Unmet Needs In Late-Line Metastatic Colorectal Cancer In Portugal: An Expert-Informed Epidemiological Forecast

EPH271

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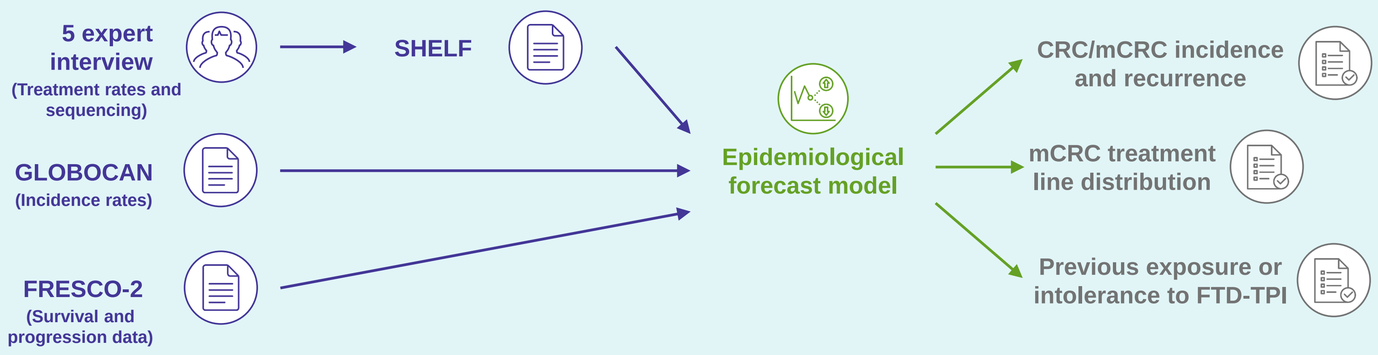
Question

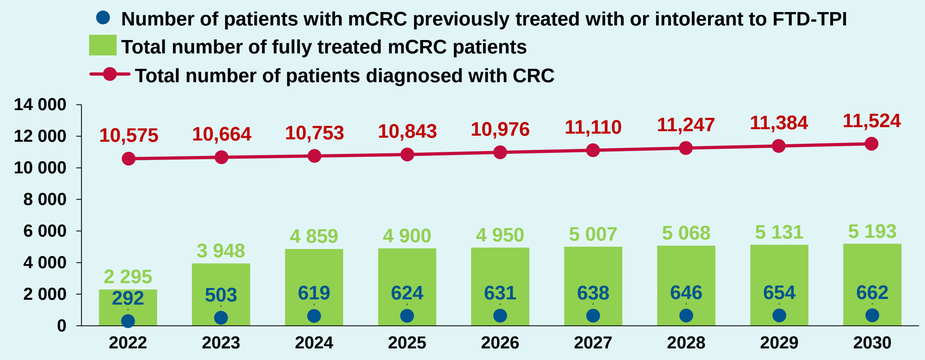
What is the epidemiological forecast for late-line metastatic colorectal cancer (mCRC) patients in Portugal, in terms of number of patients diagnosed and patient distribution across treatment lines?

Study design



Results

Figure 1: Number of mCRC patients without treatment options after FTD-TPI



Key take aways

A substantial unmet need exists in 3L+ mCRC treatment in Portugal, with limited therapeutic options available.
We estimate that 3,231 mCRC patients will lack therapeutic options between 2026 and 2030 in Portugal (assuming that no new drugs are approved in the meantime).

Background

- In Portugal, colorectal cancer (CRC) is the most incident type of cancer and the second leading cause of death due to cancer[1]
- Most CRC diagnoses occur in patients over 50 years old, but incidence is rising among younger individuals[2]
- It is estimated that about half of patients diagnosed with stage II or III CRC develop metastatic disease (mCRC) within the first 10 years after diagnosis[3]
- Epidemiological data for mCRC in Portugal is scarce; to our knowledge, there are no studies that characterize the epidemiological evolution of mCRC in Portugal nor estimate the number of patients that lack approved therapeutic options after trifluridine/tipiracil (FTD/TPI)
- Currently, for patients in Portugal with late-line (3L+) mCRC, FTD/TPI and fruquintinib are the available reimbursed options

Objectives

- This study aims to quantify the number of individuals with late-line mCRC in Portugal without access to approved therapies

Methods

- Five Portuguese oncologists experienced in managing mCRC provided clinical insights on stage at diagnosis, progression, treatment patterns, and unmet needs in late-line settings (3L+)
  - Inputs were collected via structured elicitation using the Sheffield Elicitation Framework (SHELF) through a questionnaire with open numerical questions
- Data were analysed to extract medians and confidence intervals
- These informed baseline probabilities were applied to national CRC incidence data from GLOBOCAN 2022 to develop an Excel-based tabular model estimating patient distribution across disease stages and treatment lines, incorporating time-dependent progression and user-defined inputs
  - Based on GLOBOCAN estimates, we calculated compound annual growth rates (CAGR) for the years between 2022 and 2025, and between 2026 and 2030 to estimate the number of CRC patients; these rates were given by the following equations:
    - $\left(\frac{2025\ incidence}{2022\ incidence}\right)^{\frac{1}{3}} - 1$ and $\left(\frac{2030\ incidence}{2026\ incidence}\right)^{\frac{1}{5}} - 1$
  - Treatment duration was calculated by taking the difference between the overall survival (OS) time at 1L – extracted from the FRESCO-2 trial data – and the OS time at 4L – extracted from Aparicio J. et al. (2020)[4]

Results

- For the years of 2022, 2025, and 2030, GLOBOCAN estimated, respectively, 10,575, 10,843, and 11,524 new cases of CRC in Portugal
- We calculated a CAGR of 0.84% for the years between 2022 and 2025, and 1.23% between 2026 and 2030

Table 1: Number of CRC patients in Portugal between 2022 and 2030

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Number CRC patients	10,575	10,664	10,753	10,843	10,976	11,110	11,247	11,384	11,524

- Experts estimated that approximately 33% (range: 19-57, SD: 16.7) of patients are diagnosed with metastatic disease, and 19% (range: 15-22, SD: 2.9) recur after a median of 16 months
- Given a 1L OS of 14.0 months and a 4L OS of 4.8 months, treatment duration was estimated to be 9.2 months [4]

Table 2: Number of mCRC patients between 2022 and 2030

	2022*	2023*	2024	2025	2026	2027	2028	2029	2030
Number of *de novo* mCRC patients	3,490	3,519	3,548	3,578	3,622	3,666	3,711	3,757	3,803
Number of fully treated mCRC patients	2,295	3,948	4,859	4,900	4,950	5,007	5,068	5,131	5,193

* Since our model only begins simulating after 2022, the numbers of fully treated CRC patients reported for 2022 and 2023 may not accurately reflect reality

- Based on expert elicitation, 60% (range:50-75, SD 10.3) of mCRC patients are expected to be eligible for systemic treatment in 3L, and 30% in 4L+ (range:7-55, SD 12.4)
- Approximately 60% (range:20-88, SD 9.2) of patients are treated with FTD/TPI in 3L, but 5% are considered intolerant to FTD/TPI

Table 3: Percentage of mCRC patients eligible for systemic treatment across treatment lines and respective percentage of patients treated with FTD/TPI

	Patient eligibility for systemic treatment (%)	Patients treated with FTD/TPI (%)
1L	90%	0%
2L	80%	5%
3L	60%	60%
4L	30%	30%

Table 4: Number of mCRC patients distributed across treatment lines between 2022 and 2030

	2022*	2023*	2024	2025	2026	2027	2028	2029	2030
1L	2,065	3,553	4,373	4,410	4,455	4,506	4,562	4,618	4,674
2L	1,652	2,843	3,498	3,528	3,564	3,605	3,649	3,694	3,739
3L	991	1,706	2,099	2,117	2,138	2,163	2,190	2,216	2,244
4L	297	512	630	635	642	649	657	665	673

* Since our model only begins simulating after 2022, the numbers of fully treated CRC patients reported for 2022 and 2023 may not accurately reflect reality

- In 2025, an estimated 624 mCRC patients will lack therapeutic options across 3L and 4L+, totalling 3,231 patients over the next five years

Table 5: Number of mCRC patients previously treated with or intolerant to FTD-TPI between 2022 and 2030

	2025	2026	2027	2028	2029	2030
1L	0	0	0	0	0	0
2L	0	0	0	0	0	0
3L	212	214	216	219	222	224
4L	413	417	422	427	432	437
Total	**624**	**631**	**638**	**646**	**654**	**662**

Conclusions

- A substantial unmet need exists in 3L+ mCRC treatment in Portugal, with limited therapeutic options available
- The number of patients lacking access to effective treatment is expected to increase by 2030, underscoring the need of reimbursement for innovative therapeutic strategies

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Acknowledgments

This study was funded by Takeda Pharmaceuticals U.S.A., Inc., Cambridge, MA, USA. Medical writing support for the development of this poster, under the direction of the authors, was provided by MOAI Consulting and complied with the Good Publication Practice (GPP) guidelines (DeTora LM, et al. Ann Intern Med. 2022;175:1298–304).

Disclosures

Nothing to declare

Presented at ISPOR Europe 2025, Glasgow, United Kingdom, 12-11-2025. For questions or comments, please contact Pedro Labisa pedro.labisa@takeda.com.