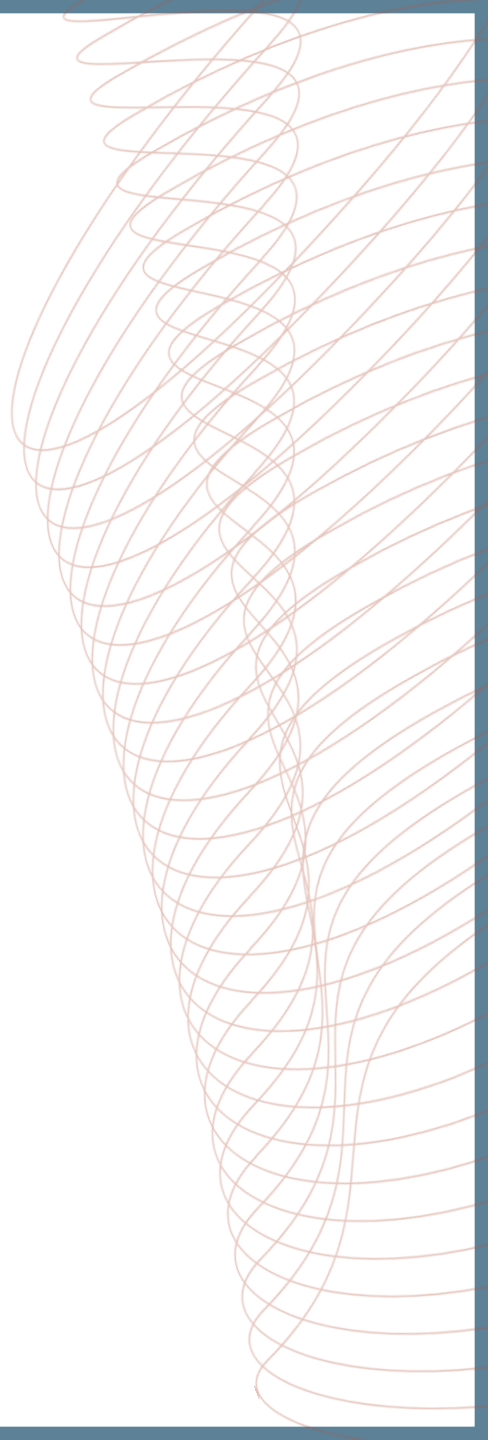




COR2ED

THE HEART OF MEDICAL EDUCATION

CLINICAL TOPIC NEWSLETTER

THE LATEST DEVELOPMENTS IN *BRAF*-MUTATED AND MSI-H mCRC

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July 2025

DEVELOPED BY GI CONNECT

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- The views expressed within this programme are the personal opinions of the experts. They do not necessarily represent the views of the experts' academic institutions, organisations, Pierre Fabre Laboratories, or other group or individual

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 - Bayer, Merck, Nordic Pharma, Pierre Fabre, Roche, Servier, Takeda, Tempus

CLINICAL TAKEAWAYS

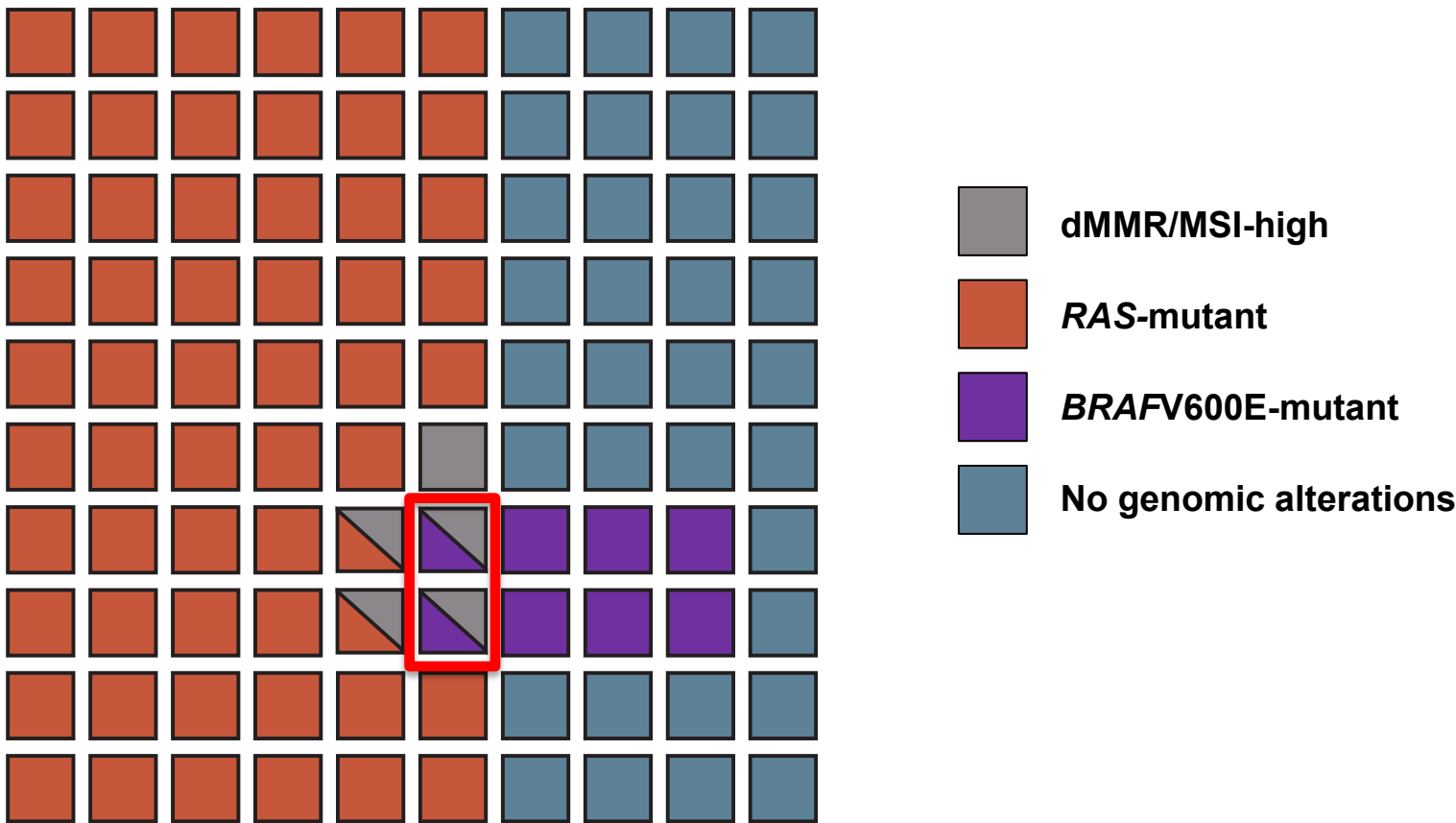
- **Dual immunotherapy is now 1st line for dMMR mCRC patients:** CheckMate 8HW demonstrated significant benefit from adding ipilimumab to nivolumab in dMMR patients regardless of *BRAF* status
- **FOLFOX + encorafenib/cetuximab is a new 1st line standard for *BRAF*-mutant/pMMR mCRC:** BREAKWATER showed the combination of encorafenib/cetuximab with FOLFOX chemotherapy significantly improves outcomes, doubling survival in *BRAF*V600E-mutant patients
- **Encorafenib + cetuximab remains effective post-immunotherapy:** for dMMR and *BRAF*-mutant patients progressing after immunotherapy, 2nd line treatment with encorafenib + cetuximab is effective, showing comparable benefit regardless of MMR status, supported by real-world evidence
- **Clear treatment sequencing is emerging:**
 - **dMMR/*BRAF*-mutant mCRC:** 1) immunotherapy (ipi-nivo), 2) targeted therapy (encorafenib + cetuximab), and 3) chemotherapy as a third-line option
 - **pMMR/*BRAF*-mutant mCRC:** 1) FOLFOX +EC, 2) chemotherapy/anti-angiogenesis), and 3) FTD-TPI/bevacizumab as a third-line option

EDUCATIONAL OBJECTIVES

1. Understand **clinical trial data and real-world evidence** of therapies for the **treatment of *BRAFV600E*-mutant and MSI-H mCRC** and relevant patient subgroups
2. Recognise the appropriate **sequencing of therapies** for the treatment of ***BRAFV600E*-mutant and MSI-H mCRC** across the patient journey to ensure **optimal outcomes**

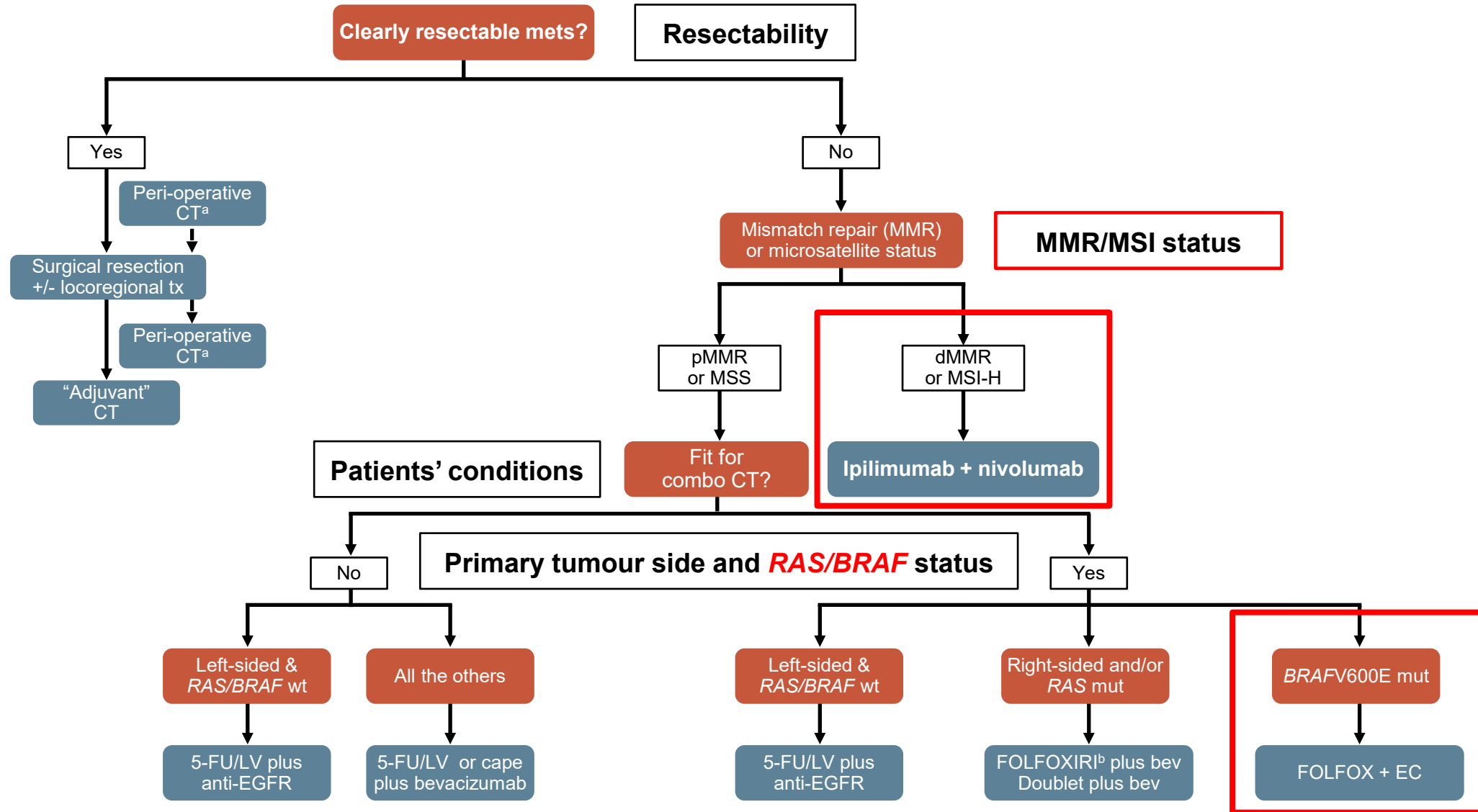
MOLECULAR SUBGROUPS OF mCRC

ACCORDING TO INTERNATIONAL GUIDELINES



dMMR, deficient mismatch repair; mCRC, metastatic colorectal cancer; MSI-H, microsatellite instability-high
Cervantes A, et al. Ann Oncol 2023;34(1):10-32; Cervantes A, et al. Ann Oncol. 2024;35(2):241-243

CHOICE OF THE FIRST-LINE



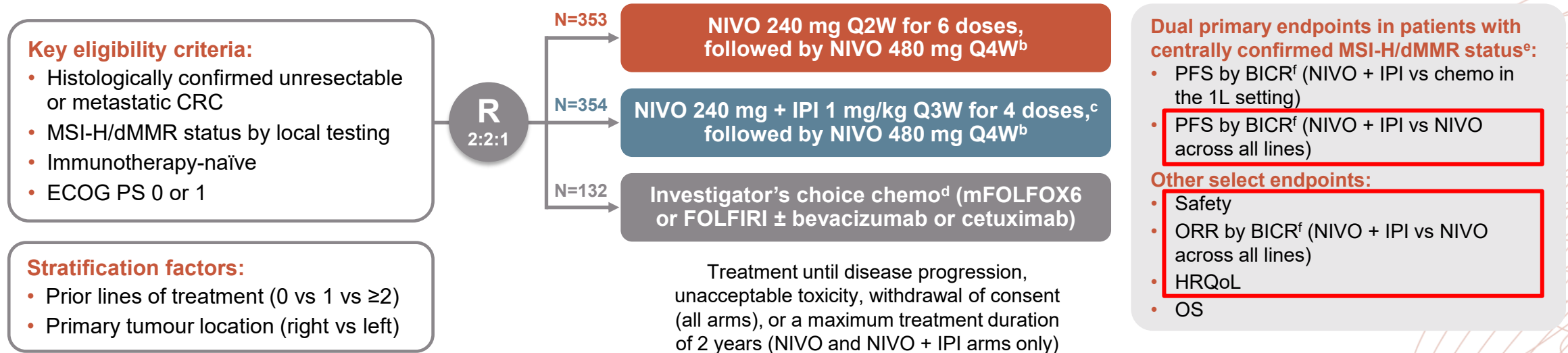
^a Not in dMMR/MSI-H?; ^b Only if <75 years old (71-75 years old with ECOG performance status 0)

bev, bevacizumab; cape, capecitabine; CT, chemotherapy; (d/p)MMR, (deficient/proficient) mismatch repair; EC, encorafenib-cetuximab; FOLFOX(IRI), fluorouracil / leucovorin / oxaliplatin (irinotecan); mets, metastases; MSI-H, microsatellite instability-high; MSS, microsatellite stable; mut, mutant; tx, treatment; wt, wild-type

Adapted from Cremolini C, ESMO 2022, Educational Session

CHECKMATE 8HW – STUDY DESIGN

- CheckMate 8HW is a randomised, multicentre, open-label phase 3 study^a



- At data cutoff (August 28, 2024), the median follow-up^g was 47.0 months (range, 16.7-60.5)

^a ClinicalTrials.gov. NCT04008030; ^b Patients with ≥2 prior lines are randomised only to the NIVO or NIVO + IPI arms; ^c Patients can continue NIVO treatment upon early IPI discontinuation;

^d Patients receiving investigator's choice of chemo are eligible to receive NIVO + IPI upon progression (crossover treatment);

^e Confirmed using either IHC and/or polymerase chain reaction-based tests; ^f Evaluated using RECIST v1.1; ^g Time between randomisation and data cutoff among all randomised patients across all 3 treatment arms

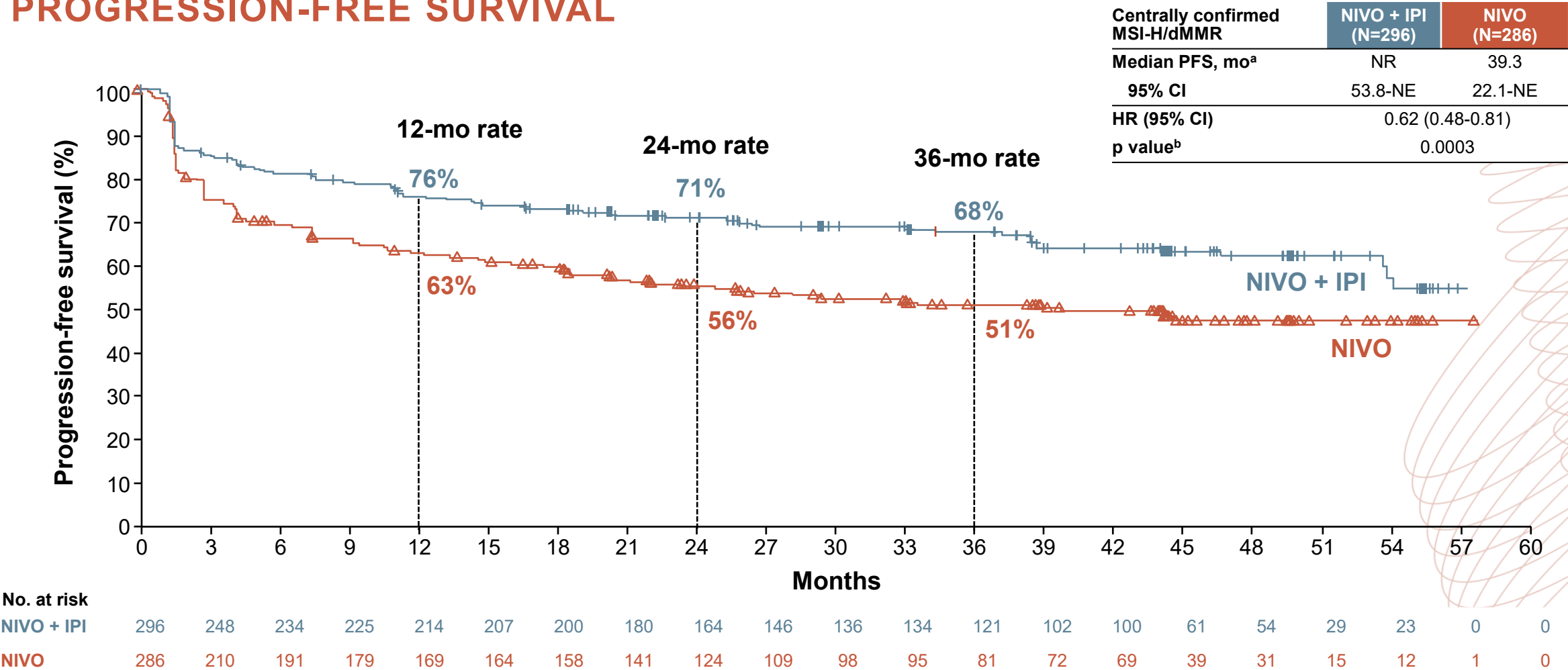
1L, first-line; BICR, blinded independent central review; chemo, chemotherapy; CRC, colorectal cancer; dMMR, deficient mismatch repair; ECOG PS, Eastern Cooperative Oncology Group performance status; FOLFIRI, fluorouracil / leucovorin / irinotecan; HRQoL, health related quality of life; IPI, ipilimumab; IHC, immunohistochemistry; mFOLFOX6, modified fluorouracil / leucovorin / oxaliplatin; MSI-H, microsatellite instability-high; NIVO, nivolumab; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; Q2/3/4W, every 2/3/4 weeks;

R, randomisation; RECIST, Response Evaluation Criteria in Solid Tumours

André T, et al. J Clin Oncol. 43(Number 4_suppl; abstract LBA143) [ASCO GI 2025; oral presentation]; André T, et al. Lancet. 2025;405:383-395

CHECKMATE 8HW: NIVO +/- IPI ACROSS ALL LINES OF THERAPY IN dMMR/MSI-H mCRC

PROGRESSION-FREE SURVIVAL



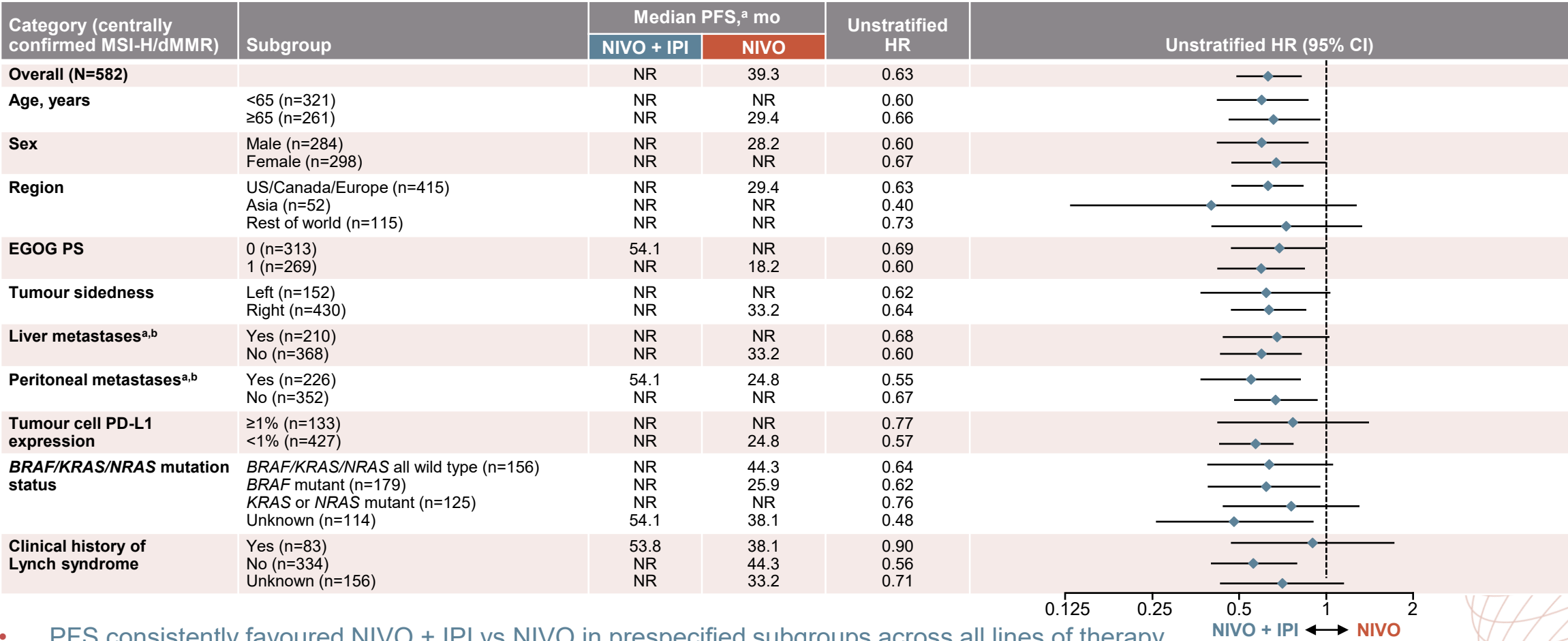
^a Per BICR; ^b Boundary for statistical significance: p<0.0095

BICR, blinded independent central review; CI, confidence interval; dMMR, deficient mismatch repair; HR, hazard ratio; IPI, ipilimumab; mCRC, metastatic colorectal cancer; mo, months; MSI-H, microsatellite instability-high; NE, not evaluable; NIVO, nivolumab; NR, not reached; PFS, progression-free survival

André T, et al. J Clin Oncol. 43(4_suppl; abstract LBA143) [ASCO GI 2025; oral presentation]; André T, et al. Lancet. 2025;405:383-395

CHECKMATE 8HW – NIVO +/- IPI ACROSS ALL LINES OF THERAPY IN dMMR/MSI-HIGH mCRC

PROGRESSION-FREE SURVIVAL SUBGROUP ANALYSIS



- PFS consistently favoured NIVO + IPI vs NIVO in prespecified subgroups across all lines of therapy

^a Per BICR; ^b Patients may have had more than one site of metastasis

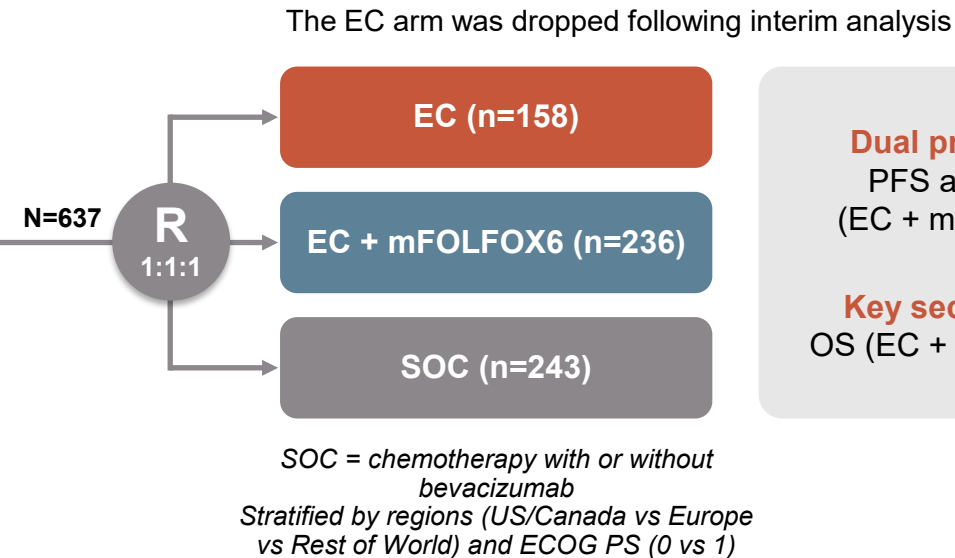
BREAKWATER: FOLFOX/ENCO/CET VS SOC IN FIRST-LINE BRAF-MUTANT mCRC

Inclusion criteria

- Age ≥ 16 years (or ≥ 18 years based on country)
- No prior systemic treatment for metastatic disease
- Measurable disease (RECIST 1.1)
- BRAFV600E-mutant mCRC by local or central laboratory testing
- ECOG PS 0 or 1
- Adequate bone marrow, hepatic, and renal function

Exclusion criteria

- Prior BRAF or EGFR inhibitors
- Symptomatic brain metastases
- MSI-H/dMMR tumours (unless patients were ineligible to receive immune checkpoint inhibitors due to a pre-existing medical condition)
- Presence of a RAS mutation



Dual primary endpoints:
PFS and ORR by BICR
(EC + mFOLFOX6 vs SOC)

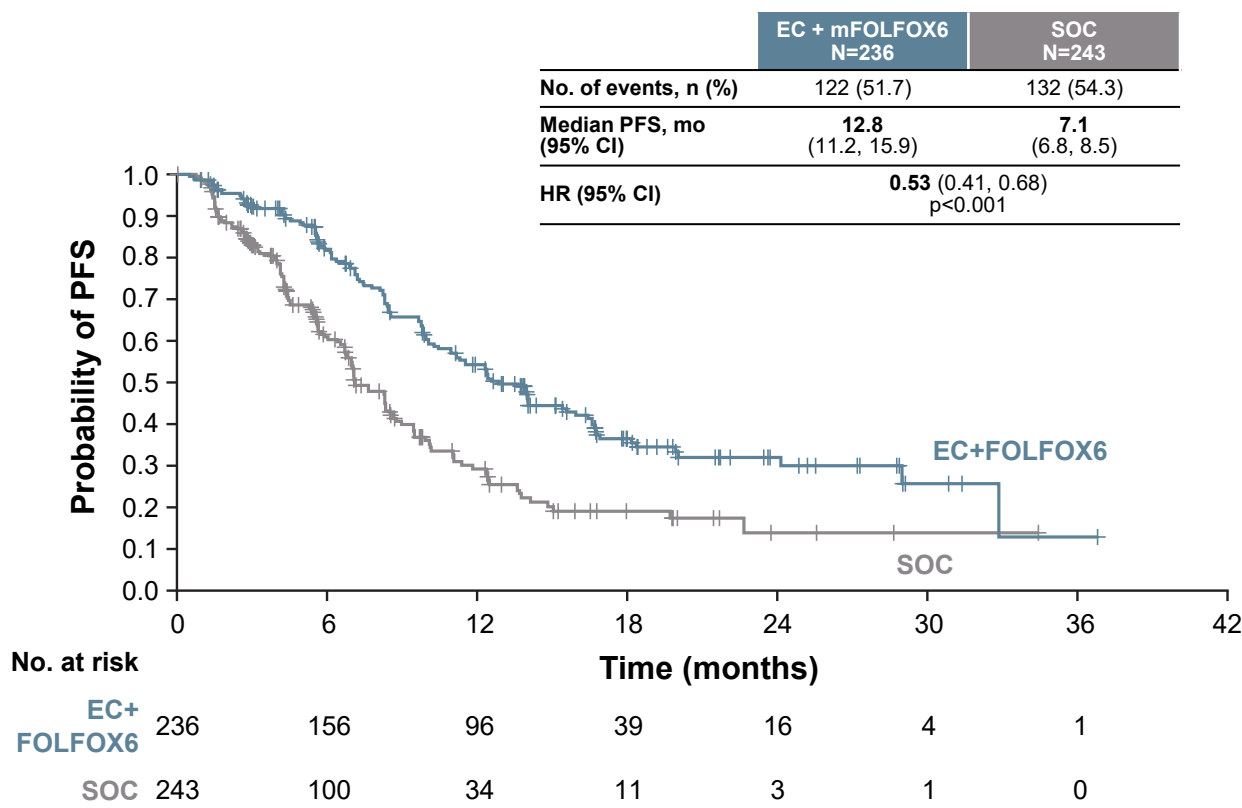
Key secondary endpoint:
OS (EC + mFOLFOX6 vs SOC)

BICR, blinded independent central review; CET, cetuximab; dMMR, deficient mismatch repair; EC, encorafenib plus cetuximab; ECOG PS, Eastern Cooperative Oncology Group performance status; ENCO, encorafenib; mCRC, metastatic colorectal cancer; (m)FOLFOX(6), (modified) fluorouracil / leucovorin / oxaliplatin; MSI-H, microsatellite instability-high; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; R, randomisation; RECIST, Response Evaluation Criteria in Solid Tumours; SOC, standard of care

Elez E, et al. N Eng J Med. 2025; 392:2425-37; Kopetz S, et al. J Clin Oncol. 43(4_suppl; abstract 16) [ASCO GI 2025; oral presentation]

BREAKWATER: FOLFOX/ENCO/CET VS SOC IN FIRST-LINE BRAF-MUTANT mCRC

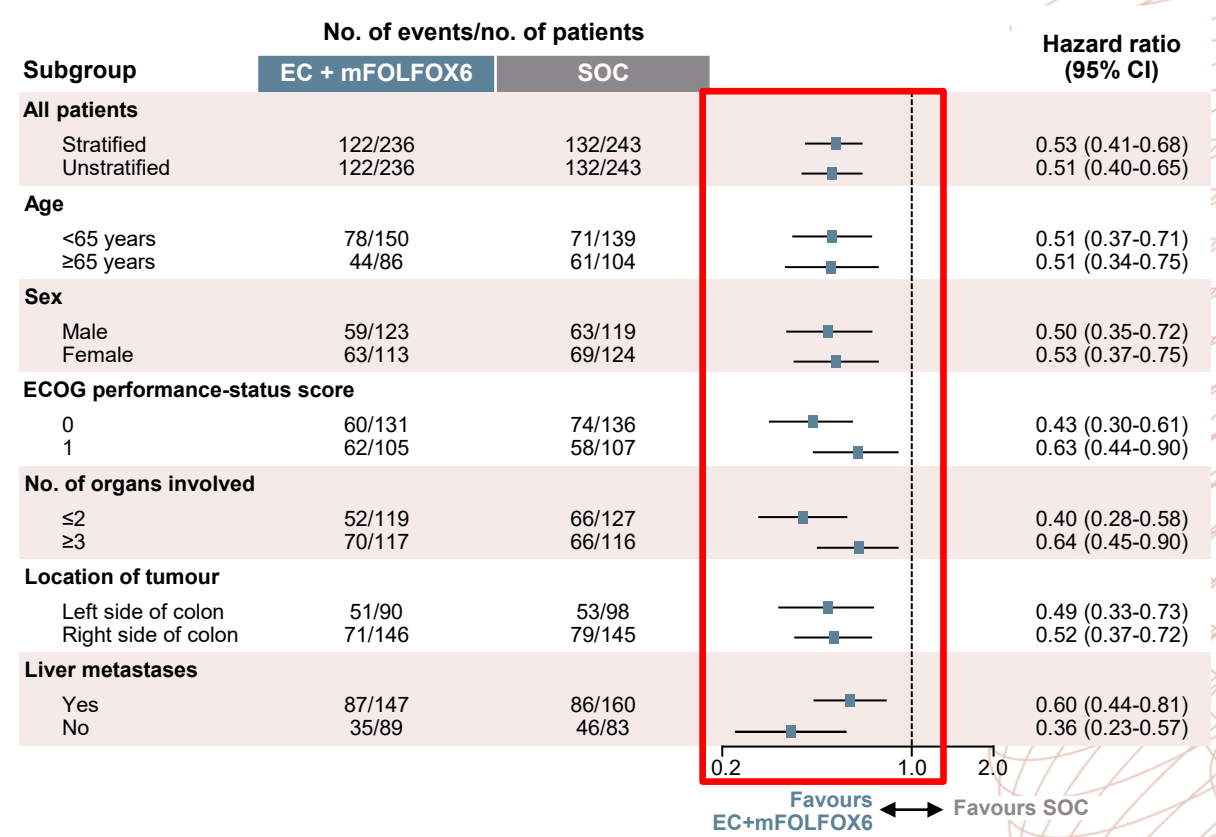
PROGRESSION-FREE SURVIVAL



Data cutoff: January 6, 2025.

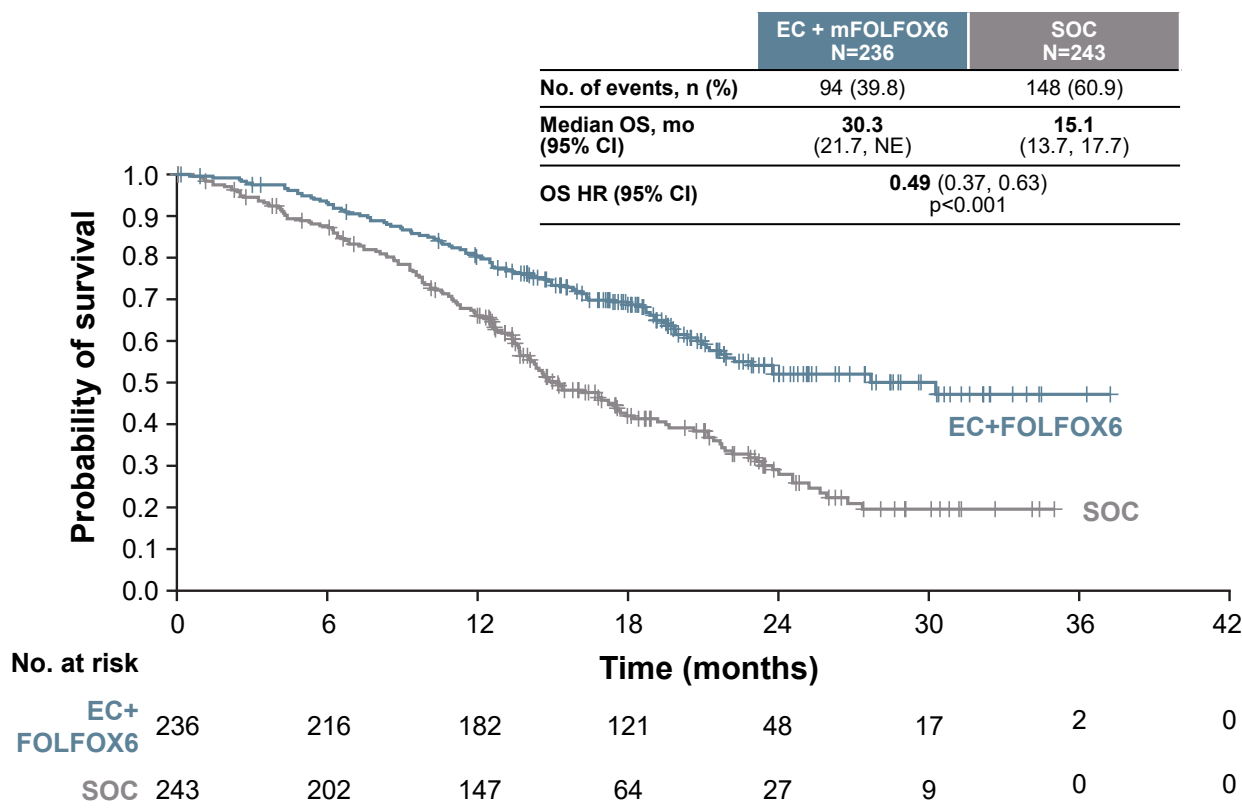
CET, cetuximab; CI, confidence interval; EC, encorafenib plus cetuximab; ECOG PS, Eastern Cooperative Oncology Group; ENCO, encorafenib; HR, hazard ratio; mCRC, metastatic colorectal cancer; (m)FOLFOX(6), (modified) fluorouracil / leucovorin / oxaliplatin; mo, months; PFS, progression-free survival; SOC, standard of care

Elez E, et al. N Eng J Med. 2025; 392: 2425-37



BREAKWATER: FOLFOX/ENCO/CET VS SOC IN FIRST-LINE BRAF-MUTANT mCRC

OVERALL SURVIVAL



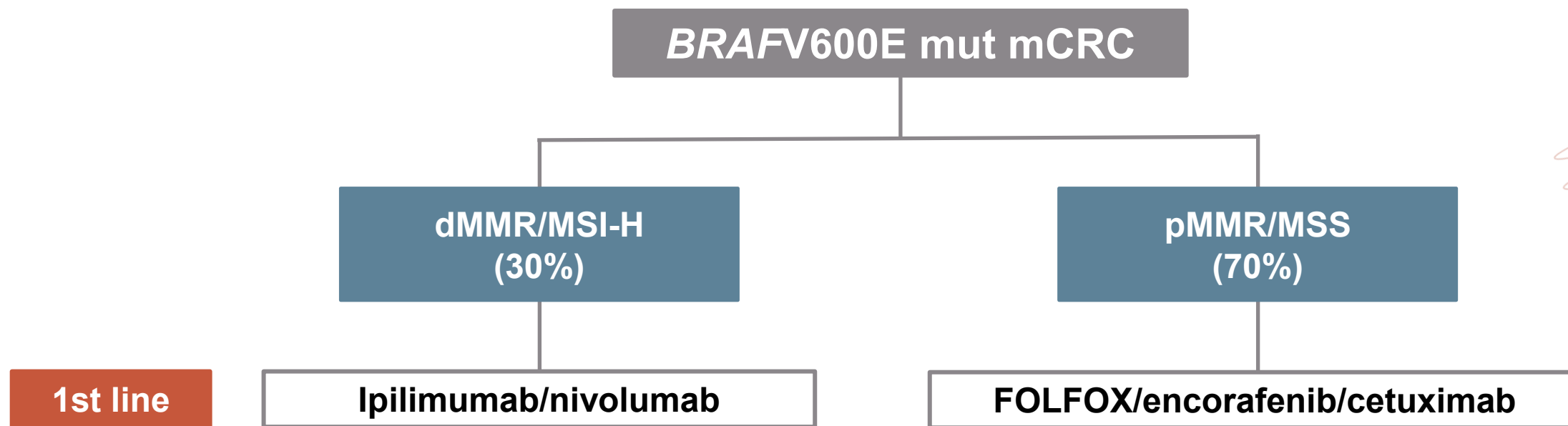
Subgroup	No. of events/no. of patients		Hazard ratio (95% CI)
	EC + mFOLFOX6	SOC	
All patients			
Stratified	94/236	148/243	0.49 (0.38-0.63)
Unstratified	94/236	148/243	0.48 (0.37-0.62)
Age			
<65 years	56/150	85/139	0.44 (0.31-0.62)
≥65 years	38/86	63/104	0.54 (0.36-0.82)
Sex			
Male	54/123	71/119	0.59 (0.42-0.85)
Female	40/113	77/124	0.38 (0.26-0.56)
ECOG performance-status			
0	42/131	76/136	0.42 (0.29-0.62)
1	52/105	72/107	0.54 (0.38-0.77)
No. of organs involved			
≤2	32/119	66/127	0.39 (0.25-0.59)
≥3	62/117	82/116	0.52 (0.38-0.73)
Side of tumour			
Left	38/90	62/98	0.48 (0.32-0.72)
Right	56/146	86/145	0.49 (0.35-0.68)
Liver metastases			
Yes	73/147	104/160	0.58 (0.43-0.78)
No	21/89	44/83	0.31 (0.18-0.52)

Data cutoff: January 6, 2025.

CET, cetuximab; CI, confidence interval; EC, encorafenib plus cetuximab; ECOG PS, Eastern Cooperative Oncology Group; ENCO, encorafenib; HR, hazard ratio; mCRC, metastatic colorectal cancer; (m)FOLFOX(6), (modified) fluorouracil / leucovorin / oxaliplatin; mo, months; OS, overall survival; SOC, standard of care

Elez E, et al. N Eng J Med. 2025;392: 2425-37

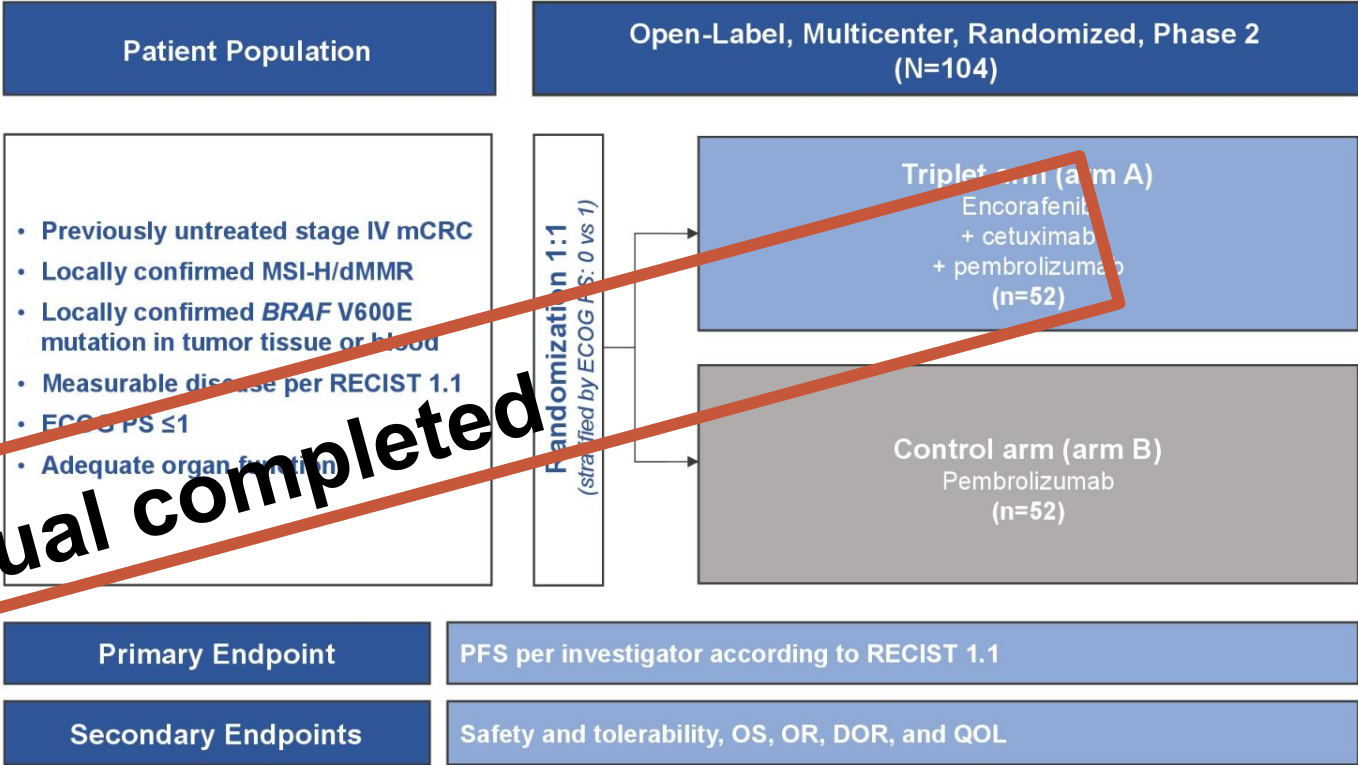
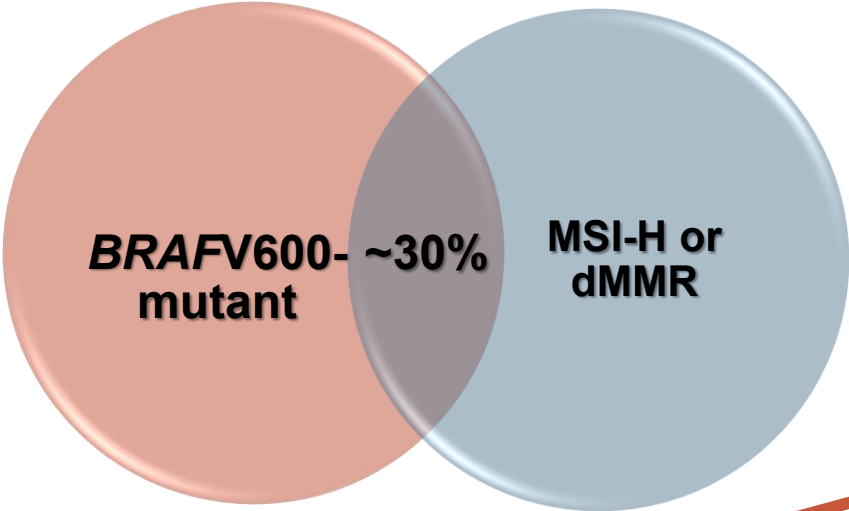
CONTINUUM OF CARE FOR *BRAF*V600E-MUTANT mCRC PATIENTS



Cremolini C. Personal communication

d/pMMR, deficient/proficient mismatch repair; FOLFOX, fluorouracil / leucovorin / oxaliplatin; mCRC, metastatic colorectal cancer; MSI-H, microsatellite instability-high; MSS, microsatellite stable; mut, mutant

ON THE HORIZON FOR UNTREATED dMMR/MSI-H AND BRAF-MUTANT mCRC



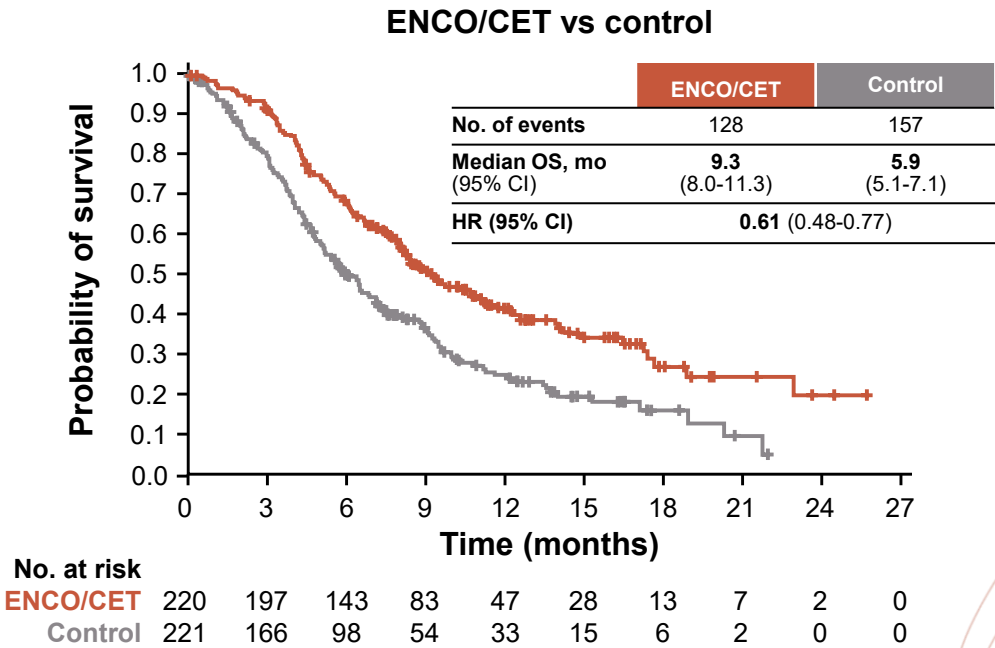
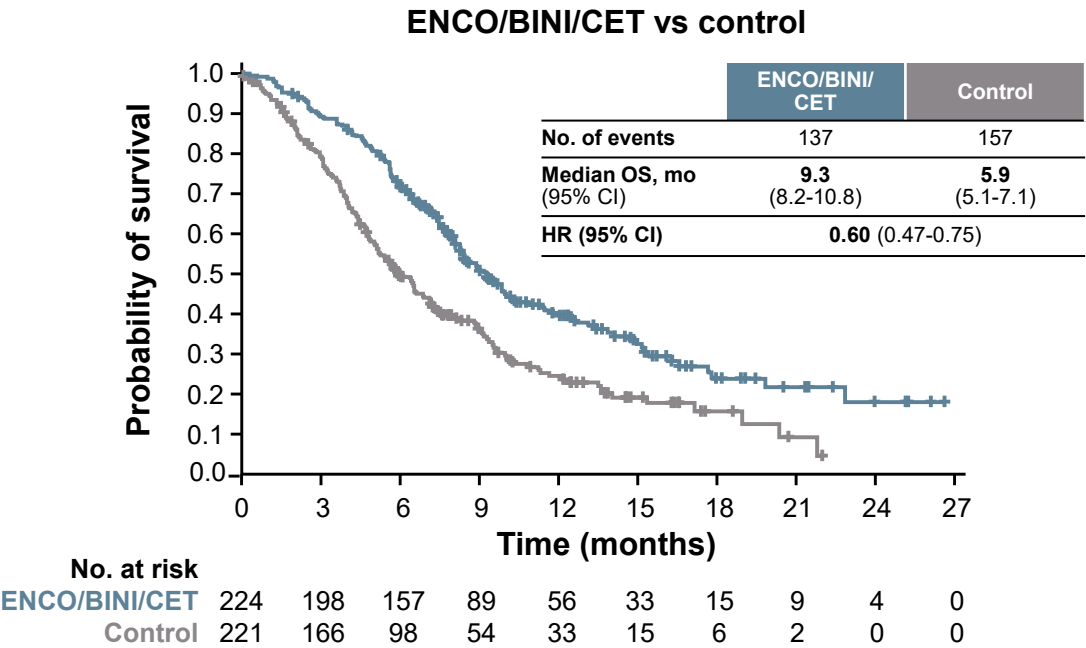
Accrual completed

NCT05217446

dMMR, deficient mismatch repair; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; mCRC, metastatic colorectal cancer; MSI-H, microsatellite instability-high; OR, objective response; OS, overall survival; PFS, progression-free survival; QOL, quality of life; RECIST, Response Evaluation Criteria in Solid Tumours
Kopetz S, et al. J Clin Oncol. 2022;40(16_suppl; abstract TPS3634) [ASCO 2022; oral presentation]

BEACON: ENCO/CET VS SOC IN PRE-TREATED BRAF-MUTANT mCRC

OVERALL SURVIVAL RESULTS^a



OBJECTIVE RESPONSE RATE

Confirmed response by blinded central review	ENCO/BINI/CET (triplet) N=224	ENCO/CET (doublet) N=220	Control N=221
Objective response rate, %	27%	20%	2%
95% CI	21%, 33%	15%, 25%	<1%, 5%
p value vs control	<0.0001	<0.0001	NA

^a Median follow-up: 12.8 months

BINI, binimetinib; CET, cetuximab; CI, confidence interval; ENCO, encorafenib; HR, hazard ratio; mCRC, metastatic colorectal cancer; mo, months; NA, not applicable; OS, overall survival; SOC, standard of care

Tabernero J, et al. J Clin Oncol. 2021;39:273-284

CONFIRMATORY REAL-WORLD EVIDENCE: FINDINGS CONSISTENT WITH THE BEACON TRIAL, FOR EC TREATMENT IN *BRAF*-MUTATED CRC

BEACON EFFICACY FINDINGS (DOUBLET THERAPY)

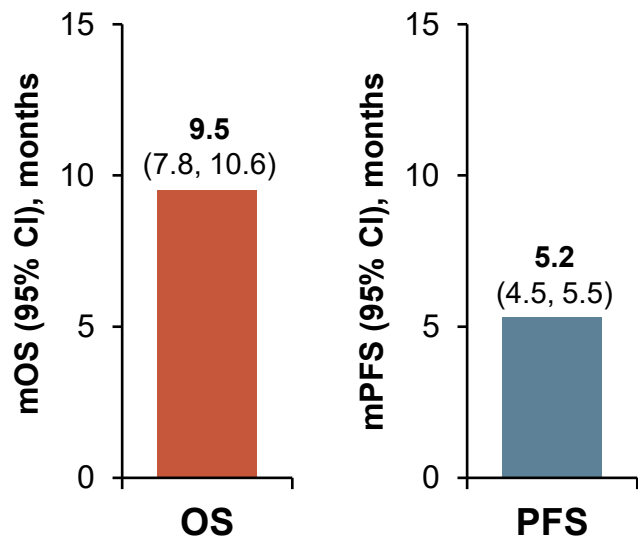
Median PFS: 4.3 months; median OS: 9.3 months

BERING CRC (N=150)

(3 Sep 2020 to 26 Apr 2024; ongoing)¹



Encorafenib + cetuximab (n=141; FAS)

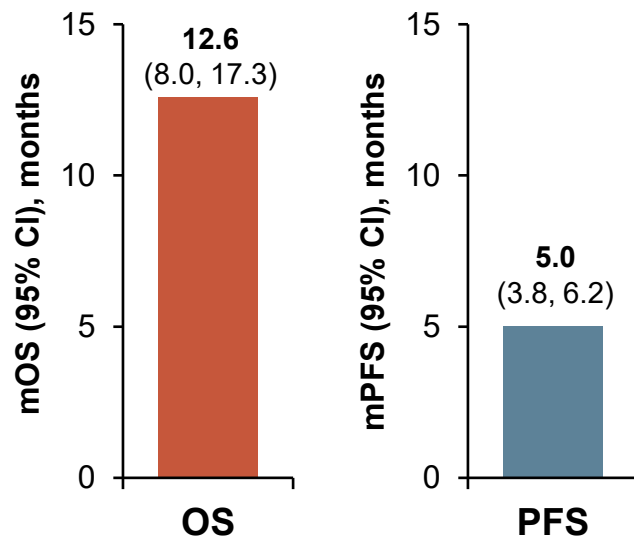


CONFIDENCE (N=81)

(Mar to Jul 2022)²



Encorafenib + cetuximab (N=81)

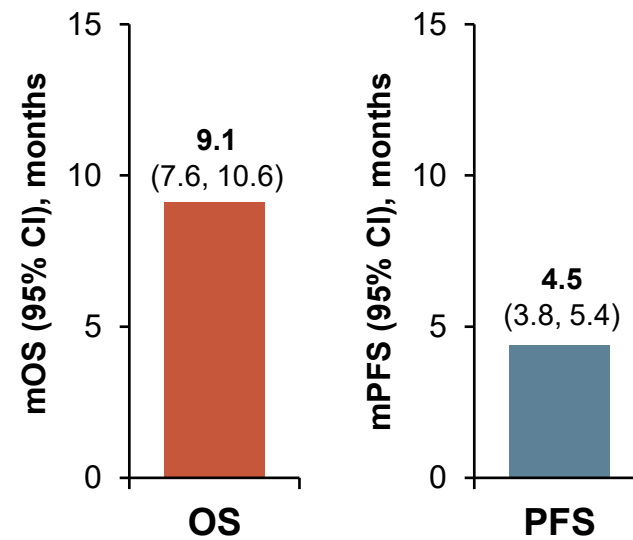


B-REAL, an AGEO study (N=201)

(Jan 2020 to Jun 2022)³



Encorafenib + cetuximab (n=176)



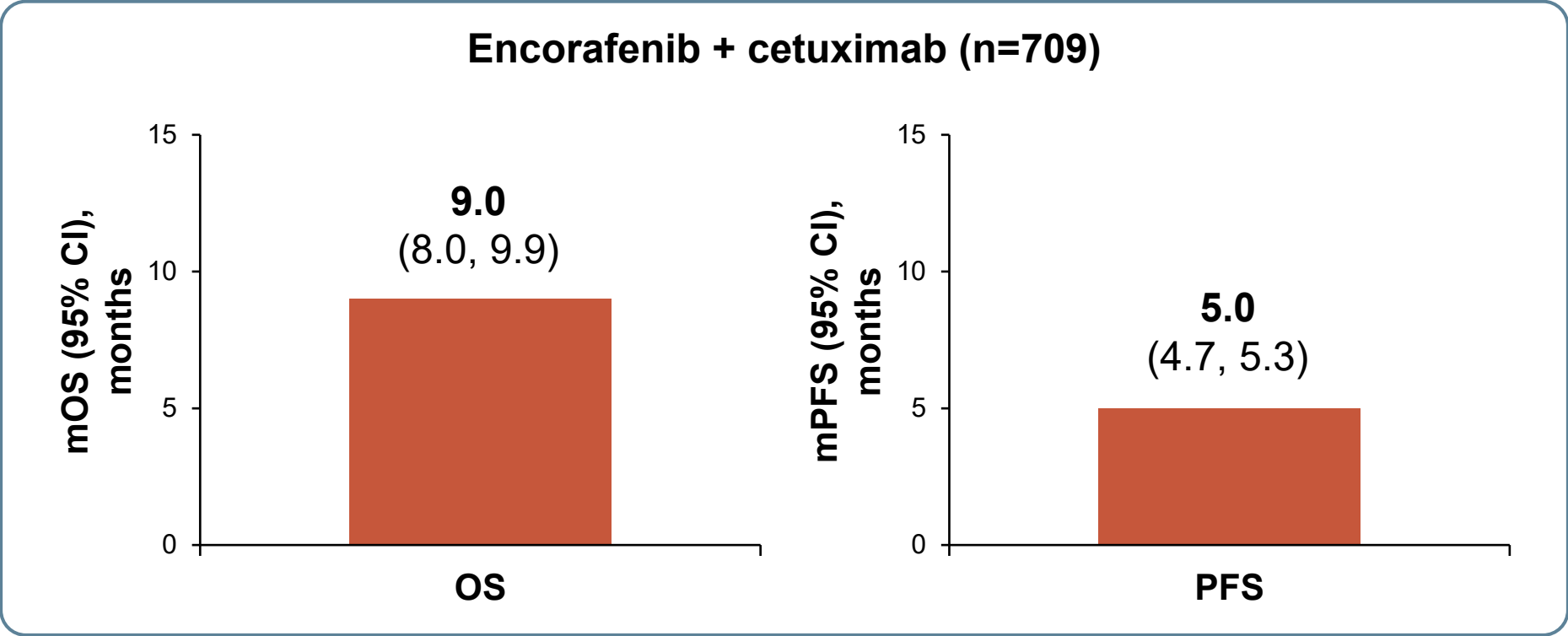
AGEO, Association des Gastro-Entérologues Oncologues; CI, confidence interval; FAS, full analysis set; (m)OS, (median) overall survival; (m)PFS, (median) progression-free survival

1. Stintzing S, et al. Annals of Oncology (2025) 36 (suppl_1): S1-S65. 10.1016/annonc/annonc1820 (ESMO GI 2025; poster presentation); 2. Fernandez Montes A, et al. ESMO Real World Data and Digital Oncology 2024; 5:100055; 3. Gallois C, et al. ESMO Open 2024; 9: doi.org/10.1016/j.esmoop.2024.103696

CONFIRMATORY REAL-WORLD EVIDENCE: FINDINGS CONSISTENT WITH THE BEACON TRIAL, FOR EC TREATMENT IN *BRAF*-MUTATED CRC

RETROSPECTIVE, LONGITUDINAL, POOLED ANALYSIS

Results from pooled dataset (N=709)
(BERING CRC, B-REAL, CATAMARAN, CONFIDENCE, GONO Cohort)



CI, confidence interval; EC, encorafenib +cetuximab; (m)OS, (median) overall survival; (m)PFS, (median) progression-free survival
Cremolini C, et al. Ann Oncol. 2025;36(supplement 1: S23-S24) [ESMO GI 2025; poster presentation]

BRAFi + EGFRi ± MEKi FOLLOWING ICI_s IN BRAF-MUTANT AND dMMR/MSI-H mCRC^{1,2}

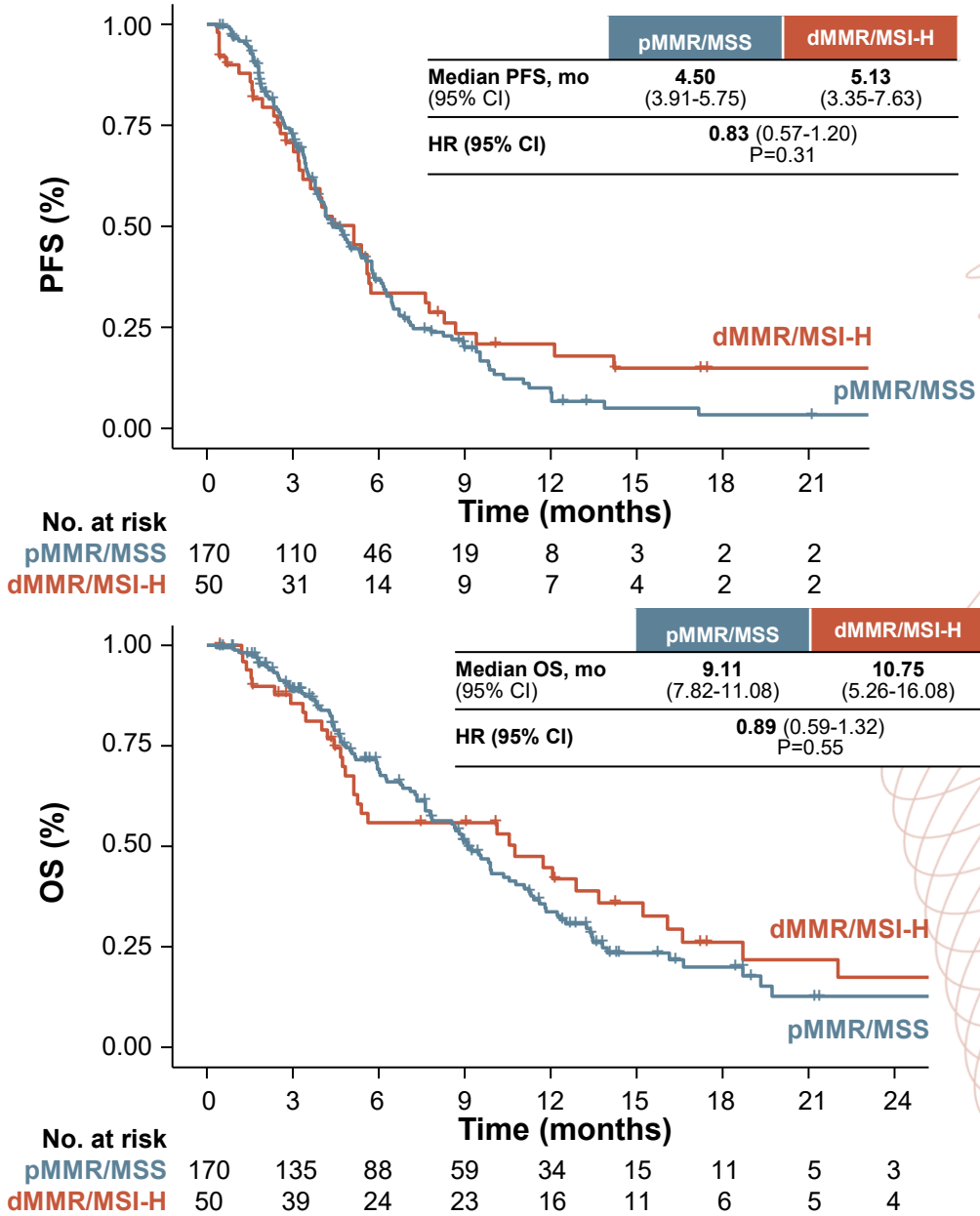
B-REAL and AGEO-IMMUNODIG MSI, AGEO studies (N=220) (Jan 2017 to Jan 2024)



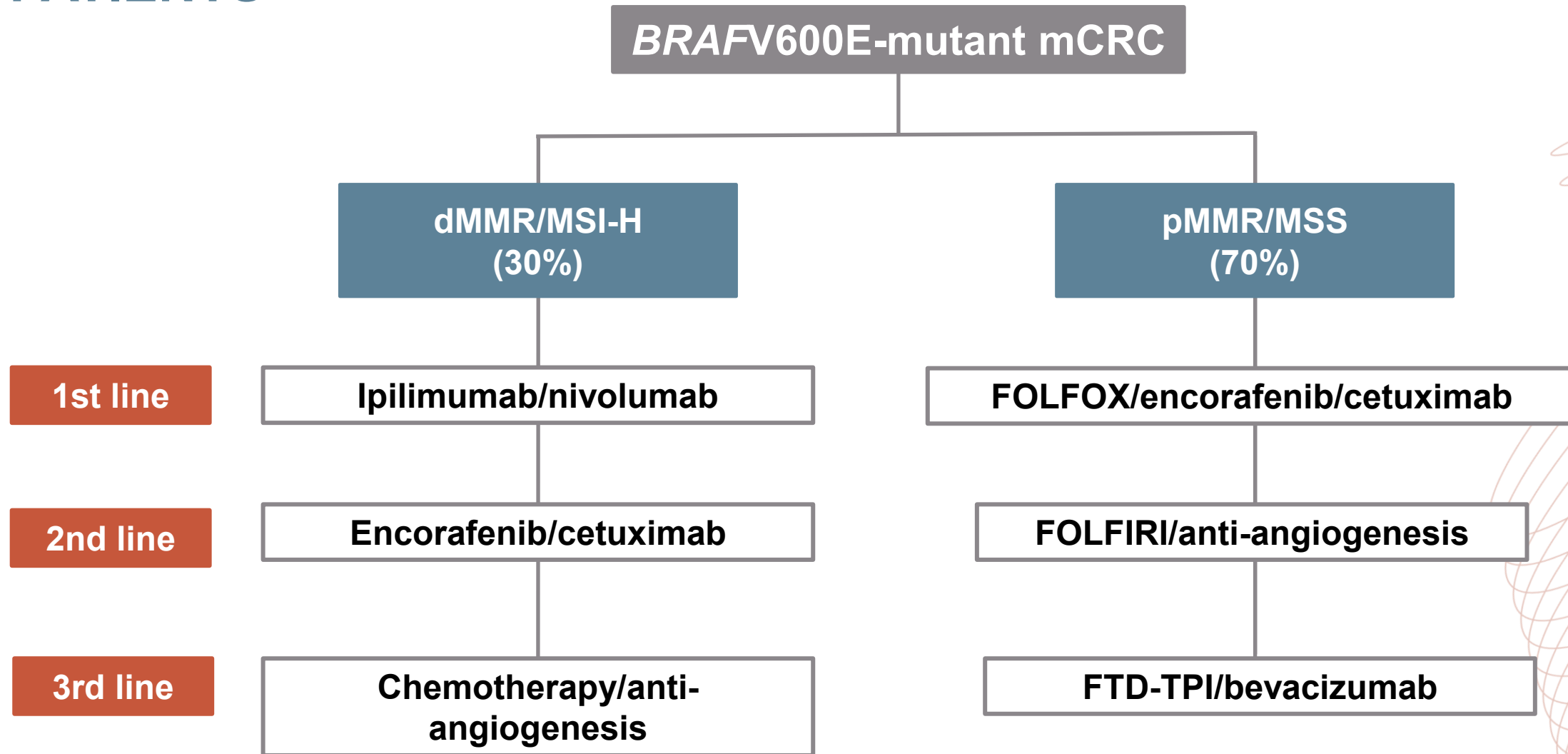
	BRAFV600E-mut pMMR/MSS (n=170)	BRAFV600E-mut dMMR/MSI-H (n=50)	HR (95% CI)	p value
ORR, %	32	18		0.09
DCR, %	73	60		0.11
mPFS, months	4.50	5.13	0.83	0.31
mOS, months	9.11	10.75	0.89	0.55

AGEO, Association des Gastro-Entérologues Oncologues; BRAFi, BRAF inhibitor; CI, confidence interval;
BRAFi, BRAF inhibitor; DCR, disease control rate; d/pMMR, deficient/proficient mismatch repair;
EGFRi, EGFR inhibitor; HR, hazard ratio; ICI, immune checkpoint inhibitor; mCRC, metastatic colorectal cancer; MEKi, MEK inhibitor; MSI-H, microsatellite instability-high;
(m)OS, (median) overall survival; (m)PFS, (median) progression-free survival; MSS, microsatellite stability; mut, mutant; ORR, overall response rate

1. Ambrosini M, et al. Ann Oncol. 2024;35(Supplement 1; S32) [ESMO GI Congress 2024; poster presentation]; 2. Ambrosini M, et al. Eur J Cancer. 2024;210:114290



CONTINUUM OF CARE FOR *BRAF*V600E-MUTANT mCRC PATIENTS

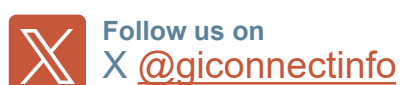


d/pMMR, deficient/proficient mismatch repair; FOLFIRI, fluorouracil / leucovorin / irinotecan; FOLFOX, fluorouracil / leucovorin / oxaliplatin; FTD-TPI, trifluridine-tipiracil; mCRC, metastatic colorectal cancer; MSI-H, microsatellite instability-high; MSS, microsatellite stable

Cremolini C. Personal communication.



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