 4 ciclos de AVD sin RT. **Grado de recomendación A**

Si la PETi es positiva con Deauville 5, la recomendación es realizar biopsia si es posible: en caso de no evidenciar enfermedad, proceder como en Deauville 3-4; si mostrase persistencia del LH, considerar tratamiento de rescate como enfermedad refractaria. **Buena práctica clínica**

# Introducing New Drugs in Early Stages. Study Design



- SGN35-027 is an open-label, multiple-part, multicenter, phase 2 trial
- Part C enrolled patients with Ann Arbor stage I/II cHL without bulky disease (<10 cm in diameter on CT)
- Patients received 4 cycles of AN+AD (BV 1.2 mg/kg [A] capped at 100 kg body weight, nivolumab 240 mg [N], doxorubicin 25 mg/m<sup>2</sup> [A], and dacarbazine 375 mg/m<sup>2</sup> [D]) intravenously on days 1 and 15 of each 28-day cycle
- The CR rate at EOT was measured by investigator assessment per Lugano 2014 classification<sup>1</sup> with incorporation of LYRIC<sup>2</sup>
- Additional analyses included efficacy assessments for favorable and unfavorable subgroups, defined by German Hodgkin Study Group criteria

Data cutoff: October 4, 2024

CR, complete response; CT, computed tomography; DOCR, duration of CR; DOR, duration of response; EOT, end of treatment, ORR, objective response rate; PFS, progression-free survival.

1. Cheson BD, et al. J Clin Oncol. 2014;32:3059-68. 2. Cheson BD, et al. Blood. 2016;128:2489-96.

# Patient Disposition, Demographics, and Disease Characteristics

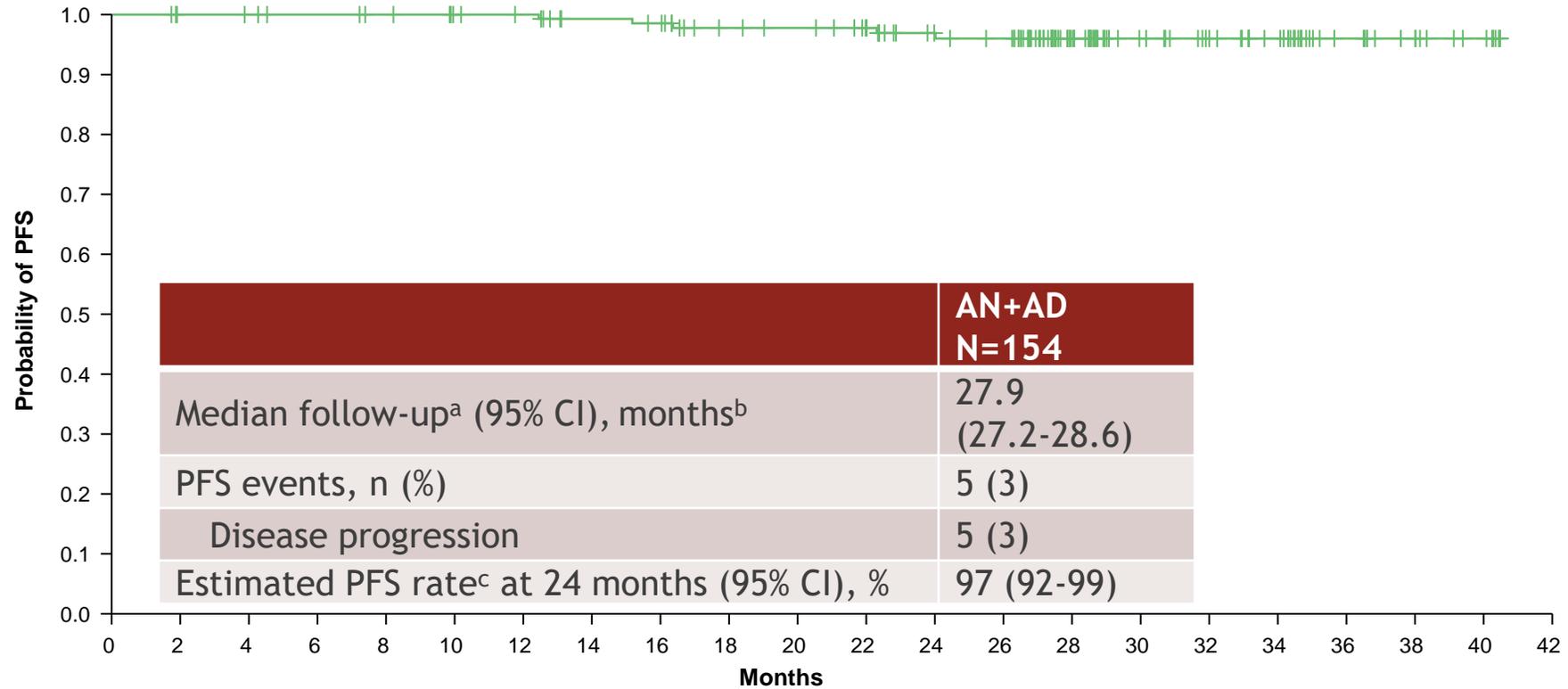
Summary of disposition, n (%)	AN+AD N=156
Patients who received $\geq 1$ dose of AN+AD	154 (99)
Patients on treatment	0
Patients off treatment	154 (99)
Patients in long-term follow-up	0
<b>Reasons for treatment discontinuation<sup>a</sup></b>	
Completed treatment	147 (94)
Adverse event	4 (3)
Patient decision, non-adverse event	2 (1)
Investigator decision	1 (1)
<b>Patients off study</b>	<b>156 (100)</b>

Patient demographics and disease characteristics	AN+AD N=154
Age, median (range), years	31 (18-77)
Female, n (%)	84 (55)
White, n (%)	129 (84)
<b>Disease stage at initial diagnosis, n (%)</b>	
I (nonbulky)	17 (11)
II (nonbulky)	137 (89)
<b>Extranodal disease present, n (%)</b>	<b>17 (11)</b>
<b>B symptoms present at initial diagnosis, n (%)</b>	<b>35 (23)</b>
<b>Favorable/unfavorable disease per GHSG risk criteria, n (%)</b>	
Favorable	56 (36)
Unfavorable	97 (63)
Missing	1 (1)

GHSG, German Hodgkin Study Group.

<sup>a</sup>Treatment discontinuation includes all study drugs.

# Progression-Free Survival: All-Treated Patients

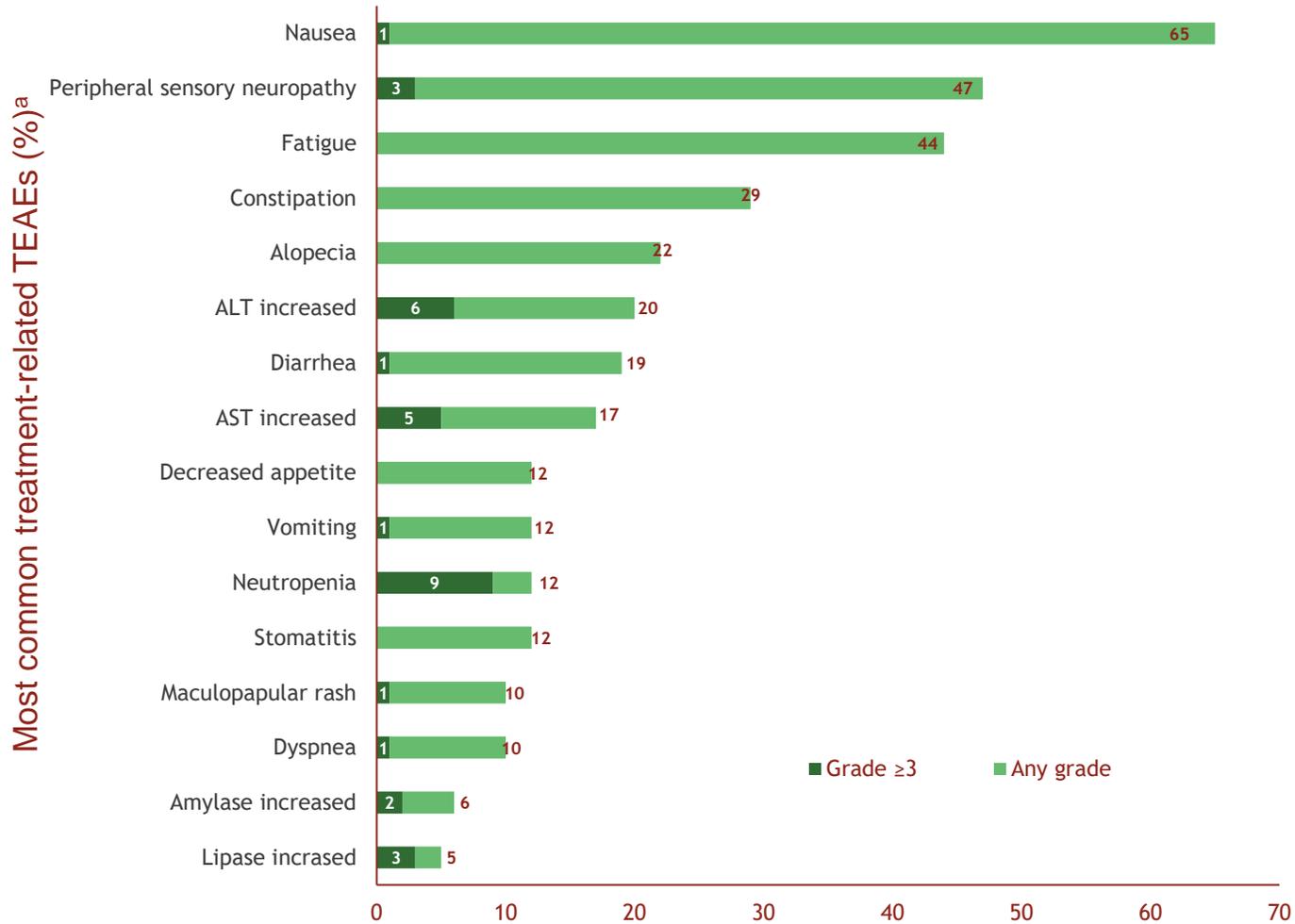


**No. of patients at risk (no. of events)**

154 (0) 151 (0) 150 (0) 148 (0) 146 (0) 142 (0) 140 (0) 134 (1) 132 (2) 123 (3) 121 (3) 116 (3) 106 (4) 103 (5) 71 (5) 50 (5) 42 (5) 34 (5) 19 (5) 13 (5) 7 (5) 0 (5)

<sup>a</sup>Median follow-up is calculated using the Kaplan-Meier method switching the PFS event/censored status, ie PFS event as censored and censored as PFS event. <sup>b</sup>Calculated using the complementary log-log transformation method. <sup>c</sup>Estimated using Kaplan-Meier methods.

# Summary of Adverse Events



ALT, alanine aminotransferase; AST, aspartate aminotransferase; TEAE, treatment-emergent adverse event.

<sup>a</sup> $\geq 10\%$  of patients with all grades or  $\geq 2\%$  of patients with grade  $\geq 3$ .

- Any-grade and grade  $\geq 3$  TEAEs occurred in 99% and 44% of patients, respectively
  - No event of febrile neutropenia was reported
- Any-grade and grade  $\geq 3$  treatment-related TEAEs occurred in 97% and 34% of patients, respectively
- Serious TEAEs occurred in 19% of patients
  - Treatment-related serious TEAEs occurred in 12% of patients, with the most common being pyrexia (3%)
- 4 of 154 patients (3%) had TEAEs leading to BV discontinuation
- There was 1 death reported after the safety reporting period

# 1<sup>st</sup> Line Treatment Strategies. Advanced Stages

En caso de optar por un plan terapéutico **NO guiado por PET interim:**

- El tratamiento recomendado en pacientes con LHC en estadios avanzados en nuestro medio es 6 ciclos de ABVD. **Grado de recomendación A**
- Puede considerarse la utilización de 6 ciclos de BEACOPP<sub>e</sub> en pacientes <60 años y con un IPS de alto riesgo. **Grado de Recomendación A**
- A-AVD 6 ciclos es una alternativa adecuada (considerando la situación actual de aprobación por la EMA para estadios IV y la no financiación en nuestro país). **Grado de recomendación A**

En caso de optar por un plan terapéutico **guiado por PET interim:**

(a) Para los pacientes que inician tratamiento con ABVD:

- Si PETi negativa (DS 1-3) tras 2 ciclos, desescalar a 4 ciclos de AVD. **Grado de recomendación A**
- Si PETi positiva (DS 4, 5) tras 2 ciclos, escalar a 3 ciclos de BEACOPP<sub>e</sub>. Si la PET después de estos 3 ciclos es negativa, recibirán 1 ciclo más del mismo esquema. Si la PET después de 3 ciclos es positiva, deberían ser tratados con esquemas de segunda línea (en caso de lesión única residual cabe plantearse RT). **Grado de recomendación B**

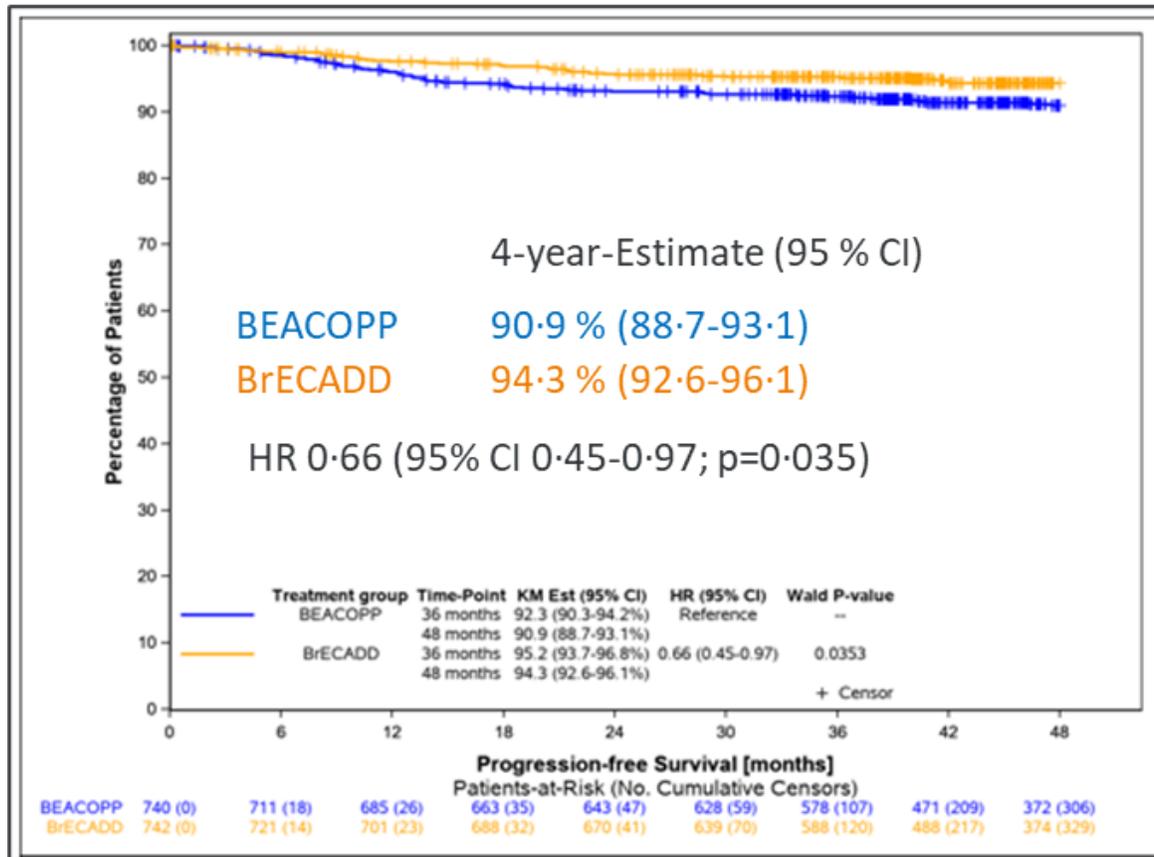
(b) Para los pacientes que inician tratamiento con BEACOPP<sub>e</sub>:

- Si PETi negativa (DS 1-3) tras 2 ciclos, administrar sólo 2 ciclos más de BEACOPP<sub>e</sub> o desescalar a 4 ciclos de ABVD. **Grado de recomendación A**
- Si PETi positiva (DS 4-5) tras 2 ciclos, administrar 4 ciclos más de BEACOPP<sub>e</sub> o pasar a estrategias de 2<sup>a</sup> línea (especialmente en casos de DS 5 y con datos radiológicos de progresión de la enfermedad). La RT puede ser una opción en caso de lesiones residuales únicas. **Grado de recomendación B**

# HD21 final analysis: BrECADD is superior to eBEACOPP (mFU 48 m)

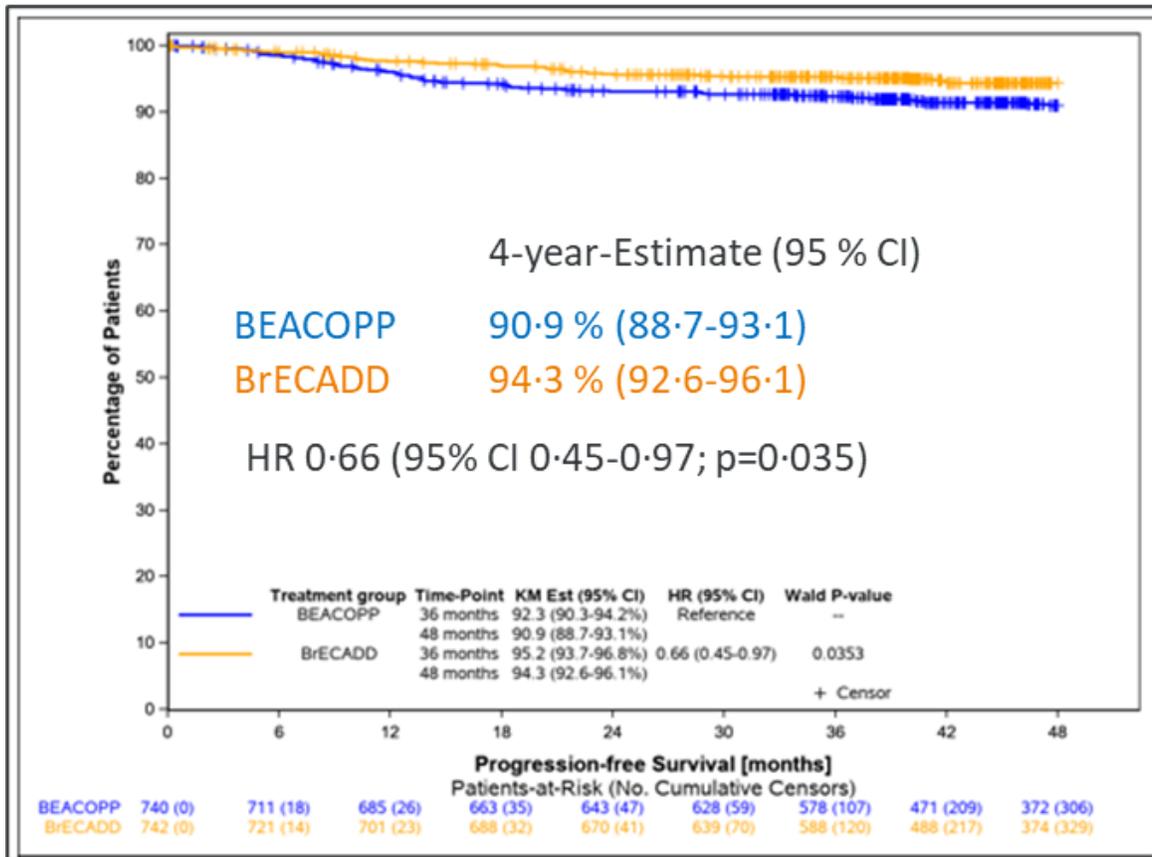
# HD21 final analysis: BrECADD is superior to eBEACOPP (mFU 48 m)

Progression-free survival

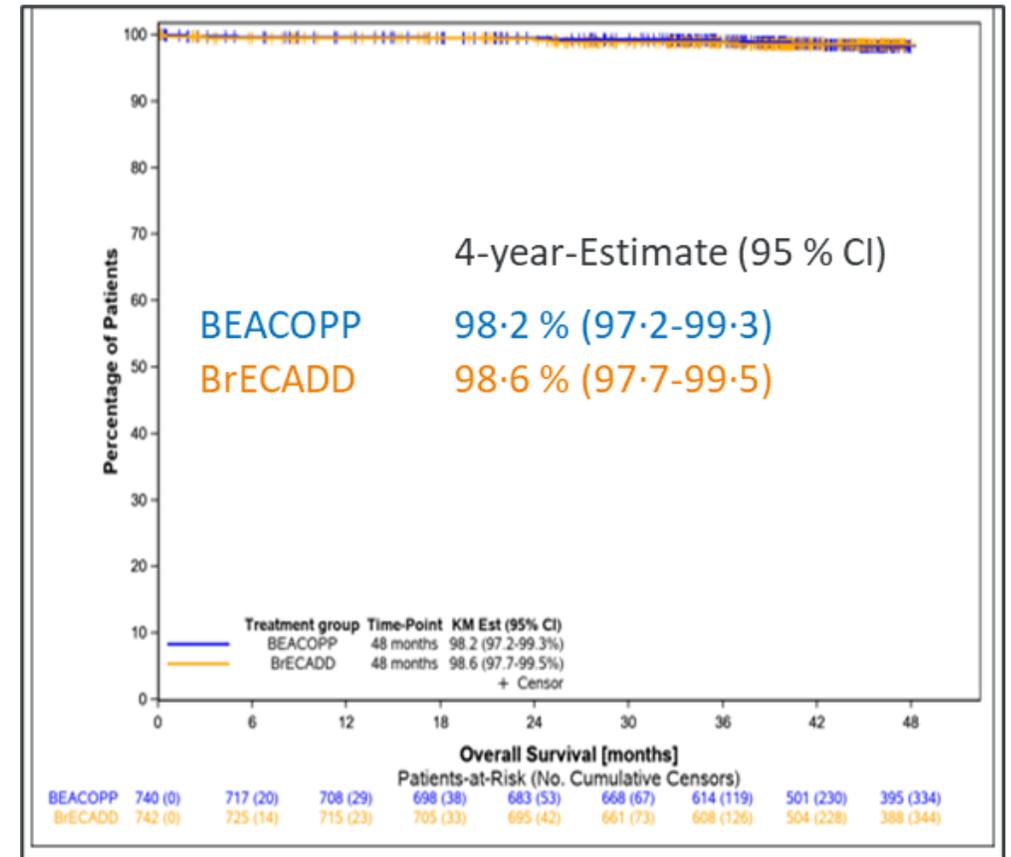


# HD21 final analysis: BrECADD is superior to eBEACOPP (mFU 48 m)

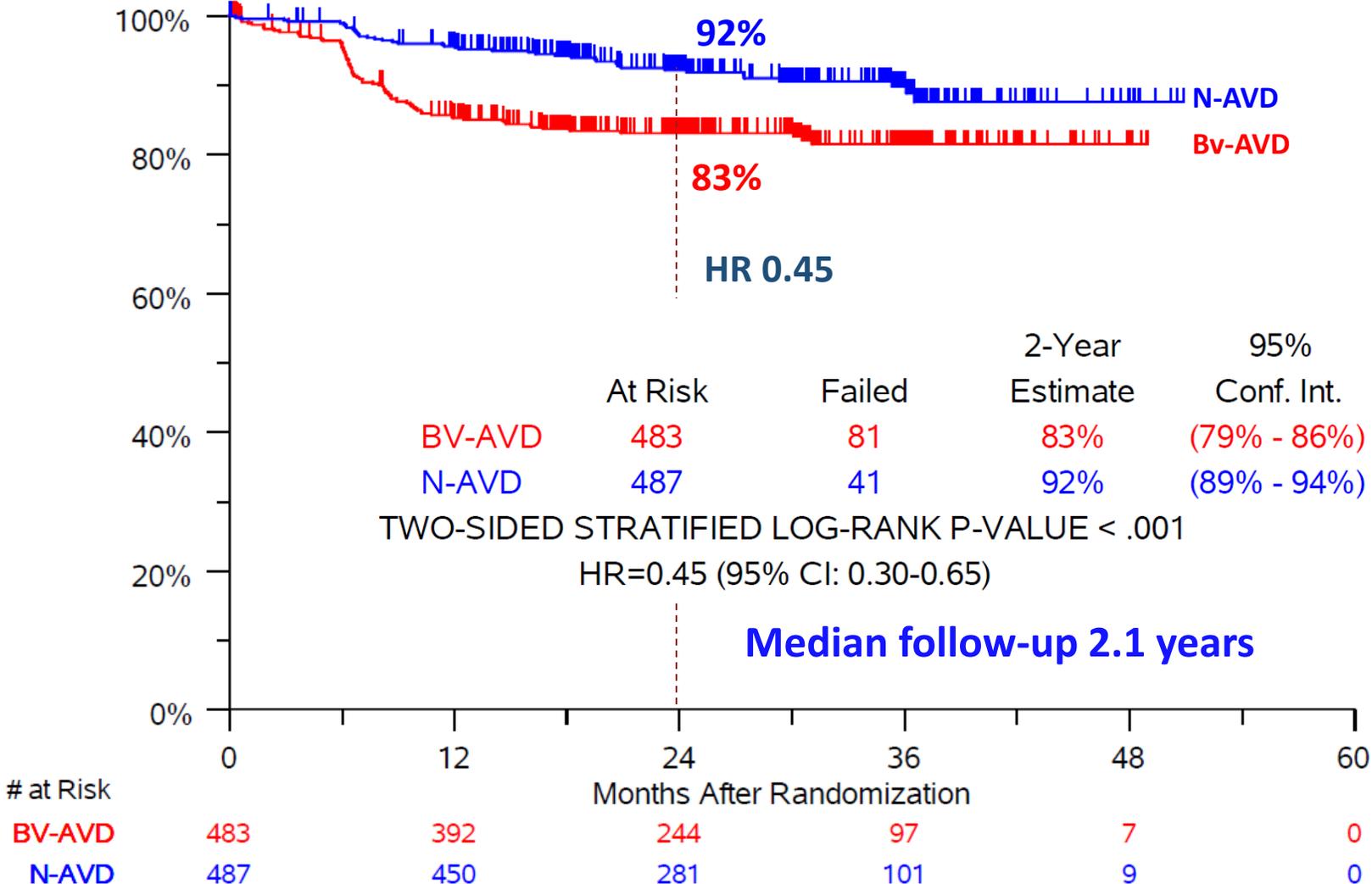
Progression-free survival



Overall survival



# PFS Benefit of N-AVD Sustained With 2y Follow-Up



**2-year PFS**  
**N-AVD 92%**  
**Bv-AVD 83%**

# 1<sup>st</sup> Line Treatment Strategies. Elderly Patients

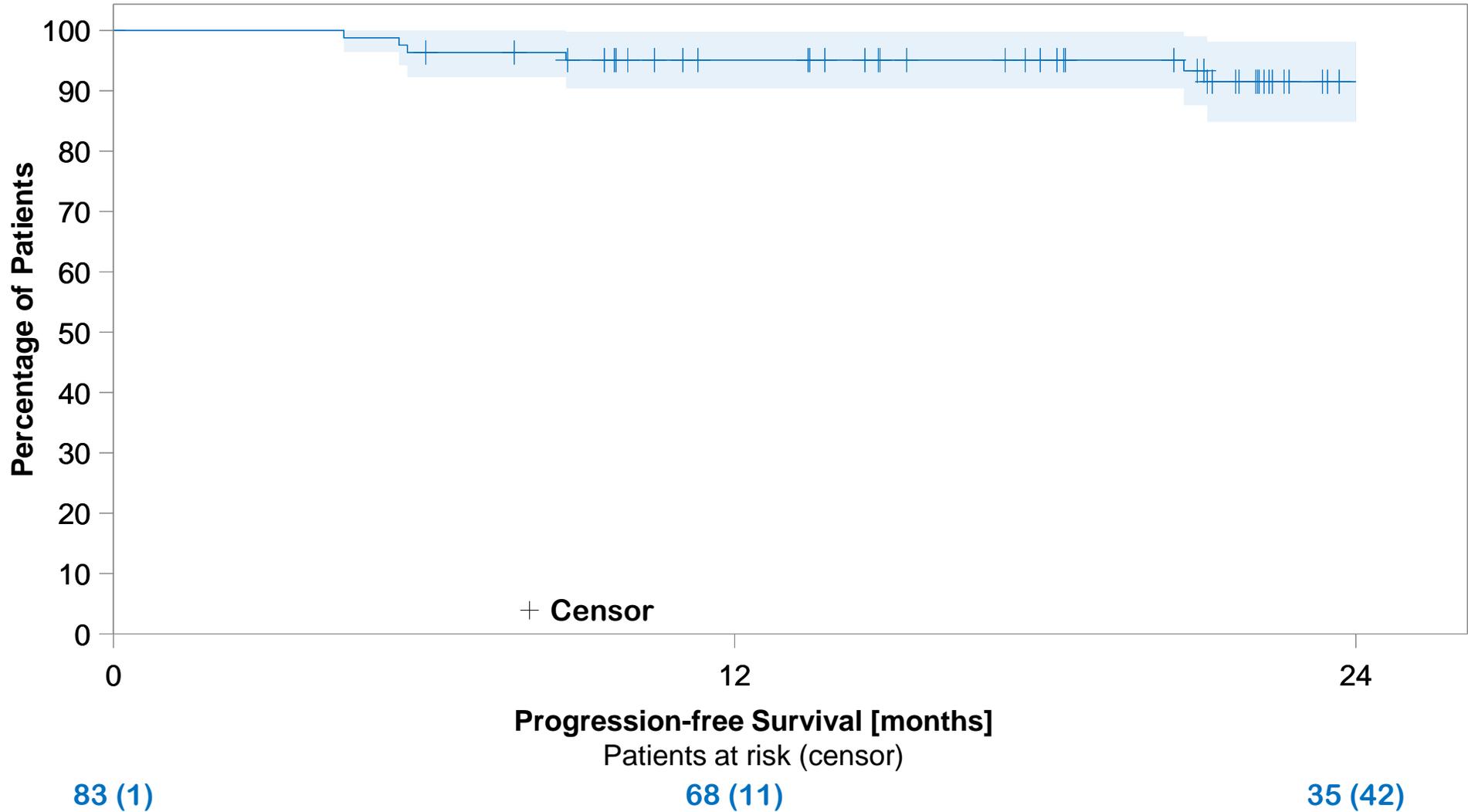
En los pacientes con LH y edad avanzada debe realizarse una adecuada evaluación de la función cardiaca y pulmonar, así como una evaluación geriátrica exhaustiva. **Grado de recomendación C**

En pacientes de 60 a 70 años sin comorbilidad significativa, la terapia recomendada es ABVD +/- RT. Sin embargo, en estadios avanzados, sobre todo en pacientes mayores de 70 años y con comorbilidad, cabe plantearse otros esquemas terapéuticos, siempre que sea posible dentro de estudios controlados. **Grado de recomendación D**

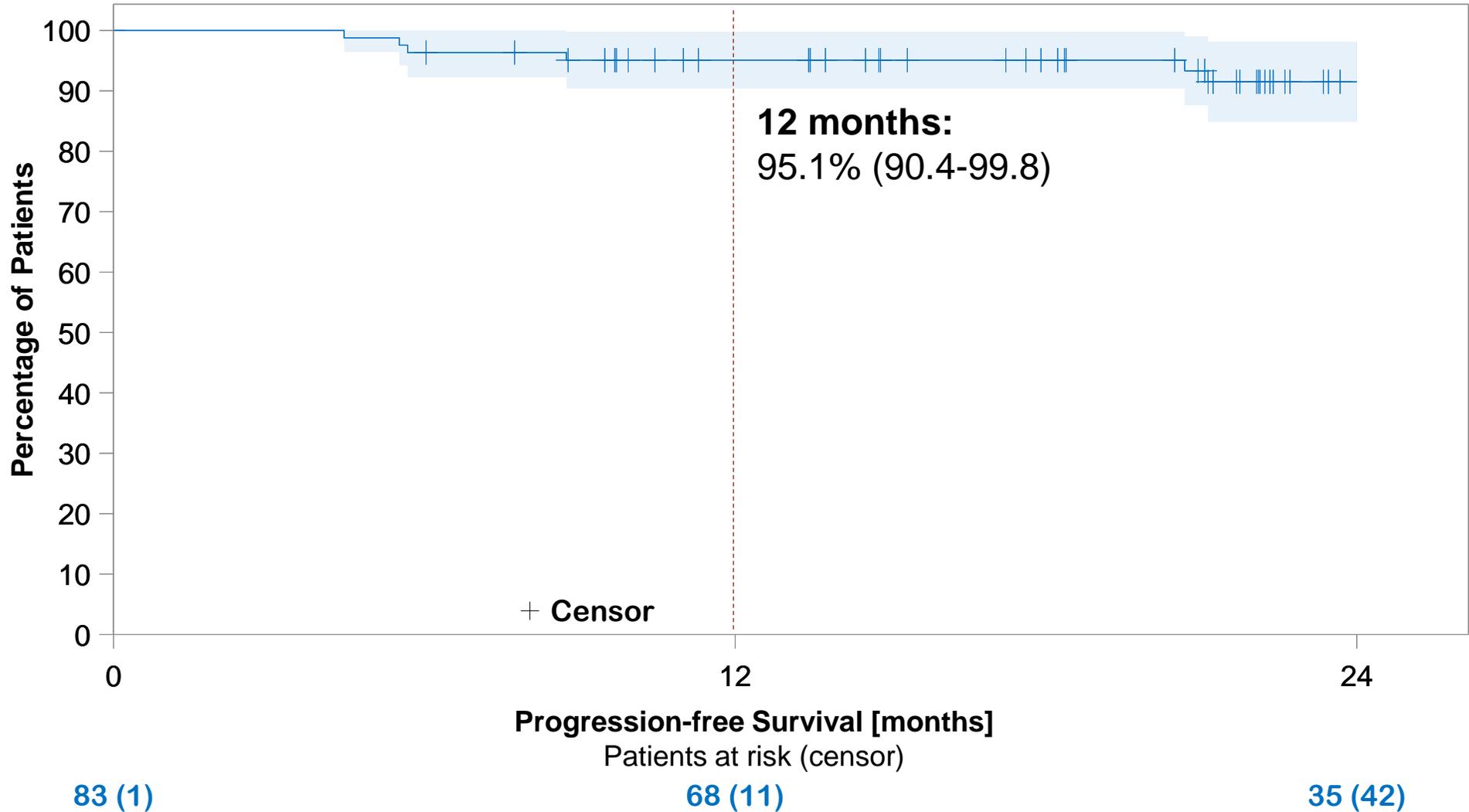
Los pacientes que reciben bleomicina deben tener estrechamente monitorizada la función pulmonar. **Grado de recomendación A**

La utilización de esquemas de QT específicos para pacientes mayores, como VEPEMB o PVAG, están asociados a menor toxicidad, pero podrían ser menos efectivos en el control de la enfermedad. Solo deberían utilizarse en pacientes con contraindicación a recibir ABVD. **Grado de recomendación C**

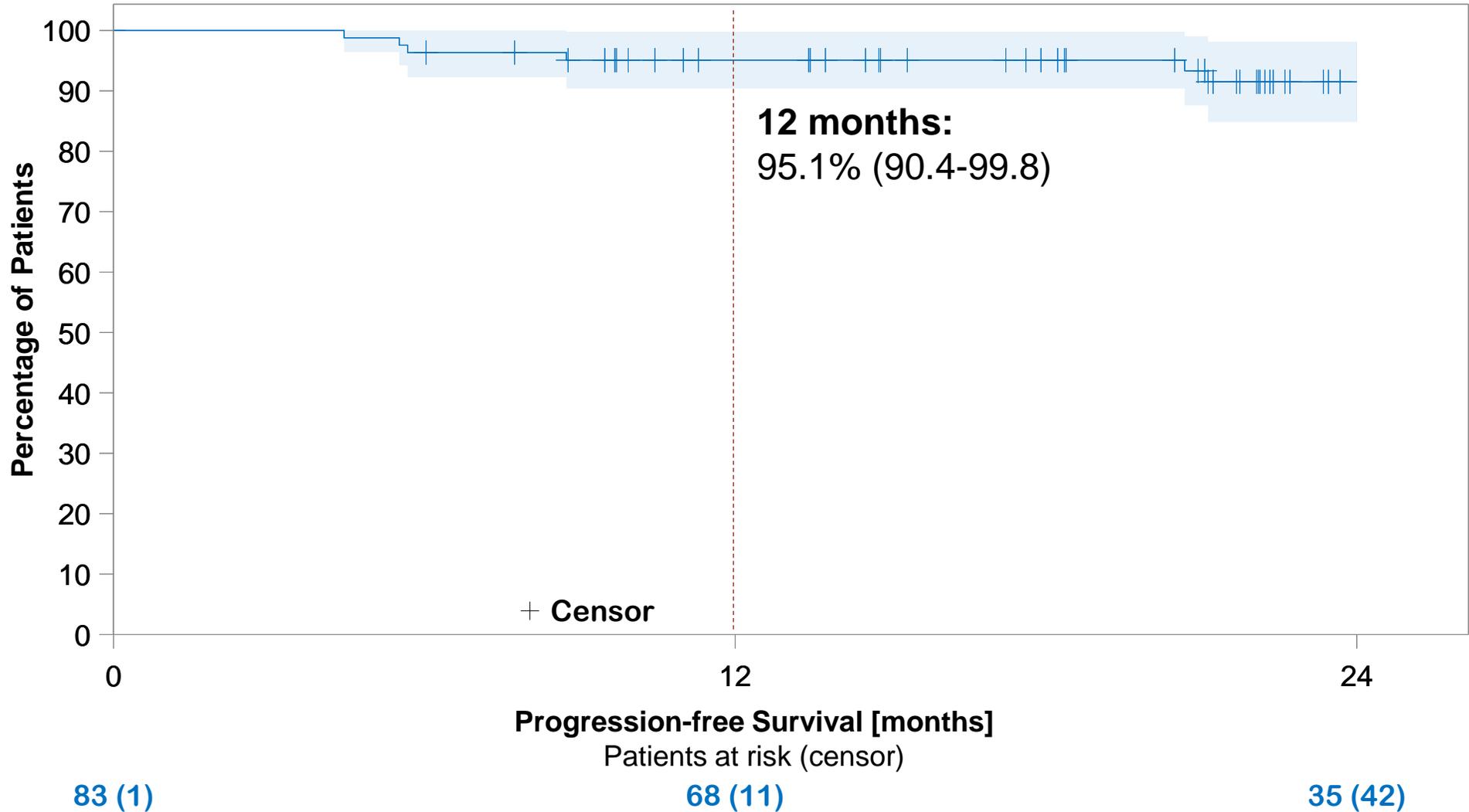
# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



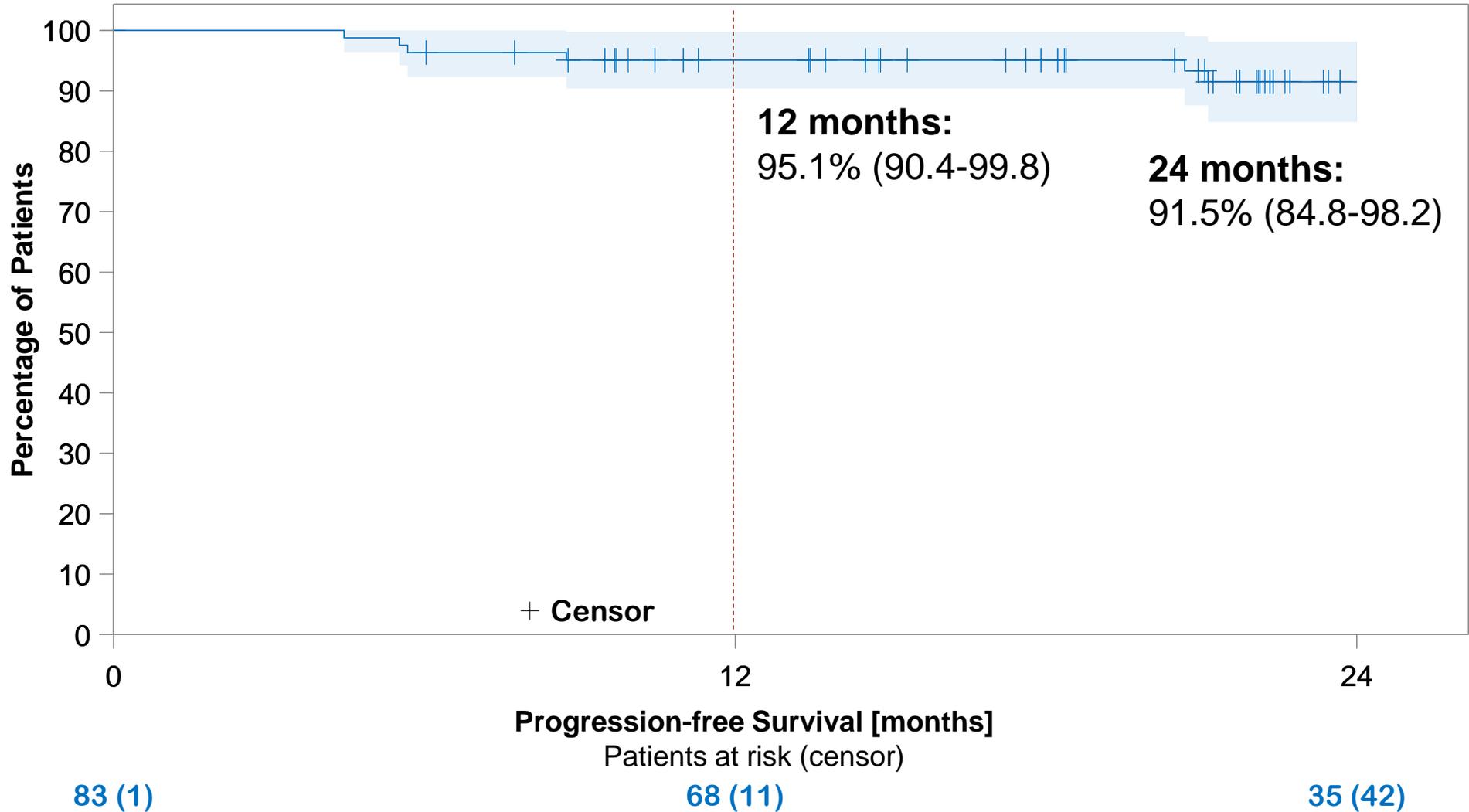
# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



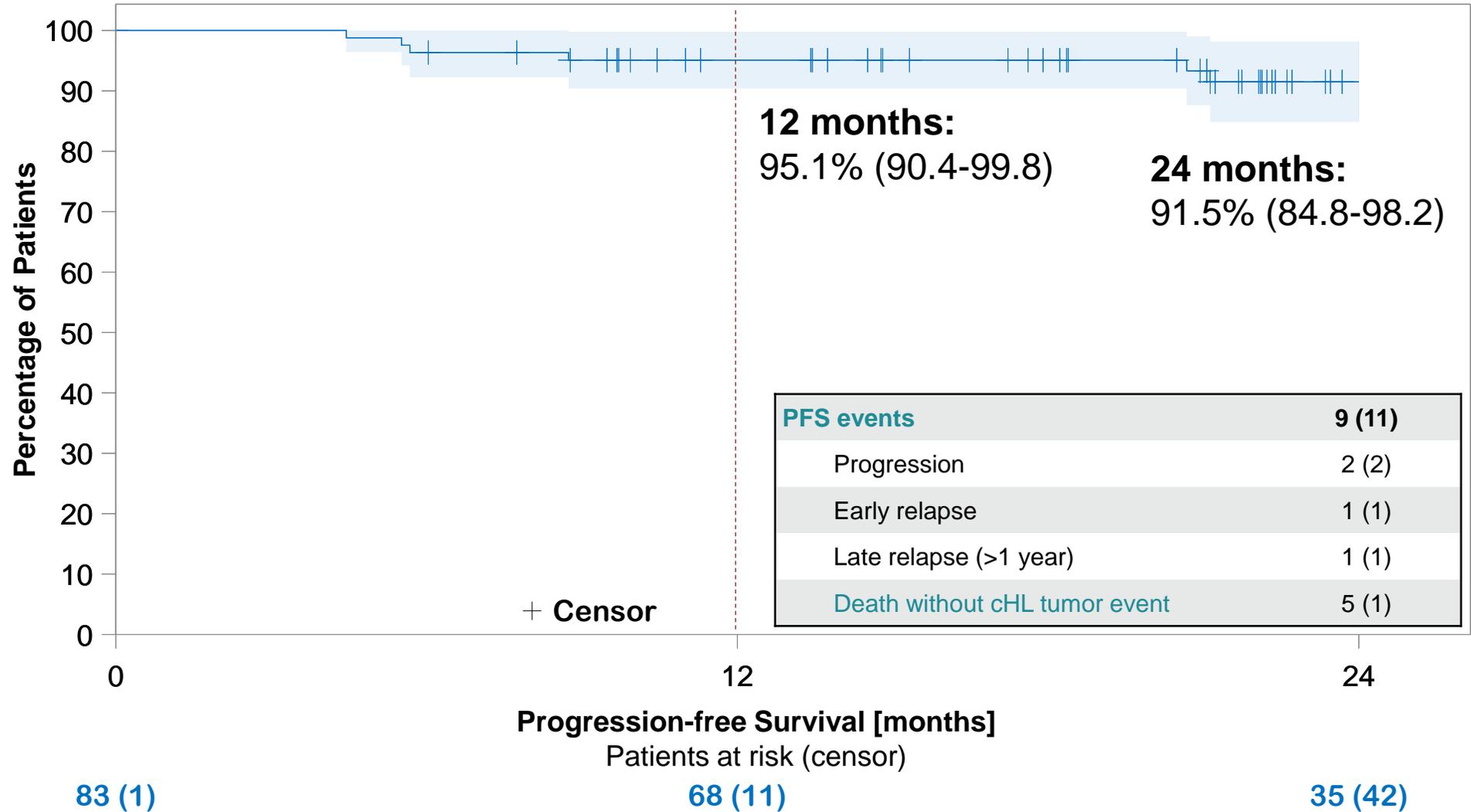
# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



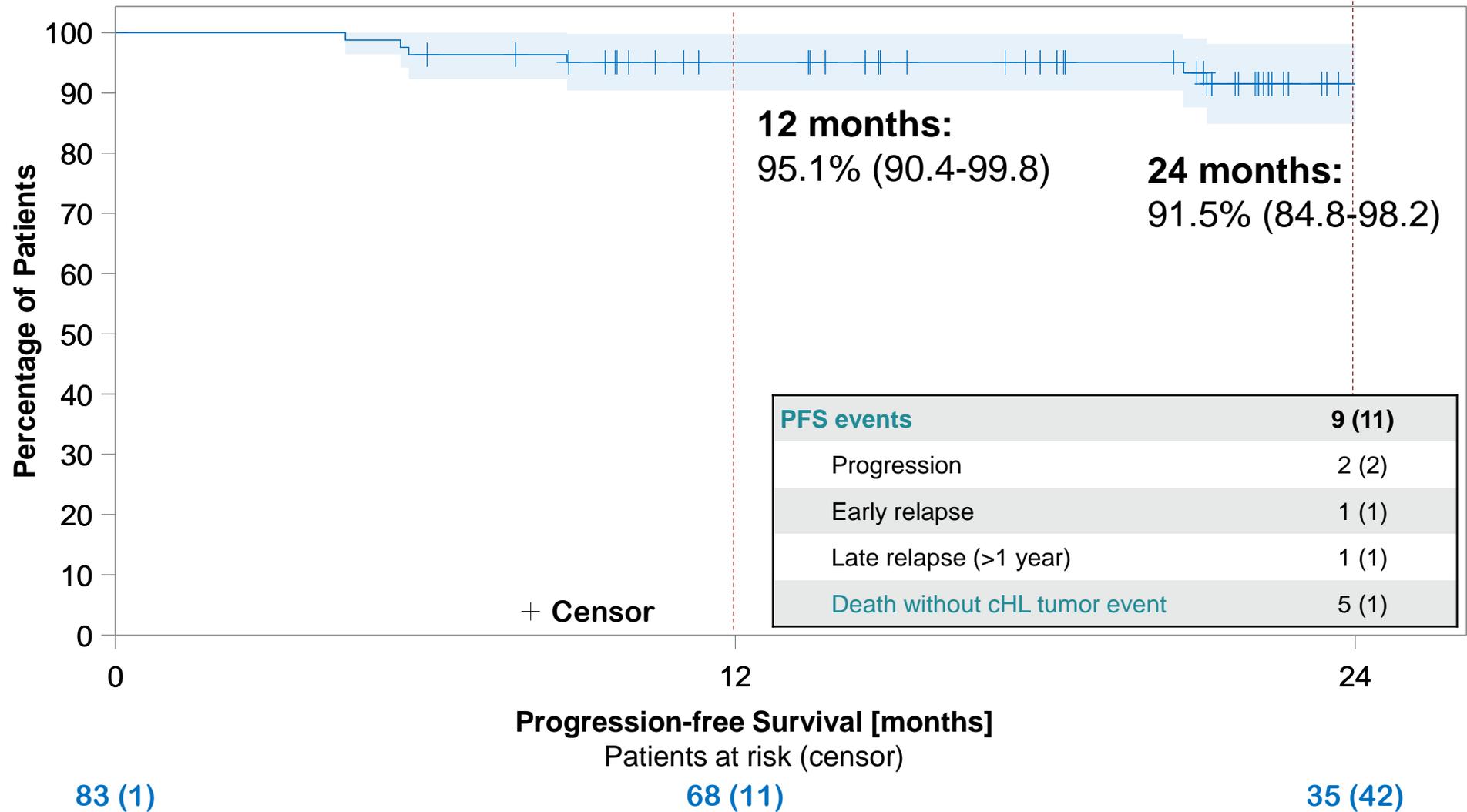
# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



# BrECADD in Patients > 60 years. Progression-free survival. ITT population, mFU 23 months



# Nivolumab + AVD vs Brentuximab Vedotin + AVD in Newly Diagnosed Advanced Stage cHL (SWOG S1826 – Older Patients)

## Older patient sub-analysis population

Patients enrolled in SWOG S1826 aged ≥60 years with Stage 3–4 HL (n=99)

- Median age: 66 years (range: 60–83)
- Male: 63%
- White: 85%
- Stage IV disease: 60%
- IPS 4–7: 44%

## Safety results:

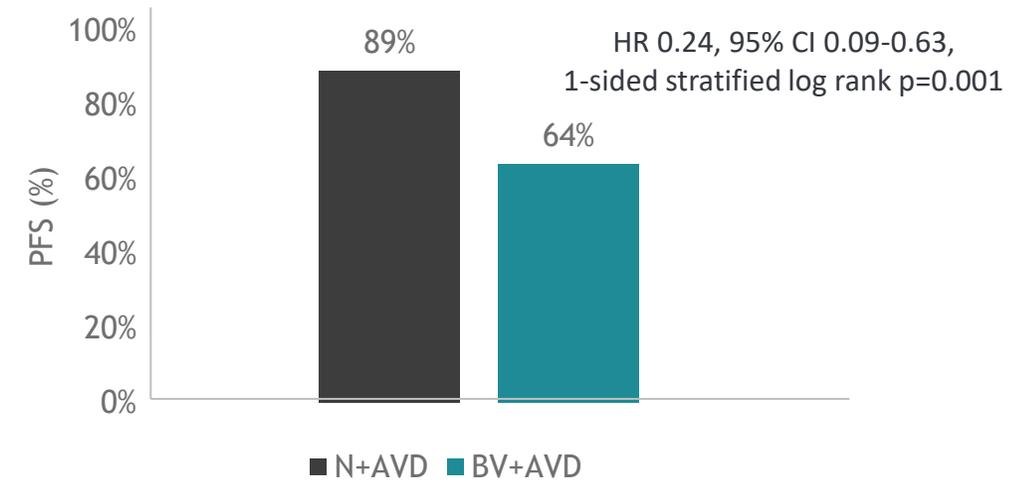
Median follow-up: 2.1 years

SAFETY, n (%)	N + AVD (N=50)	BV + AVD (N=49)
All treatment discontinuation	5 (10)	16 (33)
Discontinuation due to AEs	2 (4)	7 (14)
N or BV discontinuation	7 (14)	25 (51)

- Three deaths in N + AVD (2 infection/sepsis, 1 hepatic failure) vs 10 in BV + AVD (5 infection/sepsis, 2 lymphoma, 1 cardiac arrest, 1 pneumonitis, 1 second malignancy)
- Four progressions/relapses in N + AVD vs 9 in BV + AVD
- AE more frequent with N + AVD vs BV + AVD: neutropenia, hypothyroidism, rash
- AEs more frequent with BV + AVD vs N + AVD: febrile neutropenia, sepsis, infections, peripheral neuropathy

## Efficacy results: PFS for patients aged ≥60 years

Median follow-up: 2.1 years



## 2-year OS

96 % with N + AVD vs

85 % with BV + AVD

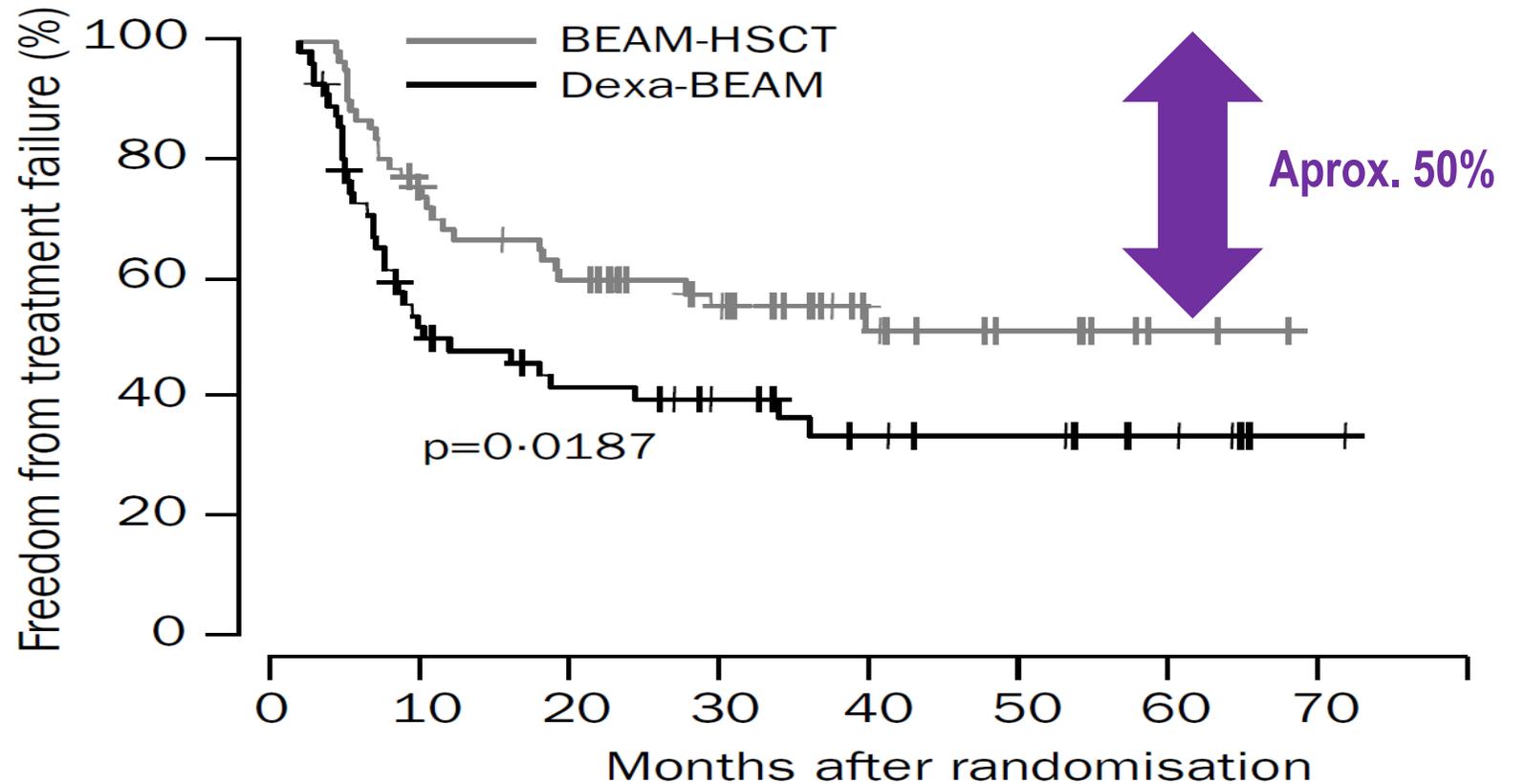
HR 0.16, 95% CI 0.03-0.75

Stratified 1-sided logrank p=0.005

# Agenda

- 1st Line Treatment Strategies
  - Early Stages
  - Advanced Stages
  - Elderly patients
- Relapsed / Refractory Setting
  - Improving salvage treatment strategies
  - Auto-HCT for all relapsed/refractory patients?
  - Allo-HCT
  - New approaches

Auto-HCT is the standard therapy for HL Relapsing after 1<sup>st</sup> Line Chemotherapy.  
 HDR1 Trial (GHSB/EBMT)  
 Dexa-BEAM + Auto-HCT vs Dexa-BEAM

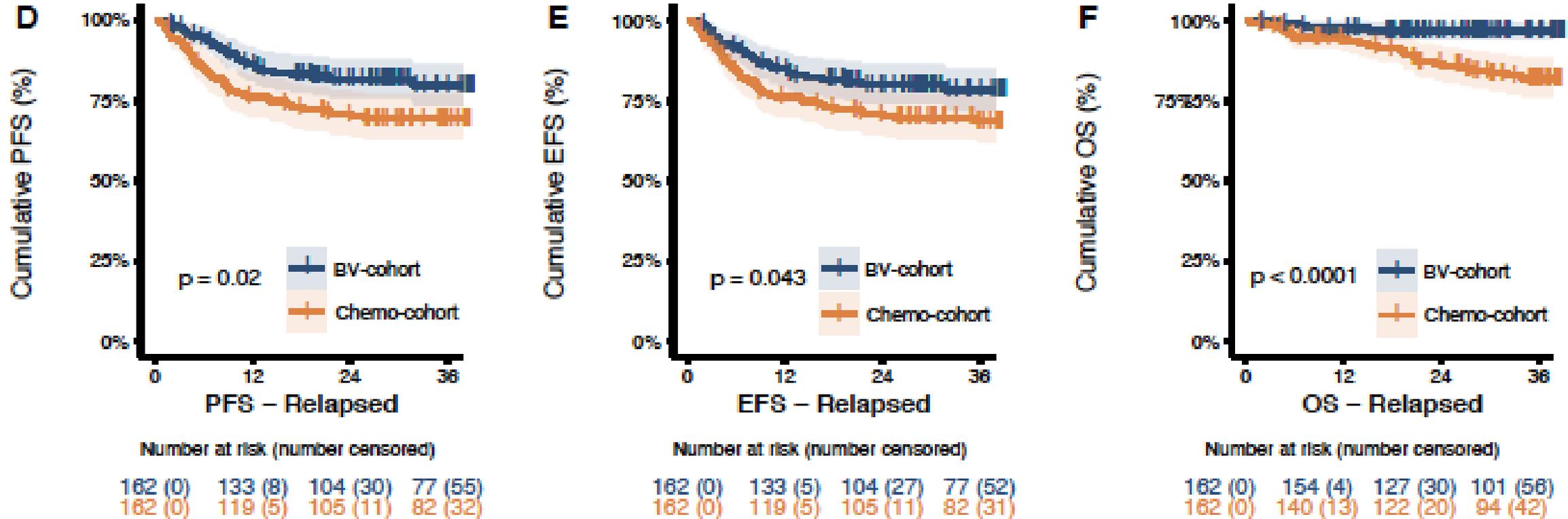


**Number of patients**

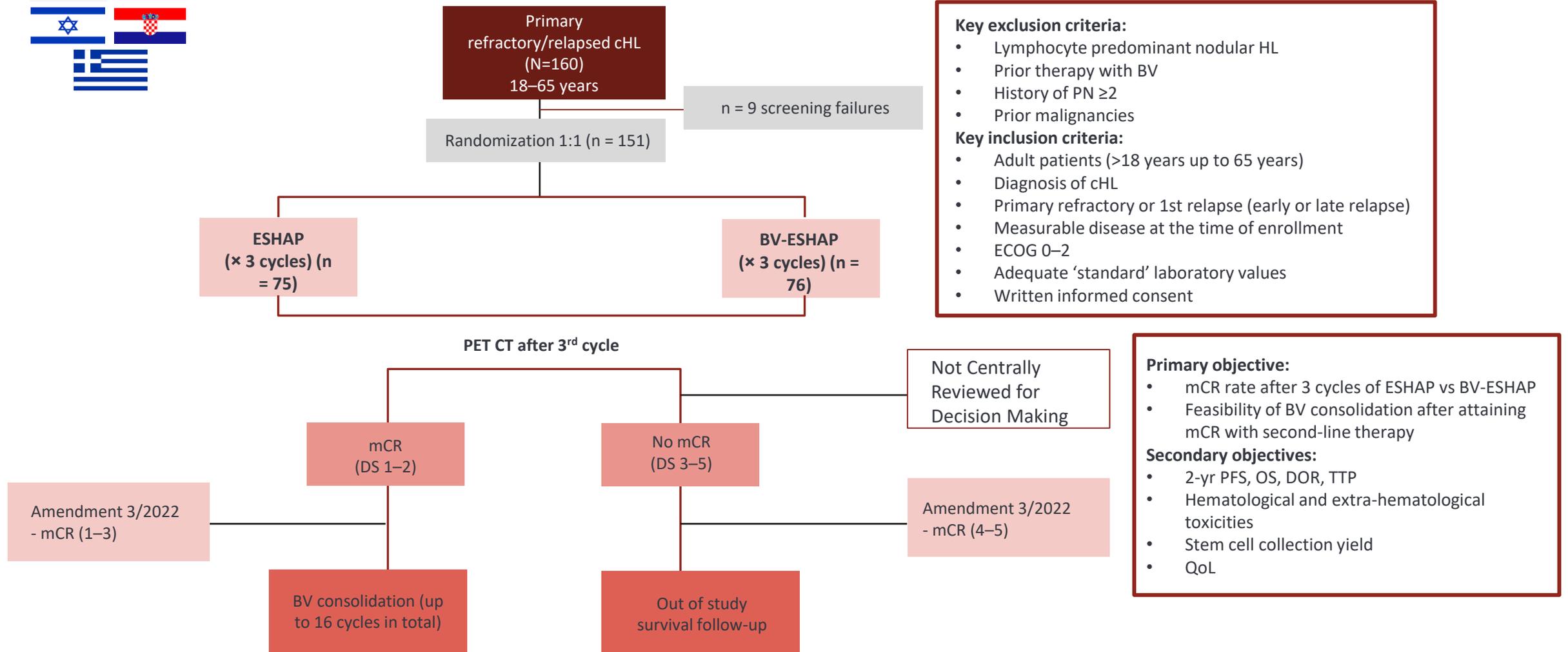
BEAM-HSCT	61	43	34	25	13	8	7	0
Dexa-BEAM	56	27	20	15	10	8	5	1

Figure 3: **Freedom from treatment failure for patients with relapsed chemosensitive Hodgkin's disease**

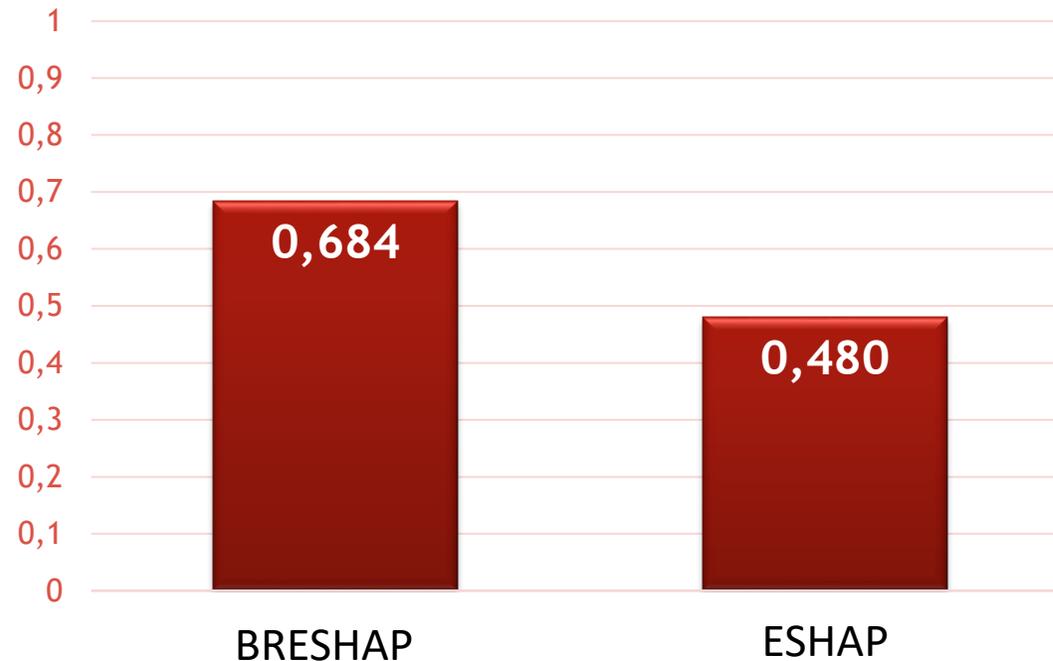
# BV + Chemotherapy vs Chemotherapy Alone as 1<sup>st</sup> Line Salvage Strategy in RR cHL. Relapsed Patients



# Study Design, Objectives, Consort Diagram



# Primary Endpoint & Stem Cell Collection

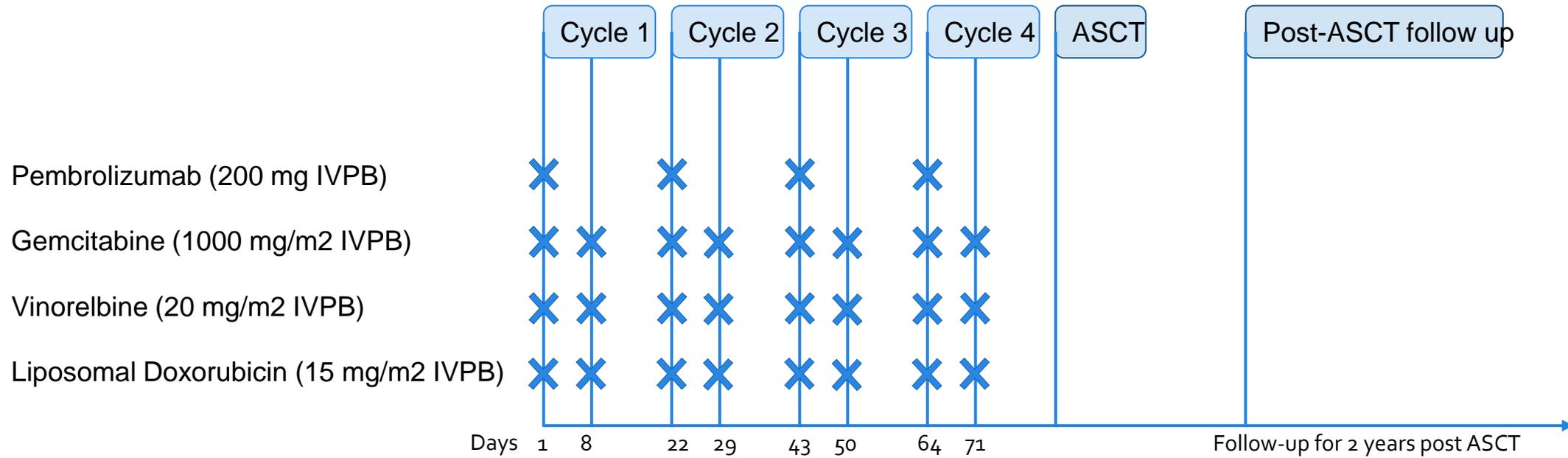


	BRESHAP (n = 76)	ESHAP (n = 75)	P value
mCR (DS 1-3)	52 (68.4%)	36 (48%)	0.011
No mCR (DS 4–5)	24 (31.6%)	39 (52%)	

Stem cells were collected in 124 patients (82.2%); collection was successful ( $> 2.0 \times 10^6$  CD34<sup>+</sup> cells / kg) in 93.5% of the patients. No differences between BRESHAP and ESHAP treated patients

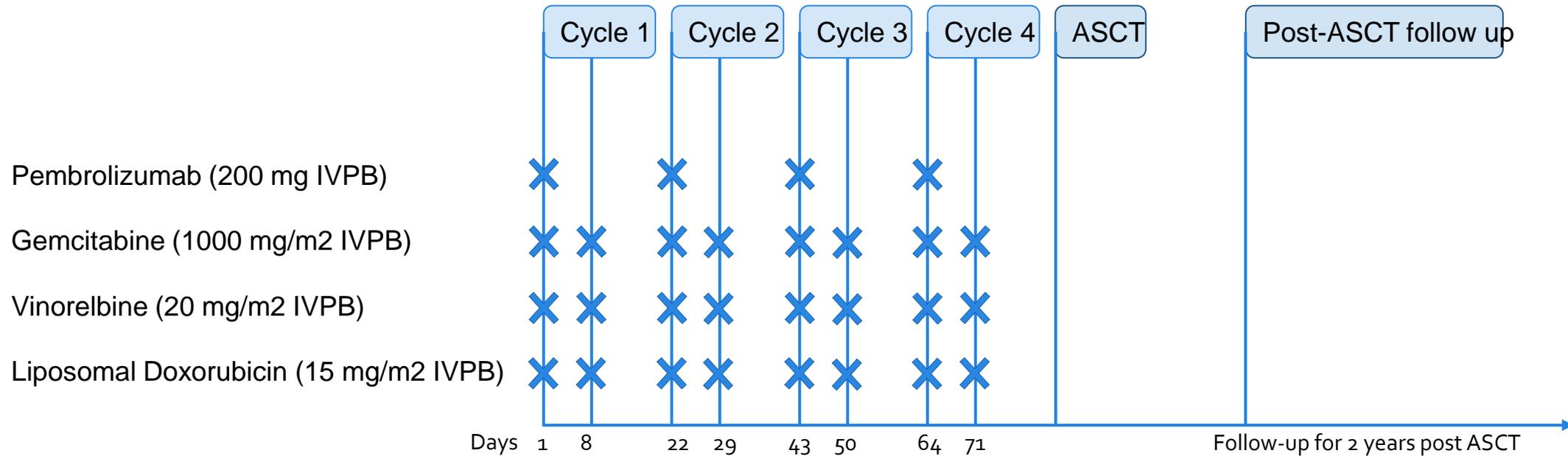
# Pembro-GVD as Salvage Strategy in Transplant Candidates

- **Eligibility:** relapsed or refractory cHL following 1-line of therapy
- **Primary endpoint:** CR (by Deauville 3) rate after 2-4 cycles



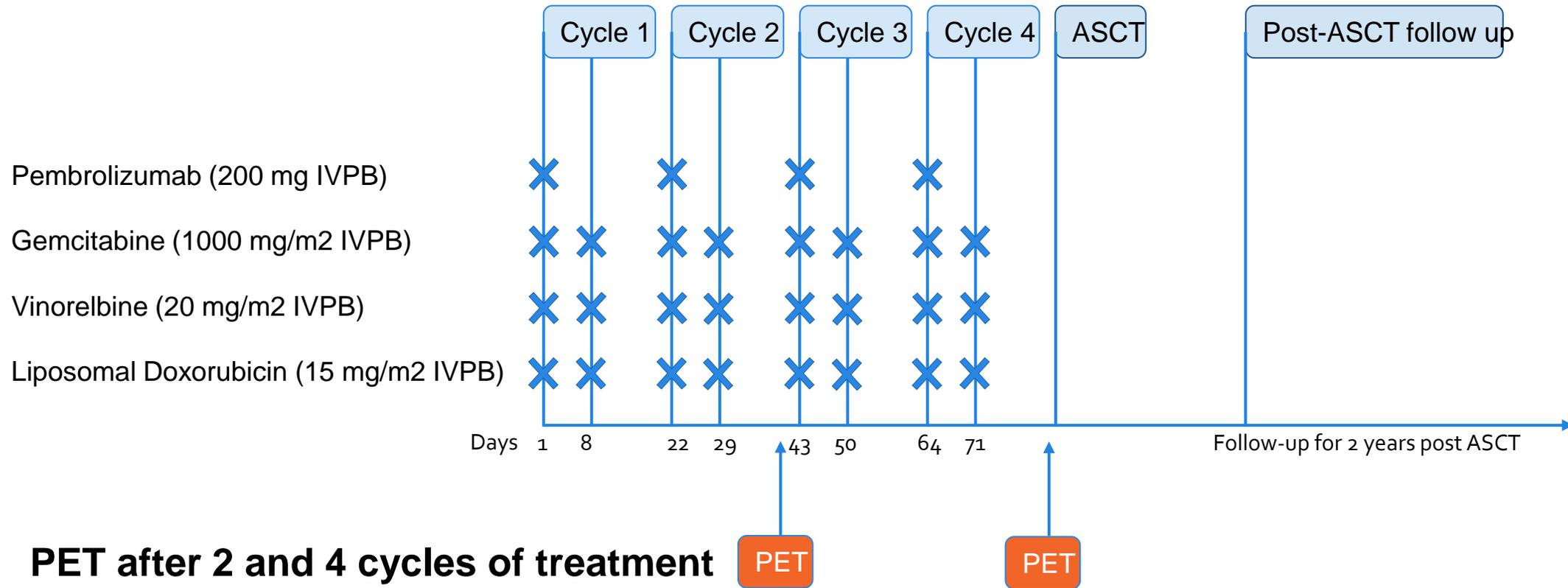
# Pembro-GVD as Salvage Strategy in Transplant Candidates

- **Eligibility:** relapsed or refractory cHL following 1-line of therapy
- **Primary endpoint:** CR (by Deauville 3) rate after 2-4 cycles



# Pembro-GVD as Salvage Strategy in Transplant Candidates

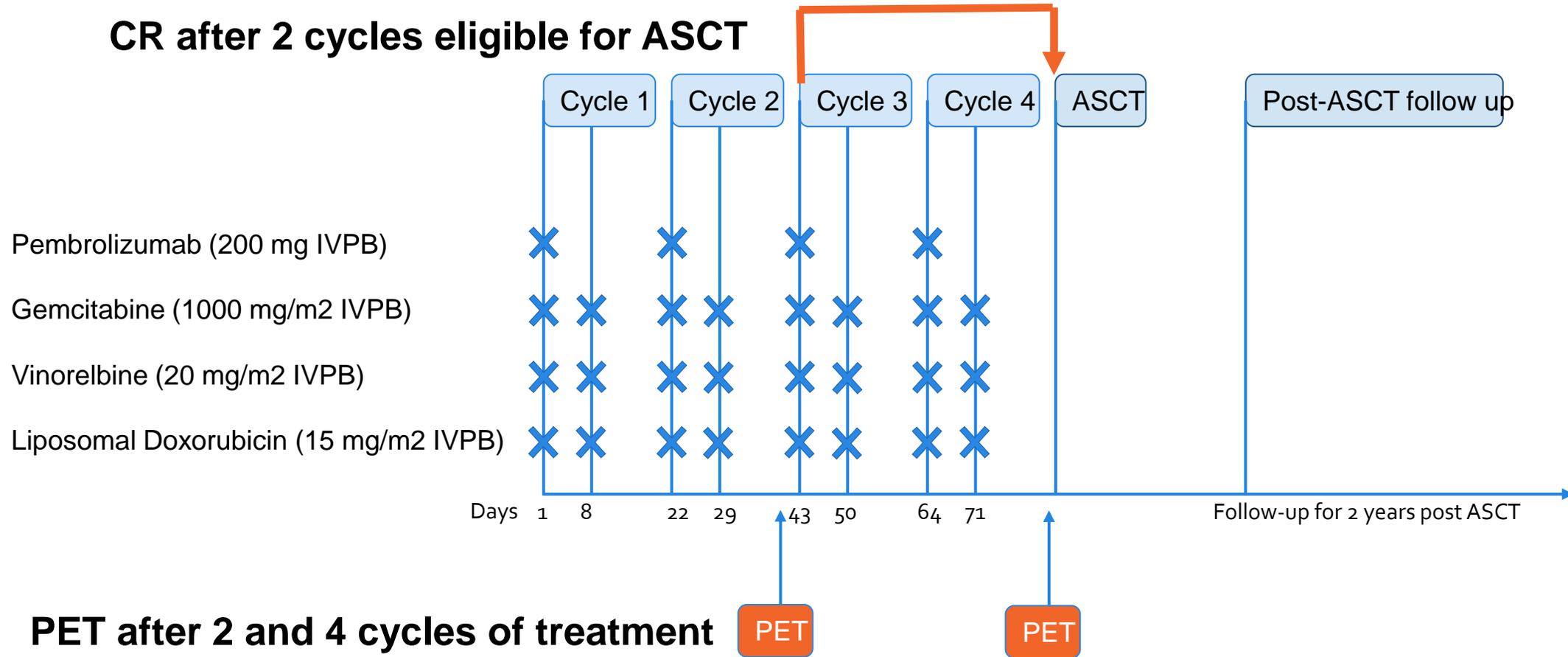
- **Eligibility:** relapsed or refractory cHL following 1-line of therapy
- **Primary endpoint:** CR (by Deauville 3) rate after 2-4 cycles



# Pembro-GVD as Salvage Strategy in Transplant Candidates

- **Eligibility:** relapsed or refractory cHL following 1-line of therapy
- **Primary endpoint:** CR (by Deauville 3) rate after 2-4 cycles

**CR after 2 cycles eligible for ASCT**



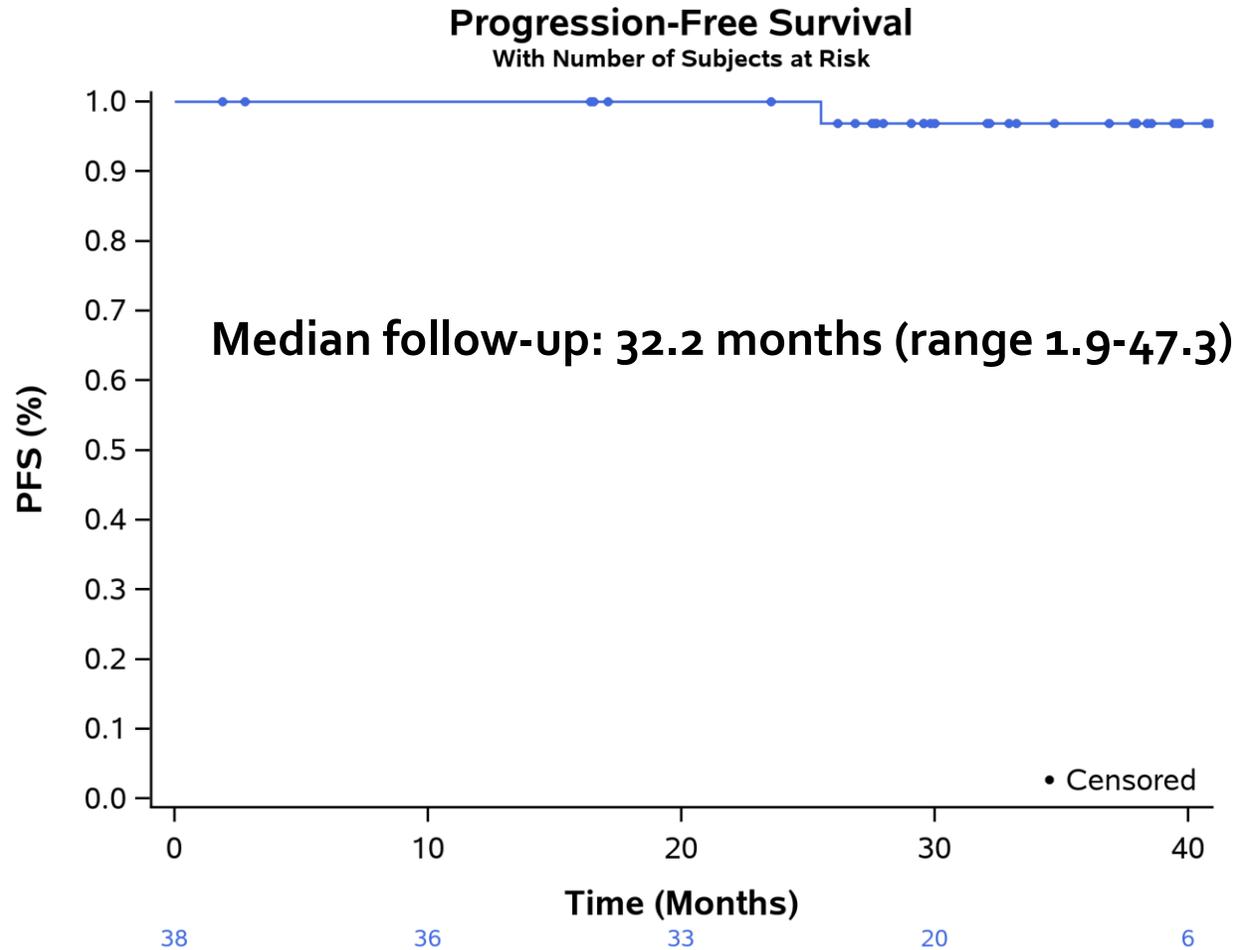
**PET after 2 and 4 cycles of treatment**

PET

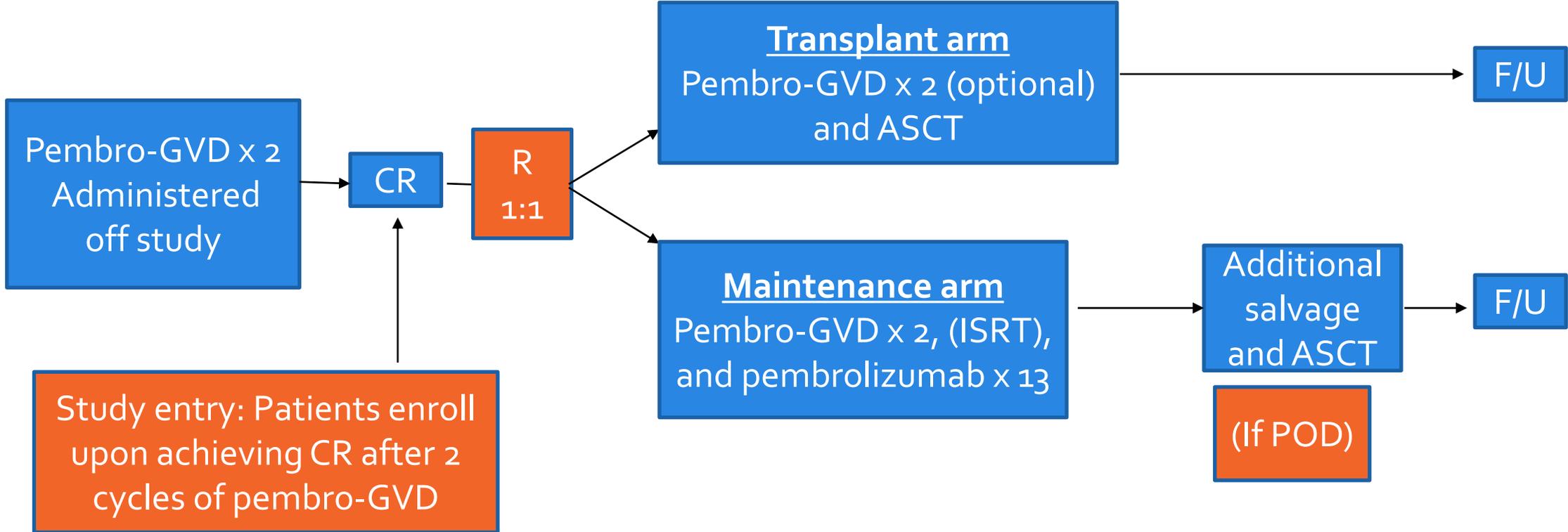
PET

# Results of long-term follow up in the ITT cohort

- 38 evaluable patients
- ORR: 100%
- CR: 95% (92% after 2 cycles)
- 36 pts proceeded to ASCT
- 1 relapse, 1 death (unrelated)
- 30 month PFS: 96%

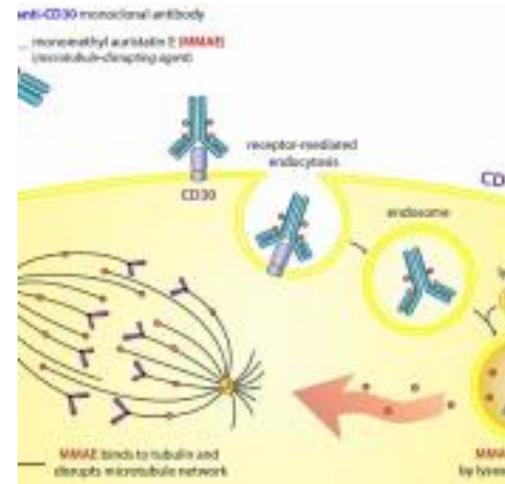
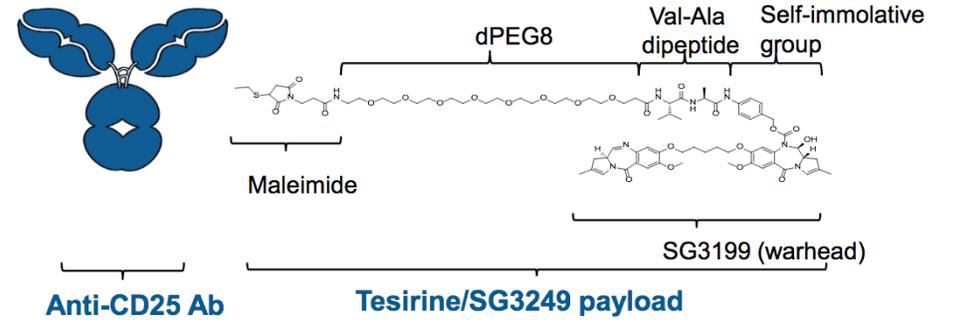
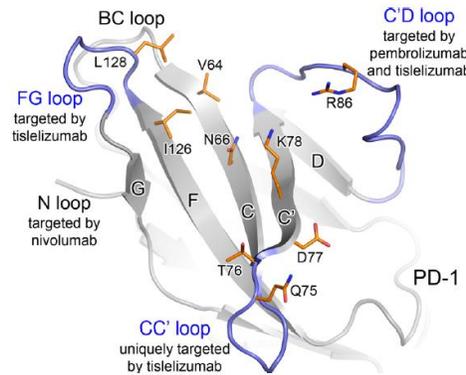
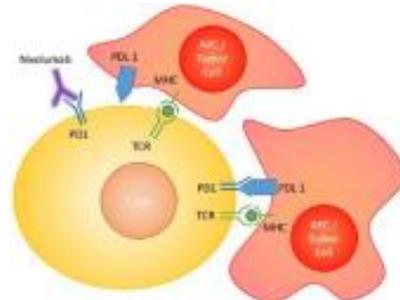
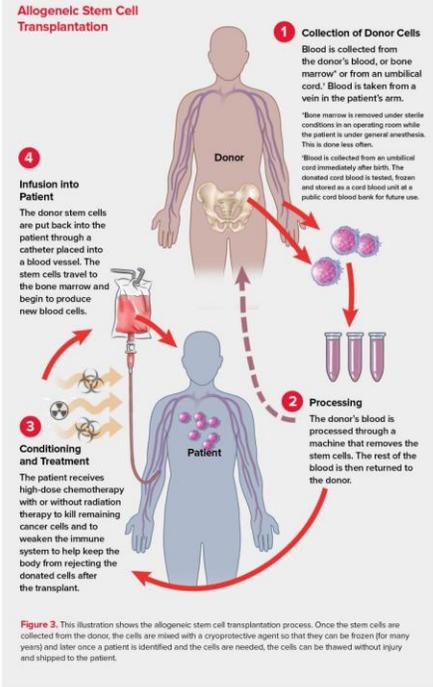


# Phase II randomized, non-inferiority study evaluating immediate vs delayed transplant for stage I-III rel/ref HL

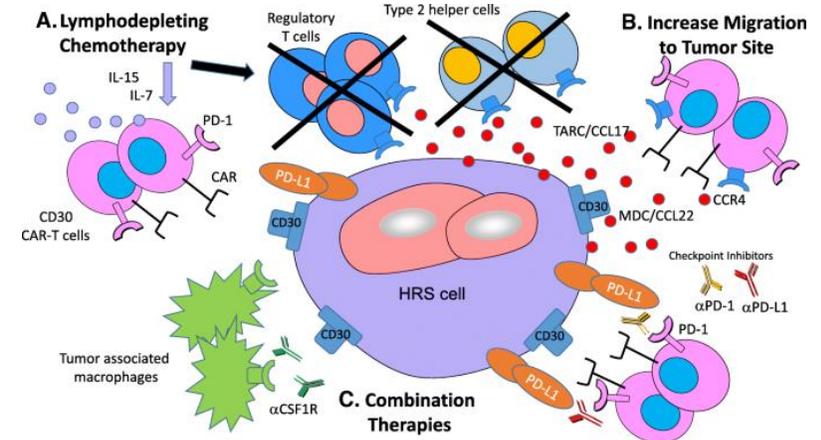
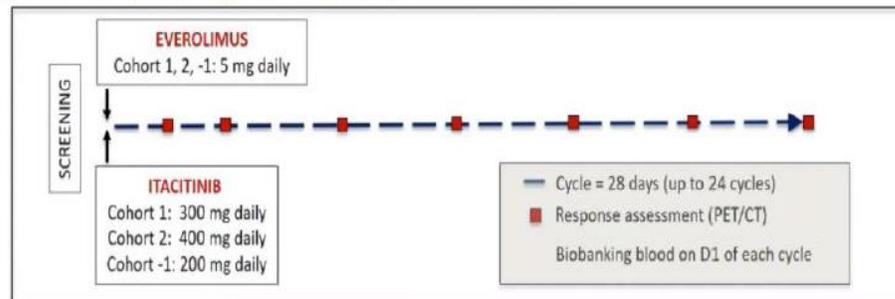


**Primary endpoint: Freedom from disease at 5 years post-randomization**  
**Patients to be stratified according to use of front-line PD-1 blockade**  
**n=178**

# The Future is Bright for RR HL



## STUDY DESIGN: Open Label, Investigator Initiated, Phase I/II Trial



# Allotransplants after CPIs

N = 209

87 Haplo/PtCy

25 non-Haplo/PtCy

91 non-Haplo/non-PtCy

6 PtCy + ATG

Median age: 31.5 yrs

Male patients - 60%

HCT-CI

0-2 - 129

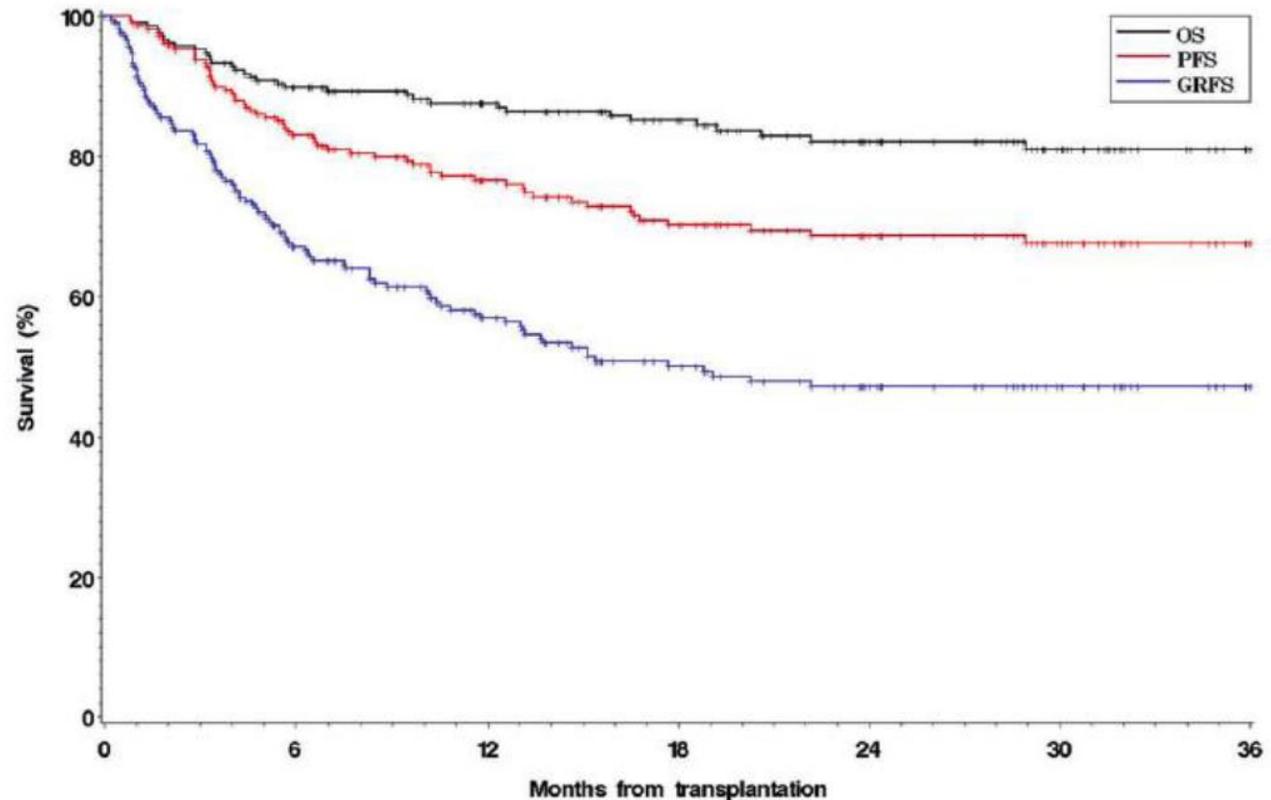
≥ 3 - 66

Median number of tx: 4 (2-11)

Best response to CPIs CR - 39%

Median time from last dose CPIs  
to Allo-HCT, 81 days

CR before allo-HCT - 58%



# Five Year FU of CHECKMATE-205. Nivolumab Monotherapy in RR cHL

## Key inclusion criteria

- R/R cHL after auto-HCT
- Age  $\geq 18$  years
- ECOG  $\leq 1$
- Measurable disease

**Cohort A:**  
BV naïve (n=63)

**Cohort B:**  
BV after auto-HCT (n=80)

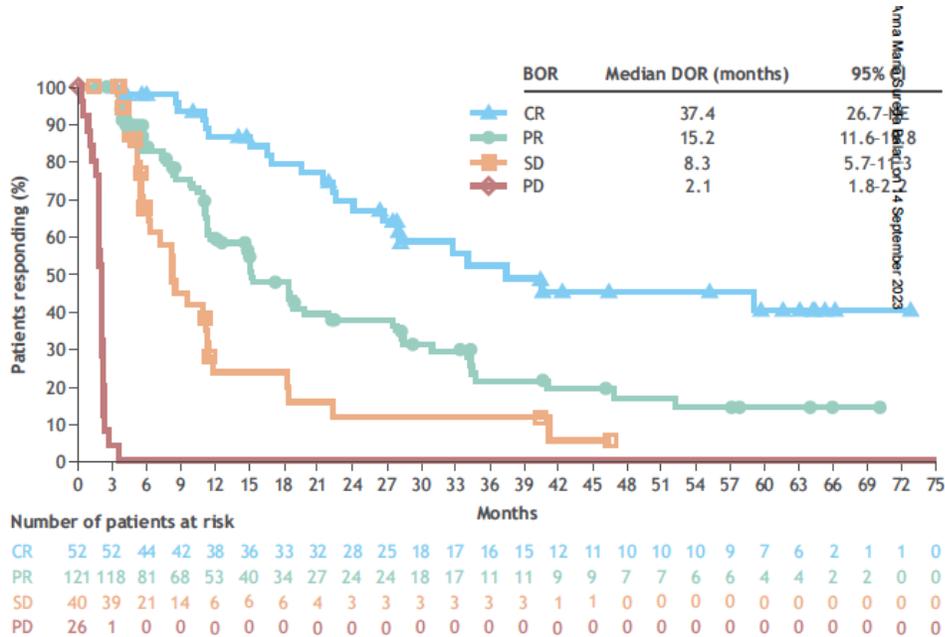
**Cohort C:**  
BV before and/or after auto-HCT (n=100)

**Nivolumab**  
3 mg/kg IV Q2W  
Treatment until disease progression or unacceptable toxicity\*  
OR  
Cohort C:  
Patients in CR  $\geq 1$  year discontinue per protocol

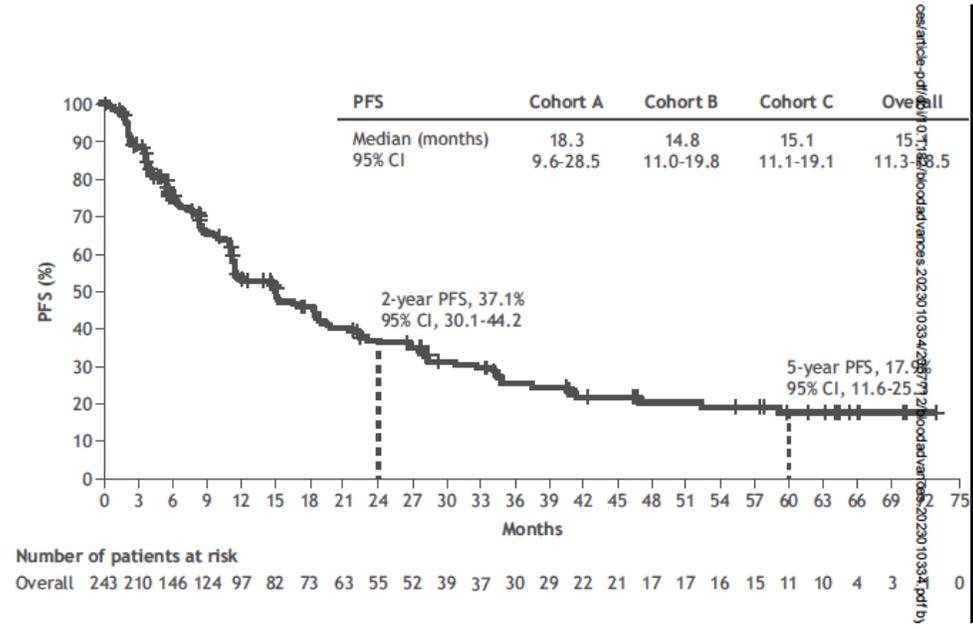
**Cohort C**

Re-treatment if relapse  $\leq 2$  years

**C**



**B**



# Five Year Follow Up of KEYNOTE-087. Pembrolizumab Monotherapy in RR cHL

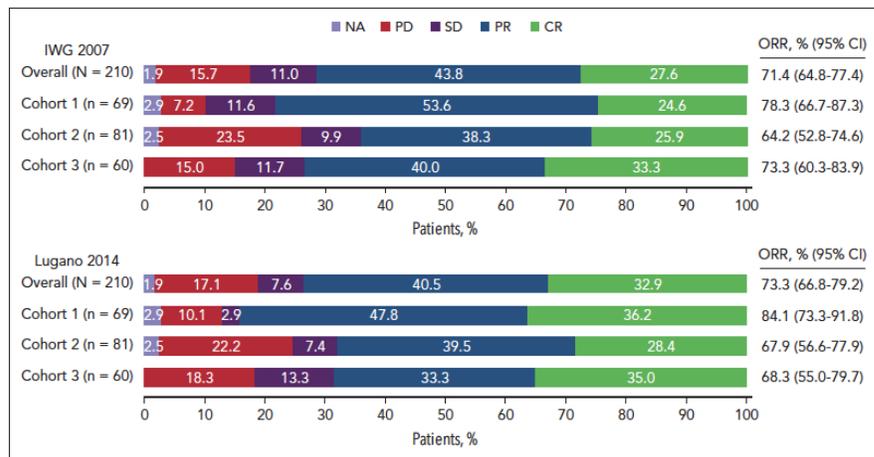
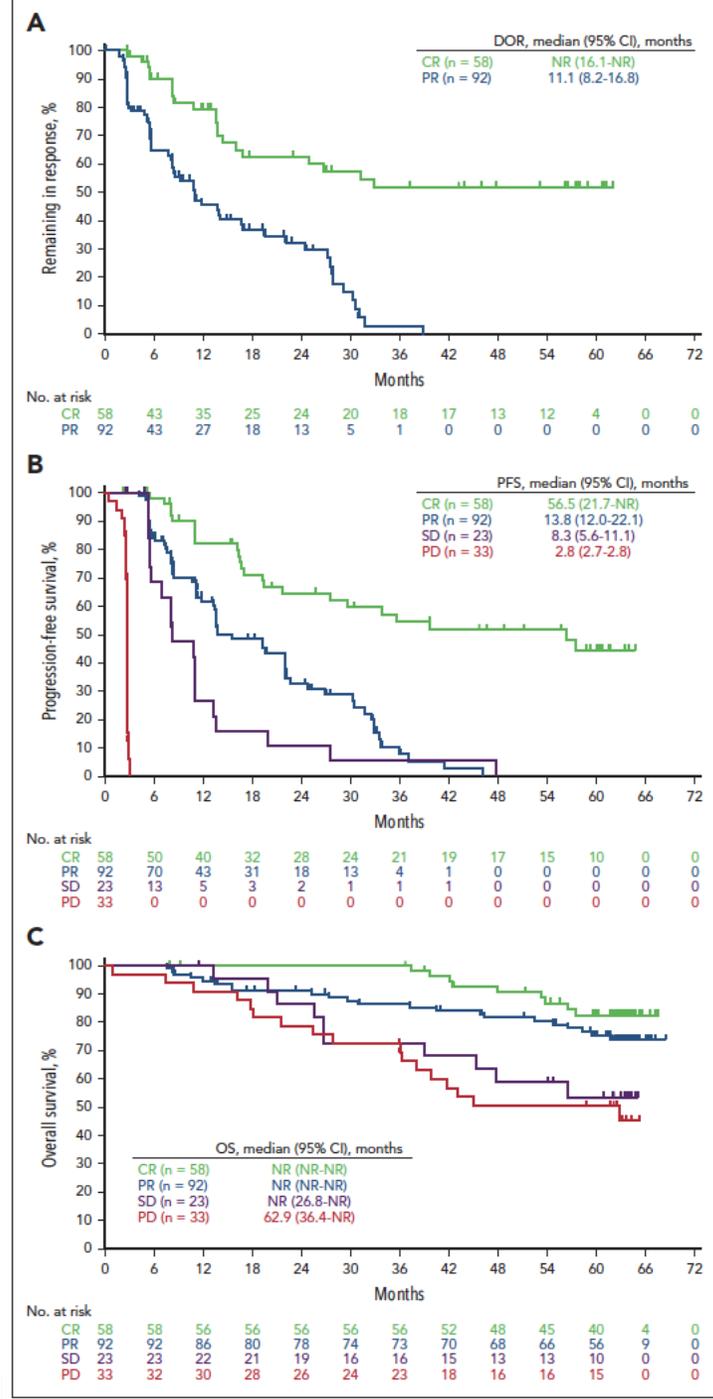
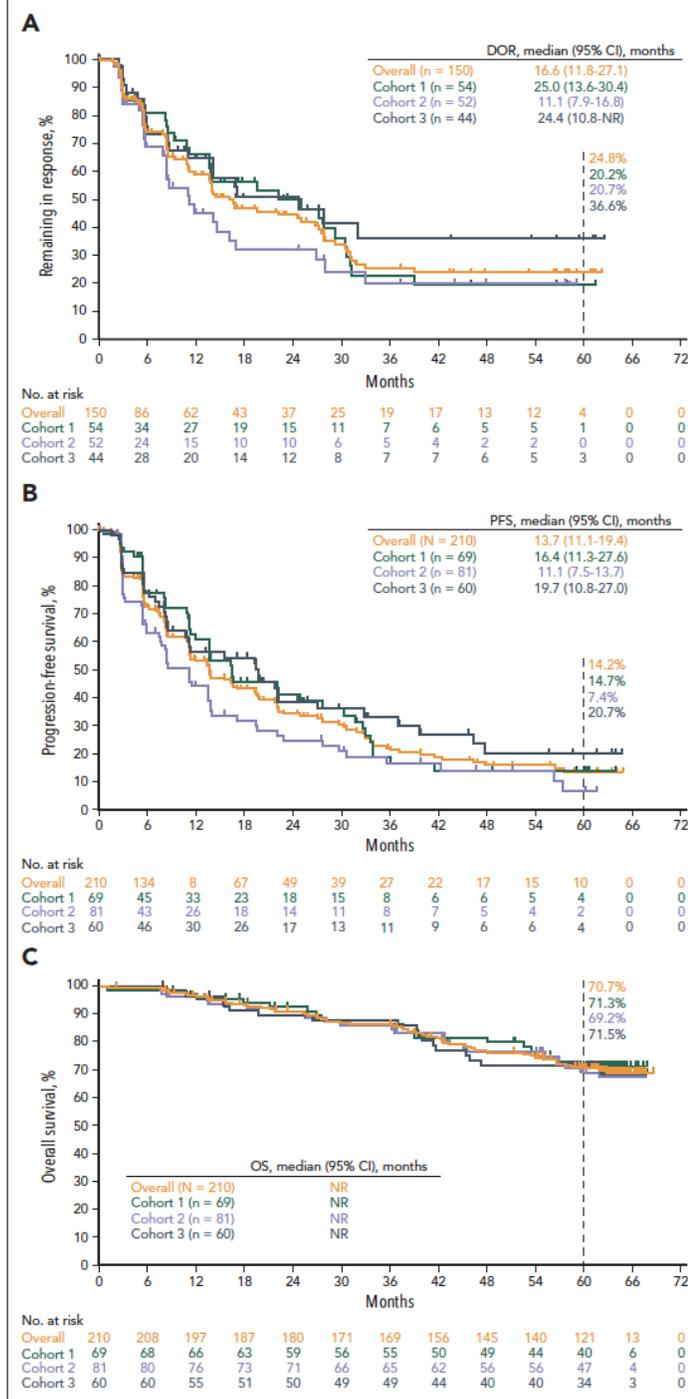
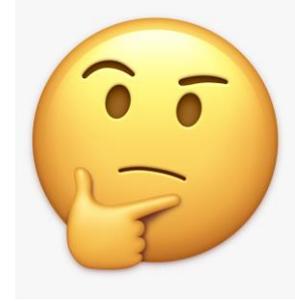


Figure 1. ORR per IWG 2007 and Lugano 2014 criteria for the overall population and by cohort. NA, not assessed; SD, stable disease.



# Which Is the Best Sequence?



Brentuximab  
Vedotin

Check Point  
Inhibitor  
(NIVO,  
PEMBRO)

Allogeneic  
Stem Cell  
Transplantatio  
n

Curative Potential (?)

Better short-term  
toxicity profile

Mature Results



Known Curative Potential

Significant morbi-mortality

Long-term Follow Up

Well identified risk-adapted  
patient's profile

# Conclusions

---

- Impact of targeted therapy in first line treatment strategies (early and advanced stages)
  - Significant decrease in the use of involved field radiotherapy
- New options for the elderly population of patients
- Auto-HCT continues to be the standard of care for patients with relapsed/refractory disease. Results have improved with the introduction of new drugs
- Allo-HCT, to be considered in the triple refractory population of patients