FIRST REAL-WORLD OUTCOME DATA OF SCLC IN GERMANY (CRISP, AIO-TRK-0315)

DATA FROM THE CLINICAL RESEARCH PLATFORM INTO MOLECULAR TESTING, TREATMENT AND OUTCOME OF SMALL CELL LUNG CARCINOMA PATIENTS

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Abbreviations:
ATZ: Atezolizumab | CARBO: Carboplatin | CNS: Central nervous System | CPI: Checkpoint inhibitor | CR: Complete Remission | ECOG-PS: Eastern Cooperative Oncology Group performance status | ETO: Etoposide | PD: Progressive Disease | PR: Partial Response | SD: Stable Disease

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INTRODUCTION

Treatment options for patients with small cell lung cancer (SCLC) have substantially improved with the approval of the first two checkpoint inhibitors (CPI), Atezolizumab (2019) and Durvalumab (2020), for stage IV SCLC. How are patients with SCLC treated outside of clinical trials and how do these new treatments change the outcome in routine care in Germany?

METHODS

CRISP is a prospective, multi-center clinical research platform that aims to understand the treatment reality of patients with lung carcinoma in Germany. Between September 2019 and April 2021 114 sites in Germany recruited more than 800 patients diagnosed with SCLC in all stages. In-depth patient and tumor characteristics, details about biomarker testing, treatments, outcome and patient-reported outcomes data are collected. At database cut on February 28, 2022, 513 patients with extensive disease (stage IV) SCLC had been recruited. Here we present data on 456 patients out of those 513, who had been under observation for at least 12 months.

RESULTS

In September 2019, the first CPI was approved (simultaneously with the launch of CRISP SCLC, which started recruitment in September 2019, too). **Figure 1** shows that the combination treatment with CPI was immediately implemented in clinical practice, the proportion was already more than 60% in the first half of 2019. Over time, the proportion increased to about 85% of all patients recruited into CRISP SCLC.

Of 456 patients with at least one year follow-up, 56% were male. The median age at diagnosis was 66 years, 25% of the patients had a very good overall condition at diagnosis (ECOG-PS = 0; **Table 1**).

About 79% of patients in this group received chemotherapy with CPI as first-line treatment. Most common treatment is CARBO+ETO and Atezolizumab (ATZ; 71%). The second most common treatment is CARBO+ETO without CPI (16%). At the time of this analysis, 40% of patients with a minimum follow-up of one year had already received second-line treatment, 31% of patients died prior to second-line treatment, the remainder were still in first-line treatment or lost to follow-up. 13% of patients had already received third-line treatment (**Figure 2**).

The disease control rate for completed treatments was 65% for patients treated with CARBO+ETO+ATZ and 64% for patients treated with CARBO+ETO (**Table 2**). Median progression-free survival was 6.1 months (95% Confidence Interval (CI) 5.3-6.5 months) and 5.7 months (95% CI 4.5-7.4 months), respectively. Median overall survival was 10.7 months (95% CI 9.2-12.2 months) and 9.3 months (95% CI 6.6-12.3 months), respectively (**Table 3**; **Figure 3A+B**).

CONCLUSION

CRISP Satellite SCLC started recruiting patients in September 2019, shortly before approval of the first checkpoint inhibitor and presents prospectively collected, inter-sectoral, multicenter real-world data on patients with SCLC in Germany. The project shows fast implementation of checkpoint inhibitors in first-line treatment.

Table 1

	CARBO+ ETO+ATZ	CARBO+ETO	Total
Patients (N)	**325**	**73**	**456**
Sex			
Female n (%)	138 (42.5%)	38 (52.1%)	202 (44.3%)
Male n (%)	187 (57.5%)	35 (47.9%)	254 (55.7%)
Age at inclusion (years)			
Median	65.4	67.6	65.8
25-75% Quantile	59.6 - 72.0	62.4 - 74.4	59.7 - 72.1
Any comorbidity at inclusion			
Yes n (%)	269 (82.8%)	69 (94.5%)	388 (85.1%)
No n (%)	56 (17.2%)	4 (5.5%)	68 (14.9%)
Charlson Comorbidity Index at inclusion			
0 n (%)	182 (56.0%)	37 (50.7%)	253 (55.5%)
1 n (%)	97 (29.8%)	18 (24.7%)	129 (28.3%)
≥ 2 n (%)	46 (14.2%)	18 (24.7%)	74 (16.2%)
ECOG at inclusion			
0 n (%)	93 (28.6%)	8 (11.0%)	115 (25.2%)
1 n (%)	152 (46.8%)	44 (60.3%)	221 (48.5%)
≥ 2 n (%)	52 (16.0%)	12 (16.4%)	73 (16.0%)
Unknown to site n (%)	27 (8.3%)	9 (12.3%)	46 (10.1%)
Missing n (%)	1 (0.3%)	0 (0.0%)	1 (0.2%)
CNS metastases present at inclusion			
Yes n (%)	81 (24.9%)	16 (21.9%)	115 (25.2%)
No n (%)	244 (75.1%)	57 (78.1%)	341 (74.8%)

Table 1: Patient characteristics at enrolment

Patients recruited until February 28, 2021; minimum follow-up one year.
Comorbidities by Charlson Comorbidity Index (CCI) according to Charlson et al., 1987; current weighting according to Quan et al., 2011. Range 0-24.
Treatment regimen with less than 20 patients are not shown.

Figure 1

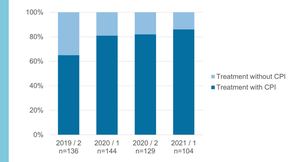

Figure 1: First-line treatments with CPI per half-year

Patients recruited from September 2019 to April 2021.
Displayed is the half year in which the first-line treatment started.

Figure 2

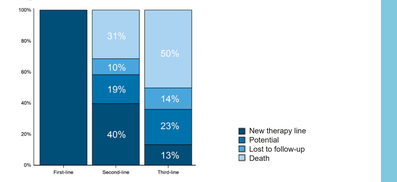

Figure 2: Treatment status

Patients enrolled at least 12 months prior to database cut.

Table 2

	CARBO+ ETO+ATZ	CARBO+ETO	Total
Patients (N)	**325**	**73**	**456**
Completed treatments (n)	275	64	393
Best Response			
CR n (%)	5 (1.8%)	4 (6.3%)	10 (2.5%)
PR n (%)	132 (48.0%)	28 (43.8%)	185 (47.1%)
SD n (%)	43 (15.6%)	9 (14.1%)	63 (16.0%)
PD n (%)	46 (16.7%)	4 (6.3%)	54 (13.7%)
Unknown to site n (%)	44 (16.0%)	18 (28.1%)	73 (18.6%)
Missing n (%)	5 (1.8%)	1 (1.6%)	8 (2.0%)

Table 2: Best response to first-line treatment

Total represents all the patients with SCLC extensive disease who received a first-line treatment and were enrolled at least 12 months before database cut.
Treatment regimen with less than 20 patients are not shown.
Percentages refer to number of patients with completed treatments (n).

Table 3

	CARBO+ ETO+ATZ	CARBO+ETO	Total
Patients (N)	**325**	**73**	**456**
Progression-free survival (months)			
Events n (%)	234 (72.0%)	47 (64.4%)	320 (70.2%)
25% quantile [95% CI]	3.9 [3.4, 4.3]	3.3 [2.2, 4.5]	3.9 [3.4, 4.3]
Median [95% CI]	6.1 [5.3, 6.5]	5.7 [4.5, 7.4]	6.0 [5.4, 6.5]
75% quantile [95% CI]	10.3 [8.8, 14.0]	9.0 [7.4, 12.3]	10.3 [9.0, 12.4]
Overall survival (months)			
Events n (%)	185 (56.9%)	46 (63.0%)	265 (58.1%)
25% quantile [95% CI]	6.0 [5.5, 6.6]	4.8 [2.7, 6.6]	5.8 [5.3, 6.4]
Median [95% CI]	10.7 [9.2, 12.2]	9.3 [6.6, 12.3]	10.3 [9.2, 11.3]
75% quantile [95% CI]	19.8 [15.6, NA]	13.9 [12.3, 17.2]	18.7 [15.6, 21.6]

Table 3: Progression-free and overall survival

Progression-free survival / overall survival estimated with the Kaplan-Meier method.
Total represents all the patients with SCLC extensive disease who received a first-line treatment and were enrolled at least 12 months before database cut.
Treatment regimen with less than 20 patients are not shown.

Figure 3

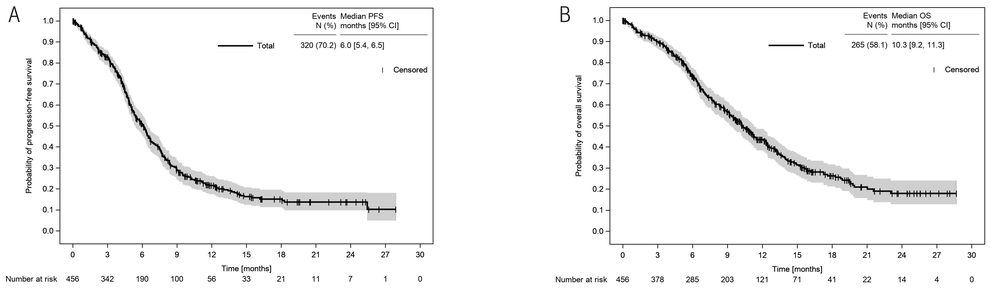

Figure 3: Progression-free survival (A) and Overall survival (B)