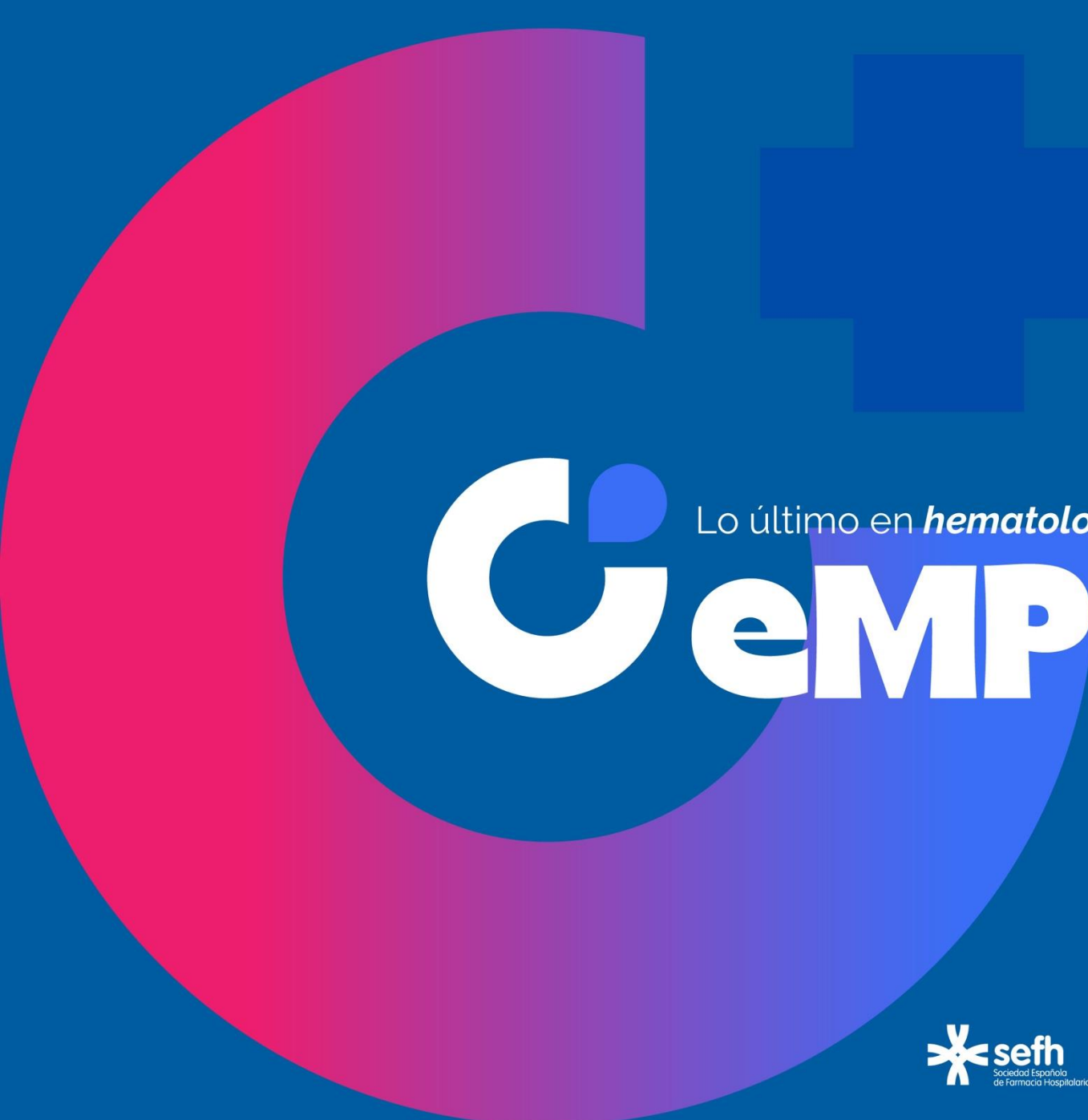




Lo último en *hematología* para *farmacia hospitalaria*

Gemphasys



Con el patrocinio de:
REGENERON*



Lo último en *hematología* para *farmacia hospitalaria*

eMPHASIS

Míriam Merchante Andréu
Hospital Clínico Lozano Blesa Zaragoza

**Sábado 13/06/2026: UNLOCKING THE POWER OF
CAR-T**

AXI-CEL, LISO-CEL-RAEs: TIEMPOS Y SEVERIDAD → RWE



Across 4 real-world analyses, liso-cel and axi-cel had a consistent safety profile, with low rates of severe CRS and ICANS

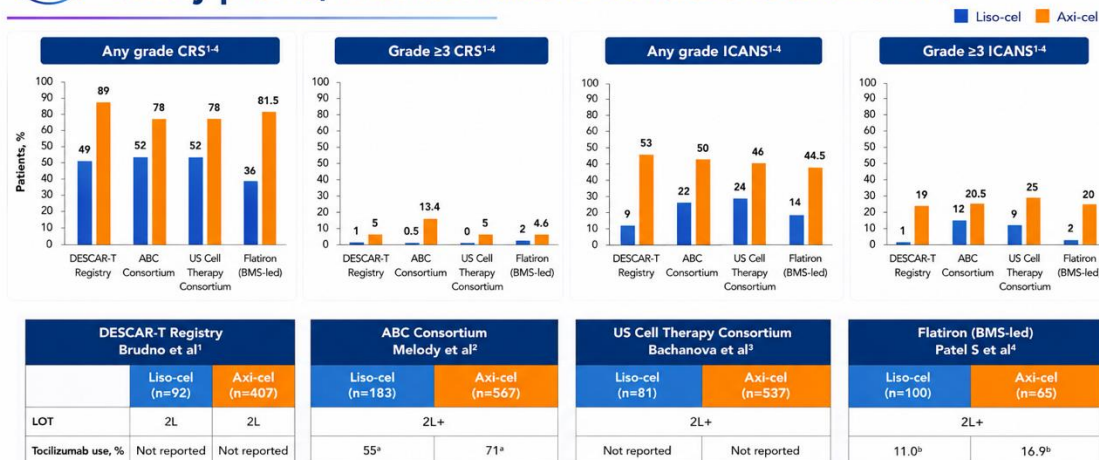


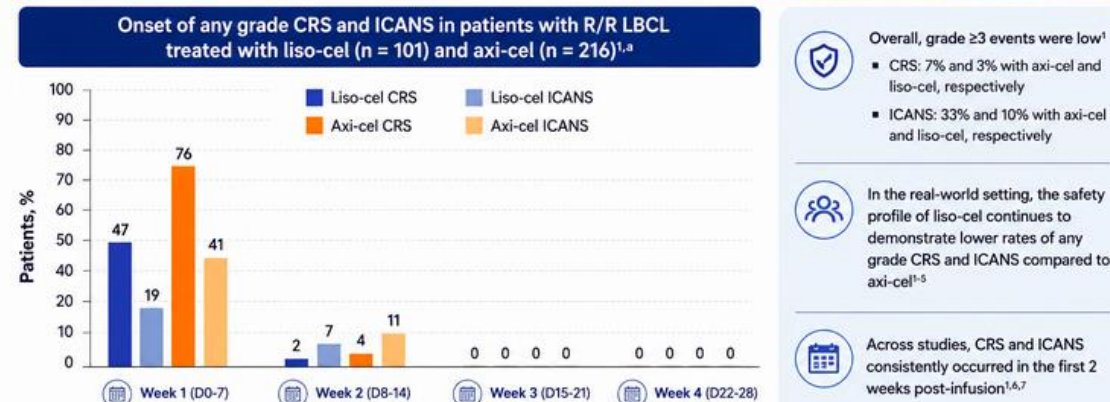
Table and graph format is for ease of view and does not imply comparison across trials or treatment arms. Please see individual presentations for full study information.

* Tocilizumab use reported for CRS. *Tocilizumab use reported for ICANS (or CRS). These percentages for those who used tocilizumab only.

1. Brudno JN et al. Oral presentation at: ASH 2025, Abstract #6954. 2. Melody M et al. Oral presentation at: ASH 2025, Abstract #781. 3. Bachanova V et al. Oral presentation at: ASH 2025, Abstract #1805. 4. Patel S et al. Poster presentation at: ASH 2025, Abstract #1860.



Majority of CRS and ICANS events for CD19-directed CAR Ts occur within Days 0-14



Liso cel and axi cel have not been compared in a head to head clinical trial, and direct comparisons should not be made.

* Retrospective review of data from the Cell Therapy Consortium registry. Evaluated data from patients with R/R LBCL who received commercial Breyanzi[®] or Yescarta infusion between March 2018 and May 2023.
1. Bouquegneau A et al. Oral presentation at: ASH 2024. 2. Lyman GH et al. ASH 2023. Abstract #1058. 3. CRS, cytokine release syndrome; ICANS, immune effector cell associated neurotoxicity syndrome; liso-cel, lisocabtagene maraleucel; axi-cel, axicabtagene ciloleucel; R/R, relapsed or refractory; D, Day.
4. Ahmed N et al. Blood Adv. 2024. doi:10.1182/bloodadvances.2023016749. 5. Zhong G et al. Oral presentation at: ASH 2025. Abstract #1127. 6. Melody M et al. Oral presentation at: ASH 2025. Abstract #781.
7. Bachanova V et al. Oral presentation at: ASH 2025, Abstract #1805. 8. Patel S et al. Poster presentation at: ASH 2025, Abstract #1806. 9. Ahmed B et al. Transplant Cell Ther. 2026; 32(1):71.e1-71.e12.
10. Orive-Maldonado Y et al. EBMT 2026. Abstract #05119-07.

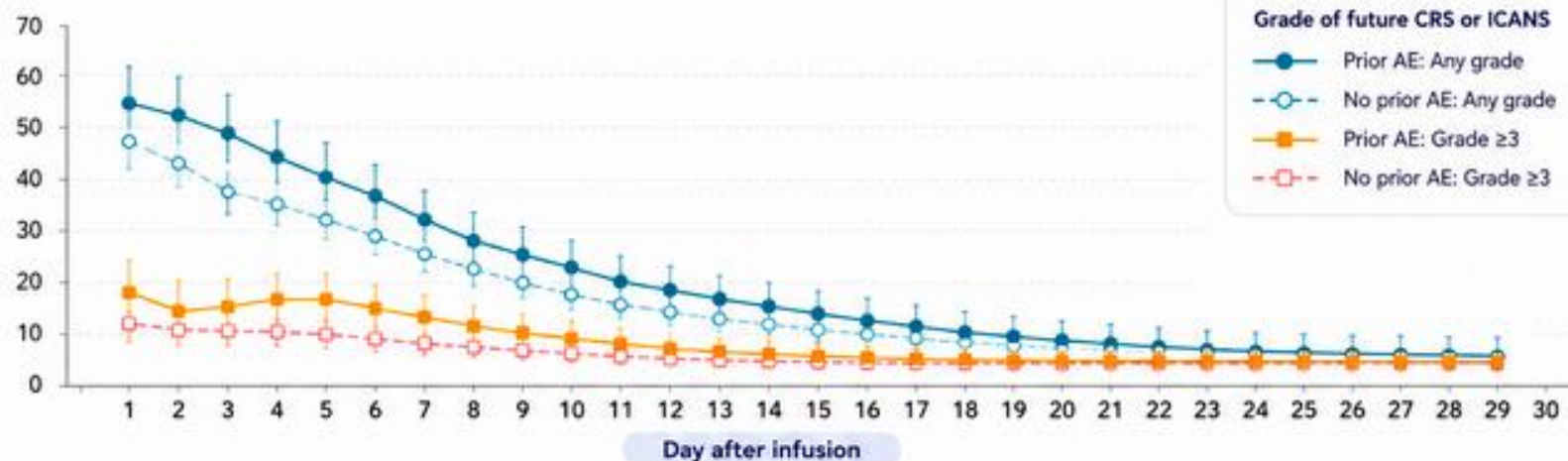


Understanding the impact of prior CRS or ICANS on a patient's risk of future CRS or ICANS

Future risk^a of CRS or ICANS stratified by prior CRS or ICANS (Days 1–30)



Risk of CRS or ICANS onset from that day onward, % (95% CI)



No. at risk

Prior AE	15	53	103	150	193	230	252	281	295	304	310	315	317	317	321	320	322	323	324	325	327	326	326	326	325	325	324	324	323	323
No prior AE	691	676	638	588	541	498	461	437	408	394	385	379	374	372	368	367	365	363	362	361	359	359	359	358	358	357	355	355	355	355



Patients without prior CRS or ICANS had numerically lower risks of new-onset CRS or ICANS



^aRisk from that day onward.
AE, adverse event; CI, confidence interval; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome.
Orive-Maldonado V et al. EBMT 2026. Abstract #OS119-07.

ACTUALIZACIONES EN FICHA TÉCNICA

EMA label updates to reduce monitoring are a reflection of the predictability of CAR T cell therapy safety and increased comfort with managing patients after CAR T infusion



MONITORING PERIOD¹⁻⁶

- 
Liso-cel: Reduced monitoring period to **≥2 weeks** after infusion (from 4 weeks)
- 
Ide-cel: Reduced monitoring period to **≥1 week** after infusion (from 10 days)
- 
Axi-cel: Changed monitoring period to **1-2 weeks^a** after infusion (from 10 days)
- 
 During this time, patients are monitored for signs and symptoms of CRS, NE, and other toxicities



TIME NEAR TREATMENT CENTRE¹⁻⁶

- Reduced time near treatment center to **≥2 weeks** after infusion (from 4 weeks)



DRIVING RESTRICTIONS¹⁻⁶

- Reduced time that patients are advised to avoid driving to **≥4 weeks** after infusion (from 8 weeks)

RWE:
Datos seguridad



Relajación medidas

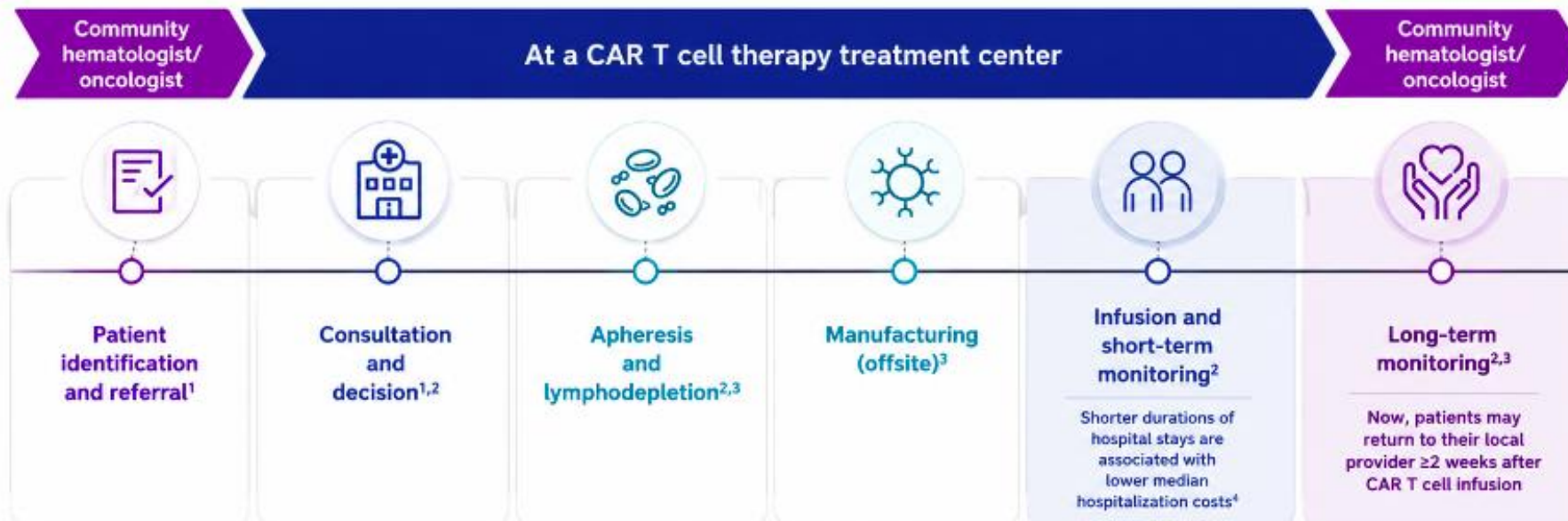
Impacto en la experiencia del paciente



Impacts of monitoring changes on the patient journey



Updates to post-infusion monitoring requirements may enable patients to transition to their local provider earlier, which may help reduce travel demands and logistical burdens.



CAR, chimeric antigen receptor.

1. Bonugliarri A et al. *J Adv Pract Oncol*. 2019;10(suppl 3):9–40. 2. Bonugliarri A et al. *Clin J Oncol Nurs*. 2019;23:27–34.
3. Lampethin M, Dannewitz C. *Clin J Oncol Nurs*. 2019;23:15–12. 4. Thielemann C et al. *JCM*. 2025, Abstract 792.



What could an early discharge/outpatient CAR T model look like in Europe?

Case study (in BCP-ALL/MM)



In Spain, Hospital Clínic de Barcelona has adopted an “outpatient-at-home” (OATH) model for their CAR T program, where the patient remains in the outpatient setting during lymphodepletion, and then is supported by structured at-home monitoring.



Inclusion criteria:

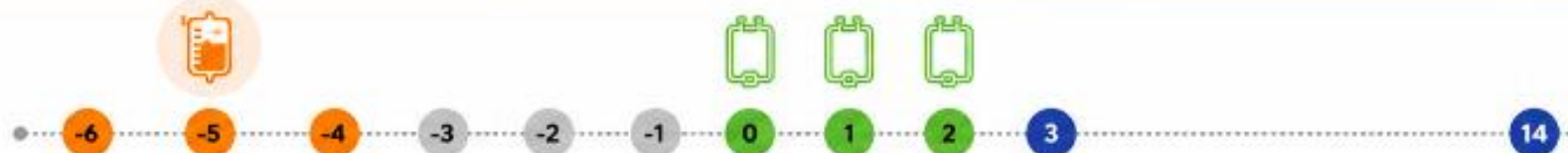
- ✓ Stable without active toxicities
- ✓ ECOG PS ≤ 2
- ✓ 24-hour availability of a trained caregiver
- ✓ <30 minutes from home to hospital
- ✓ Low tumor burden

At-home timeline:



Pre-enrollment patient and caregiver health education:

- Symptom detection tools
- ICE score
- Adverse event action plan



At-home lymphodepletion:

- Fludarabine (30 mg/m²/d IV)
- Cyclophosphamide (300 mg/m²/d IV)

CAR T infusions (fractionated)

Patients monitoring:

- Twice-daily phone check-ins: Vitals & ICE score
- At-home evaluations & lab tests every 48–72 hours



24-hour support unit for managing urgent medical events

BCP-ALL, B-cell precursor acute lymphoblastic leukemia; CAR, chimeric antigen receptor; ECOG PS, Eastern Cooperative Oncology Group performance status; ICE, immune effector cell-associated encephalopathy; IV, intravenous; MM, multiple myeloma; OATH, outpatient-at-home.

From “Expanding the Boundaries of CAR T-Cell Therapy: Implementation of an Outpatient-At-Home (OATH) Model”, presented by Mufid XBM et al. at the 2024 ASH Annual Meeting. Reproduced with permission from Mufid XBM et al. Presented at ASH 2024. Abstract 6192.

EMERGING PROGNOSTIC TOOLS MAY HELP IDENTIFY OPTIMAL CAR T CANDIDATES

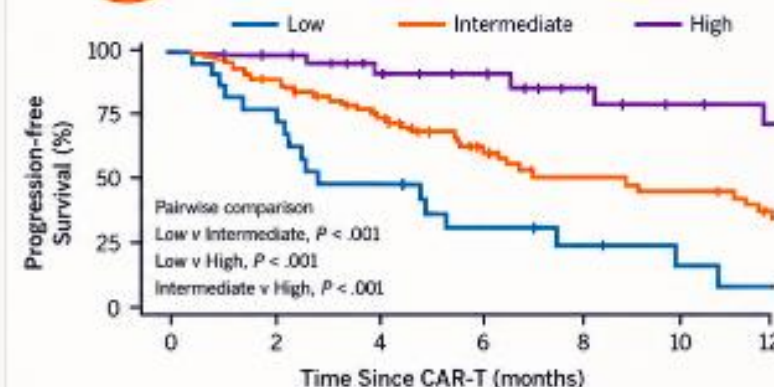


Multivariable modeling for
early (≤ 5 mo) relapse/progression*

Factor	HR	95% CI	P	Score
EMD or PCL present	1.92	1.30 to 2.82	<.001	1
High-risk cytogenetics	1.95	1.31 to 2.92	.001	1
Ferritin > normal limit (sex-/age-adjusted)	1.59	1.07 to 2.37	.02	1
Lenalidomide refractoriness	1.69	1.02 to 2.82	.04	1
MyCARe risk				
LOW (score 0-1)	Ref	-	-	-
INT Intermediate (score 2-3)	3.27	1.87 to 5.72	<.001	-
HIGH (score 4)	7.89	4.21 to 14.79	<.001	-



PFS by risk
(European cohort)



No. at risk:

Low	34	32	23	20	15	11	9
Intermediate	67	58	45	27	21	19	12
High	21	15	10	6	4	2	1



International, retrospective study of patients with RRMM treated with ide-cel or cilta-cel
evaluating the MyCARe model to predict outcomes after anti-BCMA CAR T



BCMA, B-cell maturation antigen; CAR, chimeric antigen receptor; CI, confidence interval; EMD, extramedullary disease; HR, hazard ratio; PCL, plasma cell leukemia; PFS, progression-free survival; RRMM, relapsed/refractory multiple myeloma.

*Each risk factor received a score of 1 point, forming the MyCARe model. Scores ranged from 0 to 4, and three distinct risk groups were identified: score 0-1 (low), score 2-3 (intermediate), and a score of 4 (high risk).



Gagelmann N et al. Clin Oncol. 2024;42(14):1045-1057.

EDAD NO ES UN FACTOR LIMITANTE PARA LA ADMON DE CAR-T

TOXICIDADES TARDÍAS...

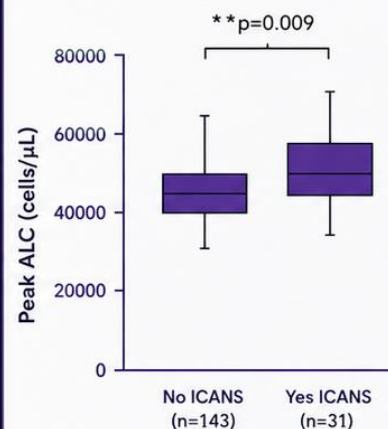
EXPERIENCE WITH SIDE EFFECTS IN THE REAL WORLD HAS BEEN CONSISTENT WITH CLINICAL TRIALS

	PIVOTAL STUDIES			REAL-LIFE STUDIES	
	 KarMMa (Ph.2) ¹ n = 128	 KarMMa-3 (Ph.3) ² n = 250	 CARTITUDE-1 (Ph 1b/2) ³ n = 97	 Ide-cel French registry ⁴ n = 159	 Cilta-cel US ⁵ n = 236
 CRS	84% (5% gr 3-4)	88% (4% gr 3-4, 1% gr 5)	95% (4% gr 3-4, 1% gr 5)	90% (2% ≥ gr 3)	75% (4% gr 3-4, 1% gr 5)
 Median time to onset of CRS, d (range)	1 (1-12)	1 (1-14)	7 (IQR: 5-8)	1 (0-16)	7 (0-14)
 ICANS	18% (3% gr 3)	15% (3% gr 3-4)	17% (2% gr 3-4)	13% (4% ≥ gr 3)	14% (4% gr 3-4)
 Median time to onset of ICANS, d (range)	2 (1-10)	3 (1-317)	8 (IQR: 3-6.5)	1.5 (0-7)	9 (1-51)
 ONT	-	-	12% (8% gr 3-4)	0.6% (n=1)	10% (1% gr 5)
 NRM	12%	13%	9%	5%	10%

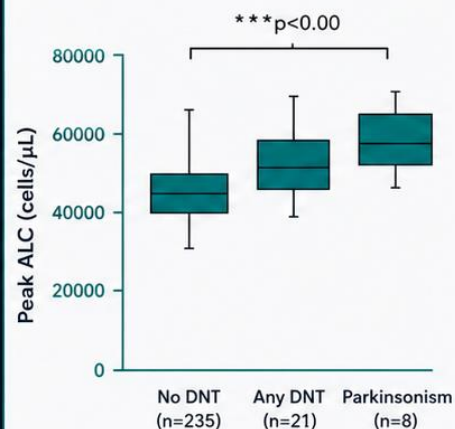


US STUDY EVALUATED ASSOCIATION OF CAR T EXPANSION WITH RISK OF DELAYED NEUROTOXICITY (DNT)

ICANS



DNT



CLINICALLY ACTIONABLE ALC THRESHOLDS ASSOCIATED WITH DNT

	No DNT (n=235)	Any DNT (n=21)	Parkinsonism (n=8)
ALC>2000	56%	90%	100%
ALC>2500	48%	89%	100%
ALC>3000	38%	71%	88%
ALC>4000	26%	62%	75%
ALC>5000	21%	52%	75%
ALC>3000 or ALC>2500 and FC>2	41%	81%	88%



Peak ALC was higher in patients developing **ICANS** and **DNT**



ALC thresholds to stratify risk of DNT may help **risk mitigation** efforts in the clinic

ALC, absolute lymphocyte count; CAR, chimeric antigen; DNT, delayed neurotoxicity; FC, flow cytometry; ICANS, immune effector cell-associated neurotoxicity syndrome.

From: Pugh Jacob CAR-T Expansion & Neurotoxicity Following Ciltacabtagene Autoleucel In Multiple Myeloma* presented by Hosoya H at the 2025 ASH Annual Meeting. Reproduced with permission from the American Society of Hematology.
Hosoya H et al. Presented at: ASH Annual Meetings; 2025. Abstract 96.

DESARROLLO DE TERAPIAS PUENTE EFICACES



Bridging therapy can be an effective strategy to help improve **CAR T outcomes**

01



Inferior PFS and OS outcomes among CAR T patients who receive bridging therapy likely reflects their higher-risk baseline disease (vs bridging impact)^{1,2}

02



Patients who respond to bridging may have better outcomes after CAR T than those with progressive disease during bridging³

03



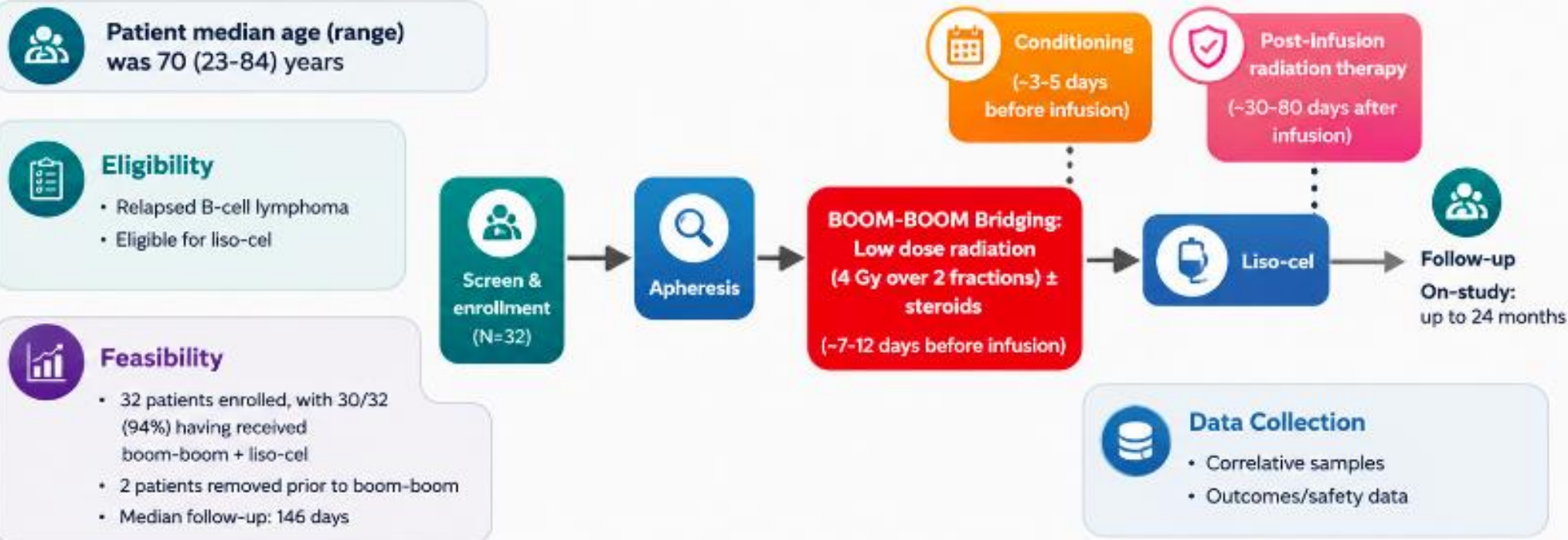
Different bridging strategies, such as comprehensive radiation therapy, are being explored to tailor treatment to specific disease characteristics⁴

CAR, chimeric antigen receptor; OS, overall survival; PFS, progression-free survival.

1. Pinnix CC et al. Blood Adv. 2020. 2. Jain MD et al. Blood Adv. 2024. 3. Roddie Cel et al. Blood Adv. 2023. 4. Saifi S et al. JAMA Oncol. 2024.

BOOM-BOOM: Feasibility of low-dose radiation therapy as bridging to liso-cel

The BOOM-BOOM trial is investigating the feasibility of using low toxicity radiation to enhance CAR T efficacy



CAR, chimeric antigen receptor; Gy, gray; liso-cel, Isocabtagene maraleucel.
D'Angelo A et al. Presented at: EHA Congress, 2025. Poster PF947.

¡NUEVAS COMBINACIONES!

BIESPECIFICO+iBTK acalabrutinib LDCGB

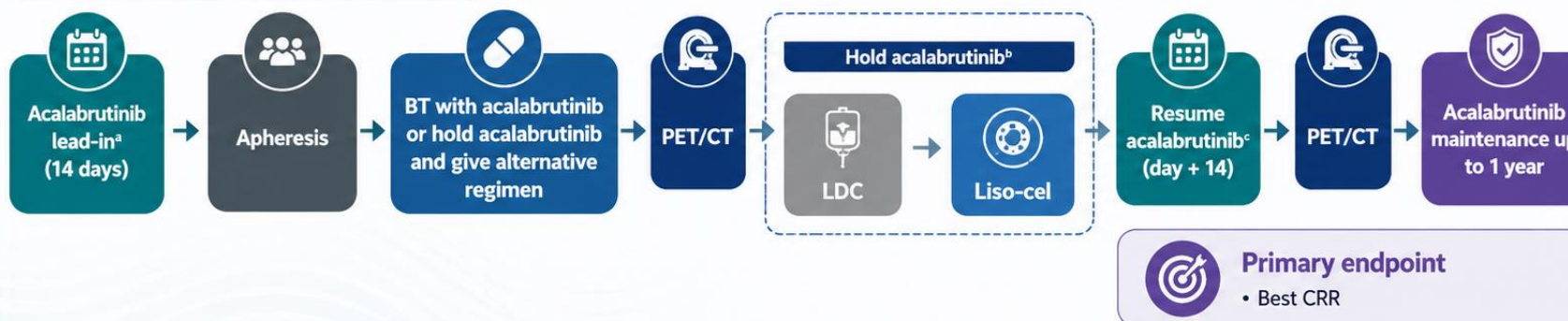


Safety and efficacy of **liso-cel** in combination with the BTK inhibitor, **acalabrutinib**

Eligibility



- R/R LBCL
- FDA-approved indication for liso-cel
- ECOG PS 0-2
- Adequate organ function



Primary endpoint

- Best CRR



Liso-cel in combination with acalabrutinib is an investigational combination which has not been approved by any regulatory authority.

^aTwo week lead-in of acalabrutinib 100 mg orally twice daily prior to leukapheresis. ^bAll patients stopped acalabrutinib at least 24 hours prior to LDC followed by standard liso-cel dosing.

^cAcalabrutinib was resumed on day +14 and continued up to 1 year.

BT, bridging therapy; BTX, Bruton tyrosine kinase; CRR, complete response rate; CT, computed tomography; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; FDA, Food and Drug Administration; LBCL, large B-cell lymphoma; LDC, lymphodepleting chemotherapy; PD, progressive disease; PET, positron emission tomography; PFS, progression-free survival; PR, partial response; R/R, relapsed or refractory; SD, stable disease.

Johnson PC et al. Presented at: SOHO 2025. Abstract 140



MD ANDERSON
CANCER CENTER

20

¡NUEVAS COMBINACIONES! BIESPECIFICO+CAR-T LDCGB R/R



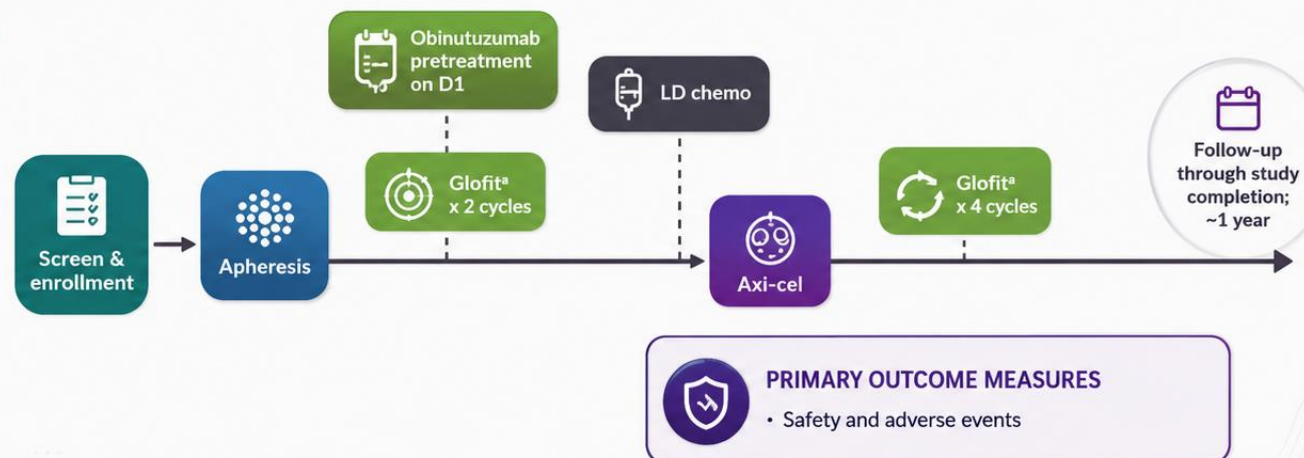
NCT06213311: AXI-CEL AND GLOFIT AS 2L THERAPY FOR PATIENTS WITH R/R DLBCL^{1,2}

The NCT06213311 trial is investigating the combination of axi-cel and glofitamab as 2L therapies in R/R DLBCL



ELIGIBILITY

- Aged ≥18 years
- CD19- and CD20- positive LBCL
- R/R disease ≤12 months after 1L
- ECOG PS of 0-2
- Adequate organ function
- No suspicion of CNS involvement
- Autoimmune disease under control



Axi-cel in combination with glofitamab is an investigational combination which has not been approved by any regulatory authority. Chemo, chemotherapy; CNS, central nervous system; DLBCL, diffuse large B-cell lymphoma; ECOG PS, Eastern Cooperative Oncology Group performance status; Glofit, glofitamab; LBCL, large B-cell lymphoma; LD, lymphodepleting; liso-cel, lisocabtagene maraleucel; PET, positron emission tomography; Polat, polatuzumab vedotin and rituximab; R/R, relapsed or refractory.
1. Clinicaltrials.gov NCT06213311 2. Kim K et al. Blood. 2024;144(Suppl 1):4511.



This session is restricted to healthcare professionals only. Satellite symposium sponsored by Bristol Myers Squibb.



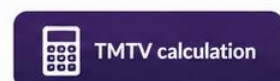
CARMOD: Golcadomide consolidation after CAR T for patients with R/R high-risk aggressive LBCL

The CARMOD trial is investigating the efficacy of the CELMoD agent golcadomide (Golca) as a post-CAR T treatment

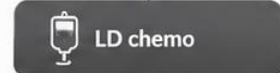


Eligibility

- ✓ Aged ≥18 years
- ✓ ECOG PS of 0 or 1
- ✓ Aggressive LBCL (eg, DLBCL, PMBCL, tFL, MZL, HGBL, and CNS involvement^a)
- ✓ CAR T indication 2L–4L
- ✓ TMTV >80 mL by PET just before starting CAR T infusion



TMTV calculation



LD chemo



CD19
CAR T
infusion



Golca started at D5
post-infusion, then QW
for 6 cycles

4-week cycles



Follow-up
On-study:
24 months



Primary endpoint

- CMR at 3 months



Secondary endpoints

- Efficacy (ORR, CRR, DOR, EFS, PFS, TTNT, OS)
- Safety



Golcadomide is an investigational combination which has not been approved by any regulatory authority.

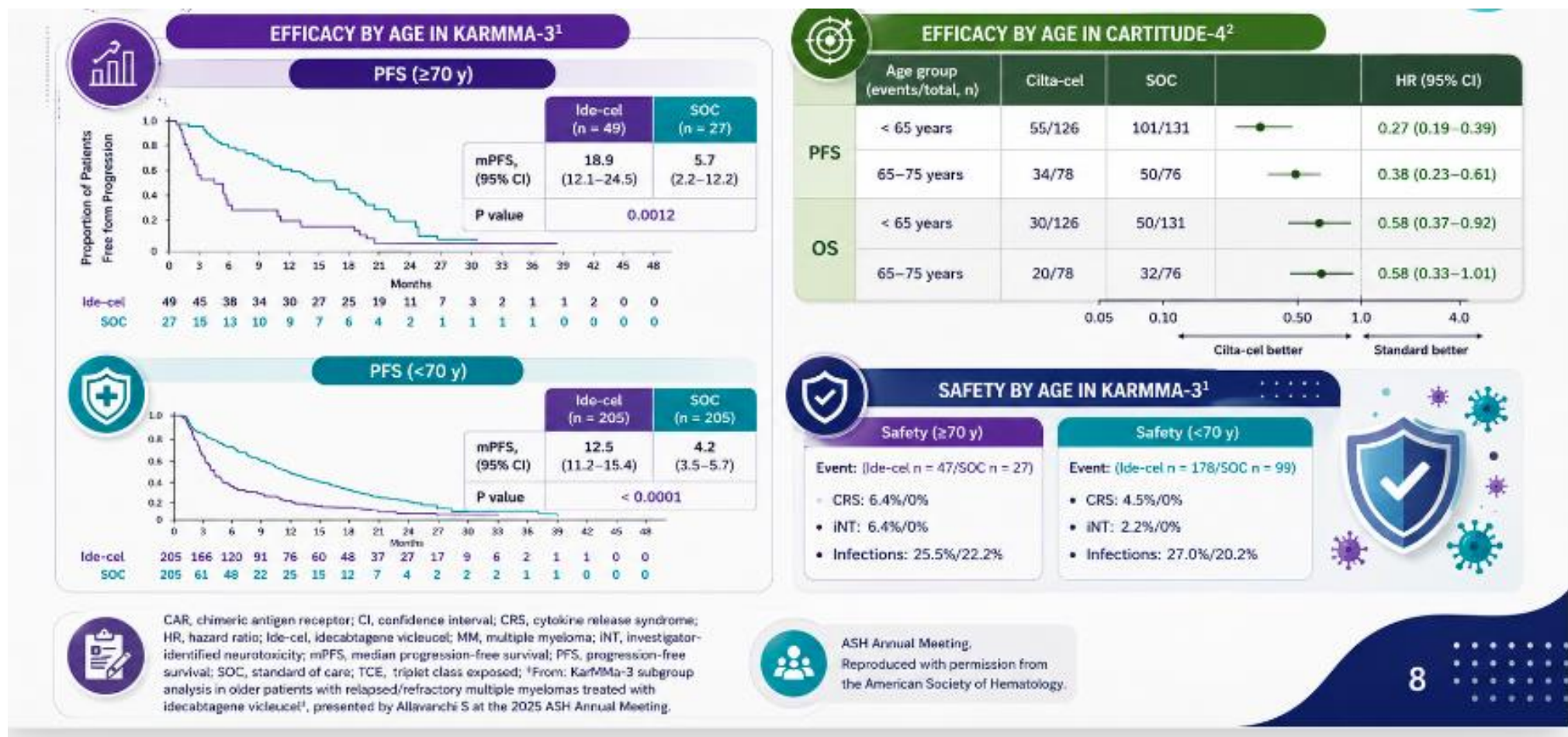
^aPatients with CNS involvement could be included but not patients with primary CNS lymphoma.

2L, second-line; 4L, fourth-line; CAR, chimeric antigen receptor; CELMoD, CELMoD agents; LD, lymphodepleting; days; CMR, complete metabolic response rate; CNS, central nervous system; CRR, complete response rate; D, day; DLBCL, diffuse large B-cell lymphoma; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; EFS, event-free survival; Golca, golcadomide; HGBL, high-grade B-cell lymphoma; LBCL, large B-cell lymphoma; LDC, lymphodepleting chemotherapy; MZL, marginal zone lymphoma; ORR, objective response rate; OS, overall survival; PET, positron emission tomography; PFS, progression-free survival; PMBCL, primary mediastinal large B-cell lymphoma; QW, weekly; tFL, follicular lymphoma; TTNT, time to next treatment; TMTV, total metabolic tumor volume.

Johnson PC et al. Presented at:
SOHO 2025. Abstract 140



MM: BENEFICIOS PACIENTE MAYOR CAR-T



RESUMEN

- **RESUMEN**
- **01.** La terapia con células CAR T ha consolidado su posición en el paradigma de tratamiento de LDCGB y MM
- **02.** Más pacientes con linfoma y mieloma están logrando resultados no vistos hasta ahora.
- **03.** La terapia puente puede sinergizarse con la terapia con células CAR T para mejorar los resultados. OPTIMIZACION
- **04: NUEVAS COMBINACIONES PERI-CAR-T en estudio**
- **05.** Necesitamos **herramientas** que nos permitan identificar a los *pacientes óptimos para estas terapias*.
- **06.** La edad no compromete el uso de terapias CAR T.

¡MUCHAS GRACIAS!



EHA2026
Congress