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IFCT-2105 LURBICLIN: Real-world effectiveness and treatment sequences in patients with extensive-stage small cell lung cancer who received lurbinectedin as part of the French Early Access Program (EAP-ATU)

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BACKGROUND

- Novel options are needed for patients (pts) with Extensive-Stage Small Cell Lung Cancer (ES-SCLC) after the failure of first-line chemotherapy.
- **Lurbinectedin demonstrated efficacy in a landmark phase II study** [Trigo et al. Lancet Oncol. 2020 May;21(5):645], and was granted Expanded Access Program (EAP)-ATU in France in June 2020.
- While prospective trials are still ongoing, there is a need to better identify eligible population and assess real-world effectiveness of lurbinectedin in ES-SCLC.

METHODS

- **Multicenter, retrospective cohort of consecutive pts**:
  - with histologically or cytologically confirmed ES-SCLC,
  - who received at least one dose of treatment with lurbinectedin as part of the French EAP-ATU,
  - treatment initated until March 2021,
  - and who accepted for the data collection.
- Total of 47 sites in France
- Key prespecified subgroups included treatment line, response and rwPFS to previous chemo-immunotherapy, chemotherapy-free interval (≥90 days vs <90 days (ESMO guideline), ≥180 days vs <180 days (NCCN guidelines))

TAKE-HOME MESSAGE

Our real-world data confirmed the activity of lurbinectedin in patients with SCLC with a manageable safety profile. Lurbinectedin monotherapy provides an alternative therapeutic option for SCLC patients without precluding subsequent treatment.

PATIENT POPULATION

CONSORT diagram

We censored follow-up on September 1st, 2022

			ITT (N=312)
Initial stage at lurbinectedin initiation	Extensive	N (%)	268 (85.9)
	Limited	N (%)	44 (14.1)
Performance status at lurbinectedin initiation	0-1	N (%)	188 (71.8)
	≥2	N (%)	74 (28.2)
	Unknown	N	50
Brain metastasis at lurbinectedin initiation	Yes	N (%)	147 (47.1)
	No	N (%)	165 (52.9)
Previous line of systemic therapy	1	N (%)	138 (44.2)
	2	N (%)	93 (29.8)
	3	N (%)	50 (16)
	>3	N (%)	31 (9.9)
Received at least 1 immunotherapy during previous line(s)		N (%)	180 (57.7)
Received at least 1 chemotherapy during previous line(s)		N (%)	283 (90.7)
*3 received only radiotherapy and immunotherapy, 26 received only immunotherapy			
Treatment sequence platinum-platinum rechallenge-lurbinectedin		N (%)	45 (14.4)
Treatment sequence platinum-lurbinectedin-platinum rechallenge		N (%)	20 (6.4)
Free interval with the last antineoplastic treatment received (months)		Mean±SD	2.4+/-3.1
Chemotherapy-free interval (CTFI) < 90 days (ESMO guideline)		N (%)	164 (58)
Chemotherapy-free interval (CTFI) ≥ 90 days (ESMO guideline)		N (%)	119 (42)
Chemotherapy-free interval (CTFI) <180 days (NCCN guidelines)		N (%)	256 (90.5)
Chemotherapy-free interval (CTFI) ≥180 days (NCCN guidelines)		N (%)	27 (9.5)

LURBINECTEDIN: TREATMENT EXPOSURE AND SAFETY

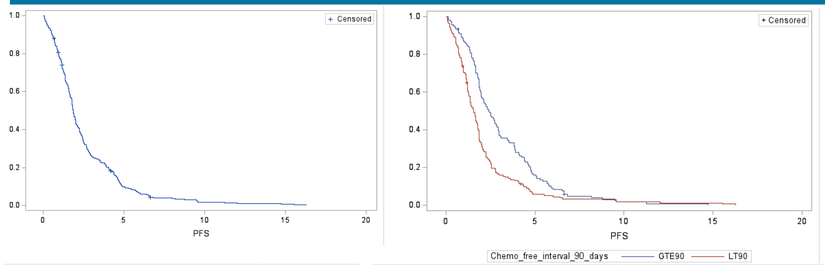
			ITT (N=312)
Number of injections of lurbinectedin administered		Mean±SD	3.8 +/- 3.2
		Median	3.0
		Range	[1-24]
Initial dose of lurbinectedin	Full 3,2mg/m²	N (%)	292 (93.6)
	Reduced	N (%)	20 (6.4)
Total number of dose reduction			38
Cause of dose reductions	Toxicity	N (%)	29 (76.3)
	Intercurrent event	N (%)	9 (23.7)
Total number of dose delays			8
Dose delay duration (days)		Mean±SD	37.9 +/- 30.9
* The 8 dose delay is: 7, 8, 14, 19, 34, 69, 73 and 79 days			
Cause of dose delay	Toxicity	N (%)	3 (37.5)
	Intercurrent event	N (%)	2 (25)
	Radiotherapy	N (%)	2 (25)
	Other	N (%)	1 (12.5)
Associated palliative radiotherapy		N (%)	70 (22.4)
Palliative radiotherapy site	Brain	N (%)	48 (68.6)
	Bone	N (%)	14 (20)
	Thoracic lymph nodes	N (%)	5 (7.1)
	Initial main tumor	N (%)	3 (4.3)
	Adrenals	N (%)	1 (1.4)
	Liver	N (%)	1 (1.4)
	Other	N (%)	8 (11.4)

	ITT (N=312)	
	Grade 3	**Grade 4**
Any treatment-related adverse event	**28 (9%)**	**15 (4.8%)**
Investigations	16 (5.1%)	13 (4.2%)
Platelet count decreased	13 (4.2%)	6 (1.9%)
Neutrophil count decreased	5 (1.6%)	6 (1.9%)
Gamma-glutamyltransferase increased	1 (0.3%)	3 (1%)
Aspartate aminotransferase increase	2 (0.6%)	1 (0.3%)
Alanine aminotransferase increased	1 (0.3%)	1 (0.3%)
Blood bilirubin increased	1 (0.3%)	0
Lipase increased	0	1 (0.3%)
Blood and lymphatic system disorders	7 (2.2%)	3 (1%)
Anaemia	5 (1.6%)	0
Febrile neutropenia	2 (0.6%)	2 (0.6%)
Leukocytosis	0	1 (0.3%)
General disorders	8 (2.6%)	0
Fatigue	8 (2.6%)	0
Respiratory	2 (0.6%)	0
Haemoptysis	1 (0.3%)	0
Pleural effusion	1 (0.3%)	0
Pneumonia	1 (0.3%)	0
Gastrointestinal disorders	1 (0.3%)	0
Nausea	1 (0.3%)	0
Metabolism and nutrition disorders	1 (0.3%)	0
Decreased appetite	1 (0.3%)	0
Musculoskeletal	0	1 (0.3%)
Rhabdomyolysis	0	1 (0.3%)

RESPONSE

	All patients (N=312) N(%) [95% CI]	CTFI < 90 days (N=164) N(%) [95% CI]	CTFI ≥ 90 days (N=119) N(%) [95% CI]
Complete response	1 (0.4%) [0% - 1.1%]	0	1 (0.9%) [0% - 2.7%]
Partial response	60 (21.9%) [17.0% - 26.8%]	23 (16.7%) [10.4% - 22.9%]	29 (26.4%) [18.1% - 34.6%]
Objective Response	**61 (22.3%) [17.3% - 27.2%]**	**23 (16.7%) [10.4% - 22.9%]**	**30 (27.3%) [19.0% - 35.6%]**
Stable disease	43 (15.7%) [11.4% - 20.0%]	18 (13%) [7.4% - 18.7%]	19 (17.3%) [10.2% - 24.3%]
Disease Control	104 (38%) [32.2% - 43.7%]	41 (29.7%) [22.1% - 37.3%]	49 (44.5%) [35.3% - 53.8%]
Progression disease	168 (61.3%) [55.5% - 67.1%]	97 (70.3%) [62.7% - 77.9%]	59 (53.6%) [44.3% - 63.0%]
Not evaluable	2 (0.7%) [0% - 1.7%]	0	2 (1.8%) [0% - 4.3%]
Not done/Missing	38	26	9
		p=0.02	

rwPFS

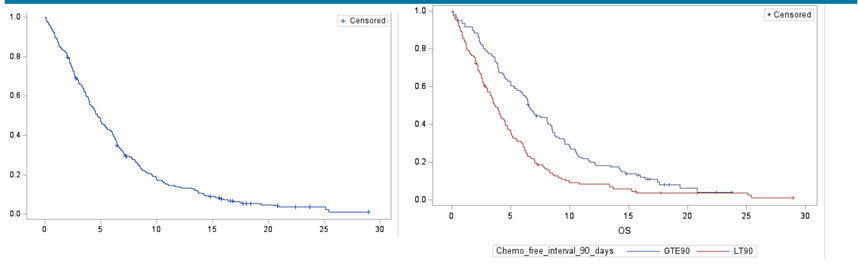


	Total (N=312)
Event: N (%)	307 (98.4)
Median rwPFS: months [95% CI]	**1.9 [1.8-2]**
6-m rwPFS: % [95% CI]	6.6 [4.2-9.8]
12-m rwPFS: % [95% CI]	1.4 [0.5-3.4]

	CTFI < 90 days (N=164)	CTFI ≥ 90 days (N=119)
Event: N (%)	161 (98.2)	117 (98.3)
Median rwPFS: months [95% CI]	**1.5 [1.3-1.8]**	**2.4 [2-2.9]**
6-m rwPFS: % [95% CI]	5.3 [2.5-9.5]	9.3 [4.9-15.4]
12-m rwPFS: % [95% CI]	2 [0.5-5.2]	1 [0.1-4.8]
		p < 0.0001

At multivariate analysis, only CTFI ≥ 90 days was significantly associated with more prolonged rwPFS.

OS



	Total (N=312)
Event: N (%)	294 (94.2)
Median OS: months [95% CI]	**4.7 [4-5.4]**
6-m OS: % [95% CI]	42 [36.5-47.5]
12-m OS: % [95% CI]	14 [10.4-18.2]

	CTFI < 90 days (N=164)	CTFI ≥ 90 days (N=119)
Event: N (%)	157 (95.7)	108 (90.8)
Median OS: months [95% CI]	**3.7 [3-4.4]**	**6.5 [5.4-8.1]**
6-m OS: % [95% CI]	29.8 [23-37]	57.1 [47.8-65.5]
12-m OS: % [95% CI]	8.4 [4.7-13.3]	20 [13.3-27.7]
		p < 0.0001

At multivariate analysis, only PS 0-1 and CTFI ≥ 90 days were significantly associated with more prolonged OS.

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