



# Annual Report 2019

## of the Certified Skin Cancer Centres

Audit year 2018 / Indicator year 2017

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## General information

Indicator No. 7: Sentinel node biopsy (SNB) .....
Indicator No. 8: Surgical interventions with safety margin defined in the Guideline.....
Indicator No. 9: Surgical interventions with histological margin control.....
Indicator No. 10: Revision surgery after secondary bleeding.....
Indicator No. 11: Revision surgery in the case of secondary bleeding after SNB and LND..
Indicator No. 12: Post-operative wound infections.....
Indicator No. 13: Malignant melanoma: Sentinel node biopsy (GL QI)
Indicator No. 14: Malignant melanoma: Post-operative radiotherapy (GL QI)

### 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. The quality indicators identified in this way are based on the strong recommendations of the guidelines and were derived from the guidelines groups in the context of the guideline programme oncology. Further information: [www.leitlinienprogramm-onkologie.de](http://www.leitlinienprogramm-onkologie.de)

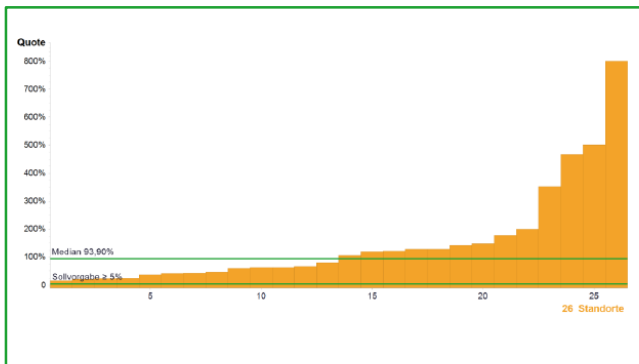
	Kennzahldefinition	Alle Standorte 2017		
		Median	Range	Patienten Gesamt
numerator	Pat. mit malignem Melanom, die in eine Studie mit Ethikvotum eingebracht wurden	19,5*	2 - 135	940
denominator	Primärfälle mit malignem Melanom Stad. III - IV	25*	3 - 172	833
Quote	Sollvorgabe ≥ 5%	93,90%	15,38% - 800,00%	112,85%**

### Basic data indicator:

The definitions of **numerator**, **population (=denominator)** and **target value** are taken from the Data Sheet.

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.

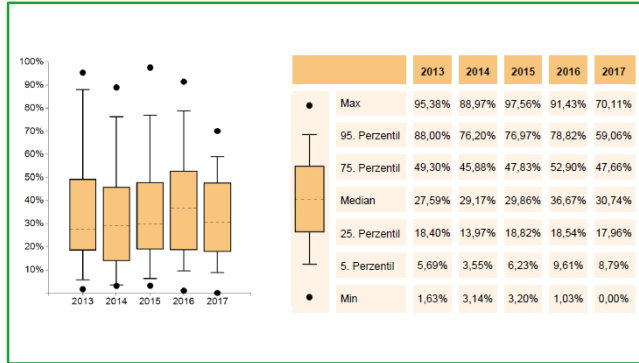
The values for the numerators, populations and rates of all Centres are given under range.



### Diagram:

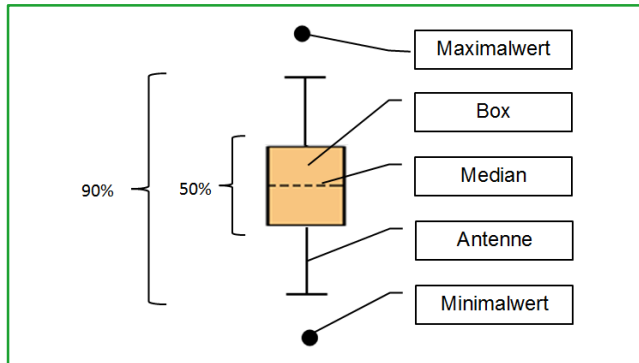
The x-axis indicates the number of Centres, the y-axis gives the values in percent or number (e.g. primary cases). The target value is depicted as a horizontal green line. The median, which is also depicted as a green horizontal line, divides the entire group into two equal halves.

## General information



### Cohort development:

**Cohort development** in the years **2013, 2014, 2015, 2016** and **2017** is presented in a box plot diagram.



### 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 90<sup>th</sup> percentile area/range. The extreme values are depicted here as dots.

## Status of the certification system for Skin Cancer Centres 2017

	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Ongoing Procedures	4	2	5	7	2	2
Certified Centres	63	61	55	47	43	41
Certified Clinical Sites	63	61	55	47	43	41

## Clinical sites taken into account

	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Clinical sites included in the Annual Report	26	54	52	44	41	38
equivalent to	41.27%	88.52%	94.5%	93.6%	95.3%	92.7%
Primary cases total*	5,423	11,584	10,986	9,872	8,898	8,742
Primary cases per clinical site (mean)*	208.6	215	211.3	224.4	217.0	230.1
Primary cases per clinical site (median)*	163.5	179.5	183.5	190.5	189	196.5

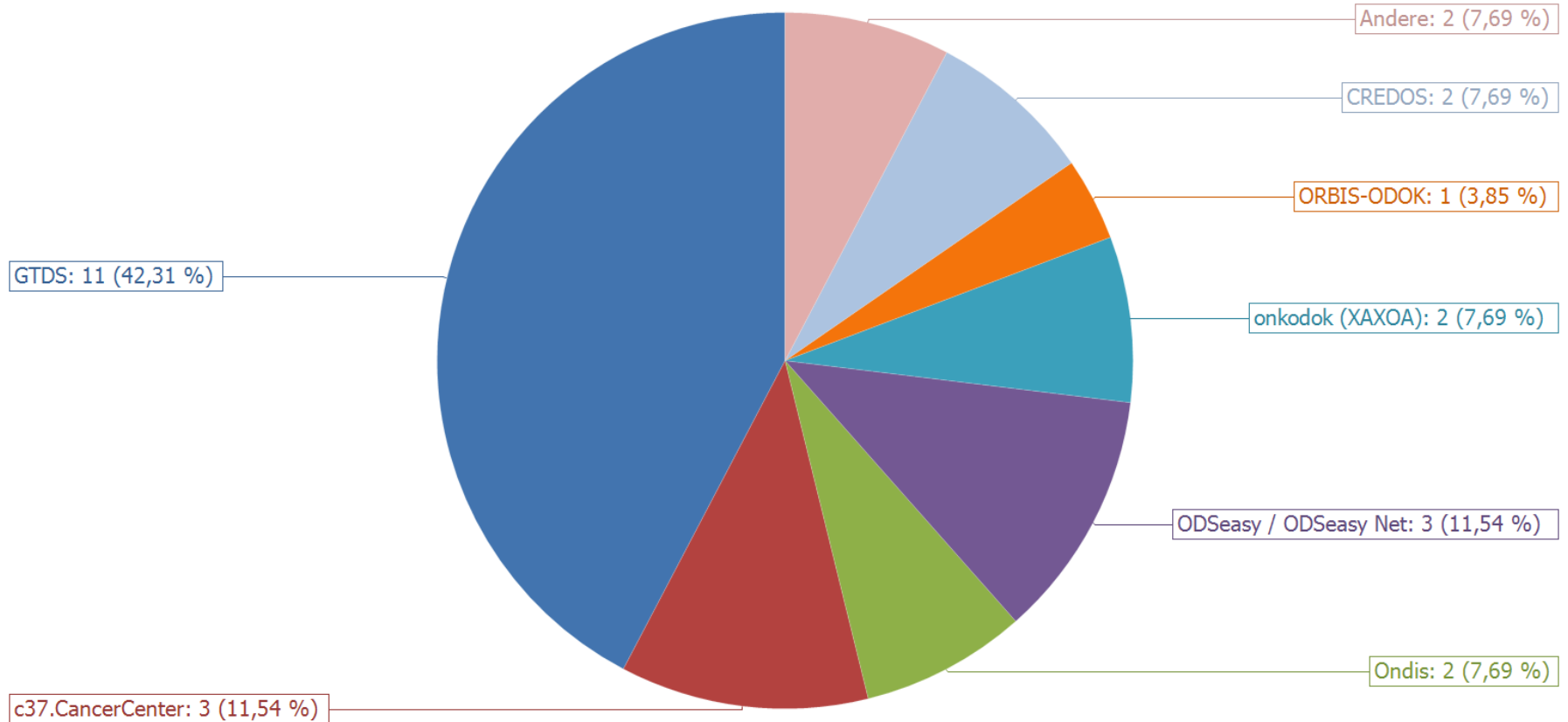
\* The numbers refer to the malignant melanomas from the clinical sites included in the Annual Report.

The annual report includes only 26 out of 63 certified center locations. Exceptions are 1 site, which was certified for the first time in 2018 (data illustration full calendar year for initial certification is not mandatory), and 36 sites that used the 7th edition of the TNM classification in 2017. In all 63 sites, a total of 12,630 primary cases of malignant melanoma were treated.

An up-to-date overview of all certified locations is shown at [www.oncomap.de](http://www.oncomap.de).

The indicators published here refer to the indicator year 2017. They are the assessment basis for the audits conducted in 2018.

## Tumour documentation systems in the Centre's clinical sites

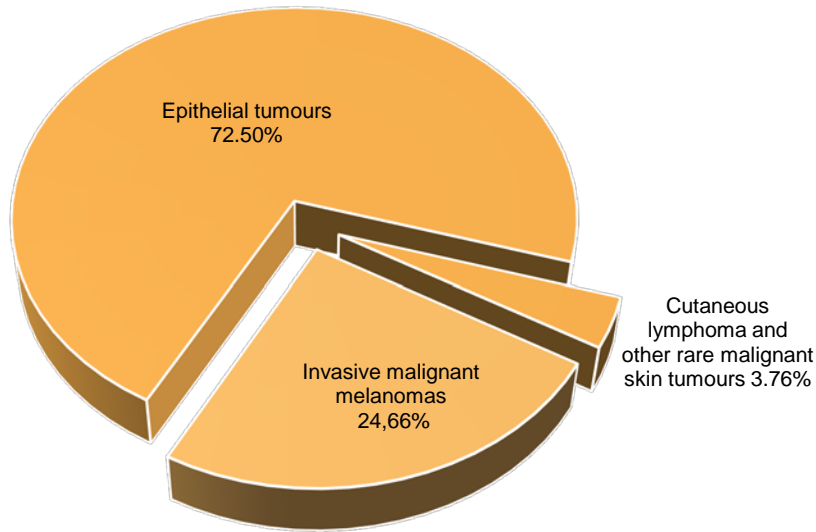


Legend:	
Other	Systems only used at one clinical site

The details on the tumour documentation system were taken from the Data Sheet (spreadsheet basic data). It is not possible to indicate several systems. In many cases support is provided by the cancer registers or there may be a direct connection to the cancer register via a specific tumour documentation system.

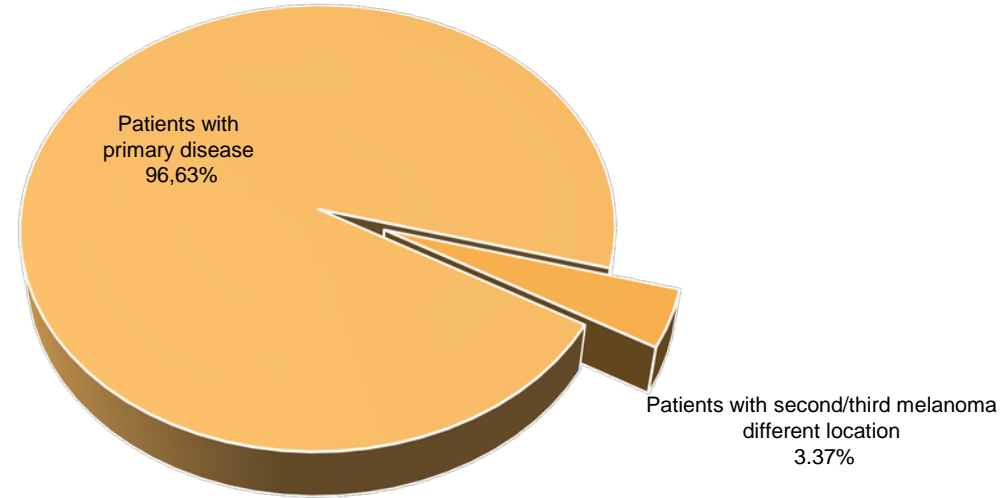
## Basic data – Stage distribution primary cases

Distribution primary case patients (primary disease + second/third melanomas at a different location)



Invasive malignant melanomas	5,423 (24.66%)
Epithelial tumours (excl. <i>in situ</i> )	15,742 (71.58%)
Cutaneous lymphomas and other rare malignant skin tumours (angiosarcoma, Merkel, DFSP, etc.)	827 (3.76%)
<b>Total</b>	<b>21,992 (100%)</b>

Distribution primary case patients Invasive malignant melanoma

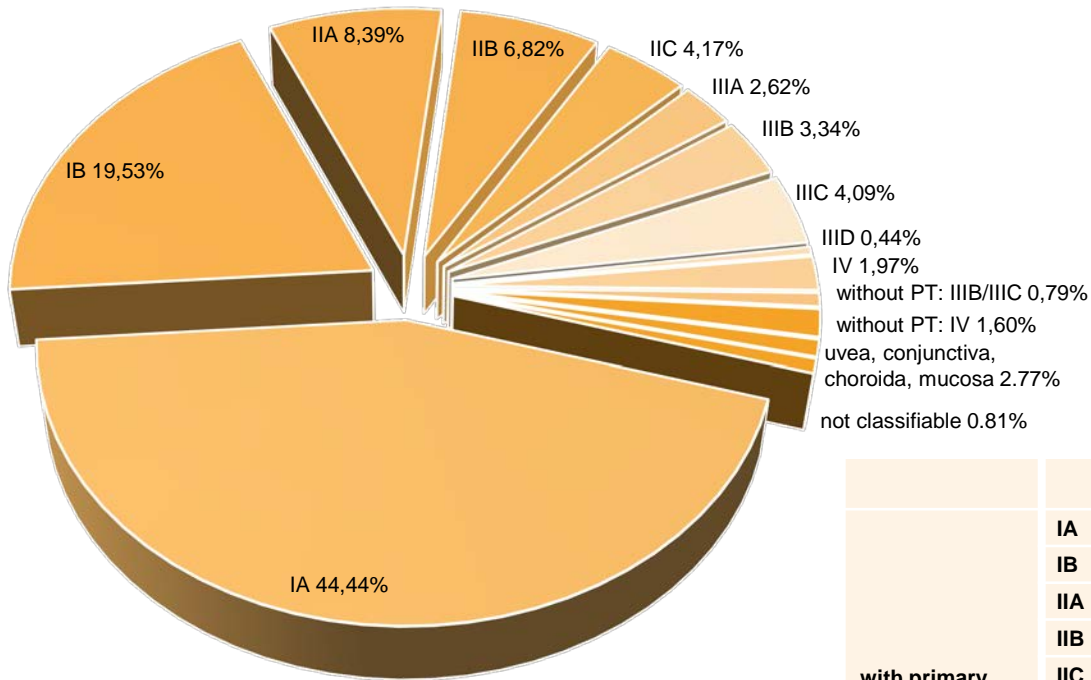


Patients with primary disease	5,240 (96.63%)
Patients with second/third melanoma different location	183 (3.37%)
<b>Total</b>	<b>5,423 (100%)</b>



## Basic data – Stage distribution primary cases

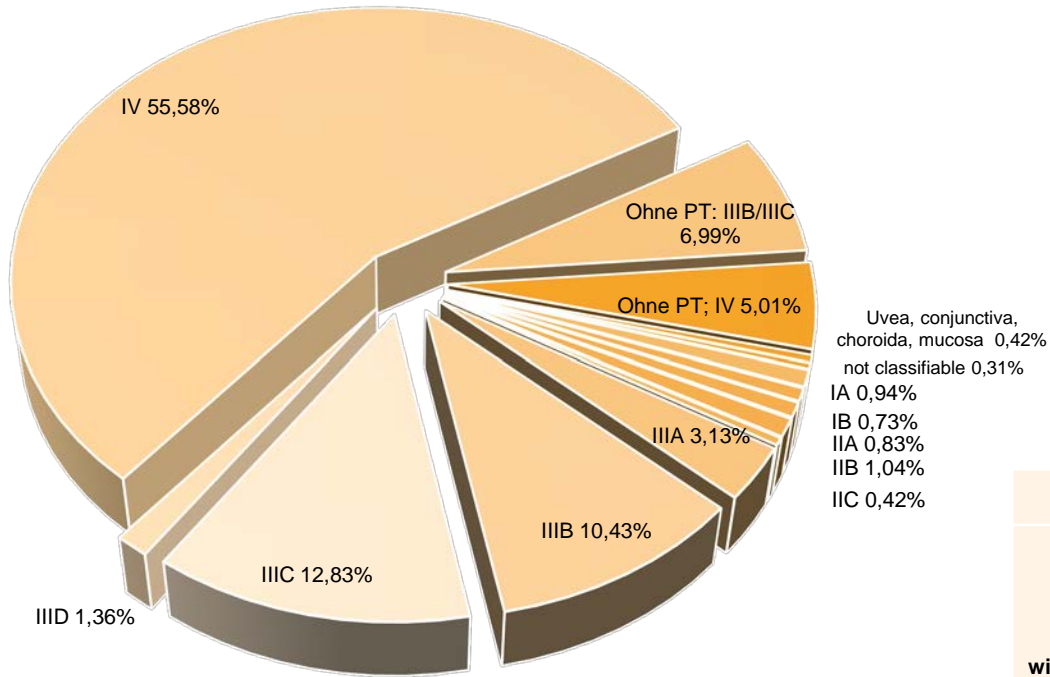
Stage distribution patients with stage shift/recurrence



		Audit Year 2018	Audit Year 2017	Audit Year 2016	Audit Year 2015
with primary tumour	IA	2,410 (44.44%)	4,762 (41.11%)	4,600 (41.87%)	4,280 (43.35%)
	IB	1,059 (19.53%)	2,548 (22.00%)	2,403 (21.87%)	2,109 (21.36%)
	IIA	455 (8.39%)	1,006 (8.68%)	939 (8.55%)	746 (7.56%)
	IIB	370 (6.82%)	745 (6.43%)	675 (6.14%)	535 (5.42%)
	IIC	226 (4.17%)	478 (4.13%)	471 (4.29%)	351 (3.56%)
	IIIA	142 (2.62%)	425 (3.67%)	429 (3.90%)	348 (3.53%)
	IIIB	181 (3.34%)	512 (4.42%)	462 (4.21%)	385 (3.90%)
	IIIC	222 (4.09%)	465 (4.01%)	311 (2.83%)	483 (4.89%)
	IIID	24 (0.44%)	-	-	-
	IV	107 (1.97%)	326 (2.81%)	275 (2.50%)	285 (2.89%)
without primary tumour	IIIB/IIIC	43 (0.79%)	51 (0.44%)	78 (0.71%)	105 (1.06%)
	IV	87 (1.60%)	98 (0.85%)	130 (1.18%)	75 (0.76%)
	Uvea, conjunctiva, choroida, mucosa	53 (0.98%)	107 (0.92%)	90 (0.82%)	89 (0.90%)
	not classifiable	44 (0.81%)	61 (0.53%)	123 (1.13%)	81 (0.82%)
	<b>Total</b>	<b>5,423 (100%)</b>	<b>11,584 (100%)</b>	<b>10,986 (100%)</b>	<b>9,872 (100%)</b>

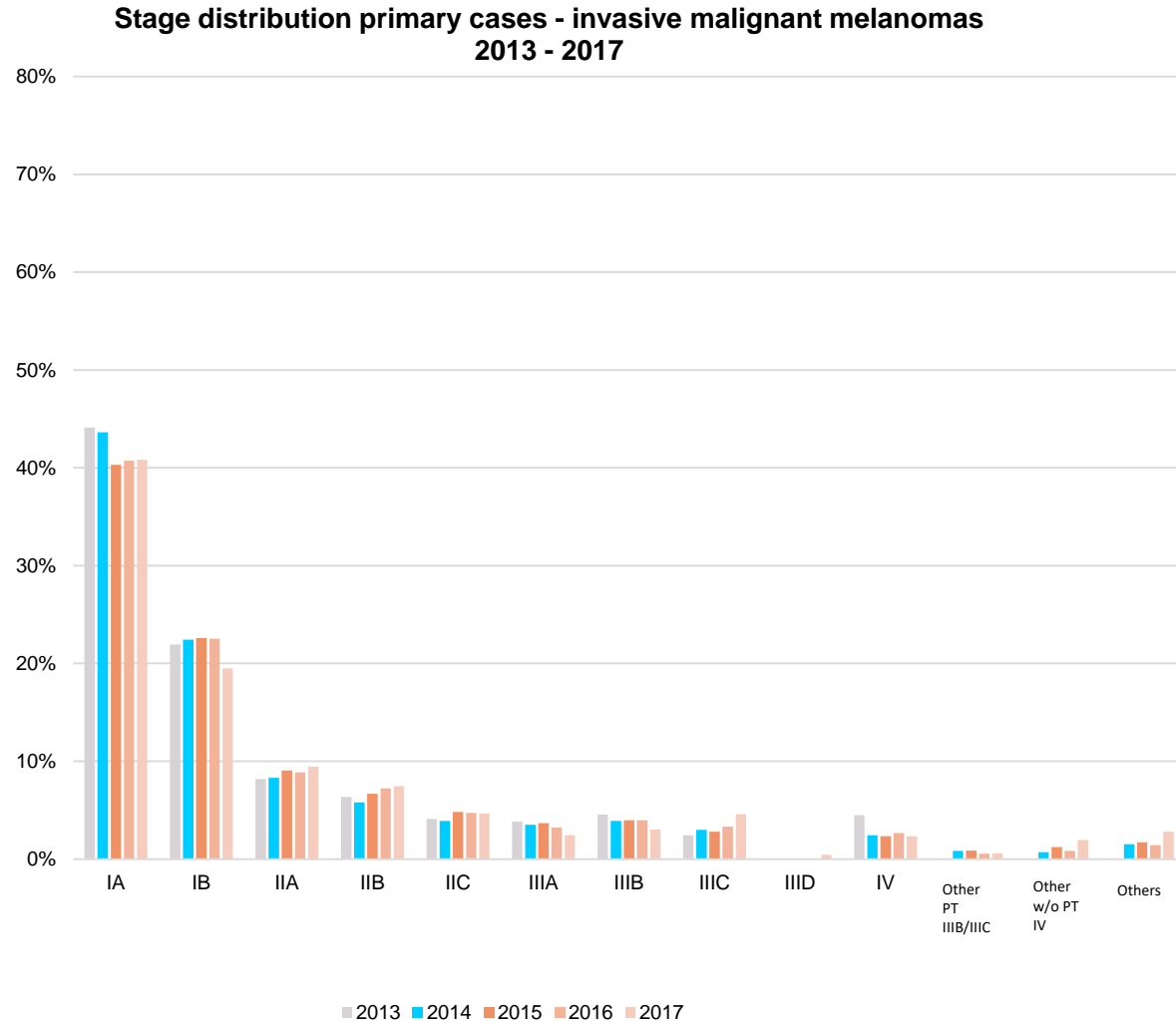
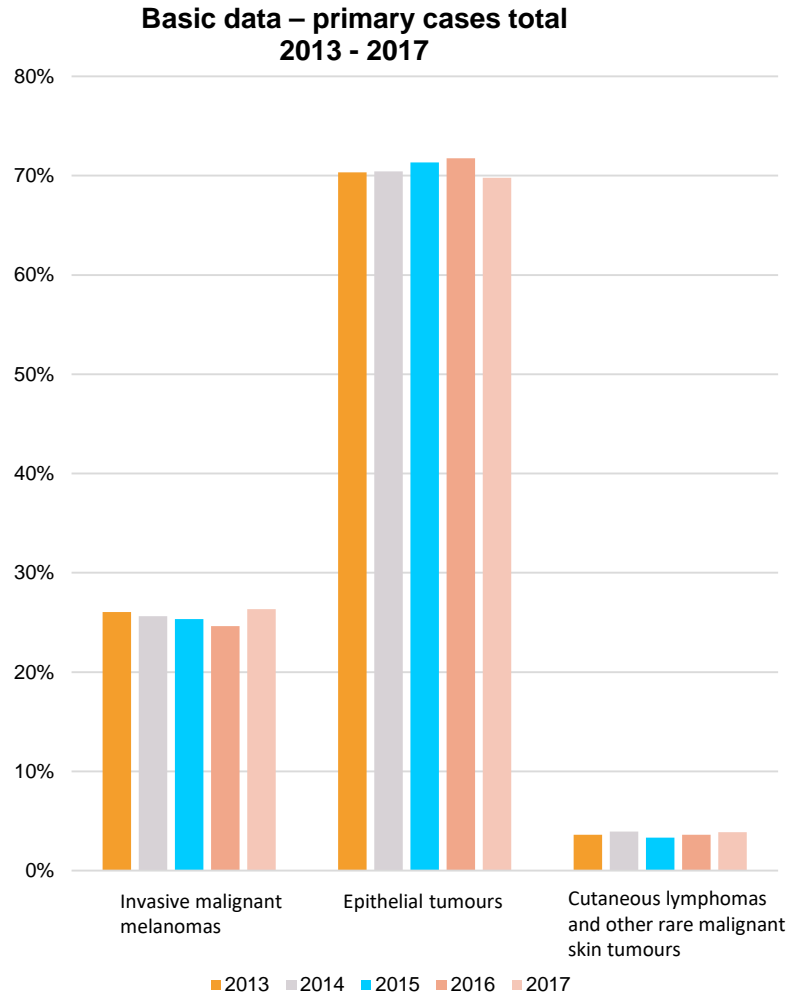
## Basic data – Stage distribution primary cases

### Stage distribution for patients with stage shift/recurrences



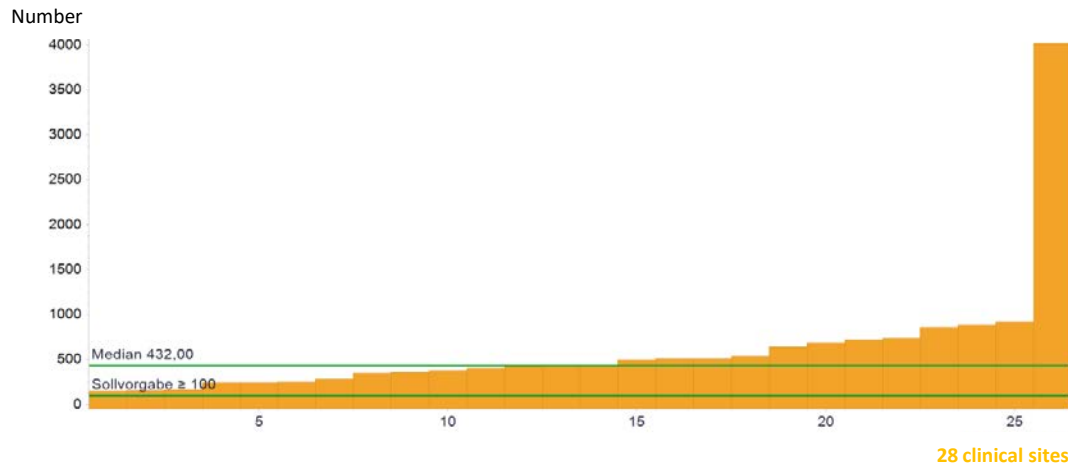
		Audit Year 2018	Audit Year 2017
with primary tumour	IA	9 (0.94%)	22 (0.94%)
	IB	7 (0.73%)	24 (1.02%)
	IIA	8 (0.83%)	34 (1.45%)
	IIB	10 (1.04%)	40 (1.70%)
	IIC	4 (0.42%)	27 (1.15%)
	IIIA	30 (3.13%)	40 (1.70%)
	IIIB	100 (10.43%)	209 (8.90%)
	IIIC	123 (1.83%)	272 (11.58%)
	IIID	13 (1.36%)	-
	IV	533 (55.58%)	1.326 (56.45%)
without primary tumour	IIB/IIIC	67 (6.99%)	87 (3.70%)
	IV	48 (5.01%)	120 (5.11%)
	Uvea, conjunctiva, choroida, mucosa	4 (0.42%)	65 (2.77%)
	not classifiable	3 (0.31%)	83 (3.53%)
	<b>Total</b>	<b>959 (100%)</b>	<b>2,349 (100%)</b>

## Basic data – Stage distribution primary cases 2013 - 2017



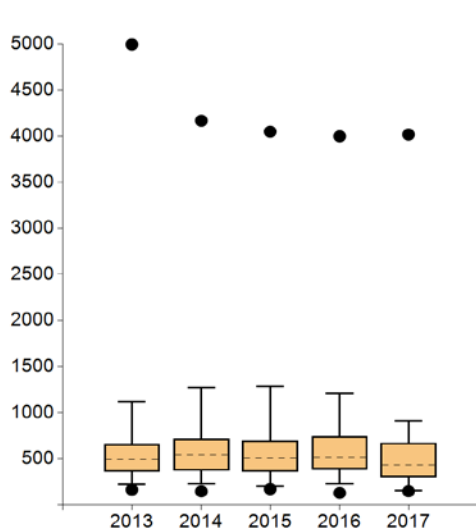
\* others: Uvea, conjunctiva, choroida, mucosa / not classifiable

### 1.1 Epithelial tumours (excl. *in situ*, incl. *inter alia* basal cell carcinomas, squamous cell carcinomas)



	Indicator definition	All Clinical sites		
		Median	Range	Patients total
Number	Primary cases (Def. see 1.1.3)	432	148 – 4,017	15,742
	Target value ≥ 100			

Sollvorgabe = target value



	2013	2014	2015	2016	2017
● Max	4,993.00	4,167.00	4,048.00	3,998.00	4,017.00
95. Percentile	1,118.00	1,273.60	1,286.55	1,207.95	908.75
75. Percentile	654.00	716.00	696.25	746.25	671.75
Median	492.00	544.00	502.50	512.00	432.00
25. Percentile	357.00	372.25	357.75	383.00	296.75
5. Percentile	218.00	226.25	198.75	228.35	153.75
● Min	164.00	147.00	171.00	129.00	148.00

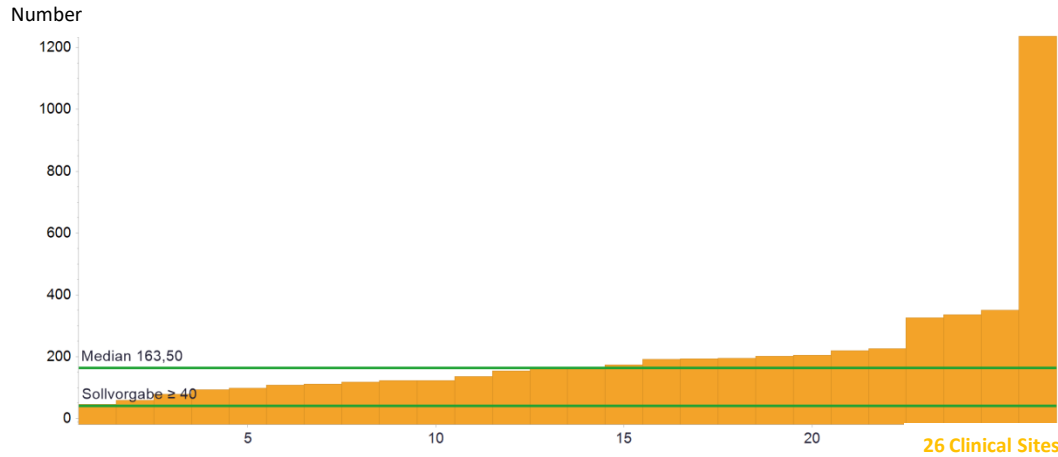
Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

**Notes:**

All Centres met the target value for the primary cases with epithelial tumours. The median fell compared with the previous year. However, it is not possible to draw any conclusions about the development of primary case numbers in the Centres in total as most of the Centres (n=36) are not included in the annual report because the switch of the tumour documentation to the new TNM Classification has not yet been completed. For the Centres included in the annual reports for 2018 and 2019, the total number of cases fell slightly (from 14,555 to 14,363).

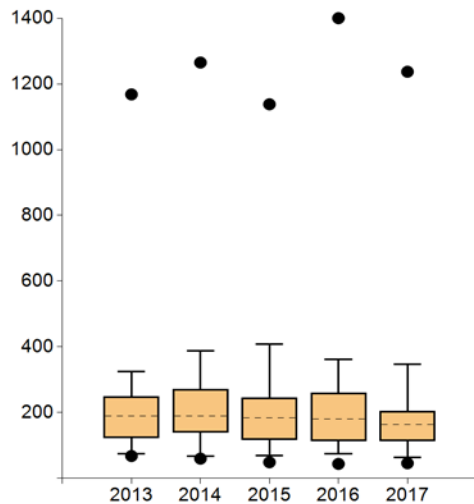


## 1.2 Invasive malignant melanomas (incl. malignant uveal, conjunctival, choroidal and mucosal melanomas)



	Indicator definition	All clinical sites 2017		
		Median	Range	Patients total
Number	Primary cases (Def. see 1.1.3)	163.5	46 – 1,237	5,423
	Target value ≥ 40			

Sollvorgabe = target value



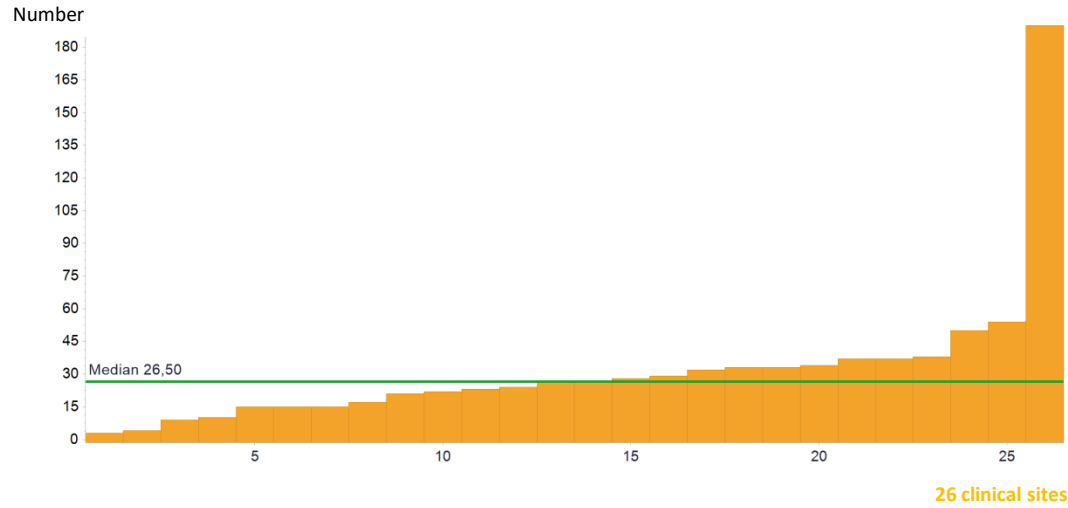
	2013	2014	2015	2016	2017
● Max	1,168.00	1,265.00	1,138.00	1,400.00	1,237.00
95. Percentile	325.00	388.45	408.50	361.90	346.25
75. Percentile	249.00	270.25	246.00	259.75	204.25
Median	189.00	190.50	183.50	179.50	163.50
25. Percentile	123.00	139.25	116.75	112.75	112.75
5. Percentile	75.00	67.50	70.00	74.30	63.75
● Min	68.00	60.00	49.00	44.00	46.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

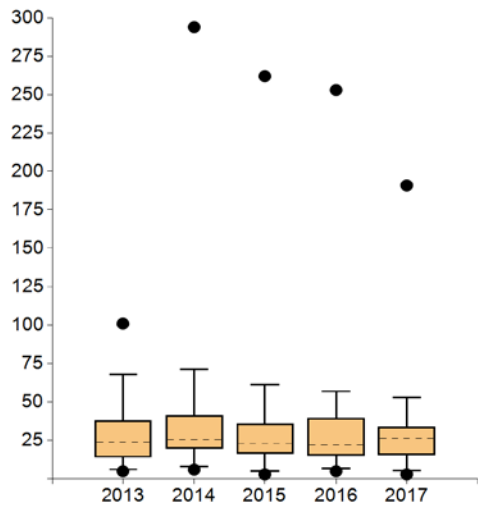
**Notes:**

All Centres met the target value for the primary cases with a malignant melanoma. The median fell compared with the previous year. However, it is not possible to draw any conclusions about the development of the primary case numbers in the Centres in total as most of the Centres (n=36) are not included in the annual report because the switch of the tumour documentation to the new TNM Classification has not yet been completed

### 1.3 Cases with cutaneous lymphoma and rare, malignant skin tumours



	Indicator definition	All clinical sites		
		Median	Range	Patients Total
Number	Primary cases (Def. see 1.1.3)	26,5	3 -191	827
	No target value			

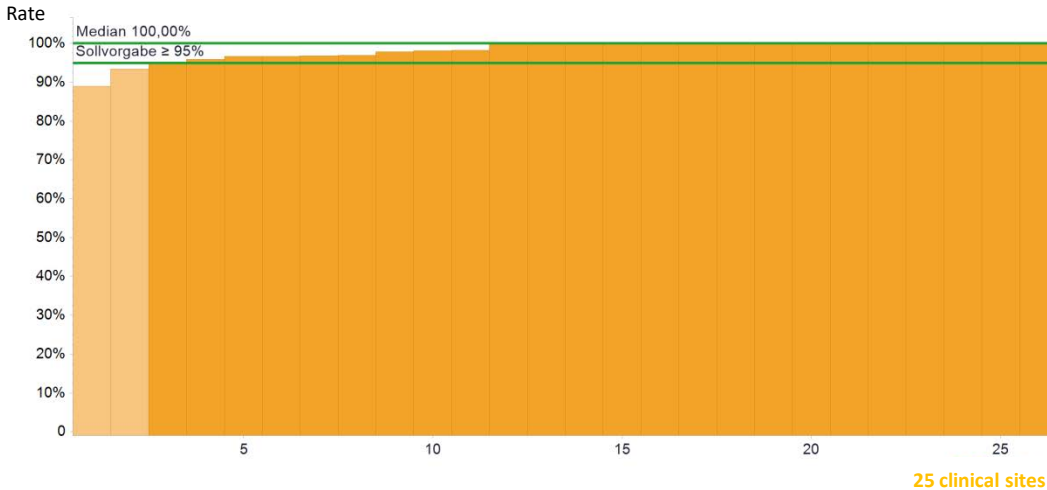


	2013	2014	2015	2016	2017
● max	101.00	294.00	262.00	253.00	191.00
95 <sup>th</sup> percentile	68.00	71.00	61.40	56.75	53.00
75 <sup>th</sup> percentile	38.00	41.50	36.00	39.50	33.75
Median	24.00	25.50	23.00	22.00	26.50
25 <sup>th</sup> percentile	14.00	19.75	16.25	15.25	15.50
5 <sup>th</sup> percentile	6.00	8.00	5.00	7.00	5.25
● Min	5.00	6.00	3.00	5.00	3.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	-----	-----

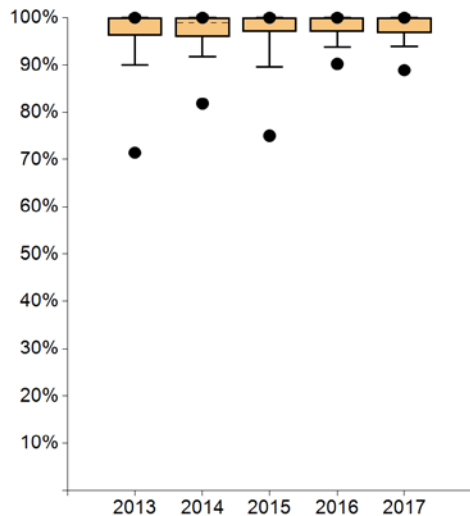
**Notes:**  
 The median of the number of primary cases with rare skin tumours increased compared with the previous year. Here, too, no conclusions can be drawn about the development of the number of primary cases in total (see reasons Indicators 1.1 and 1.2).

## 2. Discussion of cases with new remote metastases



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Cases with new remote metastases (no locoregional metastases) which were presented in the tumour conference	29*	8 - 94	893
Denominator	Cases with new remote metastases (no locoregional metastases)	29,5*	8 - 97	911
Rate	Target value ≥ 95%	100%	88,89% - 100%	98,02%**



	2013	2014	2015	2016	2017
Max	100%	100%	100%	100%	100%
95. Percentile	100%	100%	100%	100%	100%
75. Percentile	100%	100%	100%	100%	100%
Median	100%	98.87%	100%	100%	100%
25. Percentile	96.30%	95.96%	97.02%	97.04%	96.81%
5. Percentile	90.00%	91.77%	89.64%	93.78%	93.81%
Min	71.43%	81.82%	75.00%	90.24%	88.89%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	24	92.31%

**Notes:**

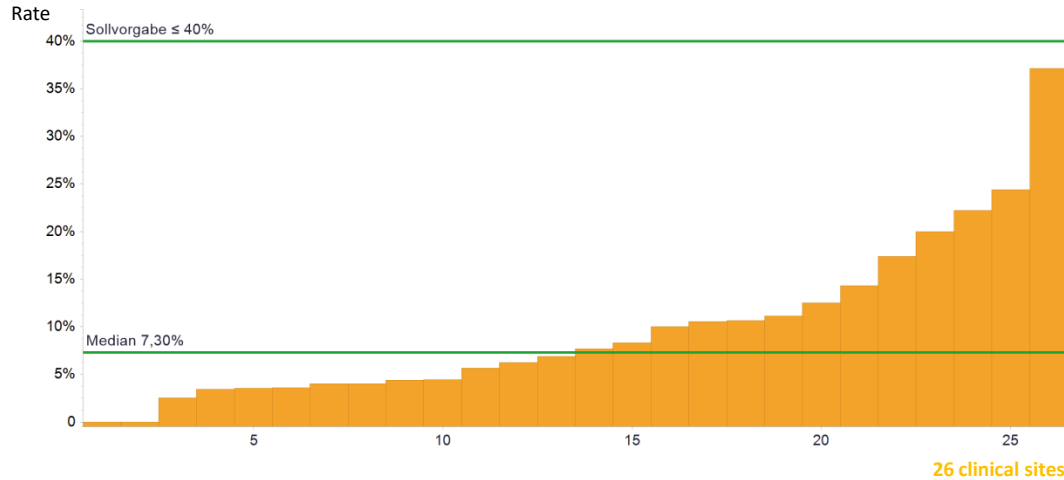
The procedure for the interdisciplinary presentation of cases with new remote metastases in the tumour conference continued to be very well implemented in the Centres. Two Centres did not meet the target value. Both Centres had low denominator numbers (n=18 and n=15) which means that individual cases with non-presentation in the tumour conference had a greater impact when calculating the indicator. One of the reasons given for non-presentation in the tumour conference was that the patients had died beforehand.

\*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

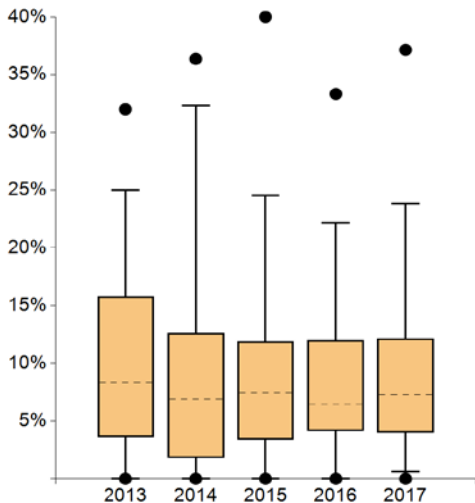


### 3. Therapy deviation from recommendation tumour conference



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients total
Numerator	Cases with new remote metastases (no locoregional metastases) which were presented in the tumour conference and involved a therapy deviation	2*	0 - 13	83
Denominator	Cases with new remote metastases (no locoregional metastases) which were presented in the tumour conference (= numerator Indicator 2)	29*	8 - 94	893
Rate	Target value ≤ 40%	7.30%	0,00% - 37.14%	9,29%* *



	2013	2014	2015	2016	2017
● Max	32.00%	36.36%	40.00%	33.33%	37.14%
95. Percentile	25.00%	32.28%	24.50%	22.13%	23.85%
75. Percentile	15.79%	12.64%	11.88%	12.00%	12.15%
Median	8.33%	6.88%	7.42%	6.47%	7.30%
25. Percentile	3.60%	1.83%	3.41%	4.13%	4.00%
5. Percentile	0.00%	0.00%	0.00%	0.00%	0.63%
● Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100%	26	100%

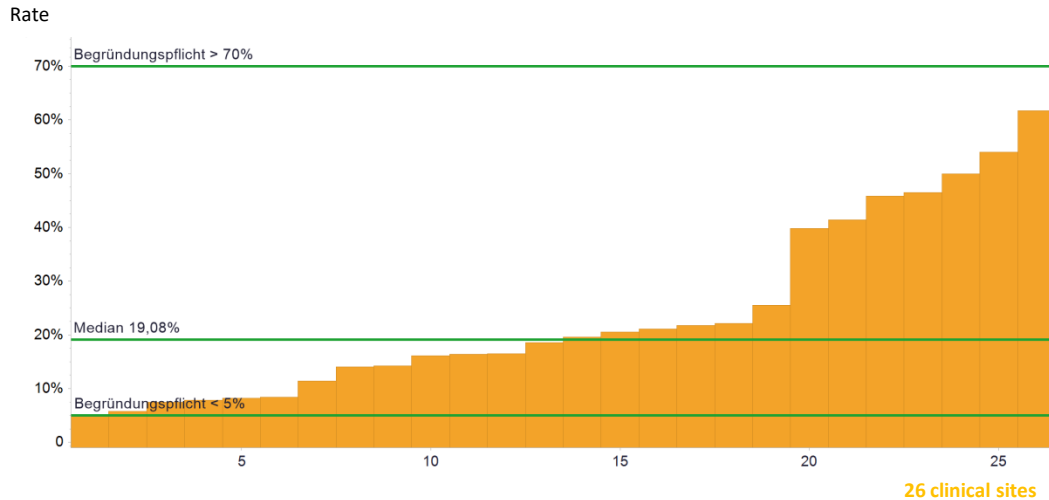
**Notes:**  
The indicator for therapy deviations from the tumour conference recommendation remained more or less the same over the last five years. All Centres included in the annual report 2019 met the target value. The two Centres with the highest rates of therapy deviations (37.14% and 24.39%) had far lower rates (20% and 12.12%) the previous year.

\*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



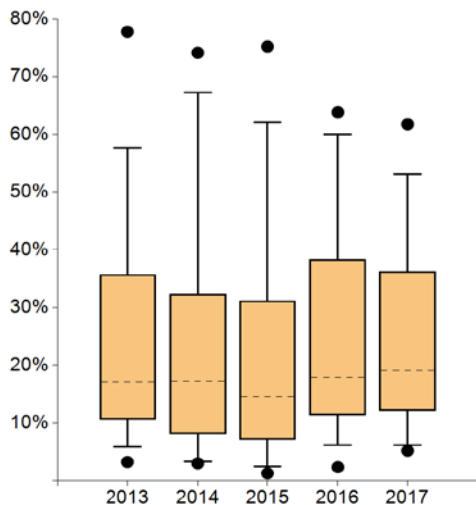
## 4. Psycho-oncological care



Begründungspflicht = mandatory statement for reason

26 clinical sites

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Primary cases (= Indicator 1.2) + cases with new remote metastases (no locoregional metastases) that received social services counselling in an inpatient or outpatient setting	31.5*	5 - 261	1,437
Denominator	Primary cases (= Indicator 1.2) + cases with new remote metastases (no locoregional metastases) (= denominator Indicator 2).	191.5*	58 - 1,334	6,334
Rate	Mandatory statement of reasons** < 5% and >70%	19.08%	5.20% - 61.76%	22.69%** *



	2013	2014	2015	2016	2017
● Max	77.78%	74.14%	75.20%	63.83%	61.76%
95. Percentile	57.61%	67.23%	62.02%	59.97%	53.03%
75. Percentile	135.71%	32.34%	31.13%	38.32%	36.27%
Median	17.03%	17.14%	14.53%	17.95%	19.08%
25. Percentile	10.57%	8.10%	7.18%	11.41%	12.10%
5. Percentile	5.82%	3.33%	2.43%	6.23%	6.19%
● Min	3.25%	3.02%	1.30%	2.36%	5.20%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
26	100%	26	100%

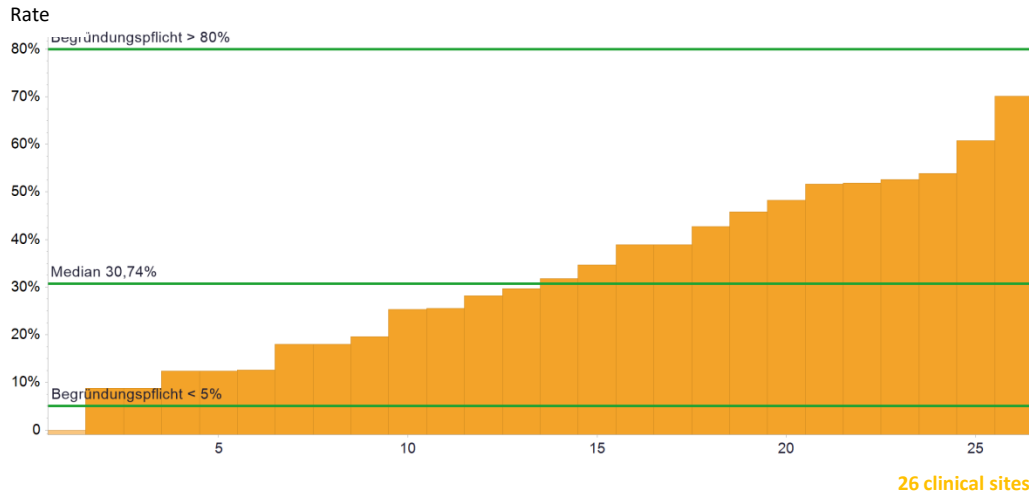
**Notes:**  
The median of the indicator for psycho-oncological counselling rose slightly. The majority of Centres included in the annual reports for 2019 and 2018, were able to increase their counselling rate. The two Centres with the lowest counselling rates in indicator year 2017 had a rate of less than 10% in indicator year 2016, too. In these Centres the auditors pointed out the need to monitor the development of the number of psycho-oncological counselling sessions during the year and, if necessary, to take steps to increase the rate.

\*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.

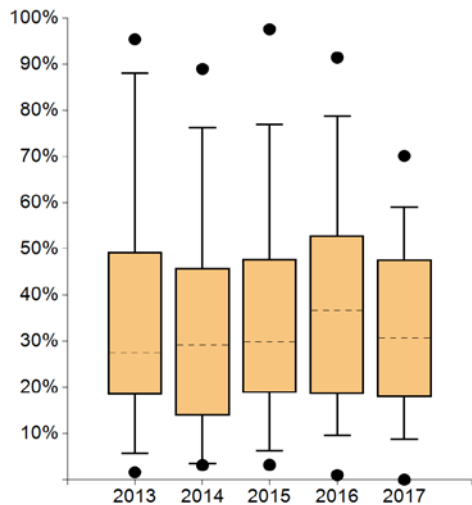
\*\* For values outside the plausibility limit(s) the Centres must give the reasons.

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

## 5. Counselling social services



Begründungspflicht = mandatory statement for reason



	2013	2014	2015	2016	2017
● Max	95.38%	88.97%	97.56%	91.43%	70.11%
95. Percentile	88.00%	76.20%	76.97%	78.82%	59.06%
75. Percentile	49.30%	45.88%	47.83%	52.90%	47.66%
Median	27.59%	29.17%	29.86%	36.67%	30.74%
25. Percentile	18.40%	13.97%	18.82%	18.54%	17.96%
5. Percentile	5.69%	3.55%	6.23%	9.61%	8.79%
● Min	1.63%	3.14%	3.20%	1.03%	0.00%

	Indicator definition	All clinical sites 2016		
		Median	Range	Patients Total
Numerator	Primary cases (= Indicator 1.2) + cases with new remote metastases (no locoregional metastases) which received social services counselling in an inpatient or outpatient setting	55*	0 - 376	2,009
Denominator	Primary cases (= Indicator 1.2) + cases with new remote metastases (no locoregional metastases) (= denominator Indicator 2).	191,5*	58 - 1,334	6,334
Rate	Mandatory statement of reasons** < 5% and >80%	30,74%	0,00% - 70,11%	31,72%***

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
26	100.00%	25	96.15%

**Notes:**

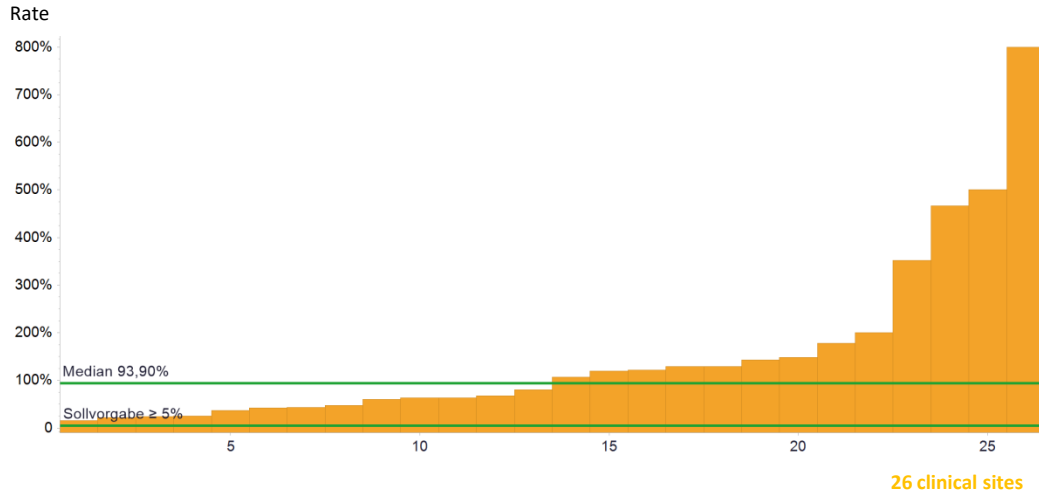
The median of the indicator fell compared with the previous year. The development of the indicator more or less remained the same over the last five years. 31.7% of the patients treated in the Centres in 2017 received social services counselling (2016: 33.8%). In one Centre no counselling by social services was documented for any of the patients (rate: 0%). The Centre is located in a German-speaking country outside Germany where social services counselling is organised differently (outpatient social services counselling units).

\*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.

\*\* For values outside the plausibility limit(s) the Centres must give the reasons.

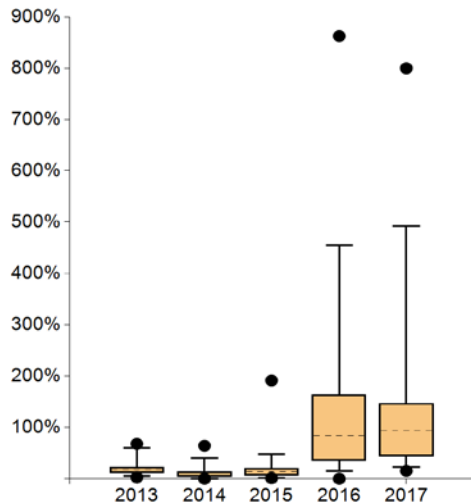
\*\*\* Percentage of centre patients who were treated according to the indicator

## 6. Malignant melanoma: Study participation



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Patients with a malignant melanoma who were included in a study with an ethical vote	19.5*	2 - 135	940
Denominator	Primary cases with a malignant melanoma stage III - IV	25*	3 - 172	833
Rate	Target value ≥ 5%	93.90%	15.38% - 800.00%	112.85%**



	2013	2014	2015	2016	2017
● Max	68.18%	64.38%	191.55%	862.50%	800.00%
95. Percentile	60.00%	39.53%	47.79%	455.12%	491.67%
75. Percentile	23.60%	14.07%	20.83%	163.24%	146.43%
Median	17.77%	6.73%	13.14%	83.55%	93.90%
25. Percentile	10.64%	3.41%	5.88%	35.12%	44.10%
5. Percentile	5.16%	0.74%	1.84%	15.27%	22.70%
● Min	2.86%	0,00%	1.12%	0.00%	15.38%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100%	26	100%

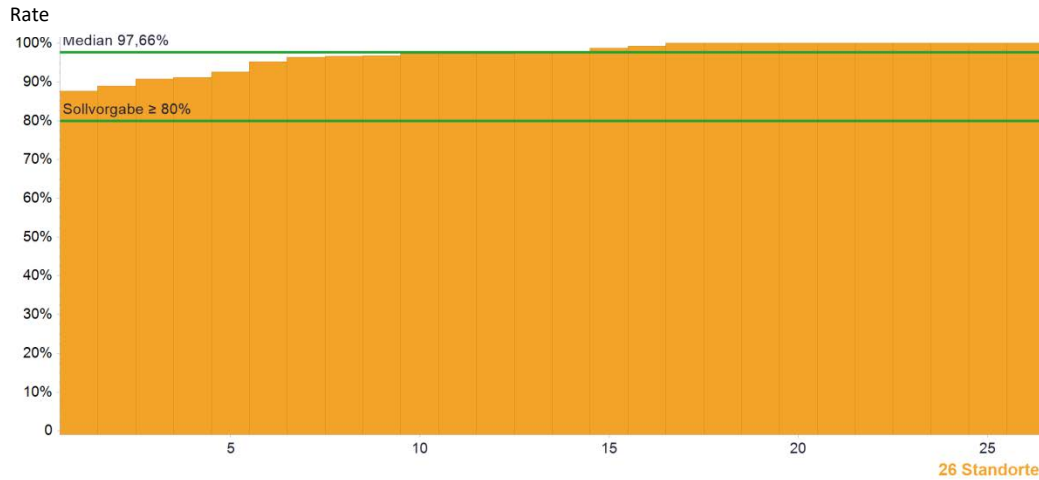
**Notes:**

The indicator for study participation is the only one for which the numerator is not a subset of the denominator and so rates >100% are possible. Centres with high study rates entered many patients in registry studies or biodatabases.

\*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

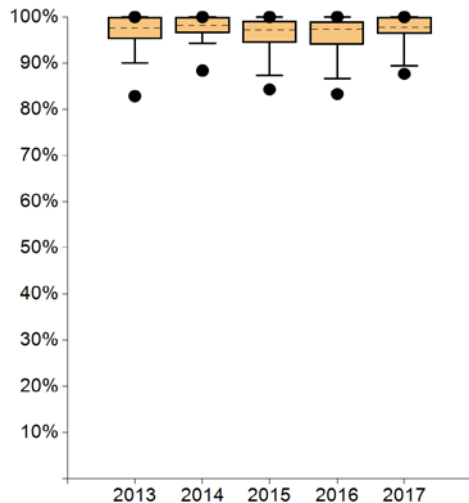
## 7. Sentinel node biopsy (SNB)



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Patients with sentinel lymph node confirmed intra-operatively	72*	16 - 366	2,254
Denominator	Patients who have had surgery with SNB	74*	18 - 376	2,322
Rate	Target value ≥ 80%	97.66%	87.65% - 100%	97,07%**

\*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.



	2013	2014	2015	2016	2017
Max	100%	100%	100%	100%	100%
95 <sup>th</sup> percentile	100%	100%	100%	100%	100%
75 <sup>th</sup> percentile	100%	100%	99,16%	98,99%	100%
Median	97.53%	98.08%	97.21%	97.30%	97.66%
25 <sup>th</sup> percentile	95.12%	96.52%	94.44%	93.95%	96.42%
5 <sup>th</sup> percentile	90.00%	94.29%	87.36%	86.59%	89.34%
Min	82.86%	88.37%	84.29%	83.33%	87.65%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

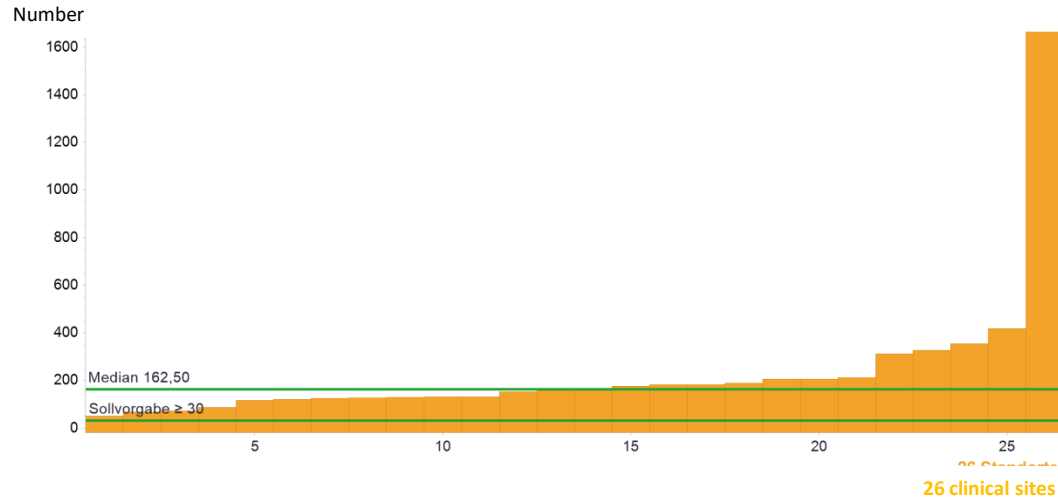
**Notes:**

The procedure for the successful conduct of sentinel lymph node biopsies has been implemented in an excellent manner in the Centres – as was the case in previous years. When considering all Centres included in the annual report, sentinel lymph nodes could be detected in 97.1% of surgical procedures. All Centres met the target value of a detection rate of at least 80%.

\*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.

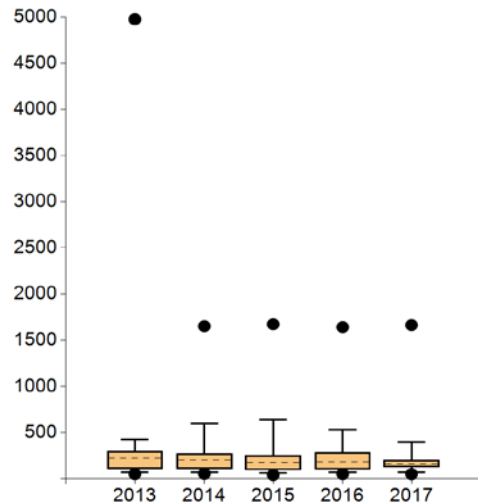
\*\* Percentage of centre patients who were treated according to the indicator

## 8. Surgical interventions with safety margin defined in the Guideline



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patienten Gesamt
Number	Surgical interventions with safety margin (no interventions with microscopically monitored surgery) (= malignant melanomas, Merkel cell carcinomas, sarcomas), etc.	162.5	51 – 1,664	6,048
	Target value ≥ 30			



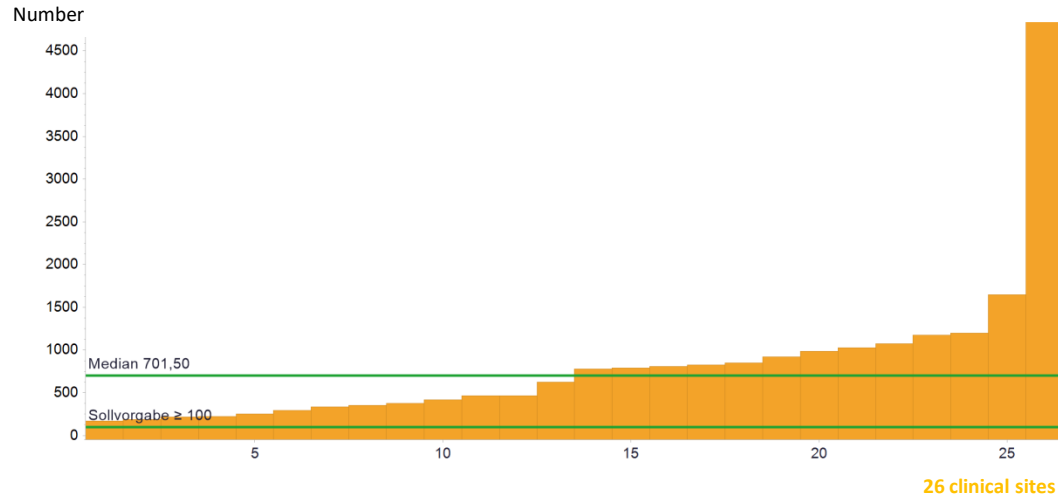
	2013	2014	2015	2016	2017
● Max	4,974.00	1,652.00	1,673.00	1,642.00	1,664.00
95. Perentile	429.00	597.65	635.85	532.25	401.75
75. Perentile	298.00	273.50	250.50	287.75	204.00
Median	220.00	197.50	176.50	183.50	162.50
25. Perentile	111.00	107.25	98.00	101.50	125.50
5. Perentile	67.00	66.50	64.10	65.60	68.00
● Min	52.00	55.00	42.00	52.00	51.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

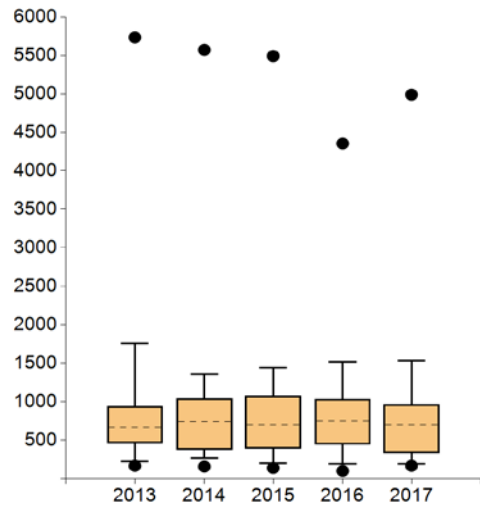
**Notes:**

All Centres included in the annual report met the target value for the surgical procedures with a safety margin in accordance with the Guideline. The median of the indicator fell compared with the previous year. Here, too, it is not admissible to draw conclusions about the development of the Centres in total because of the Centres not included in the annual report (see reason Indicator 1.2). Most of the Centres included in the annual report were able to increase the number of their surgical procedures compared to the previous year.

## 9. Surgical interventions with histological margin control



Sollvorgabe = target value



	2013	2014	2015	2016	2017
● Max	5,734.00	5,571.00	5,492.00	4,356.00	4,990.00
95. Perzentil	1,757.00	1,360.50	1,438.90	1,521.70	1,533.50
75. Perzentil	936.00	1,040.75	1,070.75	1,031.75	966.75
Median	666.00	744.50	705.00	746.00	701.50
25. Perzentil	462.00	373.50	394.50	451.00	340.00
5. Perzentil	224.00	263.65	201.95	191.90	194.00
● Min	169.00	159.00	140.00	102.00	169.00

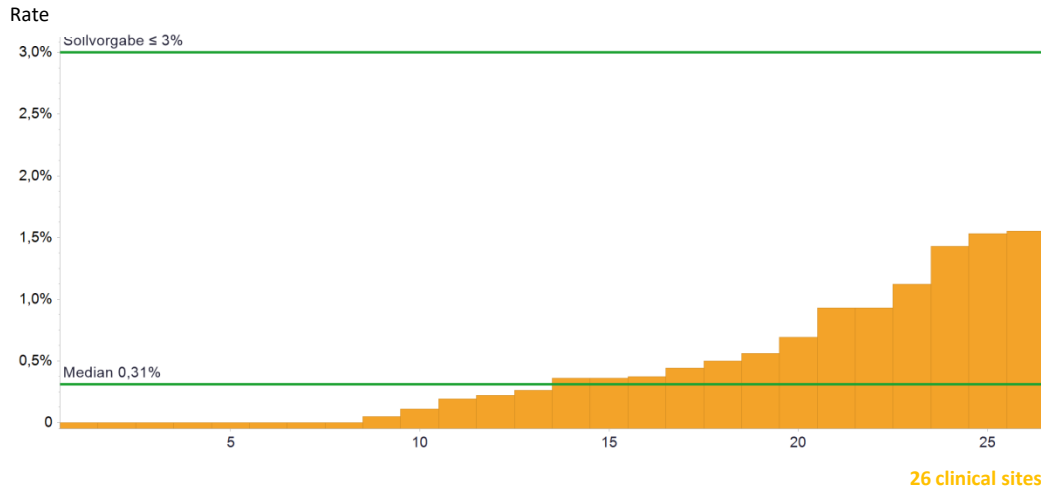
	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Number	Surgical interventions with histological margin control (no partial biopsies, no interventions with safety margin) (= epithelial tumours)	701.5	169 – 4,990	2,1429
	Target value ≥ 100			

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

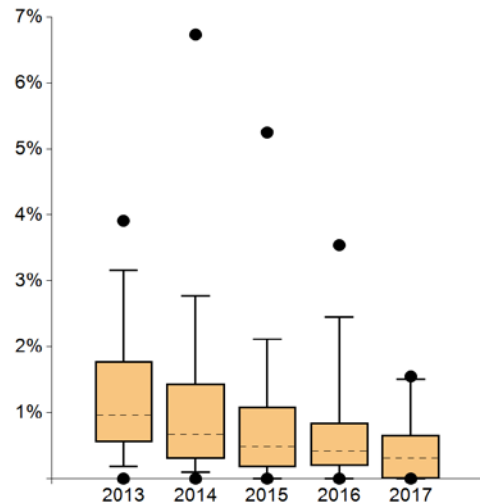
**Notes:**

All Centres included in the annual report 2019 met the target value for micrographically controlled surgical procedures to treat epithelial tumours. The majority of Centres were able to increase the number of their surgical procedures.

## 10. Revision surgery after secondary bleeding



Sollvorgabe = target value



	2013	2014	2015	2016	2017
max	3.91%	6.73%	5.25%	3.54%	1,5%
95 <sup>th</sup> percentile	3,16%	2,78%	2,11%	2,45%	1.51%
75 <sup>th</sup> percentile	1.78%	1.44%	1..09%	0.85%	0.66%
Median	0.97%	0.67%	0.49%	0.42%	0.31%
25 <sup>th</sup> percentile	0.56%	0.30%	0.18%	0.20%	0.00%
5 <sup>th</sup> percentile	0.19%	0.10%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Revision surgery (5-983) because of intra- or post-operative secondary bleeding (ICD-code: T81.0) for the sum numerators indicators 8 + 9	3*	0 - 19	111
Denominator	Sum numerators Indicators 8 + 9	855*	220 – 6,654	27,477
Rate	Target value ≤ 3%	0.31%	0.00% - 1.55%	0.40%**

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
54	100.00%	53	98.15%

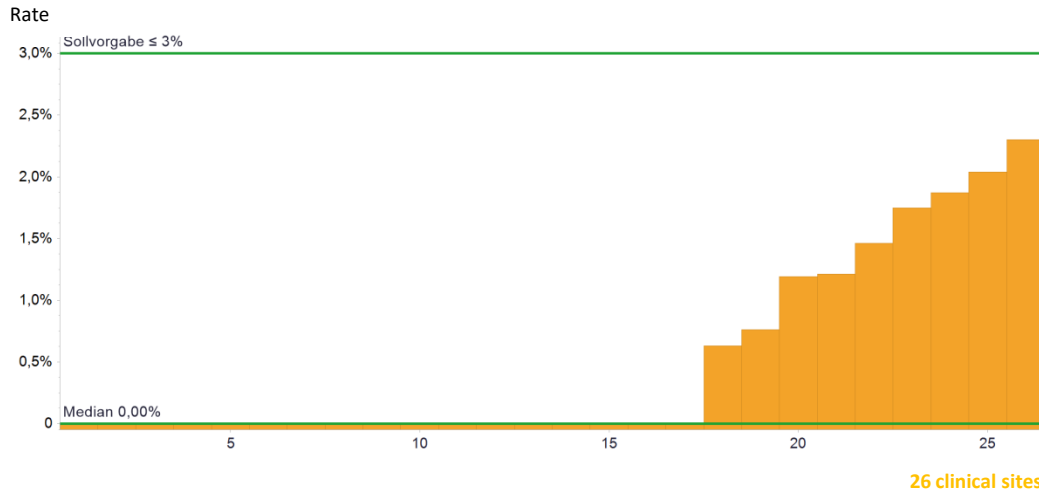
**Notes:**

The indicator was implemented very well by the Centres. The median of the rate of revision surgeries to deal with secondary bleeding fell steadily over the past five years. As in previous years all Centres met the target value.

\*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.

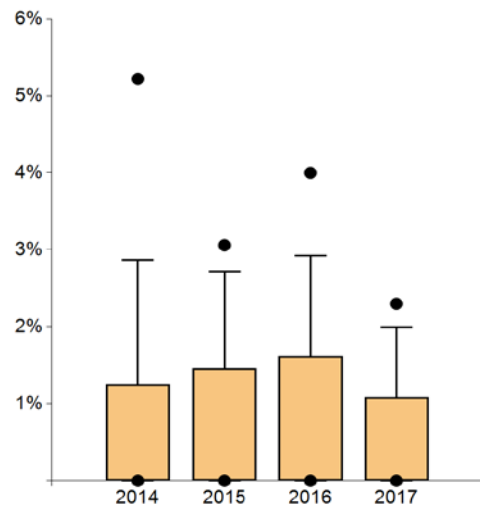
\*\* Percentage of centre patients who were treated according to the indicator

## 11. Revision surgery in the case of secondary bleeding after SNB and LND



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patientes total
Numerator	Revision surgeries because of post-operative secondary bleeding (ICD-Code: T81.0) after SNB and therapeutic LND at stages IIIA, IIIB and IIIC	0*	0 - 3	16
Denominator	Patients who have undergone surgery with SNB (= denominator indicator 7) + patients with therapeutic LND for stages IIIA, IIIB and IIIC	84*	16 - 477	2,618
Rate	Target value ≤ 3%	0.00%	0.00% - 2.30%	0.61%**



	2013	2014	2015	2016	2017
max	-----	5.22%	3.06%	4.00%	2.30%
95 <sup>th</sup> percentile	-----	2.87%	2.72%	2.92%	2.00%
75 <sup>th</sup> percentile	-----	1.25%	1.46%	1.62%	1.08%
Median	-----	0.00%	0.00%	0.00%	0.00%
25 <sup>th</sup> percentile	-----	0.00%	0.00%	0.00%	0.00%
5 <sup>th</sup> percentile	-----	0.00%	0.00%	0.00%	0.00%
Min	-----	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	26	100.00%

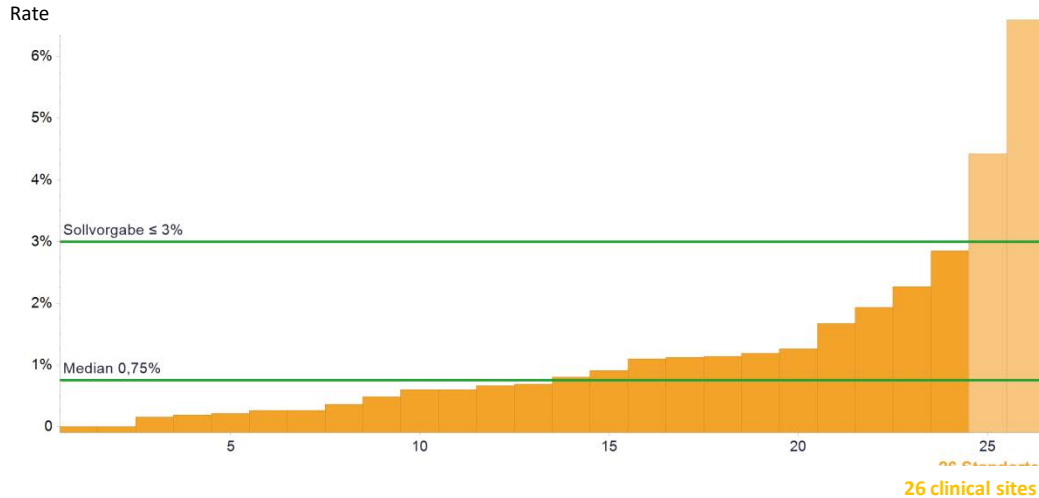
**Notes:**  
The indicator for revision surgery to treat secondary bleeding in conjunction with surgical lymph node removal was also implemented well by the Centres. All Centres met the target value. The 75<sup>th</sup> and 95<sup>th</sup> percentiles and the maximum value fell compared with the previous year.

\*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.

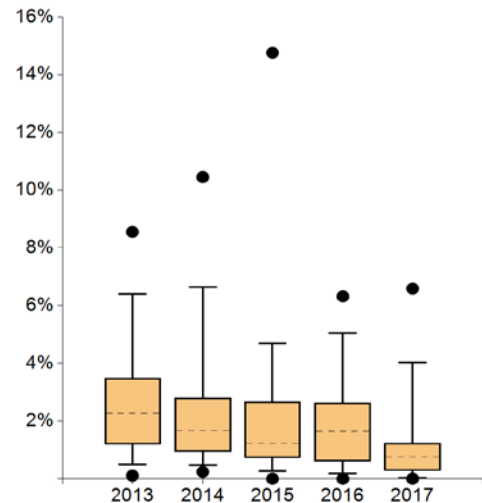
\*\* Percentage of centre patients who were treated according to the indicator.



## 12. Post-surgical wound infections



Sollvorgabe = target value



	2013	2014	2015	2016	2017
max	8.55%	10.45%	14.76%	6.32%	6.59%
95 <sup>th</sup> percentile	6.41%	6.63%	4.70%	5.05%	4.03%
75 <sup>th</sup> percentile	3.48%	2.80%	2.67%	2.64%	1.24%
Median	2.27%	1.68%	1.24%	1.65%	0.75%
25 <sup>th</sup> percentile	1.20%	0.93%	0.72%	0.60%	0.29%
5 <sup>th</sup> percentile	0.50%	0.47%	0.25%	0.17%	0.04%
Min	0.11%	0.24%	0.00%	0.00%	0.00%

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Post-operative wound infections (ICD-Code: T81.4) for the sum numerators Indicators 8 + 9	6*	0 - 81	361
Denominator	Sum numerators Indicators 8 + 9	855*	220 - 6,654	27,477
Rate	Target value ≤ 3%	0.75%	0.00% - 6.59%	1.31%**

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	24	92,31%

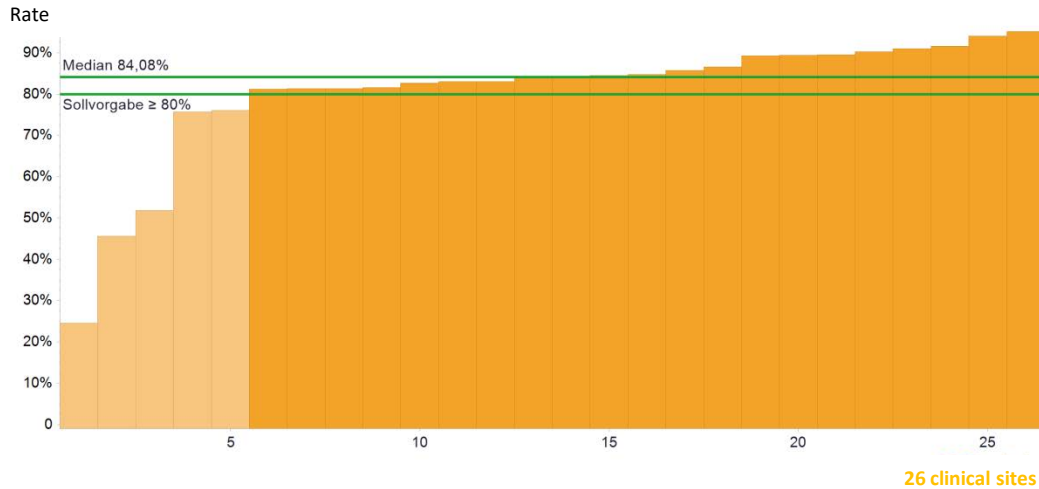
**Notes:**

The median of the post-operative wound infection rates fell compared with the previous year. Overall, the indicator was implemented well in the Centres. Two Centres failed to meet the target value. The reason they gave for their high rate was that they used a broad interpretation of the definition of a wound infection (e.g. also erythema) or they treat patients with large skin tumours or numerous comorbidities.

\*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.

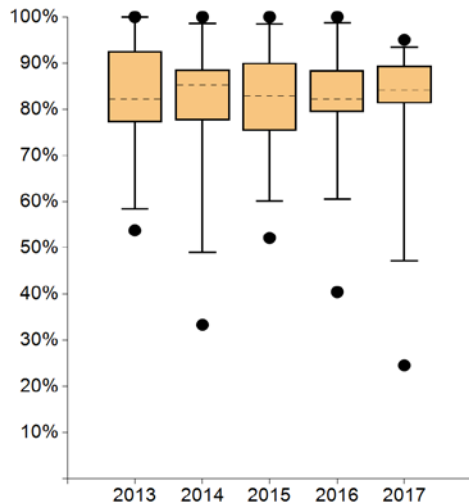
\*\* Percentage of centre patients who were treated according to the indicator

### 13. Malignant melanoma: Sentinel node biopsy (Guideline QI)



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Primary cases where SNB is carried out	51.5*	12 - 340	1,775
Denominator	Primary cases with a primary cutaneous melanoma with a tumour density ≥ 1mm and no sign of locoregional or remote metastasis	66*	14 - 374	2,155
Rate	Target value ≥ 80%	84.08%	24.56% - 95.06%	82,37%**



	2013	2014	2015	2016	2017
max	100%	100%	100%	100%	95.06%
95 <sup>th</sup> percentile	100%	98.67%	98.53%	98.69%	93.40%
75. percentile	92.59%	88.55%	89.97%	88.45%	89.36%
Median	82.26%	85.24%	82.90%	82.18%	84.08%
25 <sup>th</sup> percentile	77.22%	77.54%	75.30%	79.48%	81.25%
5 <sup>th</sup> percentile	58.41%	49.04%	60.09%	60.49%	47.15%
Min	53.77%	33.33%	52.17%	40.45%	24.56%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
26	100.00%	21	80.77%

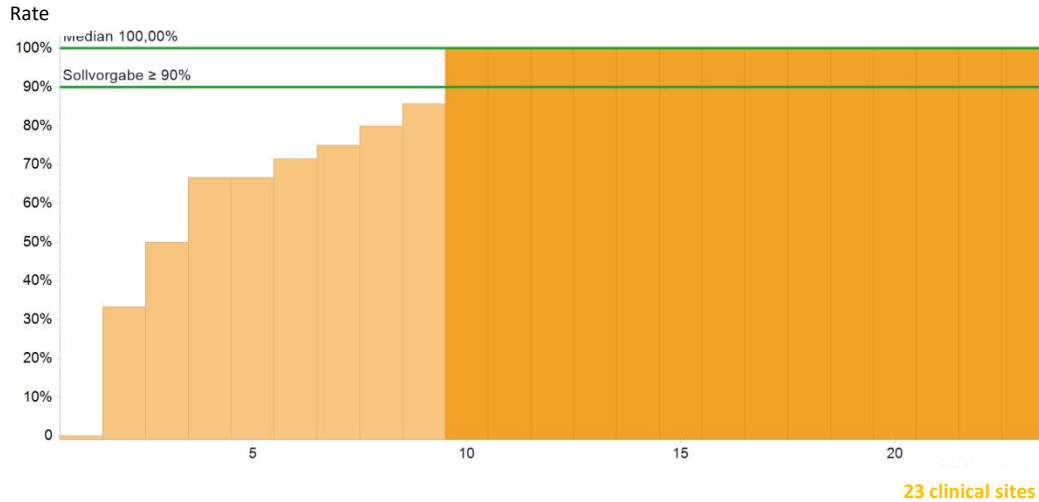
**Notes:**

The quality indicator from the Guideline on the correct indication for sentinel lymph node biopsy remained the same compared with the previous years. 5 Centres failed to meet the target value. The reasons given for the low rates were comorbidities, patient's wish and patient's age. The auditors analysed the individual cases and then instructed the Centres to discuss the indication for sentinel lymph node biopsy in cases of doubt more frequently in an interdisciplinary manner.

\*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

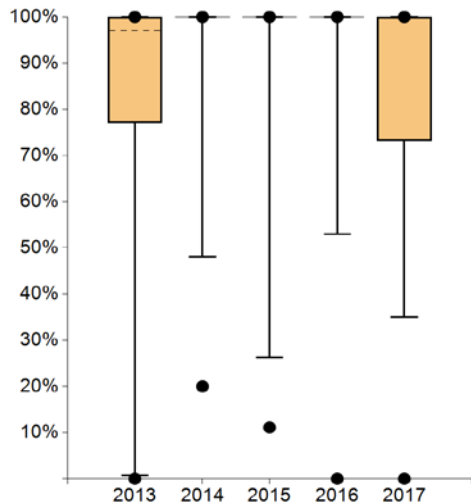
## 14. Malignant melanoma: Post-operative radiotherapy (Guideline QI)



Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Primary cases with radiotherapy with an intended total dose 50-60 Gy with conventional fractionation (5x1,8-2.5 Gy/week)	2*	0 - 23	84
Denominator	Primary cases with malignant melanoma and post-operative radiotherapy of the lymph drainage area	4*	1 - 23	97
Rate	Target value $\geq 90\%$	100%	0.00% - 100%	86.60%**

\*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.



	2013	2014	2015	2016	2017
max	100%	100%	100%	100%	100%
95 <sup>th</sup> percentile	100%	100%	100%	100%	100%
75 <sup>th</sup> percentile	100%	100%	100%	100%	100%
Median	97,06%	100%	100%	100%	100%
25 <sup>th</sup> percentile	77,08%	100%	100%	100%	73,22%
5 <sup>th</sup> percentile	0,75%	48,13%	26,25%	53,00%	35,00%
Min	0,00%	20,00%	11,11%	0,00%	0,00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
23	88,46%	14	60,87%

**Notes:**

The median of the quality indicator from the Guideline was unchanged at 100%. In total, 86.6% of the patients who underwent radiotherapy after surgery received a total dose of 50-60 Gy. The reasons given for their low rates by the Centres who failed to meet the target value were patient's wish or a premature discontinuation of radiotherapy, for instance in the case of progression. Here, too, the auditors examined the individual cases and were able to rule out systematic errors. All the Centres with low rates had low denominator numbers (n=1 - 7).

\*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

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