

HIGHLIGHTS IN LYMPHOMA

NEW AGENTS IN DIFFUSE LARGE B-CELL LYMPHOMA AND FOLLICULAR LYMPHOMA

Tycel Jovelle Phillips, MD

University of Michigan Rogel Cancer Center Ann Arbor, MI, USA

JULY 2021

CONFLICT OF INTEREST AND FUNDING



This LYMPHOMA & MYELOMA CONNECT programme is supported through an independent educational grant from Bayer. The programme is therefore independent, the content is not influenced by the supporters and is under the sole responsibility of the experts.

Please note: The views expressed within this presentation are the personal opinions of the authors. They do not necessarily represent the views of the author's academic institution, or the rest of the LYMPHOMA & MYELOMA CONNECT group.

Dr. Tycel Phillips has received financial support/sponsorship for research support, consultation, or speaker fees from the following companies:

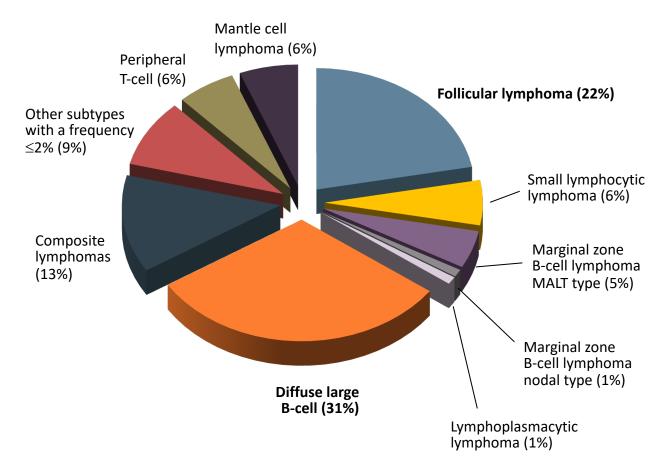
- Advisory Board: ADCT, Incyte, AbbVie, Pharmacyclics, Genentech, BMS, AstraZeneca, Bayer, Beigene, TG
 Therapeutics
- Research: Abbvie, BMS, Genentech, Bayer, Incyte

BACKGROUND



- Diffuse large B-cell lymphoma (DLBCL) and follicular lymphoma (FL) are the two most common lymphomas in the US and Western Europe
 - DLBCL and FL account for >50% of diagnosed cases of non-Hodgkin lymphoma (NHL)
- The two subtypes of NHL are on opposite ends of the clinical spectrum
 - FL is an indolent, slow growing, incurable
 lymphoma that does not have a standard of care induction regimen
 - DLBCL is aggressive, curable and generally treated with R-CHOP

Frequency of NHL subtypes in adults



BACKGROUND



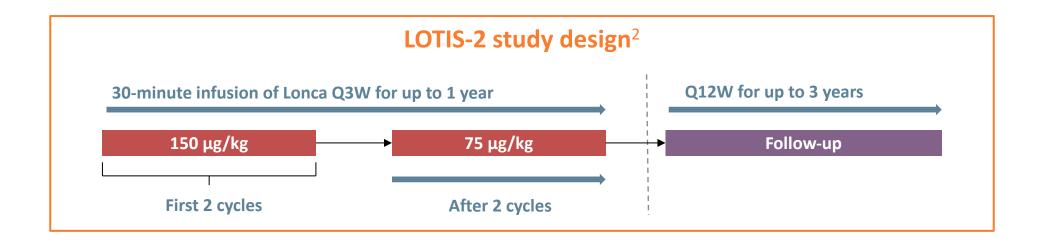
- Given the incurable nature of FL, there are several approved agents and numerous others in development to attempt to extend the life of those afflicted with this cancer
- DLBCL, while curable in some, still has a large percentage of patients who will relapse or have primary refractory disease
 - Second-line and beyond therapy for this population has diminishing returns, especially in refractory patients.
 New treatments are desperately needed for these patients
- In this slide deck some of the recent FDA approvals in both DLBCL and FL are reviewed as well as where they fit in the current treatment landscape

LONCASTUXIMAB TESIRINE

LONCASTUXIMAB TESIRINE IN THE LOTIS-2 STUDY

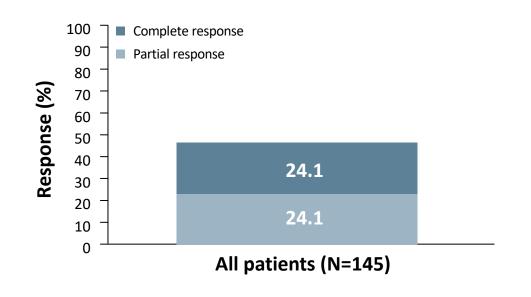


- Loncastuximab tesirine (Lonca) is a CD19 drug-antibody conjugate¹
 - The antibody is connected through a cathepsin-cleavable valine-alanine linker to a pyrrolobenzodiazepine (PBD) dimer toxin (SG3199)
 - The payload binds irreversibly to DNA to create highly potent intrastrand cross-links that block DNA strand separation preventing DNA replication. This differs from the more commonly recognized drug antibody conjugate MMAE
- LOTIS-2 is a single-arm **open-label phase 2 study** of Lonca in relapsed/refractory DLBCL after ≥2 therapies²



LOTIS-2 EFFICACY RESULTS OVERALL RESPONSE RATE (ORR)





Lonca ORR: 48.3% (95% CI: 39.9, 56.7)

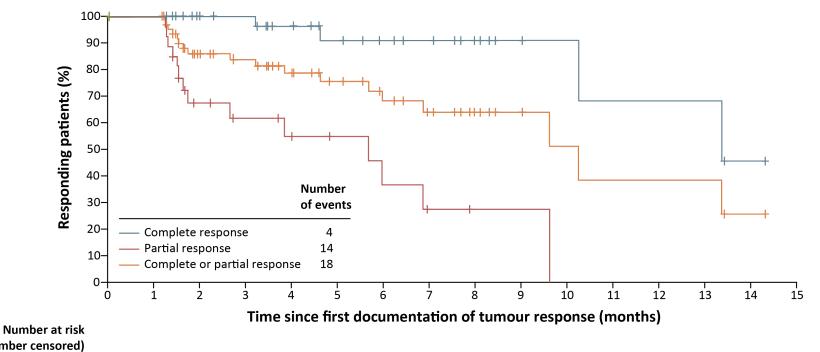
Lonca CRR: **24.1%** (95% CI: 17.4, 31.9)

Most responders had a response after 2 cycles; median time to first response was 41.0 days (IQR 38-44)

Median Lonca cycles: 3.0 (IQR 2-5)

LOTIS-2 EFFICACY RESULTS DURATION OF RESPONSE (DoR)





Median DoR

10.3 months

(95% CI: 6.9, NE)

Median DoR for patients with a CR^a

13.4 months

(95% CI: 10.3, NE)

(number censored)

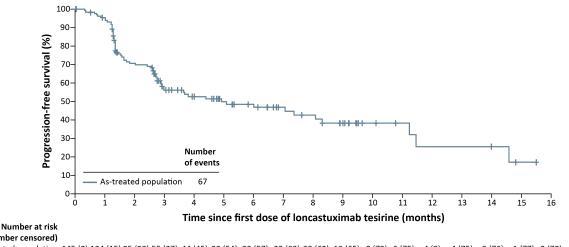
Complete response 35 (0) 34 (1) 28 (7) 26 (9) 21 (13) 17 (16) 14 (19) 12 (21) 8 (25) 3 (29) 0 (31) 28 (7) 13 (14) 10 (16) 8 (17) 6 (19) 4 (19) 2 (20) 1 (20) 1 (21) 0 (21) 0 (21) 0 (21) 0 (21) 0 (21) Complete or partial response 70 (0) 62 (8) 41 (21) 36 (25) 29 (30) 23 (35) 18 (38) 14 (41) 9 (46) 6 (49) 4 (50) 3 (50) 0 (52)

The probability of responders maintaining responses for 9 months or longer was 64%

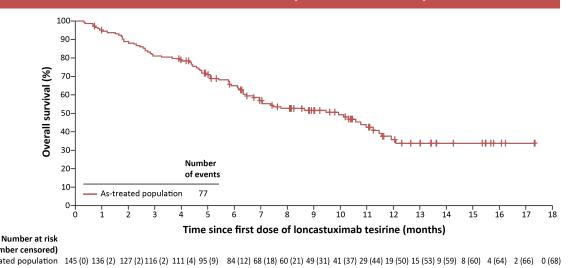
LOTIS-2 EFFICACY RESULTS PFS, OS, AND SUBSEQUENT TREATMENT







Median OS: 9.9 months (95% CI: 6.7-11.5)



-treated population 145 (0) 124 (15) 85 (23) 55 (37) 44 (45) 33 (54) 29 (57) 23 (62) 20 (63) 16 (65) 8 (73) 6 (75) 4 (0) 4 (75) 3 (76) 1 (77) 0 (78)

Subsequent Treatment

- 15 patients received CD19-directed CAR-T therapy with an investigator-assessed ORR of 47% (6 CR; 1 PR)
- 9 patients proceeded to SCT as consolidation after Lonca response

LOTIS-2 SAFETY RESULTS



TEAEs in ≥20% of the total population				
TEAE	All patients	Age subgroup		
	All ages (N=145)	<65 years (N=65)	≥65 to <75 years (N=59)	≥75 years (N=21)
Any TEAE	143 (98.6)	65 (100)	58 (98.3)	20 (95.2)
Hematologic TEAEs				
Neutropenia	57 (39.3)	33 (50.8)	20 (33.9)	4 (19.0)
Thrombocytopenia	48 (33.1)	28 (43.1)	17 (28.8)	3 (14.3)
Anaemia	38 (26.2)	23 (35.4)	9 (15.3)	6 (28.6)
Fatigue	40 (27.6)	21 (32.3)	15 (25.4)	4 (19.0)
Nausea	34 (23.4)	17 (26.2)	13 (22.2)	4 (19.0)
Cough	32 (22.1)	19 (29.2)	9 (15.3)	4 (19.0)
Peripheral oedema	29 (20.0)	11 (16.9)	14 (23.7)	4 (19.0)
Gamma-glutamyl transferase increased	59 (40.7)	33 (50.8)	23 (39.0)	3 (14.3)
Blood alkaline phosphatase increased	29 (20.0)	18 (27.7)	10 (16.9)	1 (4.8)

Most common grade ≥3 TEAEs were:

- Neutropenia (37 patients; 26%)
- Thrombocytopenia (26 patients; 18%)
- GGT increased (24 patients; 17%)

Treatment-related TEAEs leading to treatment discontinuation:

- GGT increased (15 patients; 10%)
- Peripheral oedema (4 patients; 3%)
- Localised oedema (3 patients; 2%)
- Pleural effusion (3 patients; 2%)

No increase in toxicity was seen in patients aged ≥65 years compared with younger patients

SUMMARY LONCASTUXIMAB TESIRINE



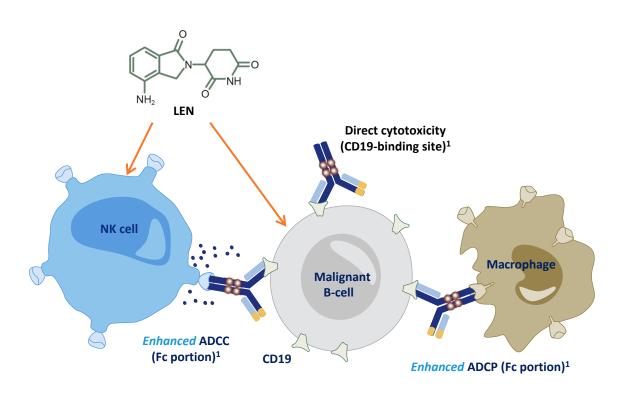
Loncastuximab tesirine is a CD19 drug-antibody conjugate¹ that has been approved for ≥3rd-line treatment of DLBCL based on results from LOTIS-2

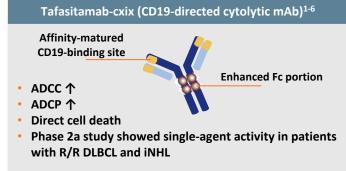
In LOTIS-2 the reported ORR was 48.3% with a CR rate of 24.1%. The median DoR was 10.3 months²

TAFASITAMAB-CXIX + LENALIDOMIDE

TAFASITAMAB-CXIX + LENALIDOMIDE AS AN IMMUNOLOGIC COMBINATION





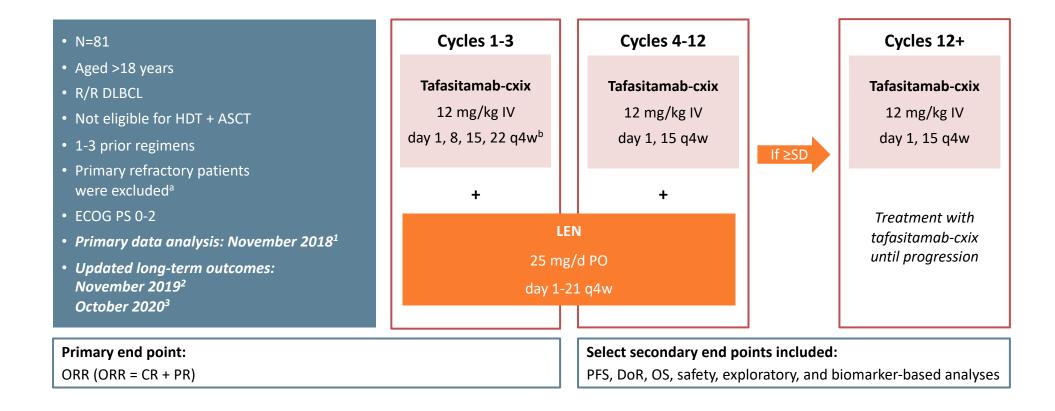


LEN^{4,5}

- T-cell and NK-cell activation/expansion
- Direct cytotoxic and immunomodulatory effects
- Well-studied as an antilymphoma agent, alone or in combination

L-MIND STUDY DESIGN PHASE 2 STUDY OF TAFASITAMAB-CXIX + LEN





^aPrimary refractory defined as no response to or progression/relapse during or within 6 months of front-line therapy ^bLoading dose on day 4 of cycle 1 only

ASCT, autologous stem-cell transplantation; CR, complete response; DoR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; HDT, high-dose therapy; IV, intravenous; LEN, lenalidomide; ORR, overall response rate; OS, overall survival; PFS, progression-free survival; PO, orally; PR, partial response; q4w, every 4 weeks; R/R DLBCL, relapsed/refractory diffuse large B-cell lymphoma; SD, stable disease

L-MIND RESULTS DURABLE ACTIVITY AFTER ≥35 MONTHS



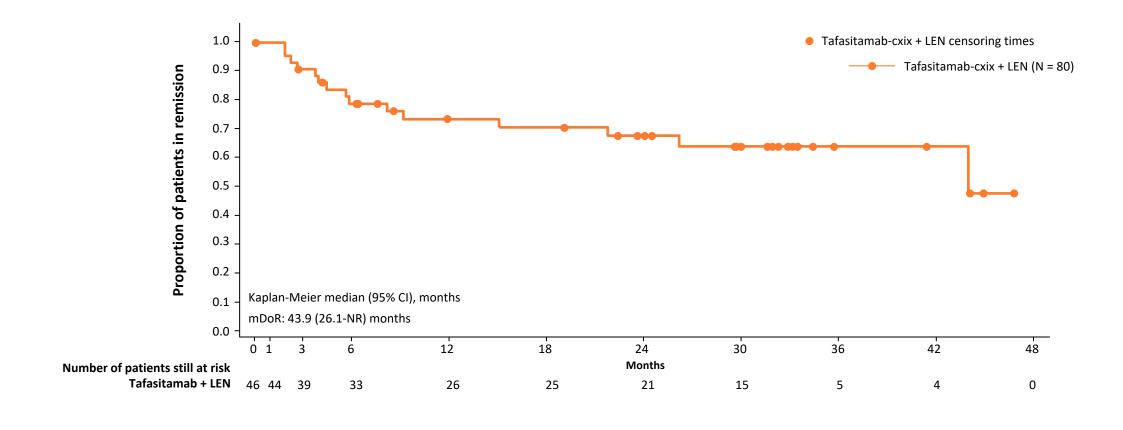
	12-Month Analysis ^a	24-Month Analysis ^b	35-Month Analysis ^c
	N=80 (FAS) ¹	N=80 (FAS) ²	N=80 (FAS) ³
ORR, %	60	57.5	57.5
CR, %	42.5	40.0	40.0
PR, %	17.5	17.5	17.5
mDoR (95% CI), months	21.7 (21.7-NR)	34.6 (26.1-NR)	43.9 (26.1-NR)
mPFS (95% CI), months	12.1 (5.7-NR)	12.1 (6.3-NR)	11.6 (6.3-45.7)
mOS (95% CI), months	NR (18.3-NR)	31.6 (18.3-NR)	33.5 (18.3-NR)

The US PI includes efficacy data on a subset of patients with centrally confirmed diagnoses of DLBCL⁴: N=71; ORR=55%; mDoR=21.7 months after 12-month analysis

^aData cutoff: November 30, 2018 ^bData cutoff: November 30, 2019 ^cData cutoff: October 30, 2020

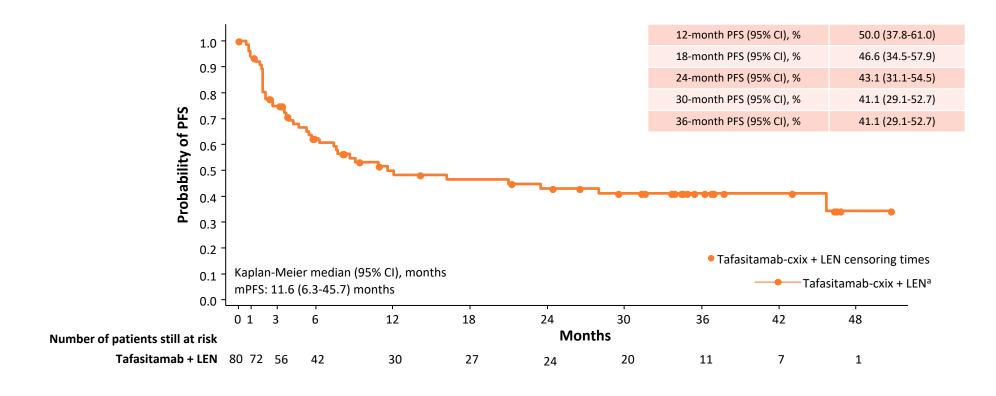
L-MIND RESULTS mDoR OF 43.9 MONTHS AFTER ≥35 MONTHS OF FOLLOW-UP





L-MIND RESULTS mPFS OF 11.6 MONTHS AFTER ≥35 MONTHS OF FOLLOW-UP

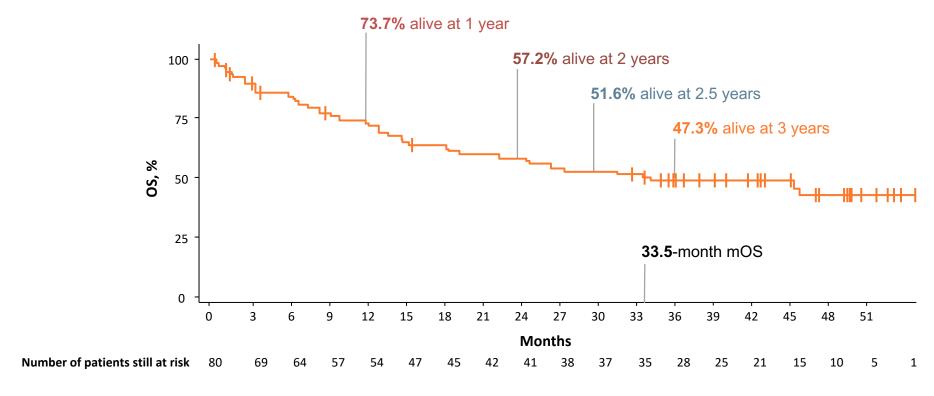




Note: Data presented is exploratory. No formal conclusion can be drawn.

L-MIND RESULTS AFTER 3 YEARS OF FOLLOW-UP, 47.3% OF ALL PATIENTS WERE ALIVE

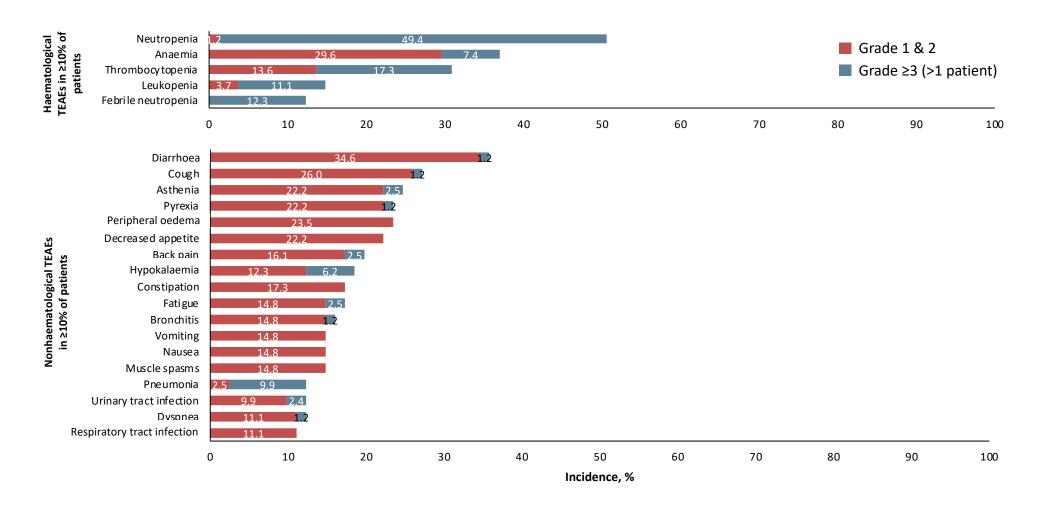




Note: Data presented is exploratory. No formal conclusion can be drawn.

LONG-TERM SAFETY PROFILE AFTER ≥35 MONTHS OF FOLLOW-UP (N=81)





SUMMARY TAFASITAMAB-CXIX + LENALIDOMIDE



Tafasitamab-cxix + lenalidomide was **FDA approved in 2020** for relapsed/refractory DLBCL, ineligible for ASCT

Place in clinical practice (expert opinion):

- It is **difficult to make true comparison to Pola-BR** given differences in study design, patient population, etc. but it would fit same patient population
 - Post-CAR-T relapse, although no data on efficacy after another C19-directed therapy
 - Patients who are ineligible for ASCT or CAR-T
 - Given lack of data about how a CD19-directed therapy might impact CAR-T, this treatment as of now should not be considered as a bridge therapy to CAR-T

AXICABTAGENE CILOLEUCEL

ZUMA-5 STUDY DESIGN



MULTICENTRE, SINGLE-ARM PHASE 2 TRIAL

Patients with R/R FL (Grade 1-3a) or MZL (nodal or extranodal), ≥2 prior lines of therapy including anti-CD20 monoclonal antibody (mAb) + alkylating agent (N=146: 124 FL, 22 MZL)

Conditioning chemotherapy

Fludarabine 30 mg/m² + Cyclophosphamide 500 mg/m² Days -5, -4, -3

CAR-T Cells

Axi-Cel $2 \times 10^6 \text{ cells/kg}$ Day 0 Followed for safety up to 15 years

Patients with SD but no relapse >1 year from completion of last therapy ineligible. Single-agent anti-CD20 mAb not counted as line of therapy for eligibility. Median time to delivery of axi-cel: 17 days following leukapheresis.

- Primary endpoint: Objective response rate (IRRC-assessed per Lugano classification)
- Key secondary endpoints: CR rate (IRRC-assessed), DoR, PFS, OS, AEs, CAR T cell, and cytokine levels

ZUMA-5 BASELINE PATIENT CHARACTERISTICS

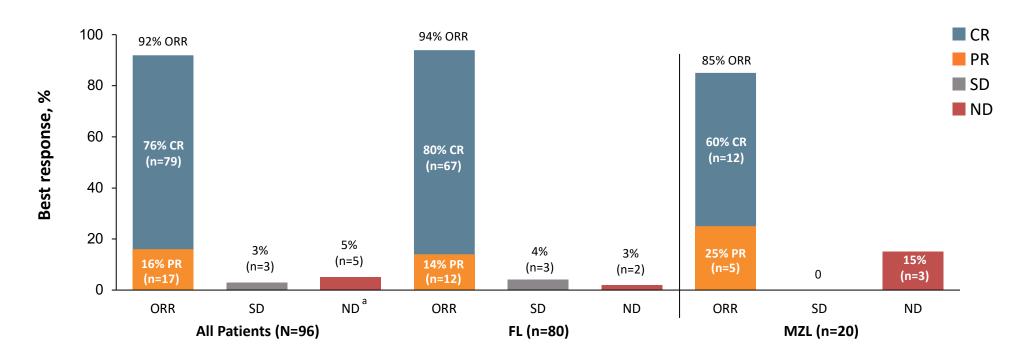


Characteristic	FL (n = 124)	MZL (n = 22)	Overall (N = 146)
Median age (range), years	60 (34 – 79)	66 (48 – 77)	61 (34 – 79)
≥ 65 years, n (%)	38 (31)	13 (59)	51 (35)
Male, n (%)	73 (59)	10 (45)	83 (57)
ECOG PS score 1, n (%)	46 (37)	9 (41)	55 (38)
Stage III-IV disease, n (%)	106 (85)	20 (91)	126 (86)
≥ 3 FLIPI, n (%)	54 (44)	14 (64)	68 (47)
High tumor bulk (GELF criteria), n (%) ^a	64 (52)	8 (36)	72 (49)
Median no. of prior therapies (range)	3 (1 – 10) ^b	3 (2 – 8)	3 (1 – 10) ^b
≥ 3, n (%)	78 (63)	15 (68)	93 (64)
Prior PI3Ki therapy, n (%)	34 (27)	9 (41)	43 (29)
Refractory disease, n (%) ^c	84 (68)	16 (73)	100 (68)
POD24 from first anti-CD20 mAb-containing therapy, n (%)d	68 (55)	11 (52)	79 (55)
Prior ASCT, n (%)	30 (24)	3 (14)	33 (23)

a Disease burden, as defined by GELF criteria: involvement of ≥ 3 nodal sites (≥ 3 cm diameter each); any nodal or extranodal tumor mass with ≥ 7 cm diameter; B symptoms; splenomegaly; pleural effusions or peritoneal ascites; cytopenias; or leukemia. b Enrollment of 3 patients with FL who had 1 prior line of therapy occurred before a protocol amendment requiring ≥ 2 prior lines of therapy. c Patients with iNHL who progressed within 6 months of completion of the most recent prior treatment. d POD24 defined as 24 months from initiation of the first line of anti-CD20—containing immunochemotherapy to progression. Percentages are based on the number of patients who ever received anti-CD20—chemotherapy combination therapy.

ZUMA-5 IRRC-ASSESSED OBJECTIVE RESPONSE RATE



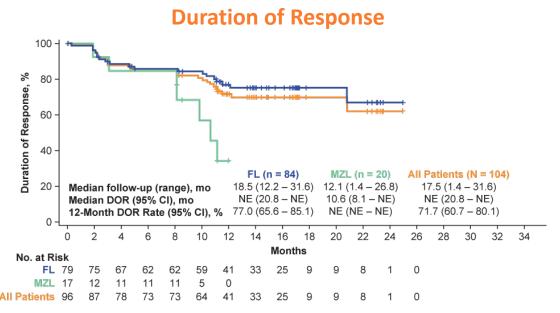


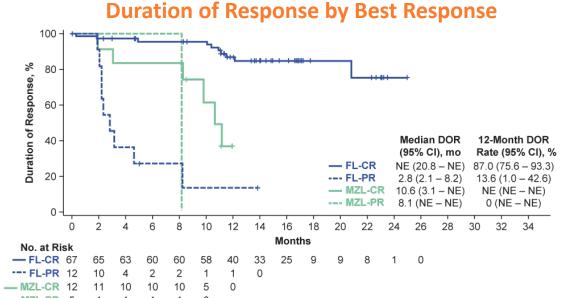
- Median time to first response: 1 month (range: 0.8-3.1)
- 13/25 (52%) patients with FL and initial PR converted to CR after a median of 2.2 months (range: 1.9-11.2)

^aFor the 5 patients reported as ND, 4 (1 FL; 3 MZL) had no disease at baseline and postbaseline per IRRC but were considered with disease by the investigator; 1 patient with FL died before the first disease assessment CR, complete response; FL, follicular lymphoma; IRRC, independent radiology review committee; MZL, marginal zone lymphoma; ND, undefined/not done; ORR, objective response rate; PR, partial response; SD, stable disease

ZUMA-5 DURATION OF RESPONSE





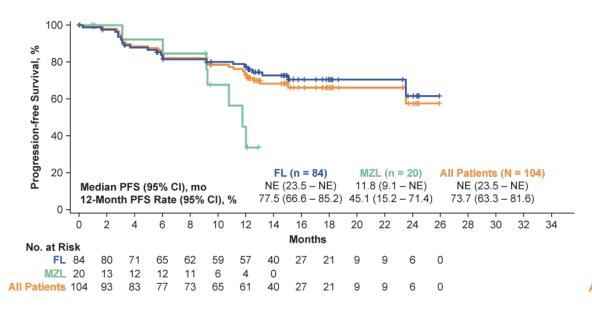


- With a median follow-up of 17.5 months, the **estimated median DoR was not reached** for all patients with iNHL; 64% of patients with FL had an ongoing response
 - 12-month DOR rate: 71.7% (95% CI, 60.7 80.1)
 - Responses were ongoing in 78% of patients with FL with CR and in 17% of patients with PR

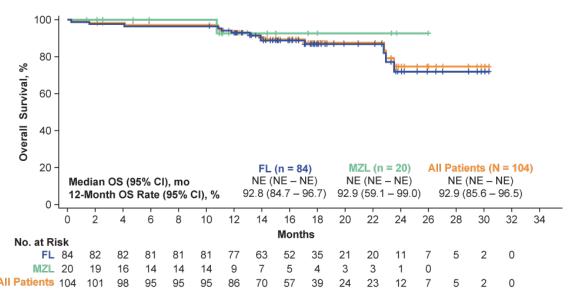
ZUMA-5 SURVIVAL







Overall survival



- With a median follow-up of 17.5 months, median PFS and OS were not reached
 - 12-month PFS: 73.7% (95% CI, 63.3 81.6) for all patients
 - 12-month OS: 92.9% (95% CI, 85.6 96.5) for all patients

ZUMA-5 TREATMENT-EMERGENT ADVERSE EVENTS



AE, n (%) ^a	FL (n = 124)	MZL (n = 22)	Overall (N = 146)
Any AE	123 (99)	22 (100)	145 (99)
Pyrexia	103 (83)	20 (91)	123 (84)
Neutropenia ^b	79 (64)	15 (68)	94 (64)
Hypotension	59 (48)	13 (59)	72 (49)
Headache	54 (44)	11 (50)	65 (45)
Fatigue	51 (41)	13 (59)	64 (44)
Nausea	45 (36)	13 (59)	58 (40)
Anemia	44 (35)	11 (50)	55 (38)
Sinus tachycardia	41 (33)	7 (32)	48 (33)
Tremor	36 (29)	9 (41)	45 (31)
Chills	33 (27)	9 (41)	42 (29)
Constipation	35 (28)	6 (27)	41 (28)
Diarrhea	33 (27)	8 (36)	41 (28)
Decreased appetite	28 (23)	8 (36)	36 (25)

- Grade ≥ 3 AEs occurred in 126 patients (86%)
 - The most common Grade ≥ 3 AEs were cytopenias (70%) and infections (16%)
- Grade 5 AEs occurred in 3 patients
 - Related to axi-cel: multisystem organ failure in the context of CRS (n = 1, Day 7)
 - Unrelated to axi-cel: aortic dissection (n = 1, Day 399); coccidioidomycosis infection (n = 1, Day 327)

^aTreatment-emergent AEs shown are those that occurred in ≥25% of patients;

^bNeutropenia includes preferred terms of neutropenia, neutrophil count decreased, and febrile neutropenia AE, adverse event; axi-cel, axicabtagene ciloleucel; CRS, cytokine release syndrome; FL, follicular lymphoma; MZL, marginal zone lymphoma Jacobson C, et al. Oral presentation at ASH 2020. Abstract #700

ZUMA-5 CYTOKINE-RELEASE SYNDROME



Parameter	FL (n = 124)	MZL (n = 22)	Overall (N = 146)
CRS, n (%) ^a	97 (78)	22 (100)	119 (82)
Grade ≥ 3	8 (6)	2 (9)	10 (7)
Most common symptoms of any grade, n/n (%)			
Pyrexia	94/97 (97)	20/22 (91)	114/119 (96)
Hypotension	39/97 (40)	10/22 (45)	49/119 (41)
AE management, n (%)			
Tocilizumab	56 (45)	15 (68)	71 (49)
Corticosteroids	19 (15)	6 (27)	25 (17)
Median time to onset (range), days	4 (1 – 15)	4 (1 – 9)	4 (1 – 15)
Median duration of events (range), days	6 (1 – 27)	6 (2 – 14)	6 (1 – 27)
Patients with resolved events, n/n (%)	96/97 (99) ^b	22/22 (100)	118/119 (99) ^b

^aCRS was graded per Lee DW, et al. Blood. 2014;124:188-195. Individual symptoms of CRS were graded per National Cancer Institute's Common Terminology Criteria for Adverse Events version 4.03. ^bOne patient with FL died of multisystem organ failure in the context of CRS (Day 7) prior to the resolution of CRS.

ZUMA-5 NEUROLOGIC EVENTS



Parameter	FL (n = 124)	MZL (n = 22)	Overall (N = 146)
Neurologic events, n (%) ^a	70 (56)	17 (77)	87 (60)
Grade ≥ 3	19 (15)	9 (41)	28 (19)
Most common events of any grade, n/n (%)			
Tremor	36/70 (51)	9/17 (53)	45/87 (52)
Confusional state	28/70 (40)	7/17 (41)	35/87 (40)
AE management, n (%)			
Corticosteroids	38 (31)	14 (64)	52 (36)
Tocilizumab	7 (6)	2 (9)	9 (6)
Median time to onset (range), days	7 (1 – 177)	7 (3 – 19)	7 (1 – 177)
Median duration of events (range), days	14 (1 – 452)	10 (2 – 81)	14 (1 – 452)
Patients with resolved events, n/n (%)	67/70 (96)	14/17 (82)	81/87 (93)

^a Neurologic events were graded per National Cancer Institute's Common Terminology Criteria for Adverse Events version 4.03. FL, follicular lymphoma; MZL, marginal zone lymphoma Jacobson C, et al. Oral presentation at ASH 2020. Abstract #700

SUMMARY AXI-CEL



Axi-cel is a chimeric antigen receptor T-cell therapy that demonstrated **high rates of durable responses**

- ORR of 93% in patients with iNHL (95% in FL) and a CR rate of 80% (81% in FL)
- With a median follow-up of 15.3 months, responses were ongoing in 68% of patients with FL (80% of patients who achieved a CR)

The **safety profile was manageable** and appeared favourable in patients with FL compared with that previously reported in DLBCL

No Grade 5 neurologic events occurred; 1 Grade 5 CRS event occurred

REACH LYMPHOMA & MYELOMA CONNECT VIA TWITTER, LINKEDIN, VIMEO & EMAIL OR VISIT THE GROUP'S WEBSITE http://www.lymphomaconnect.info







Watch us on the
Vimeo Channel
LYMPHOMA &
MYELOMA CONNECT



Email froukje.sosef @cor2ed.com



LYMPHOMA & MYELOMA CONNECT Bodenackerstrasse 17 4103 Bottmingen SWITZERLAND

Dr. Froukje Sosef MD



+31 6 2324 3636



froukje.sosef@cor2ed.com

Dr. Antoine Lacombe Pharm D, MBA



+41 79 529 42 79



antoine.lacombe@cor2ed.com



Connect on LinkedIn @LYMPHOMA & MYELOMA CONNECT



Visit us at lymphomaconnect.info



Watch on Vimeo @LYMPHOMA & MYELOMA CONNECT



Follow us on
Twitter @lym_mm_connect

