

Resultados actualizados de terapia CAR-T en linfoma no Hodgkin

Gloria Iacoboni

giacoboni@vhio.net

Department of Hematology
Hospital Universitari Vall d'Hebron



Disclosures

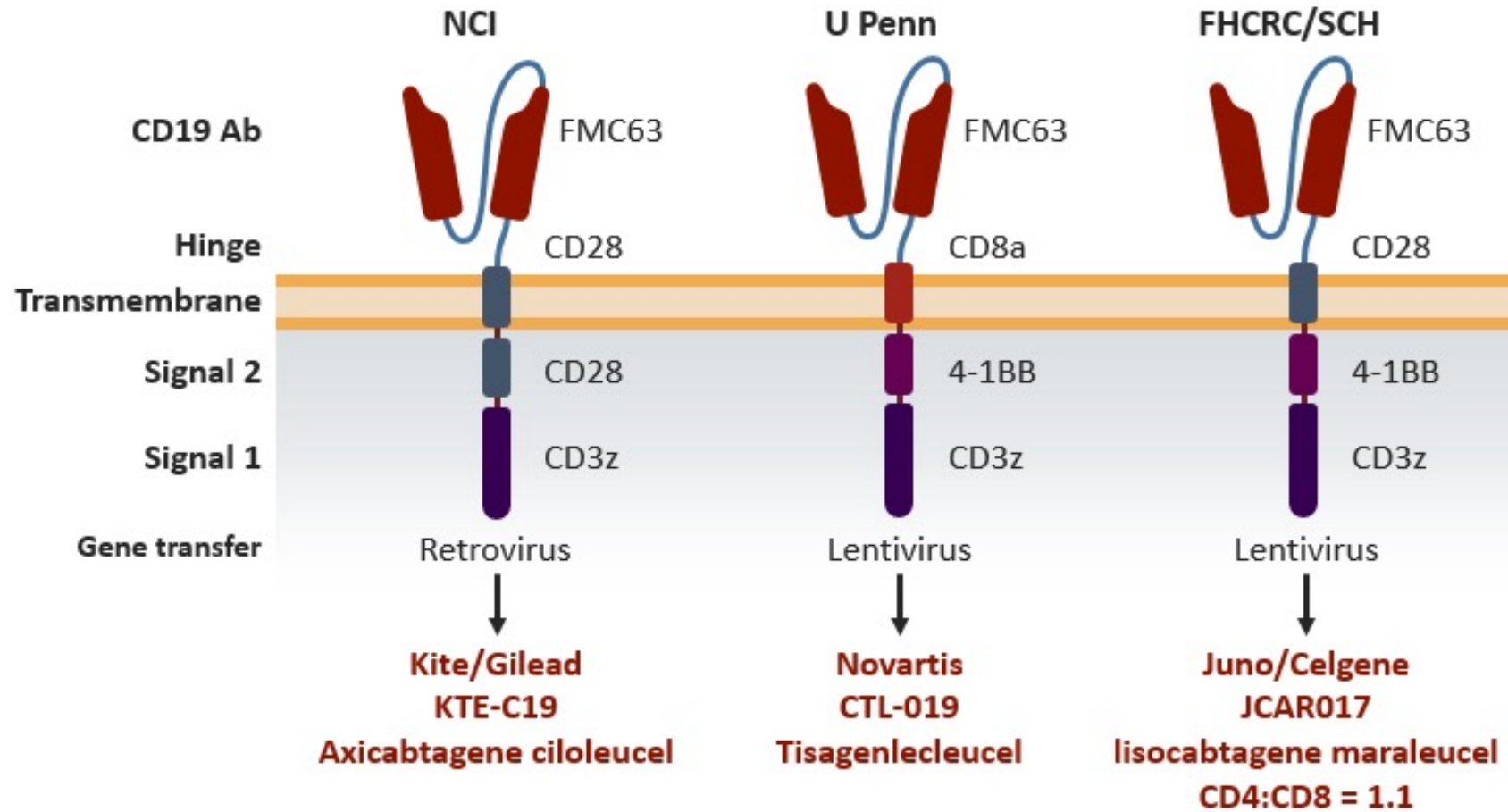
Speaker:

- Celgene / BMS, Novartis, Roche, AbbVie, Janssen and Gilead / Kite

Travel and accommodation:

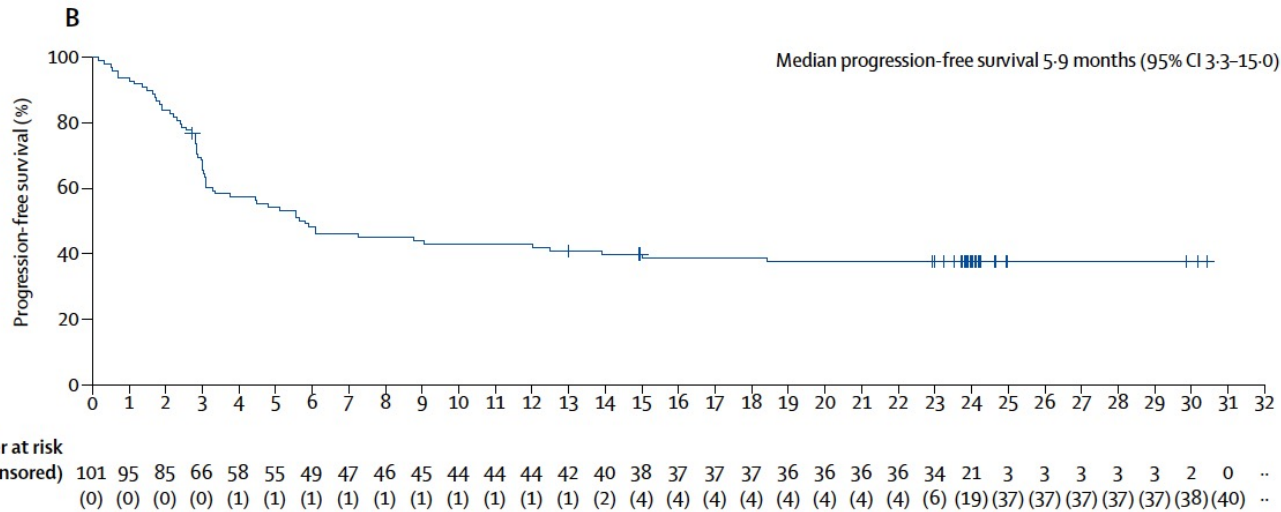
- Novartis, Roche, Celgene and Gilead

FDA approved CAR T-cell therapies for LBCL



Axicabtagene ciloleucel for R/R LBCL

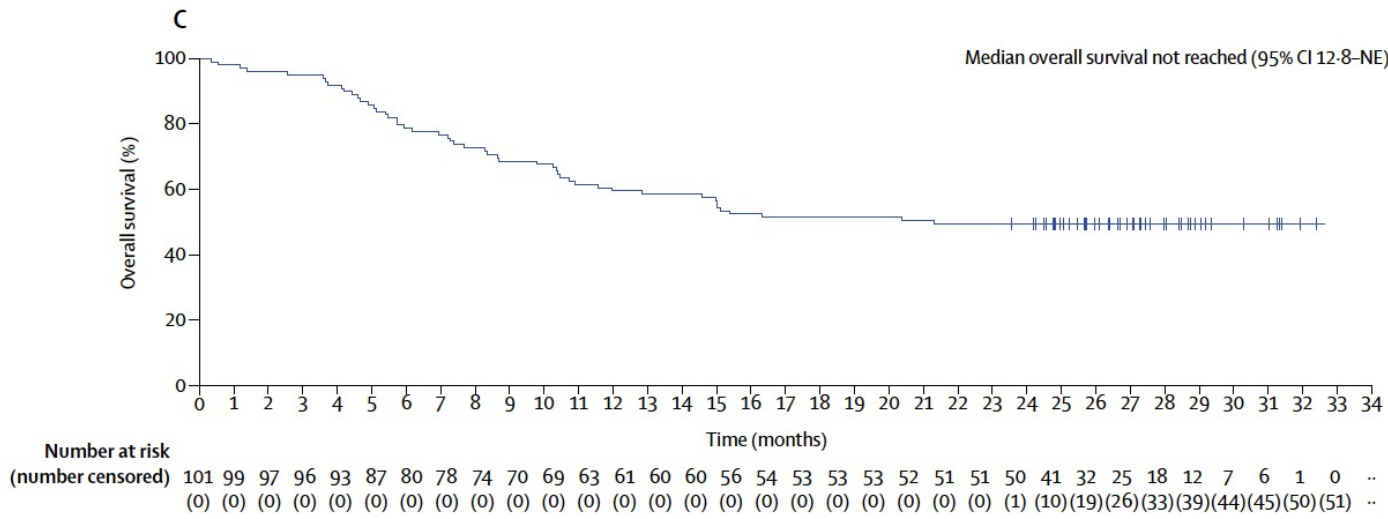
Long-term results from ZUMA-1 trial



ORR: (n=101): 83%
CR: 58%

Grade ≥ 3 CRS = 11%
Grade ≥ 3 ICANS = 32%

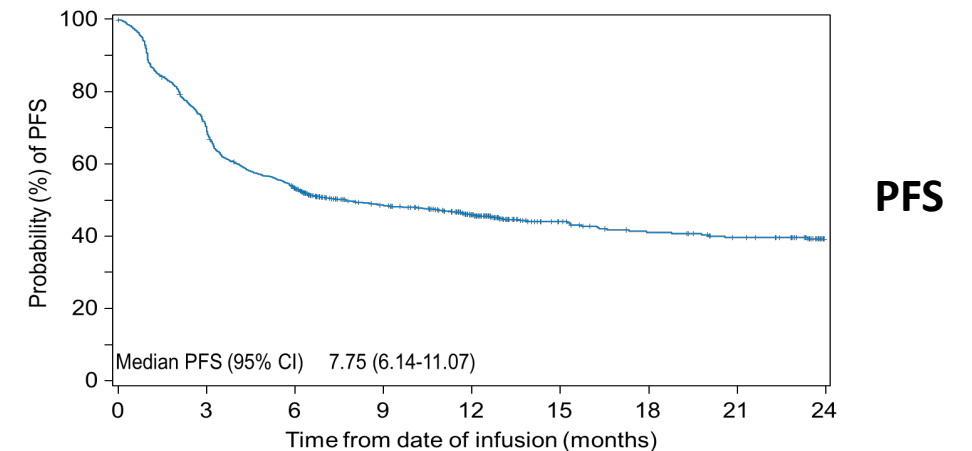
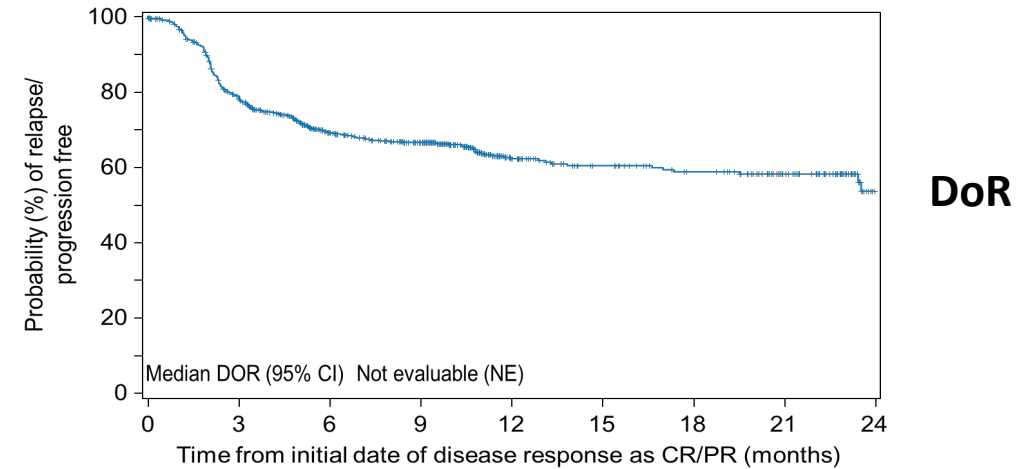
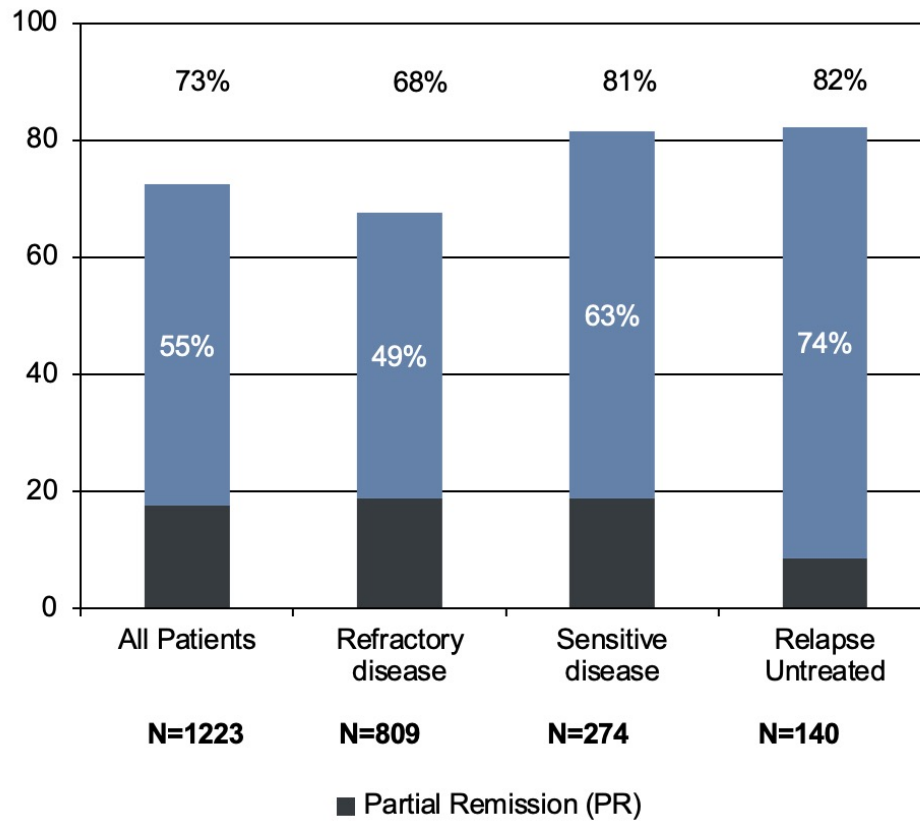
	n(%)	N= 111
Patients who died		66 (59)
Primary cause of death		
Progressive disease		52 (47)
Other		8 ^a (7)
AEs		5 ^b (5)
Secondary malignancy		1 (1)



Real-World Evidence of axi-cel for the treatment of LBCL in the US

Characteristic	Total
Number of patients	1,223
Number of US centers	76
Median age, years (range)	62 (19-91)
≥65 years	38%
Male	65%
ECOG performance status 0-1	83%
Prior History of Malignancy	16%
Transformed lymphoma	26%
Double/triple hit lymphoma	15%
Chemotherapy resistant disease	66%
Prior auto-HCT	27%
Time from diagnosis to axi-cel, median months	14

Real-World Evidence of axi-cel for the treatment of LBCL in the US

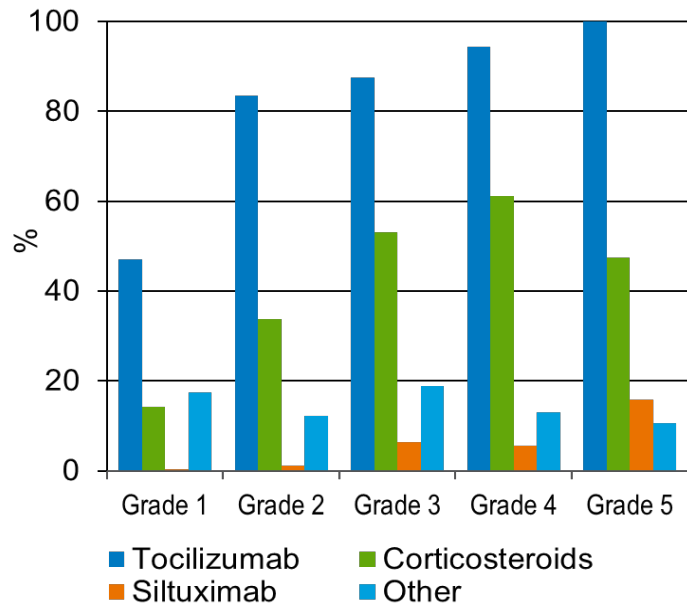


Real-World Evidence of axi-cel for the treatment of LBCL in the US

Safety profile

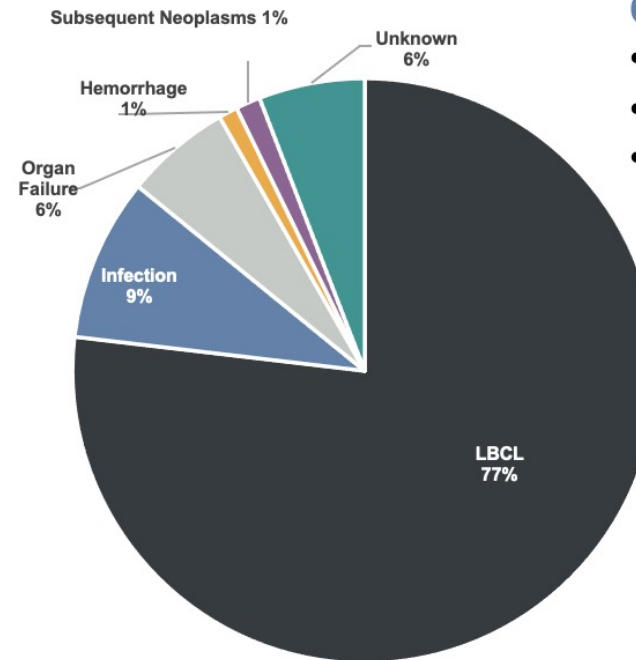
Any Gr CRS/Gr ≥ 3 , % 82/9

Any Gr NE/Gr ≥ 3 , % 55/24



CRS Grade Incidence by Intervention

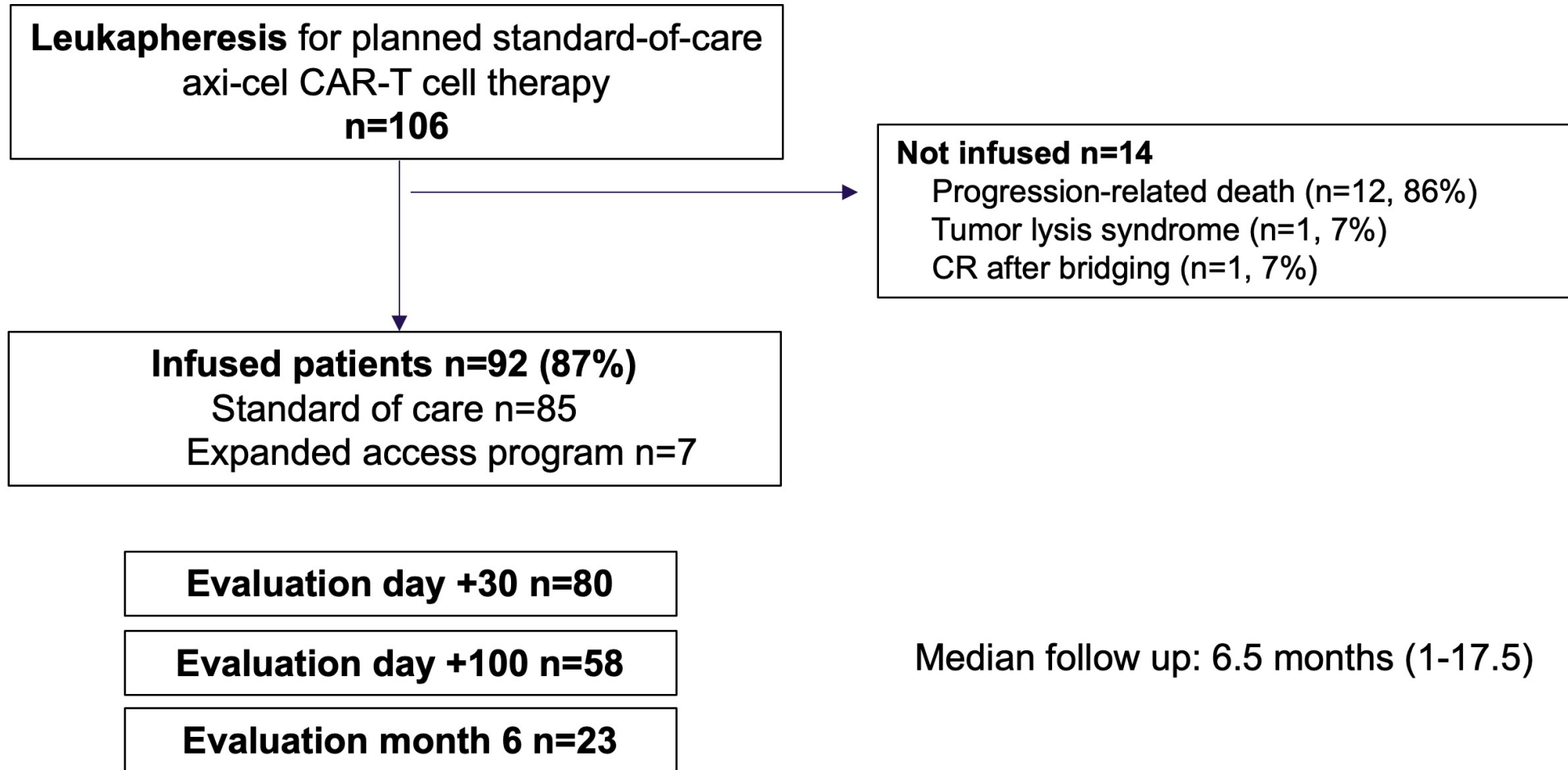
All Causes of Death (N=478)



CAR T-Cell Specific Deaths:

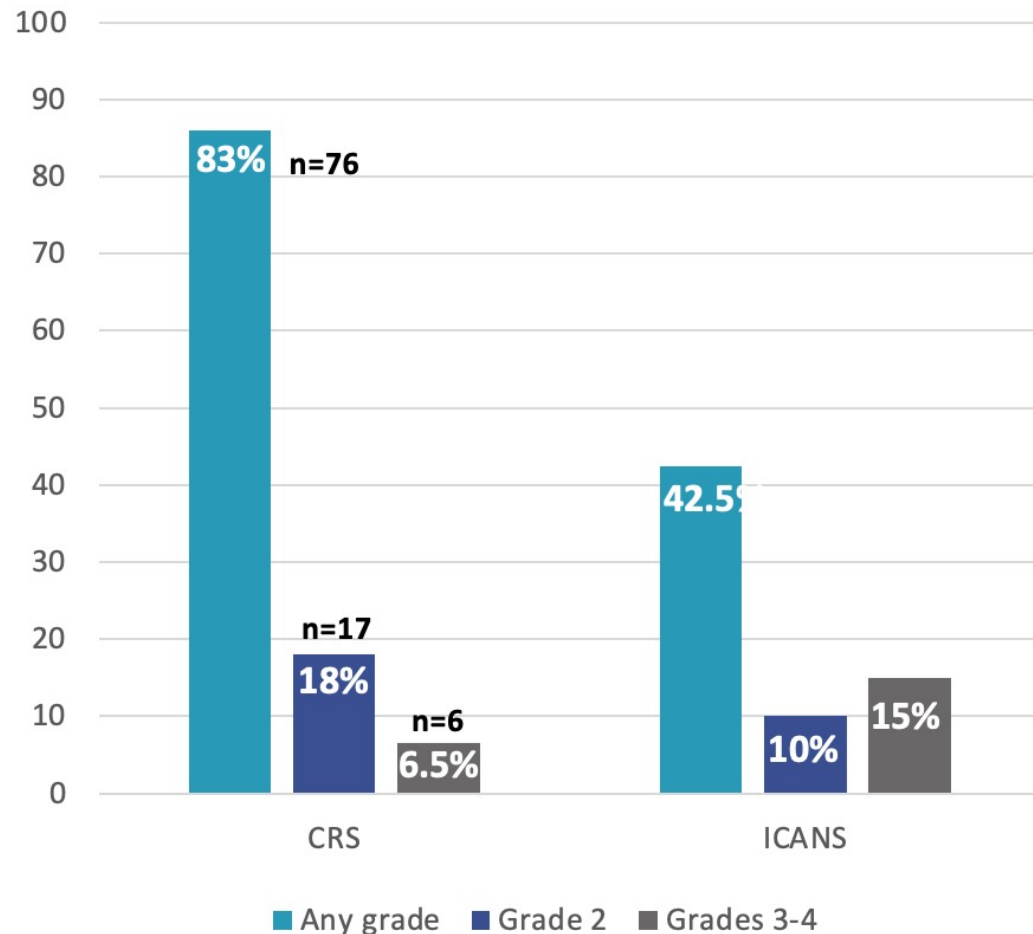
- Neurologic Toxicity: N=4
- CRS: N=8
- Hemorrhage:
 - CNS: N=3
 - GI: N=2

Spanish experience with axicabtagene ciloleucel



Spanish experience with axicabtagene ciloleucel

Safety profile



CRS treatment

- Tocilizumab in 58%
- Corticosteroids in 19%

ICANS treatment

- Steroids in 78%
- Tocilizumab in 31%
- Anakinra in 21%
- Siltuximab in 15%

ICU in 20 patients (22%)

Toxicity associated deaths n=6 (6.5%)

4 ICANS

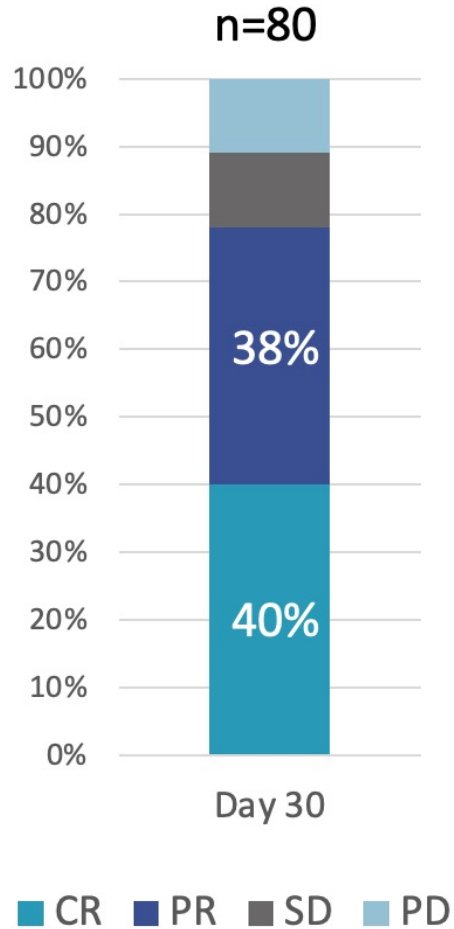
- 1 Sepsis during ICU admission due to ICANS
- 1 ICANS + HLH/MAS
- 2 ICANS (cerebral edema)

1 Sepsis

1 Refractory CRS

Spanish experience with axicabtagene ciloleucel

Efficacy results



Of 39 with PR/SD at day 30 → 9 (23%) converted to CR

	CR30	CR90
Histology group (tFL, DBCL, PMBL)	0.395	0.585
Stage (I, II, III, IV)	0.619	0.473
IPI risk score (low, int-low, int-high, high, very high)	0.745	0.588
Bulky disease	0.029	0.039
Number of prior lines (n)	0.199	0.969
Prior autologous HSCT	1.000	0.190
Primary refractory disease	0.465	0.455
Status at lymphodepletion (CR, PR, PD, SD)	0.091	0.885
Bridging therapy	0.590	0.850

Real-world outcomes of axi-cel in adult patients with primary mediastinal B-cell lymphoma

ORR: (n=33): 76%
CR: 67%

CRS, any grade/G ≥ 3 = 88%/6%
ICANS, any grade/G ≥ 3 = 39%/27%

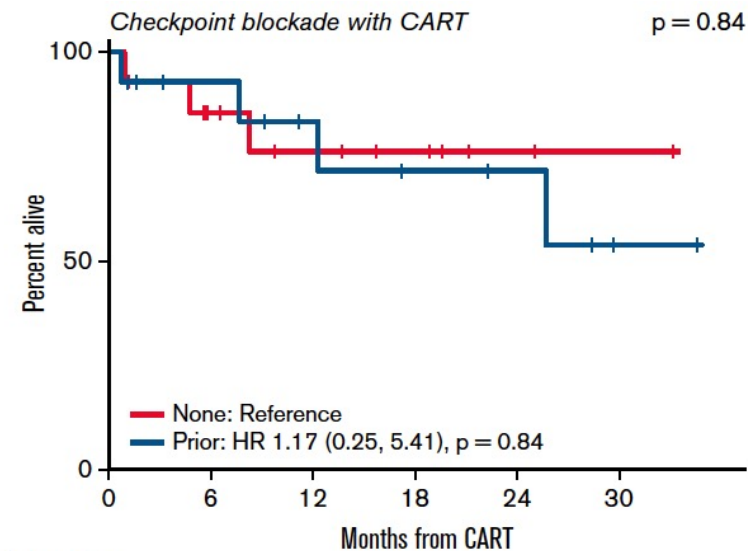
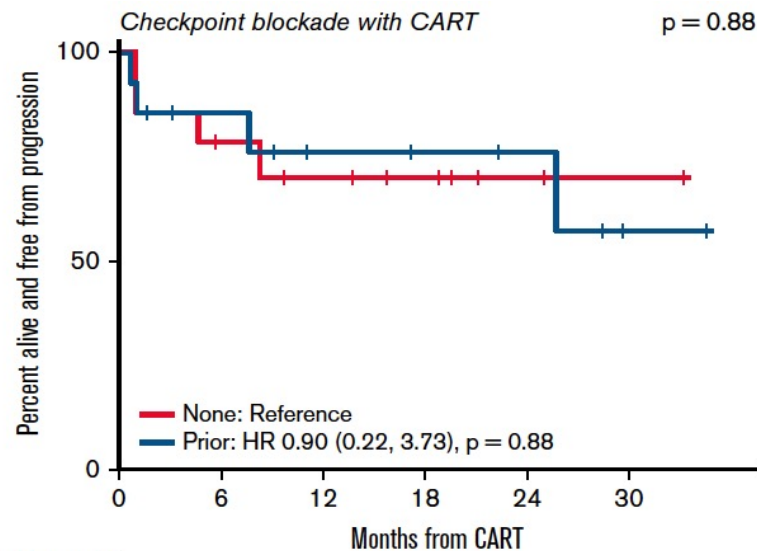
Median age: 32y (range 18-46)

Median prior lines: 3 (range, 1-9)

Prior ASCT in 30%

Bulky disease in 42%

Median FU was 13.8 mo

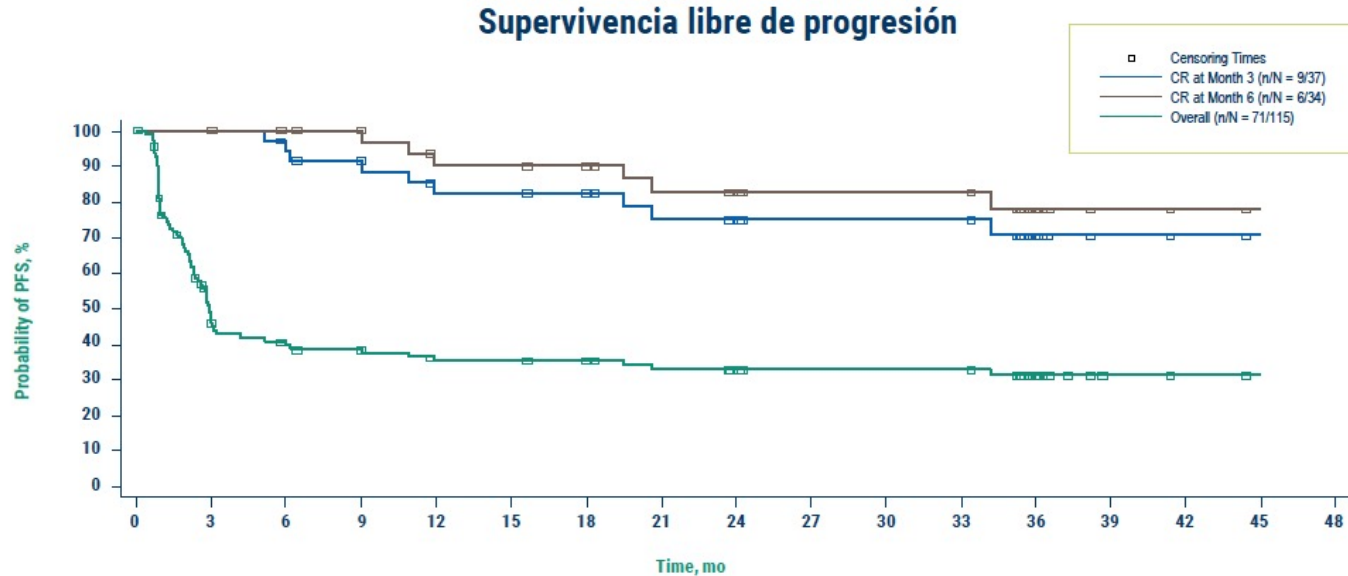


Number at risk	0	6	12	18	24	30
None	14	9	7	5	2	1
Prior	14	9	6	5	4	1

Number at risk	0	6	12	18	24	30
None	14	10	7	5	2	1
Prior	14	10	7	5	4	1

Tisagenlecleucel for R/R LBCL

Long-term results from JULIET trial



Number of patients still at risk

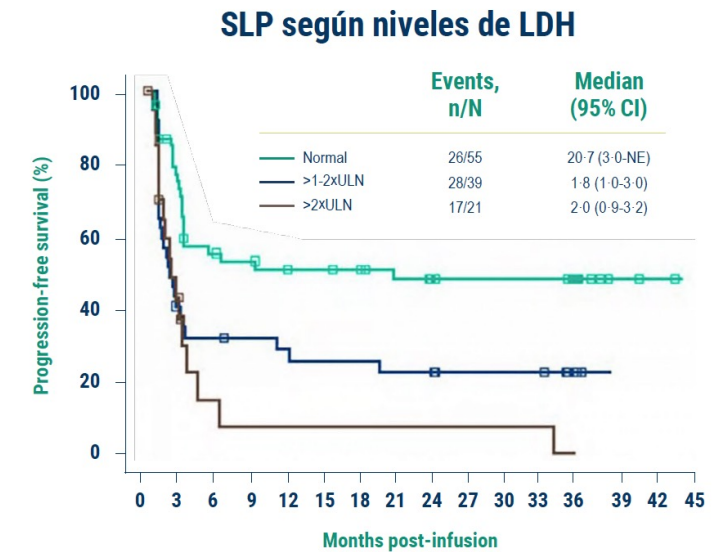
	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
CR at Month 3	37	37	33	31	26	26	25	21	20	17	17	17	7	2	1	0
CR at Month 6	34	34	33	32	27	27	26	22	21	18	18	18	8	2	1	0
Overall	115	47	38	38	31	31	30	26	24	21	21	21	11	2	1	0

Mediana seguimiento: 40.3 meses

SLP a los 36 meses: 31% en todos los pacientes y 78% en los pacientes con RC a los 6 meses

ORR: (n=115): 53%
CR: 39%

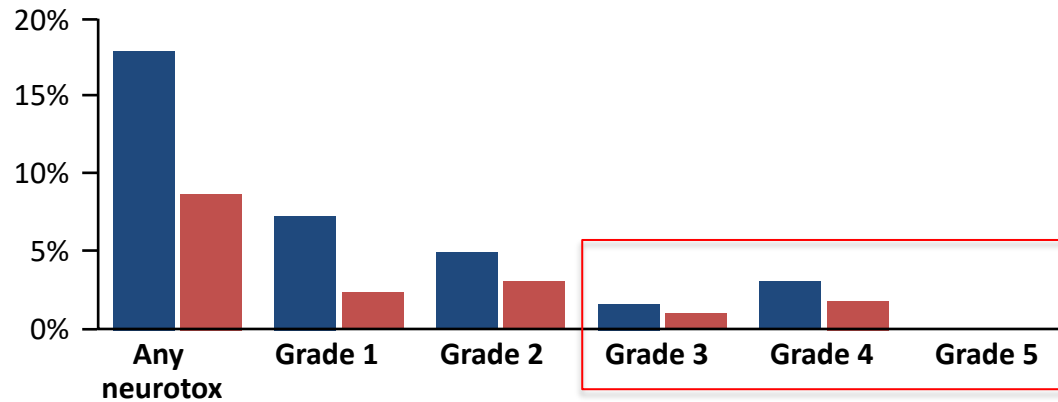
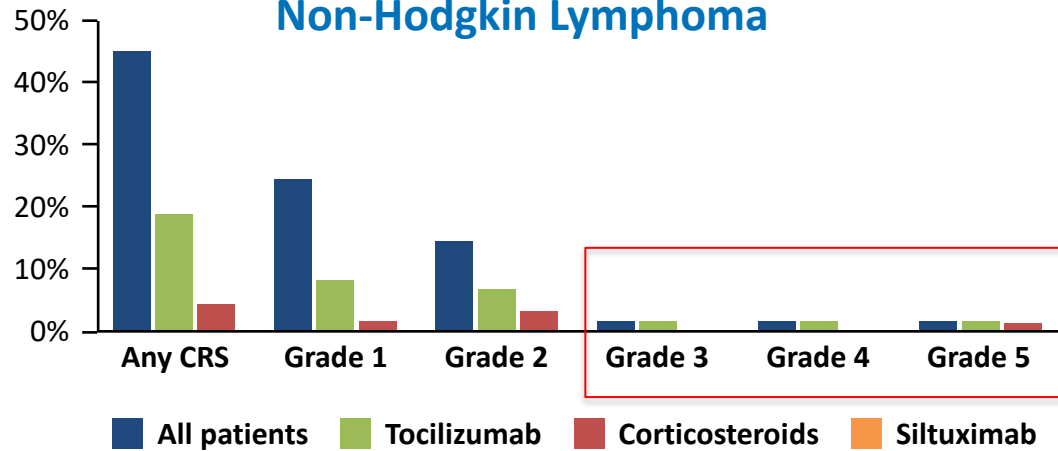
CRS, any grade/G ≥ 3 = 57%/23%
ICANS, any grade/G ≥ 3 = 20%/11%



Real-world analysis of tisa-cel in R/R large B-cell lymphoma

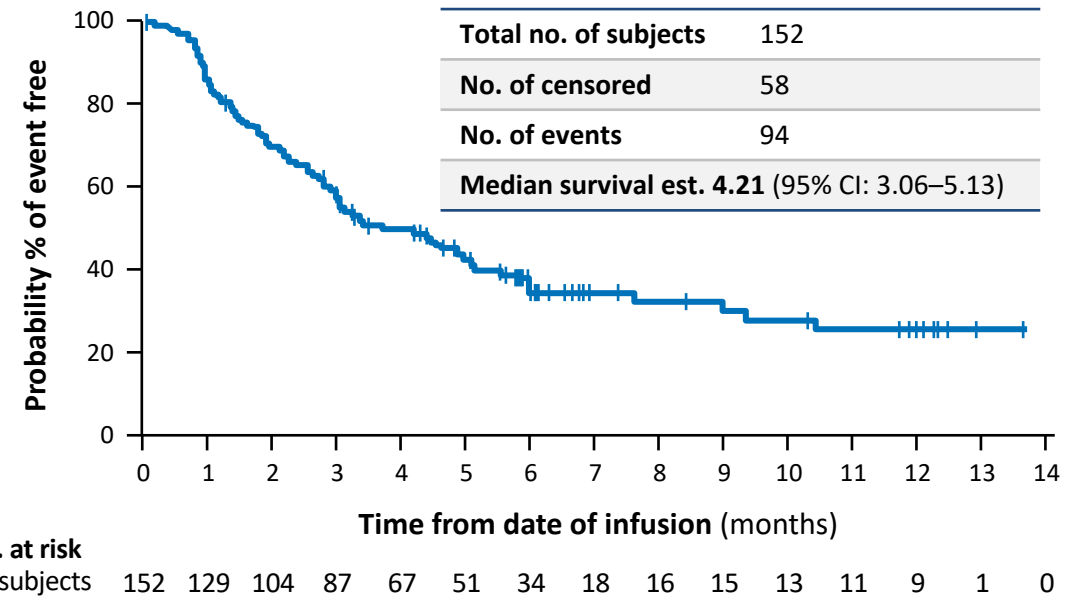
Safety

Non-Hodgkin Lymphoma



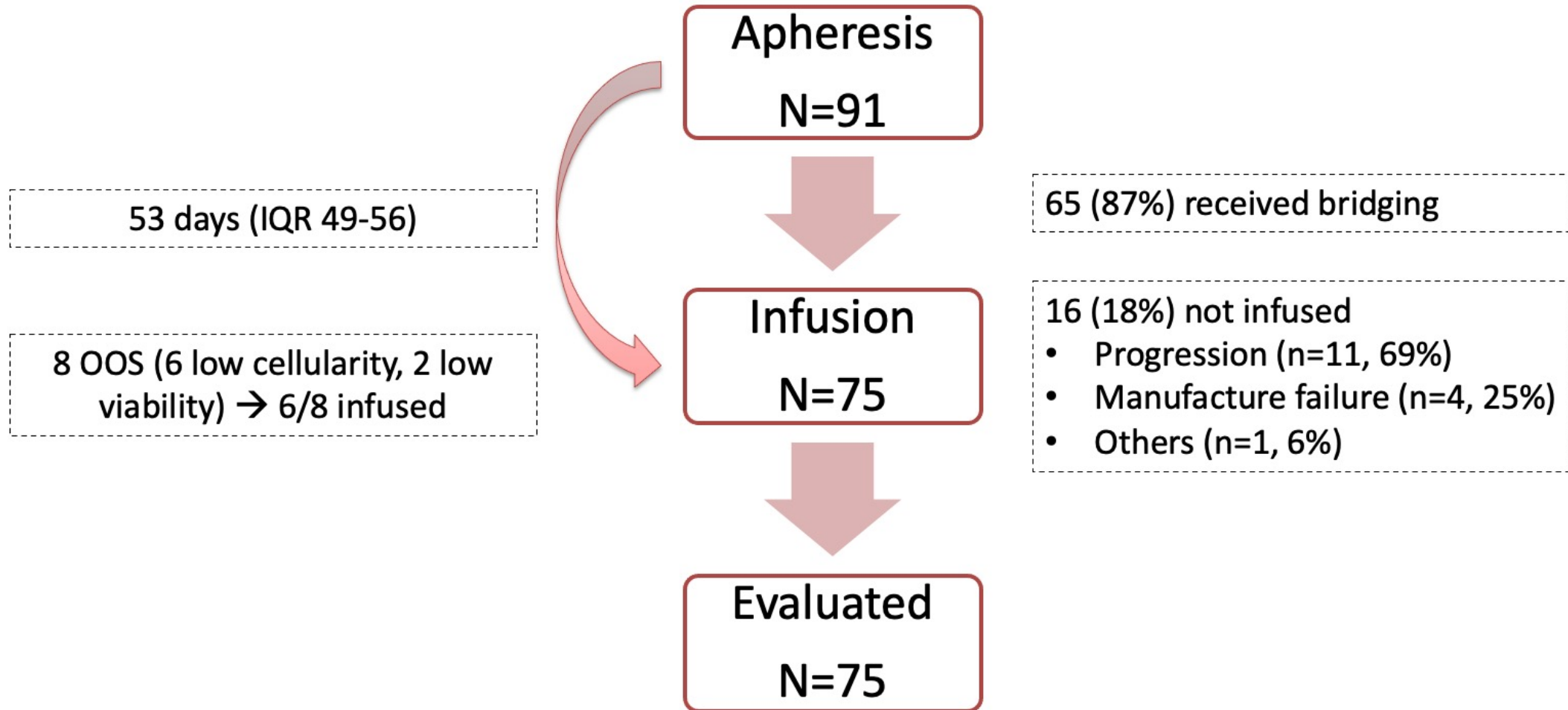
Efficacy

Endpoint	CIBMTR, % (95% CI)	Pivotal trial, % (95% CI)
CIBMTR vs JULIET	N=152	N=155
ORR (CR + PR)	61.8 (53.6-69.6)	52.2 (42.7-61.6)
BOR of CR	39.5 (31.6-47.7)	38.3 (29.4-47.8)



Spanish experience with tisagenlecleucel

10 Spanish sites from December 2018 - June 2020



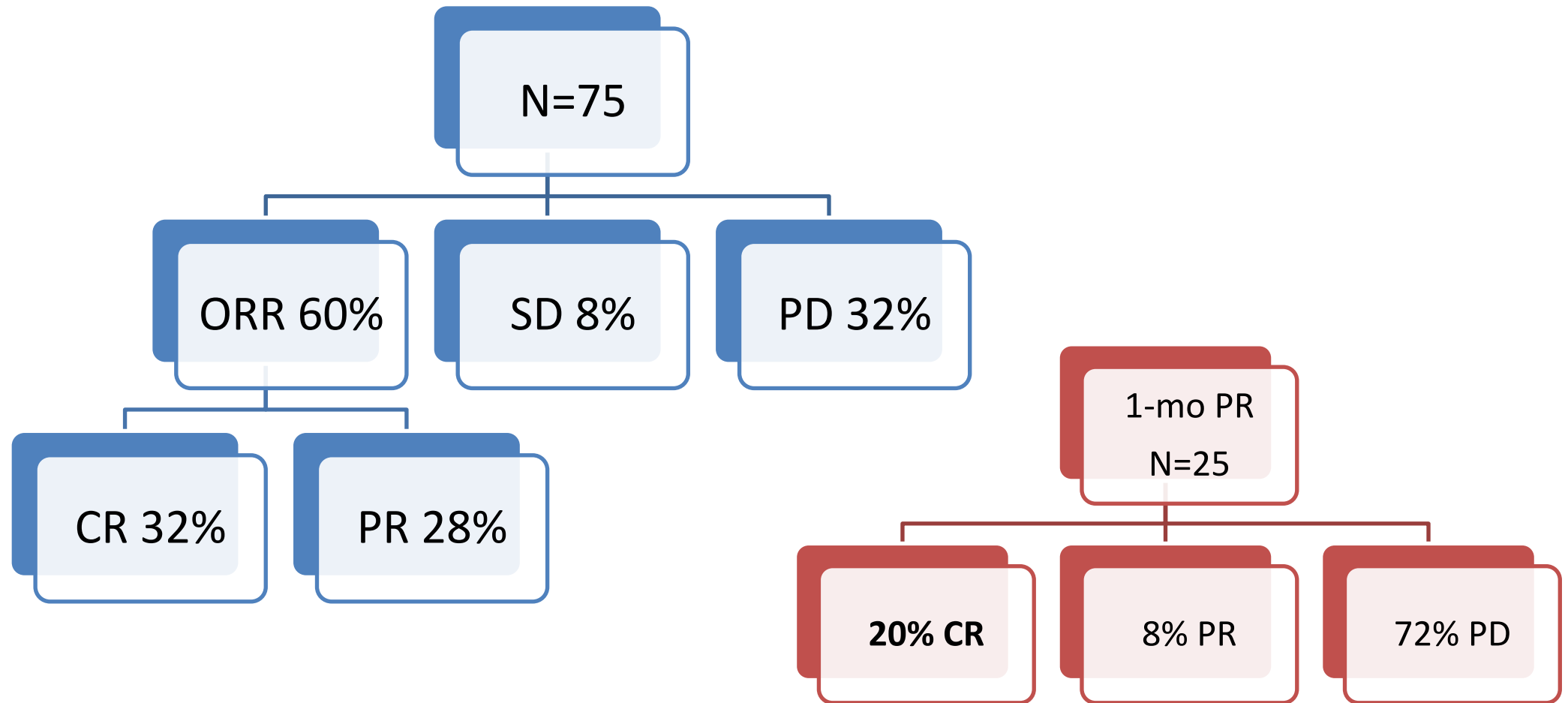
Spanish experience with tisagenlecleucel

Safety

CRS	
• Any grade; n (%)	53 (71)
• Grade ≥ 2 ; n (%)	21 (28)
• Grade ≥ 3 ; n (%)	4 (5)
• Time from infusion to start of CRS; median days (IQR)	2 (1 – 4)
ICANS	
• Any grade; n (%)	11 (15)
• Grade ≥ 2 ; n (%)	6 (8)
• Grade ≥ 3 ; n (%)	1 (1)
• Time from infusion to start of ICANS; median days (IQR)	7 (5 – 9)
ICU, n (%)	10 (13)
Tocilizumab; n (%)	24 (32)
Corticosteroids; n (%)	16 (21)

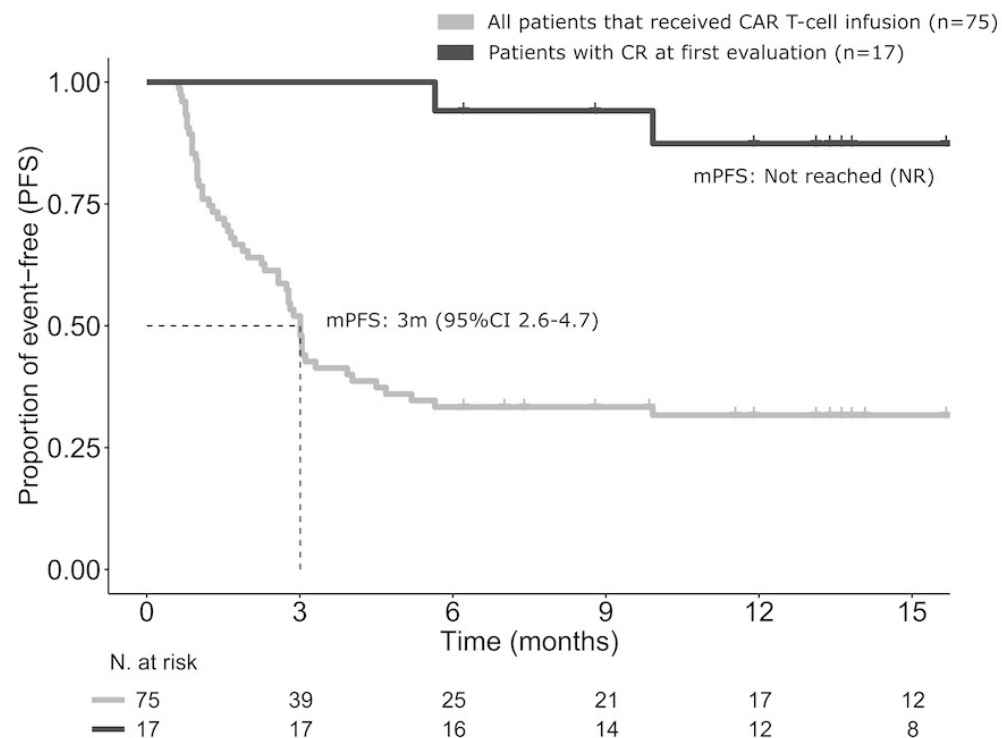
Spanish experience with tisagenlecleucel

Response evaluation

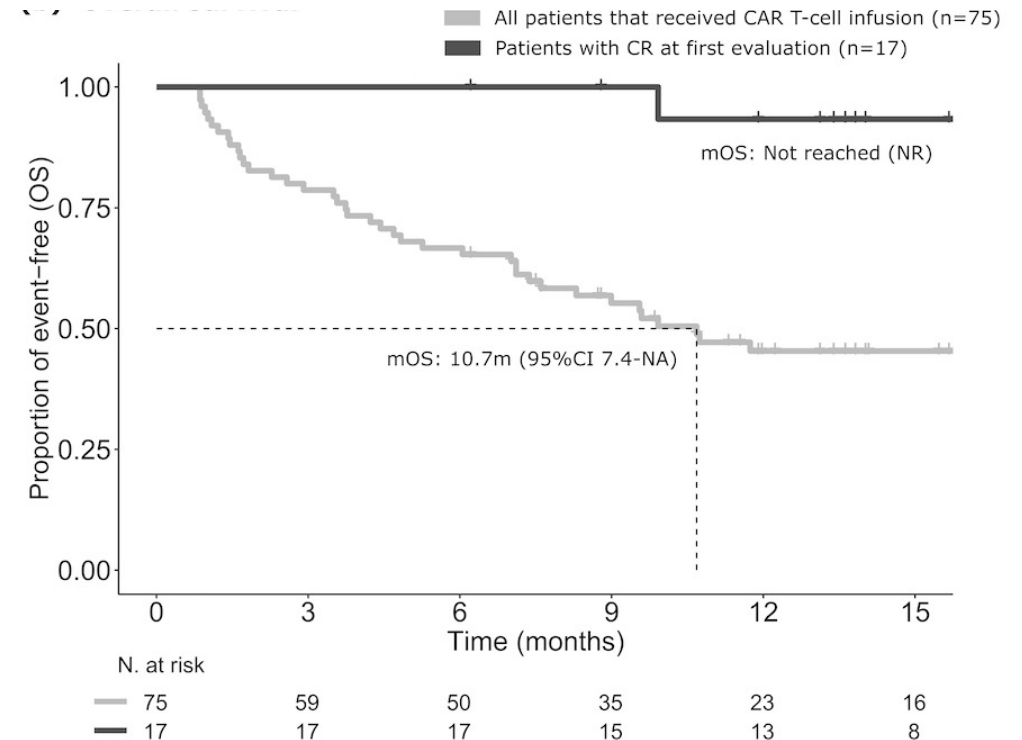


PFS and OS for infused patients and patients who achieved an initial CR

Progression-free survival



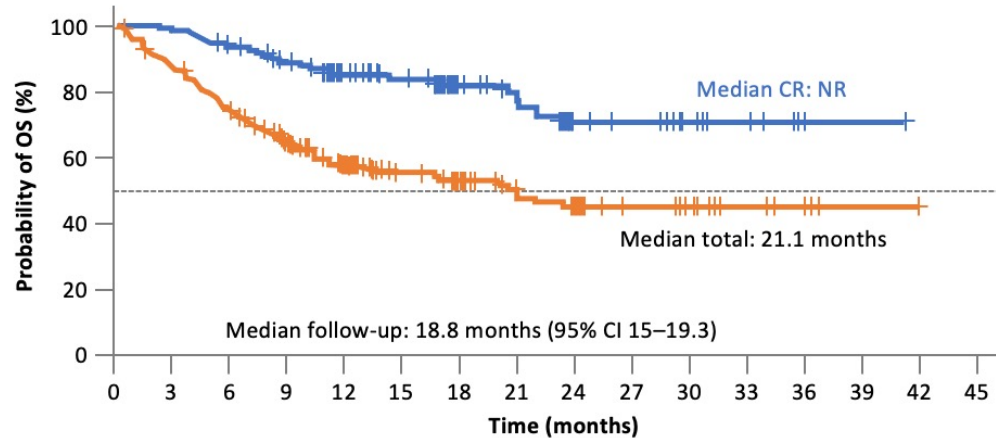
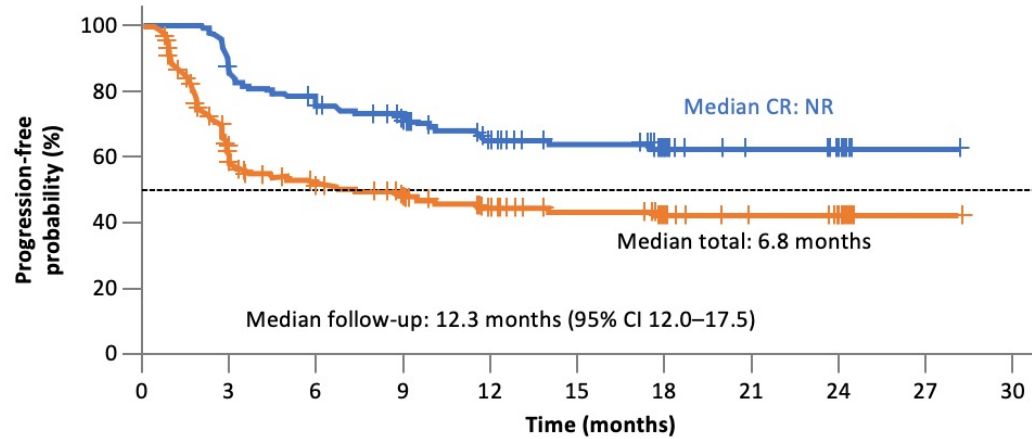
Overall survival



The overall 6-month and 12-month PFS was 33.3% and 31.7%, respectively

Lisocabtagene maraleucel for R/R LBCL

TRANSCEND trial



Best response

Patients
(N = 256)

Best ORR, %

73

Best CR, %

53

N=269

Any CRS, %

42

Grade \geq 3 CRS, %

2

Any neurological toxicity, %

30

Grade \geq 3 neurotoxicity, %

10

Brexu-cel real-world data (European)

ORR: (n=74): 85%
CR: 59%

CRS, G \geq 3 = 15%
ICANS, G \geq 3 = 31%

Bridging in 79%

- Ibrutinib 53%
- Chemo 47%
- RT 40%

Apheresis
N=28



Infusion
N=19

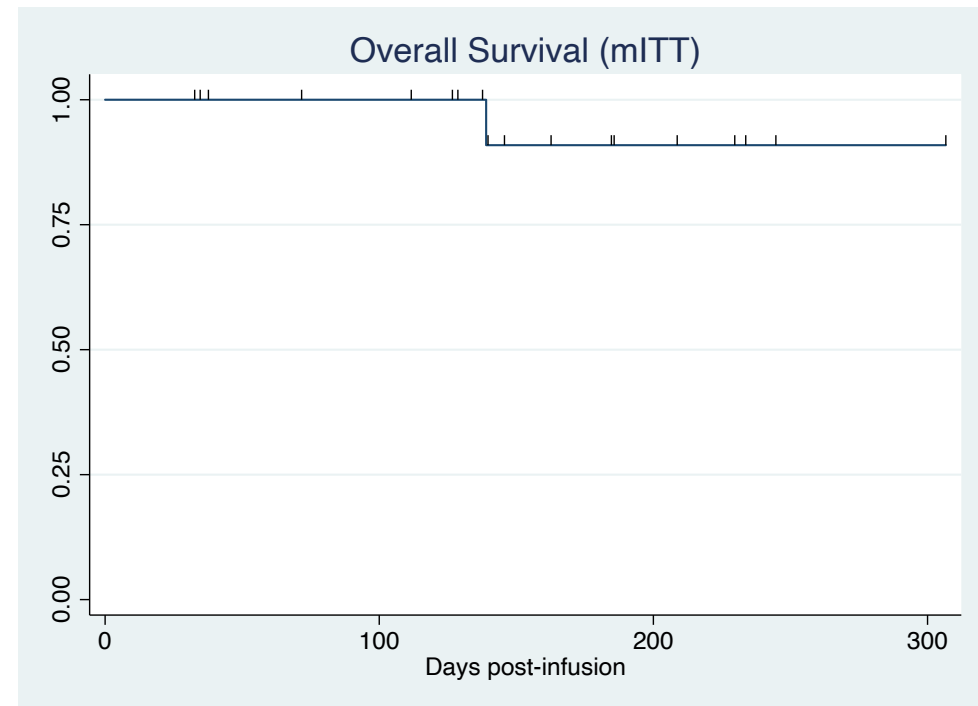
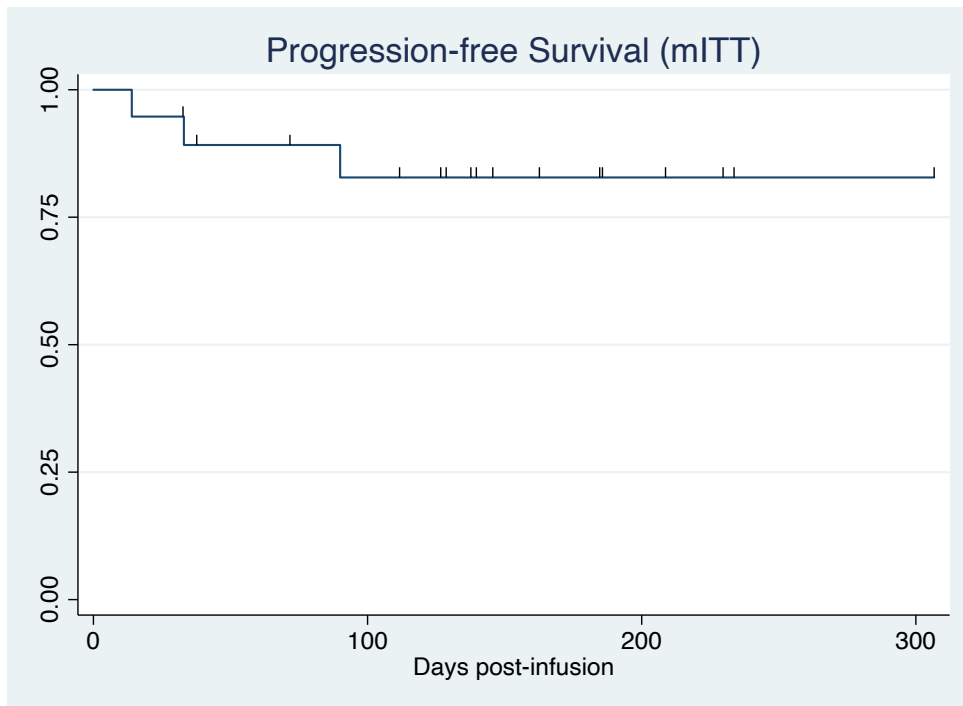
- PD in 4
- Manufacture in 4
- CR in 1

Tecartus real-world data (European)

Characteristics	Infused (N=19)
CRS, patients (%)	17 (89)
- Grade >2	1 (5)
- Time from infusion to CRS, median days (range)	5 (0-9)
ICANS, patients (%)	12 (63)
- Grade >2	5 (26)
- Time from infusion to ICANS, median days (range)	8 (3-12)
Tocilizumab, patients (%)	16 (84)
Corticosteroids, patients (%)	12 (63)
ICU, patients (%)	2 (11)
Infections, patients (%)	6 (32)
Non-relapse mortality by day 100, patients (%)	0

Tecartus real-world data (European)

Complete remission in 13 (68%) patients and partial remission in 4 (21%) patients



Estimated 6-month OS was 91% and 6-month PFS was 83%

Acknowledgments

Funding



PERIS 2016
2020
Pla estratègic de recerca
i innovació en salut



Collaborators

- **Pere Barba**
- Cecilia Carpio
- Sabela Bobillo
- Laura Segura
- Josu Iraola
- Mireia Olive
- C.Diaz / S.García
- A. Vidal/M. Tintoré
- I. Ruiz
- S.Carreras/A. Farriols
- J. Fernandez/M. Linares
- David Valcárcel
- **Francesc Bosch**