

## Online Resource 2:

### Supplementary results for the base case model on chemotherapy costs

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**Table 1** The costs of different components of the palliative chemotherapies (2016-euro)

Components in the treatment	5-FU/FA	Bevacizumab+FLIRI	Bevacizumab+FLOX	FLIRI 1 <sup>st</sup> line	FLIRI 2 <sup>nd</sup> line	FLOX 1 <sup>st</sup> line	FLOX 2 <sup>nd</sup> line	EGFR + irinotecan ≤75 year	EGFR + irinotecan, >75 year
Medicine (from pharmacy)	3507	37,261	36,166	6590	4793	5786	4208	35,143	33,915
Administered in hospital	545	1362	1362	500	363	999	727	2 452	2452
CT-scanning	1 171	1343	1343	1073	781	1073	781	3 222	3222
Out-patient consultation	1704	2088	2088	1576	1192	1576	1192	2472	2472
Side effects*	1276	1934	1934	1220	1053	1220	1053	1762	1762
Sum cost	8,202	43,988	42,892	10,959	8 182	10,655	7,960	45,051	43,823

\* Side effects include sepsis, intestine perforation, arterial thromboembolism and medicine for nausea. Diarrhea is included in another part of the model.

Table 1 is based on Table 9 in Appendix 1 of Joranger et al (1). The estimates are changed from 2011-euro in Table 9 to 2016-euro in Table 1 above, and we have added the column “EGFR + irinotecan, >75 year”.

**Table 2** Distribution of expected costs (percent) for an average group of patients receiving palliative chemotherapy

Scenarios	1. line	2. line	3. line	All lines
Bevacizumab og FLIRI, FLOX, EGFR-inh (C, D, E in Figure 2 in the main text)	27.5	3.0	10.1	40.7
Bevacizumab, og FLOX, FLIRI, EGFR-inh (F, G, H)	3.0	0.3	1.1	4.5
FLIRI, FLOX, EGFR-inh (J, K, L)	3.4	1.5	5.1	10.0
FLOX, FLIRI, EGFR-inh (M, N, O)	7.8	3.6	11.8	23.2
5-FU, EGFR-inh (Q, R)	1.7	5.6	0.0	7.3
5-FU, FLOX, EGFR-inh (Q, T, S)	1.2	0.7	2.2	4.1
5-FU, FLIRI, EGFR-inh (Q, V, U)	2.9	1.7	5.6	10.3
Sum costs all scenarios	47.5	16.4	36.0	100.0

EGFR-inh = Epidermal Growth Factor Inhibitor.

Note: The scenarios are shown in Fig. 2 in the main text.

In Table 2, percentages were estimated in the following way for patients receiving some kind of chemotherapy in the palliative phase: The expected cost for each chemotherapy regimen was estimated by multiplying the probability (in parentheses) of receiving the various treatments (given in Figure 2) with the sum costs of the respective chemotherapy regimens given in Table 1 above. Then, we estimated the percentage each chemotherapy regimen contributed to the total cost of the average patient receiving some kind of chemotherapy in the palliative phase, by dividing the estimated expected cost for each chemotherapy regimen with the expected total chemotherapy treatment cost for these CRC patients in palliative phase (€40,850 per patient). E.g. the percentage contribution for “Bevacizumab + FLIRI” in 1st line was estimated in this way:  $((0,2556 \times €43,988) / €40,850) \times 100 = 27,5$  percent.

**Table 3** Total treatment costs per patient when receiving all chemotherapy in the treatment scenario (undiscounted)

Treatment scenario	Costs per patient (€)
Bevacizumab and FLIRI, FLOX, EGFR-inh + irinotecan (C, D, E in Figure 2 in the main text)	97,000
Bevacizumab and FLOX, FLIRI, EGFR-inh + irinotecan (F, G, H)	96,130
FLIRI, FLOX, EGFR-inh + irinotecan (J, K, L)	63,970
FLOX, FLIRI, EGFR-inh + irinotecan (M, N, O)	63,890
5-FU/FA, EGFR-inh + irinotecan (Q, R)	52,030
5-FU/FA, FLOX, EGFR-inh + irinotecan (Q, T, S)	59,990
5-FU/FA, FLIRI, EGFR-inh + irinotecan (Q, V, U)	60,210

## References

1. Joranger P, Nesbakken A, Hoff G, Sorbye H, Oshaug A, Aas E. Modeling and validating the cost and clinical pathway of colorectal cancer. *Medical Decision Making*. 2014.