PROMETCO: real-world characteristics and safety outcomes of patients with metastatic colorectal cancer (mCRC) after two disease progressions, including patients with ECOG PS ≥2

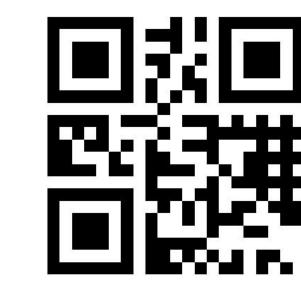
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RESULTS

Presented at ESMO-GI Congress,



INTRODUCTION

- Median overall survival (OS) for patients with metastatic colorectal cancer (mCRC) has been improved to 30 months in clinical trials¹ and data on third-line and beyond treatments suggest OS can be prolonged further.^{2,3}
- · Data on real-world treatment of mCRC in third-line and beyond is available; however, studies with a follow-up of recruited patients were limited to specific agents or to a single country.
- PROMETCO (NCT03935763) is the first international, prospective, real-world study of treatment in patients with mCRC after two disease progressions since diagnosis.
- PROMETCO provides an opportunity to assess safety outcomes at third-line treatment and beyond in the real-world setting.

METHODS

- Enrolment in PROMETCO started in March 2019 and all eligible patients at recruiting centres were included. Inclusion/exclusion criteria have been described previously.4
- Inclusion criteria were: ≥18 years of age, confirmed diagnosis of mCRC, two disease progressions, and willingness to receive subsequent treatment.
- Electronic case report forms and the ClinInfo electronic data capture system⁴ were used to collect retrospective data for all patients at enrolment.
- Patients were then assessed prospectively for up to 18 months or until withdrawal or
- Data were analysed in the overall population and in the subgroup of patients with the most frequently administered treatment schedule (FTD/TPI mainly in monotherapy, before FTD/TPI + bevacizumab was recognized as standard of care in third-line)
- Data were also stratified by Eastern Cooperative Oncology Group performance status (ECOG PS) at FTD/TPI initiation (0-1 or ≥2).
- Baseline data at diagnosis, including patient and disease characteristics, and safety data, including adverse events (AEs) are presented here. Disease progression was presented as an AE.

TAKE-HOME MESSAGES

- Safety outcomes in the real-world were consistent with expected outcomes for patients with refractory mCRC.
- No new safety signals were observed in patients treated with FTD/TPI (the most frequent 3L treatment). Less neutropenia was observed in this real-world population compared to clinical trials.
- Patients with an ECOG PS ≥2 at FTD/TPI initiation showed a safety profile consistent with the known safety profile of FTD/TPI.
- The high incidence of anaemia observed in FTD/TPItreated patients with ECOG PS ≥2 can likely be explained by older age and more advanced disease.

Patient and disease characteristics at baseline

- 736 patients from 18 countries were included in this analysis, most patients (59.0%) were ≥65 years old, most had ECOG PS 0-1 (89.9%), 65.5% of patients had synchronous disease, and median time since first metastasis was 22 months.
- In the total population, 560 patients received FTD/TPI, of whom 469 had ECOG PS 0-1, 50 had ECOG PS ≥2 at FTD/TPI initiation, and ECOG PS for 41 patients was not recorded.
- Patients with ECOG PS ≥2 at FTD/TPI initiation were older and were more likely to have a right-sided primary tumour, had a numerically higher median number of metastases, and were more likely to have metastases located in the liver, than FTD/TPI-treated patients with ECOG PS 0-1 (**Table 1**).

Table 1. Patient and disease characteristics at PROMETCO enrolment

Baseline characteristic	Overall (n=736)	FTD/TPI* (n=560)	FTD/TPI ECOG PS 0-1 (n=469)	FTD/TPI ECOG PS ≥2 (n=50)
Age, years, n (%)				
Mean (SD)	65.9 (10.7)	65.9 (10.5)	65.9 (10.4)	68.9 (9.5)
Sex, n (%)				
Female Male	303 (41.2) 433 (58.8)	229 (40.9) 331 (59.1)	191 (40.7) 278 (59.3)	22 (44.0) 28 (56.0)
Number of metastatic sites, n (%)				
Median (Q1-Q3)	1.0 (1.0-2.0)	1.0 (1.0-2.0)	1.0 (1.0-2.0)	2.0 (1.0-3.0)
Time since CRC initial diagnosis to enrollment, months	·			
Median (Q1-Q3)	25.0 (17.0-40.0)	25.0 (17.0-40.0)	24.0 (17.0-40.0)	26.0 (16.0-47.0)
CRC stage at initial diagnosis, n (%)		,		,
Localized or resectable Locally advanced or potentially resectable disease after downsizing Metastatic or non-resectable	183 (24.9) 71 (9.6) 482 (65.5)	146 (26.1) 53 (9.5) 361 (64.5)	127 (27.1) 39 (8.3) 303 (64.6)	9 (18.0) 7 (14.0) 34 (68.0)
Metastatic site location, n (%)				
Liver Lung Peritoneal carcinomatosis Bone	545 (74.0) 187 (39.0) 106 (14.4) 29 (3.9)	426 (76.1) 230 (41.1) 69 (12.3) 23 (4.1)	353 (75.3) 186 (39.7) 53 (11.3) 16 (3.4)	42 (84.0) 27 (54.0) 9 (18.0) 6 (12.0)
Disease sidedness, n (%)	_= (===)	()	()	()
Left Right	535 (72.7) 207 (28.1)	413 (73.8) 151 (27.0)	353 (75.3) 120 (25.6)	31 (62.0) 19 (38.0)
RAS/BRAF status, n (%)				
RAS mut RAS wild-type BRAF mut BRAF wild-type MSI/MSS status, n (%)	370 (50.3) 296 (40.2) 47 (6.4) 464 (63.0)	302 (53.9) 207 (37.0) 29 (5.2) 355 (63.4)	259 (55.2) 171 (36.5) 25 (5.3) 297 (63.3)	23 (46.0) 17 (34.0) 3 (6.0) 28 (56.0)
· • • • • • • • • • • • • • • • • • • •	10 (1.6)	6 (1 1)	4 (0 0)	1 (2.0)
MSI high MSS	12 (1.6) 405 (55.0)	6 (1.1) 297 (53.0)	4 (0.9) 243 (51.8)	1 (2.0) 30 (60.0)

*All patient's who received FTD/TPI (± bevacizumab) at least once. Abbreviations: FTD/TPI, trifluridine/tipiracil: SD, standard deviation: CRC, colorectal cancer: Q, quartile: MSI, microsatellite instability: MSS, microsatellite stable: RAS, rat sarcoma: BRAF, B-Raf proto-oncogene, serine/threonine kinase.

Summary of AEs

 Most patients experienced at least one AE during follow-up, with 96.1% and 97.3% of patients experiencing AEs in the overall and FTD/TPI populations, respectively (Table 2).

Table 2. AEs in the overall population and in patients who received FTD/TPI

	Overall (N=736)	FTD/TPI* (n=560)
Any AE, n (%)	707 (96.1)	545 (97.3)
Any grade ≥3 AE, n (%)	640 (87.0)	504 (90.0)
Any serious AE**, n (%)	602 (81.8)	471 (84.1)
AE with causal relationship with FTD/TPI, n (%)	282 (38.3)	282 (50.4)
Grade ≥3 AE with causal relationship with FTD/TPI, n (%)	126 (17.1)	126 (22.5)
Serious AE with causal relationship with FTD/TPI, n (%)	35 (4.8)	35 (6.3)
AE with causal relationship with another medicinal product, n (%)	280 (38.0)	189 (33.8)
Grade ≥3 AE with causal relationship with another medicinal product, n (%)	69 (9.4)	49 (8.8)
Serious AE with causal relationship with another medicinal product, n (%)	25 (3.4)	19 (3.4)

*All patient's who received FTD/TPI (± bevacizumab) at least once. **Defined as a medical occurrence that results in death, is life-threatening, requires hospitalization, causes significant disability, leads to a birth defect, or necessitates medical intervention to prevent serious outcomes. Abbreviations: FTD/TPI, trifluridine/tipiracil: N, number of patients: AE, adverse event.

• The most frequently reported AEs were disease progression (reported as an AE), diarrhoea, fatigue, nausea, anaemia, asthenia, and neutropenia (Table 3).

Table 3. Most frequently occurring AEs overall

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	Any AE	Serious AE
Patients with any AE	707 (96.1)	602 (81.8)
Haematologic		
Neutropenia*	165 (22.4)	15 (2.0)
Anaemia	159 (21.6)	12 (1.6)
Non-haematologic		
Disease progression	426 (57.9)	420 (57.1)
Fatigue	181 (24.6)	0 (0.0)
Nausea	179 (24.3)	7 (1.0)
Diarrhoea	189 (25.7)	7 (1.0)
Asthenia	160 (21.7)	9 (1.2)
Decreased appetite	140 (19.0)	0 (0.0)
Abdominal pain	119 (16.2)	16 (2.2)
Vomiting	101 (13.7)	11 (1.5)

*Some patients may have received granulocyte colony-stimulating factor (G-CSF), however G-CSF prophylaxis was not recorded in the electronic case report form. Abbreviations: N, number of patients: AE, adverse event

AEs in patients treated with FTD/TPI according to ECOG PS

- Patients with ECOG PS ≥2 had a numerically higher incidence of AEs during FTD/TPI treatment and within 30 days after, compared to patients with ECOG PS 0-1 (Table 4), in alignment with previous studies in solid tumours that indicated that a poorer performance status is associated with an increased likelihood of experiencing AE.
- Patients treated with FTD/TPI with ECOG PS ≥2 had a higher incidence of AE's compared to patients treated with FTD/TPI with ECOG PS 0-1, including anaemia (**Table 4**).
- In FTD/TPI-recipients, 184 (39.2%) and 26 (52%) had serious AE on FTD/TPI therapy + 30 days, in patients with ECOG PS 0-1 and ≥2, respectively (**Table 4**).
- There were no AEs related to FTD/TPI that lead to death.
- The most frequently occurring AE (≥15%) were disease progression, neutropenia, anaemia, fatigue, nausea and diarrhoea (Table 4).

Table 4. AEs in patients who received FTD/TPI, by ECOG PS

	FTD/TPI* (N=560)	FTD/TPI with ECOG PS 0–1 (n=469)	FTD/TPI with ECOG PS ≥2 (n=50)
Any AE, n (%)	545 (97.3)	455 (97.0)	50 (100.0)
Any AE on FTD/TPI + 30 days, n (%)	490 (87.5)	411 (87.6)	47 (94.0)
AE with causal relationship with FTD/TPI, n (%)	282 (50.4)	236 (50.3)	28 (56.0)
Any serious AE on FTD/TPI + 30 days, n (%)	227 (40.5)	184 (39.2)	26 (52.0)
Serious AEs with causal relationship with FTD/TPI, n (%)	35 (6.3)	28 (6.0)	5 (10.0)
Haematologic			
Neutropenia**	139 (24.8)	118 (25.2)	9 (18.0)
Anaemia	125 (22.3)	102 (21.7)	16 (32.0)
Non-haematologic			
Disease progression	112 (20.0)	95 (20.3)	11 (22.0)
atigue	107 (19.1)	99 (21.1)	5 (10.0)
Nausea	100 (17.9)	86 (18.3)	9 (18.0)
Diarrhoea	86 (15.4)	81 (17.3)	3 (6.0)
Asthenia	78 (13.9)	65 (13.9)	6 (12.0)
Decreased appetite	74 (13.2)	63 (13.4)	6 (12.0)
Abdominal pain	66 (11.8)	57 (12.2)	3 (6.0)
Vomiting	61 (10.9)	53 (11.3)	4 (8.0)

*All patient's who received FTD/TPI (± bevacizumab) at least once. **Some patients may have received granulocyte colony-stimulating factor (G-CSF), however G-CSF prophylaxis was not recorded in the electronic case report form. Abbreviations: FTD/TPI, trifluridine/tipiracil: N, number of patients: AE, adverse event

4. Koopman M, Pinto C, Bodoky G, et al. Future Oncol. 2022;18(11):1313-1320.

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