



Indicator Analysis 2025

Annual Report of the Certified Neuro-oncology Cancer Centres

Audit year 2024 / Indicator year 2023

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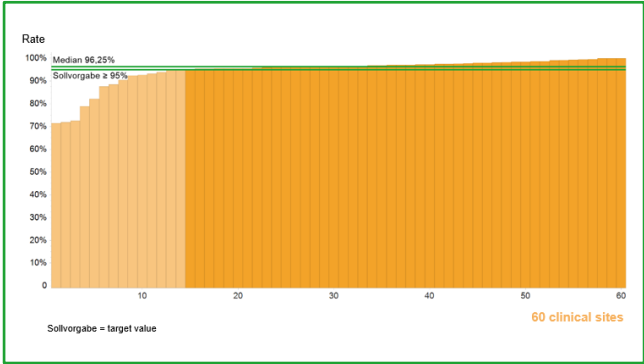
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General information

	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator (elective patients: pre-intervention, emergency patients: post-intervention) who were presented in the tumour board	170	66 - 634	12455
Denominator	Primary cases (=Indicator 1a)	177*	100 - 654	13360
Rate	Target value ≥ 95%	96.25%	40.74% - 100%	93.23%



Basic data indicator:

The definition of the **numerator**, the **denominator** and the **target value** are taken from the data sheet.

The column **Median** for numerator and denominator does not refer to a specific centre but reflects the median of all numerators of the cohort and the median of all denominators of the cohort.

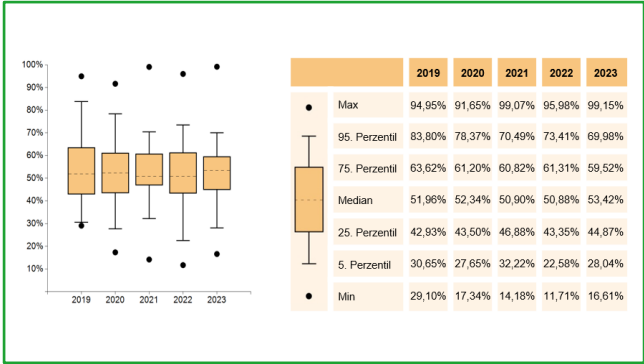
The column **Range** specifies the value range for the numerator, denominator and ratio of all centres.

The column **Patients Total** displays the total of all patients treated according to the indicator and the corresponding quota.

Diagram:

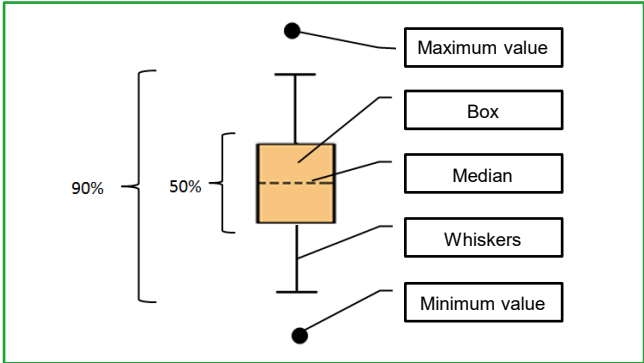
The x-axis indicates the number of centres. and the y-axis represents the values in percent or number (e.g. primary cases). The target value is depicted as a green horizontal line. The median, which is also depicted as a green horizontal line, divides the entire group into two equal halves.

General information



Cohort development:

The **cohort development** in the years **2019, 2020, 2021, 2022** and **2023** is presented in a boxplot diagram.



Boxplot:

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 Neuro-oncology Cancer Centres 2024

	31.12.2024	31.12.2023	31.12.2022	31.12.2021	31.12.2020	31.12.2019
Ongoing certification procedures	4	3	4	3	5	2
Certified Centres	66	60	56	53	46	42
Certified clinical sites	67	61	57	54	47	43
Neuro-oncology Centres with 1 clinical site	65	59	55	52	45	41
2 clinical sites	1	1	1	1	1	1
3 clinical sites	0	0	0	0	0	0
4 clinical sites	0	0	0	0	0	0

Clinical sites taken into account

	31.12.2024	31.12.2023	31.12.2022	31.12.2021	31.12.2020	31.12.2019
Sites considered in the annual report	64	60	56	51	44	40
correspond to	95.5%	98.3%	98.2%	94.4%	93.6%	93.0%
Primary cases total*	13,360	12,552	11,750	10,810	9,914	9,254
Primary cases per site (mean)*	208.8	209.2	209.8	211.9	225.3	231.4
Primary cases per site (median)*	177.0	178.0	183.5	178.0	184.5	201.5

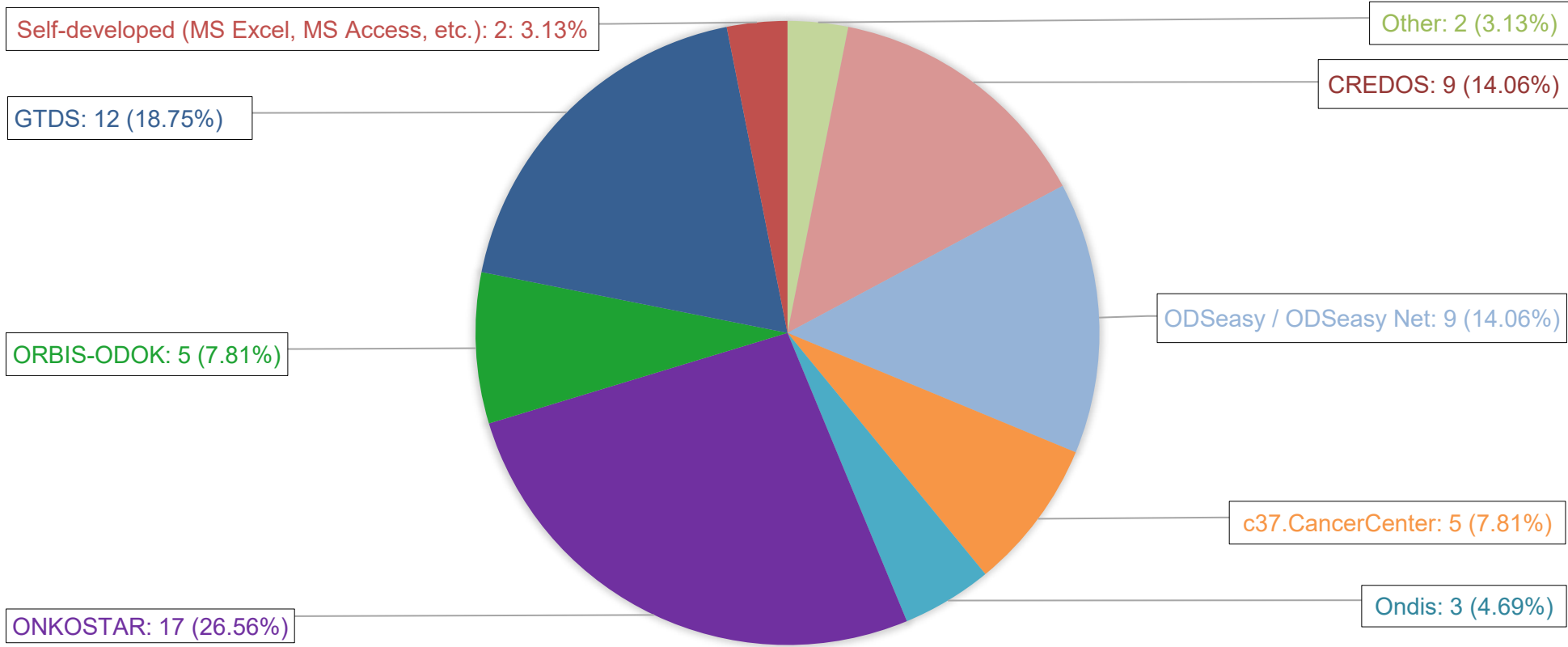
*The figures are based on the clinical sites listed in the Annual Report.

This Annual Report looks at the Neuro-oncological centres certified in the certification system of the German Cancer Society. The basis for the diagrams in the Annual Report is the Data Sheet.

The Annual Report includes 64 of the 67 certified centre locations. Excluded are 3 clinical sites that were certified for the first time in 2024 (data mapping of complete calendar year not mandatory for the initial certification). All 67 sites treated 13,710 primary neuro-oncological cases. A current overview of all certified sites is available at www.oncomap.de.

The indicators published here relate to the indicator year 2023 and provide the basis for the audits conducted in 2024.

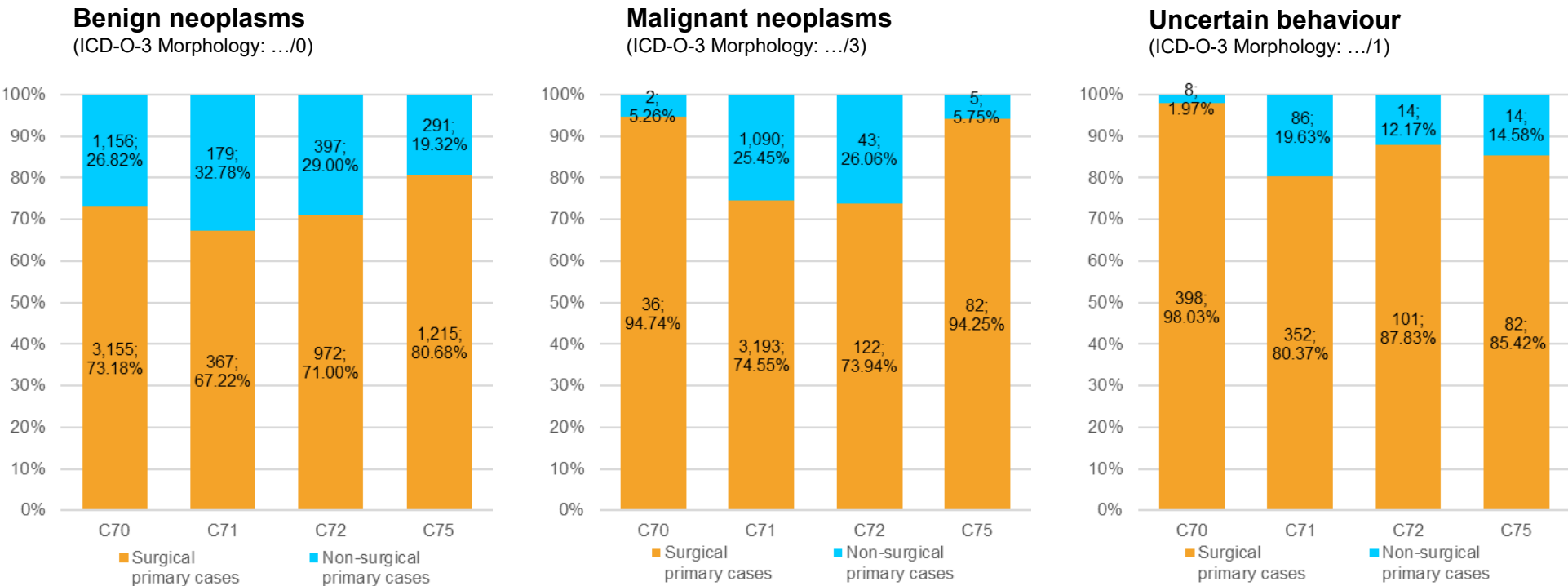
Tumour documentation systems in the centre's clinical sites



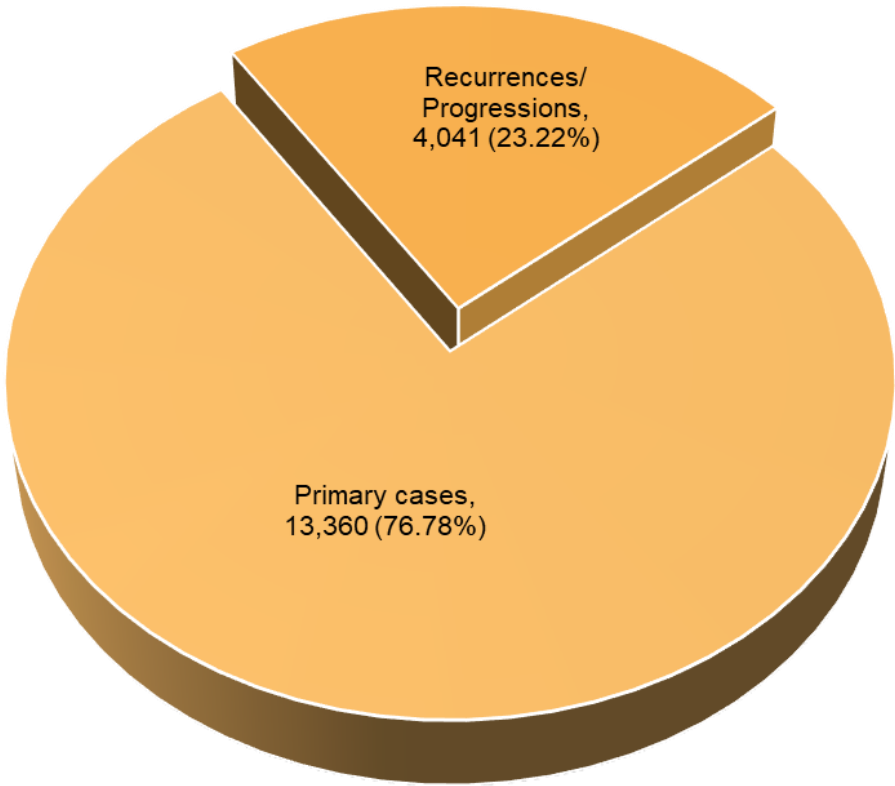
Legend:	
Other	Systems only used at one location

The details on the tumour documentation system was taken from the Data Sheet (Basic Data Sheet). 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 link to the cancer registry via a specific tumour documentation system.

Basic data – Stage distribution of primary cases of neuro-oncological tumours

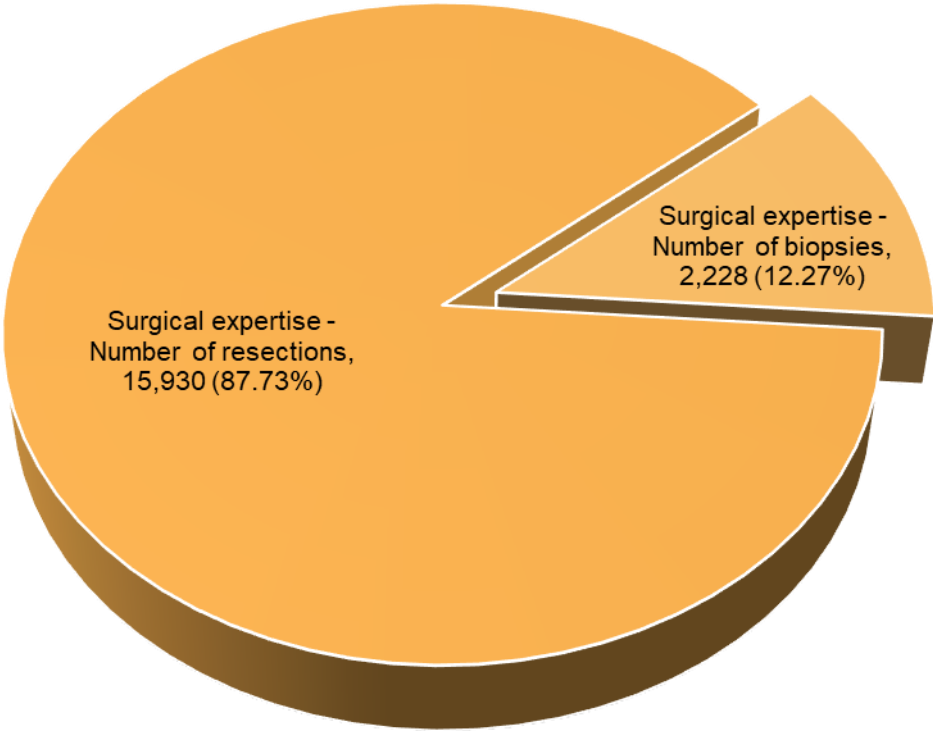


Basic data - centre cases neuro-oncological tumours



Primary cases	Recurrences/ Progressions	Centre cases
13,360 (76.78%)	4,041 (23.22%)	17,401 (100%)

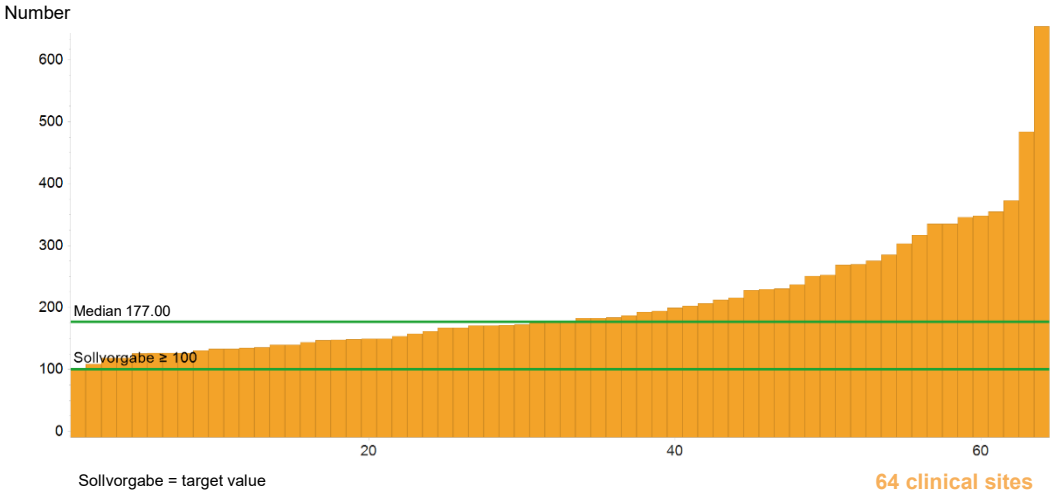
Basic data - Surgical expertise (number of resections - number of biopsies)



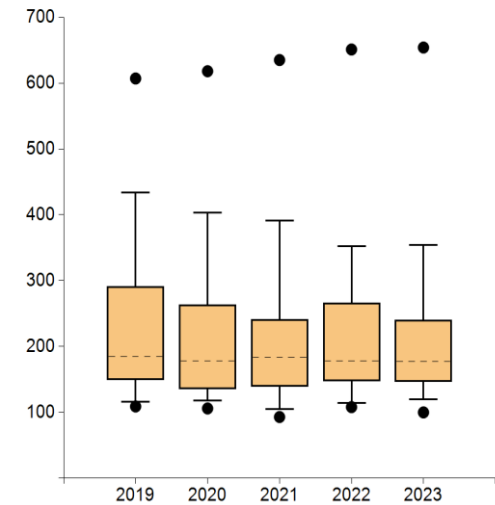
Surgical expertise - Number of resections	Surgical expertise - Number of biopsies
15,930 (87.73%)	2,228 (12.27%)

Operative expertise: Resections or biopsies in primary cases, patients with recurrences/progressions and metastases in the calendar year are counted, regardless of primary case status.

1a. Primary cases



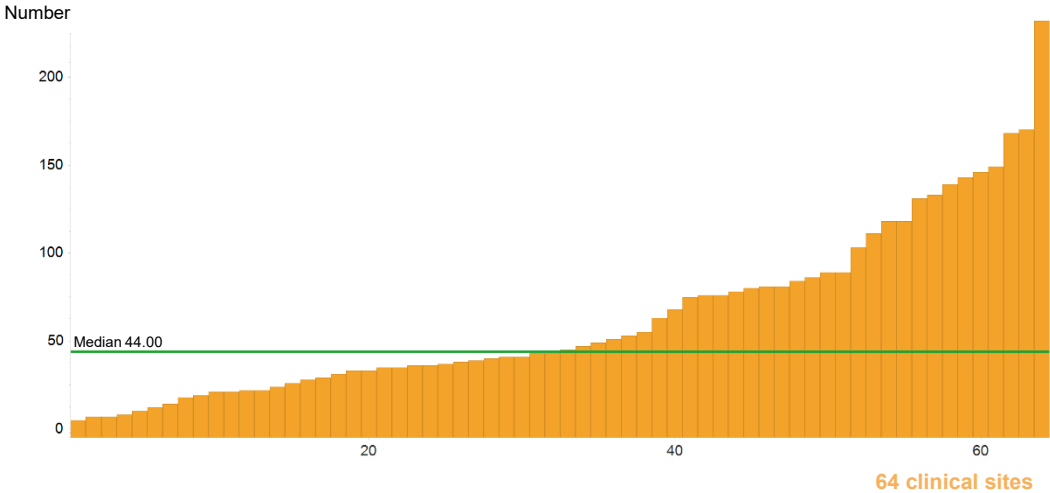
	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Number	Primary cases Definition in line with 1.2.1	177	100 - 654	13,360
	Target value ≥ 100			



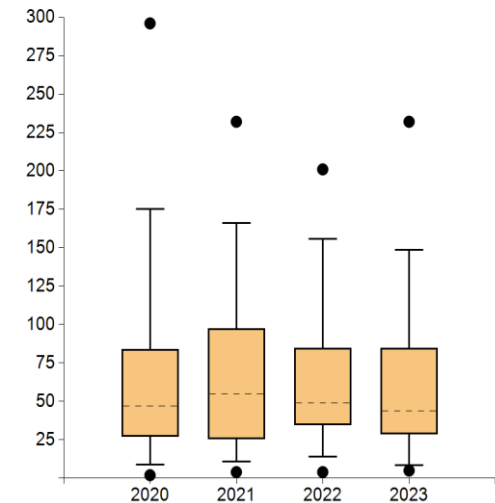
	2019	2020	2021	2022	2023
Max	607.00	618.00	635.00	651.00	654.00
95 th percentile	434.00	403.50	391.50	352.15	353.95
75 th percentile	291.50	263.00	240.75	266.50	240.50
Median	184.50	178.00	183.50	178.00	177.00
25 th percentile	149.00	136.00	139.25	147.25	146.25
5 th percentile	115.75	117.50	105.25	113.90	120.05
Min	109.00	106.00	93.00	108.00	100.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	64	100.00%
Comments: All centres meet the target value of at least 100 primary cases per year. The median of n = 177 primary cases/per site is consistent with the previous year (n = 178). Total number of primary cases increased by 6% compared to the previous year, while number of centres increased by 6.6%. Rate of primary cases with malignant neoplasms to primary cases with benign neoplasms or neoplasms with uncertain behaviour remained unchanged from the previous year at 34%.			

1b. Patients with recurrence/progression



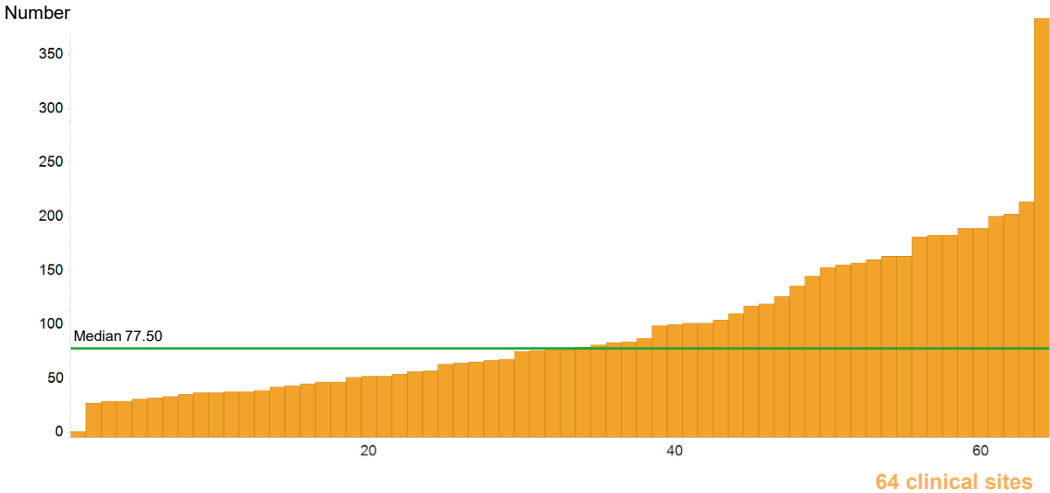
	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Number	Patients with recurrence/ progression	44	5 - 232	4,041
	No target value			



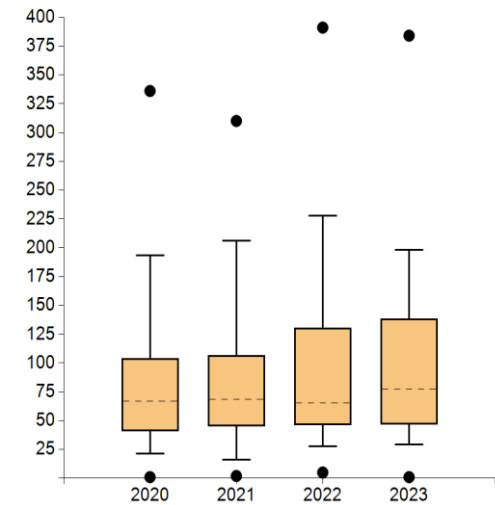
		2019	2020	2021	2022	2023
●	Max	----	296.00	232.00	201.00	232.00
	95 th percentile	----	175.00	166.00	155.65	148.55
	75 th percentile	----	84.00	97.25	84.75	84.50
	Median	----	47.00	55.00	49.00	44.00
	25 th percentile	----	27.00	25.50	34.75	28.75
	5 th percentile	----	9.00	11.00	13.90	8.30
●	Min	----	2.00	4.00	4.00	5.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	----	----
Comments: The number of patients with progression or recurrence being treated in the Neuro-Oncology Centres has increased compared to the previous year (from 3,867 to 4,041); however, the growth of + 4.5% is slightly lower than the increase in primary cases.			

1c. Cerebral metastases



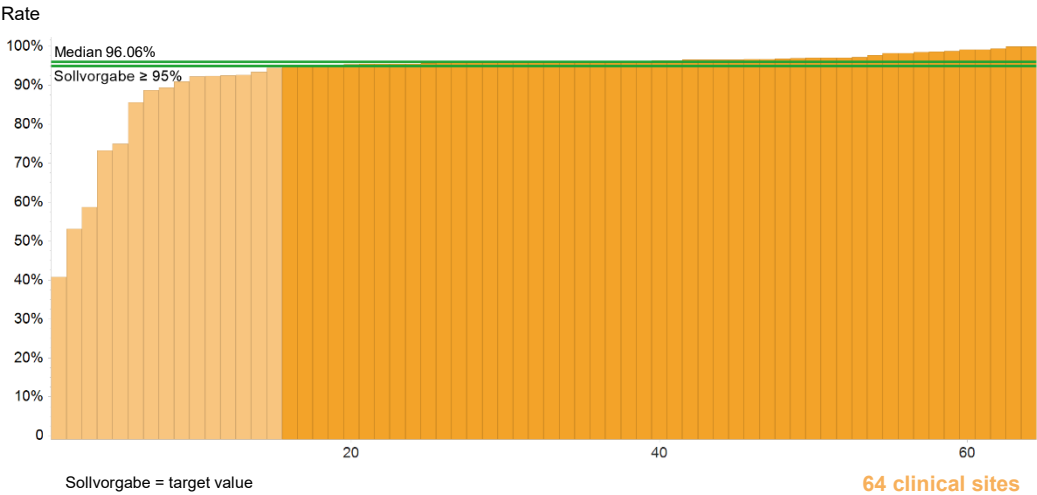
	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Number	Patients with cerebral metastases treated in the NOC (tumourspecific diagnostics and/or treatment)	77.50	1 - 384	6,133
	No target value			



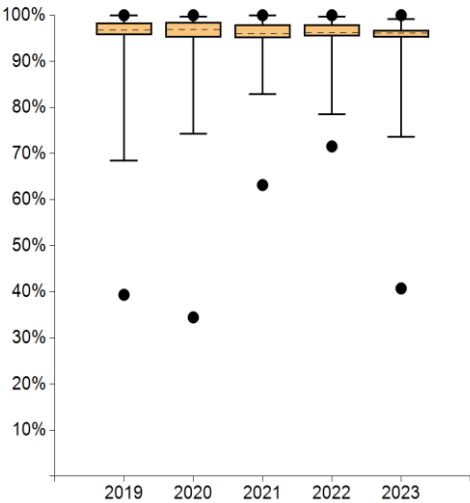
		2019	2020	2021	2022	2023
Max		----	336.00	310.00	391.00	384.00
95 th percentile		----	193.60	206.25	227.90	198.35
75 th percentile		----	104.00	106.50	130.50	138.25
Median		----	67.00	68.50	65.50	77.50
25 th percentile		----	41.00	45.00	46.00	46.50
5 th percentile		----	21.60	16.00	27.50	29.30
Min		----	1.00	2.00	5.00	1.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	----	----
Comments: The number of patients with cerebral metastases treated in the Neuro-Oncology Centres (MNOCs) increased by 5.9% compared to the previous year (from 5,792 to 6,133).			

2a. Interdisciplinary case discussions



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator (elective patients: pre-intervention, emergency patients: post-intervention) who were presented in the tumour board	170*	66 - 634	12,455
Denominator	Primary cases (= Indicator 1a)	177*	100 - 654	13,360
Rate	Target value ≥ 95%	96.06%	40.74% - 100.00%	93.23%**



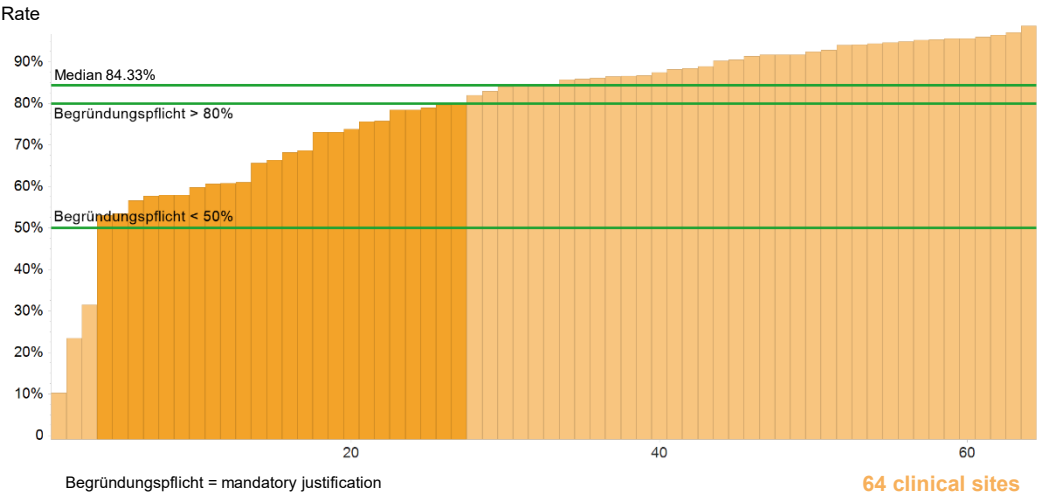
	2019	2020	2021	2022	2023
Max	100.00%	100.00%	100.00%	100.00%	100.00%
95 th percentile	100.00%	99.73%	100.00%	99.65%	99.20%
75 th percentile	98.35%	98.48%	97.95%	97.98%	96.83%
Median	96.81%	96.86%	95.94%	96.25%	96.06%
25 th percentile	95.67%	95.19%	95.09%	95.42%	95.18%
5 th percentile	68.52%	74.32%	82.82%	78.55%	73.58%
Min	39.36%	34.46%	63.17%	71.55%	40.74%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	49	76.56%

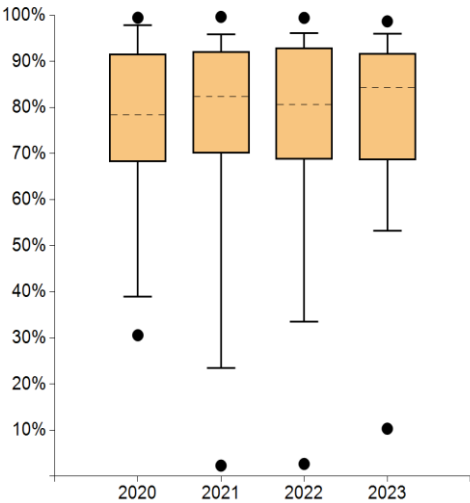
Comments:
As in the previous year, approximately 77% of the centres meet the target value of ≥ 95% for interdisciplinary case discussions. Fifteen centres did not meet the target value and cited, among other reasons, organisational and staffing issues related to documentation. The centres have initiated improvement measures. During the audits, 11 recommendations and 1 deviation were issued.

*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.
** Percentage of total patients treated in centres according to the numerator.

2b. Pretherapeutic interdisciplinary case discussions



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator that were pre-interventionally presented in tumour board	152.5*	13 - 434	10,502
Denominator	Primary cases (= Indicator 1a)	177*	100 - 654	13,360
Rate	Mandatory justification*** <50% and >80%	84.33%	10.32% - 98.67%	78.61%**



	2019	2020	2021	2022	2023
Max	----	99.46%	99.64%	99.42%	98.67%
95 th percentile	----	97.86%	95.78%	96.15%	96.00%
75 th percentile	----	91.62%	92.19%	92.99%	91.78%
Median	----	78.32%	82.33%	80.63%	84.33%
25 th percentile	----	68.19%	70.08%	68.66%	68.62%
5 th percentile	----	39.00%	23.48%	33.47%	53.19%
Min	----	30.59%	2.31%	2.67%	10.32%

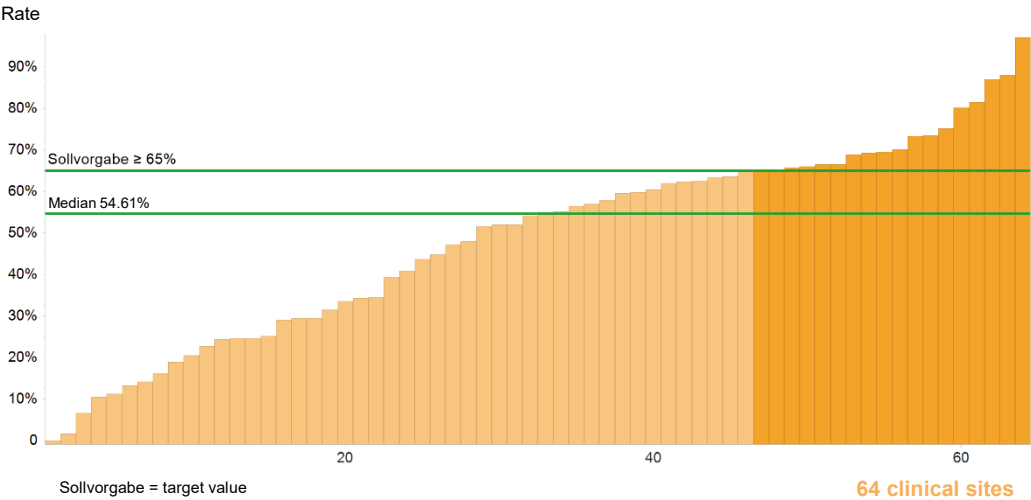
Clinical sites with evaluable data		Clinical sites meeting the plausibility limits	
Number	%	Number	%
64	100.00%	24	37.50%

Comments:

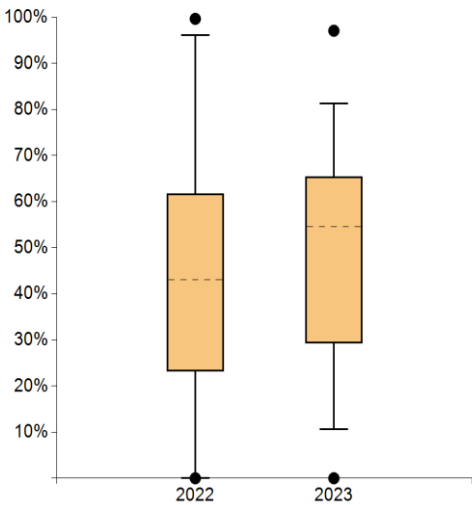
37 centres reported a presentation rate above 80%, while three centres were below 50%. Rates under 50% were attributed to documentation issues and emergency cases. This indicator will be collected for the last time in the 2023 indicator year. From now on, indicators 2a and 2b will be merged into the modified indicator "Interdisciplinary Tumour Board": all patients should be presented pre-interventionally, with emergencies as the only exception. At least 95% of primary cases treated for the first time in the NOC must be presented on the tumour board, either before the intervention decision or, in emergency cases, after neuropathological/molecular diagnostics are available.

*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.
** Percentage of total patients treated in centres according to the numerator.
*** In the case of values outside the plausibility limit(s), the centres are required to provide justification.

3. Psycho-oncological distress screening



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Patients of the denominator who received psycho-oncological distress screening	110.5*	0 - 771	9,166
Denominator	Primary cases (= Indicator 1a) and patients with recurrence / progress (= Indicator 1b)	226*	116 - 886	17,401
Rate	Target value ≥ 65%	54.61%	0.00% - 97.07%	52.68%**



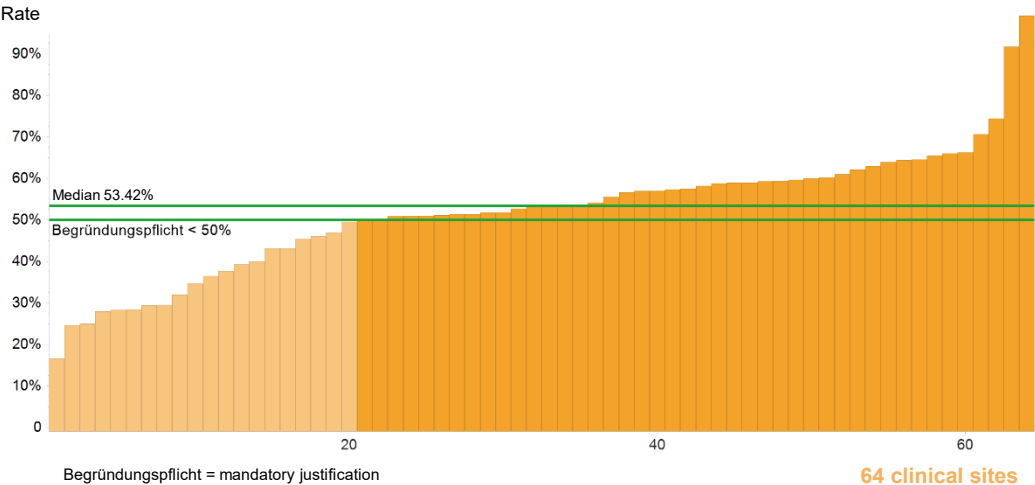
	2019	2020	2021	2022	2023
Max	----	----	----	99.65%	97.07%
95 th percentile	----	----	----	96.13%	81.30%
75 th percentile	----	----	----	61.72%	65.46%
Median	----	----	----	43.07%	54.61%
25 th percentile	----	----	----	23.27%	29.32%
5 th percentile	----	----	----	0.00%	10.67%
Min	----	----	----	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	18	28.13%

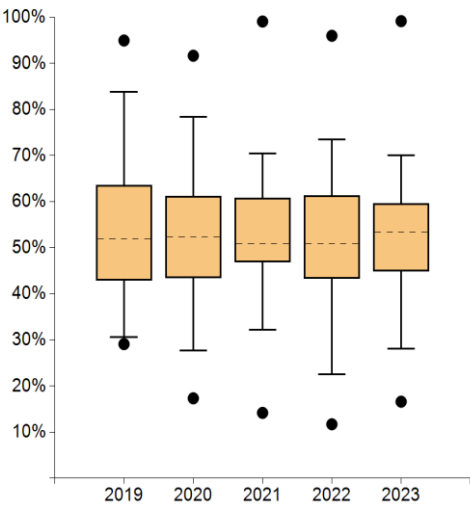
Comments:
Approximately 28% of the clinical sites meet the target value of ≥ 65%. Forty-six sites fall below this threshold. Reasons cited for non-compliance include challenges in process implementation, restructuring the process from counselling to screening, difficulties in documentation, or missing feedback. The centres responded with corrective and improvement measures. In 33 audits, recommendations were issued.

*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.
** Percentage of total patients treated in centres according to the numerator..

4. Social services counselling



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Patients of the denominator who received counselling by social services in an inpatient or outpatient setting	118*	42 - 509	8,977
Denominator	Primary cases (= Indicator 1a) and patients with recurrence/progress (= Indicator 1b)	226*	116 - 886	17,401
Rate	Mandatory justification*** < 50%	53.42%	16.61% - 99.15%	51.59%**



	2019	2020	2021	2022	2023
Max	94.95%	91.65%	99.07%	95.98%	99.15%
95 th percentile	83.80%	78.37%	70.49%	73.41%	69.98%
75 th percentile	63.62%	61.20%	60.82%	61.31%	59.52%
Median	51.96%	52.34%	50.90%	50.88%	53.42%
25 th percentile	42.93%	43.50%	46.88%	43.35%	44.87%
5 th percentile	30.65%	27.65%	32.22%	22.58%	28.04%
Min	29.10%	17.34%	14.18%	11.71%	16.61%

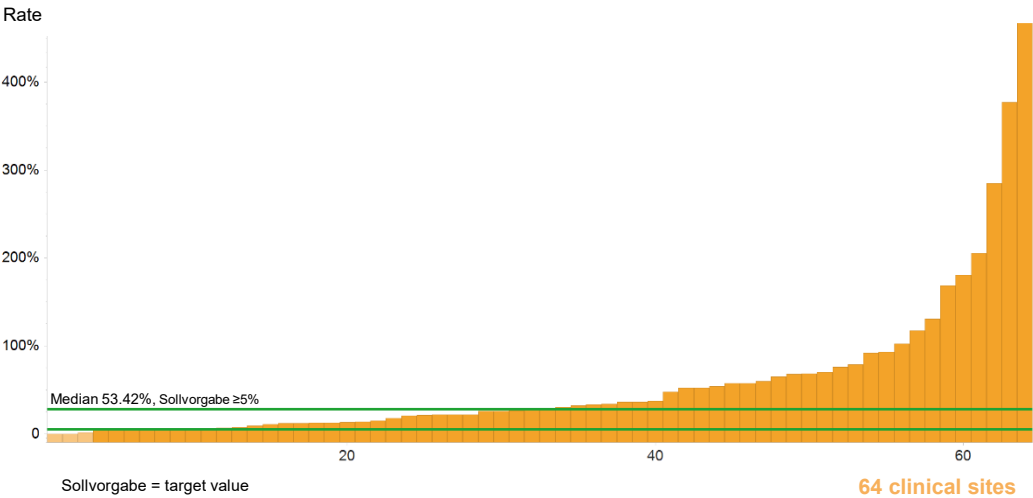
Clinical sites with evaluable data		Clinical sites meeting the plausibility limits	
Number	%	Number	%
64	100.00%	44	68.75%

Comments:

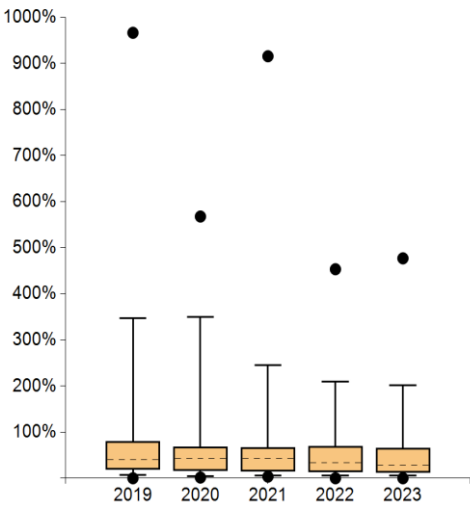
Approximately 52% of primary cases and patients with recurrence/progression received counselling from the social services (previous year: 52.4%). The median counselling rate by the social service is 53%. Twenty centres were required to provide justification, five of which are located in German-speaking foreign countries, where social support is organised through different structures. The centres in Germany explained the shortfall, among other reasons, with counselling being offered but not requested by patients, staffing shortages, issues with documentation and evaluation of counselling, as well as a high proportion of benign primary cases without surgical indication, which did not result in inpatient admission or treatment.

*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.
** Percentage of total patients treated in centres according to the numerator.
*** For values outside the plausibility limit(s), the centres are required to provide a justification.

5. Patients enrolled in a study



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	All patients (malignant and benign) who were included in a study with an ethical vote	21.5*	0 - 449	2,952
Denominator	Malignant primary cases	63*	25 - 158	4,573
Rate	Target value ≥ 5%	28.01%	0.00% - 477.03%	64.55%**



	2019	2020	2021	2022	2023
Max	966.22%	567.74%	915.33%	453.41%	477.03%
95 th percentile	346.81%	350.23%	245.36%	209.03%	201.87%
75 th percentile	79.34%	67.31%	66.22%	68.66%	65.93%
Median	40.67%	42.52%	42.21%	34.09%	28.01%
25 th percentile	19.55%	15.78%	15.61%	13.94%	11.98%
5 th percentile	6.46%	4.67%	5.44%	5.23%	5.73%
Min	0.00%	1.56%	3.57%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	61	95.31%

Comments:
95% of the centres meet the target value of ≥ 5%. The median study participation rate is 28%, with a wide range (0 – 477%). The study participation rate has been declining overall in recent years. Three centres do not reach the target value of 5%, one of which had already fallen short in the previous year. A deviation was issued. During the audits, the centres presented their activities to establish new studies.

*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.
** Percentage of total patients treated in centres according to the numerator.

Individual Annual Report – Benchmark

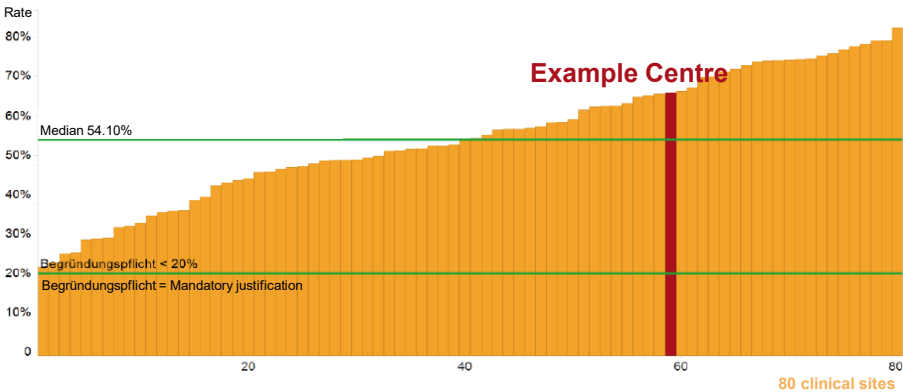
Individual Annual Report - Evaluation of site-specific key figures

What is the individual Annual Report?

In the individual annual report, the site-specific centre data is shown and compared to the other certified centres in the respective certification system of the German Cancer Society. In addition, the individual development of the centre is presented over the course of time. The content and design of an individual Annual Report are based on the general Annual Reports. An example of an individual Annual Report is available at www.onkozert.de under General Information / Annual Reports.

Who can receive the individual Annual Report?

The prerequisite for the preparation of the individual annual report is the publication of the general annual report (announcement on www.onkozert.de) as well as the depiction of the own centre in the general Annual Report (for example, centres with initial certification are not depicted in the audit year). In the case of multi-site centres, each site is shown in its own individual Annual Report. Only the general Annual Report is currently available for oncology centres.



	Indicator definition	Example centre				
		2019	2020	2021	2022	2023
Numerator	Patients referred by the denominator who received inpatient or outpatient counselling from social services	2019	263	220	240	237
Denominator	Primary cases (= indicator 1a) + patients with newly occurring recurrence (local, regional LN metastases) and/or distant metastases (= indicator 1b)	321	362	331	355	360
Rate	Mandatory justification*** <20%	60.22%	72.65%	66.47%	67.61%	65.83%

Individual development of the example centre over time

Excerpt from an Individual Annual Report
(indicator: Social Service Counselling)

Individual Annual Report – Benchmark

How can I receive the individual Annual Report?

The individual Annual Report is made available for download as an electronic PowerPoint file on the [Data-WhiteBox](#) platform.

Access to an individual Annual Report differs depending on the certification system:

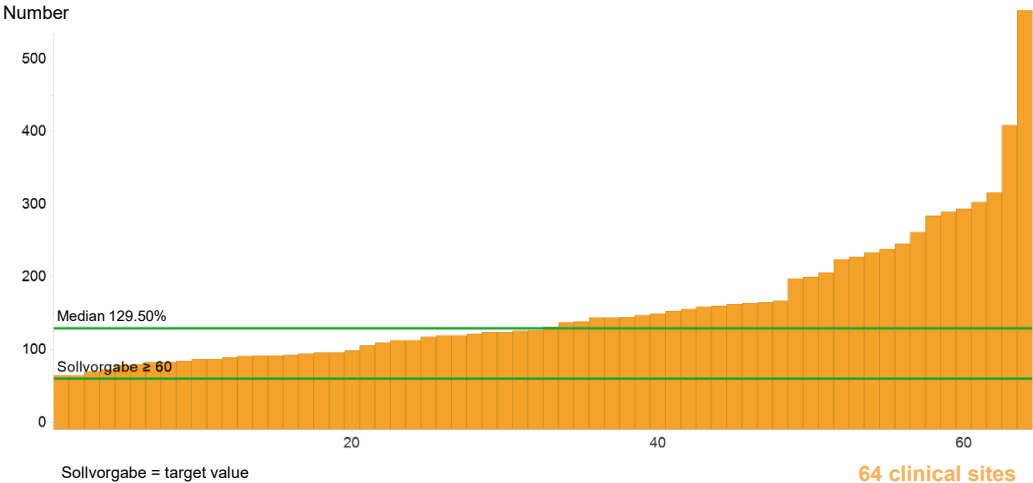
Colorectal, Prostate and Gynaecological Cancer Centres

- The individual Annual Report is made available for all Colorectal, Prostate and Gynaecological Cancer Centres by decision of the respective Certification Commission.
- The centres (centre management and centre coordination) are informed by email by OnkoZert about the availability of the respective individual Annual Report.
- The centres (centre management and centre coordination) are informed by email by OnkoZert about the availability of the respective individual Annual Report.

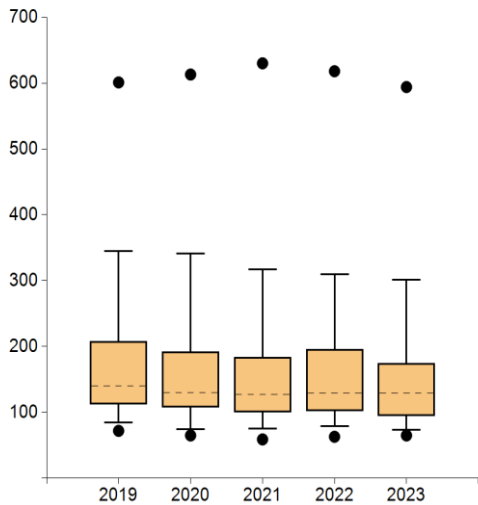
All other Organ Cancer Centres / Modules

- The centres (centre management and centre coordination) are informed by email by OnkoZert about the basic availability of the individual Annual Reports. From this point onwards, an individual Annual Report can optionally be ordered for a fee.
- The 'Individual Annual Report Order Form' is available at www.onkozert.de under General Information / Annual Reports. Orders can only be placed by persons who are registered with OnkoZert as contact persons (e.g. centre management, centre coordination, QMB, etc.)
- The costs for the respective individual Annual Reports are listed on the form.
- The preparation time is approx. 3 weeks after receipt of order.

6a. Surgical primary cases



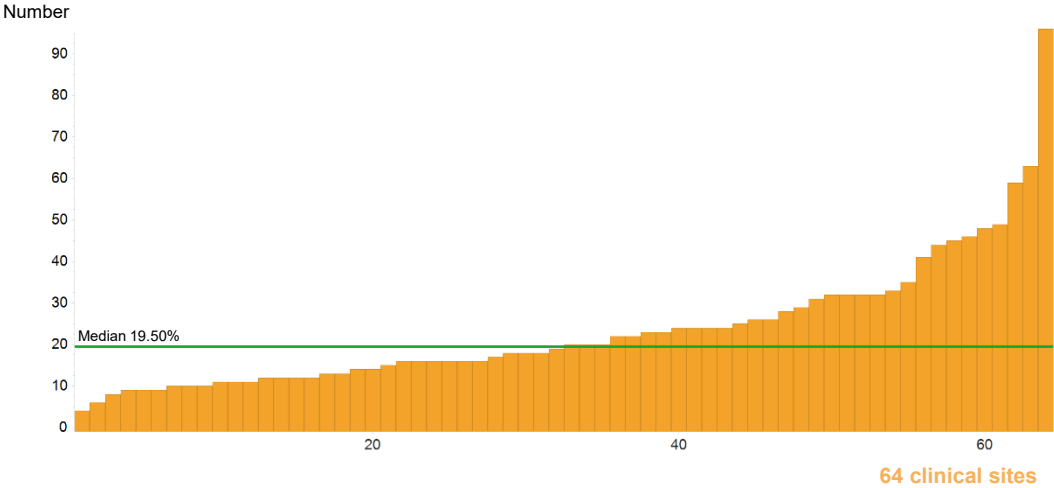
	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Number	Surgical primary cases Definition in line with 5.2.3a	129.5	65 - 594	10,075
	Target value ≥ 60			



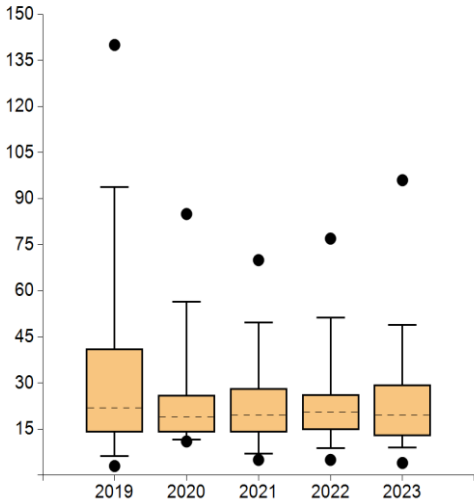
	2019	2020	2021	2022	2023
Max	601.00	613.00	630.00	618.00	594.00
95 th percentile	344.85	341.50	316.75	309.40	301.65
75 th percentile	208.25	192.50	183.25	195.75	174.75
Median	140.00	130.00	127.50	129.50	129.50
25 th percentile	112.00	108.00	100.75	101.75	94.50
5 th percentile	84.30	74.50	75.00	78.80	73.90
Min	72.00	65.00	59.00	63.00	65.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	44	68.75%
Comments: All centres meet the target value of at least 60 surgical primary cases. The number of surgical primary cases increased from 9,664 to 10,075 (+4%) compared to the previous year, alongside an increase of 4 centres. The median, as in the previous year, is 129.5 surgical primary cases.			

6b. Biopsy



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Number	Biopsies Definition in line with 5.2.3b	19.5	4 - 96	1,509
	No target value			



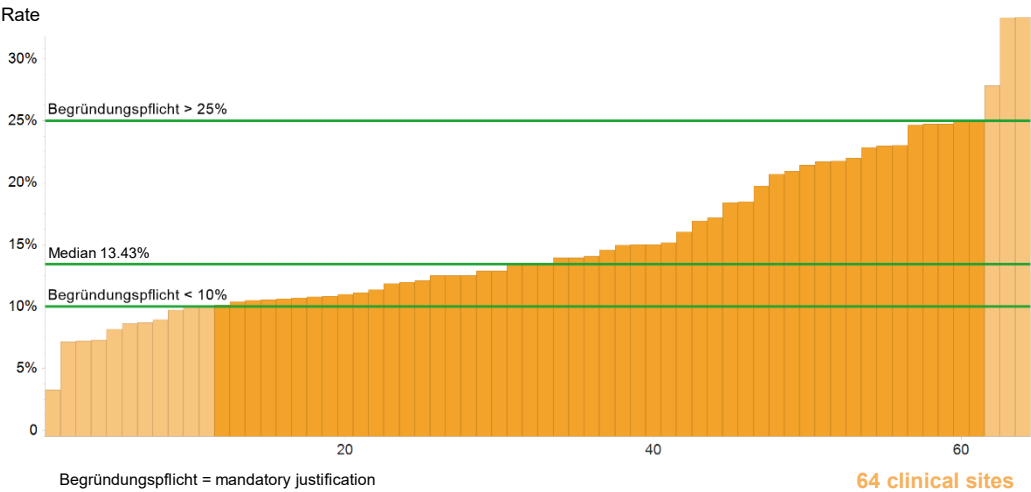
	2019	2020	2021	2022	2023
Max	140.00	85.00	70.00	77.00	96.00
95 th percentile	93.80	56.50	49.75	51.25	48.85
75 th percentile	41.25	26.00	28.25	26.25	29.50
Median	22.00	19.00	19.50	20.50	19.50
25 th percentile	14.00	14.00	14.00	14.75	12.75
5 th percentile	6.30	11.50	7.00	8.90	9.00
Min	3.00	11.00	5.00	5.00	4.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	-----	-----

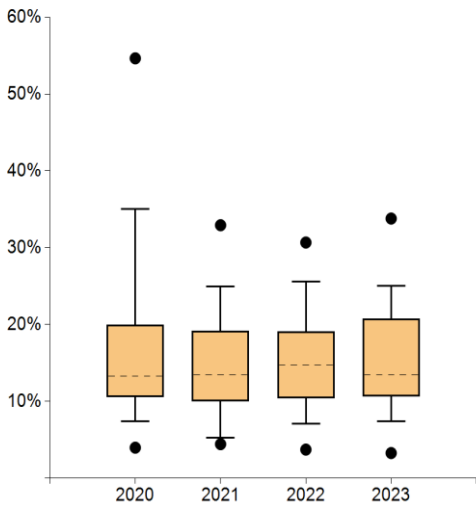
Comments:
In the certified centres, 1,509 biopsies were performed on primary cases (OPS: 1-510; 1-511; 1-512; 1-514; 1-515)* compared to 1,411 in the previous year. The median is 19.5 biopsies, remaining largely stable over the years despite a gradual increase in the number of centres.

* 1-510: Intracranial biopsy by incision and craniotomy; 1-511: Stereotactic brain biopsy; 1-512: Incisional intraspinal biopsy; 1-514: Biopsy of hypophysis and pineal gland by incision; 1-515: Stereotactic biopsy of hypophysis and pineal gland; available at <https://gesund.bund.de/en/>.

6c. Ratio biopsies/resections



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Biopsies (= Indicator 6b)	19.5*	4 - 96	1,509
Denominator	Surgical primary cases (= Indicator 6a)	129.5*	65 - 594	10,075
Rate	Mandatory justification*** <10% and >25%	13.43%	3.28% - 33.80%	14.98%**

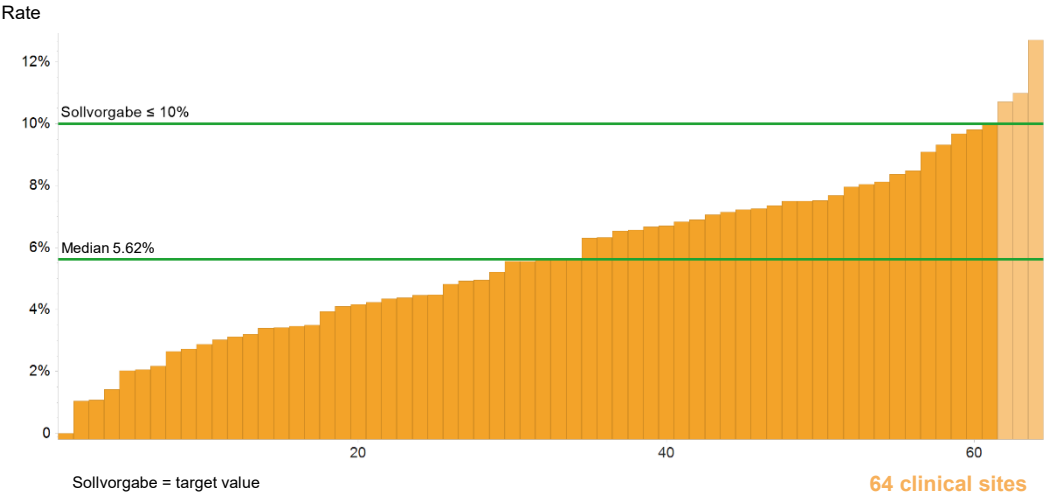


	2019	2020	2021	2022	2023
Max	----	54.65%	32.93%	30.68%	33.80%
95 th percentile	----	35.07%	24.95%	25.61%	25.00%
75 th percentile	----	19.95%	19.15%	19.10%	20.73%
Median	----	13.25%	13.48%	14.70%	13.43%
25 th percentile	----	10.63%	10.04%	10.40%	10.69%
5 th percentile	----	7.41%	5.27%	7.12%	7.45%
Min	----	3.98%	4.44%	3.73%	3.28%

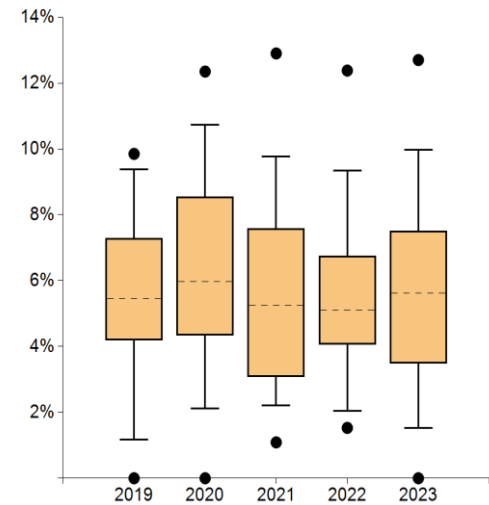
Clinical sites with evaluable data		Clinical sites meeting the plausibility limits	
Number	%	Number	%
64	100.00%	50	78.13%
Comments: For the indicator “biopsy-to-resection ratio,” both an upper and a lower threshold are defined for mandatory justification. Eleven centres have a ratio of < 10% and justify this with their patient cohort (e.g. high proportion of benign tumours, high proportion of multifocal lesions) or with the centre’s high level of expertise in stereotaxy. Three centres have a ratio of > 25% and attribute this to tumour location, multifocal lesions, and the site’s specialisation in stereotaxy.			

* 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.
** Percentage of total patients treated in centres according to the numerator.
*** For values outside the plausibility limit(s), the centres are required to provide a justification.

7a. Revision surgeries



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator with revision surgery due to post-operative complications within 30d after surgery	8.5*	0 - 33	567
Denominator	Surgical primary cases (= Indicator 6a)	129.5*	65 - 594	10,075
Rate	Target value ≤ 10%	5.62%	0.00% - 12.70%	5.63%**

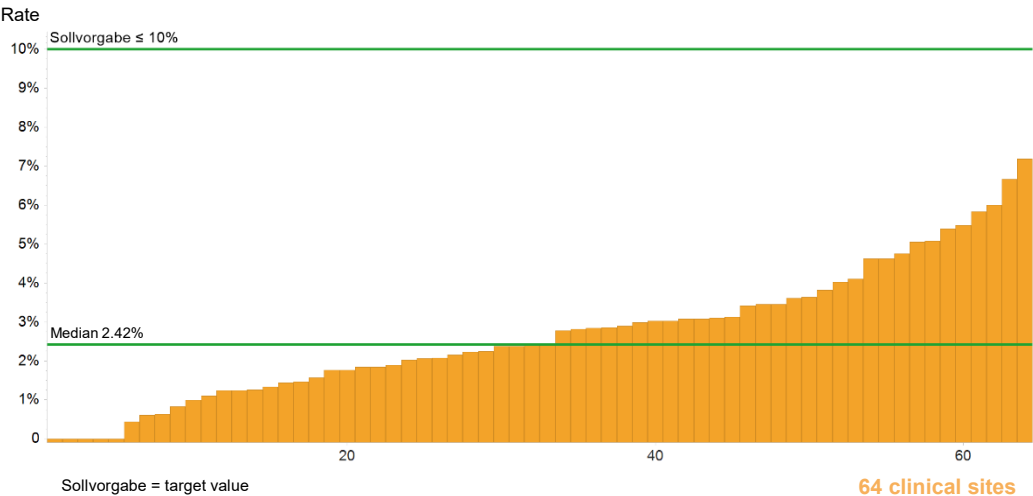


	2019	2020	2021	2022	2023
Max	9.85%	12.35%	12.90%	12.38%	12.70%
95 th percentile	9.38%	10.74%	9.77%	9.34%	9.97%
75 th percentile	7.29%	8.55%	7.59%	6.75%	7.50%
Median	5.45%	5.98%	5.24%	5.10%	5.62%
25 th percentile	4.19%	4.34%	3.09%	4.07%	3.49%
5 th percentile	1.18%	2.13%	2.21%	2.04%	1.52%
Min	0.00%	0.00%	1.09%	1.53%	0.00%

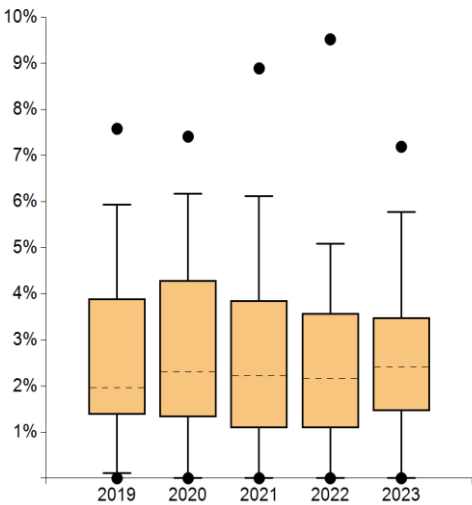
Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	61	95.31%
Comments: 95% of the centres have a revision surgery rate below the target value of ≤ 10%. In approximately 5.6% of operative primary cases, a revision surgery was necessary. Three centres exceed the target value. The stated reasons include highly complex procedures, multimorbid patients, and emergency interventions. Justification for revision surgeries include postoperative bleeding, wound healing disorders, infections, and/or cerebrospinal fluid fistulas. The centres have carefully analysed these cases, in some instances within M&M conferences.			

*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.
** Percentage of total patients treated in centres according to the numerator.

7b. Clinically symptomatic secondary bleeding



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator with clinically symptomatic secondary bleeding (= new onset or worsening of an existing neurological disorder)	3*	0 - 19	277
Denominator	Surgical primary cases (= Indicator 6a)	129.5*	65 - 594	10075
Rate	Target value ≤ 10%	2.42%	0.00% - 7.19%	2.75%**



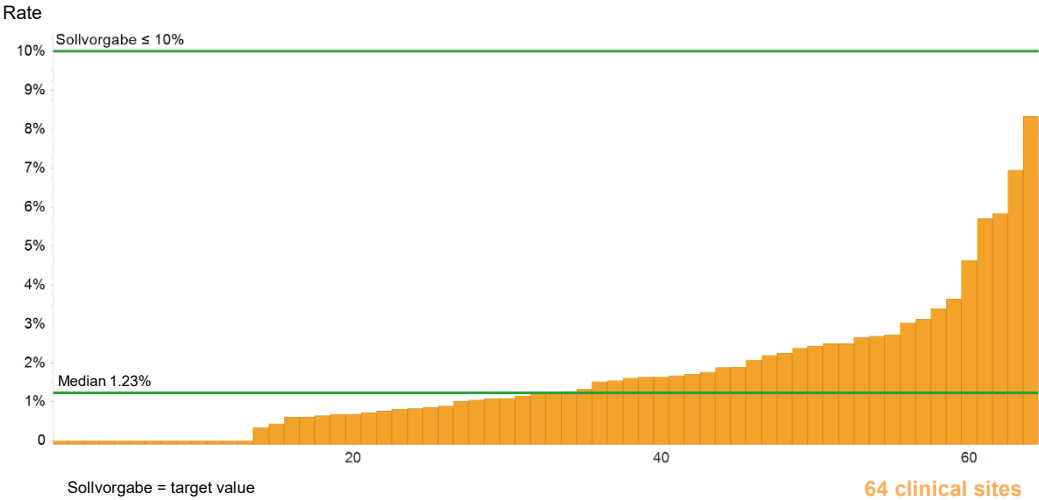
	2019	2020	2021	2022	2023
Max	7.58%	7.41%	8.89%	9.52%	7.19%
95 th percentile	5.93%	6.18%	6.12%	5.08%	5.78%
75 th percentile	3.90%	4.29%	3.86%	3.58%	3.49%
Median	1.96%	2.31%	2.23%	2.16%	2.42%
25 th percentile	1.38%	1.33%	1.09%	1.09%	1.46%
5 th percentile	0.11%	0.00%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	64	100.00%
Comments: All centres report rates of ≤ 10% for clinically symptomatic postoperative bleeding. In five centres, no clinically symptomatic postoperative bleeding occurred. Approximately 2.8% of operative primary cases developed clinically symptomatic postoperative bleeding (previous year: 2.5%).			

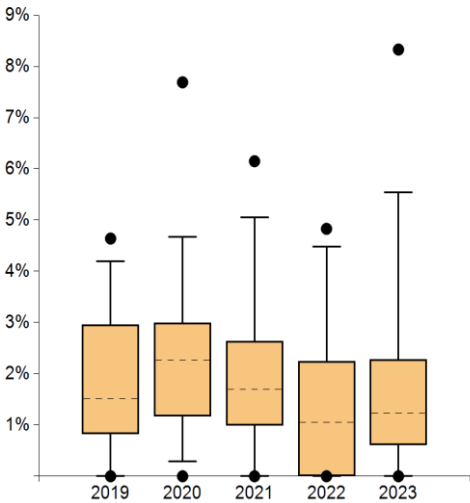
*The median for numerator and denominator does not refer to an existing centre, but reflects the median of all numerators of the cohort and the median of all denominators of the cohort.

** Percentage of total patients treated in centres according to the numerator.

8. Post-surgical wound infections



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Primary cases of the denominator with post-operative, laboratory-confirmed meningitis and/or wound infections requiring surgical revision within 30d after surgery	2*	0 - 22	165
Denominator	Surgical primary cases (= Indicator 6a)	129.5*	65 - 594	10,075
Rate	Target value ≤10%	1.23%	0.00% - 8.33%	1.64%**



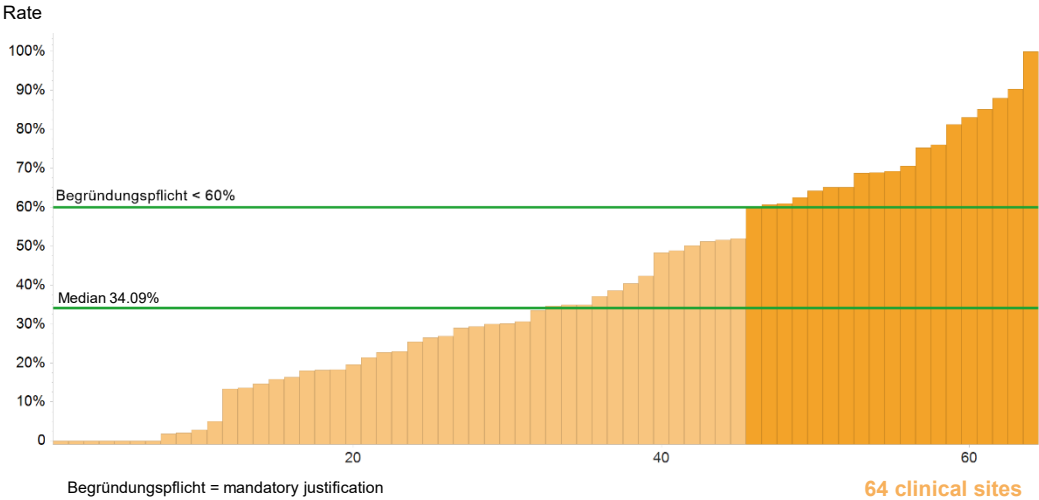
	2019	2020	2021	2022	2023
Max	4.64%	7.69%	6.15%	4.83%	8.33%
95 th percentile	4.19%	4.68%	5.05%	4.48%	5.55%
75 th percentile	2.96%	3.00%	2.64%	2.25%	2.28%
Median	1.52%	2.27%	1.70%	1.05%	1.23%
25 th percentile	0.82%	1.18%	1.00%	0.00%	0.61%
5 th percentile	0.00%	0.29%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
64	100.00%	64	100.00%
Comments: All centres meet the target value of ≤ 10%. In approximately 1.6% of surgical primary cases, a surgical revision was required due to a postoperative wound infection (previous year: 1.5%). Due to the effective implementation of the QIs and the representation of neurosurgical quality through QI 7a, this indicator, like QI 7b, will be collected for the last time in the 2023 indicator year.			

*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.

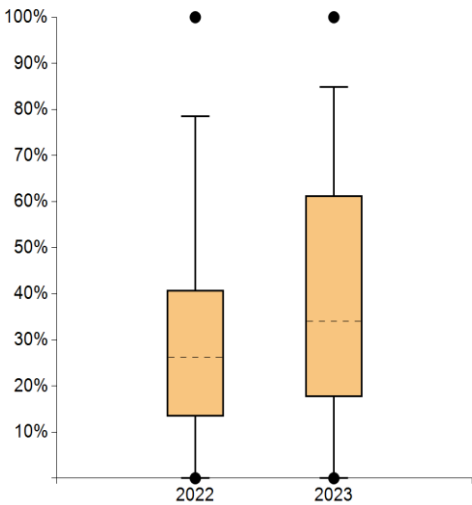
** Percentage of total patients treated in centres according to the numerator.

9. Symptom assessment via MIDOS or IPOS



	Indicator definition	All clinical sites 2023		
		Median	Range	Patients Total
Numerator	Patients of the denominator with symptom assessment via MIDOS or IPOS	30.5*	0 - 176	2,480
Denominator	Primary cases and patients with recurrence / progression with ICD-O topography C71 and ICD-O morphology /3	91*	30 - 260	6,522
Rate	Mandatory justification*** < 60%	34.09%	0.00% - 100.00%	38.03%**

IPOS = Integrated Palliative care Outcome Scale



	2019	2020	2021	2022	2023
Max	----	----	----	100.00%	100.00%
95 th percentile	----	----	----	78.46%	84.86%
75 th percentile	----	----	----	40.82%	61.33%
Median	----	----	----	26.19%	34.09%
25 th percentile	----	----	----	13.42%	17.66%
5 th percentile	----	----	----	0.00%	0.00%
Min	----	----	----	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the plausibility limits	
Number	%	Number	%
64	100.00%	19	29.69%

Comments:

In approximately 38% of the patients considered, symptom assessment was carried out using MIDOS or IPOS (previous year: 32%). About 30% of the centres achieved rates above 60%, representing a notable increase compared to the previous year (from 13%). Centres, who needed to provide justification, primarily cited challenges in data collection. Improvement measures and cross-departmental solutions were developed within the centres. Compared to the previous year, many centres were already able to increase their rates as a result. One critical remark was issued during the audits.

*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.

** Percentage of total patients treated in centres according to the numerator.

*** For values outside the plausibility limit(s), the centres are required to provide a justification.

WISSEN AUS ERSTER HAND (FIRST-HAND KNOWLEDGE)

Find out more on www.krebsgesellschaft.de

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