Key slides oncologia

Lectures

I CAR-T nel 2021

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ACC MED
ACCADEMIA NAZIONALE DI MEDICINA

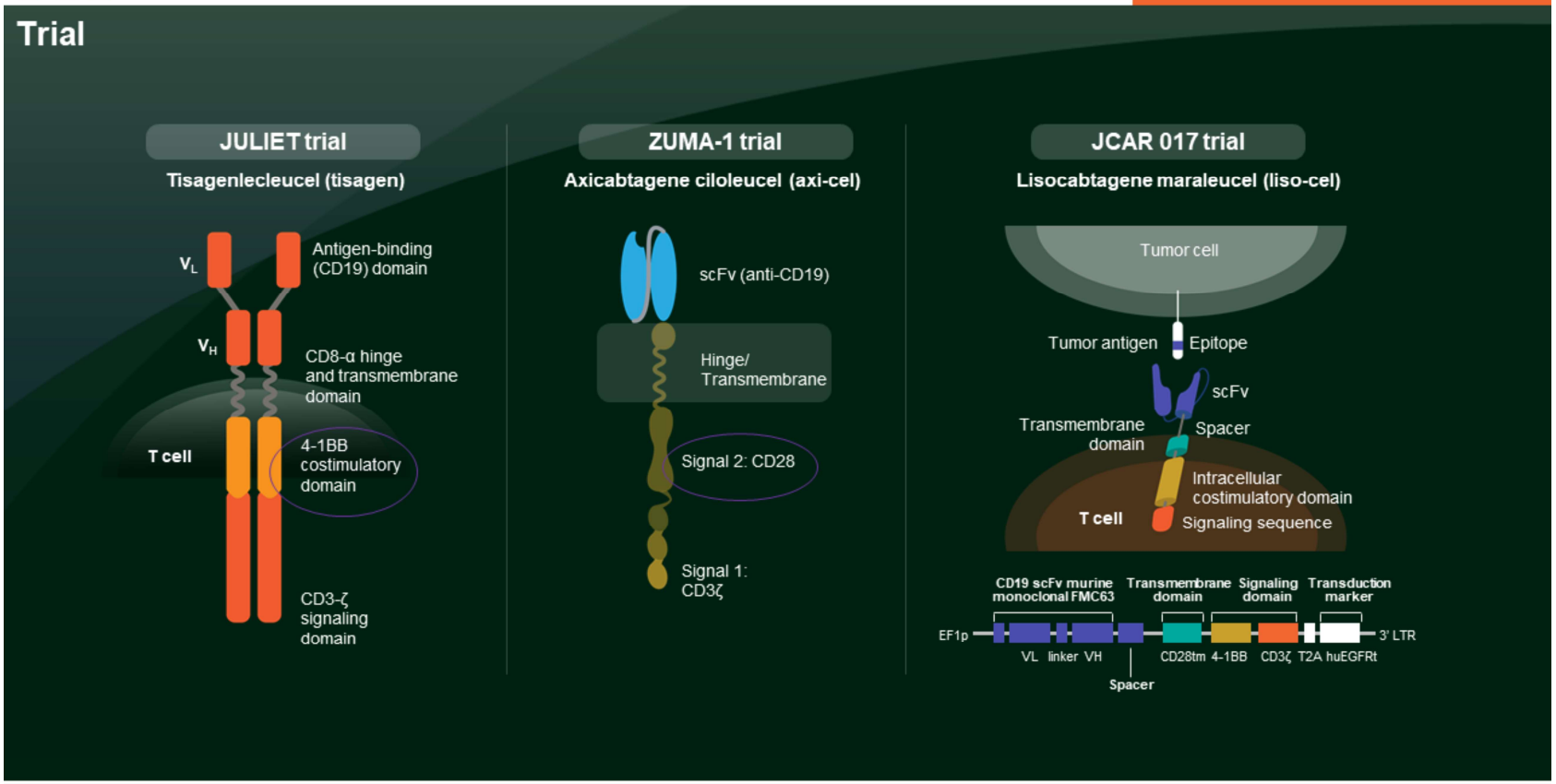
- Queste diapositive possono essere utilizzate anche per creare nuove presentazioni, nel rispetto del riconoscimento delle fonti.
- Nessuna parte della presentazione può essere riprodotta o diffusa a scopo commerciale senza il permesso scritto di Accademia Nazionale di Medicina.

Indice

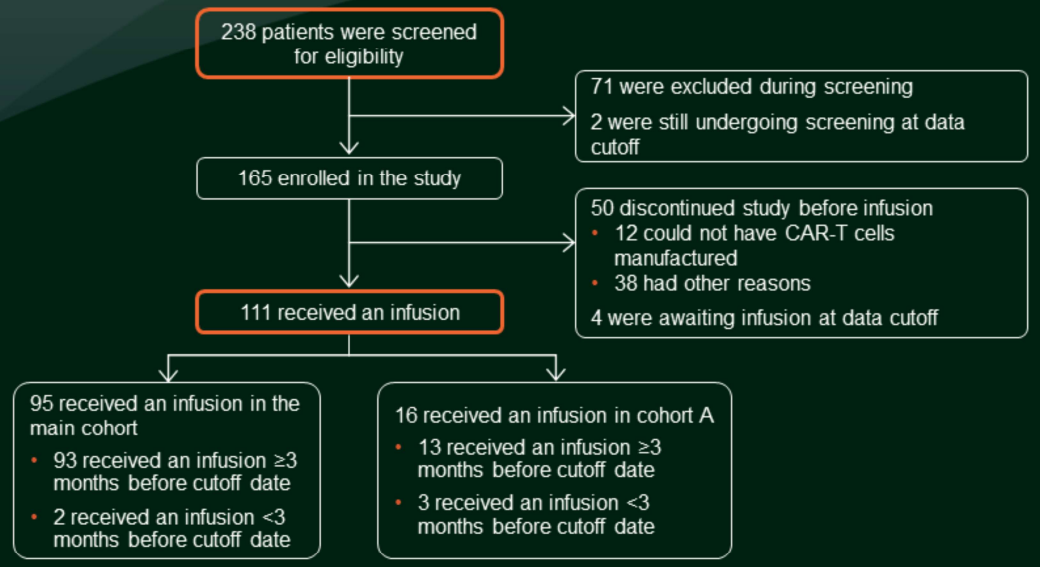
1

From trials to real word evidence in DLBCL

Trial



JULIET: Tisagen in relapse/refractory DLBCL

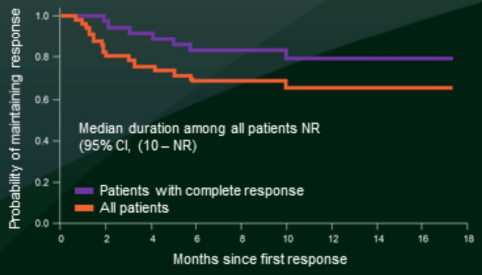


DLBCL: diffuse large B-cell lymphoma

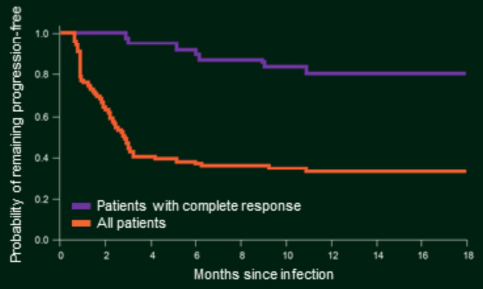
Mod. da Schuster SJ, et al. N Engl J Med 2019; 380: 45–56

JULIET: Results

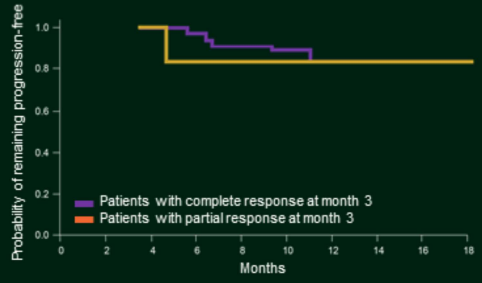
DURATION OF RESPONSE



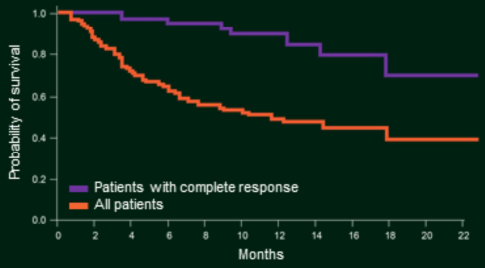
PROGRESSION-FREE SURVIVAL



PFS AMONG PATIENTS WITH A RESPONSE



OVERALL SURVIVAL

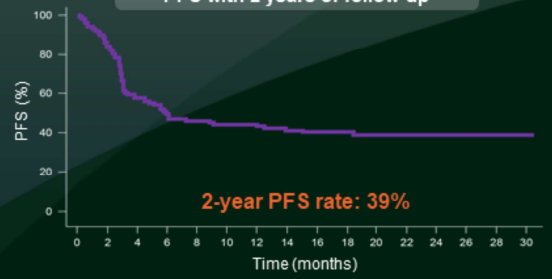


- The median OS among patients who received an infusion was 12 months
- The estimated probability of survival at months 12 was **49% (95% CI, 39 – 59)**

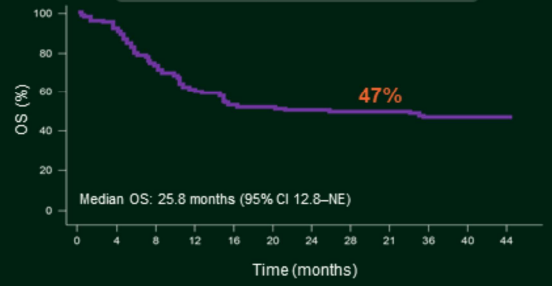
Mod. da Schuster SJ, et al. N Engl J Med 2019; 380: 45–56

ZUMA-1: Axi-cel in refractory LBCL

PFS with 2 years of follow-up



OS with 3 years of follow-up



- **ZUMA-1 is the pivotal, multicenter, single-arm phase I/II study evaluating axi-cel, an autologous anti-CD19 CAR-T cell therapy in patients with refractory LBCL**
- **After a median follow-up of 27.1 months for cohorts 1 (DLBCL) and 2 (PMBCL/TFL)**
  - N=101
  - **83% ORR; 58% CR rate**
  - **51% 2-year OS rate**
  - Median OS not reached

- **After a median follow-up of 39.1 months**
  - **47% 3-year OS rate**
  - 4 deaths since 2-year follow-up
- Approximately 60% of patients relapse or progress after axi-cel
- Previous analysis suggested 2 potential mechanisms of relapse
  - Loss of CD19 and/or involvement of immune tumor microenvironment in progression biopsy samples

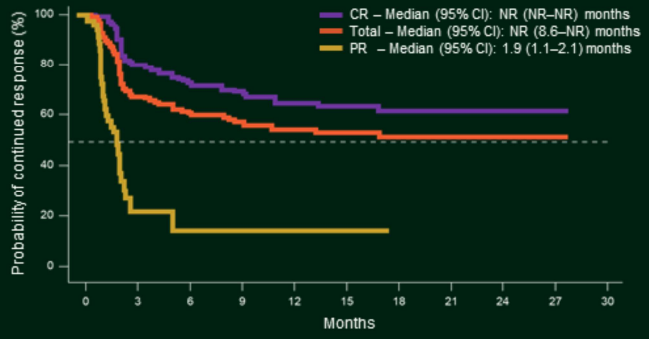
LBLC: large B-cell lymphoma; NE: not evaluable; ORR: objective response rate; CR: complete response

Mod. da Neelapu SS, et al. N Engl J Med 2017; 377: 2531–2544; Topp MS, et al. Blood 2019; 134 (Suppl 1): 243; Neelapu SS, et al. Blood 2019; 134 (Suppl 1): 203

TRANSCEND NHL 001: Pivotal phase I, multicenter design study

Efficacy-evaluable patients (N=256)	
ORR (95% CI)	73% (67–78)
CR rate (95% CI)	53% (47–59)
Time to first CR or PR, median (range), months	1.0 (0.7–8.9)
DoR at 6 months (95% CI), %	60.4 (52.6–67.3)
DoR at 12 months (95% CI), %	54.7 (46.7–62.0)

Median follow-up (95% CI): 12.0 (11.2–16.7) months



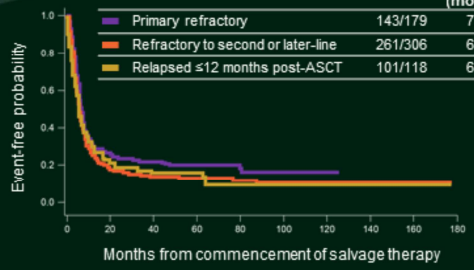
Efficacy among patients who received nonconforming product (n=25) was similar to those who received liso-cel

PR: partial response

Mod. da Abramson JS, et al. Blood 2019; 134 (Suppl. 1): 241

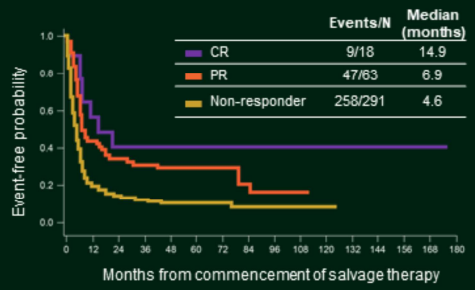
SCHOLAR-1 study

	Events/N	Median (months)
All	505/603	6.3



	Events/N	Median (months)
Primary refractory	143/179	7.1
Refractory to second or later-line	261/306	6.1
Relapsed ≤12 months post-ASCT	101/118	6.2

	Median OS (months)	2-year survival
All	6.3	20%
7% CR		
26% ORR		



	Events/N	Median (months)
CR	9/18	14.9
PR	47/63	6.9
Non-responder	258/291	4.6

	Events/N	Median (months)
Yes	123/180	14.4
No	382/423	5.1

	Median OS (months)	2-year survival
Primary refractory	**7.1**	24%
Refractory to ≥2 lines of therapy	**6.1**	17%
Relapse ≤12 months after auto-SCT	**6.2**	19%

ASCT: autologous stem cell transplantation

Mod. da Crump M. et al. Blood 2017; 130: 1800–1808

Efficacy in multicenter CD19 CAR-T trials in adult NHL

Patient characteristics and outcomes: Comparison between pivotal clinical trials and commercial axi-cel and tisa-cel

	ZUMA-1[1]	Commercial axi-cel	JULIET[2]	Commercial tisa-cel
N patients collected	111	163	165	79
N patients infused	101	149	111	75
Age, median (range)	58 (23–76)	58 (18–85)	56 (22–76)	67 (36–88)
DLBCL including HGBL	76%	86%	79%	94%
ECOG 0/1	100%	86%	100%	94%
Prior autologous transplant	23%	29%	49%	23%
ORR	82% (best)	72% (day 30)	52% (best)	59% (day 30)
CR rate	58% (best)	43% (day 30)	40% (best)	44% (day 30)
Grade 3 or higher CRS	13%[a]	13%[d]	22%[c]	1%[d]
Grade 3 or higher NEs	31%[b]	41%[d]	12%[b]	3%[d]
Tocilizumab use	43%	62%	14%	13%
Steroid use	27%	57%	10%	7%

[a] Per Lee scale; [b] Per CTCAE V4.03; [c] Per Penn scale; [d] Per institutional scale which includes a,b,c, ASTCT, and CARTOX scale

HGBL: high-grade B-cell lymphoma; CRS: cytokine release syndrome; NEs: neurologic events; HLH: hemophagocytic lymphohistiocytosis

12 deaths (8%) unrelated to lymphoma progression occurred in axi-cel patients at a median of 57 days (range 6–373), with 5 due to infectious complications, 4 due to grade 5 NEs, 1 due to cardiac disease, 1 due to pulmonary hemorrhage, and 1 due to HLH.

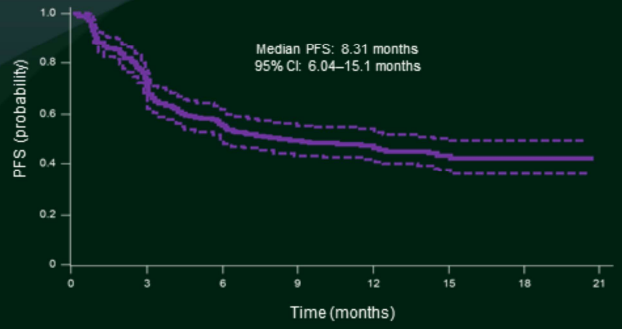
4 deaths (6%) unrelated to lymphoma progression occurred in tisa-cel patients at a median of 48 days (range 25–146) with 2 due to infectious complications, 1 due to cardiac disease, and 1 due to unknown causes.

Mod. da Riedell PA, et al. Blood 2019; 134 (Suppl_1):1599

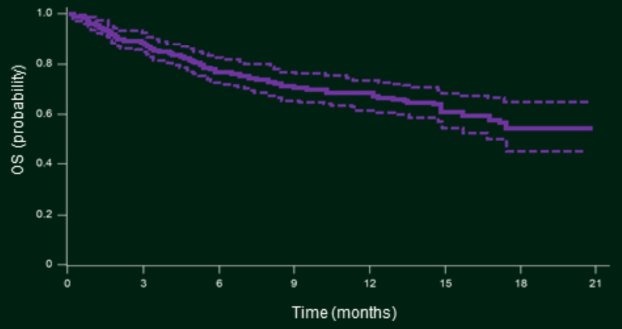
1. Neelapu SS, et al. N Engl J Med 2017; 377: 2531–2544; 2. Schuster SJ, et al. N Engl J Med 2019; 380: 45–56

Axi-cel in relapse/refractory LBLC

12 months PFS: 45%



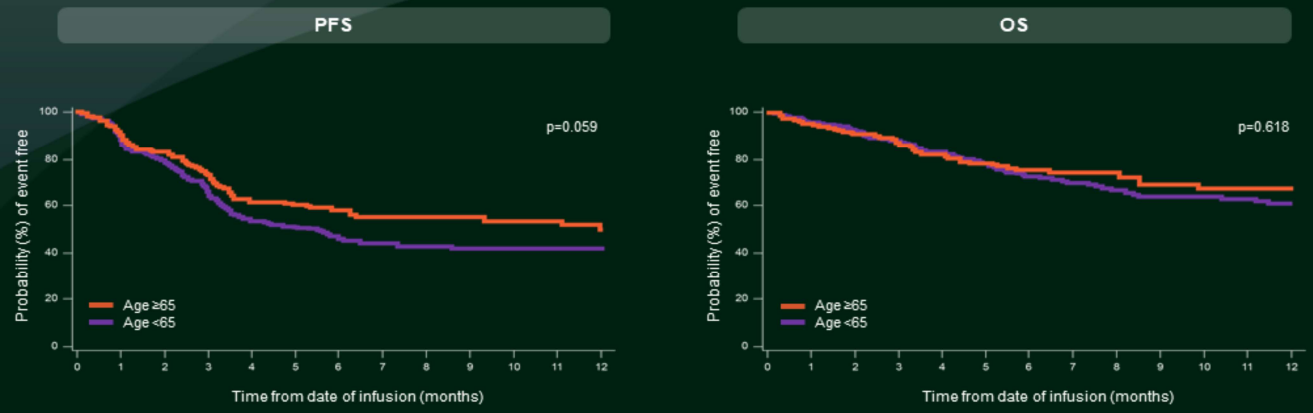
12 months OS: 64%



Mod. da Nastoupil LJ. et al. J Clin Oncol 2020; 38: 3119–3128

Axi-cel in RWE from the CIBMTR registry

Survival outcomes after axi-cel for LBCL



Median follow-up: 6 months (range 1–14 months)

RWE: real world evidence

Mod. da Pasquini MC, et al. Blood 2019; 134 (Suppl. 1): 764

Tisagen in RWE from the CIBMTR registry

Comparison to JULIET pivotal trial

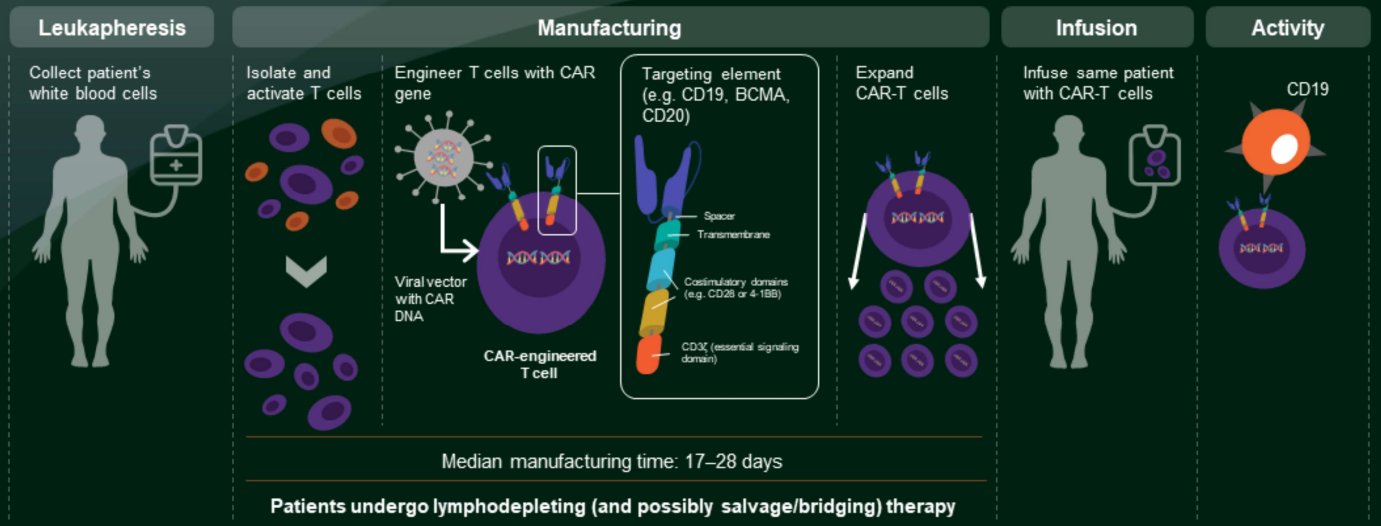
	CIBMTR registry N=83 (%)	JULIET N=115 (%)
ORR	60	54
CR	38	40
DoR at 3 months	75	76
PFS at 3 and 6 months	62/33	46/39
OS at 3 and 6 months	80/67	83/61
CRS (grade ≥3)	4	23
Neurotoxicity (grade ≥3)	5	11

Mod. da Jaglowski S, et al. Blood 2019; 134 (Suppl. 1): 766

2

Open issues in CAR-T therapy

CAR-T cell therapy: More than one step

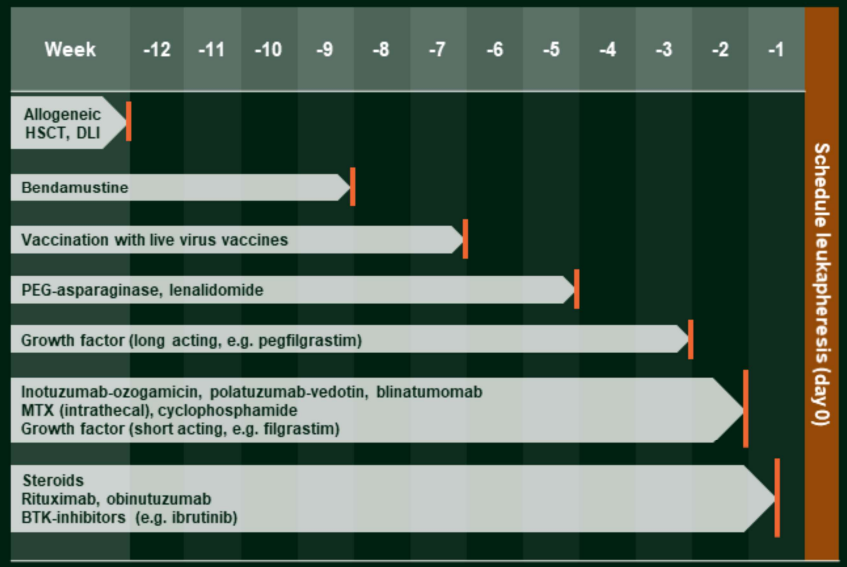


Mod. da Majors BS, et al. Abstract PS1156; Lim WA, June CH. Cell 2017; 168: 724–740; Sadelain M, et al. Nat Rev Cancer 2003; 3: 35–45; Brentjens RJ, et al. Nat Med 2003; 9: 279–286; Park JH, et al. Blood 2015; 126: 682; RCP Axicabtagene ciloleucel®; RCP Tisagenlecleucel®

Leukapheresis

Stopping rules for ongoing therapies prior to apheresis (HD CAR-1). Guidelines established for the HD-CAR-1 study at the University Hospital Heidelberg.

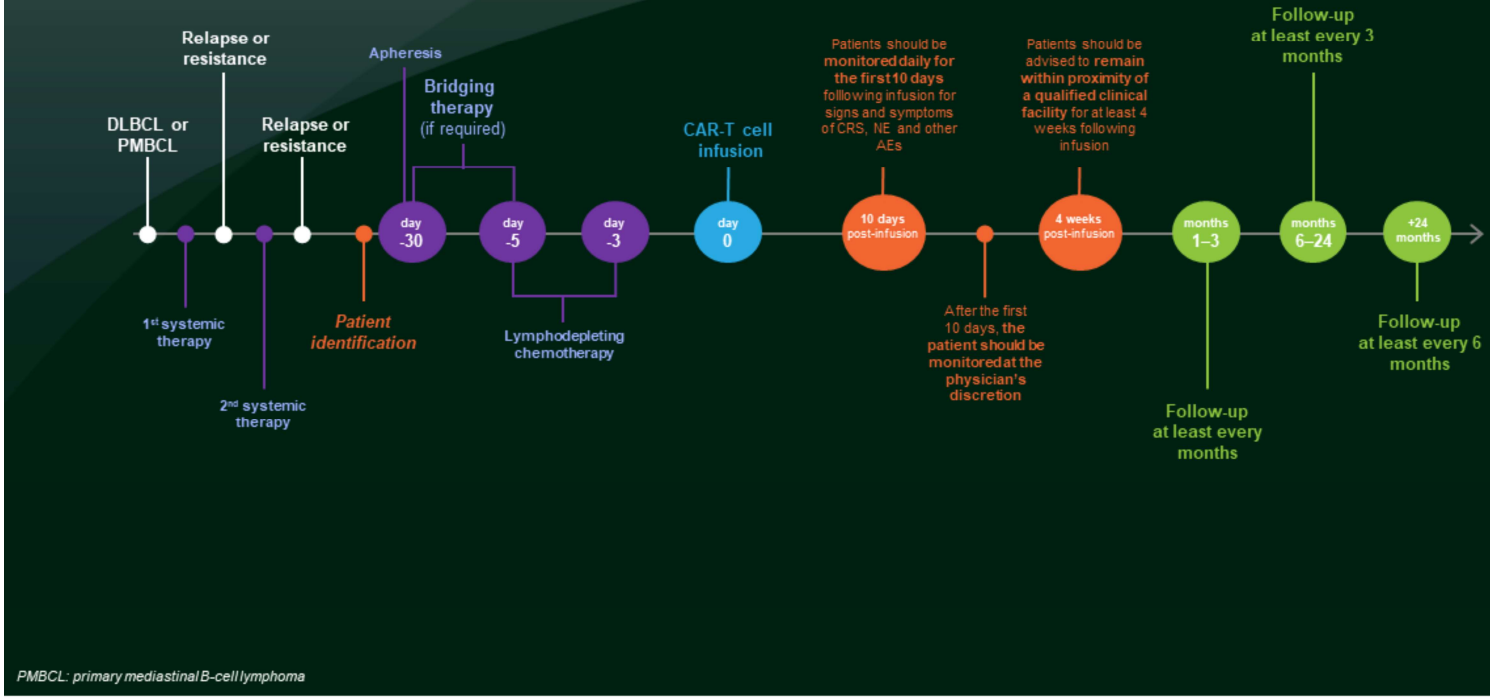
CAUTION WITH BENDAMUSTINE OR STEROIDS BEFORE APHERESIS (manufacturing failures)



HSCT: hematopoietic stem cell transplantation; DLI: donor lymphocyte infusion,; MTX: methotrexate; BTK: Bruton tyrosine kinase; PEG: pegylated

Mod. da Korell F. et al. Cells 2020; 9: 1225

Patient journey

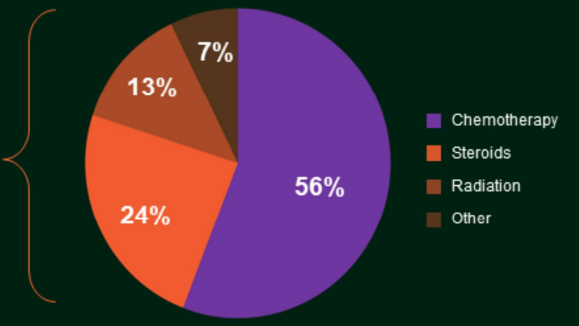


PMBCL: primary mediastinal B-cell lymphoma

Bridge to CAR-T

Baseline characteristics	ZUMA-1[1, 2] (N=101)	6-centre retrospective cohort analysis[3, a] (N=104)	17-centre retrospective cohort analysis[4] (N=295)
Median age, years (range)	58 (23–76)	64 (21–80)	60 (21–83)
ECOG PS 0/1, %	100	90	81
IPI score ≥3, %	46	46	55
DLBCL, %	76	43	68
Prior auto-SCT, %	21	27	33
Bridging chemotherapy, %	0	40	55
Objective response rate	82	71	81[c]
Complete response, %	58	44	57[c]
CRS, any grade	97	94	92[b]
CRS grade ≥3	12	16	7[b]
Neurologic AEs, any grade	65	76	69[b]
Neurological AEs grade ≥3	31	39	33[b]

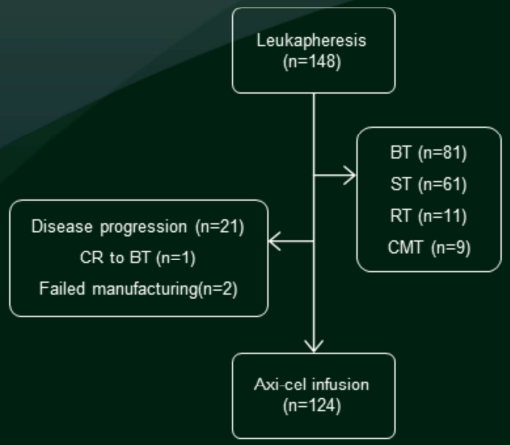
Median follow-up: 15.4 months. Response assessment: [a] Per institutional practices; [b] For mITT population (n=274); [c] At data BCL
ECOG PS: Eastern Cooperative Oncology Group performance status; IPI: International Prognostic Index;
mITT: modified intention to treat



Real-world use of bridging therapy does not appear to influence the efficacy or safety profile of axi-cel

1. Neelapu SS, et al. N Engl J Med 2017; 377: 2531–2544; 2. RCP Axicabtagene ciloleucel®; 3. Jacobson C, et al. Blood 2018; 132 (Suppl_1): 92; 4. Nastoupil LJ, et al. Blood 2018; 132 (Suppl_1): 91

The impact of bridging therapy among patients with relapsed and refractory LBCL treated with commercially available axi-cel

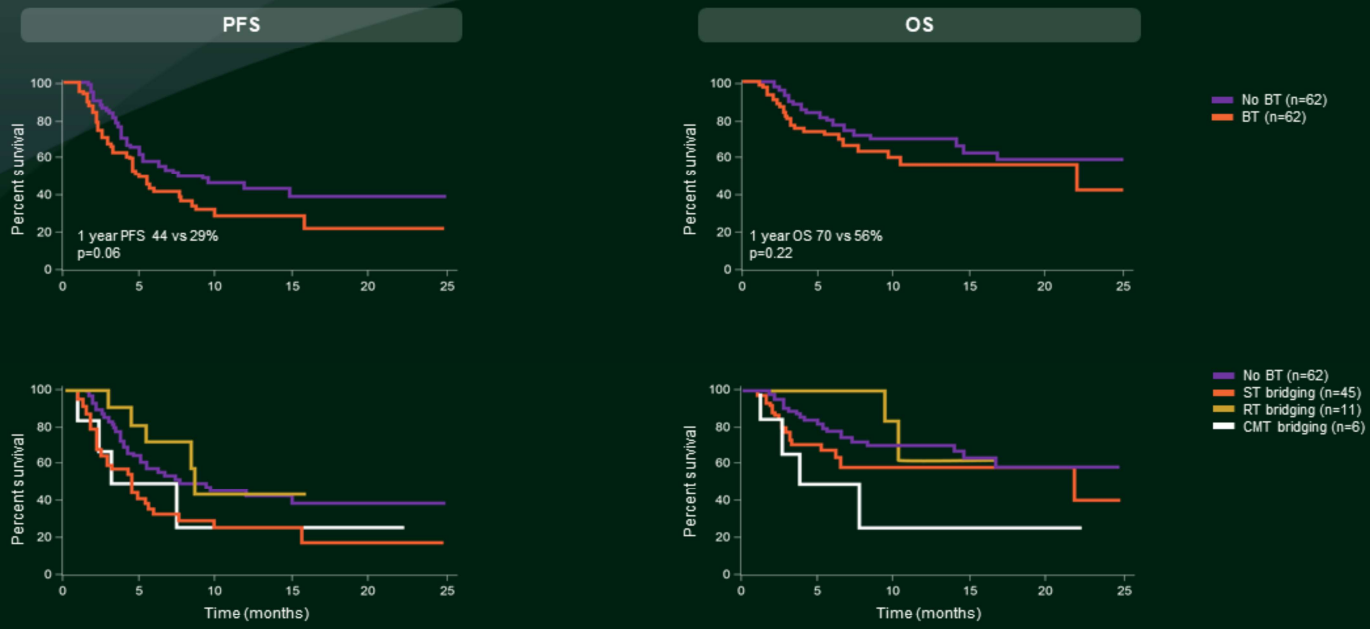


	All patients (n=124)	No bridging (n=62)	Bridging (n=62)	p value
Age >60	64 (52%)	32 (52%)	32 (52%)	1.00
ECOG PS 2–3	17 (14%)	4 (7%)	13 (21%)	**0.03**
HGBL-DH/TH	23 (19%)	7 (11%)	16 (26%)	0.09
IPI ≥3	68 (55%)	27 (44%)	41 (66%)	**0.02**
Bulky disease (≥ 10 cm)	33 (27%)	11 (18%)	22 (36%)	**0.04**
LDH >2x ULN	26 (22%)	8 (13%)	18 (31%)	**0.03**

BT: bridging therapy; ST: systemic therapy; RT: radiation therapy; CMT: combined modality therapy; HGBL-DH/TH: high-grade B-cell lymphoma with MYC and BCL2 and/or BCL6 rearrangements; LDH: lactate dehydrogenase; ULN: upper limit of normal

Mod da Pinnix CC, et al. Blood Adv. 2020; 4: 2871–2883

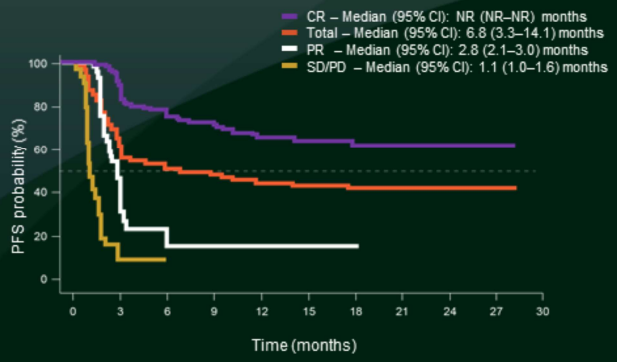
The impact of bridging therapy among patients with relapsed and refractory LBCL treated with commercially available axi-cel



Mod da Pinnix CC, et al. Blood Adv. 2020; 4: 2871–2883

Partial remission / refractory-relapse to CAR-T

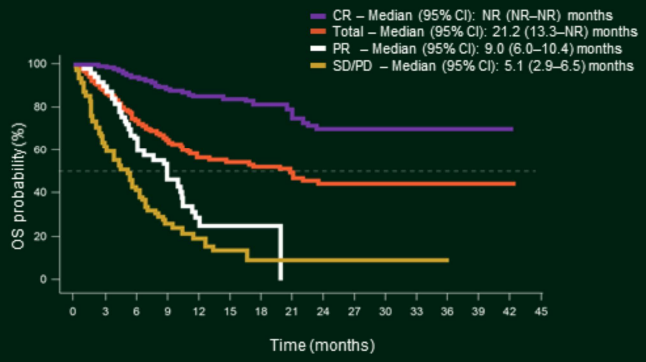
PFS median follow-up (95% CI): 12.3 (12.0–17.5) months



6-Month PFS (95% CI), %	
All patients	51.4 (44.6–57.7)
Patients with BOR of CR	76.1 (67.9–82.4)

12-Month PFS (95% CI), %	
All patients	**44.1 (37.3–50.7)**
Patients with BOR of CR	**65.1 (56.1–72.7)**

OS median follow-up (95% CI): 17.6 (13.5–18.0) months



6-Month OS (95% CI), %	
All patients	74.7 (68.9–79.6)
Patients with BOR of CR	94.1 (88.6–97.0)

12-Month OS (95% CI), %	
All patients	**57.9 (51.3–63.8)**
Patients with BOR of CR	**85.5 (78.2–90.5)**

BOR: best observed response; SD: stable disease; PD: progressive disease

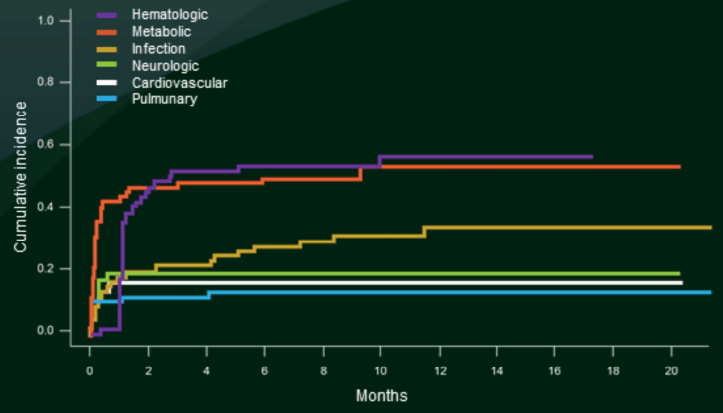
Mod. da Abramson JS, et al. Blood 2019; 134 (Suppl. 1): 241

Partial remission / refractory-relapse to CAR-T

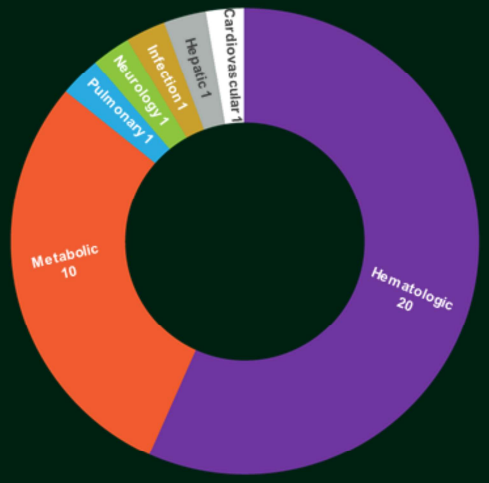
Which options:

- Allo-TMO
- Bispecific
- Anti-CD19
- New drugs
- Clinical trials

Open issues in CAR-T therapy: Toxicity



A. Cumulative incidence of toxicities grade ≥3 with an incidence of >10% as stratified by organ systems



B. Severe toxicities grade 4 and grade 5 as stratified by organ system

Mod. da Wudhikarn K. et al. Blood Adv 2020; 4: 3024–3033

CAR-T clinical facilities

BOX 3: Clinical facilities required for safe administration of CAR T cell therapy

THE PROCESS OF CAR T CELL THERAPY IN EUROPE

EHA Guidance Document

For more information, please visit ehaweb.org

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Clinical hematology unit (inpatient and outpatient). CAR T cell therapy can be administered in a hematology ward, in a hematopoietic transplantation unit, or in a specific CAR T cell patient facility.

Intensive care unit with sufficient capacity and staff who are trained in all stages of the use of CAR T cells, from the start of lympho-depletive chemotherapy to completion of therapy.

Emergency department with on-site medical resuscitation specialists that guarantees an immediate response when needed.

Neurology department on site or able to be rapidly engaged, if necessary. A referral neurologist needs to be appointed to discuss monitoring and care protocols. Performing magnetic resonance imaging (MRI) before baseline initiation could be left to the discretion of the hematologist and/or referral neurologist but is highly recommended for pediatric indications.

On-site medical imaging service with MRI. The full-time (24 hours per day, 7 days per week (24/7)) presence of a professional trained to use the facility's MRI equipment is essential. Performing magnetic resonance imaging (MRI) before initiation of CAR T cell therapy is recommended, particularly for pediatric indications. The hospital should have a radiographic brain MRI patient protocol under CAR T cells (written locally) to allow a radiographer to start MRI in the absence of a radiologist (e.g., at night) without loss of time. An on-site, on-call, radiologist or tele-diagnosis protocol is also highly recommended.

Pharmacy available and able to deliver (24/7) all necessary drugs to treat CAR T cell therapy recipients, including those needed for complications of the therapy.

Transfusion service able to supply blood components at any time (24/7).

EHA Guidance Document 2019, Hemashere 2019

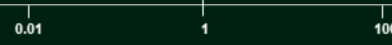
Biological markers: Multivariate analyses[a] for DoR and PFS in JULIET

Multivariate Cox regression model for DoR (N=51)

Parameter	Hazard ratio	95% CI	p value
Transduction efficiency (%CAR+ T cells)	2.33	0.45–12.1	0.31
CAR+CD4+ Effector memory T cells (10E8) log	1.24	0.31–4.95	0.76
CAR+CD8+ Effector memory T cells (10E8) log	0.73	0.27–1.94	0.53
CAR-negative T cells (10E8) log	1.30	0.15–11.2	0.81
CAR+CD8 T cells (10E8) log	1.29	0.44–3.77	0.64
CAR+CD4 T cells (10E8) log	0.44	0.06–3.25	0.42

Multivariate Cox regression model for PFS (N=95)

Parameter	Hazard ratio	95% CI	p value
Baseline LDH, log	1.22	0.93–1.60	0.14
Baseline CRP, log	1.05	0.93–1.20	0.42
Total viable T cells (10E8) log	1.03	0.67–1.58	0.88
Transduction efficiency (%CAR+ T cells)	1.16	0.86–1.56	0.34
Total number of CAR+CD4+2B4+ T cells (10E8) log	0.86	0.70–1.06	0.16
Total number of CAR+CD4+ effector T cells (10E8) log	0.90	0.75–1.08	0.27



- 33 CAR+ T cell variables and 12 product release attributes were examined in the univariate Cox regression for DoR and PFS.
- Significant variables were further evaluated in the multivariate Cox regression that were adjusted for cell count or key baseline characteristics (LDH, CRP or tumor volume)

[a]Multivariate analyses were adjuested for LDH, CRP, and tumor volume; CRP: C-reactive proteine

Mod. da Bachanova V, et al. Blood 2019; 134 (Suppl. 1): 242

3

Relapse after first line: BELINDA and TRANSFORM trials

BELINDA trial

Inclusion criteria

- Histologically proven DLBCL NOS (de novo or transformed indolent lymphoma), DHL/THL, FL3B, PMBCL or THRBCL.
- Refractory to (SD, PD, PR or CR with relapse before 3 months) or relapsed (CR with relapse on or after 3 months) within 12 months from CD20 antibody and anthracycline containing first line therapy
- ECOG ≤1
- Eligible to transplant

SCREENING

APH

ENROLLMENT

R

n=318 randomized 1:1, stratification by region (NA vs ROW), refractory/relapsed <6 months vs 6–12 months, IPI (<2 vs ≥2)

M

Arm A: CTL019 (n=159)

Bridging chemo as needed

6 wks PET/CT

12 wks PET/CT

Arm B: SOC (n=159)

SOC 1–6 wk

CR

PR

SD/PD by BIRC

Optional 3rd cycle of salvage + HDCT + ASCT

SOC 2

SD/PD by BIRC

CR/PR

Crossover allowed, if no response at 12 weeks by BIRC until 1 year post ASCT

If the patient responds to 1 or more cycles of SOC2, every attempt should be made to bring the patient to ASCT

Δ Therapy required

M

Start CTL019 manufacture if PD/SD at week 6 (n~107)

Week 6

Week 12

Safety and efficacy follow-up

- Week 6 for treatment decision
- Week 12 ± 1 week for disease assessment
- q3m to M12
- q6m to M24
- Annual to M60

1st endpoint EFS

EFS event:

- SD/PD by BIRC at/after week 12 ± 1 week
- Death at any time

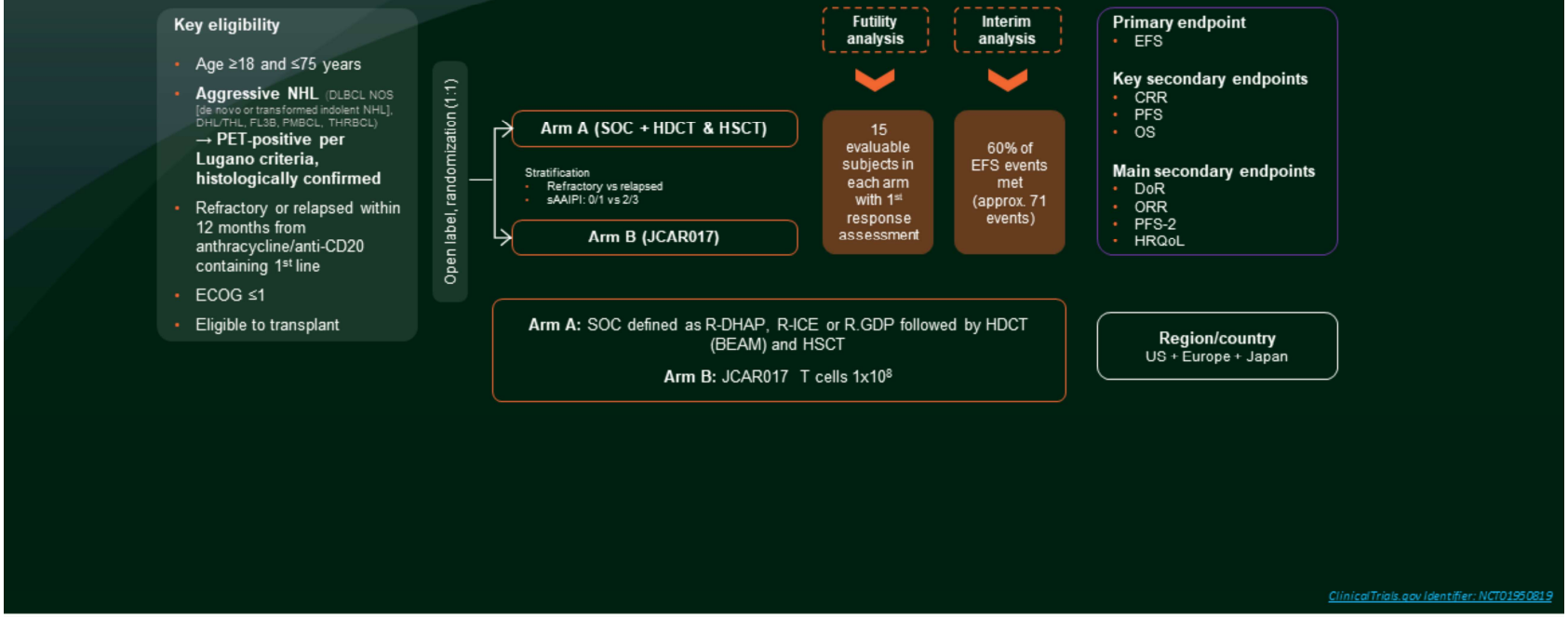
ASCT: autologous hematopoietic stem cell transplant; BIRC: blinded independent review committee; HDCT: high dose chemotherapy; M: manufacturing; CR: complete response; PR: partial response; SD: stable disease; PD: progressive disease; APH: apheresis; IPI: International Prognostic index (1993); SOC: standard of care

ClinicalTrials.gov Identifier: NCT03570892

BELINDA BULLETIN: CTL019H2301 newsletter

N°	*Investigator*	Pazienti screnati	Pazienti randomizzati	Pazienti *screening failure*
2300	CORRADINI Paolo	1	1	0
2301	SICA Simona	2	1	1
2302	SANTORO Armando	9	**6**	3

TRANSFORM trial



4

CAR-T in mantle cell lymphoma

KTE-X19 CAR-T cell in MCL

Baseline characteristics of all 68 patients

Median age (range)	65 (38–79)
Intermediate or high risk MIPI - n (%)	38 (56)
Blastoid or pleomorphic morphologic characteristics of MCL - n (%)	21 (31)
Median n of previous therapies	3
Previous auto-SCT - n (%)	55 (81)
Previous BTK inhibitor therapy - n (%) • Ibrutinib • Acalabrutinib • Both	68 (100) 58 (85) 16 (24) 6 (9)
Relapse after auto-SCT- n (%) Refractory to most recent previous therapy – n (%)	29 (43) 27 (40)

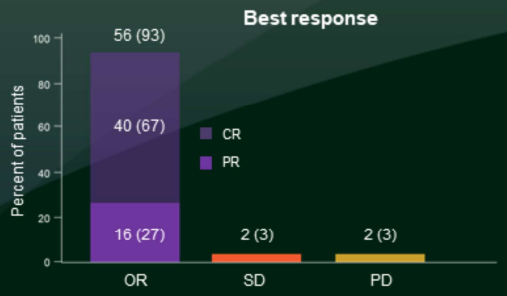
MCL: mantle cell lymphoma; MIPI: Mantle-Cell Lymphoma International Prognostic Index

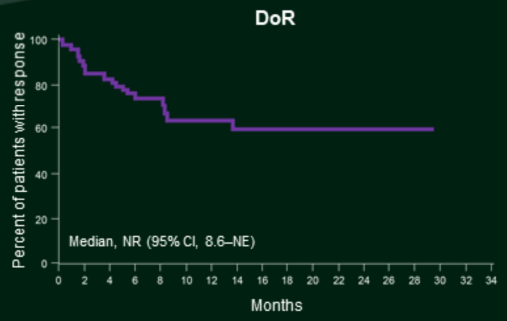
Inclusion criteria:

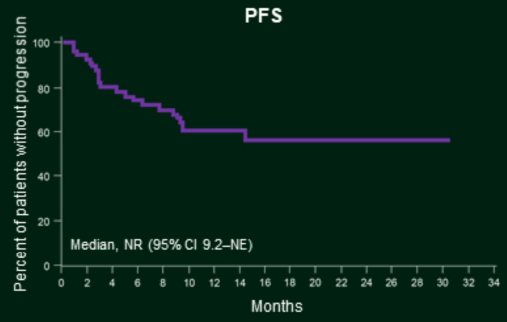
- Previous therapy: chemotherapy and anti-CD20 monoclonal antibody, **AND** BTK inhibitor therapy

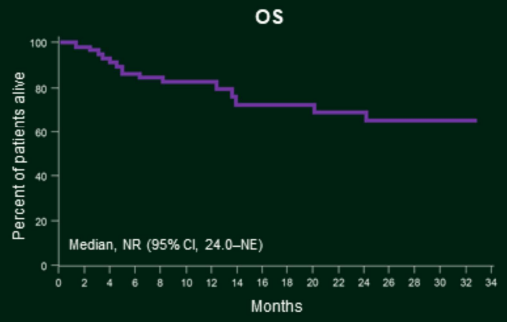
Mod. da Wang M, et al. N Engl J Med 2020; 382: 1331–1342

KTE-X19 CAR T-Cell in MCL









OR: objective response; SD: stable disease;: PD; progressive disease; CR: cpmplete response; PR: partial response

Mod. da Wang M. et al. N Engl J Med 2020; 382: 1331–1342

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CAR-T in follicular lymphoma

ZUMA-5: Study design

Key eligibility criteria
- R/R FL (Grade 1 – Grade 3a) or MZL (nodal or extranodal)
- ≥ 2prior lines of therapy – must have included an anti-CD20 mAb combined with an alkylating agent

Conditioning regimen
- Fludarabine 30 mg/m² IV and cyclophosphamide 500 mg/m² IV in days -5, -4, -3

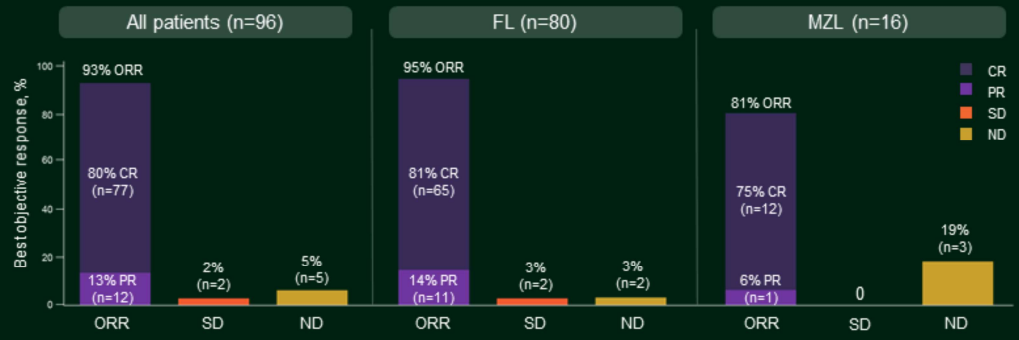
Axi-cel
- 2x10⁶ CAR+ cells/kg

Primary endpoint
- ORR (IRRC-assessed per the Lugano classification)

Key secondary endpoints
- CR rate (IRRC-assessed)
- DoR, PFS, OS
- AEs
- CAR T cell and cytokine levels

Phase 2
(N~160 planned for enrollment)

R/R iNHL	FL: n~125 (with n ≥ 80 evaluable for efficacy)
	MZL: n~35

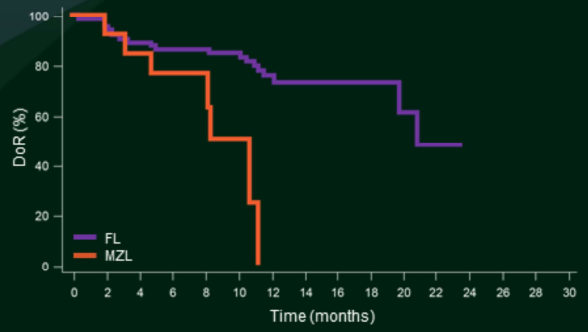


Mod. da Jacobsen CA, et al. J Clin Oncol 2020; 38 (Suppl 15): 8008

ZUMA-5: Results

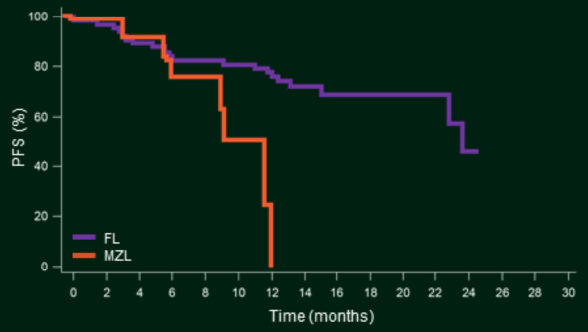
DoR

	FL (n=80)	MZL (n=16)
Median follow-up (range), months	16.0 (10.1–28.8)	11.1 (1.9–23.9)
Median DoR (95% CI), months	20.8 (19.7–NE)	10.6 (4.6–11.1)



PFS

	FL (n=80)	MZL (n=16)
Median DoR (95% CI), months	23.5 (22.8–NE)	11.8 (6.0–12.0)



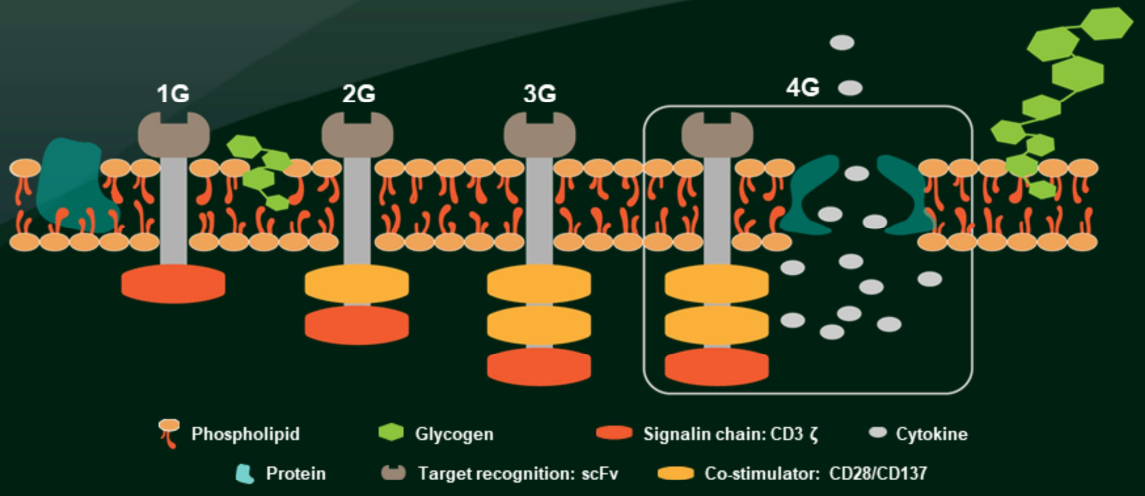
- Median FU: 15.3 months; Median DoR: 20.8 months
- Median FU: 15.3 months; Median PFS: 23.5 months (95% CI 22.8–NE)
- Median OS not reached

Mod. da Jacobsen CA, et al. J Clin Oncol 2020; 38 (Suppl 15): 8008

6

Future perspective:
NK, tandem CD19+CD20, allo-CAR-T

Four generation of CAR-T cells

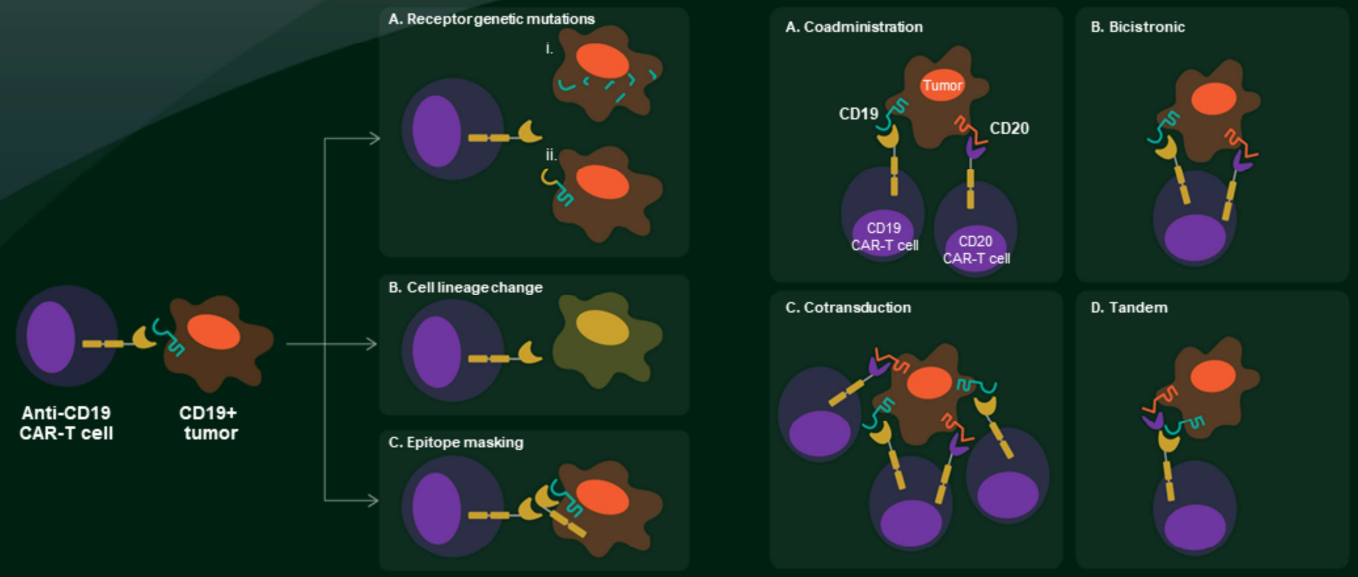


4G contains vectors encoding CAR and specific reactive promotor which could produce and secrete transgenic cytokines, such as IL-12

IL-12: interleukin-12; scFv: single chain fragment variable

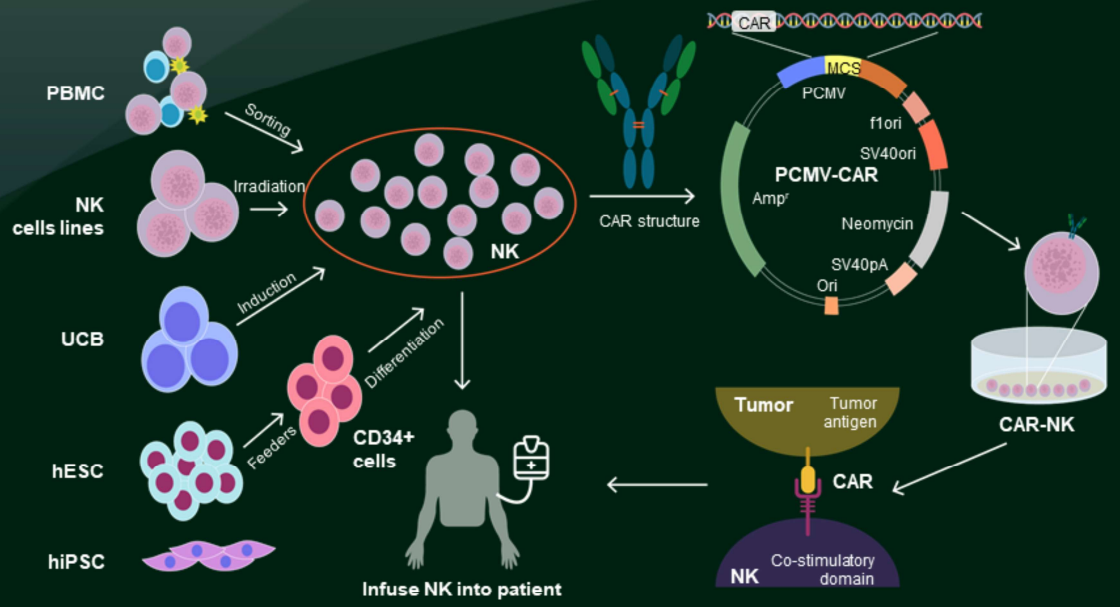
Mod. da Zhao J. et al. Ann Hematol 2020; 99: 1681–1699

Targeting multiple molecules to overcome limitation of antigen loss in CAR-T cell therapies



Mod. da Shah NN, et al. Front Oncol 2019; 9: 146

Procedures for clinical application of CAR-NK adoptive cell therapy (ACT)



NK: natural killer; UCB: umbilical cord blood; ESC: embryonic stem cells; iPSC: induced pluripotent stem cells; PCMV: porcine Cytomegalovirus

Mod. da Wang W. et al. Cancer Lett 2020; 472: 175–180

Highlights

- Targeted lysis of CAR-NK is based on CAR and receptor dependent mechanisms
- Achievements of CAR-NK are described in detail in pre-clinical and clinical studies
- Introducing IL-15, ICR and suicide genes into CAR-NK enhance its safety and efficacy
- Advances of CAR-NK will lead tumor immunotherapy into the era of precision medicine

Target	Tumors	NK source	CAR structure	Stage	NCT
CD7	Lymphoma, leukemia	NK-92	CD28+4-1BB+CD3ζ	I/II	NCT02742727
CD19	Lymphoma, leukemia	NK-92	CD28+4-1BB+CD3ζ	I/II	NCT02892695
CD33	AML	NK-92	CD28+4-1BB+CD3ζ	I/II (complete)	NCT02944162
MUC1	Solid tumors	NK-92	Unknown	I/II	NCT02839954
NR	NSCLC	NK-92	Unknown	I	NCT03656705
HER2	GBM	NK-92	CAR5.28.z (HER2.taNK)	I	NCT03383978
CD19	B-ALL	PB-NK	$CD8\alpha_{TM}$+4-1BB+CD3ζ	II	NCT01974479
CD19	B-ALL	PB-NK	$CD8\alpha_{TM}$+4-1BB+CD3ζ	I (complete)	NCT00995137
CD19	B-lymphoma	UCB-NK	CD28+CD3ζ +iCasp9+IL-15	I/II	NCT03056339

AML: acute myeloid leukemia; ICR: inverted cytokine receptor

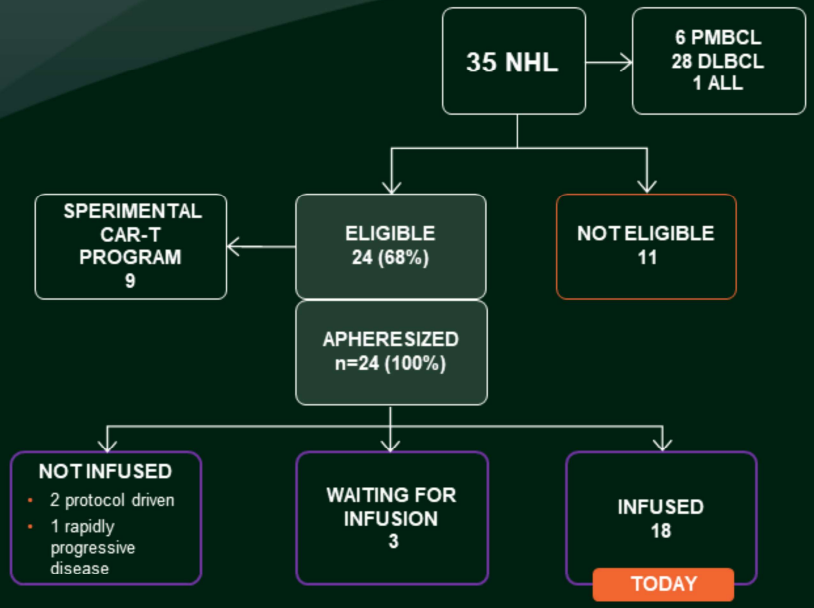
Mod. da Wang W. et al. Cancer Lett 2020; 472: 175–180

Conclusions

Among 11 patients with R/R CD19-positive cancers, a majority had a response to treatment with CAR-NK cells without development of major toxic effects

Mod. da Liu E, et al. N Engl J Med 2020; 382: 545–553

CAR-T in Humanitas



Work in progress

Ongoing (sponsored):

- BELINDA trial (top enroller in Italy)
- TRANSFORM trial
- Allogeneic NK CAR-T in hematologic/solid tumors
- CD30+ CAR-T in Hodgkin

Ongoing (academic):

- Gut microbioma and CAR-T (with Maria Rescigno)
- Retreatment in DLBCL responsive to first CAR-T
- Retreatment in follicular lymphoma