4.5. Patients with cancer discussed at the multidisciplinary team meeting (%) (QC-6)

4.5.1. Documentation sheet

Description	Proportion of patients with a new diagnosis of cancer who were discussed at the multidisciplinary team meeting (MDT, MOC-COM[p])
Calculation	Numerator: Number of patients diagnosed with an invasive cancer in a given year discussed at the MDT within 1 month before and 6 months after incidence date. Denominator: Number of patients diagnosed with an invasive cancer in a given year (first tumour only).
Rationale	Multidisciplinary team meetings have been implemented in many countries as the predominant model of cancer care to ensure that all patients receive timely diagnosis and treatment, that patient management is evidence-based, and that there is continuity of care. In all cancer guidelines developed by the KCE and the College of Oncology, multidisciplinary discussion is recommended to decide on the diagnosis, staging and treatment plan of cancer patients. They are financed in Belgium since 2003, and have been strongly encouraged by the National Cancer Plan since then.[1]
Target	Not specified for Belgium. Setting a 100% target of MDT meetings for all patients with cancer is not realistic, as particular reasons can hamper the discussion of the patient case during a MDT meeting (e.g., patient might have died before being discussed at MDT meeting). Nevertheless, EUSOMA recommended a target value of 99% for the multidisciplinary discussion (pre and postoperatively) of cancer patients, with a minimum standard of 90%.[2] Moreover, EUSOMA recommended a target value of 90% for the multidisciplinary discussion of women with breast cancer.[3]
International comparability	No data are readily available from other countries. Data on multidisciplinary discussion are only sporadically published.
Data source	Belgian Cancer Registry (BCR), incidence years 2004-2015, linked to IMA-AIM data.
Periodicity	Yearly
Technical definitions	The nomenclature codes for the coordination of a (MDT, MOC-COM are the following: • first MOC-COM (350372-350383) • follow-up MOC-COM (350276-350280) • additional MOC-COM (350291-350302) • supplementary fees for oncologists (350453-350464). Selection of patients: • new diagnoses of invasive cancer registered in the BCR (no in situ tumours), incidence years 2004-2015 The following cases were excluded from the analyses: • Second and subsequent invasive tumours for the same patient during one incidence year (only the first tumour per incidence year is taken into account) • Patients without a Belgian residence

[p] COM consultation multidisciplinaire en oncologie, MOC multidisciplinair oncologisch consult.

	• Patients without national social security number • Patients for whom no IMA data in the year of incidence were available (≈2% of the selected patients) • Patients with an uncertain date of diagnosis To account for the fact that the date of diagnosis is sometimes slightly inaccurate and that small administrative mistakes in the health insurance data are possible, a MDT was searched for each patient within a time frame of 1 month before and 6 months after incidence date.
Limitations	No information is available on the quality of the discussion, and there are some financial incentives for hospitals to organise MDT meetings (the financing of extra manpower in oncological centres is directly linked to the number of yearly MDTs organized in a centre). As the delay on the invoice data (i.e. IMA-AIM data) can prolong up to 2 years after the actual date that the MDT was organised, the proportion of MDTs from the last included incidence year of the analysis (in this case 2015) may be a slight underestimation. [1] Although extremely useful to assess MDT practice at the population level, working with administrative billing databases entails some limitations in the interpretation of the results.[4] First, although MDT coverage is frequently used as a parameter of quality of care (Stordeur et al., 2012),[5] no information is available on the actual quality of discussions between specialists impacting the treatment decision. Second, only financed MDT meetings were analysed, leading to an underestimation of reality. Discussions with experts of the field revealed that many patients are discussed during MDTs for whom the conditions for financing are not fulfilled, for example when a patient decides to ask for a second opinion without informing the first hospital. In this way, information on additional MDTs which are not financed and hence not registered in the used databases could not be taken into account in our analyses. A financing for the organisation of a "reference MDT meeting" to allow experts from reference centres to discuss more complex cases at a (inter) national level should be foreseen to fairly recognise the contribution of these clinical experts (Stordeur, Vrijens, & Leroy, 2016).[6]
Dimensions	Quality: Continuity-Coordination of care.
Related indicators	Cancer 5-year survival rate (breast, colon)

Background

In Belgium, MDT meetings are financed since 2003 by the National Institute for Health and Disability Insurance (NIHDI). MDT meetings are not obligatory according to the Belgian legislation for every new cancer diagnosis. Indeed, the law stipulates only four situations in which the discussion of a case in a MDT is mandatory: (1) when an oncological treatment deviates from the hospital's oncology manual, (2) when re-irradiation of a same target zone is envisaged within 12 months after the start of the first radiotherapy, (3) when chemotherapy is delivered with a drug that, in its first reimbursement phase, is to be monitored by a MDT and (4) from 2007 onwards, for every new breast cancer diagnosis treated in a recognised breast clinic. Nonetheless, the National Cancer Plan launched in 2008 encouraged the implementation of MDT meetings as an essential step in the clinical pathway of each new cancer case. In 2009, financial incentives have been set up to fund the supportive oncology staff members (i.e., psychologists, nurses, social workers, dieticians and data managers); they are based on the number of billed MDT meetings in preceding years per oncological centre. Hence, the more MDTs are billed, the more supportive staff the oncological centre can recruit. Until 2010, financing was limited to one MDT per patient per calendar year. In 2010, a differentiation was introduced allowing different MDT meetings per patient along the care pathway (i.e. a first MDT meeting to discuss the diagnosis and the set-up of the treatment plan, a follow-up MDT meeting when the diagnosis and/or the treatment plan is altered and/or when re-irradiation is scheduled within 12 months after initiation of the first radiotherapy, and a supplementary MDT meeting when a patient is referred to another hospital to complete the diagnosis and the treatment plan). In addition, the maximum possible number of intramuros specialists being reimbursed for attending a MDT meeting increased from 4 to 5, and some specialists (in medical oncology, haematology, paediatric oncology and paediatric haematology) received a supplementary fee when attending or coordinating the MDT meeting.

4.5.2. Results

In 2004 (the first full year after the start of the financing of multidisciplinary discussions in Belgium) only 50.8% of the cancer patients were discussed during a multidisciplinary team meeting (see Table 25). In 2012, 83.6% of the patients benefited from this meeting and this proportion increased further to 87.5% in 2015 (see Table 25). The proportion of cancer patients discussed at a MDT varies between different types of cancer, but this variability between tumour types is less pronounced in the more recent years.

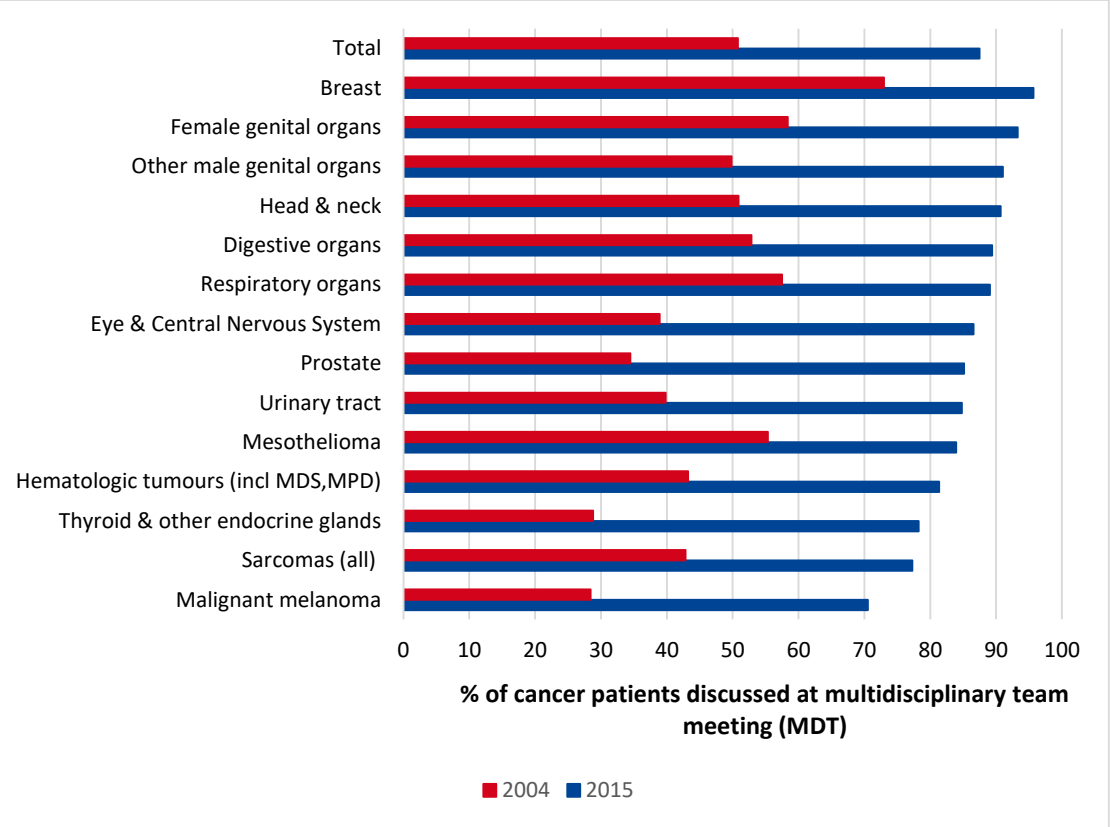
In both 2012 and 2015, patients with breast cancer are the most often discussed in a MDT (95.7% in 2015), contrasting with malignant melanoma cases that are the least often cases discussed (70.5% in 2015) (Table 25 and Figure 55).

Table 25 – Proportion of cancer patients discussed at multidisciplinary team meeting, per tumour group (2004-2015)

Localisation	2004			2012			2015		
	N of Patients	N of MDT	% MDT	N of Patients	N of MDT	% MDT	N of Patients	N of MDT	% MDT
C00-C14, C30-C32 Head & neck	2 339	1 191	**50.9**	2 530	2 183	**86.3**	2 549	2 312	**90.7**
C15-C26 Digestive organs	11 144	5 891	**52.9**	13 577	11 558	**85.1**	14 059	12 569	**89.4**
C33-C39 Respiratory organs	6 814	3 917	**57.5**	7 897	6 687	**84.7**	8 047	7 169	**89.1**
C40-C41, C46-C49 Bones, articular cartilage, soft tissue & Kaposi sarcoma	504	216	**42.9**	559	419	**75.0**	595	460	**77.3**
C43 Malignant melanoma	1 336	380	**28.4**	2 403	1 481	**61.6**	2 716	1 916	**70.5**
C45 Mesothelioma	224	124	**55.4**	272	226	**83.1**	287	241	**84.0**
C50 Breast	9 189	6 707	**73.0**	10 677	10 055	**94.2**	10 631	10 172	**95.7**
C51-C58 Female genital organs	3 014	1 759	**58.4**	3 151	2 809	**89.1**	3 127	2 917	**93.3**
C61 Prostate	8 845	3 048	**34.5**	7 909	6 240	**78.9**	7 956	6 775	**85.2**
C60, C62, C63 Other male genital organs	293	146	**49.8**	435	394	**90.6**	457	416	**91.0**
C64-C68 Urinary tract	3 375	1 345	**39.9**	4 176	3 388	**81.1**	4 267	3 618	**84.8**
C69-C72 Eye & CNS	814	317	**38.9**	904	700	**77.4**	945	818	**86.6**
C73-C75 Thyroid & other endocrine glands	611	176	**28.8**	991	683	**68.9**	1 075	841	**78.2**
C81-C96 Hematologic tumours (incl MDS, MPD)	4 531	1 959	**43.2**	6 329	5 054	**79.9**	6 874	5 592	**81.4**
C76, C80 Unknown primary and ill-defined sites	1 153	339	**29.4**	920	541	**58.8**	910	598	**65.7**
Total. excl.non-melanoma	54 186	27 515	**50.8**	62 730	52 418	**83.6**	64 495	56 414	**87.5**

Source: Belgian Cancer Registry data linked to data of the Intermutualistic Agency
Note: Abbreviations: MDS: Myelodysplastic syndrome, MPD: Myeloproliferative Disorder, CNS: Central Nervous System.

Figure 55 – Proportion of cancer patients discussed at multidisciplinary team meeting, per tumour group (2004-2015)



Source: Belgian Cancer Registry data linked to data of the Intermutualistic Agency; Note: Sarcomas (all): Bones, articular cartilage, soft tissue & Kaposi sarcoma

A recent paper published on similar Belgian data (BCR-IMA)[4] focused on seven different cancer types (female breast cancer, prostate cancer, lung cancer, rectal cancer, malignant melanoma, acute leukaemia and soft tissue sarcoma) in patients diagnosed between 2004 and 2011 (n= 205 062 patients). Additional information provides further insight into the current results. For example, the positive trend over time in coverage rate by MDT meetings seemed independent of the stage of the disease for all cancer types, except for melanoma: in 2011, patients with stage I were less discussed (66%) in MDT than those with stage III disease (98%). This is probably due to the fact that these patients are not automatically referred to a hospital but are often diagnosed and treated ambulatory, particularly for non-advanced stages (in ambulatory dermatology practices). In this case, diagnoses are reported directly to the BCR by the pathological laboratory.

In general, age seemed to play an important role in considering a patient for a MDT discussion; elderly patients (i.e., ≥80 years) were less often discussed during a MDT meeting for all cancer types. This under-usage of MDT meetings for elderly patients is regrettable: even when a patient is unfit to undergo a curative treatment, an MDT meeting remains extremely useful to determine in a multidisciplinary way which strategy could be helpful for the patient taking into account the results of the geriatric assessment and the frailty of the patient, whatever its intent, curative or palliative.

4.5.2.1. Trend over time by region

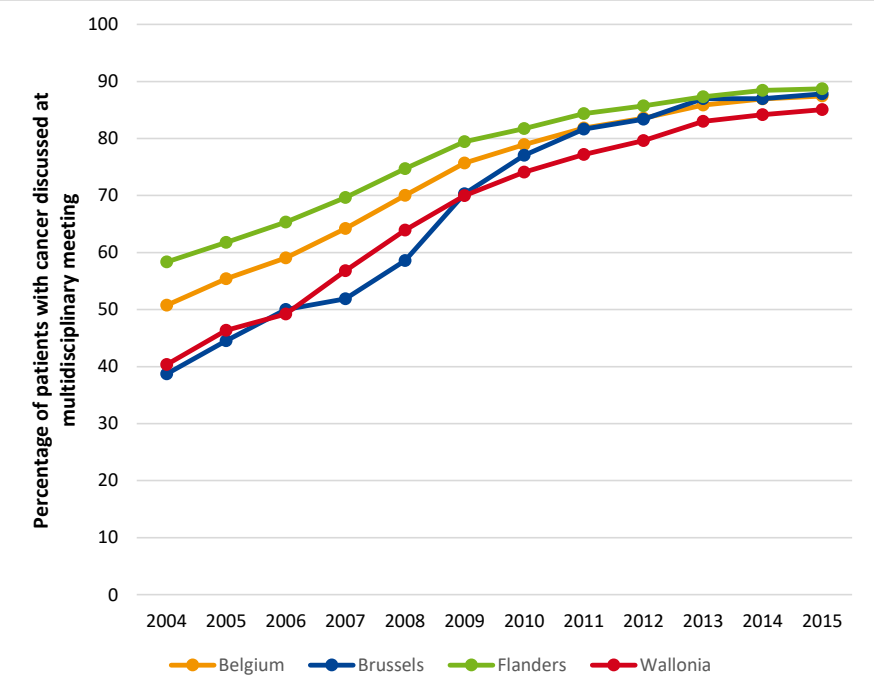
The clear regional differences in MDT that were observed at the introduction of the code in the nomenclature (e.g. 2004, Flanders 58.3%, followed by Wallonia 40.3% and Brussels 38.7%) tend to diminish. Cancer patients diagnosed in 2015 were only slightly more frequently discussed at the MDT in Flanders (88.7%), followed by Brussels (87.8%) and Wallonia (85.1%) (Table 26 and Figure 56).

Table 26 – Proportion of cancer patients discussed at multidisciplinary team meeting, per region (2004-2015)

	2004			2012			2015		
	N Patients	N MDT	% MDT	N Patients	N MDT	% MDT	N Patients	N MDT	% MDT
Belgium	**54 186**	**27 515**	**50.8**	**62 730**	**52 418**	**83.6**	**64 495**	**56 414**	**87.5**
Brussels	4 348	1 683	**38.7**	4 874	4 064	**83.4**	4 750	4 172	**87.8**
Flanders	31 819	18 563	**58.3**	37 587	32 213	**85.7**	38 754	34 388	**88.7**
Wallonia	**18 019**	**7 269**	**40.3**	**20 269**	**16 141**	**79.6**	**20 991**	**17 854**	**85.1**

Source: Belgian Cancer Registry data linked to data of the Intermutualistic Agency

Figure 56 – Proportion of cancer patients discussed at multidisciplinary team meeting, per region (2004-2015)



Source: Belgian Cancer Registry data linked to data of the Intermutualistic Agency

Key points

- **Since the introduction of specific nomenclature codes for the multidisciplinary team meeting (MDT, MOC-COM) in 2003, a rapid increase of its use is noticed for all cancer types. Overall, about 87.5% of cancer patients diagnosed in 2015 were discussed at the MDT (compared to 51% in 2004 and 84% in 2012).**
- **There is variability in use of the MDT between different cancer types (highest in breast cancer with 95.7%, lowest in malignant melanoma with 70.5% in 2015).**
- **An increasing use of the MDT is noticed for all three regions throughout the period 2004-2015.**
- **Moreover, initial (i.e. in 2004) marked regional variability in use of the MDT, with the highest results in Flanders, has clearly reduced in the more recent years. In 2015 cancer patients are only slightly more frequently discussed at the MDT in Flanders (88.7%), followed by Brussels (87.8%) and Wallonia (85.1%).**

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