



Annual Report 2022

of the Certified Colorectal Cancer Centres (CRCCs)

Audit year 2021 / Indicator year 2020

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General information

Indicator analysis	
Indicator No 1:	Patients with new recurrence and/or distant metastases.....
Indicator No 2a:	Pre-therapeutic tumour board (GL QI)
Indicator No 2b:	Pre-therapeutic tumour board: recurrences/metachronous metastases.....
Indicator No 3:	Post-operative tumour board.....
Indicator No 4:	Psycho-oncological counselling.....

Quality indicators of the guidelines (QI):

In the table of contents and in the respective headings, the indicators which correspond to the quality indicators of the evidence-based guidelines are specifically identified. These quality indicators are based on the strong recommendations of the guidelines and were derived from the guidelines groups in the context of the German Guideline Programme in Oncology (GGPO). Further information: www.leitlinienprogramm-onkologie.de*

The Quality Indicators (QI's) refer to the version 2.1 of the S3 GGPO Guideline Colorectal Cancer.

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients presented at an interdisciplinary tumour board before therapy	35*	9 - 101	11471
Denominator	"Elective" patients with rectal carcinoma and "elective" patients with stage IV colon carcinoma	36*	10 - 107	12018
Rate	Target value ≥ 95%	96,55%	69,57% - 100%	95,45%**

Basic data indicator:

The definition of **numerator**, **denominator** and **target** are taken from the data sheet. The specification of the **median** for numerator and denominator does not refer to an existing centre, but reflects the median of all numerators of the cohort and the median of all denominators of the cohort. Under **Range**, the range of values for numerator, denominator and rate of all centres is given. The column **Total patients** shows the sum of all patients treated according to the indicator as well as the corresponding rate.

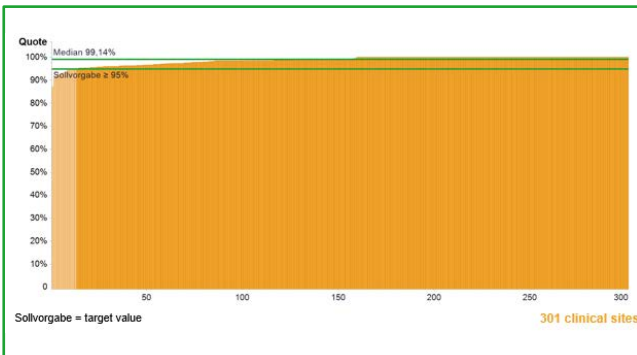
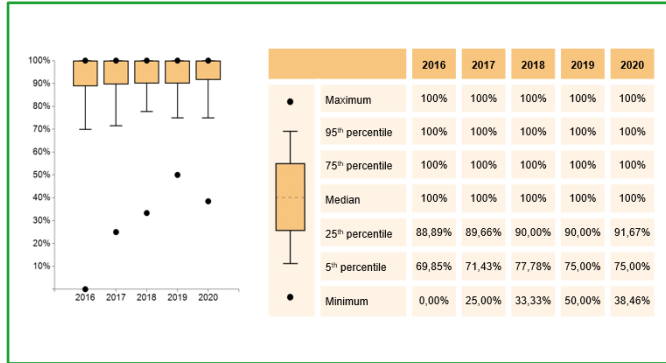


Diagram:

The x-axis indicates the number of centres, the y-axis gives the values in percent or number (e.g, primary cases). The target value is depicted as a horizontal orange line. The median, which is also depicted as an orange horizontal line, divides the entire group into two equal halves.

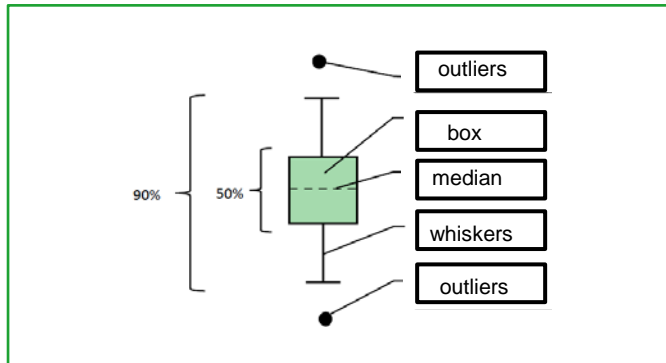
*For further information on the methodological approach see „Development of guideline-based quality indicators” (https://www.leitlinienprogramm-onkologie.de/fileadmin/user_upload/Downloads/Methodik/QIEP_OL_Version2_english.pdf)

General information



Cohort development:

Cohort development in 2016, 2017, 2018, 2019 and 2020 is graphically represented with box plots.



Box plot:

A box plot consists of a **box with median**, **whiskers** and **outliers**, 50 percent of the centres are within the box. The median divides the entire available cohort into two halves with an equal number of centres. The whiskers and the box encompass a 90th percentile area/range. The extreme values are depicted here as dots.

Status of the certification system for Colorectal Cancer Centres 2021

	31.12.2021	31.12.2020	31.12.2019	31.12.2018	31.12.2017	31.12.2016
Ongoing certification procedures	12	5	9	4	6	7
Certified centres	305	298	285	283	281	280
Certified clinical sites	312	305	292	291	290	288
CRCCs with 1 clinical site	300	293	280	278	275	275
2 clinical sites	3	3	3	3	4	3
3 clinical sites	2	2	2	1	1	1
4 clinical sites	0	0	0	1	1	1

Included clinical sites

	31.12.2021	31.12.2020	31.12.2019	31.12.2018	31.12.2017	31.12.2016
Clinical sites included in the Annual Report	301	296	284	284	283	273
Equivalent to	96,5%	97.1%	97.3%	97.6%	97.6%	94.8%
Primary cases total*	26,998	28,595	27,802	26,804	26,285	25,214
Primary cases per centre (mean)*	90	97	98	94	93	92
Primary cases per centre (Median)*	83	92	90	88	87	87

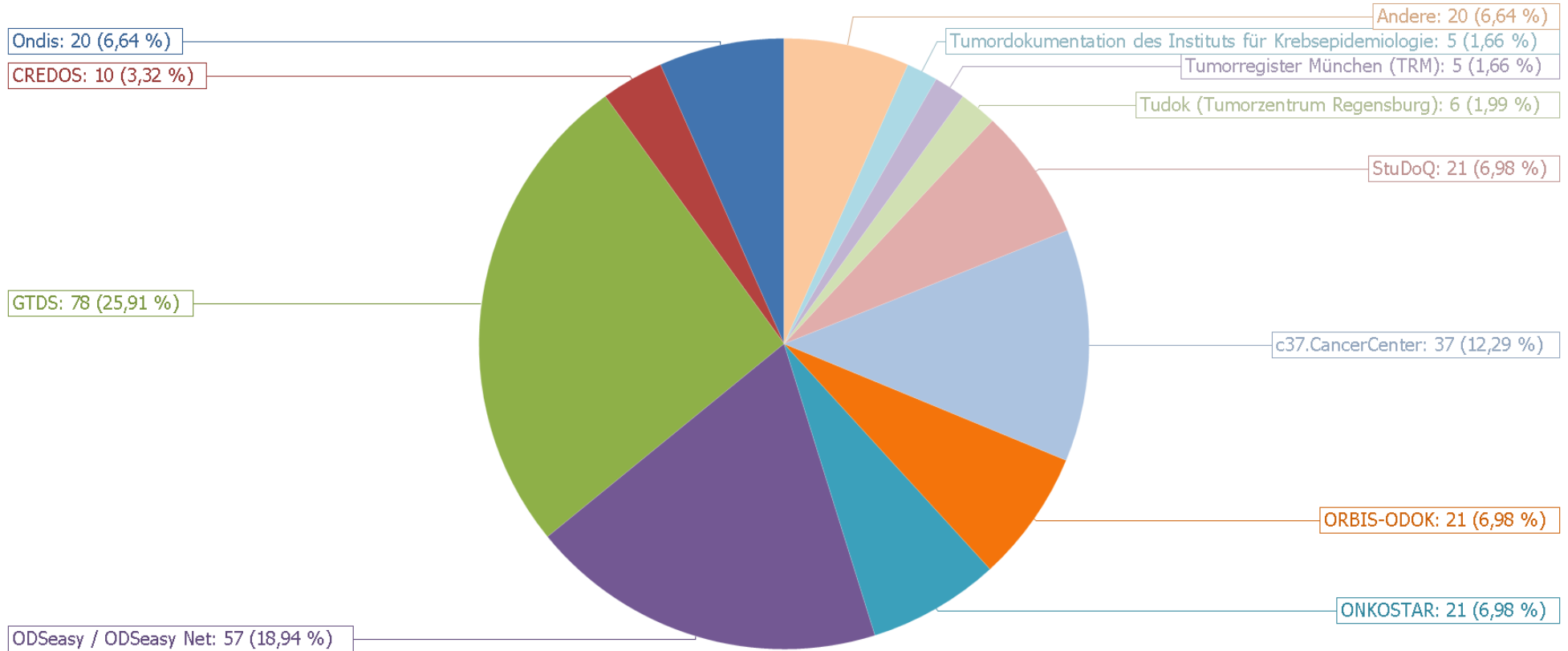
* The figures refer to all certified centres

This annual report looks at the colorectal cancer centres certified in the certification system of the German Cancer Society. The basis for the diagrams in the annual report is the data sheet.

301 of the 312 certified centre sites are included in the annual report. Excluded are 7 sites that were certified for the first time in 2021 (data mapping of complete calendar year not mandatory for initial certifications), one site for which the certificate was reinstated in 2021 and for which verification of the data did not take place for a complete calendar year, as well as 3 sites in non-European countries (connection to OncoBox not mandatory). A total of 29.246 primary cases were treated at the 312 sites. A current overview of all certified sites is shown at www.oncomap.de.

The indicators published here refer to the indicator year 2020. They represent the basis for evaluation for the audits carried out in 2021.

Tumour documentation systems used in CRCCs



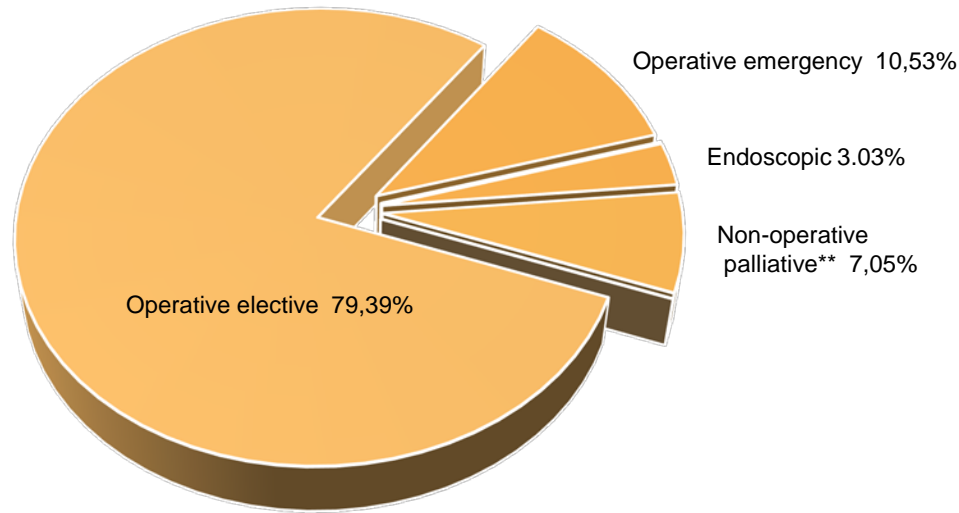
Andere = other

Legend:	
Other	System used in ≤ 4 clinical sites

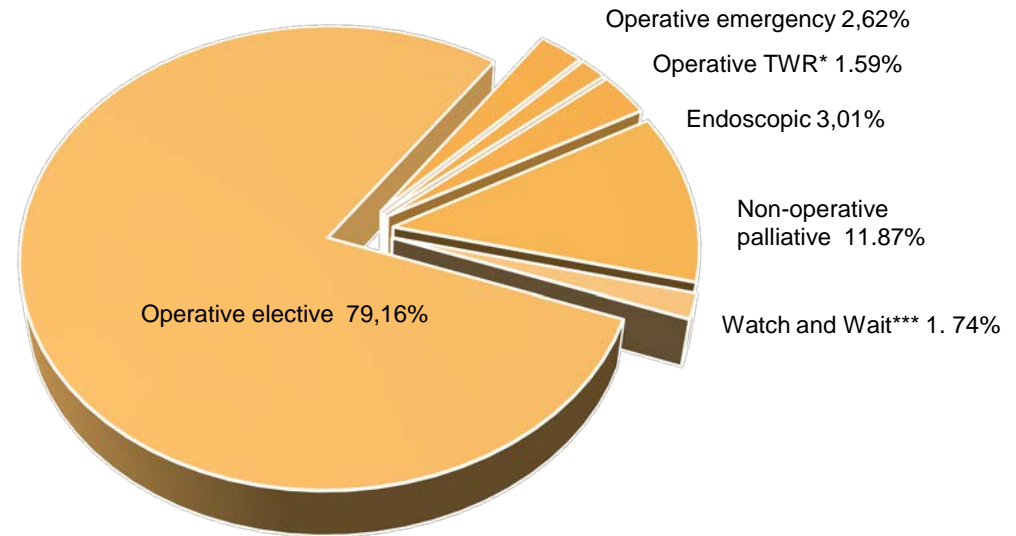
The details on the tumour documentation system were taken from the data sheet (spreadsheet basic data). It is not possible to use more than one system. In many cases support is provided by the cancer registries or there may be a direct connection to the cancer registry via a specific tumour documentation system.

Basic data

Colon



Rectum



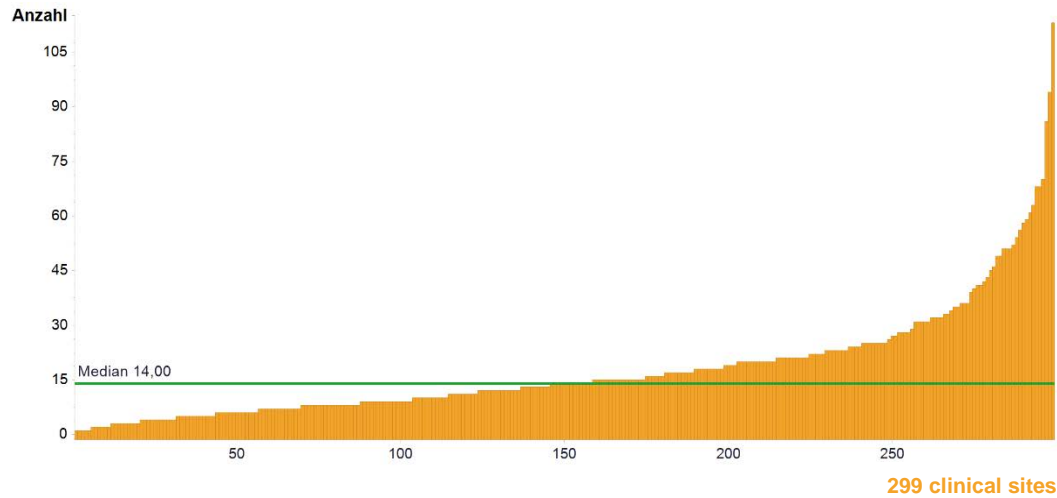
	Operative elective	Operative emergency	Operative TWR*	Endoscopic	Non-operative palliative **	Watch and Wait (Non-operative/non-endoscopic curative) ***	Total
Colon	13.962 (79,39%)	1.851 (10,53%)	---	533 (3,03%)	1.240 (7,05%)	0 (0,00%)	17.586 (100%)
Rectum	7.451 (79,16%)	247 (2,62%)	150 (1,59%)	283 (3,01%)	1.117 (11,87%)	164 (1,74%)	9.412 (100%)
Primary Cases Total	21.413	2.098	150	816	2.357	164	26.998

* Operative transanal wall resection (TWR)

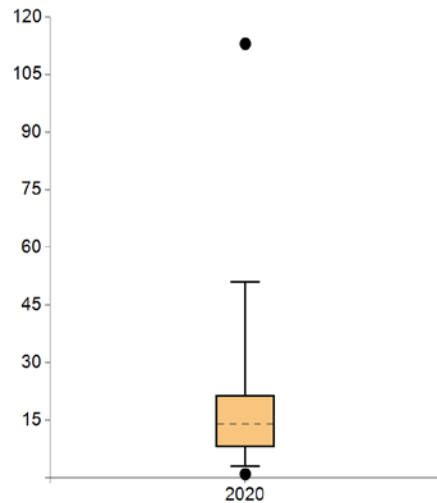
** Non-operative palliative: no tumour resection; palliative radiotherapy/chemotherapy or best supportive care

*** Watch and Wait (non-operative/non-endoscopic curative): complete tumour remission after planned neoadjuvant therapy and patient's foregoing of surgery

1. Patients with new recurrence and/or distant metastases



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numb	Patients with new recurrence and/or distant metastases	14	1 - 113	5285
	No target vaue			

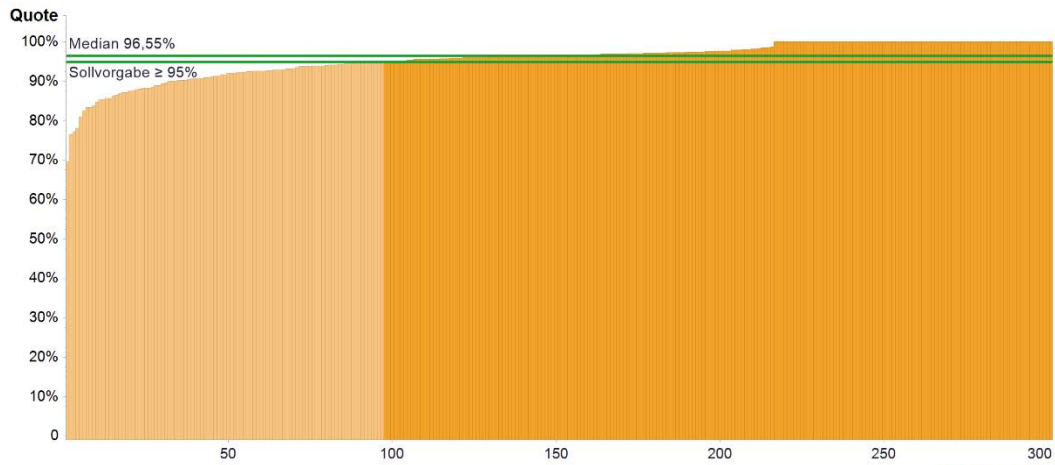


	2016	2017	2018	2019	2020
● Maximum	----	----	----	----	113,00
95 th percentile	----	----	----	----	51,00
75 th percentile	----	----	----	----	21,50
Median	----	----	----	----	14,00
25 th percentile	----	----	----	----	8,00
5 th percentile	----	----	----	----	3,00
● Minimum	----	----	----	----	1,00

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
299	99,34%	----	----

Comments:
 For the first time, the number of new recurrences or distant metastases was documented in the certified colorectal cancer centres. While the number of primary cases recorded in the annual report decreased by 5.6% (most likely due to Covid) despite 5 additional centres, such a comparison cannot be made here due to the lack of data from previous years. With a wide range, a median of 14 patients with recurrence or secondary distant metastasis were treated.

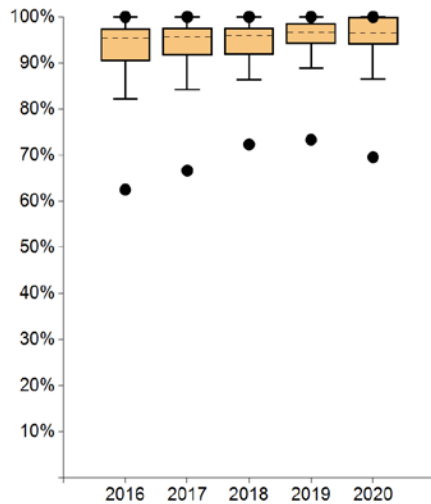
2a. Pre-therapeutic tumour board (GL QI)



301 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients presented at an interdisciplinary tumour board before therapy	35*	9 - 101	11471
Denominator	"Elective" patients with rectal carcinoma and "elective" patients with stage IV colon carcinoma	36*	10 - 107	12018
Rate	Target value $\geq 95\%$	96,55%	69,57% - 100%	95,45%**



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95th percentile	100%	100%	100%	100%	100%
75th percentile	97,47%	97,50%	97,61%	98,58%	100%
Median	95,35%	95,70%	95,96%	96,67%	96,55%
25th percentile	90,48%	91,67%	91,77%	94,09%	93,94%
5th percentile	82,15%	84,17%	86,36%	88,89%	86,42%
Minimum	62,50%	66,67%	72,34%	73,33%	69,57%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	204	67,77%

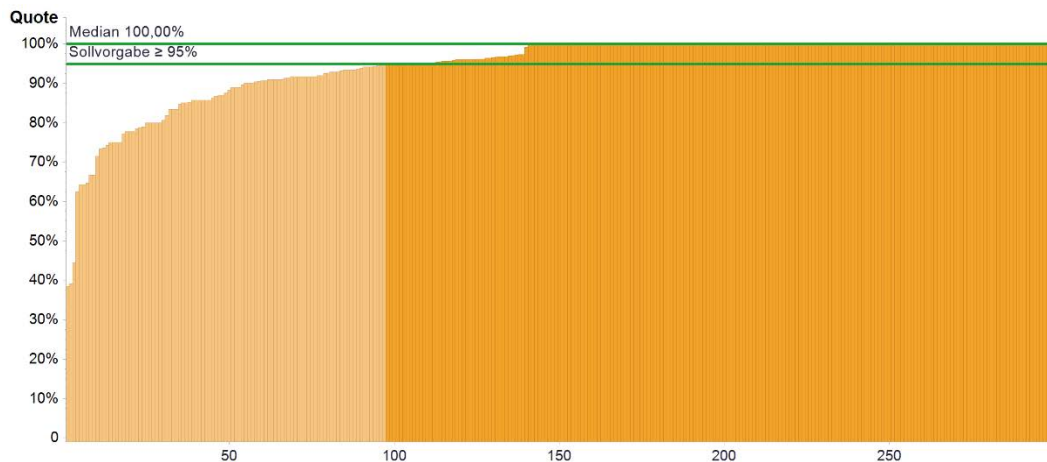
Comments:

The rates for pre-therapeutic tumour board presentation are approximately at the previous year's level. 97 centres failed to meet the 95% target. The most frequent reasons given by the centres were that (especially peritoneal) metastases of a colonic cancer were only detected intraoperatively (50 mentions), the malignancy diagnosis was made intraoperatively or postoperatively (e.g. initial diagnosis of diverticulitis) (40x), a carcinoma initially localised in the sigmoid colon turned out to be a rectal carcinoma (28x) or because the intervention was classified as urgent due to symptoms of stenosis (27x). 22 centres had missed the presentation in individual cases. The centres reacted with numerous measures (e.g. ad-hoc tumour boards, quality circles). In 2 cases, the subject matter expert issued a deviation.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

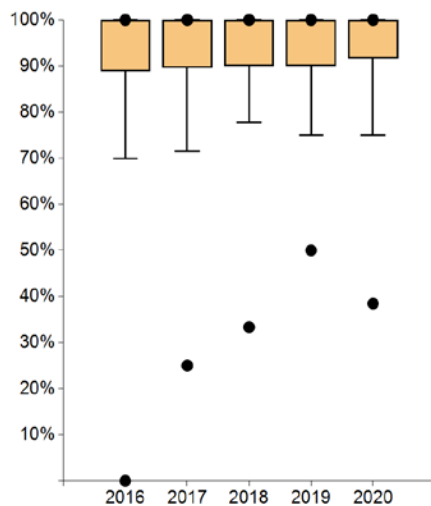
2b. Pre-therapeutic tumour board: recurrences/metachronous metastases



Sollvorgabe = target value

299 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator presented at the pre-therapeutic tumour board	13*	1 - 112	4964
Denominator	Patients with new recurrence and/or distant metastases (= Indicator 1)	14*	1 - 113	5285
Rate	Target value $\geq 95\%$	100%	38,46% - 100%	93,93%**



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	100%	100%	100%	100%	100%
25 th percentile	88,89%	89,66%	90,00%	90,00%	91,67%
5 th percentile	69,85%	71,43%	77,78%	75,00%	75,00%
Minimum	0,00%	25,00%	33,33%	50,00%	38,46%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
299	99,34%	202	67,56%

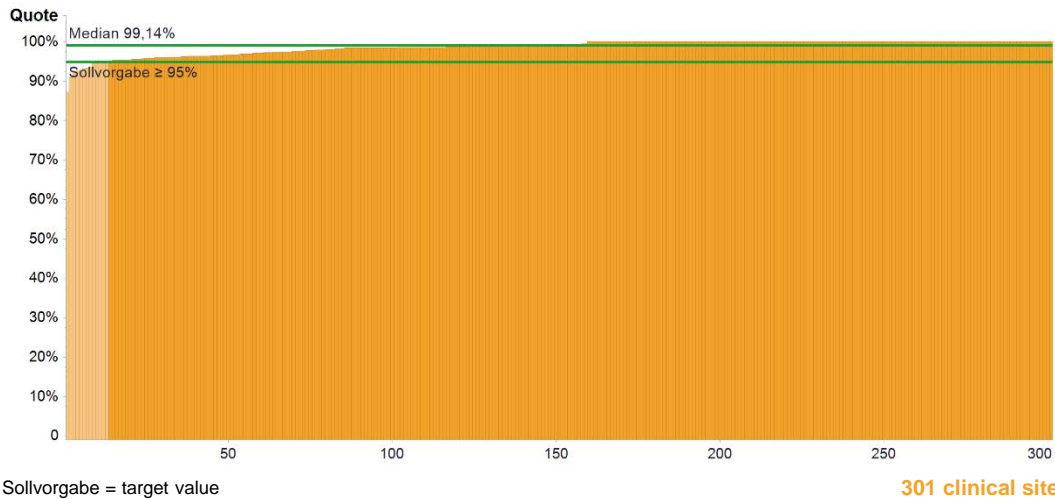
Comments:

The overall rate for this indicator improved slightly, and 12 fewer centres than in the previous year failed to meet the target. Of these, 28 stated that they had not presented patients pre-therapeutically due to emergency interventions (especially ileus). 24 centres referred to intra- or postoperatively diagnosed recurrences or metastases. 31 centres had missed the presentation of individual patients. Other reasons were patients who had died at the time of the tumour board and system therapies already in progress. The auditors pointed out that a presentation must also be made in the case of already existing metastasis or planned best supportive care (BSC). The centres communicated this requirement partly with training or the introduction of ad-hoc tumour boards.

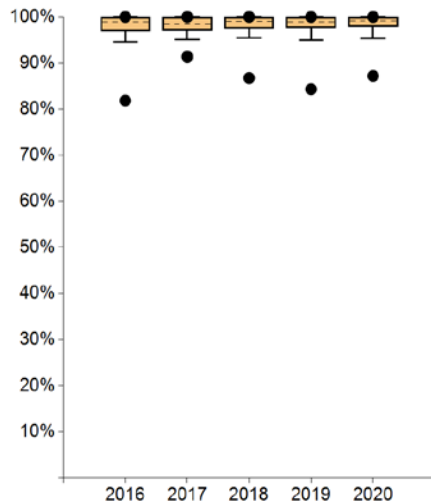
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

3. Post-operative tumour board



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator presented at the post-operative tumour board	74*	27 - 208	24135
Denominator	Surgical and endoscopic primary cases	76*	28 - 211	24477
Rate	Target value ≥ 95%	99,14%	87,18% - 100%	98,60%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	98,84%	98,45%	98,97%	98,83%	99,14%
25 th percentile	96,86%	97,01%	97,45%	97,59%	97,85%
5 th percentile	94,50%	95,01%	95,49%	94,93%	95,31%
● Minimum	81,82%	91,36%	86,73%	84,31%	87,18%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	288	95,68%

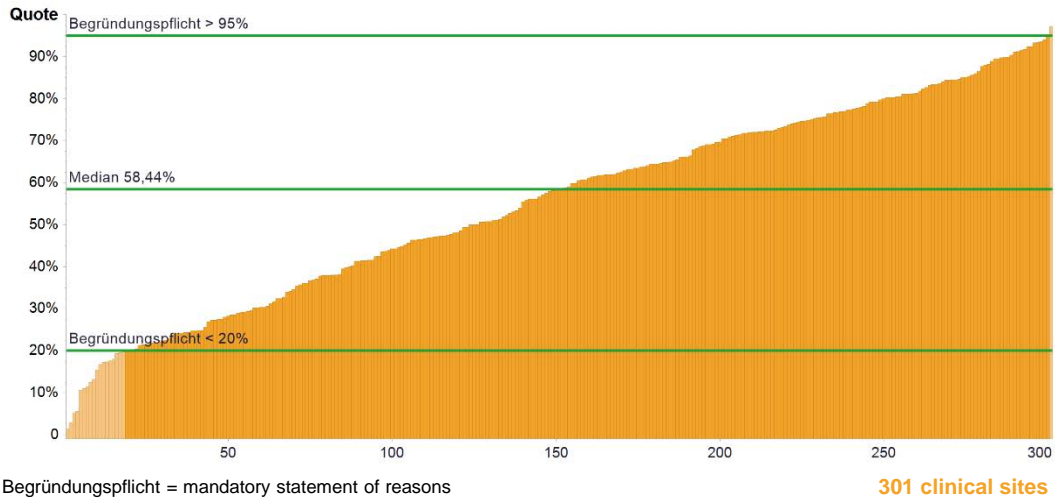
Comments:

The already very good postoperative presentation rates were further improved. 3 fewer centres than in the previous year failed to meet the target. Of these 13 centres, 12 referred to patients who died immediately postoperatively. In some cases, the presentation was missed. In the case of isolated justifications, such as patients refusing any further therapy or immediate postoperative transfer, the auditors reacted by pointing out the requirement for consistent presentation.

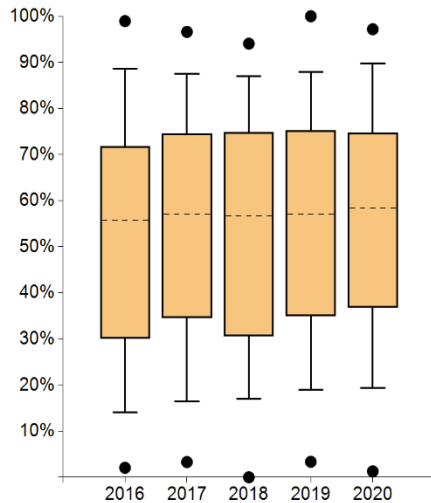
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

4. Psycho-oncological counselling



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who received psycho-oncological counselling in an inpatient or outpatient setting (duration of consultation ≥ 25 min)	56*	1 - 261	17204
Denominator	Total primary cases + patients with new recurrence and/or distant metastases (= Indicator 1)	97*	38 - 348	32283
Rate	Explanation mandatory*** <20% and >95%	58,44%	1,28% - 97,18%	53,29%**



	2016	2017	2018	2019	2020
● Maximum	98,94%	96,61%	94,05%	100%	97,18%
● 95 th percentile	88,58%	87,50%	86,96%	87,87%	89,77%
● 75 th percentile	71,73%	74,49%	74,75%	75,24%	74,67%
● Median	55,71%	57,11%	56,73%	57,05%	58,44%
● 25 th percentile	30,13%	34,58%	30,67%	34,92%	36,84%
● 5 th percentile	14,03%	16,51%	16,92%	19,01%	19,35%
● Minimum	2,06%	3,30%	0,00%	3,36%	1,28%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	282	93,69%

Comments:

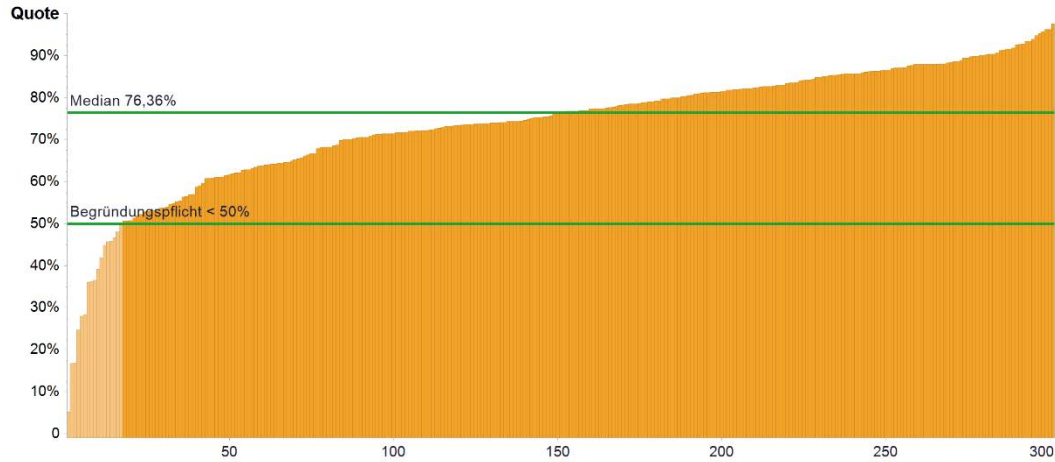
Despite sporadically reported Covid-related limitations in screening and patient contacts, the psycho-oncological care rate actually increased slightly overall. Of the 19 centres outside the plausibility corridor, one even exceeded a rate of 95%. Overall, these centres mainly referred to a low need for counselling on the part of the patients, and in some cases also to staff shortages. Many centres tried to optimise the screening rate through training and quality circles.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

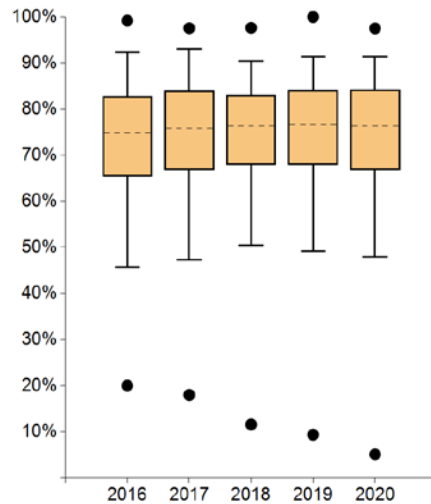
5. Social service counselling



Begründungspflicht = mandatory statement of reasons

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who received counselling by social services in an inpatient or outpatient setting	74*	10 - 248	23494
Denominator	Total primary cases + patients with new recurrence and/or metastases (= Indicator 1)	97*	38 - 348	32283
Rate	Explanation mandatory*** <50%	76,36%	5,10% - 97,50%	72,78%**



	2016	2017	2018	2019	2020
● Maximum	99,18%	97,54%	97,62%	100%	97,50%
95 th percentile	92,25%	93,12%	90,37%	91,28%	91,36%
75 th percentile	82,76%	83,90%	83,04%	84,10%	84,21%
Median	74,77%	75,84%	76,45%	76,61%	76,36%
25 th percentile	65,46%	66,78%	67,95%	67,93%	66,67%
5 th percentile	45,67%	47,29%	50,43%	49,19%	48,00%
● Minimum	20,00%	18,00%	11,57%	9,36%	5,10%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	284	94,35%

Comments:

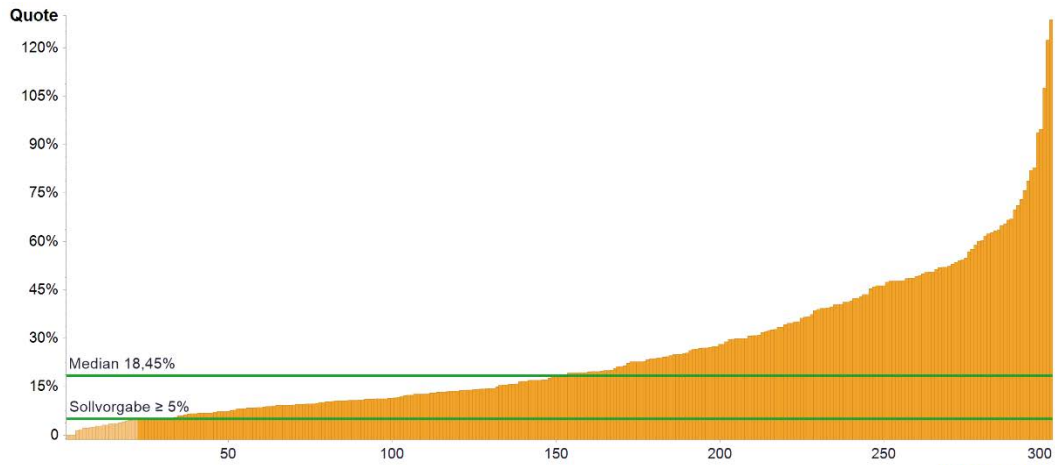
The counselling rate of the social service has slightly decreased compared to the previous year, especially in the lower percentage ranges. 17 centres (previous year: 9) were below a counselling rate of 50%. 9 of these were located outside of Germany with differing legal entitlements and responsibilities in these countries. The remaining centres primarily referred to the pandemic-related restrictions on contact and the resulting lower desire of patients for counselling. In some cases, wards were redesignated as Covid wards and the staff were deployed elsewhere. 3 centres carried out consultations by case managers to a relevant extent, which cannot be counted for the indicator.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

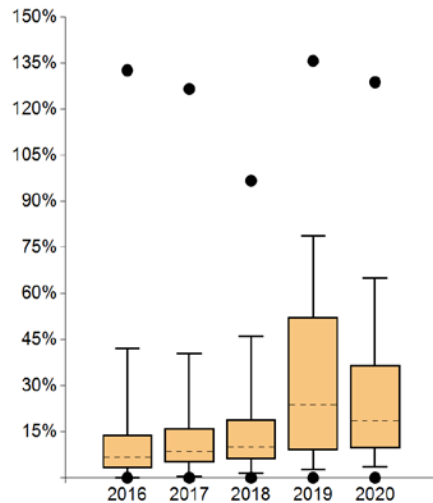
6. Study participation



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the CrCC included in a study or colorectal prevention study	15*	0 - 103	6700
Denominator	Total primary cases	83*	31 - 239	26998
Rate	Target value $\geq 5\%$	18,45%	0,00% - 128,75%	24,82%**



	2016	2017	2018	2019	2020
● Maximum	132,58%	126,53%	96,67%	135,64%	128,75%
95 th percentile	42,24%	40,33%	46,19%	78,65%	64,96%
75 th percentile	14,00%	16,18%	18,85%	52,28%	36,54%
Median	6,58%	8,53%	9,93%	23,63%	18,45%
25 th percentile	3,23%	5,10%	5,97%	9,02%	9,68%
5 th percentile	0,00%	0,48%	1,49%	2,61%	3,65%
● Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	279	92,69%

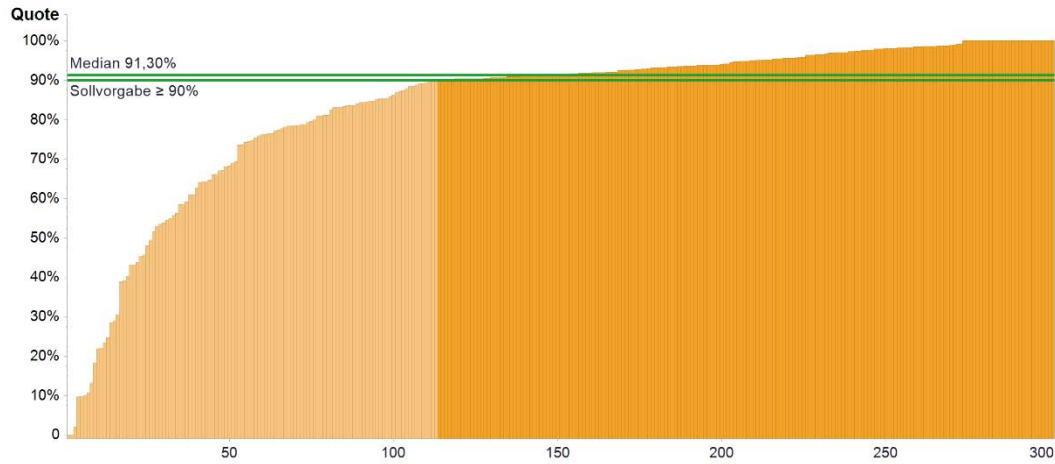
Comments:

The overall study quota has declined significantly, which is probably related to the exclusion of pure biobank collections, among other things. Nevertheless, 5 fewer centres than in the previous year failed to meet the target. Of these 22 centres, 7 reported pandemic-related recruitment stops as well as reluctance on the part of patients. In some cases, inclusion in a study not listed in the StudyBox and negative screening were also reasons for falling short of the target.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

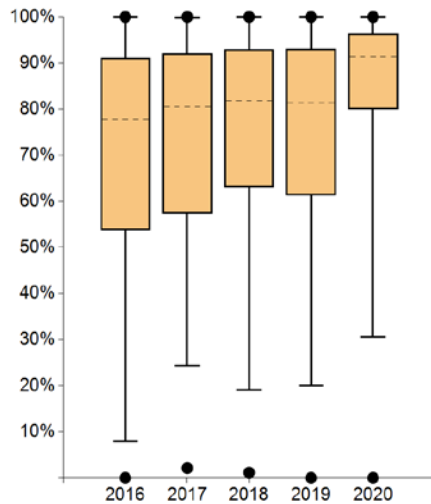
7. Colorectal carcinoma patients with a recorded family history (GL QI)



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Primary-case patients with a CRC and a completed patient questionnaire (http://www.krebsgesellschaft.de/deutschkrebsgesellschaft/wtrl/deutschkrebsgesellschaft/zertifizierung/erhebungsboegen/organkrebszentren.html in the colorectal cancer section)	72*	0 - 216	22619
Denominator	Total primary cases	83*	31 - 239	26998
Rate	Target value ≥ 90%	91,30%	0,00% - 100%	83,78%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	99,87%	100%	100%	100%
75 th percentile	91,07%	91,99%	92,99%	93,05%	96,33%
Median	77,78%	80,55%	81,82%	81,25%	91,30%
25 th percentile	53,82%	57,35%	62,97%	61,33%	80,00%
5 th percentile	7,96%	24,22%	19,10%	20,00%	30,56%
● Minimum	0,00%	2,13%	1,14%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	188	62,46%

Comments:

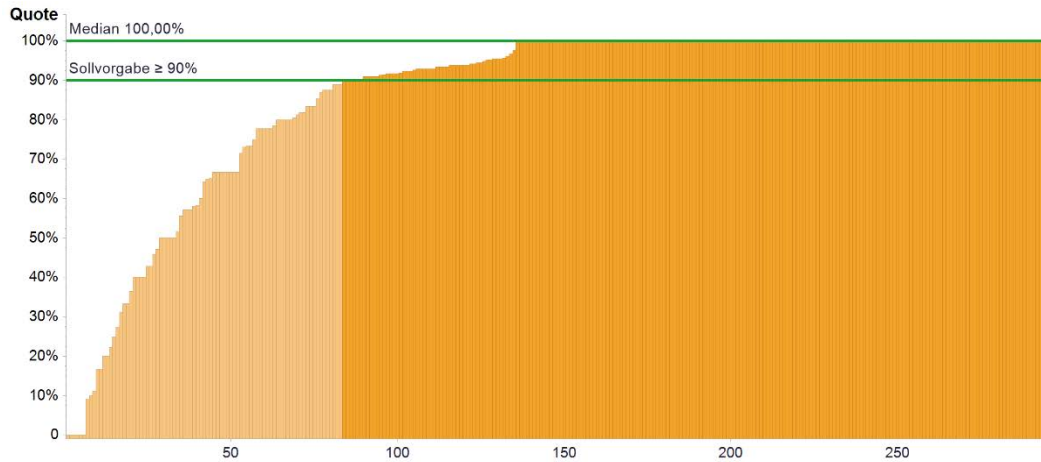
The obligation to justify <5% was changed into a minimum target of 90%. As a result, many more centres (123) failed to meet the target than in the previous year, although the indicator showed a very positive development. 23 of these centres referred to documentation problems (some of which had already been remedied by the time of the audit), 21 centres to more or less pronounced omissions. Other reasons were language barriers, demented patients, pandemic-related problems (fewer patient contacts, no visits for external anamnesis, transfer to wards not familiar with the processes). The centres reacted with training and process adjustments (especially by digitalising the questionnaires).

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

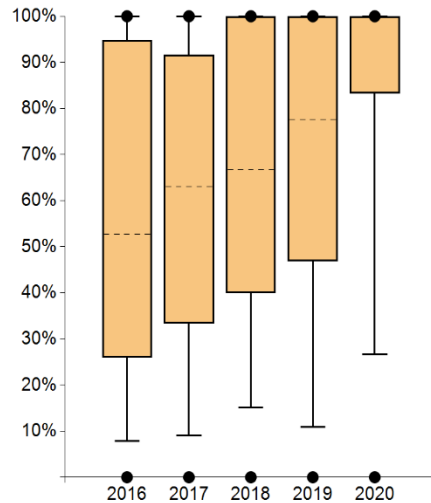
8. Genetic counselling



Sollvorgabe = target value

296 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Primary-case patients of the denominator advised to seek genetic counselling	8*	0 - 45	2952
Denominator	Primary cases with a positive patient questionnaire	10*	1 - 49	3442
Rate	Target value ≥90%	100%	0,00% - 100%	85,76%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	94,78%	91,58%	100%	100%	100%
Median	52,66%	63,01%	66,67%	77,53%	100%
25 th percentile	25,95%	33,33%	40,00%	46,83%	83,33%
5 th percentile	7,85%	9,10%	15,11%	10,85%	26,70%
● Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
296	98,34%	213	71,96%

Comments:

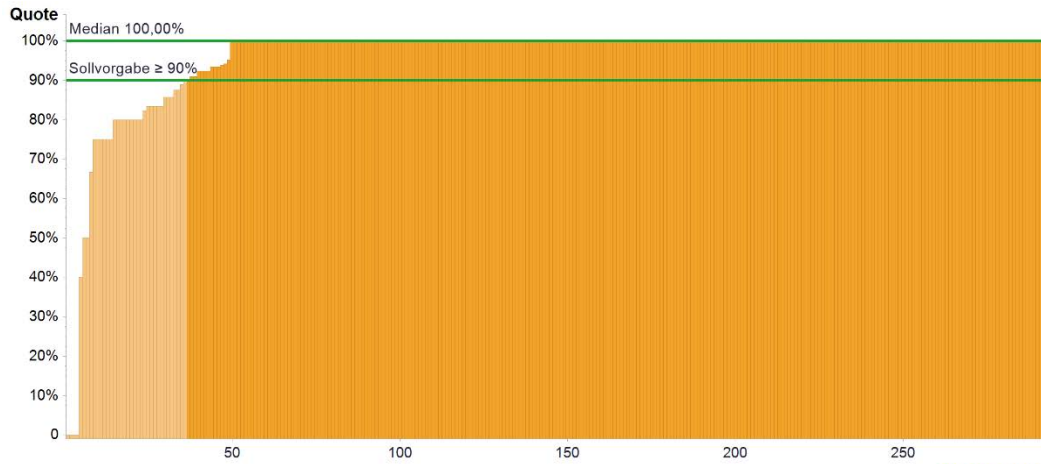
5 centres could not assign a patient to the denominator. Analogous to indicator 7, the consultation rate have increased significantly overall, although significantly more centres (83) became conspicuous due to the redefinition of the target value. 23 centres reported documentation errors, which were addressed, among other things, by adjusting the doctor's letter templates. Other centres referred to inconspicuous molecular pathological or immunohistochemical findings (14x), patients who died prematurely (16x) or omissions (17x). In many cases, the centres conducted training courses and quality circles on the topic.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

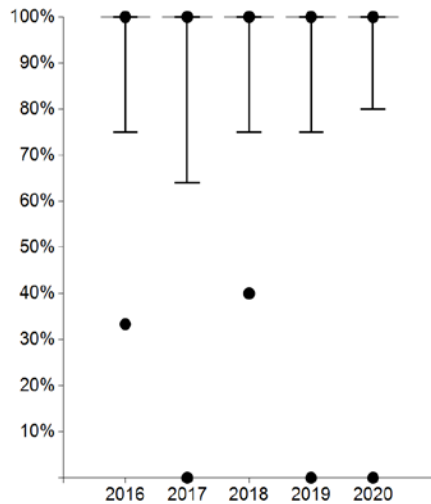
9. MMR assessment



Sollvorgabe = target value

294 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with immunohisto-chemical assessment of mismatch repair (MMR) proteins.	4*	0 - 20	1497
Denominator	Patients with initial CRC diagnosis < 50 years old	4,5*	1 - 21	1553
Rate	Target value ≥ 90%	100%	0,00% - 100%	96,39%**



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	100%	100%	100%	100%	100%
25 th percentile	100%	100%	100%	100%	100%
5 th percentile	75,00%	64,00%	75,00%	75,00%	80,00%
Minimum	33,33%	0,00%	40,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
294	97,67%	258	87,76%

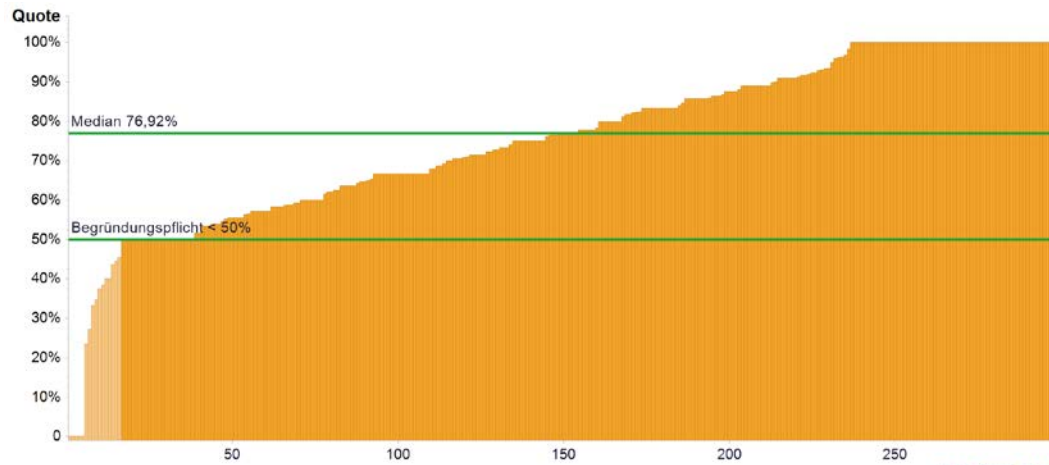
Comments:

The vast majority of centres (245) fully implemented this metric. 36 centres (5 fewer than in the previous year) determined the MMR proteins in less than 90% of the patients of the denominator. This was mostly due to the fact that no more tumour tissue was detectable (in the case of an external biopsy or neoadjuvant treatment) or that the examination was refused by the patient. The centres reacted, among other things, with quality circles and independent MMR determination on specimens examined externally. The 4 centres with a rate of 0% had only 1 patient in the denominator.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

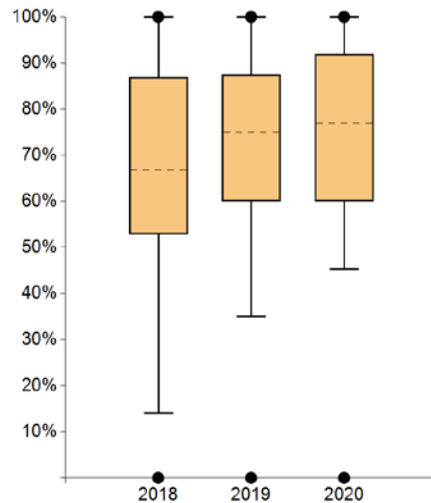
10. RAS- and BRAF-determination at the start of first-line treatment for metastasized CRC (GL QI)



Begründungspflicht = mandatory statement of reasons

298 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with RAS (= KRAS and NRAS mutations) and BRAF mutations at the start of first-line therapy	8*	0 - 98	3131
Denominator	Patients with metastatic CRC and first-line therapy	11*	1 - 109	4157
Rate	Explanation mandatory*** <50%	76,92%	0,00% - 100%	75,32%**



	2016	2017	2018	2019	2020
● Maximum	----	----	100%	100%	100%
95 th percentile	----	----	100%	100%	100%
75 th percentile	----	----	86,88%	87,50%	91,92%
Median	----	----	66,67%	75,00%	76,92%
25 th percentile	----	----	52,80%	60,00%	60,00%
5 th percentile	----	----	14,08%	35,00%	45,30%
● Minimum	----	----	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
298	99,00%	282	94,63%

Comments:

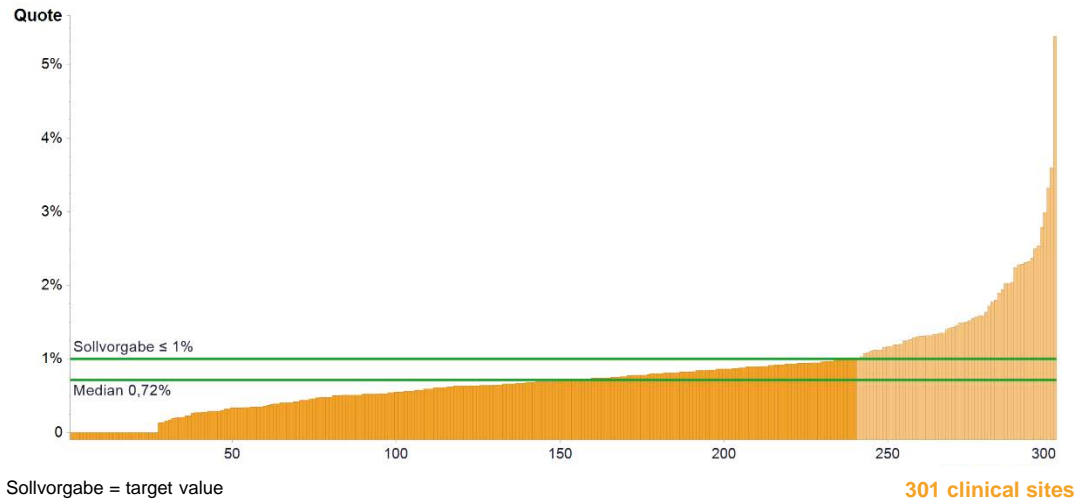
This still quite new indicator shows a further positive development, so that only 16 centres (previous year: 31) required justification. Frequently (7 mentions), the determination was made externally, which prompted the centres to improve the flow of information, e.g. with private practices. 6 centres stated that they had already started therapy before the findings were reported (e.g. due to high therapy pressure or long duration until the results). Many centres used their quotas as an opportunity to conduct quality circles.

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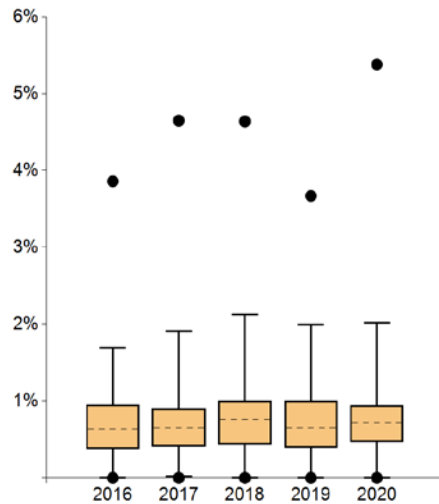
** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

11. Complication rate therapeutic colonoscopies



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Colonoscopies of the denominator with complications (bleeding requiring re-intervention (recolonoscopy, operation) or a transfusion and/or perforation)	2*	0 - 20	914
Denominator	Therapeutic colonoscopies with loop polypectomies per colonoscopic unit (not only patients CrCC)	346*	40 - 4238	125617
Rate	Target value ≤1%	0,72%	0,00% - 5,38%	0,73%**



	2016	2017	2018	2019	2020
Maximum	3,86%	4,65%	4,64%	3,67%	5,38%
95 th percentile	1,69%	1,91%	2,12%	1,99%	2,02%
75 th percentile	0,95%	0,90%	1,00%	1,00%	0,94%
Median	0,64%	0,65%	0,76%	0,66%	0,72%
25 th percentile	0,38%	0,41%	0,43%	0,39%	0,47%
5 th percentile	0,00%	0,02%	0,00%	0,00%	0,00%
Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	240	79,73%

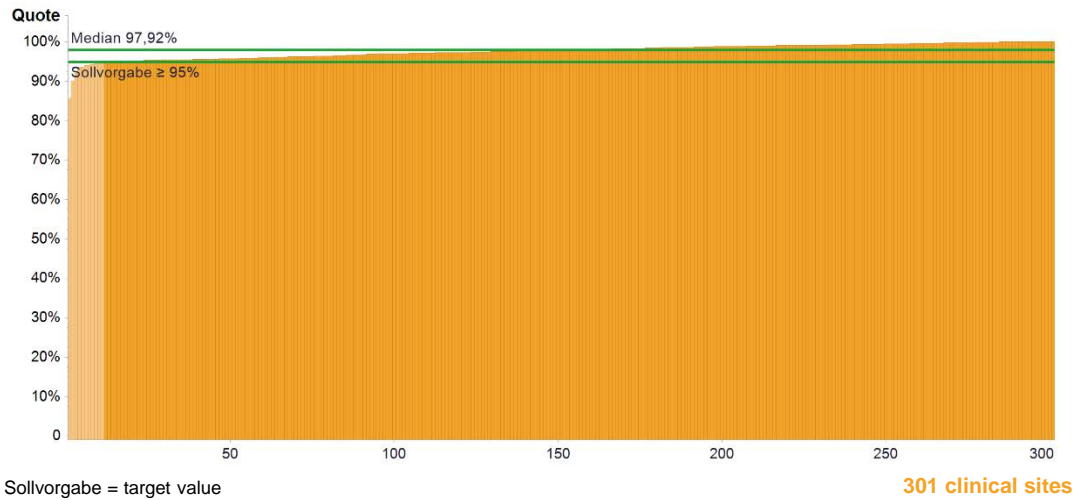
Comments:

The total number of therapeutic colonoscopies has decreased by 11% (probably due to Covid). The overall complication rate has remained constant. 27 centres recorded no complications at all. With 61 centres, 13 fewer missed the target than in the previous year. Bleeding (39x) was mentioned slightly more frequently than perforation (28x). In general, the centres concerned stated that they treated many high-risk patients (e.g. under continued anticoagulation) or complex findings (e.g. multiple/large polyps) who were referred by colleagues in private-practice. Some centres nevertheless conducted individual case analyses and M&M conferences. Systematic errors were not found.

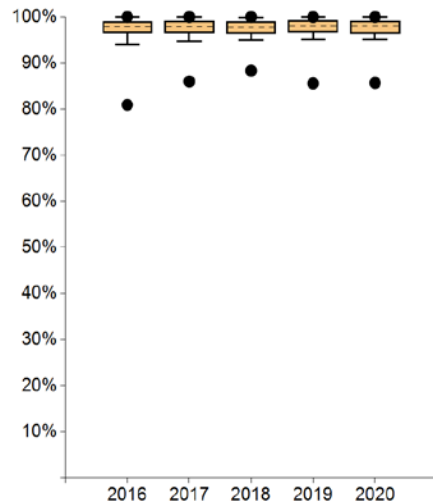
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

12. Complete elective colonoscopies



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Elective colonoscopies of the denominator which were completed	1237*	413 - 13412	440684
Denominator	Elective colonoscopies for each colonoscopy unit of the CrCC (not only CrCC patients) (Are counted: intention: complete colonoscopy)	1279*	417 - 13454	450028
Rate	Target value ≥ 95%	97,92%	85,68% - 100%	97,92%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	99,89%	99,88%	99,86%	100%	100%
75 th percentile	99,07%	99,17%	99,04%	99,22%	99,11%
Median	97,86%	97,89%	97,68%	97,95%	97,92%
25 th percentile	96,53%	96,48%	96,35%	96,61%	96,32%
5 th percentile	94,02%	94,71%	94,91%	95,05%	95,07%
● Minimum	80,91%	85,99%	88,32%	85,57%	85,68%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	290	96,35%

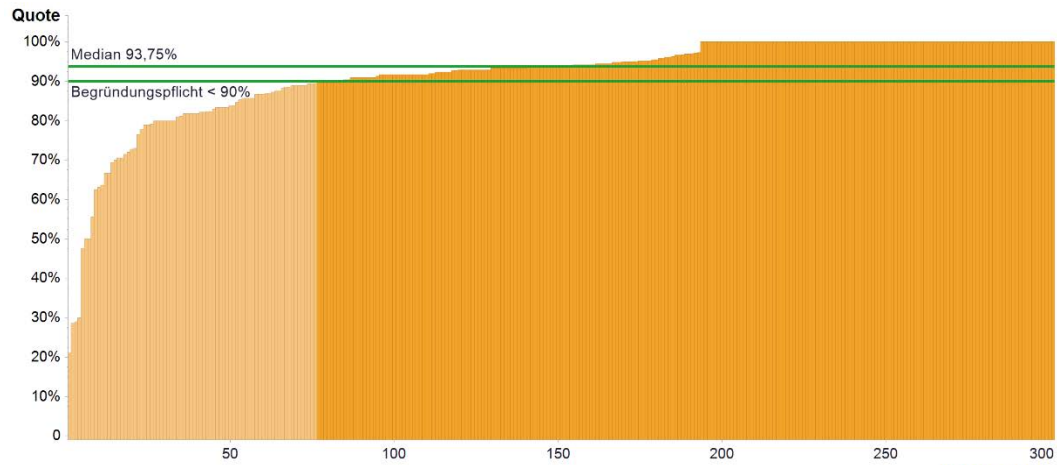
Comments:

Similar to indicator 11, elective colonoscopies decreased overall by 12.6% compared to the previous year. Results and degree of fulfilment of this indicator have remained almost constant at a high level. While 17 centres achieved 100%, 11 centres were below the 95% target, mostly due to bowel obstruction, stenosis and twisted/kinked bowel. No systematic problem was identified.

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** Percentage of centre patients who were treated according to the indicator.

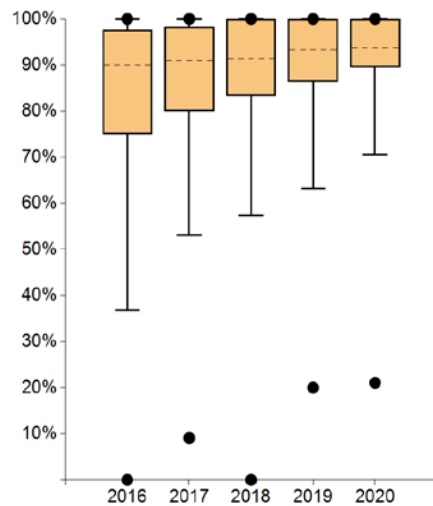
13. Information: distance mesorectal fascia of the lower and middle third (GL QI)



Begründungspflicht = mandatory statement of reasons

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with information on distance to mesorectal fascia in the radiological report	15*	1 - 62	4815
Denominator	Patients with RC of the middle and lower third and MRI or thin-slice CT of the pelvis	16*	1 - 70	5309
Rate	Explanation mandatory*** <90%	93,75%	21,05% - 100%	90,70%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
● 95 th percentile	100%	100%	100%	100%	100%
● 75 th percentile	97,56%	98,25%	100%	100%	100%
● Median	90,00%	90,91%	91,29%	93,33%	93,75%
● 25 th percentile	75,00%	80,00%	83,33%	86,36%	89,47%
● 5 th percentile	36,84%	53,08%	57,32%	63,12%	70,59%
● Minimum	0,00%	9,09%	0,00%	20,00%	21,05%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	225	74,75%

Comments:

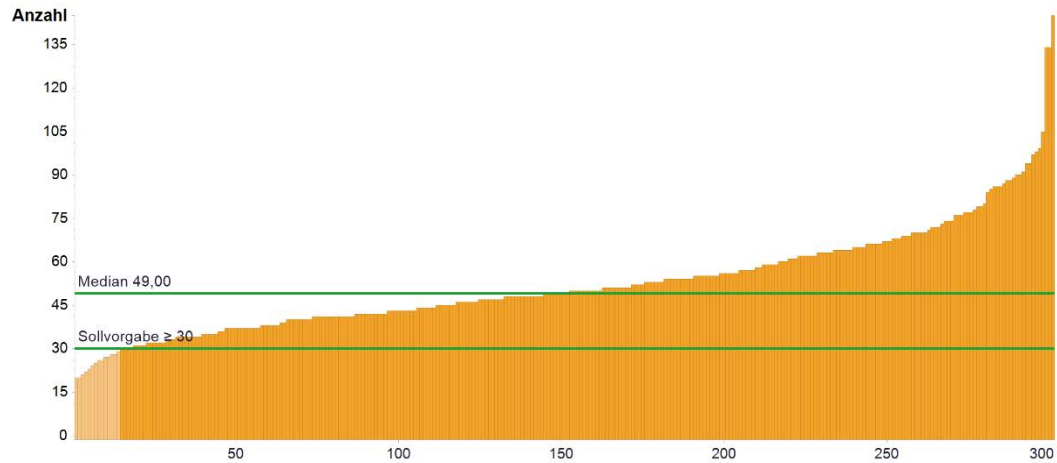
The positive trend in this indicator continues. 76 centres (previous year: 94) had to justify why the information was missing in the diagnostic report: 34 centres referred to external findings. Only in some cases were the radiologists at the centre prepared to provide a follow-up report; some refused to do so for legal reasons. Other frequent reasons were non-demarcatable fasciae/tumours (22x), tumours already ablated/resected (12x) and individual omissions (9x). Low rates were quite frequently discussed in quality circles, and standardised diagnostic reports of findings were sometimes newly implemented.

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** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

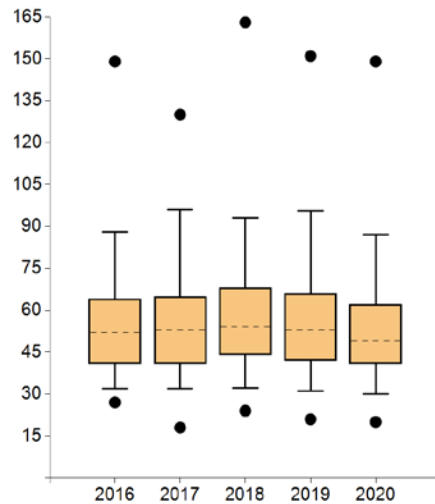
14. Surgical primary cases: colon



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Number	Surgical primary cases: colon	49	20 - 149	15813
	Target value ≥ 30			



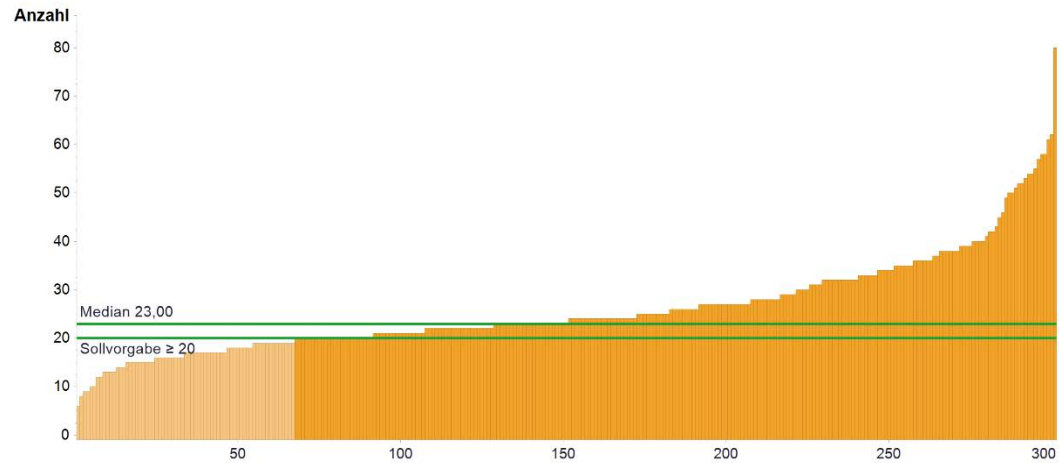
	2016	2017	2018	2019	2020
Maximum	149,00	130,00	163,00	151,00	149,00
95 th percentile	88,00	95,85	93,00	95,50	87,00
75 th percentile	64,00	65,00	68,00	66,00	62,00
Median	52,00	53,00	54,00	53,00	49,00
25 th percentile	41,00	41,00	44,00	42,00	41,00
5 th percentile	32,00	32,00	32,15	31,00	30,00
Minimum	27,00	18,00	24,00	21,00	20,00

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	287	95,35%

Comments:

The number of operative primary cases decreased by 5.85% due to Covid. Against this background, it is not surprising that 9 more centres than in the previous year failed to meet the target. All of them explained the declines with the pandemic, specifically with fewer colonoscopies, the re-functioning as corona wards as well as the patient's reluctance to stay in hospital.

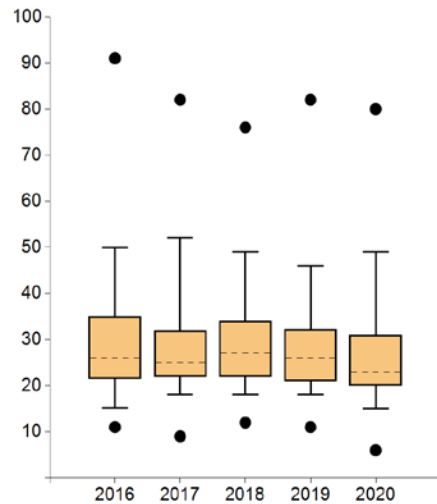
15. Surgical primary cases: rectum



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Number	Surgical primary cases: rectum (incl. trans anal wall resection)	23	6 - 80	7848
	Target value ≥ 20			



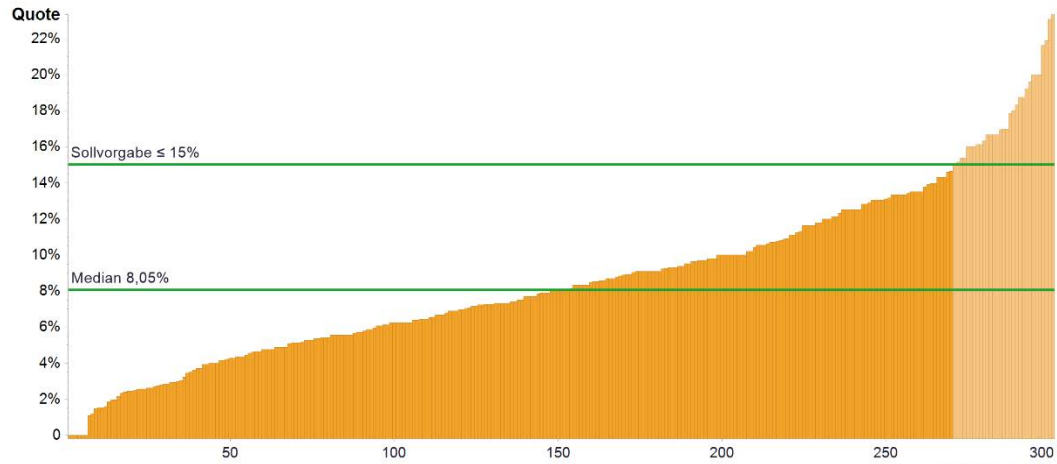
	2016	2017	2018	2019	2020
● Maximum	91,00	82,00	76,00	82,00	80,00
95 th percentile	49,90	52,00	49,00	46,00	49,00
75 th percentile	35,00	32,00	34,00	32,25	31,00
Median	26,00	25,00	27,00	26,00	23,00
25 th percentile	21,50	22,00	22,00	21,00	20,00
5 th percentile	15,10	18,00	18,00	18,00	15,00
● Minimum	11,00	9,00	12,00	11,00	6,00

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	234	77,74%

Comments:

With a decrease of 6.47%, the decline in rectal cancer - despite a higher number of centres - is even greater than in colon cancer (cf. indicator 14). With 77 centres, the number of centres below the target has more than doubled. 60 of them justified this with the pandemic. The increasing importance of total neoadjuvant therapy and a higher proportion of palliative patients were also mentioned in isolated cases. The centres were able to exclude the year 2020 from the calculation of the 3-year case numbers if a re-audit was due.

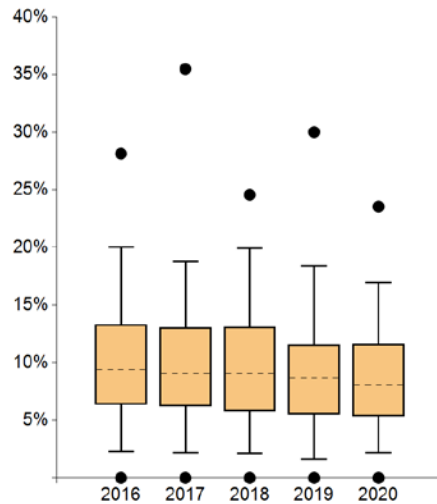
16. Revision surgery: colon



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Surgeries of the denominator with revision surgery due to perioperative complications within 30 d of surgery (not to be counted: diagnostic irrigation laparoscopies)	3*	0 - 18	1180
Denominator	Elective colon surgeries	43*	16 - 133	13962
Rate	Target value ≤ 15%	8,05%	0,00% - 23,53%	8,45%**



	2016	2017	2018	2019	2020
Maximum	28,13%	35,48%	24,56%	30,00%	23,53%
95 th percentile	20,00%	18,75%	19,92%	18,37%	16,98%
75 th percentile	13,29%	13,04%	13,07%	11,54%	11,63%
Median	9,38%	9,09%	9,09%	8,62%	8,05%
25 th percentile	6,40%	6,22%	5,79%	5,53%	5,36%
5 th percentile	2,29%	2,18%	2,14%	1,59%	2,17%
Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	270	89,70%

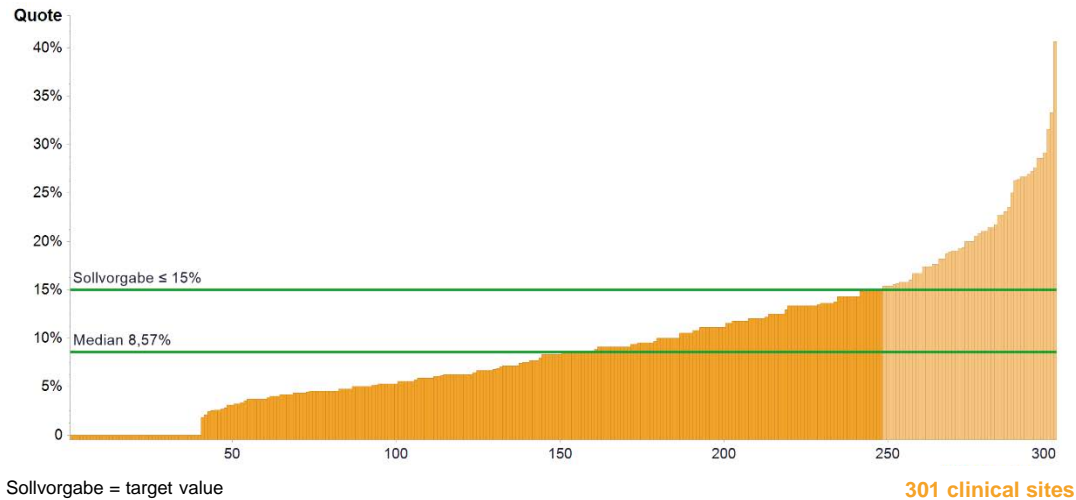
Comments:

The overall revision rate is slightly decreasing. 2 centres less than in the previous year were above 15%. The centres most frequently (26x) named anastomotic leakages as the cause, followed by abdominal obstruction (15x), bleeding (13x), ileus (10x) and perfusion problems (6x). The individual case analyses showed that the reasons were plausible in the vast majority of cases. Many centres conducted quality circles in this regard or drew up action plans.

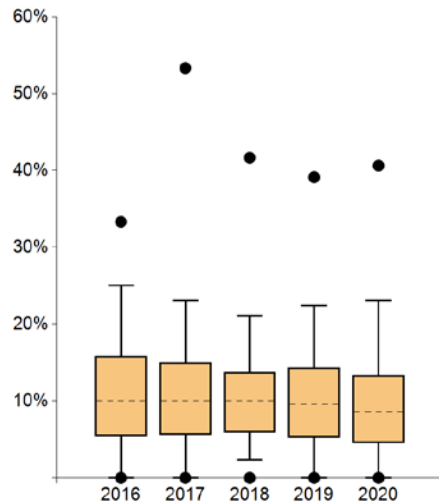
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

17. Revision surgery: rectum



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Surgeries of the denominator with revision surgery due to perioperative complications within 30 d of surgery (not to be counted: diagnostic irrigation laparoscopies)	2*	0 - 13	693
Denominator	Elective rectum surgeries (without transanal wall resection)	22*	5 - 77	7451
Rate	Target value ≤ 15%	8,57%	0,00% - 40,63%	9,30%**



	2016	2017	2018	2019	2020
Maximum	33,33%	53,33%	41,67%	39,13%	40,63%
95 th percentile	25,00%	23,03%	21,05%	22,44%	23,08%
75 th percentile	15,79%	15,00%	13,79%	14,29%	13,33%
Median	10,00%	10,00%	10,00%	9,52%	8,57%
25 th percentile	5,43%	5,56%	5,88%	5,26%	4,55%
5 th percentile	0,00%	0,00%	2,31%	0,00%	0,00%
Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	248	82,39%

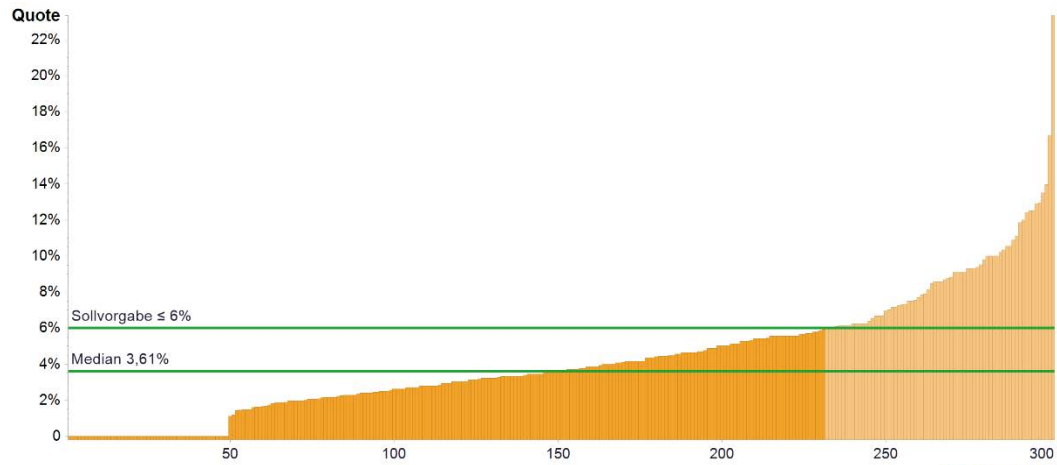
Comments:

The revision rate for rectal surgery has decreased quite significantly. The number of centres with a rate of >15% has also decreased from 69 to 53. With 33 mentions, anastomosis insufficiency is the most frequent complication in rectal revisions. The centres also reported wound healing disorders or infections (18x), ileus (21x), abdominal obstruction (11x) and bleeding (12x), among numerous other, less frequent reasons for revision. Systematic errors were not found in the audits. Measures taken by the centres included quality circles, M&M conferences or specific solutions such as recording surgeries for error analysis.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

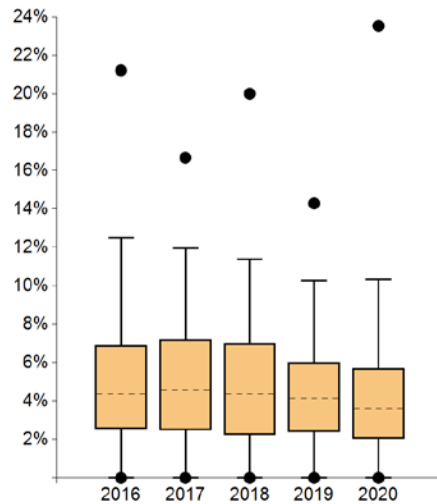
18. Anastomotic leakages: colon (GL QI)



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with colon anastomotic leakages requiring reintervention after surgery	1*	0 - 14	551
Denominator	Patients with CrC in whom anastomosis was performed in an elective tumour resection	41*	15 - 132	13342
Rate	Target value $\leq 6\%$	3,61%	0,00% - 23,53%	4,13%**



	2016	2017	2018	2019	2020
Maximum	21,21%	16,67%	20,00%	14,29%	23,53%
95 th percentile	12,50%	11,94%	11,38%	10,28%	10,34%
75 th percentile	6,90%	7,19%	7,00%	6,00%	5,71%
Median	4,35%	4,59%	4,35%	4,13%	3,61%
25 th percentile	2,56%	2,50%	2,24%	2,38%	2,04%
5 th percentile	0,00%	0,00%	0,00%	0,00%	0,00%
Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	231	76,74%

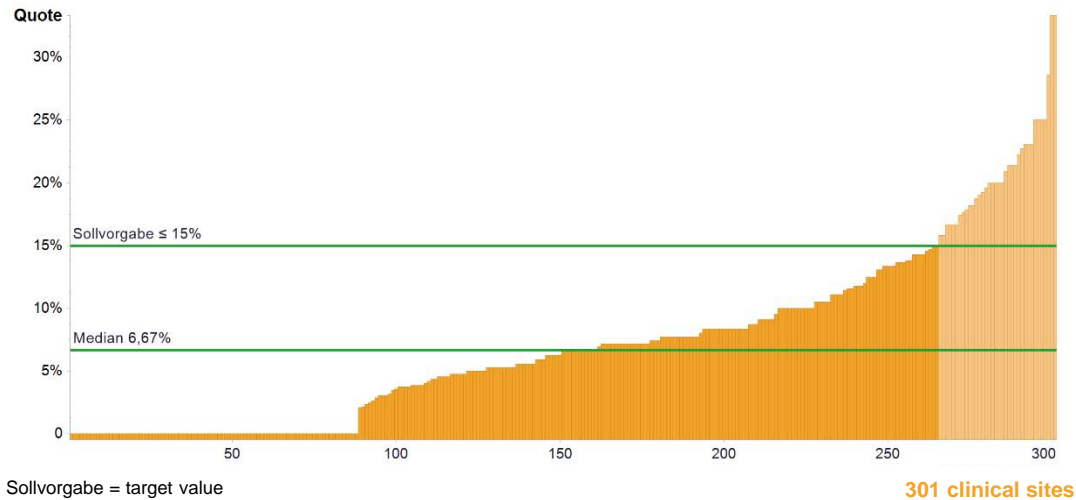
Comments:

The anastomosis insufficiency rate continues its positive trend and has further decreased. With 70 centres, 3 fewer than in the previous year failed to meet the target. In the audits, the centres referred 33 times to high-risk patients (especially multimorbidity) and 27 times to complex or extensive interventions. Other reasons such as error-prone staplers or a high bleeding tendency played a minor role. As a rule, a systematic error could not be identified. The centres often addressed the cases in M&M conferences or chose specific measures such as improved preoperative risk assessment, intraoperative ICG perfusion controls or more protective stomas.

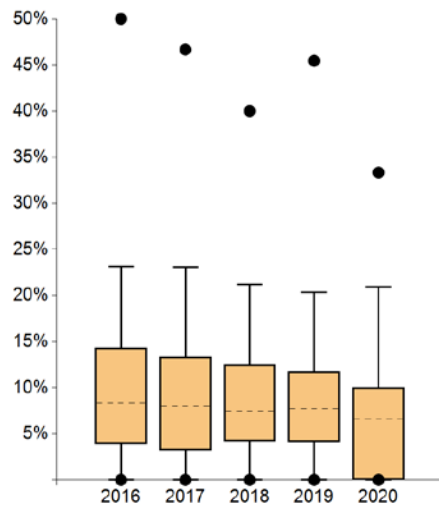
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

19. Anastomotic leakages: rectum (GL QI 9)



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with Grade B (requiring antibiotic administration or interventional drainage or transanal lavage/drainage or Grade C (re-)laparotomy)	1*	0 - 9	385
Denominator	Patients with RC in whom anastomosis was performed in an elective tumour resection	16*	2 - 69	5519
Rate	Target value ≤ 15%	6,67%	0,00% - 33,33%	6,98%**



	2016	2017	2018	2019	2020
Maximum	50,00%	46,67%	40,00%	45,45%	33,33%
95 th percentile	23,08%	23,03%	21,22%	20,36%	20,93%
75 th percentile	14,29%	13,33%	12,50%	11,76%	10,00%
Median	8,33%	7,95%	7,42%	7,69%	6,67%
25 th percentile	3,94%	3,21%	4,17%	4,13%	0,00%
5 th percentile	0,00%	0,00%	0,00%	0,00%	0,00%
Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	265	88,04%

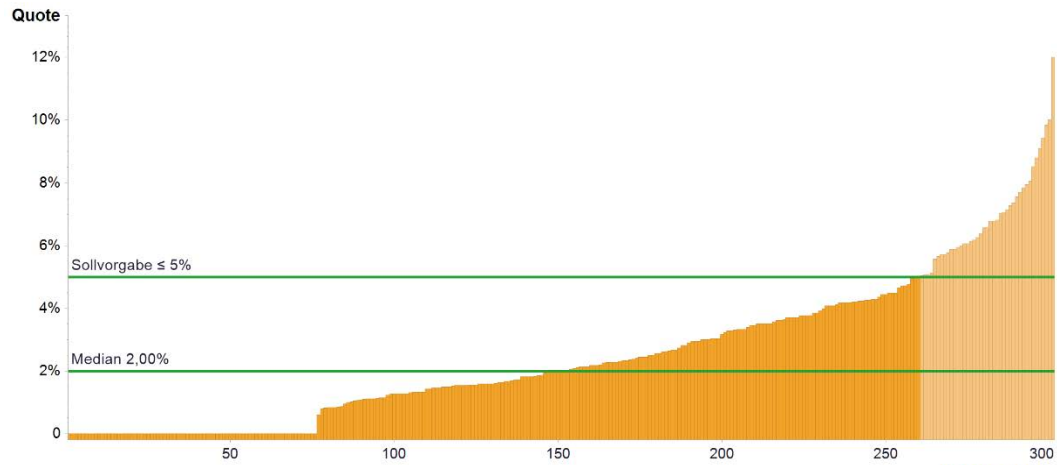
Comments:

The positive trend also continues in rectal cancer. While 88 centres had no anastomosis insufficiencies at all, 36 (previous year: 32) centres failed to meet the target of a maximum of 15%. In addition to the reasons already given for indicator 18, the centres referred in particular to neoadjuvant pretreated patients and deep anastomoses (partly without protective ileostoma). The two centres with a rate of 33.33% had only 3 and 6 patients respectively in the denominator.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

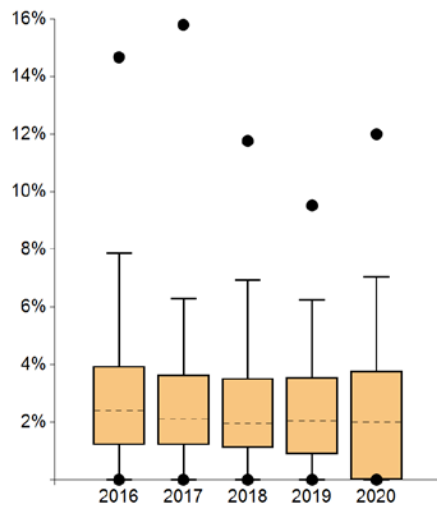
20. Post-operative mortality



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who died within 30d post-operative	1*	0 - 8	514
Denominator	Electively operated patients (without transanal wall resection)	67*	22 - 190	21413
Rate	Target value ≤ 5%	2,00%	0,00% - 12,00%	2,40%**



	2016	2017	2018	2019	2020
● Maximum	14,67%	15,79%	11,76%	9,52%	12,00%
95 th percentile	7,87%	6,30%	6,93%	6,25%	7,04%
75 th percentile	3,94%	3,64%	3,53%	3,57%	3,77%
Median	2,41%	2,13%	1,96%	2,04%	2,00%
25 th percentile	1,21%	1,22%	1,11%	0,89%	0,00%
5 th percentile	0,00%	0,00%	0,00%	0,00%	0,00%
● Minimum	0,00%	0,00%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	260	86,38%

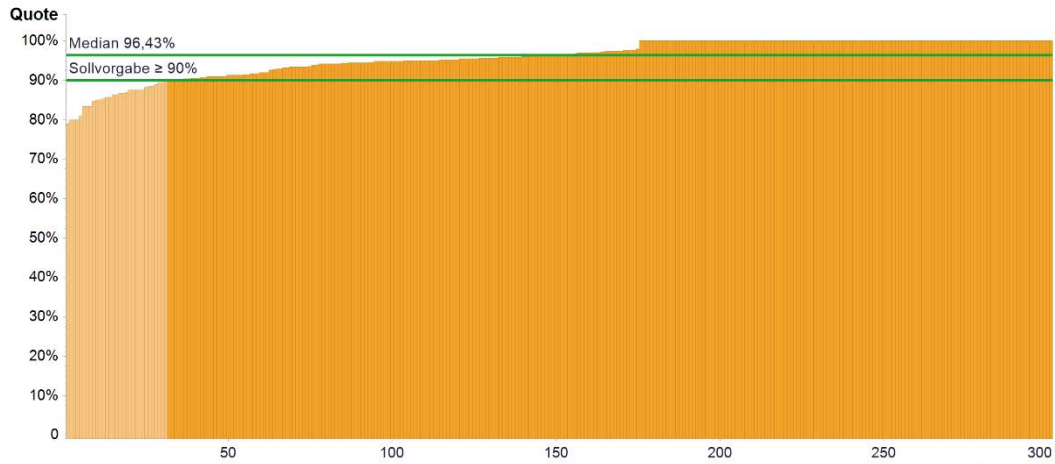
Comments:

The results of this indicator are roughly at the previous year's level, with 76 centres recording no deaths 30 days after surgery. 41 centres were above 5%, mostly attributing deaths to aspiration-related or nosocomial pneumonia (20 mentions), sepsis (18x), pulmonary embolism (9x) or peritonitis (9x). 4 centres reported a covid-related death. In addition to the individual case review in M&M conferences, some centres planned to intensify the preoperative cardiological work-up. In most cases, the experts did not find any systematic errors. In some cases, however, indications were given and individual case reviews were announced for the upcoming audit..

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

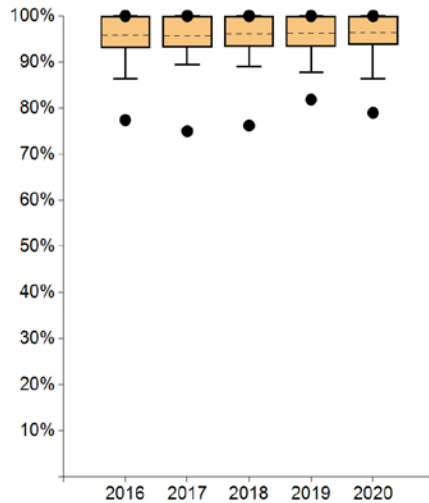
21. Local R0 resections: rectum



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Surgeries of the denominator with local R0 resections – after completion of surgical treatment	22*	5 - 75	7138
Denominator	Elective rectal-surgeries (surgical) (without transanal wall resection)	22*	5 - 77	7451
Rate	Target value $\geq 90\%$	96,43%	78,95% - 100%	95,80%* *



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	95,83%	95,65%	96,08%	96,30%	96,43%
25 th percentile	93,02%	93,16%	93,29%	93,27%	93,75%
5 th percentile	86,26%	89,32%	88,95%	87,79%	86,36%
● Minimum	77,42%	75,00%	76,19%	81,82%	78,95%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	270	89,70%

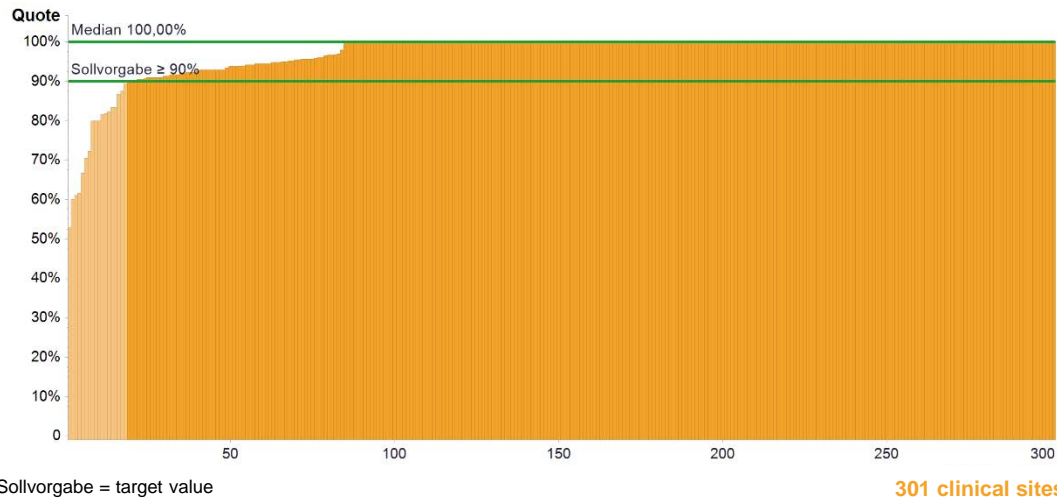
Comments:

The indicator is at the same high level as in previous years, with almost 90% of the centres meeting the target. The remaining 31 explained in the audits that an R0 resection was not possible in the case of known metastasis or infiltrating growth. Sometimes peritoneal carcinomatosis was only diagnosed intraoperatively. The reasons given by the centres could almost always be plausibilised in the audits. Occasionally, measures such as routine frozen sections were recommended.

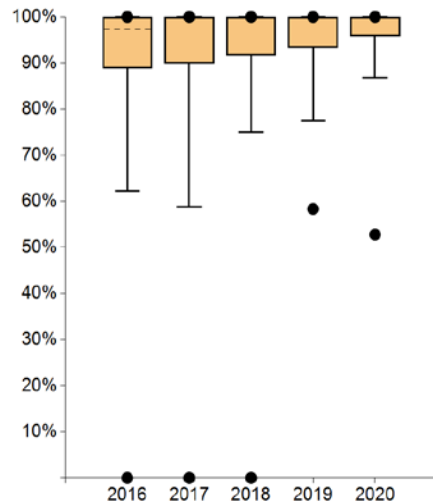
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

22. Marking of stoma position (GL QI)



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with preoperative marking of the stoma position	16*	2 - 76	5403
Denominator	Patients with RC who have undergone elective surgery with stoma system (without TWR)	17*	3 - 76	5571
Rate	Target value ≥ 90%	100%	52,78% - 100%	96,98%* *



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	97,30%	100%	100%	100%	100%
25 th percentile	88,89%	89,87%	91,67%	93,33%	95,83%
5 th percentile	62,23%	58,81%	75,00%	77,51%	86,67%
Minimum	0,00%	0,00%	0,00%	58,33%	52,78%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	283	94,02%

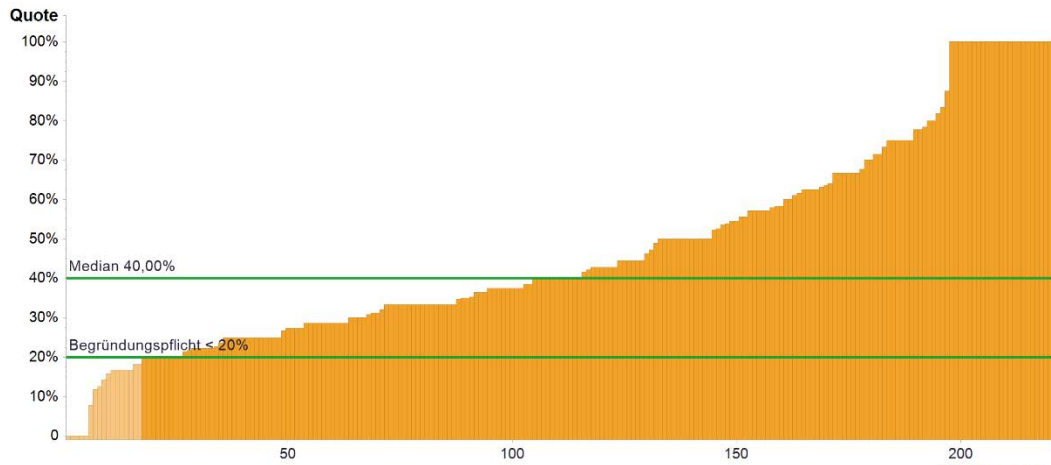
Comments:

The recommendation behind this QI of the guideline has become established over the years and is now very well fulfilled by the centres. Only 4 centres marked the stoma position preoperatively in less than 70% of elective rectal surgeries with stoma placement. The reasons for this were very different and ranged from documentation errors to omissions to only intraoperative decisions for stoma placement. One centre adapted its surgical checklist and dealt with the topic in a quality circle.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

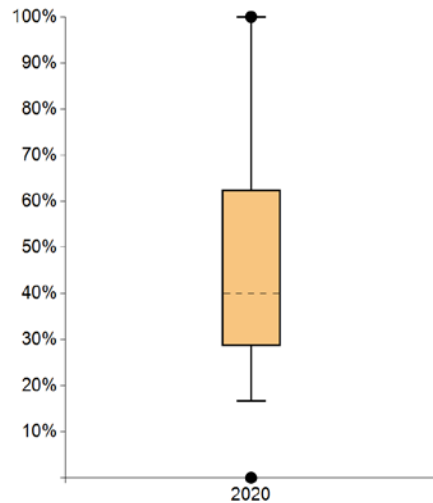
23a. Liver metastasis resection



Sollvorgabe = target value

220 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who have had a liver metastasis resection	4*	0 - 29	1064
Denominator	Patients of the Centre with metastatic CRC and 1. exclusive liver metastasis without liver-specific chemotherapy or 2. exclusive liver metastasis, who have received chemotherapy for liver metastasis	9*	1 - 49	2396
Rate	Explanation mandatory*** <20%	40,00%	0,00% - 100%	44,41%**



	2016	2017	2018	2019	2020
● Maximum	----	----	----	----	100%
95 th percentile	----	----	----	----	100%
75 th percentile	----	----	----	----	62,50%
Median	----	----	----	----	40,00%
25 th percentile	----	----	----	----	28,57%
5 th percentile	----	----	----	----	16,67%
● Minimum	----	----	----	----	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
220	73,09%	203	92,27%

Comments:

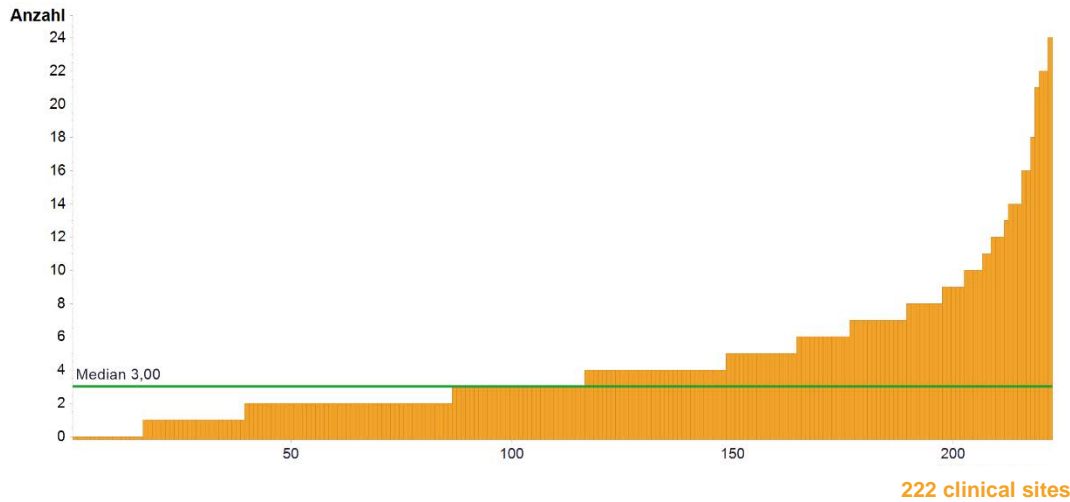
The indicator was collected in this form for the first time and on a voluntary basis. Of the 220 centers providing data, 203 performed liver metastasis resection in at least 20% of the denominator patients. The remaining 17 centres mostly referred to patients who were inoperable due to diffuse, multiple or unfavourably located metastases. Sometimes the patients also refused the operation or had already died before a possible operation. In the future, a broader data basis will be available with a mandatory documentation of the indicator.

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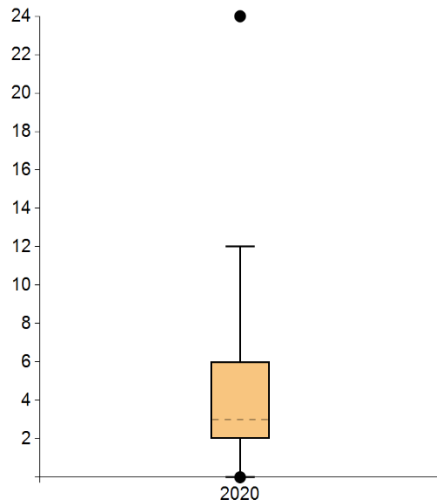
** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

23b. Liver metastasis resection at the surgical site of the CRCC



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Liver metastasis resection performed at the surgical site of the Colorectal Cancer Centre (subset of numerator 23a)	3	0 - 24	979
	No target value			



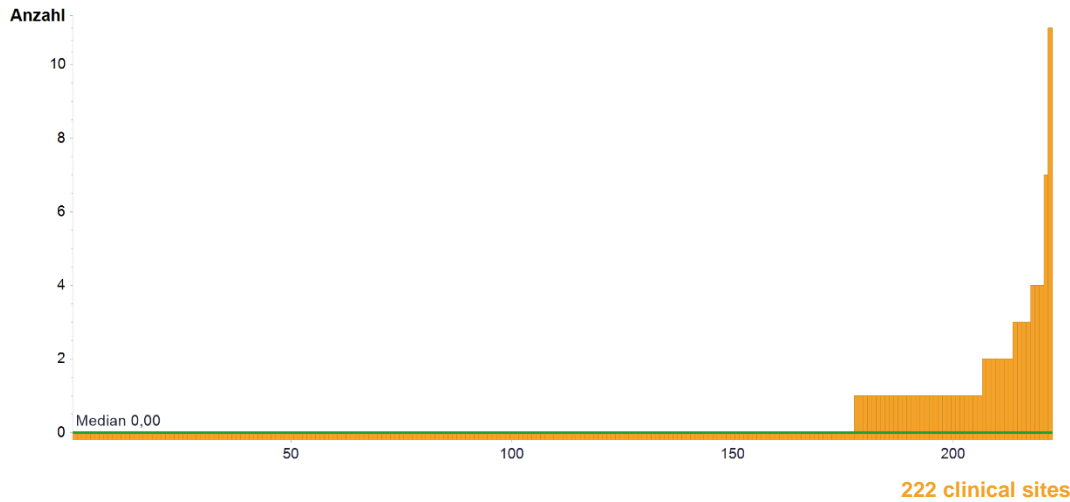
	2016	2017	2018	2019	2020
● Maximum	----	----	----	----	24,00
95 th percentile	----	----	----	----	12,00
75 th percentile	----	----	----	----	6,00
Median	----	----	----	----	3,00
25 th percentile	----	----	----	----	2,00
5 th percentile	----	----	----	----	0,00
● Minimum	----	----	----	----	0,00

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
222	73,75%	----	----

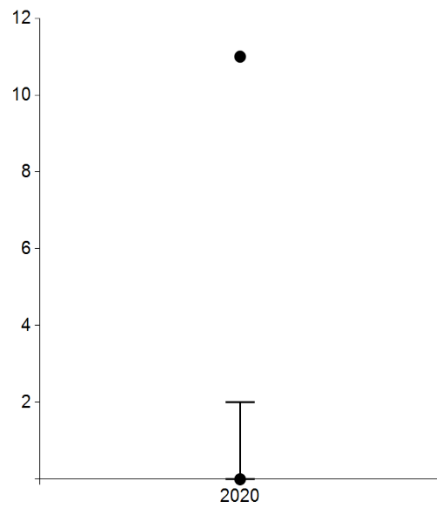
Comments:

Of the 1064 liver metastasis resections (cf. indicator 23a), 979 (92.01%) were performed at the centre site. On median, the centres performed 3 such operations.

23c. Liver metastasis resection outside the surgical site the CRCC



	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Liver metastasis resection performed outside the surgical site of the Colorectal Cancer Centre (subset of numerator 23a)	0	0 - 11	85
	No target value			



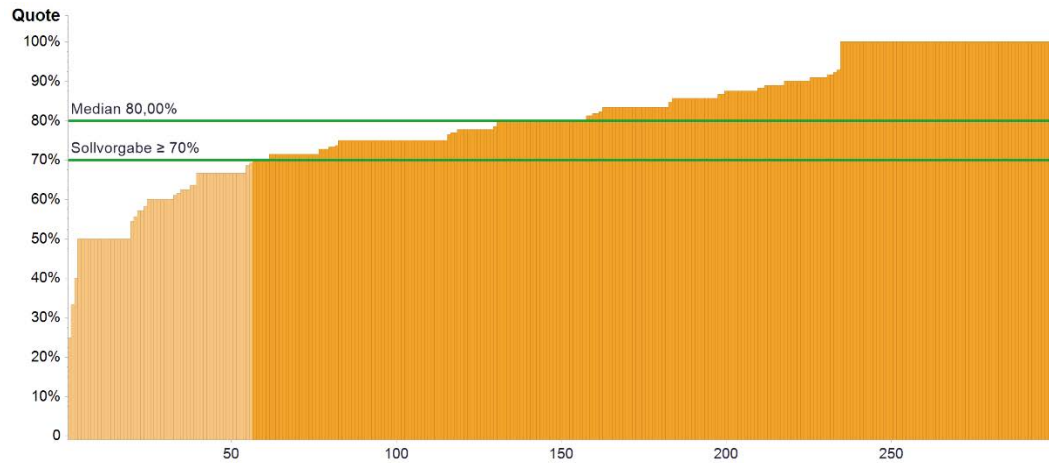
	2016	2017	2018	2019	2020
● Maximum	----	----	----	----	11,00
95 th percentile	----	----	----	----	2,00
75 th percentile	----	----	----	----	0,00
Median	----	----	----	----	0,00
25 th percentile	----	----	----	----	0,00
5 th percentile	----	----	----	----	0,00
● Minimum	----	----	----	----	0,00

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
222	73,75%	----	----

Comments:

Only a minority of liver metastasis resections of 7.99% were performed by another hospital. At 175 of the 222 centres, not a single patient was sent externally. 2 centres stand out with 7 and 11 transfers respectively.

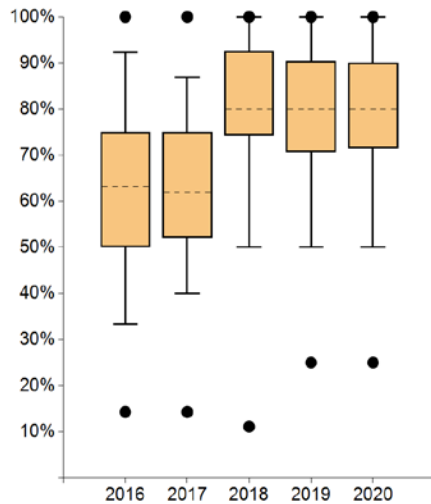
24. Adjuvant chemotherapies: colon (UICC stage III) (GL QI)



Sollvorgabe = target value

299 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who have received adjuvant chemotherapy	6*	1 - 20	1907
Denominator	Patients ≤ 75 years with a colon carcinoma UICC Stad. III, in whom an R0 resection of the primary tumour was performed	7*	1 - 22	2369
Rate	Target value ≥ 70%	80,00%	25,00% - 100%	80,50%* *



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	92,25%	86,87%	100%	100%	100%
75 th percentile	75,00%	75,00%	92,59%	90,46%	90,00%
Median	63,16%	62,02%	80,00%	80,00%	80,00%
25 th percentile	50,00%	52,03%	74,34%	70,72%	71,43%
5 th percentile	33,33%	40,00%	50,00%	50,00%	50,00%
● Minimum	14,29%	14,29%	11,11%	25,00%	25,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
299	99,34%	243	81,27%

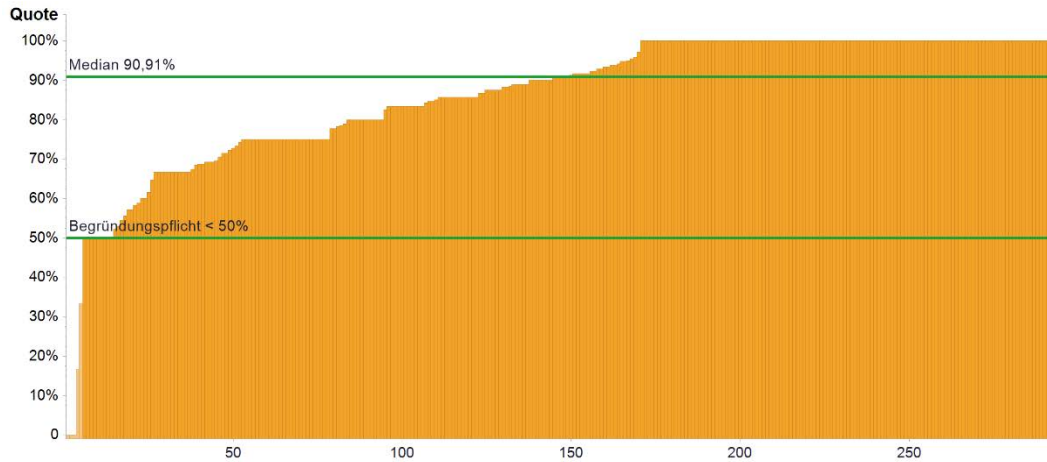
Comments:

The implementation of this guideline QI continues to improve to now over 80%. 56 centres (previous year: 69) failed to meet the target, whereby the partly low patient numbers in the denominator must be taken into account. 39 centres stated that patients had refused adjuvant chemotherapy. In addition, multimorbidity or poor general condition (26 mentions) and patients who died prematurely (13 mentions) were frequent reasons. A systematic error was not identified in the audits. The deceased patients in particular were discussed in quality circles.

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** Percentage of centre patients who were treated according to the indicator.

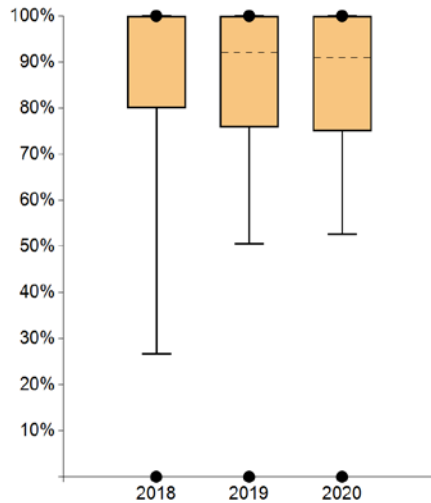
25. Combination chemotherapy for metastasised CRC with systemic first-line treatment (GL QI)



Begründungspflicht = mandatory statement of reasons

292 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with combination chemotherapy	7*	0 - 49	2505
Denominator	Patients with metastatic CRC, ECOG 0-1 and systemic first-line chemotherapy	8*	1 - 49	2911
Rate	Explanation mandatory*** <50%	90,91%	0,00% - 100%	86,05%*



	2016	2017	2018	2019	2020
Maximum	----	----	100%	100%	100%
95 th percentile	----	----	100%	100%	100%
75 th percentile	----	----	100%	100%	100%
Median	----	----	100%	91,99%	90,91%
25 th percentile	----	----	80,00%	75,89%	75,00%
5 th percentile	----	----	26,66%	50,60%	52,59%
Minimum	----	----	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
292	97,01%	287	98,29%

Comments:

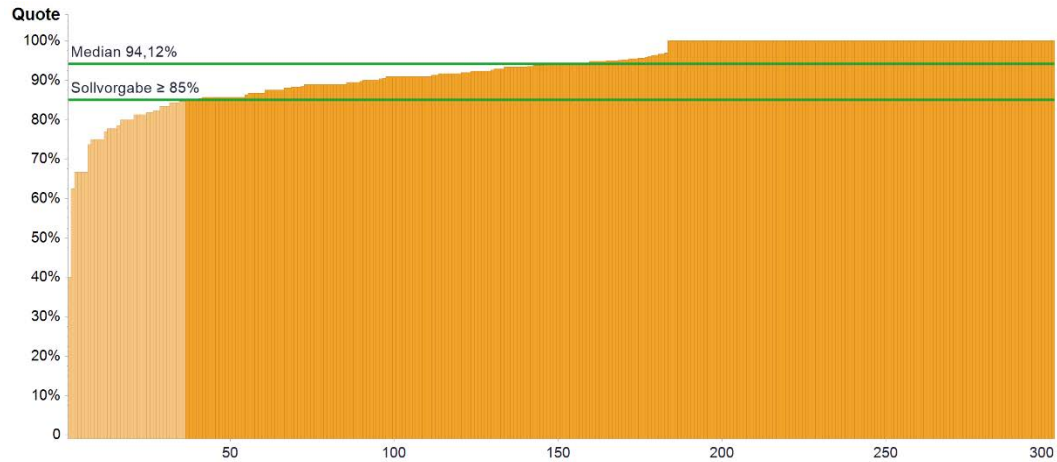
With the exception of 5 centres, all centres were above a quota of 50% combination chemotherapies in patients of the denominator. This means that the ratio is approximately at the previous year's level. The centres with rates below 50% referred to individual case decisions, e.g. to carry out HIPEC or to multimorbid patients. The partly very low values in the denominator must also be taken into account for this indicator. For example, 2 of the 3 centres with a rate of 0% had only 1 patient in the denominator.

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** Percentage of centre patients who were treated according to the indicator

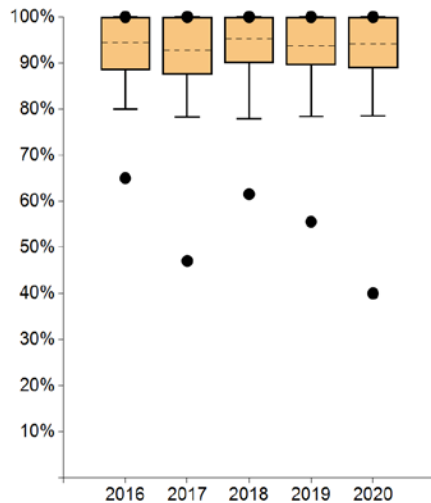
*** If value is outside the plausibility corridor, centres have to give an explanation.

26. Quality of the TME rectum specimen (information from pathology) (GL QI)



Sollvorgabe = target value

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients with good-to-moderate quality (grade 1: mesorectal fascia or grade 2: intramesorectal excisions) of TME	14*	2 - 62	4531
Denominator	Patients with elective radically operated RC (without TWR)	15*	2 - 64	4879
Rate	Target value ≥ 85%	94,12%	40,00% - 100%	92,87%* *



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	94,44%	92,86%	95,24%	93,75%	94,12%
25 th percentile	88,46%	87,50%	90,00%	89,47%	88,89%
5 th percentile	80,00%	78,31%	77,90%	78,37%	78,57%
Minimum	65,00%	47,06%	61,54%	55,56%	40,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	265	88,04%

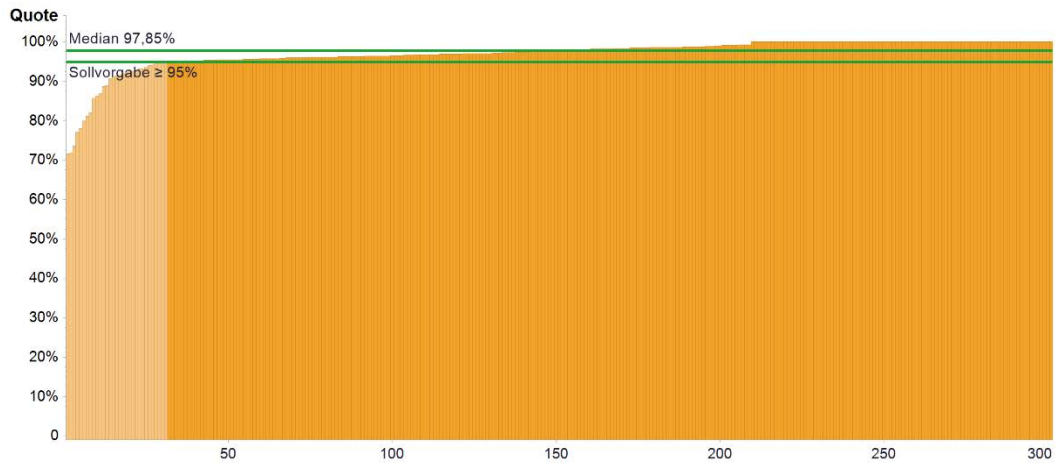
Comments:

The median remains at a high level, the vast majority of centres achieve the target value. The 36 centres with lower rates referred to infiltrating tumours (18 mentions), radiation-related tissue changes (12x) and adhesions caused by previous operations (5x). In the individual cases where the indication was missed, the pathology reports were standardised.

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** Percentage of centre patients who were treated according to the indicator.

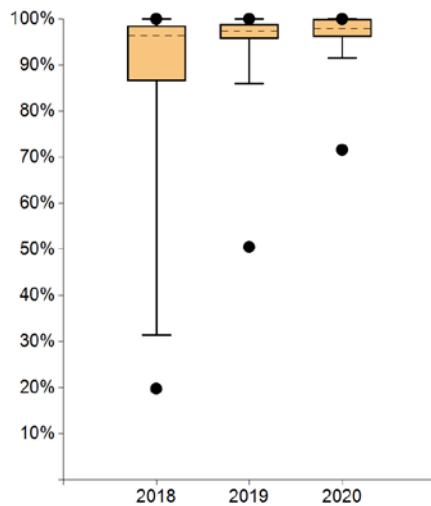
27. Diagnostic report after surgical resection of colorectal carcinoma (GL QI)



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with complete diagnostic reports	70*	25 - 198	22757
Denominator	Patients with CRC and surgical resection	73*	26 - 207	23498
Rate	Target value ≥ 95%	97,85%	71,62% - 100%	96,85%**



	2016	2017	2018	2019	2020
● Maximum	----	----	100%	100%	100%
95 th percentile	----	----	100%	100%	100%
75 th percentile	----	----	98,53%	98,83%	100%
Median	----	----	96,35%	97,29%	97,85%
25 th percentile	----	----	86,45%	95,71%	96,12%
5 th percentile	----	----	31,35%	85,96%	91,43%
● Minimum	----	----	19,78%	50,52%	71,62%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	270	89,70%

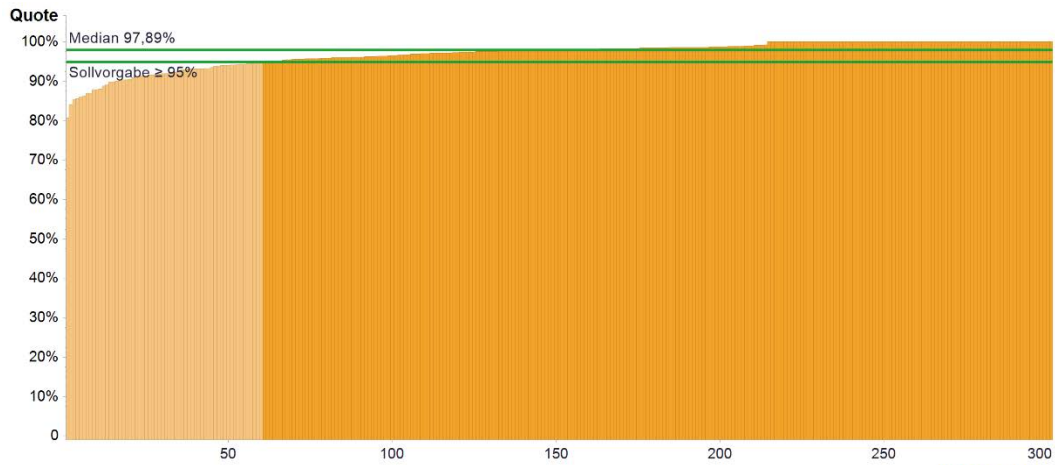
Comments:

This QI of the guideline continues to show a very pleasing development, which means that only 31 centres (previous year: 53) failed to meet the target value. In most cases, information on the resection margin (especially aboral or circumferential) was missing, the grading was not given after neoadjuvant therapy, or no tumour was detectable in the resectate (especially in the case of post-resections). In the case of non-plausible results, the centres coordinated with the pathology department or requested information in individual cases.

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** Percentage of centre patients who were treated according to the indicator.

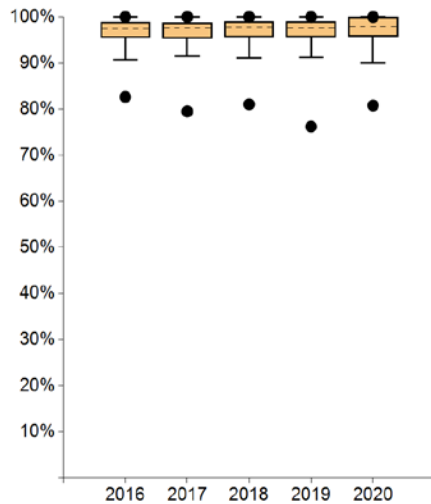
28. Lymph node examination (GL QI 2)



Sollvorgabe = target value

301 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients with pathological examination of ≥ 12 lymph nodes	65*	22 - 181	20672
Denominator	Patients with CRC who had elective surgery and underwent a lymphadenectomy (without TWR)	66*	22 - 190	21312
Rate	Target value $\geq 95\%$	97,89%	80,77% - 100%	97,00%**



	2016	2017	2018	2019	2020
● Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	98,91%	98,78%	99,00%	98,98%	100%
Median	97,47%	97,58%	97,66%	97,61%	97,89%
25 th percentile	95,45%	95,34%	95,56%	95,58%	95,74%
5 th percentile	90,66%	91,44%	91,13%	91,15%	90,00%
● Minimum	82,61%	79,49%	81,03%	76,19%	80,77%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
301	100,00%	241	80,07%

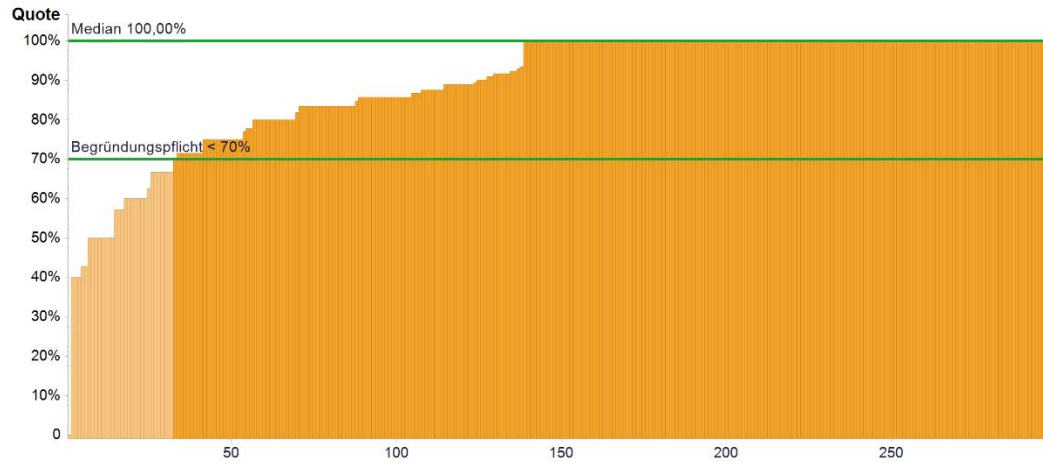
Comments:

The centres continue to meet this indicator very well. 60 centres fell short of the target (often only slightly). They referred primarily (42 mentions) to neoadjuvant radio(chemo)therapy patients and to interventions with palliative intent (14x). Often, less than 12 lymph nodes were found in the preparation despite follow-up findings (28x). In these cases, the centres contacted the pathology department for follow-up or external findings, in some cases changed pathology departments or organised quality circles for future findings.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

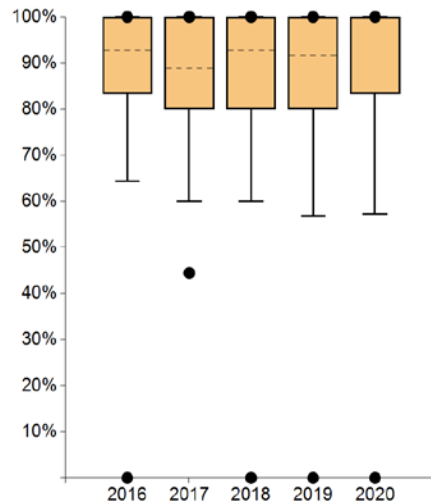
29. Start of adjuvant chemotherapy



Begründungspflicht = mandatory statement of reasons

299 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator with start of chemotherapy within 8 weeks of surgery	5*	0 - 17	1682
Denominator	Patients with UICC stage III colon carcinoma who had received adjuvant chemotherapy (= numerator of indicator 24)	6*	1 - 20	1907
Rate	Explanation mandatory*** <70%	100%	0,00% - 100%	88,20%**



	2016	2017	2018	2019	2020
Maximum	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	92,86%	88,89%	92,86%	91,67%	100%
25 th percentile	83,33%	80,00%	80,00%	80,00%	83,33%
5 th percentile	64,38%	60,00%	60,00%	56,87%	57,14%
Minimum	0,00%	44,44%	0,00%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
299	99,34%	267	89,30%

Comments:

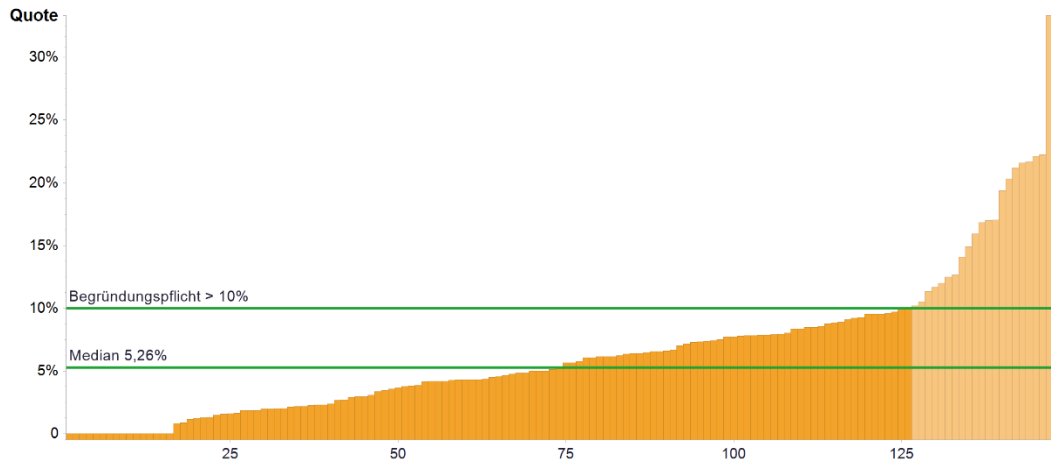
For the first time, the median is 100%, which underlines the steadily improving fulfilment of this indicator. Due to the discontinuation of the obligation to provide justification for rates >95%, the number of centres requiring justification fell sharply, the number of centres with a rate <70% fell from 45 to 32. 15 of these centres referred to postoperative complications (e.g. wound healing disorder) as the reason for the delayed start of chemotherapy. Other reasons were the patient's wish, an existing second malignancy or chemotherapies carried out by established physicians, which were delayed. The reasons could be plausibilised in the audits.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

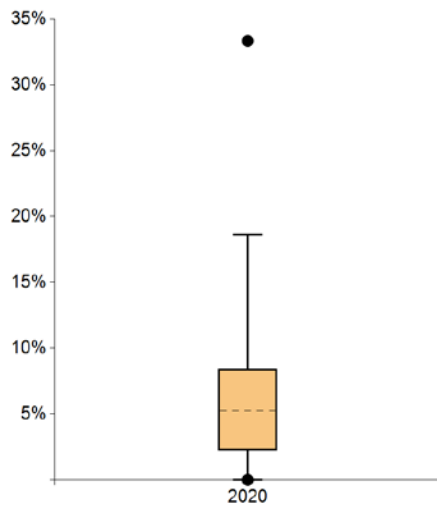
30. MTL22 Indicator (mortality, transfer, hospital stay)



Begründungspflicht = mandatory statement of reasons

147 clinical sites

	Indicator definition	All clinical sites 2020		
		Median	Range	Patients Total
Numerator	Patients of the denominator who - died within 30 d postoperatively (numerator of indicator 20) or - transferred to another acute care hospital, or - had a hospital stay > 22d after tumour resection	4*	0 - 21	634
Denominator	Electively operated patients (= denominator of indicator 20)	64*	22 - 190	10322
Rate	Explanation mandatory*** >10%	5,26%	0,00% - 33,33%	6,14%**



	2016	2017	2018	2019	2020
Maximum	----	----	----	----	33,33%
95 th percentile	----	----	----	----	18,65%
75 th percentile	----	----	----	----	8,40%
Median	----	----	----	----	5,26%
25 th percentile	----	----	----	----	2,26%
5 th percentile	----	----	----	----	0,00%
Minimum	----	----	----	----	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target	
Number	%	Number	%
147	48,84%	126	85,71%

Comments :
This novel combined indicator reflects the postoperative process and was collected for the first time in 2020. 147 centres voluntarily provided data. By far the majority achieved a rate of max. 10% of patients who fulfilled at least one criterion of the numerator. The remaining 21 centres were dominated by long lengths of stay (18 mentions), which were justified, among other things, by postoperative complications, comorbidities, but also by Covid-related delayed transfers to rehabilitation and nursing homes. Postoperative deaths were reported by 16 centres. Only 1 centre reported a transfer to another acute hospital.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** Percentage of centre patients who were treated according to the indicator.

*** If value is outside the plausibility corridor, centres have to give an explanation.

WISSEN AUS ERSTER HAND (FIRST-HAND KNOWLEDGE)

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Imprint

Publisher and responsibility for content:
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Kuno-Fischer-Straße 8
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Tel.: +49 (030) 322 93 29 0
Association Register District Court Charlottenburg.
Association Register No.: VR 27661 B
Responsible in accordance with press law:
Dr Johannes Bruns

in cooperation with:
OnkoZert. Neu-Ulm
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Version A1; status 30.05.2022

ISBN: 978-3-910336-05-6



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