

Measure of case-Discussion Complexity for cancer MDT meetings: MDT-MeDiC (V1.0)

	#	Complexity Item	Description
PATHOLOGY	1.	Malignancy	Patient is either currently undergoing treatment, or it is a new diagnosis.
	2.	Invasive component	Tumour is of high (3) or intermediate (2) grade, but also includes cancers that are poorly or moderately differentiated, invasive adenocarcinoma, carcinosarcoma, invasive ductal, small cell, aggressive, VIN III, clear cell carcinoma, or serous adenocarcinoma (both aggressive form of ovarian cancer considered grade 3), also mucinous, or lobular in breast cancer.
	3.	Residual tumour	There is evidence or residual tumour after treatment due to an incomplete pathological or biological response to (surgical or oncological) treatment, for e.g. tumour is incompletely excised, margins are involved or positive, i.e. not clear of tumour, and patient is not cured.
	4.	Recurrence	Includes secondary cancer, i.e. primary cancer that comes back with local, regional, or distant recurrence - e.g. secondary breast cancer in liver.
	5.	Multiple cancers	Includes multifocal, multicentric, or multiple primaries.
	6.	Increased size	Includes T3 and T4 tumours.
	7.	Nodes affected	Includes N1 and N2 tumours, but also lymphovascular invasion.
	8.	Metastases	Includes local or distant metastases.
	9.	Advanced stage, progressive	Extensive disease, late stage with tumour increasing in size and spreading.
	10.	Unusual or rare tumour type	It is not a classic picture of cancer. Unusual pathological presentation, complex, or rare tumour that is either malignant or has potential for malignancy. Unknown primary is also included.
PATIENT FACTORS	11.	Previous history of cancer	Includes either distant (i.e., 10 years ago) or more recent history
	12.	Previous oncological treatments	Includes either distant (i.e., 10 years ago) or more recent history of chemotherapy or radiotherapy.
	13.	Significant surgical history	Includes either distant (i.e., 10 years ago) or more recent surgery that may affect treatment options.
	14.	Significant physical comorbidity	Patient is immunocompromised, or has poor performance status (PS), or has any other physical comorbidity that may affect treatment options, such as for e.g., diabetes, congestive heart failure, kidney or vascular disease, frail, nutritionally compromised, needs assistance with mobility, not fit for surgery, doesn't tolerate chemotherapy, renal failure, cardiac bypass, pregnancy, clinical obesity or BMI >30, exercise intolerance.
	15.	Mental health and cognitive comorbidity	Any such comorbidities that may affect treatment options, for e.g., dementia, schizophrenia, anxiety, depression, or being sanctioned under the Mental Health Act.
	16.	Socio-economic issues	Any socio-economic difficulties that may affect treatment options, such as for e.g., being a sole parent with young children, lack of social / family / financial support, or housing issues.
	17.	Lifestyle risks	Any lifestyle risks that may affect treatment options, such as for e.g., substance abuse, smoking.
	18.	Patient choice and family opinion	Includes refusal of certain treatment or procedure, non-compliance and DNA (do-not-attend) appointments, family dynamics and opinion that may impact treatment options

TREATMENT FACTORS	19.	Diagnostic uncertainty & inconclusiveness of diagnostic tests	Lack of definitive diagnosis, pathology or radiology results are inconclusive, for e.g., there is either nothing to biopsy or tumour is too small/ undetectable on imaging, but also sample for pathology analysis is suboptimal.
	20.	Further tests and patient assessment needed	Includes further or repeat tests such as imaging, biopsy, clinical examination or review before treatment plan can be formulated.
	21.	Further input needed from other specialties	Further input is needed before a treatment plan can be formulated, for e.g. colorectal cancer team is requiring urological or gynaecological input, or patient has to be referred to a specialist unit for treatment, multiple primaries so patient needs to be treated at different centre/s.
	22.	Unusual anatomy/ distribution of tumour	Unusual / difficult anatomical positioning of cancer for e.g. close to aorta, blood vessels, or other critical structures / unresectable or inoperable tumour.
	23.	Guidelines/ pathway do not account for patients specific situation	An exceptional case.
	24.	Conflict of opinions	There are differences in opinion or difficulties in agreeing on the best treatment option, clinical staging or follow-up, either between team members, or between sites / teams / specialties / disciplines.
	25.	Treatment toxicity and contraindications	Patient is experiencing treatment toxicity and contraindication to standard treatment.
	26.	Trial eligibility	Patient is eligible for trial and this is discussed in the meeting.
TOTAL CLINICAL COMPLEXITY SCORE (the sum of items 1 to 26):			
	27.	Logistical complexity	Includes counts of various admin errors and process issues, as well as issues with attendance and meeting equipment (the examples of logistical complexities from the data are provided below).
TOTAL LOGISTICAL COMPLEXITY SCORE (the sum of tallies for item 27):			
TOTAL COMPLEXITY SCORE (the sum of items 1 to 27, i.e., clinical and logistical items):			

Please reference the MeDiC tool as follows:

Soukup, T., Morby, A., Lamb, B.W., Gandamihardja, T., Hogben, K., Noyes, K., Skolarus, T.A., Darzi, A., Green, J., Sevdalis, N. (2019). A measure of case complexity for cancer multidisciplinary teams: Development and early validation of the MeDiC tool. PsyArXiv. [10.31234/osf.io/qzwf8](https://doi.org/10.31234/osf.io/qzwf8)