



Carcinoma de pulmón de célula pequeña y otras neoplasias torácicas

Rafael López Castro

Hospital Clínico Universitario de Valladolid

Abstracts destacados


Proffered paper non-metastatic NSCLC and other thoracic malignancies

- **#LBA84:** ETOP/IFCT 4-12 STIMULI

Mini oral CPCP

- **#LBA85:** EORTC 1417 REACTION (phase II)
- **#LBA86:** Long-term benefit & TMB in CASPIAN
- **#1781MO:** Long-term survivors in IMPOWER 133
- **#1782MO:** Health Related QoL in Keynote 604

Mini oral MPM

- **#1895MO:** 3y F-U MERIT trial (Nivo 2nd line MPM)
 - **#1896MO:** Volumetric PET assessment in MPM with high-dose pembro
- 

Consolidation ipilimumab and nivolumab vs observation in limited stage SCLC after chemo-radiotherapy: Results from the ETOP/IFCT 4-12 STIMULI trial. *Peters S et al.*



Solange Peters, Jean-Louis Pujol, Urania Dafni, Jesús Andrade, Annemarie Becker, Manuel Dómine, Alessandra Curioni-Fontecedro, Olivier Molinier, Denis Moro-Sibilot, Kristiaan Nackaerts, Amelia Insa Mollá, Guillermo López Vivanco, Jeannick Madelaine, Sanjay Popat, Martin Reck, Heidi Roschitzki-Voser, Paul Mitchell, Dirk De Ruyscher, Cécile Le Pechoux, Rolf Stahel

5 | ETOP/IFCT 4-12 STIMULI (protocol AM1) – Study Design & Objectives

Key eligibility criteria

- Small cell lung carcinoma
- Stage I-IIIb
- Treatment naïve (1 chemo cycle before enrolment allowed)
- Age ≥ 18
- ECOG PS 0-1
- Adequate haematological, renal, hepatic and lung function
- Pulmonary function FEV1 of 1.0L or >40% predicted value and DL_{CO} >40% predicted value

Trial enrolment

CRT phase

- Cis/-carboplatin +etoposide: 4 cycles
- Concurrent RT
- PCI after CRT

No PD

R*
1:1

Immunotherapy consolidation

- Induction: Nivolumab (1 mg/kg i.v.) & Ipilimumab (3 mg/kg i.v.) Q3W for 4 cycles
- Maintenance: Nivolumab (240 mg i.v.) Q2W for max 12 months

Observation

No further treatment

*Stratification factors

- Twice-daily vs once-daily radiotherapy
- PET CT scan at baseline Y/N

RECIST 1.1 Assessment:

Every 9 weeks for the first 18 months,
12 weeks up to year 2 and 6 months up to year 4

Primary endpoints:

- Progression-free survival (PFS) according to RECIST 1.1

Measured from randomization

Secondary endpoints:

- Overall survival (OS)
- Time-to-treatment failure (TTF)
- Adverse events (CTCAE V4.0)

• Accrual period:

23 December 2015 – 30 April 2019

→ Premature accrual closure (for administrative reasons).

→ Patients enrolled by 30 April, could still be randomized after accrual closure.

• Enrolled patients by country:

35% France, 28% Spain, 16% Germany, 6% Netherlands, 4% Switzerland, 4% United Kingdom, 4% Belgium, 3% Australia

• Median Follow-up (post randomization):

22.7 months (IQR: 14.5 - 35.5)

7 | ETOP/IFCT 4-12 STIMULI – Consort Diagram

Database cut-off:
25 May 2020

Patients enrolled under AM1 N=222

→ Attrition rate 35%

Patients randomized under AM1 N=153
(145 enr. under AM1 + 8 enr. under original)

Nivolumab &
Ipilimumab

N=78

Allocation

Observation

N=75

Follow-up

Still on follow-up N=51

Still on follow-up N=48

Treatment

Received ≥1 treatment dose N=78

Completed treatment n=8

On treatment n=5

Treatment-failures n=65

83%

Reason for treatment failure:

Toxicity n=36

46%*

Progression n=15

Patient decision n=7

Investigator decision n=4

Death n=3

Performed ≥1 'treatment visit' N=69

Completed treatment visits n=33

On treatment n=4

Treatment-failures n=44*

64%

Reason for treatment failure:

Progression n=35

Patient decision n=1

Death n=1

Other n=1

Never initiated 'treatment visits' n=6

*6 failures occurred post-completion of trial visits

N=78

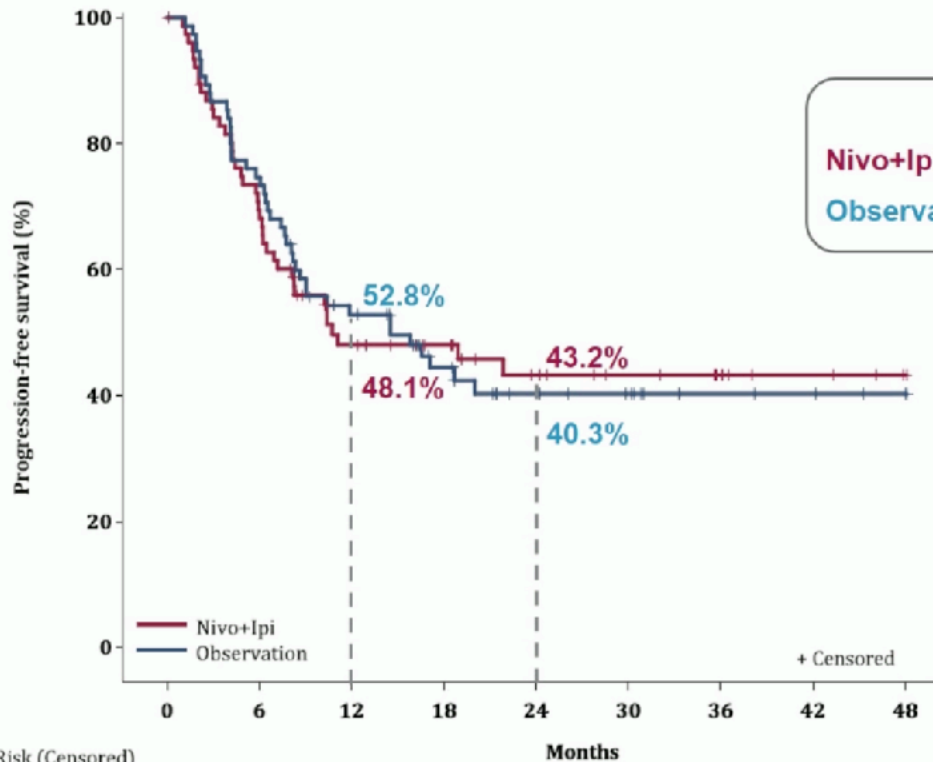
ITT analysis

N=75

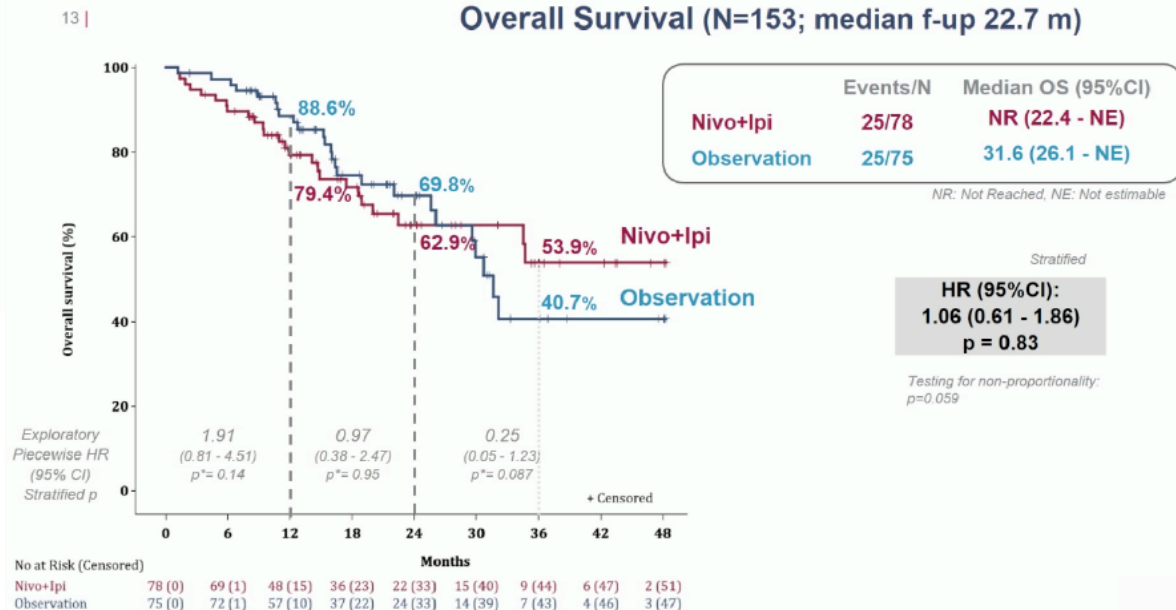
#LBA84

- Consolidation ipilimumab and nivolumab vs observation in limited stage SCLC after chemo-radiotherapy: Results from the ETOP/IFCT 4-12 STIMULI trial

Progression-Free Survival (N=153; median f-up 22.7 m)



Overall Survival (N=153; median f-up 22.7 m)



- Consolidation ipilimumab and nivolumab vs observation in limited stage SCLC after chemo-radiotherapy: Results from the ETOP/IFCT 4-12 STIMULI trial

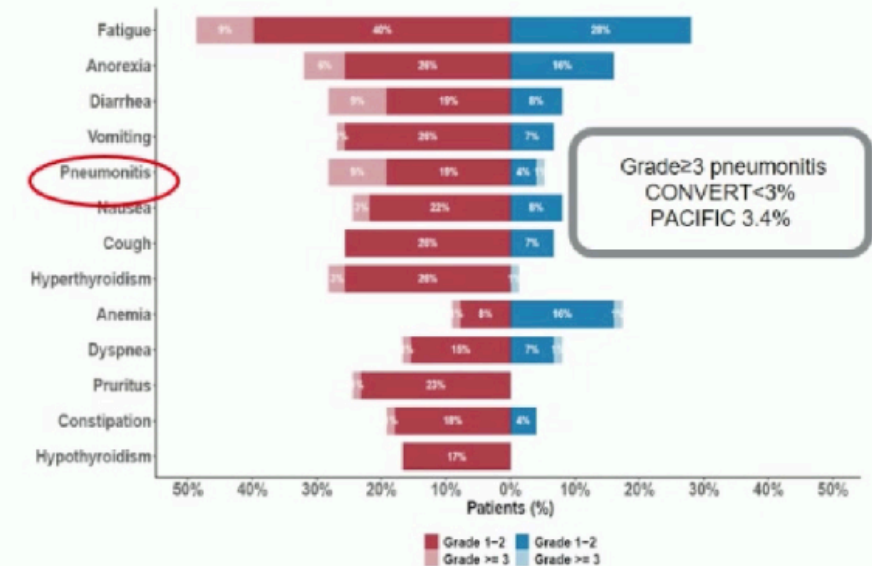
Safety cohort (n=153)

	Nivo+Ipi N patients (%)		Observation N patients (%)
Safety cohort	78		75
Patients experiencing:			
Any Adverse Event (AE)	77 (99%)		65 (87%)
Any Treatment-related AE	75 (96%)		-
	Trt-related	Any cause	Any cause
AEs of grade 3-5	40 (51%)	48 (62%)	19 (25%)
AEs leading to treatment discontinuation	38 (49%)	43 (55%)	-
AEs leading to death	3 (4%)	4 (5%)	1 (1%)

* Pneumonitis (2), ileus, Death NOS (not trt-related)

** Lung infection

Most frequent any-cause adverse events (>15%)



- STIMULI trial did not meet its primary endpoint of improving PFS
- Short period of active treatment (toxicity, discontinuation)
- Longer F-U: explore possible late effect on OS with IO
- Greater benefits in: twice daily RT fraction, female, PS1 ($p < 0.05$)

#LBA85

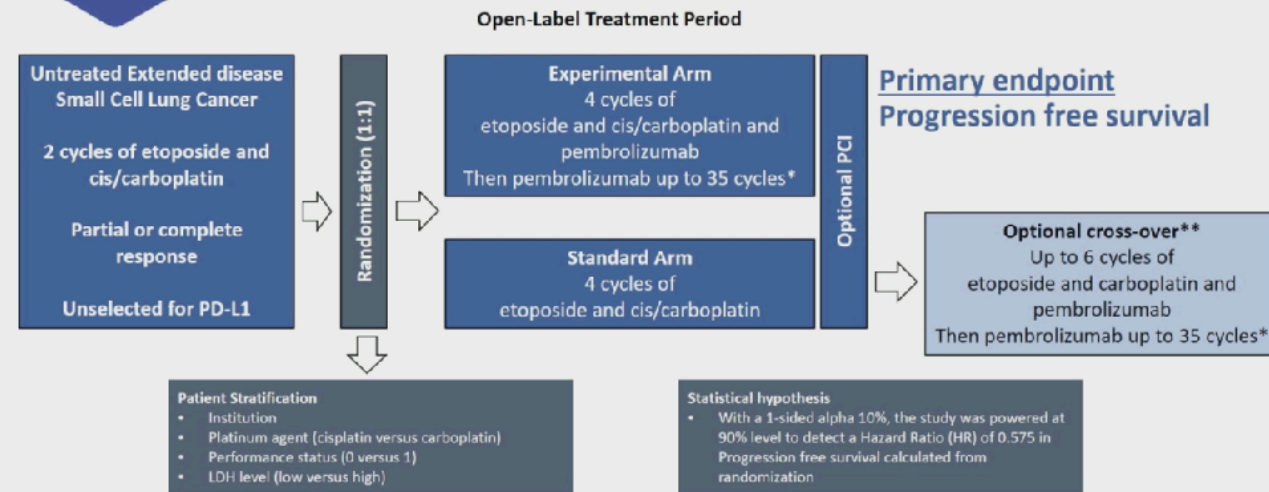
REACTION: A phase II study of etoposide and cis/carboplatin with or without pembrolizumab in untreated extensive small cell lung cancer. *Besse B et al.*

EORTC 1417 - REACTION: A phase II study of etoposide and cis/carboplatin with or without pembrolizumab in untreated extensive small cell lung cancer

Benjamin Besse¹ (benjamin.besse@gustaveroussy.fr), Jessica Menis², Paolo Bironzo³, Radj Gervais⁴, Laurent Greillier⁵, Isabelle Monnet⁶, Lorenzo Livi⁷, Robin Young⁸, Chantal Decroisette⁹, Nicolas Cloarec¹⁰, Gilles Robinet¹¹, Roland Schott¹², Raffaele Califano¹³, Filippo de Marinis¹⁴, Giuseppe L. Banna¹⁵, Murielle Mauer¹⁶, Alessia Pochesci¹⁶, Baktiar Hasan¹⁶, Thierry Berghmans¹⁷, Anne-Marie C. Dingemans¹⁸

¹Gustave Roussy, Villejuif, France; ²University of Padova, Istituto Oncologico Veneto; ³Università Di Torino, Italy; ⁴Centre Francois Baclesse (CLCC), Caen, France; ⁵Aix Marseille Univ, APHM, Marseille, France; ⁶Centre Hospitalier Intercommunal De Creteil, France; ⁷Radiation Oncology Unit, University of Florence, Italy; ⁸Weston Park Hospital, Sheffield, United Kingdom; ⁹Centre Hospitalier D'Annecy, Metz-Tessy, France; ¹⁰Centre Hospitalier d'Avignon, Avignon, France; ¹¹CHU de Brest, Brest, France; ¹²Institut de Cancerologie (ICAMS), Strasbourg, France; ¹³The Christie NHS Foundation Trust, University of Manchester, Manchester, UK; ¹⁴European Institute of Oncology (IEO), IRCCS, Milan, Italy; ¹⁵Portsmouth Hospitals NHS Trust, Portsmouth, UK; ¹⁶EORTC HQ, Brussels, Belgium; ¹⁷Institut Jules Bordet, Brussels, Belgium; ¹⁸Erasmus MC, Rotterdam, Netherlands

Study design



* Patients who have not progressed after 2 years of pembrolizumab are allowed to discontinue pembrolizumab. In case of subsequent progression, patients have the opportunity for a second course re-treatment with pembrolizumab.
** Patients in the control arm that experience disease progression at least 3 months after the last dose of chemotherapy
QD: once daily; Q3W: every three weeks; IV: Intravenous; PCI: prophylactic cranial irradiation

#LBA85

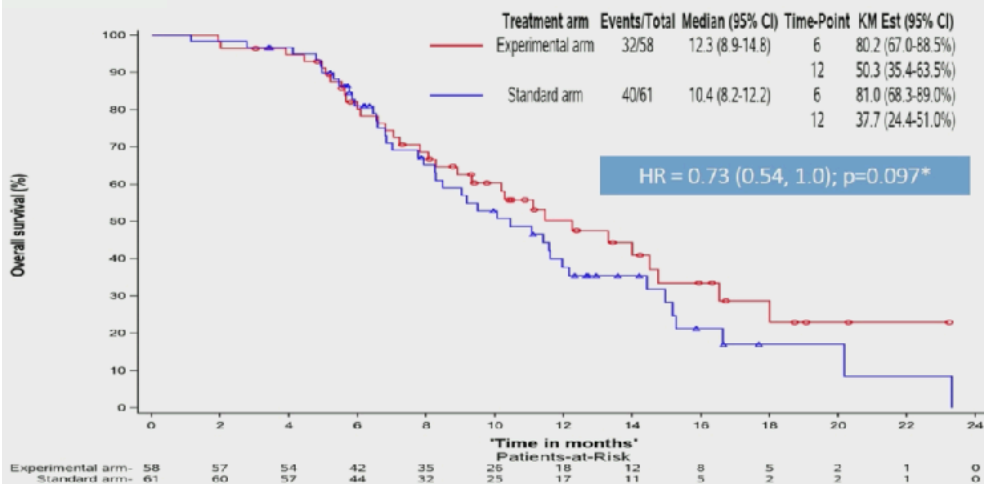


Safety

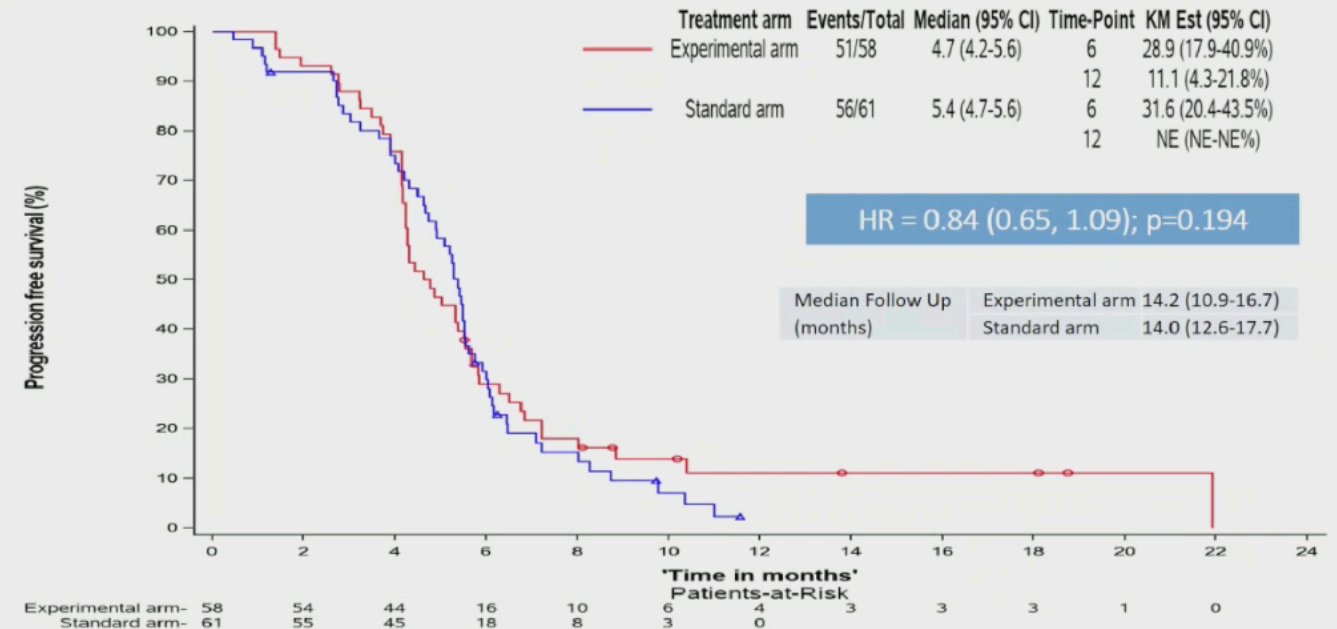
Frequency of Adverse Events*	Standard Arm (N=64)			Experimental Arm (N=60)		
	Grade 3 N (%)	Grade 4 N (%)	Grade 5 N (%)	Grade 3 N (%)	Grade 4 N (%)	Grade 5 N (%)
AEs in ≥5% of the cases	19 (29.7)	3 (4.7)	1 (1.6)**	19 (31.7)	6 (10.0)	1 (1.7) †
Anemia	3 (4.7)			11 (18.3)	1 (1.7)	
Neutrophil Count Decreased	2 (3.1)	1 (1.6)		3 (5)	3 (5)	
Platelet Count Decreased	7 (10.9)			2 (3.3)	2 (3.3)	
Elevated GGT	4 (6.3)			1 (1.7)		
AEs of special interest						
Diarrhea	1 (1.6)			2 (3.3)		
Dyspnea	2 (3.1)	1 (1.6)		2 (3.3)		
All population	19 (29.7)	3 (4.7)	1 (1.6)	19 (31.7)	6 (10.0)	1 (1.7)

*CTCAE version 4.3; **Cardiac Arrest; †deterioration of health status

Overall Survival



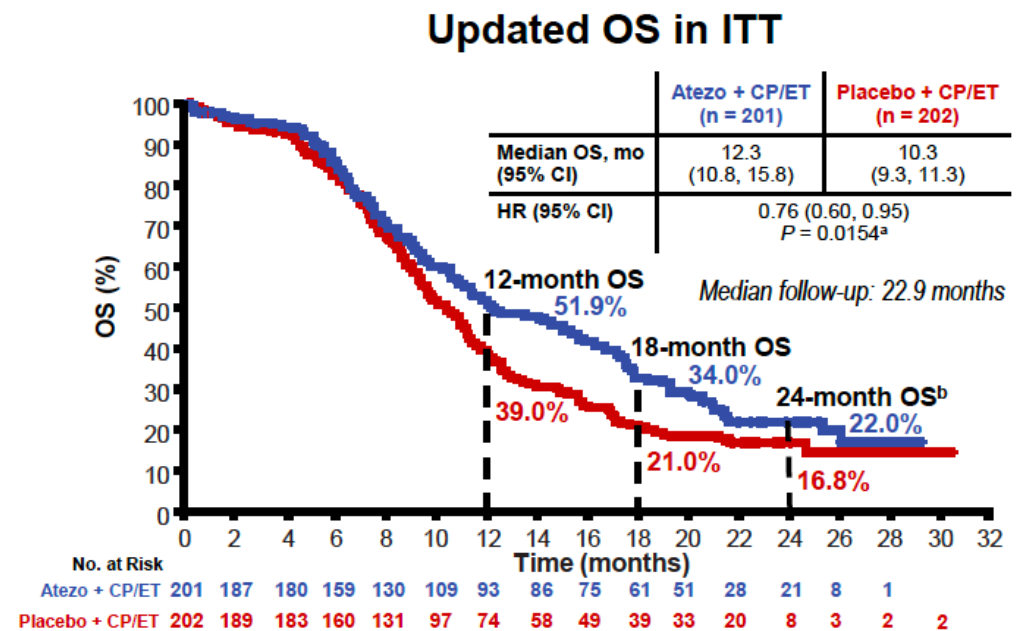
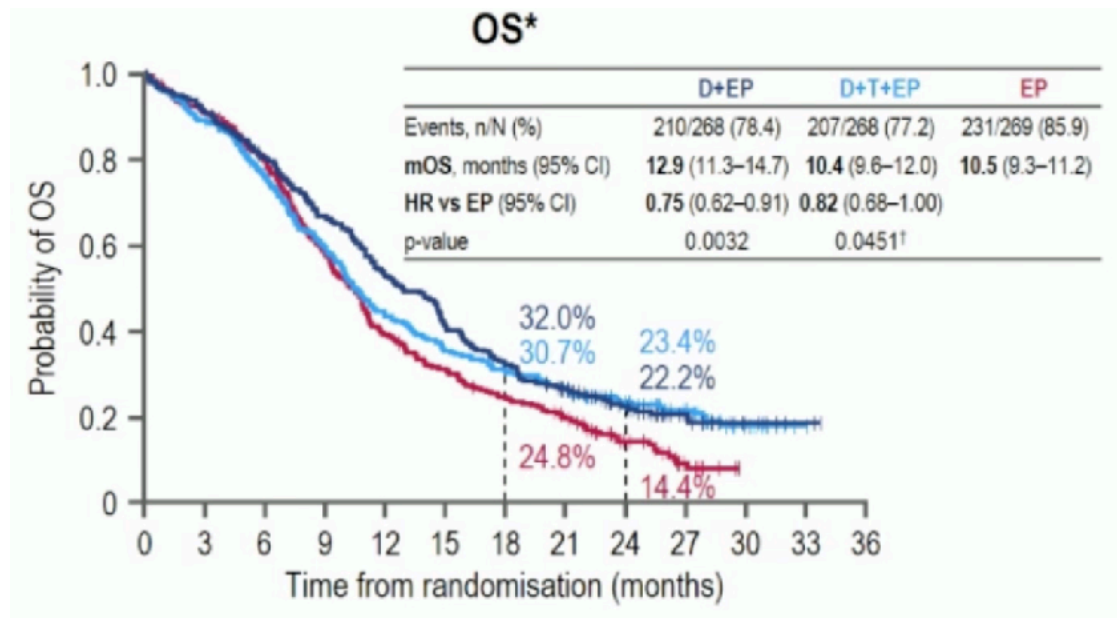
Primary endpoint Progression Free Survival



- No benefit in PFS (primary obj); nor OS (secondary)

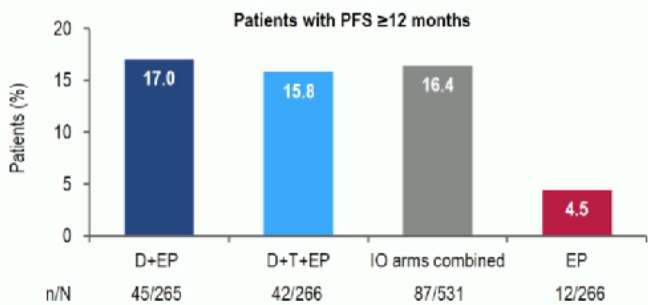
#LBA86 & #1781MO

- Durvalumab (D) ± tremelimumab (T) + platinum-etoposide (EP) in 1L ES-SCLC: Characterization of long-term clinical benefit and tumour mutational burden (TMB) in CASPIAN. *Goldman JW et al.*
- IMpower133: Characterisation of long-term survivors treated first-line with chemotherapy + atezolizumab in extensive-stage small cell lung cancer. *Liu S et al.*



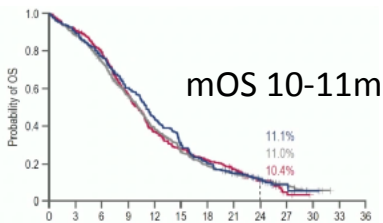
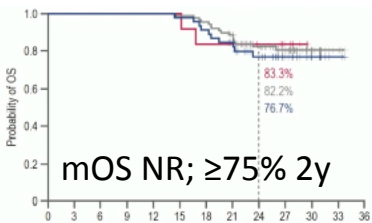
LTS definition

CASPIAN



	PFS ≥12 months			PFS <12 months		
	D+EP (n=45)	IO arms combined (n=87)	EP (n=12)	D+EP (n=220)	IO arms combined (n=444)	EP (n=254)
Ongoing durvalumab, n (%)	27 (60)	50 (57)	-	5 (2)	12 (3)	-
Durvalumab cycles, median (range)	25 (6-37)	25 (2-37)	-	7 (1-28)	6 (1-33)	-
Received cisplatin, %	22	23	25	25	25	25
Etoposide doses, median (range)	12 (10-18)	12 (6-18)	18 (12-18)	12 (2-24)	12 (1-24)	18 (1-18)
Median age (range), y	60 (47-79)	61 (47-83)	64.5 (47-72)	62 (28-82)	63 (28-88)	63 (35-82)
Male, %	60	63	42	73	75	69
White / Asian / Other, %	98 / 2 / 0	89 / 9 / 2	100 / 0 / 0	83 / 16 / 1	82 / 17 / 2	82 / 16 / 2
Ever / Never smoker, %	91 / 9	91 / 9	100 / 0	92 / 8	93 / 7	94 / 6
WHO PS 0 / 1, %	47 / 53	48 / 52	42 / 58	35 / 65	36 / 64	33 / 67
Brain / Liver metastases, %	7 / 20	3 / 23	0 / 17	11 / 44	14 / 46	11 / 40
tTMB ≥10 mut/Mb, n/N* (%)	11/18 (61)	16/33 (48)	1/1 (100)	46/89 (52)	89/179 (50)	25/70 (36)

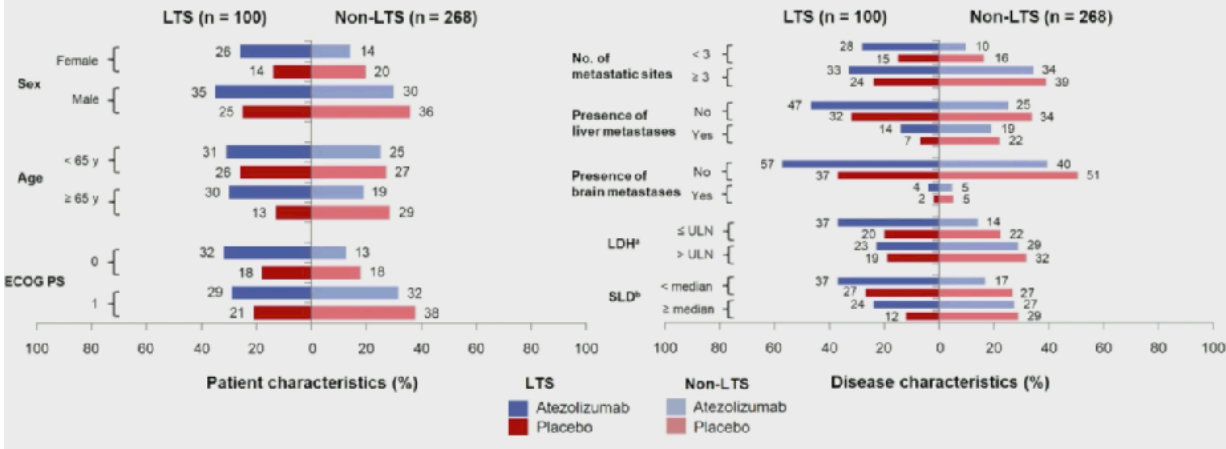
OS



IMP133

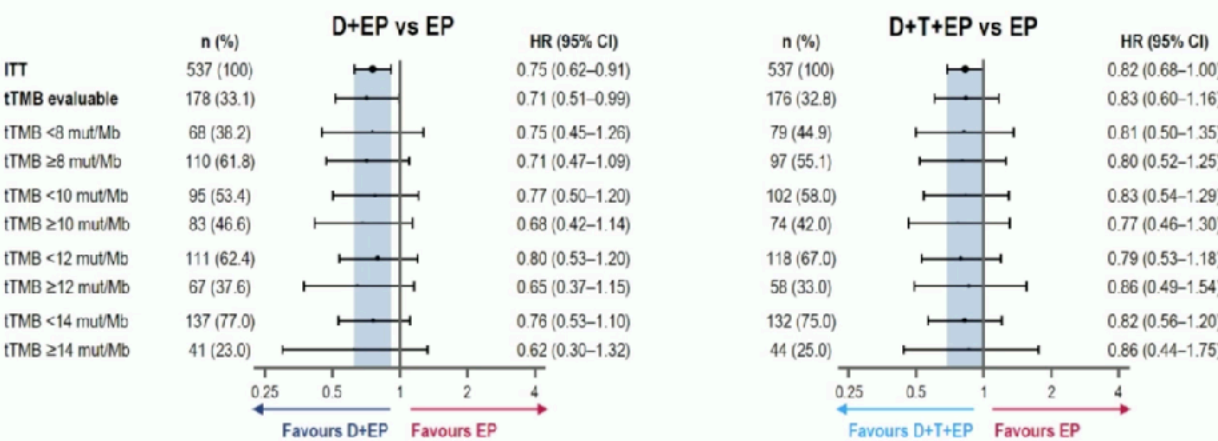
- LTS are defined as patients who lived ≥ 18 months since randomisation
- Non-LTS are defined as patients who died < 18 months post randomisation

	Atezo + CP/ET (n = 182)	Placebo + CP/ET (n = 191)
LTS, n (%)	61 (33.5)	39 (20.4)
95% CI	(26.7, 40.9)	(14.9, 26.8)
Non-LTS, n (%)	121 (66.5)	152 (79.6)
95% CI	(59.1, 73.3)	(73.2, 85.1)

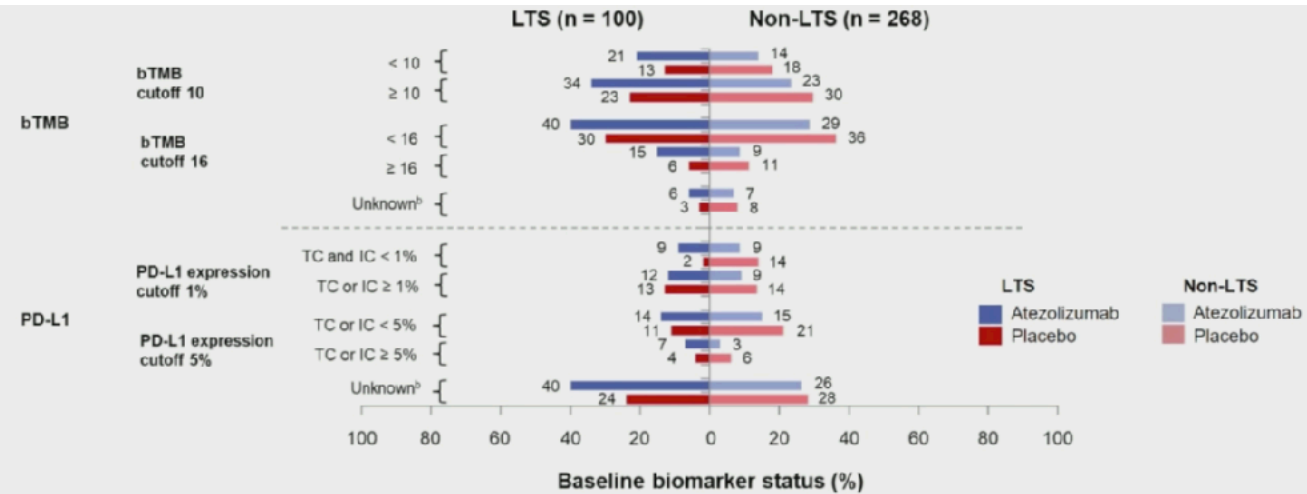


Findings

CASPIAN



IMP133

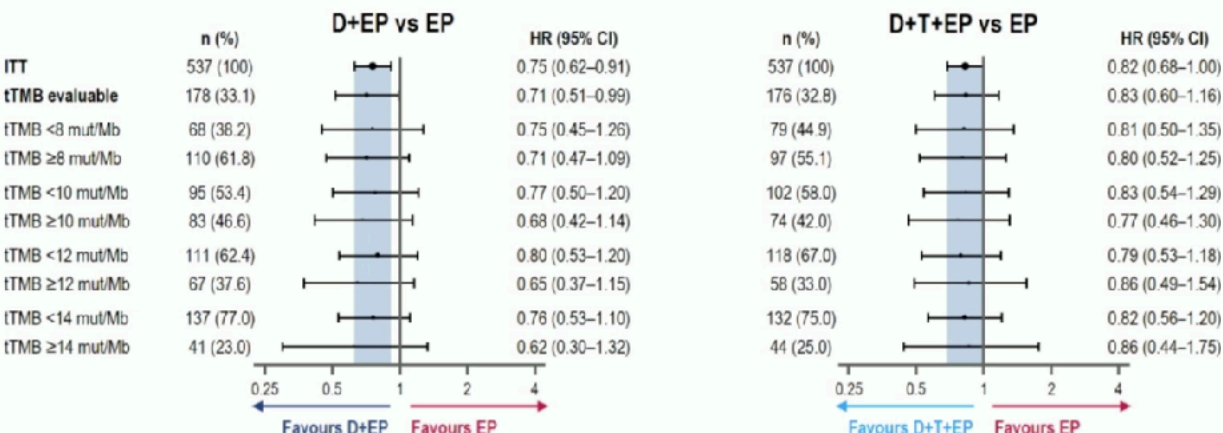


	PFS ≥12 months			PFS <12 months		
	D+EP (n=45)	IO arms combined (n=87)	EP (n=12)	D+EP (n=220)	IO arms combined (n=443*)	EP (n=254)
Confirmed ORR, n (%)	43 (96)	82 (94)	12 (100)	139 (63)	256 (58)	144 (57)
Median time to response, days (range)	43 (33–155)	43 (33–196)	42.5 (36–592)	42 (29–92)	42 (29–93)	42 (29–106)
Median DoR, months (95% CI)	NR (18–NE)	NR (24–NE)	20 (12–NE)	4 (3.5–5)	4 (4–5)	5 (5–5)
Patients remaining in response, † %						
At 6 months	100	100	100	20	20	29
At 12 months	93	94	91	0	0	0
At 18 months	67	70	61	0	0	0
At 24 months	54	59	48	0	0	0

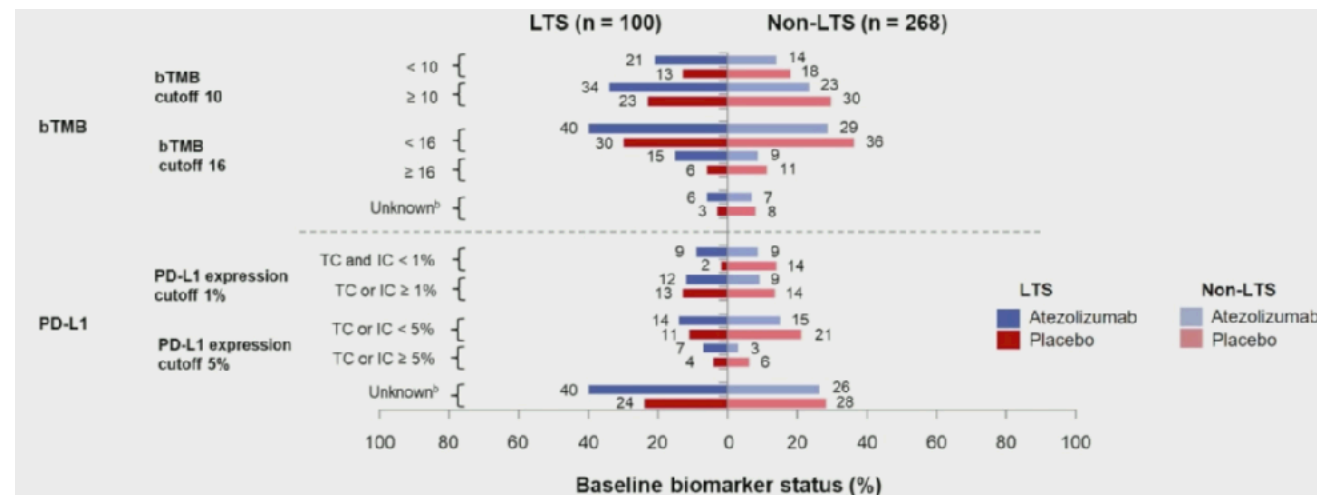
Covariate	Univariate		Multivariate	
	HR (95% CI)	P value	HR (95% CI)	P value
Treatment arm (ref: atezolizumab)	0.76 (0.61, 0.96)	0.02	0.71 (0.56, 0.90)	< 0.01
Sex (ref: male)	1.11 (0.88, 1.41)	0.38	1.21 (0.94, 1.54)	0.13
Age (ref: ≥ 65 y)	1.17 (0.93, 1.47)	0.17	1.18 (0.93, 1.50)	0.17
ECOG PS (ref: 1)	1.64 (1.29, 2.10)	< 0.01	1.43 (1.11, 1.85)	0.01
Metastatic sites (ref: ≥ 3)	1.53 (1.18, 1.97)	< 0.01	1.22 (0.93, 1.61)	0.15
LDH (ref: > ULN)	1.53 (1.21, 1.94)	< 0.01	1.30 (1.01, 1.66)	0.04
SLD (ref: ≥ 111 mm)	1.69 (1.34, 2.12)	< 0.01	1.56 (1.22, 2.00)	< 0.01

Findings

CASPIAN



IMP133



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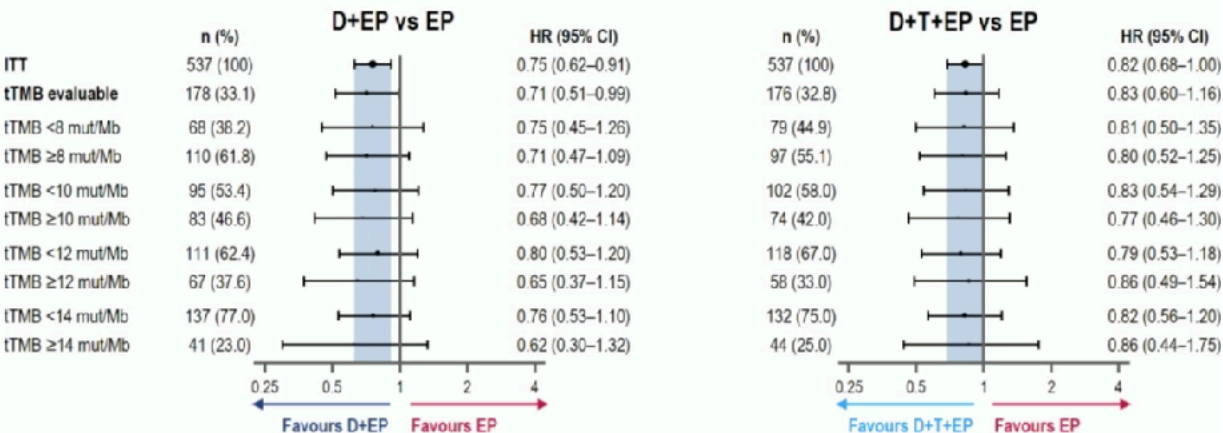
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- More LTS in Durva arm (x3)
- Pts with PFS ≥12m had improved ORR, DoR and OS
- Clinical characteristics no predictive of OS
- TMB no predictive of OS

#LBA85 & #LBA86

Findings

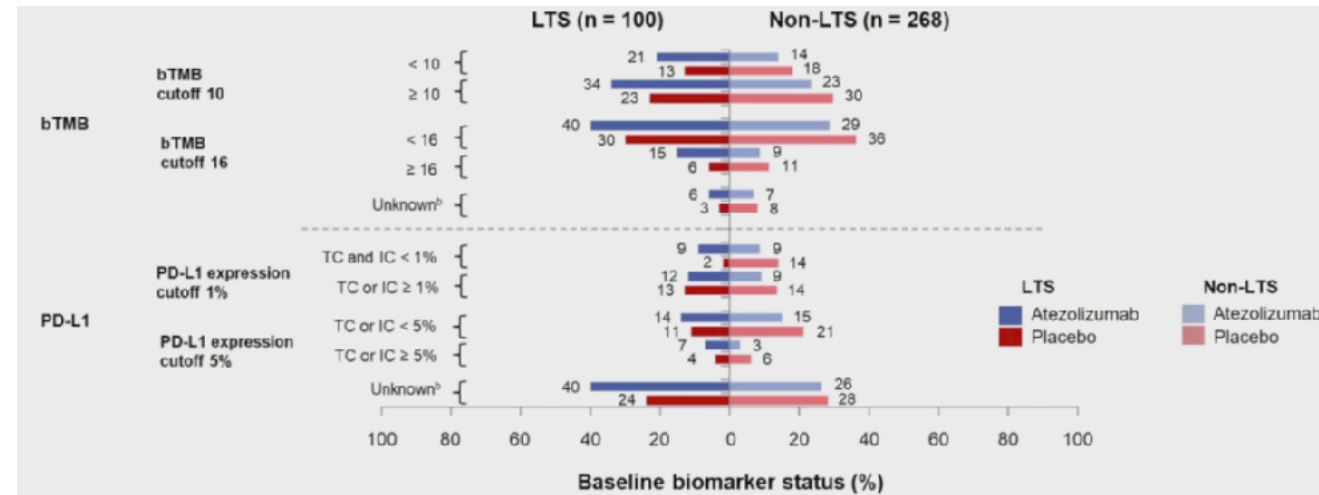
CASPIAN



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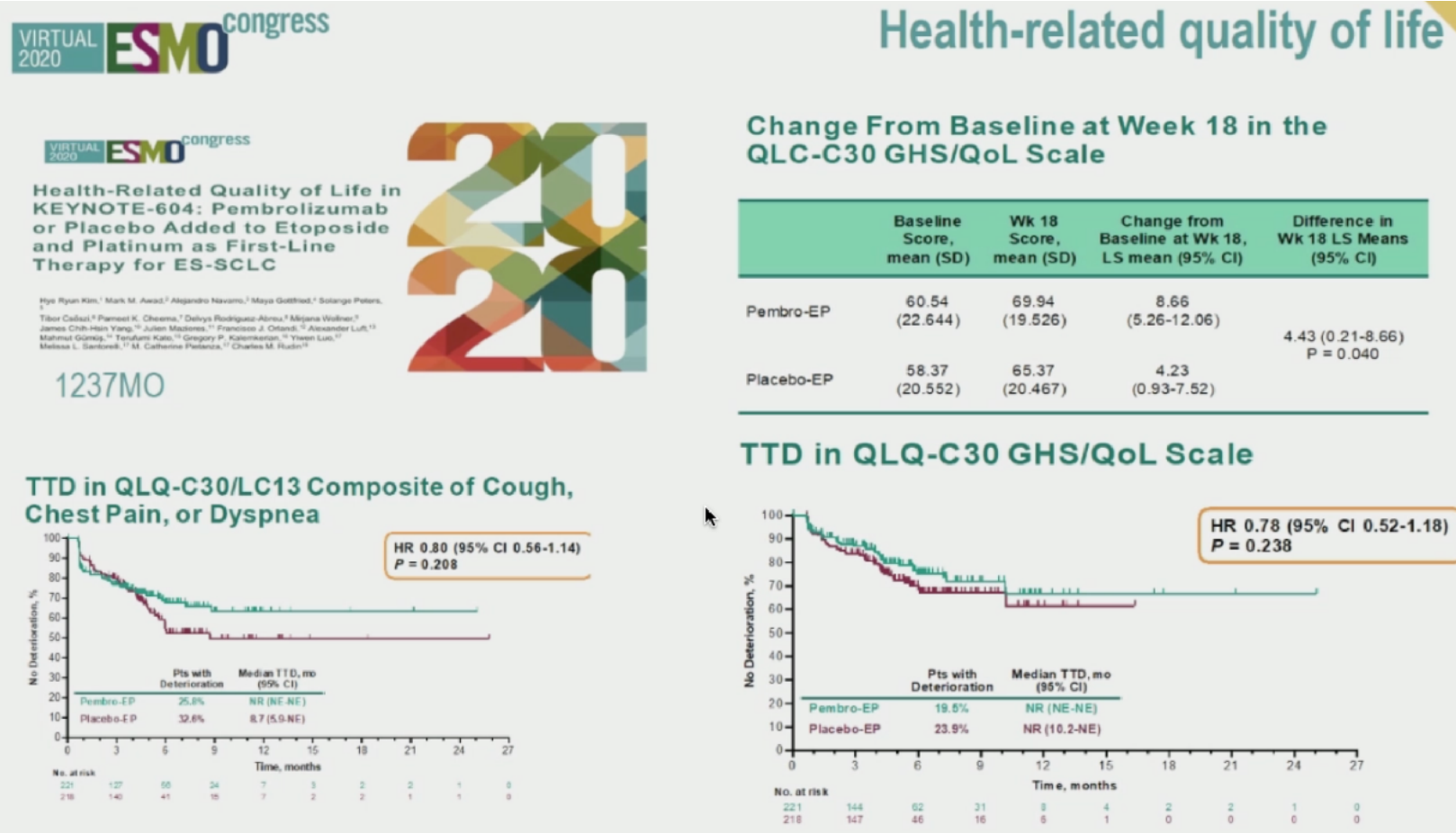


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Age (ref: ≥ 65 y)	1.17 (0.93, 1.47)	0.17	1.18 (0.93, 1.50)	0.17

- More LTS in Atezo arm
- PS, LDH and SLD impact on survival
- No predictive characteristics identified
- Benefit of Atezo independent of patients or tumor characteristics

#1782MO

Health-related quality of life (HRQoL) in KEYNOTE-604: Pembrolizumab (pembro) or placebo added to etoposide and platinum (EP) as first-line therapy for ES-SCLC. *Kim HR et al*



- Pembro addition not decrease HRQoL and improves greater at w18

#1895MO

Three-year follow-up results of the MERIT trial: A Japanese phase II study of nivolumab in malignant pleural mesothelioma. *Hayashi et al.*

Study design: Single-arm, open-label, phase II trial (Japic CTI-No.163247)

Key eligibility criteria

- 2/3 line advanced/metastatic MPM
- Prior platinum-based combination therapy with pemetrexed
- No prior surgery for MPM
- ECOG PS 0-1
- Available tumor tissue for PD-L1 expression analysis
- PD-L1 all comers

Treatment

Nivolumab
240 mg IV, Q2W
(N=34)
median age: 68.0 years
Male: 29 (85%)
Median BMI: 22.1 kg/m²
Epithelioid: 27 (79%)
Sarcomatoid: 3 (9%)
Biphasic: 4 (12%)

Continued until

disease progression
or
unacceptable toxicity

Endpoints

Primary endpoint:

- ORR
(Centrally assessed modified RECIST)

Select secondary endpoints:

- OS and PFS
- Safety

Data cut-off: November 12, 2019, Minimum follow-up: 36 months

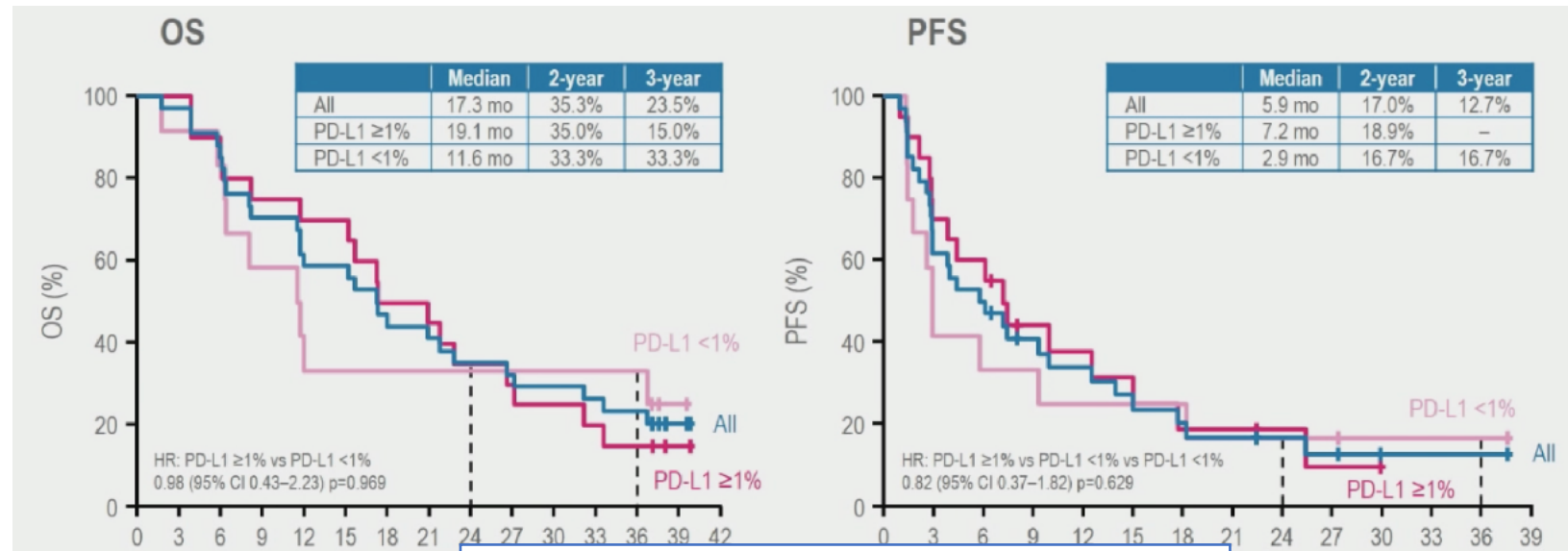
#1895MO

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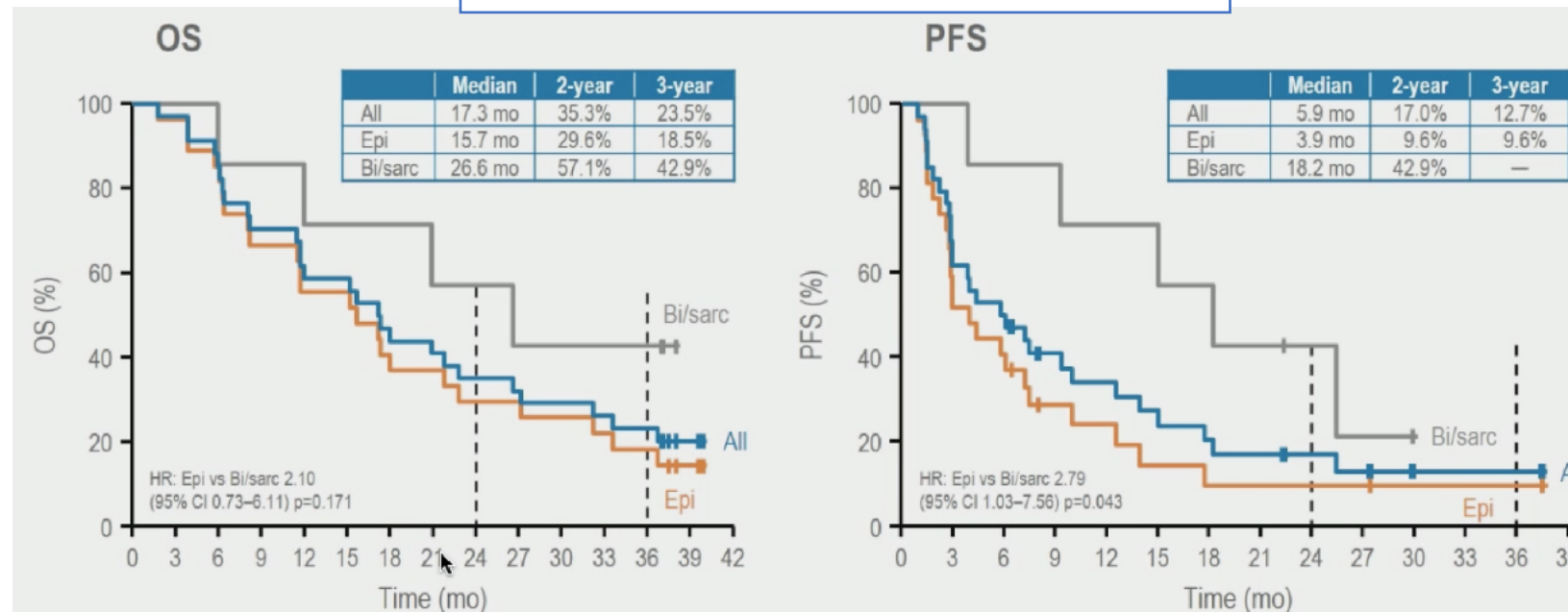
N = 34	
BOR, n (%)	
CR	0 (0.0)
PR	10 (29.4)
SD	13 (38.2)
PD	9 (26.5)
NE	2 (5.9)
ORR, %	29.4
DCR, %	67.6
DOR, median (range), months	11.1 (3.5–28.6*)

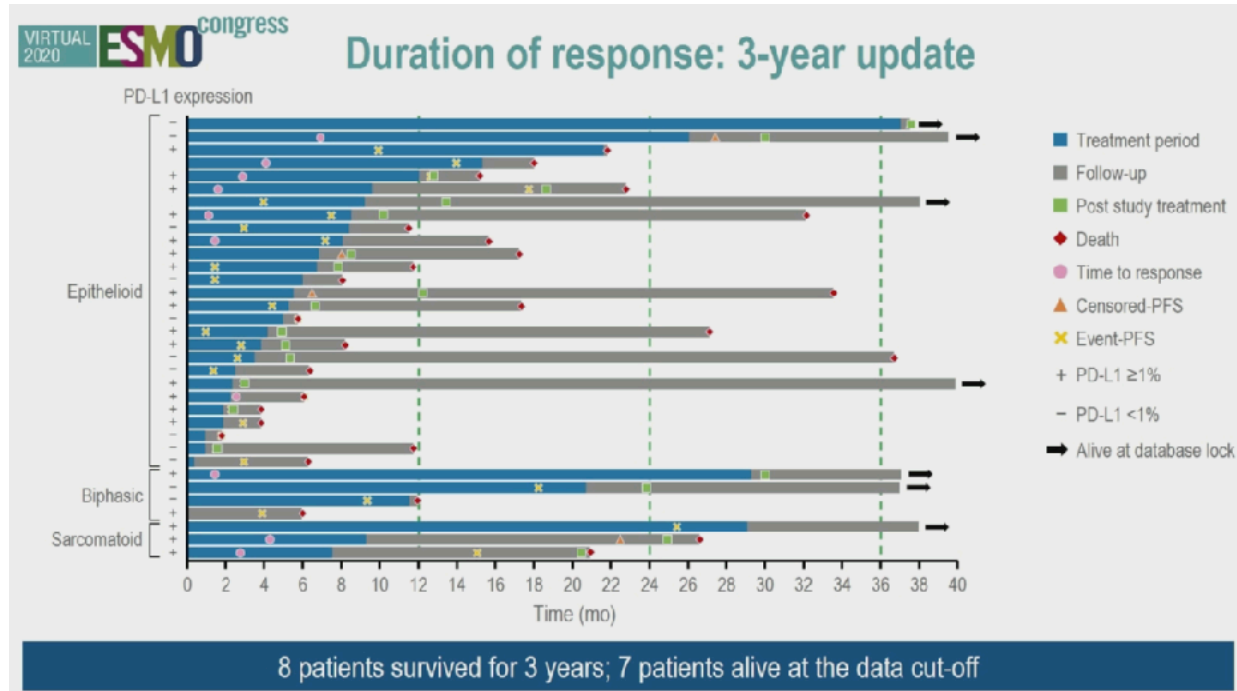
subgroup		n/N	ORR, %
Sex	Male	7/29	24.1
	Female	3/5	60.0
Age	<65 years	3/11	27.3
	≥65 years	7/23	30.4
ECOG PS	0	4/13	30.8
	1	6/21	28.6
Histological subtype	Epithelioid	7/27	25.9
	Sarcomatoid	2/3	66.7
	Biphasic	1/4	25.0
Number of prior treatment(s)	1	9/24	37.5
	2	1/10	10.0
PD-L1 expression	≥1%	8/20	40.0
	<1%	1/12	8.3
	NE	1/2	50.0

Pts with 2 prior Tx or PD-L1 <1%: lower ORR



3Y OS: 23.5%; 3Y PFS 12.7%





- Long-term benefit: 3y OS 23.5% and 3y PFS 12.7%
- ORR higher when PD-L1 >1% but no relation between PD-L1 status and OS/PFS
- Efficacy regardless of histological subtype
- Nivo tolerable and safe

in ≥2 patients by preferred term

n (%)	Any grade N = 34	Grade 3-4 N = 34
Any TRAE	26 (76.5)	11 (32.4)
Rash	6 (17.6)	1 (2.9)
Lipase increased	5 (14.7)	4 (11.8)
Diarrhoea	4 (11.8)	2 (5.9)
Amylase increased	4 (11.8)	2 (5.9)
Stomatitis	3 (8.8)	1 (2.9)
Weight decreased	3 (8.8)	1 (2.9)
Decreased appetite	3 (8.8)	1 (2.9)
Fatigue	3 (8.8)	0
Malaise	3 (8.8)	0
Arthralgia	3 (8.8)	0

n (%)	Any grade N = 34	Grade 3-4 N = 34
Pneumonitis	2 (5.9)	2 (5.9)
Interstitial lung disease	2 (5.9)	1 (2.9)
Hypothyroidism	2 (5.9)	0
Nausea	2 (5.9)	0
Vomiting	2 (5.9)	0
Mucosal inflammation	2 (5.9)	0
Pyrexia	2 (5.9)	0
Lymphocyte count decreased	2 (5.9)	0
Rash maculopapular	2 (5.9)	0

MedDRA ver. 20.0J, CTCAE ver. 4.0 JCOG version (Japanese translation)

#1896MO

Volumetric PET response assessment outperforms conventional criteria in patients receiving high-dose pembrolizumab for malignant mesothelioma. *Christoph DC et al*



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Volumetric PET response assessment outperforms conventional criteria in patients receiving high-dose pembrolizumab for malignant mesothelioma

Justin Ferdinandus, Francesco Barbato, Michal Chodyla, Wolfgang Peter Fendler, Lukas Kessler, Kelsey L. Pomykala, Martin Metzenmacher, Frederik Krefting, Thomas Hager, Lale Umutlu, Ken Herrmann and Daniel Christian Christoph

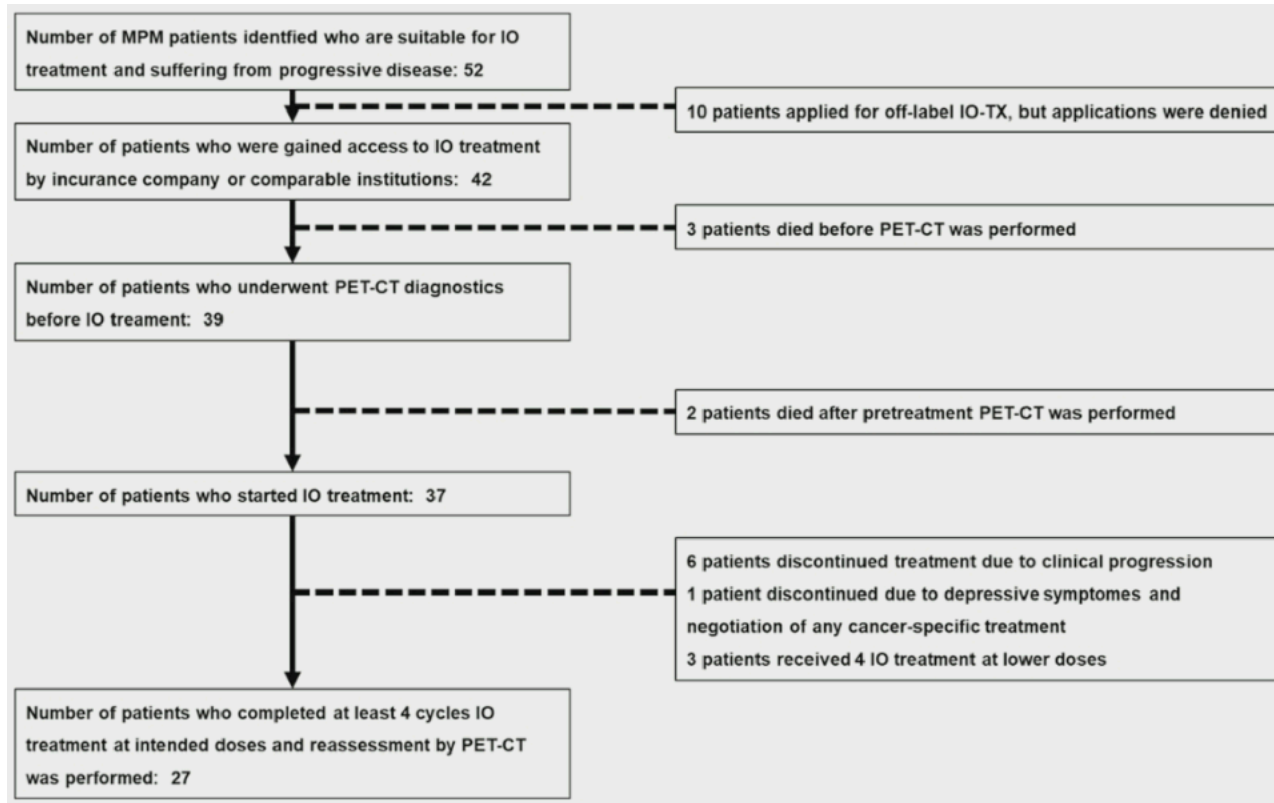
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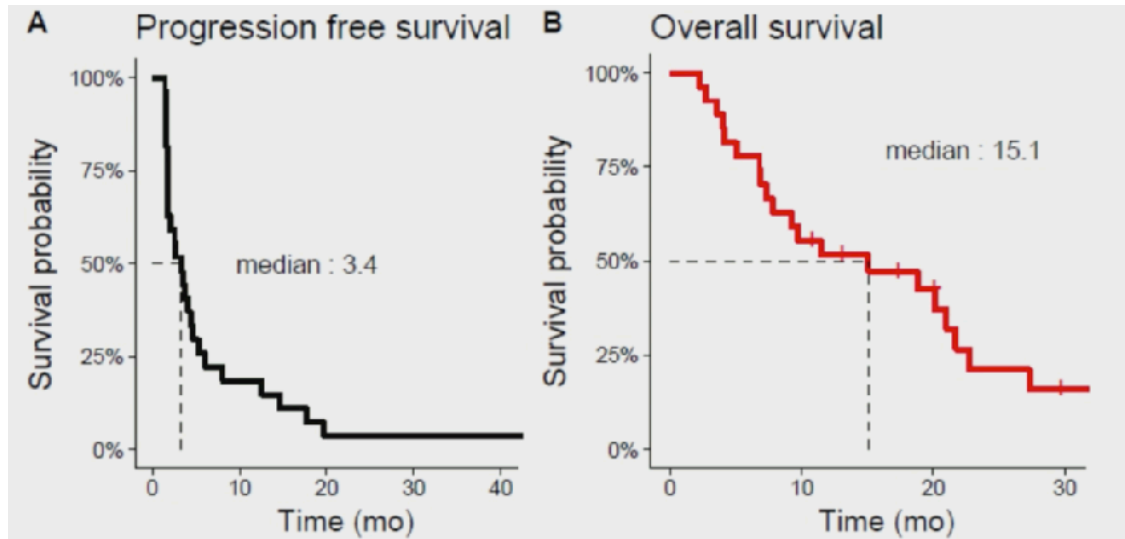
Volumetric PET response assessment outperforms conventional criteria in patients receiving high-dose pembrolizumab for malignant mesothelioma.



Patient characteristics (n = 27)		
Gender		
Male	23	(85.2%)
Female	4	(14.8%)
Median age at diagnosis, y (range)		
68 (51-82)		
IMIG / IASLC stadium (if applicable)		
2	3	(11.1%)
3	8	(29.6%)
4	16	(59.3%)
Histological subtype		
Epitheloid	21	(77.8%)
Sarcomatoid	3	(11.1%)
Biphasic	2	(7.4%)
Desmoplastic	1	(3.7%)
Prior lines of chemotherapy		
2	13	(48.1%)
3	8	(29.6%)
≥ 4	6	(22.2%)
PD-L1 expression		
0 %	12	(44.4%)
1 – 49%	11	(40.7%)
50 -100 %	3	(11.1%)
Missing	1	(3.7%)

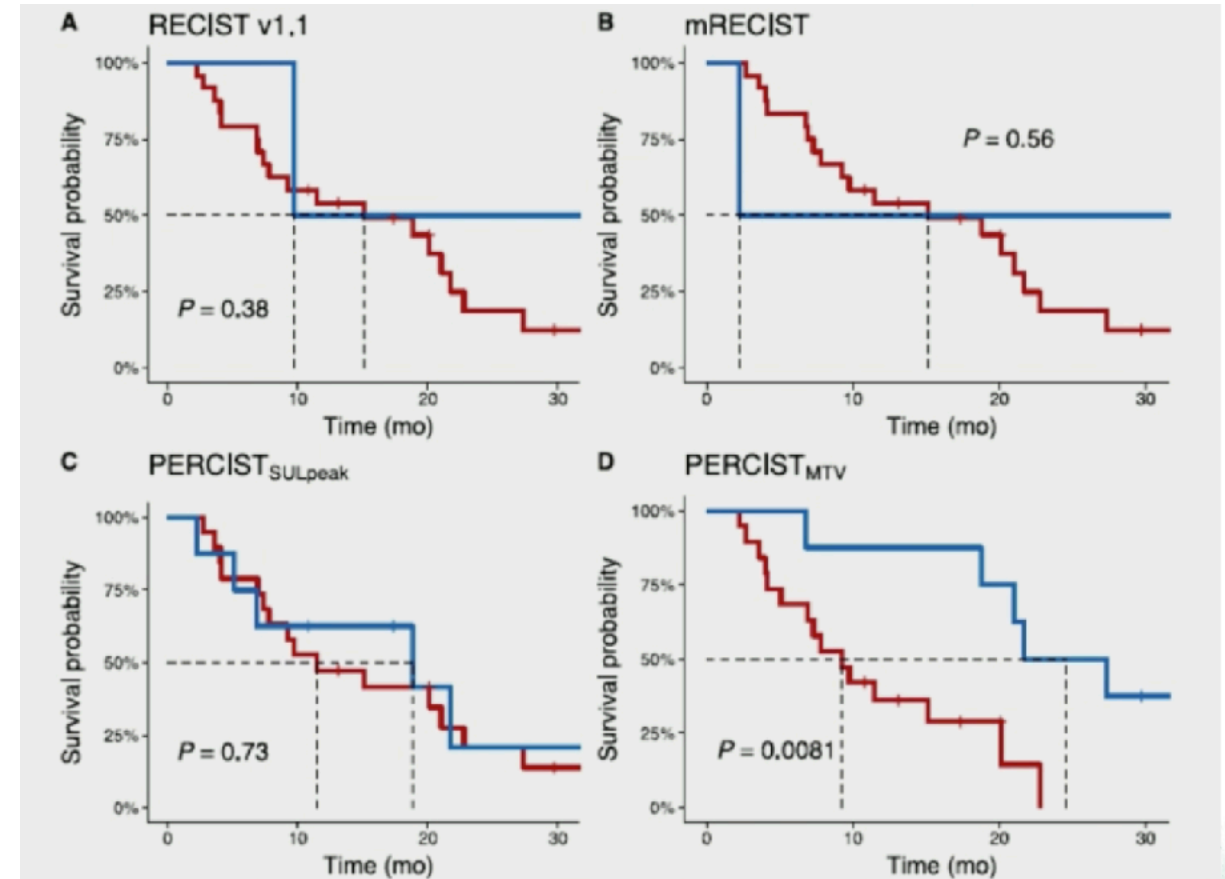
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Response Criteria	OR	CR/CMR	PR/PMR	SD/SMD	PD/PMD
RECIST v1.1*	2 (7.4%)	0 (0%)	2 (7.4%)	12 (44.4%)	12 (44.4%)
mRECIST*	2 (7.4%)	0 (0%)	2 (7.4%)	11 (40.7%)	13 (48.1%)
PERCIST _{SULpeak}	8 (29.6%)	1 (3.7%)	7 (25.9%)	10 (37.0%)	9 (33.3%)
PERCIST _{MTV}	8 (29.6%)	0 (0%)	8 (29.6%)	6 (22.2%)	13 (48.1%)

*1 patient with no measurable target lesion at baseline. OR=Objective response



- PET better defines responders to pembro high dose than CT, impacting definition on OS assessment