

Supplementary Material

Table 1 – Source of MCDA-EVIDEM indicators from literature review

Source	Dimension	Indicator	Definition / Assumptions
<p>Angelis A. et al. <i>Social Science & Medicine</i>. 2020; 246;112595.</p> <p>Angelis A. et al. <i>Multiple criteria decision analysis in the context of health technology assessment: a simulation exercise on metastatic colorectal cancer with multiple stakeholders in the English setting. BMC Medical Informatics and Decision Making</i>; 17:149. DOI 10.1186/s12911-017-0524-3.2017.</p>	Therapeutic Benefit	Overall survival x Health related quality of life	The median time from treatment randomization to death adjusted for the mean health related quality of life using the EQ-5D utility score
		Radiographic tumor progression	The median survival time on which patients have not experienced disease progression (using RECIST criteria)
		PSA response	The proportion of patients having a $\geq 50\%$ reduction in PSA
	Safety Profile	Treatment discontinuation	The proportion of patients discontinuing treatment due to adverse events
		Contra-indications	The existence of any type of contra-indication accompanying the treatment
	Patient convenience	Delivery posology	The combination of the delivery system (RoA and dosage form) with the posology (frequency of dosing and duration of administration) of the treatment
		Special instructions	The existence of any special instructions accompanying the administration of the treatment
	Socioeconomic Impact	Medical costs impact	The impact of the technology on direct medical costs excluding the purchasing costs of the technology
	Hsu JC. Et al. (2019) <i>Comprehensive value assessment of drugs using a multi-criteria decision analysis: An example of targeted</i>	Efficacy	Overall survival period

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<i>therapies for metastatic colorectal cancer treatment. PLoS ONE 14(12): e0225938. https://doi.org/10.1371/journal.pone.0225938</i>			<i>situation use or not / hazard ratios are significant or not</i>
	<i>Comparative safety</i>	<i>Overall incidence of adverse events</i>	<i>Percentage (%)</i>
		<i>Incidence of adverse events (over Grade 3)</i>	<i>Percentage (%)</i>
		<i>Dosage adjustment for special groups</i>	<i>Need adjustment (Yes/No)</i>
		<i>Drug-drug interaction</i>	<i>Yes/No</i>
	<i>Convenience and quality of life</i>	<i>Formulation</i>	<i>Oral / Injection</i>
		<i>Frequency of use</i>	<i>-</i>
		<i>Combined chemotherapy prescription</i>	<i>With/without impacts</i>
		<i>Treatment duration</i>	<i>-</i>
		<i>Quality of life</i>	<i>With/without impacts</i>
	<i>Economic impact</i>	<i>ICER</i>	<i>Δ monthly target therapy cost / Δ time to disease progression. Compare medicines with similar status (ex. the same line of treatment); Consider the cost for side effect treatment</i>
		<i>Number of patients who would use this medicine</i>	<i>Consider gene-type variance ratios and clinical treatment options</i>
		<i>Indications</i>	<i>With/without impacts</i>
		<i>Overall target therapy expenditures</i>	<i>number of patients * treatment cost * duration; Count total costs</i>
	<i>Societal impact</i>	<i>Mechanism</i>	<i>With/without innovation</i>
		<i>Irreplaceability</i>	<i>With/without alternative drugs</i>
		<i>Recommendation for the coverage by Health Technology Assessment (HTA) Reports</i>	<i>For first- and second-line treatments</i>
		<i>Countries offering insurance coverage for the drugs</i>	<i>Coverage or not</i>

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Trotta F, Mayer F, Barone-Adesi F, et al. Anticancer drug prices and clinical outcomes: a cross-sectional study in Italy. <i>BMJ Open</i> 2019;9:e033728. doi:10.1136/bmjopen-2019-033728	Clinical benefit	Median overall survival (OS)	-
		Median progression-free survival (PFS)	-
		Objective response rate (ORR)	-
Wagner M. et al. (2018) Applying Reflective Multicriteria Decision Analysis (MCDA) to Patient–Clinician Shared Decision-Making on the Management of Gastroenteropancreatic Neuroendocrine Tumors (GEP-NET) in the Spanish Context. <i>Adv Ther</i> ; 35:1215–1231. https://doi.org/10.1007/s12325-018-0745-6	Efficacy / Effectiveness	Progression-free survival (PFS)	Reference to https://www.evidem.org/ . (Accessed by authors on 17 Sep 2015).
		Disease symptoms	
		Tumor regression rate	
		Overall survival (OS)	
	Patient convenience / PRO	HRQoL	
		Impact on autonomy	
		Impact on dignity	
		Convenience/ease/setting	
	Safety / Tolerability	Non-fatal non-serious AEs	
		Non-fatal serious AEs	
		Fatal AEs	
	Type of benefit	Therapeutic benefit	
		Preventive benefit	
	Need for intervention	Disease severity	
		Unmet needs	
		Size of affected population	
	Economic impact	Cost of intervention	
		Other medical costs	
		Non-medical costs	
	Knowledge	Quality of evidence	
Expert consensus / CPGs			
Feasibility	System capacity / Appropriate use		