



Annual Report 2021

of the Certified Pancreatic Cancer Centres

Audit year 2020 / Indicator year 2019

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General information

Indicator No. 12: Post-operative mortality.....
 Indicator No. 13: Local R0 resections pancreas (GL QI 1) ...
 Indicator No. 14: Lymph node examination (GL QI 2)
 Indicator No. 16: Content Pathology Report (GL QI 3)
 Indicator No. 17: Adjuvant chemotherapy (GL QI 4)
 Indicator No. 18: Palliative Chemotherapie (GL QI 5)

Quality indicators of the guidelines (GL 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*

	Indicator definition	All clinical sites 2017		
		Median	Range	Patients Total
Numerator	Revision surgeries after peri-operative complications within 30d of pancreatic resection	4*	0 - 21	555
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	35.5*	12 - 180	4,916
Rate	Target value ≤ 10%	9.31%	0.00% - 34.69%	11.29%**

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. Under Patients Total, the percentage of the total number of patients treated in the centres according to the indicator is given.

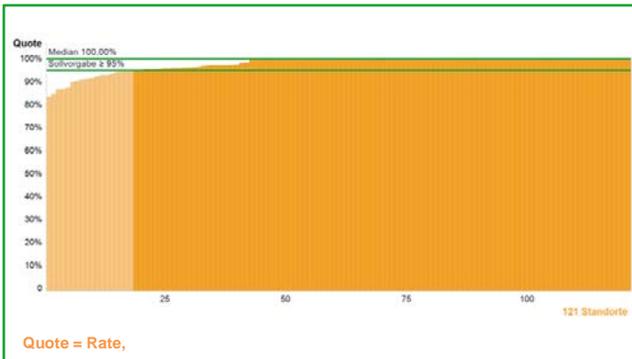
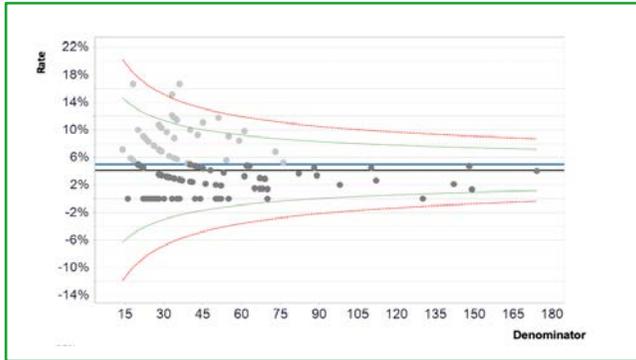


Diagram:

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.

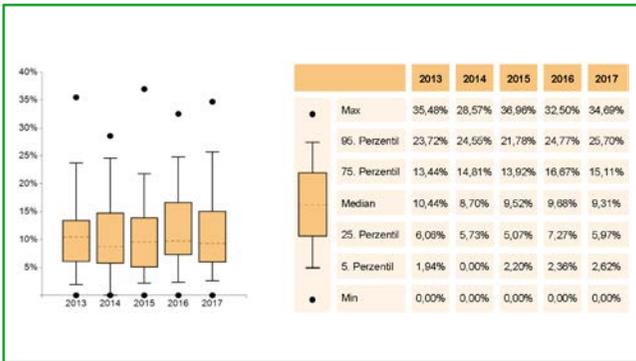
*For further information on the methodological approach see „Development of guideline-based quality indicators” (https://www.leitlinienprogramm-onkologie.de/fileadmin/user_upload/Downloads/Methodik/QIEP_OL_Version2_english.pdf)

General information



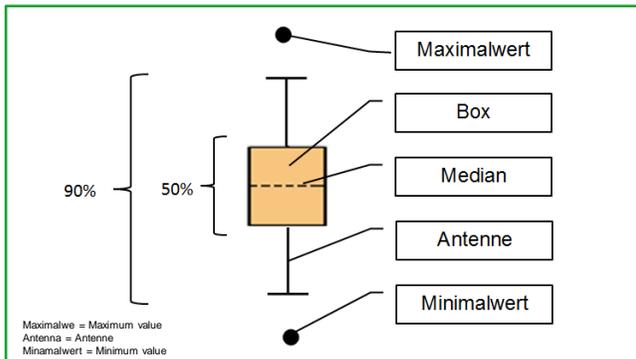
Funnel Plots:

The funnel plots show the ratio of included patient numbers and indicator result for the quality indicators that are presented as a quotient. The x-axis represents the population of the indicator (numerical value of the denominator), the y-axis the result of the indicator for the respective centre. The target is shown as a blue solid line. The mean value, shown as a black solid line, divides the group into two halves. The green dotted lines represent the 95% confidence intervals (2 standard deviations of the mean), the red dashed lines the 99.7% confidence intervals (3 standard deviations of the mean).



Cohort development:

Cohort development in the years **2015, 2016, 2017, 2018** and **2019** 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 90th percentile area/range. The extreme values are depicted here as dots.

Status of the Certification System for Pancreatic Cancer Centres 2020

	31.12.2020	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015
Ongoing procedures	5	8	5	10	5	8
Certified Centres	124	117	112	98	91	77
Certified clinical sites	127	120	115	100	93	79

General information

	31.12.2020	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015
Clinical sites included in the Annual Report	121	116	106	93	83	72
equivalent to	95.3%	96.7%	92.2%	93%	89.2%	91.1%
Primary cases total*	6,068	5,683	5,104	4,526	3,877	3,177
Primary cases per clinical site (mean)*	50	49	48	49	47	44
Primary cases per clinical site (median)*	49	43	45	44	43	37.5

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

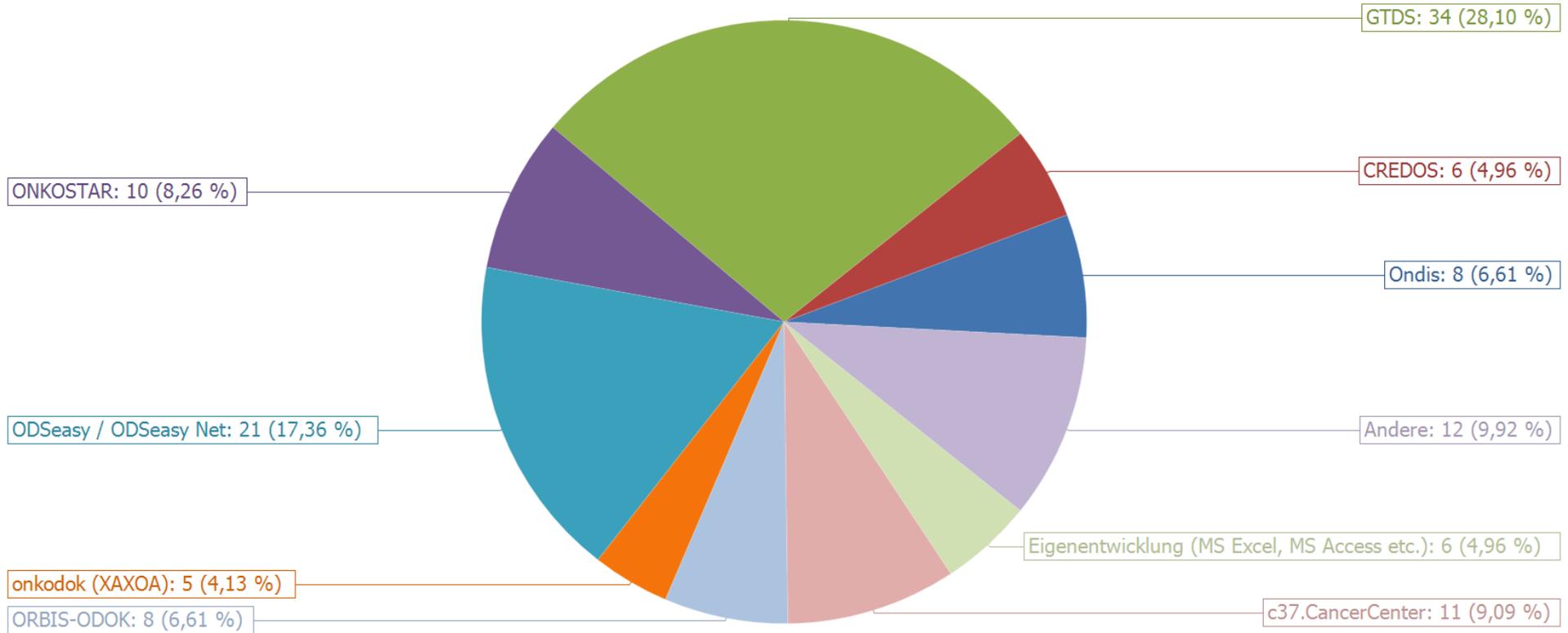
This Annual Report looks at the Pancreatic Cancer Centres certified in the Certification System of the German Cancer Society (DKG). The Data Sheet, which is part of the Catalogue of Requirements, is the basis for the diagrams in the Annual Report.

121 of the 127 certified clinical sites of the Centres are included in the Annual Report. 6 clinical sites, certified for the first time in 2020, are not included (data depiction of a full calendar year is not mandatory for initial certifications).

Within 127 certified clinical sites a total of 6,259 primary cases was treated. An updated list of all certified centres is to be found under www.oncomap.de

The indicators published here refer to the indicator year 2019. They are the assessment basis for the audits conducted in 2020.

Tumour documentation systems at the Centre's clinical sites

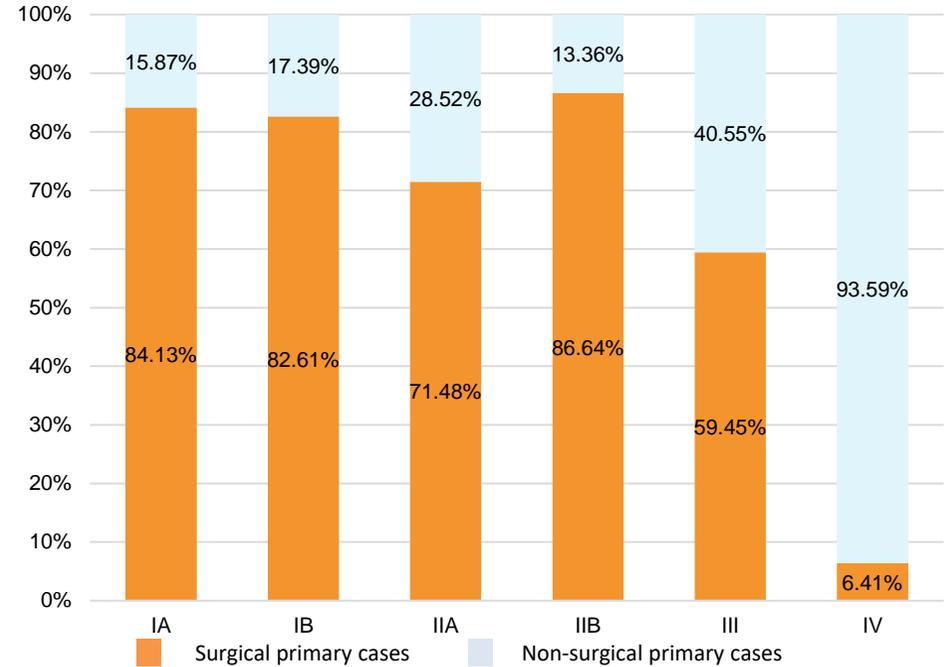
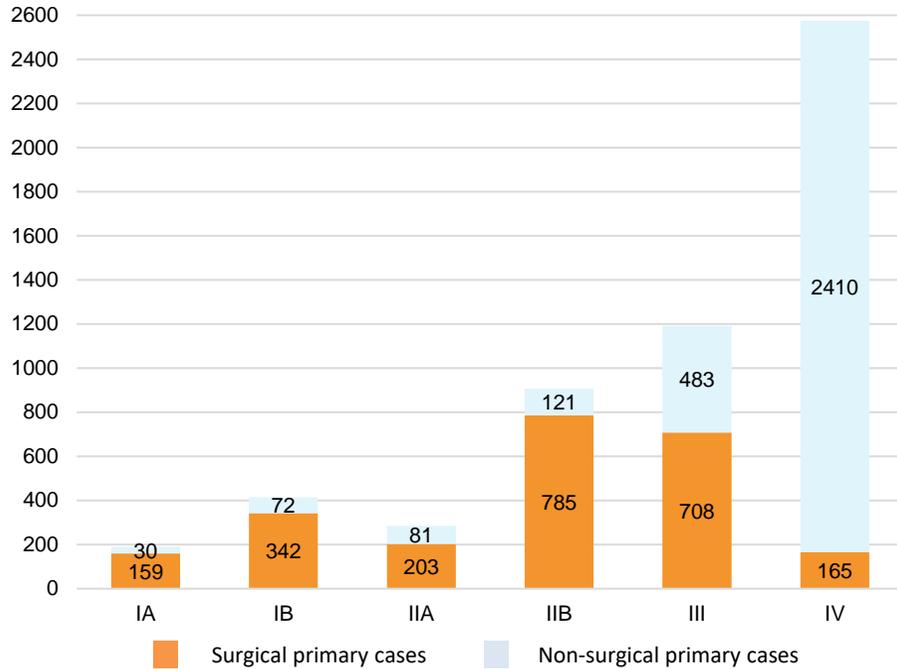


Andere = other

Legend:	
Other	System used in ≤ 3 clinical sites

The information on the tumour documentation system was taken from the data sheet (Basic Data Sheet). It is not possible to specify 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.

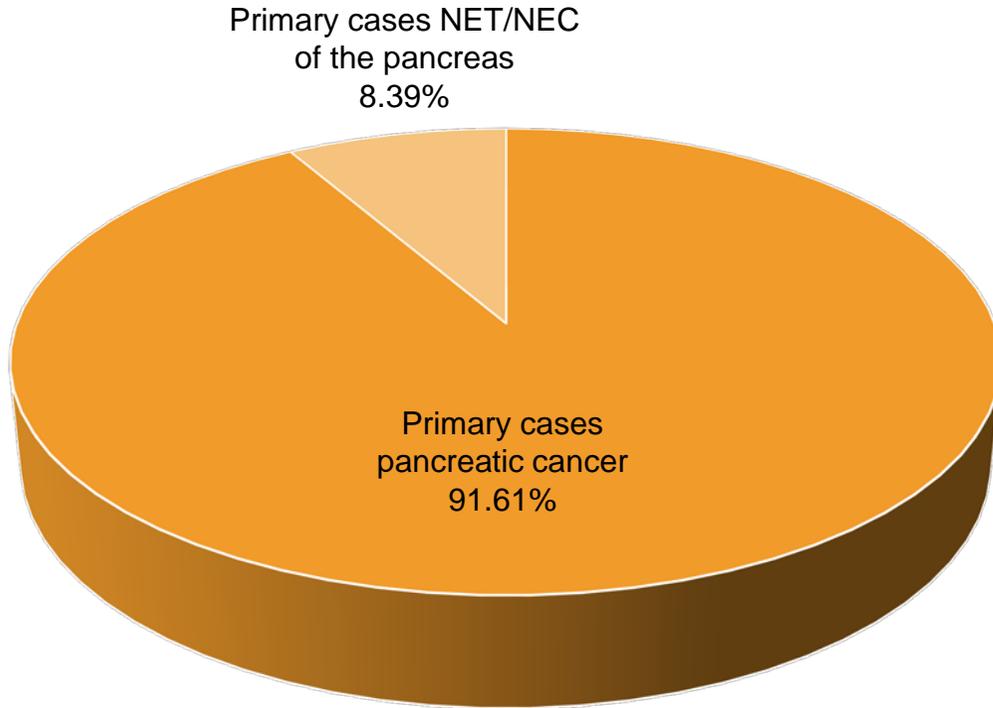
Basic data - Primary cases - Pancreatic cancer



	IA	IB	IIA	IIB	III	IV	Total
Surgical primary cases	159 (84.13%)	342 (82.61%)	203 (71.48%)	785 (86.64%)	708 (59.45%)	165 (6.41%)	2,362 (42.49%)
Non-surgical primary cases	30 (15.87%)	72 (17.39%)	81 (28.52%)	121 (13.36%)	483 (40.55%)	2,410 (93.59%)	3,197 (57.51%)
Primary cases total	189 (100%)	414 (100%)	284 (100%)	906 (100%)	1,191 (100%)	2,575 (100%)	5,559 (100%)

Basic data - Primary cases Pancreatic cancer

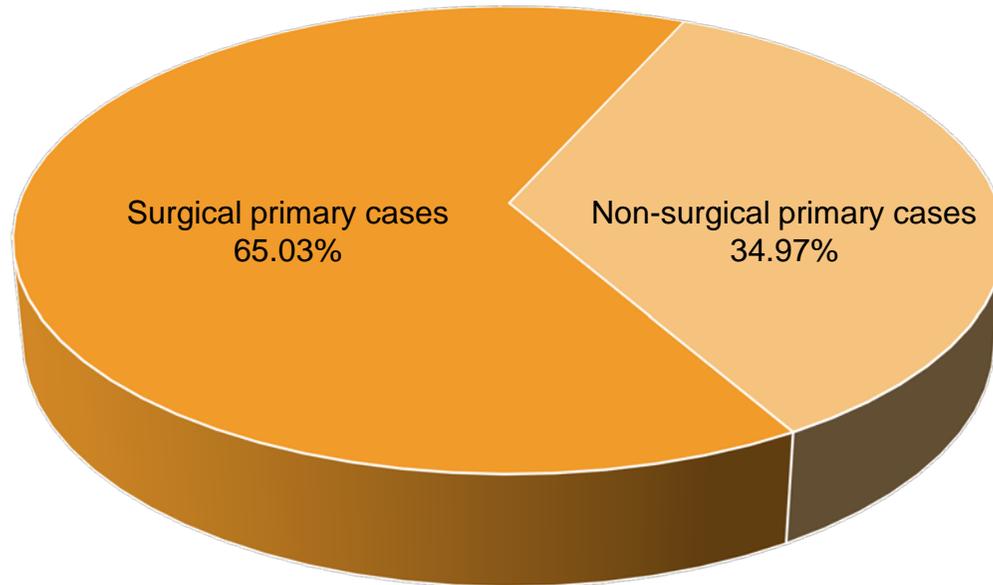
Primary cases Pancreatic cancer		
Pancreatic carcinoma	Neuro-endocrine Pancreatic Tumours (NET) and neuroendokrine Pancreatic Carcinomas (NEC)	Primary cases Total
5,559 (91.61%)	509 (8.39%)	6,068 (100%)



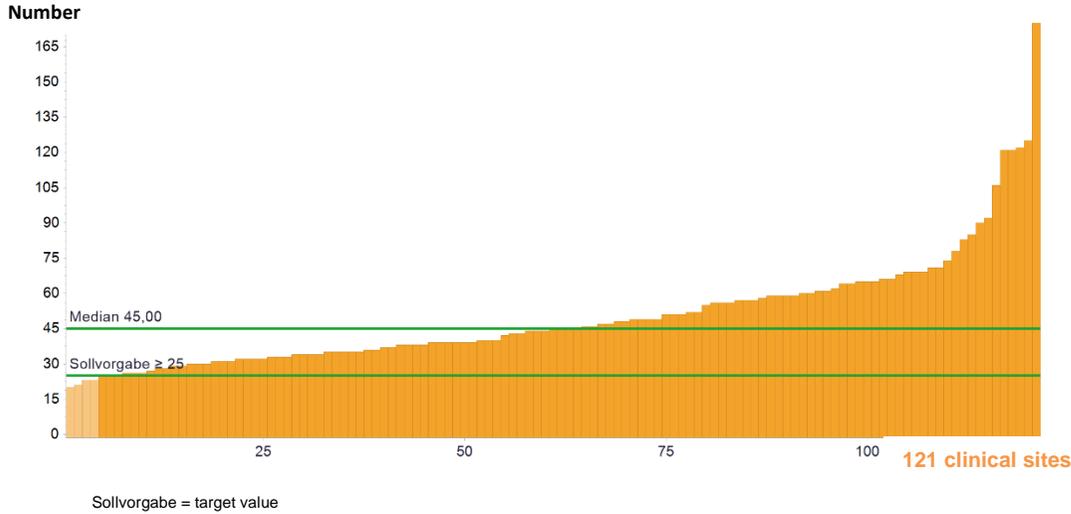
Basic data

Primary cases Neuro-endocrine Tumours (NET) and Neuro-endocrine Carzinomas (NEC) of the Pancreas

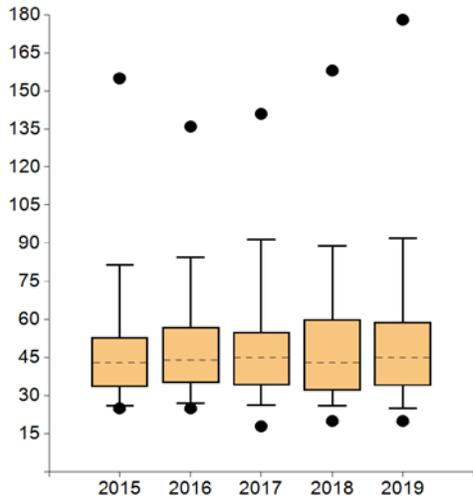
Surgical Primary cases	Non-surgical Primary cases	Primary cases Total
331 (65.03%)	178 (34.97%)	464 (100%)



1. Primary cases Centre



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Number	Primary cases	45	20 - 178	6,068
	Target value ≥ 25			



	2015	2016	2017	2018	2019
max	155.00	136.00	141.00	158.00	178.00
95 th percentile	81.60	84.40	91.50	89.00	92.00
75 th percentile	53.00	57.00	55.00	60.00	59.00
Median	43.00	44.00	45.00	43.00	45.00
25 th percentile	33.50	35.00	34.25	32.00	34.00
5 th percentile	26.10	27.00	26.25	26.00	25.00
Min	25.00	25.00	18.00	20.00	20.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	117	96.69%

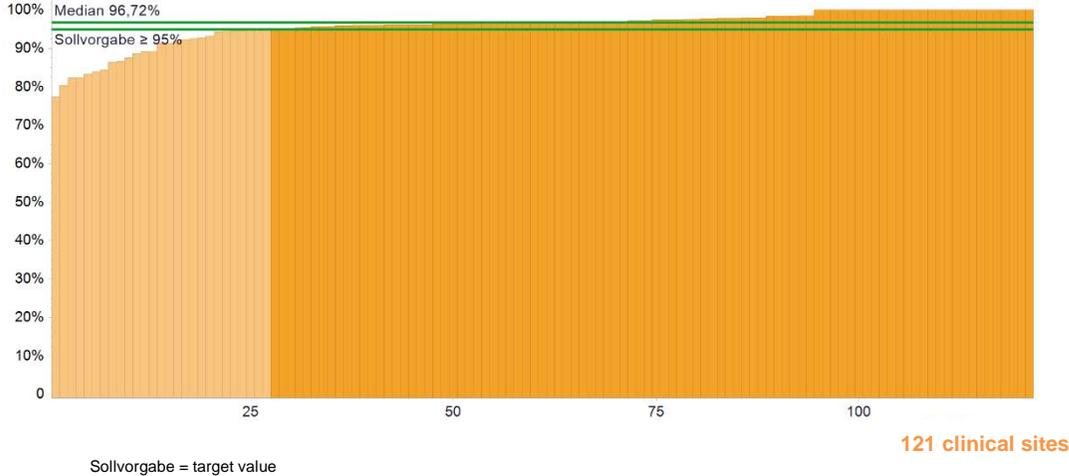
Comments:

The absolute number of primary cases increased by 6.34% to now over 6,000 primary cases. 4 centres (previous year: 2) failed to meet the target of at least 25 primary cases. Since a surveillance audit was due for these centres in 2020, it was possible to fall short of the target. For the re-certification audit, the average case numbers of the last 3 years must be proven. The reasons for this were changes in chief physicians, high competitive pressure and lack of histological backup. The centres countered this with, among other things, public relations work and maintaining contact with referring physicians. A remark was issued regarding the obligatory histological backup for counting as a primary case.

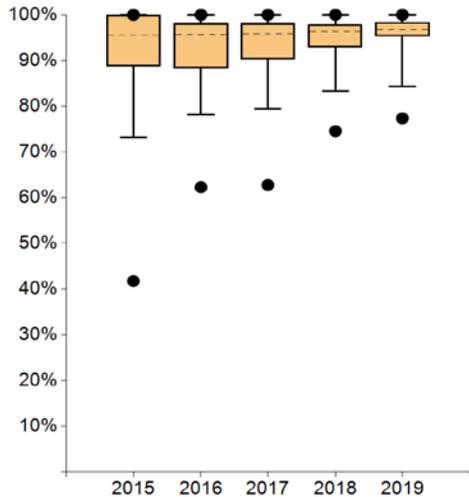


2. Pretherapeutic tumour board

Rate



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Primary cases with pancreatic cancer who were presented at the pre-operative conference	42*	19 - 175	5,801
Denominator	Primary cases (= Indicator 1)	45*	20 - 178	6,068
Rate	Target value ≥ 95%	96.72%	77.36% - 100%	95.60%**



	2015	2016	2017	2018	2019
max	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	98.04%	98.16%	97.88%	98.31%
Median	95.52%	95.74%	95.88%	96.43%	96.72%
25 th percentile	88.68%	88.24%	90.34%	92.92%	95.31%
5 th percentile	73.16%	78.06%	79.38%	83.33%	84.38%
Min	41.75%	62.26%	62.75%	74.55%	77.36%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	94	77.69%

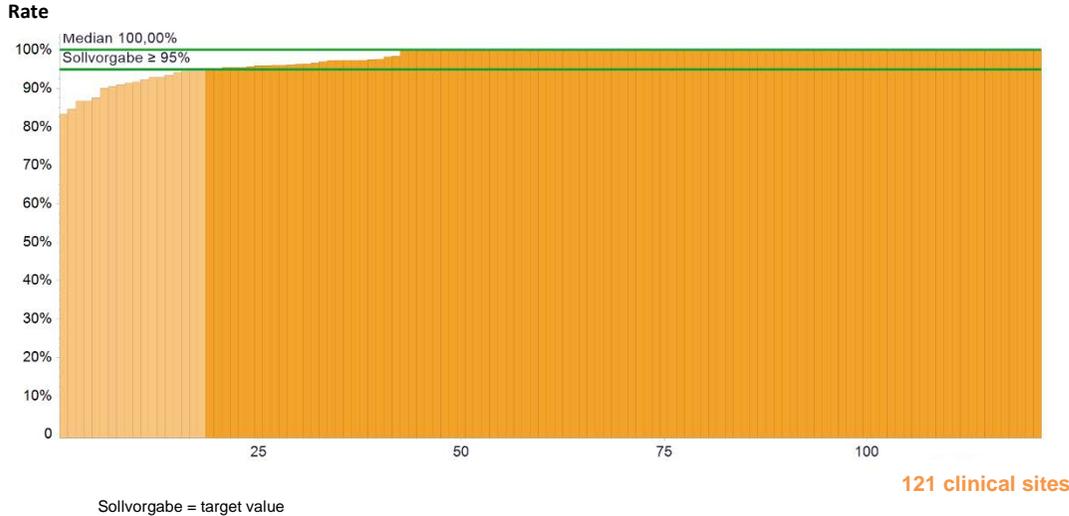
Comments:

The development of the pre-therapeutic presentation rate continues to be positive. However, 27 centres (previous year: 46) presented less than 95% of primary cases at the tumour board. They justified this most frequently with patients assigned externally for therapy, refusal of any therapy, emergency operations and incidental findings with originally different indications. The auditors made a total of 5 remarks and emphasised that all primary cases should be presented pre-therapeutically.

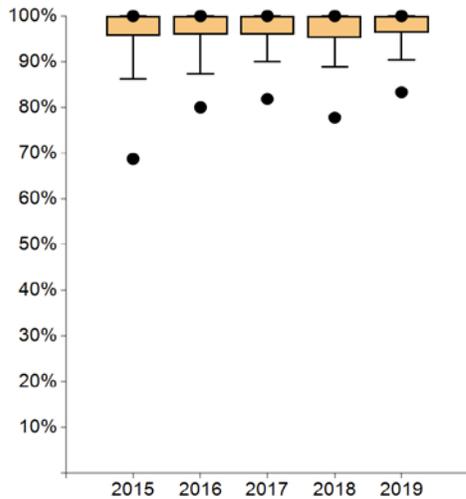
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

3. Post-operative tumour board



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Surgical primary cases pancreas presented in the post-operative conference	18*	4 - 67	2,632
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff with ICD-10 C25) (= Indicator 8)	18*	4 - 69	2,693
Rate	Target value ≥ 95%	100%	83.33% - 100%	97.73%**



	2015	2016	2017	2018	2019
max	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	95.74%	96.00%	95.94%	95.20%	96.36%
5 th percentile	86.14%	87.36%	90.00%	88.89%	90.48%
Min	68.75%	80.00%	81.82%	77.78%	83.33%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	103	85.12%

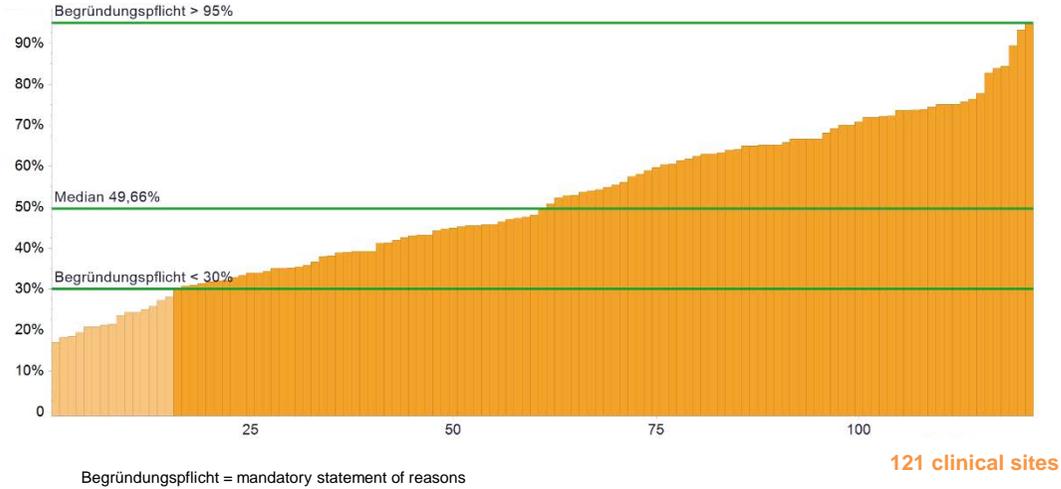
Comments:
The postoperative presentation rate continues to improve at a high level. 79 centres achieved a complete presentation. 18 centres (previous year: 25) remained below 95%. The sole reason for this was the early postoperative death of individual patients. Several centres addressed this as a substitute in the M&M conferences.

*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.

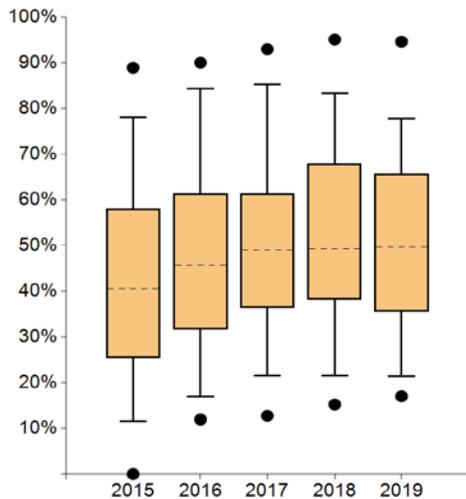
** Percentage of centre patients who were treated according to the indicator.

4. Psycho-oncological counselling

Rate



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Patients who received psycho-oncological care (length of consultation ≥ 25 min)	26*	6 - 131	3,426
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	51*	21 - 202	6,982
Rate	Mandatory statement of reasons*** < 30% and >95%	49.66%	17.02% - 94.59%	49.07%**



	2015	2016	2017	2018	2019
max	88.89%	90.00%	92.94%	95.08%	94.59%
95th percentile	78.04%	84.28%	85.32%	83.29%	77.78%
75th percentile	58.06%	61.33%	61.25%	67.97%	65.71%
Median	40.48%	45.71%	48.98%	49.24%	49.66%
25th percentile	25.41%	31.71%	36.47%	38.19%	35.48%
5th percentile	11.51%	17.01%	21.52%	21.51%	21.31%
Min	0.00%	11.96%	12.77%	15.24%	17.02%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
121	100.00%	106	87.60%

Comments:

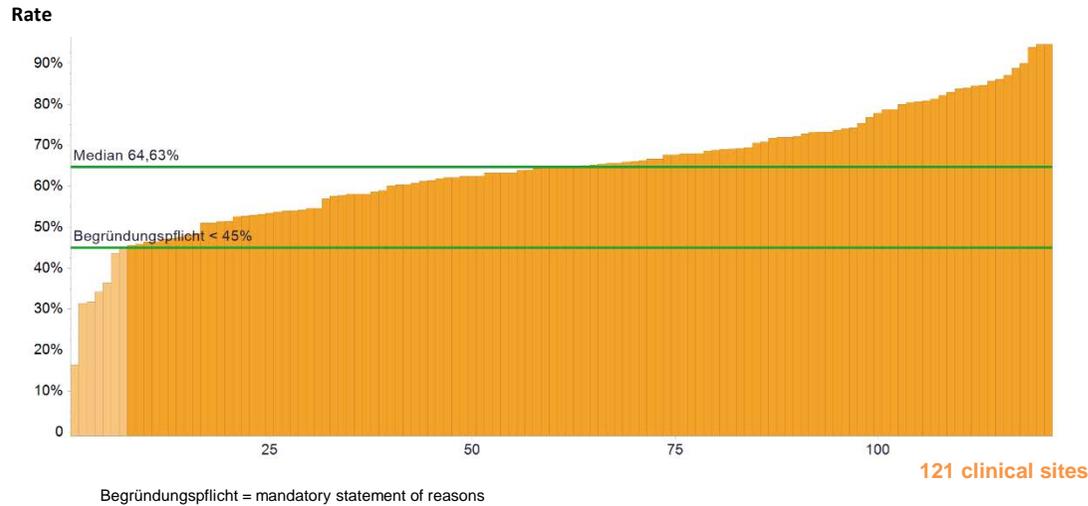
Overall, the psycho-oncological care rate is at the previous year's level. Improvements can be observed over the years, especially in the lower percentage ranges. Centres outside the plausibility corridor are asked to provide a justification for the audit. As in the previous year, 15 centres were below 30%. In the vast majority of cases, patients expressed no need for psycho-oncological care despite consistent screening. Individual centres countered this by increasing the presence of psychooncologists on the ward and by sensitising staff.

*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

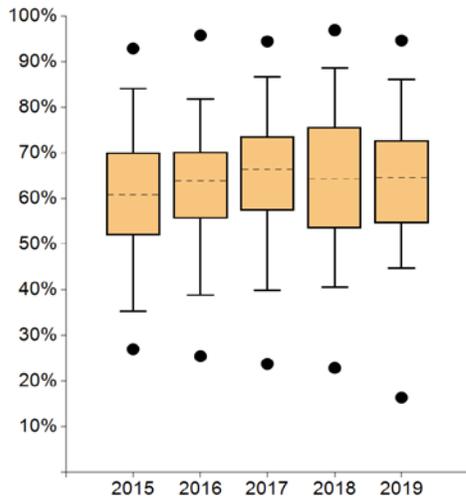
** Percentage of centre patients who were treated according to the indicator.

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

5. Social services counselling



	Indicator definition	All clinical sites 2019		
		Median	Range	Patienten Gesamt
Numerator	Patients who received counselling from the social services	31*	9 - 131	4,413
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	51*	21 - 202	6,982
Rate	Mandatory statement of reasons*** < 45%	64.63%	16.36% - 94.64%	63.21%**



	2015	2016	2017	2018	2019
max	92.86%	95.74%	94.44%	96.88%	94.64%
95 th percentile	84.00%	81.83%	86.53%	88.57%	86.11%
75 th percentile	70.01%	70.21%	73.59%	75.63%	72.73%
Median	60.81%	63.83%	66.32%	64.23%	64.63%
25 th percentile	51.86%	55.56%	57.40%	53.51%	54.55%
5 th percentile	35.28%	38.84%	39.93%	40.54%	44.74%
Min	26.98%	25.42%	23.77%	22.86%	16.36%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
121	100.00%	114	94.21%

Comments:

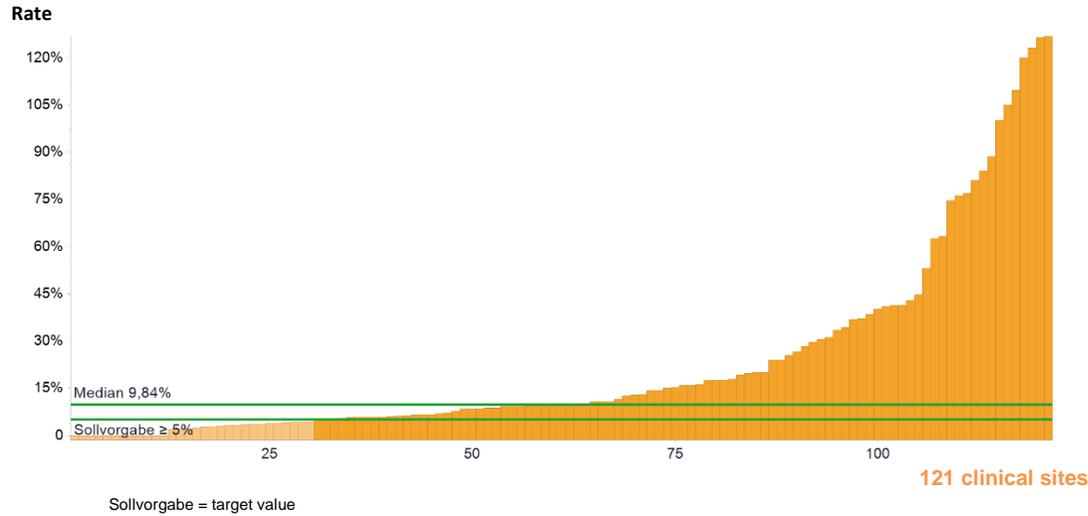
Just under two thirds of the patients in the denominator receive counselling from the social service. The ratio thus remains stable. 3 of the 7 centres with a rate below 45% are located in Austria or Switzerland, where other service entitlements and responsibilities apply. Apart from this, the dominant reason for a comparatively low rate was the lack of need for counselling on the part of the patients.

*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.

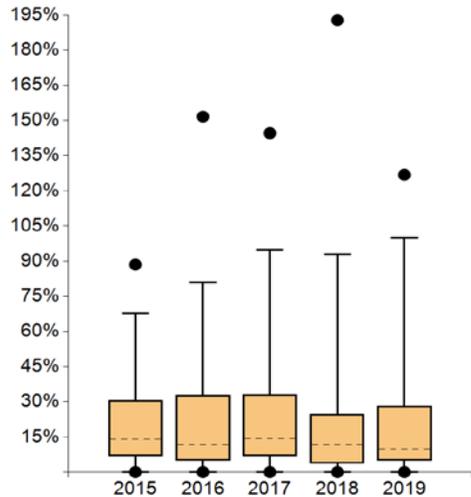
** Percentage of centre patients who were treated according to the indicator

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

6. Study participation



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Patients who were included in a study	5*	0 - 149	1,592
Denominator	Primary cases (= Indicator 1)	45*	20 - 178	6,068
Rate	Target value ≥ 5%	9.84%	0.00% - 126.79%	26.24%**



	2015	2016	2017	2018	2019
max	88.52%	151.61%	144.57%	192.73%	126.79%
95 th percentile	67.71%	80.83%	94.87%	92.97%	100%
75 th percentile	30.52%	32.89%	33.20%	24.72%	28.21%
Median	13.95%	11.76%	14.29%	11.65%	9.84%
25 th percentile	6.71%	5.00%	6.71%	3.81%	5.00%
5 th percentile	0.00%	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	%
121	100.00%	91	75.21%

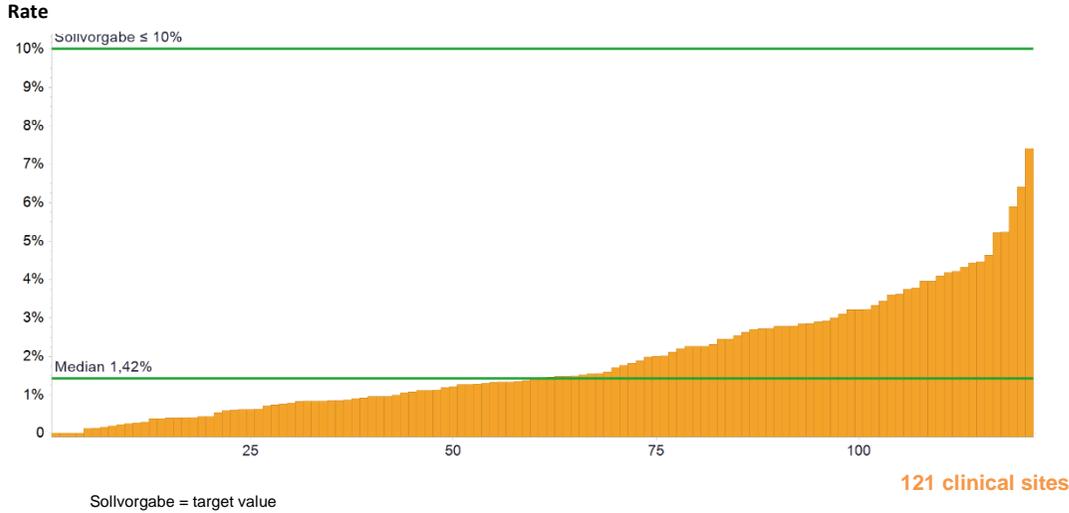
Comments:

The study rate is down overall compared to the previous year, with slight improvements in the lower percentages. 30 centres (previous year: 32) fall short of the target of at least 5% of the primary case number. The number of centres with a rate of 0% also fell from 17 to 12. Frequent reasons for low rates were patients with exclusion criteria or missing inclusion criteria of the studies, rejection by patients and a delayed start of the study. In the audits, tailor-made efforts to increase the rate (e.g. training of investigators) were agreed upon.

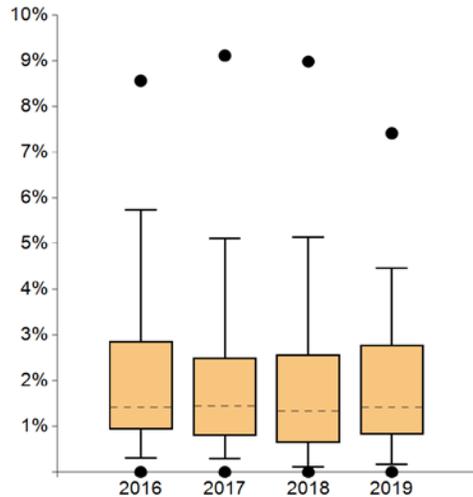
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

7a. Endoscopy complications - Pancreatitis after ERCP (CR 2.1)



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Patients with endoscopy-specific complications Pancreatitis after ERCP (CR 2.1)	5*	0 - 53	972
Denominator	ERCPS for each endoscopy unit	417*	111 - 1385	53.080
Rate	Target value ≤ 10%	1.42%	0.00% - 7.41%	1.83%**



	2015	2016	2017	2018	2019
max	-----	8.56%	9.11%	8.98%	7.41%
95 th percentile	-----	5.73%	5.11%	5.14%	4.46%
75 th percentile	-----	2.86%	2.50%	2.58%	2.78%
Median	-----	1.42%	1.45%	1.34%	1.42%
25 th percentile	-----	0.93%	0.80%	0.64%	0.82%
5 th percentile	-----	0.31%	0.30%	0.11%	0.16%
Min	-----	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	121	100.00%

Comments:

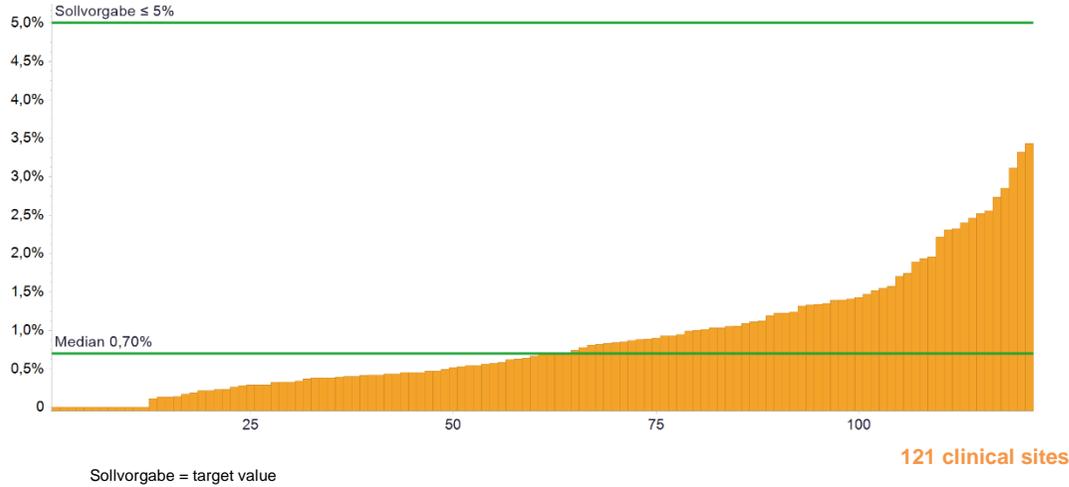
As in the previous year, all centres remain below a pancreatitis complication rate of 10% for ERCPS. 43 centres recorded a rate of less than 1%, only 5 were above 5%. This speaks for an overall very good fulfilment of this indicator in the centres, showing improvements over the years especially in the upper percentage ranges.

*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

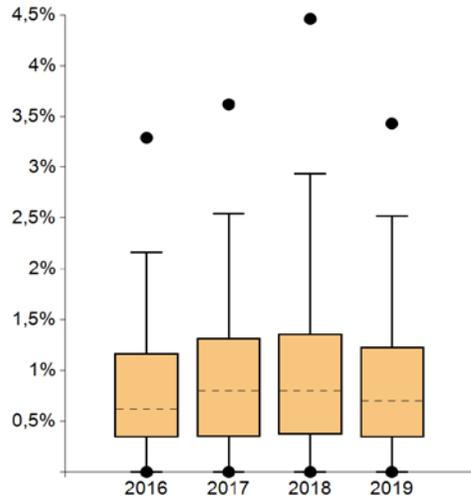
7b. Endoscopy complications - bleeding and perforation after ERCP (CR 2.1)

Rate



Sollvorgabe = target value

	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Patients with endoscopy-specific complications bleeding and perforation after ERCP (CR 2.1)	2*	0 - 16	457
Denominator	ERCPs for each endoscopy unit	417*	111 - 1385	53.080
Rate	Target value ≤ 5%	0.70%	0.00% - 3.43%	0.86%**



	2015	2016	2017	2018	2019
max	----	3.29%	3.62%	4.46%	3.43%
95 th percentile	----	2.17%	2.55%	2.94%	2.52%
75 th percentile	----	1.17%	1.32%	1.36%	1.23%
Median	----	0.62%	0.80%	0.80%	0.70%
25 th percentile	----	0.34%	0.35%	0.37%	0.34%
5 th 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	%
121	100.00%	121	100.00%

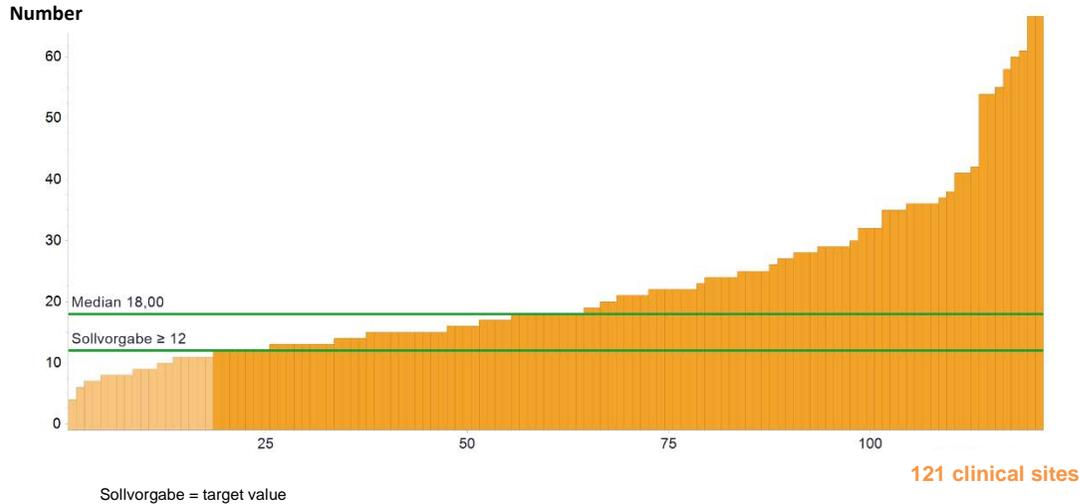
Comments:

Even when considering the complications of bleeding and perforation in ERCP, all centres are within the target of a maximum of 5%. Both the median and the overall rate across all centres have fallen compared to the previous year. Here too (as with indicator 7a), the visible improvement in the upper percentages is pleasing.

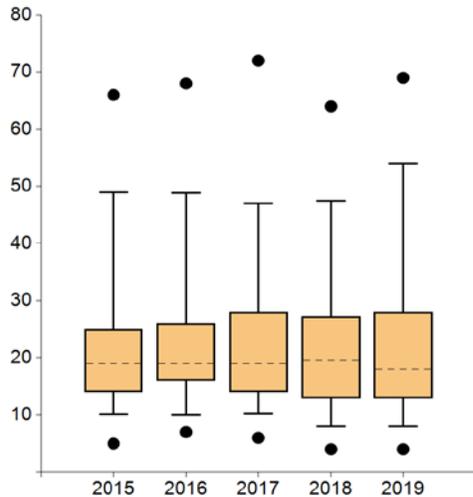
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

8. Surgical primary cases pancreas (only ICD-10 C25 in combination with 5-524ff and 5-525ff)



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Number	Surgical primary cases pancreas (5-524ff, 5-525ff only with ICD-10 C25) (Def. 5.2.4)	18	4 - 69	2,693
	Target value ≥ 12			

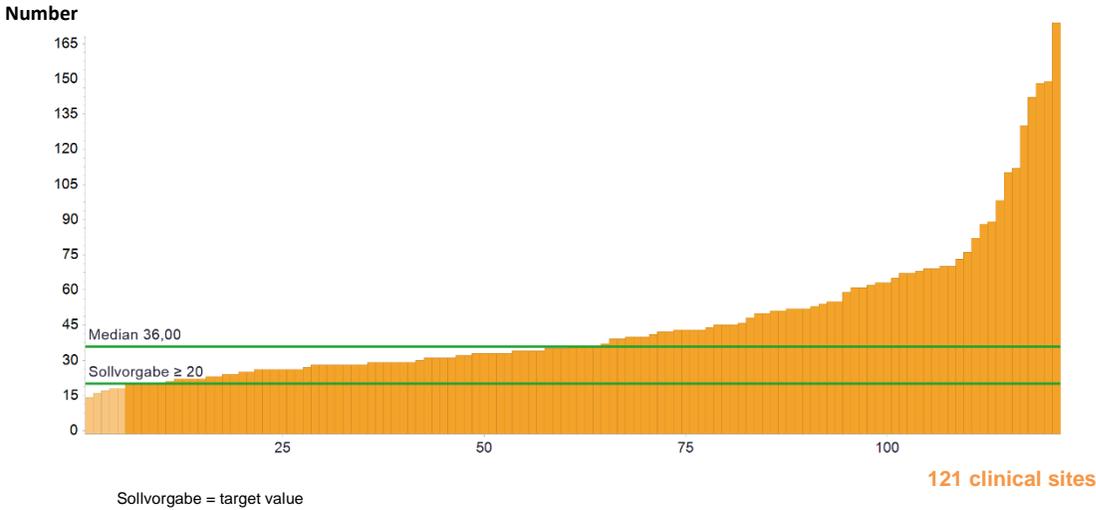


	2015	2016	2017	2018	2019
max	66.00	68.00	72.00	64.00	69.00
95 th percentile	48.90	48.80	47.00	47.50	54.00
75 th percentile	25.00	26.00	28.00	27.25	28.00
Median	19.00	19.00	19.00	19.50	18.00
25 th percentile	14.00	16.00	14.00	13.00	13.00
5 th percentile	10.10	10.00	10.25	8.00	8.00
Min	5.00	7.00	6.00	4.00	4.00

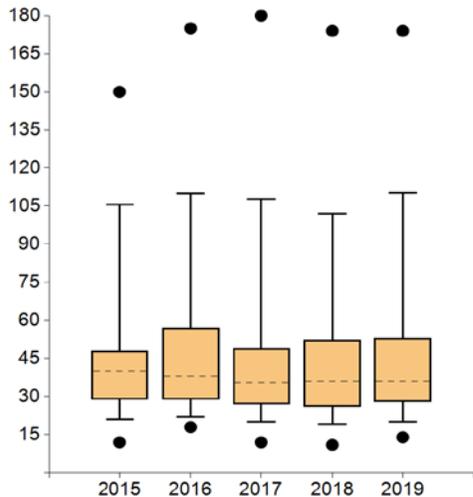
Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	103	85.12%

Comments:
 2 more centres than in the previous year failed to meet the target of at least 12 operative primary cases. Only 1 of these 18 centres was in the repeat audit. The centre was able to show that it met the target on average over the last 3 years. There is a tendency for centres with high case numbers to increase their numbers further. Centres below the target claimed a high proportion of metastatic stages in primary cases, postoperative diagnosis of distal bile duct and papillary carcinomas (not C25), high competitive pressure and patient wishes/individual contraindications. Measures such as better referral management, new recruitment and marketing measures were agreed in the audits.

9. Overall surgical expertise pancreas



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Number	Pancreas resections (left resection of the pancreas, pancreatic head resection, total pancreatectomy, OPS 5-524ff and 5-525ff with and without ICD-10 C25).	36	14 - 174	5,522
	Target value ≥ 20			



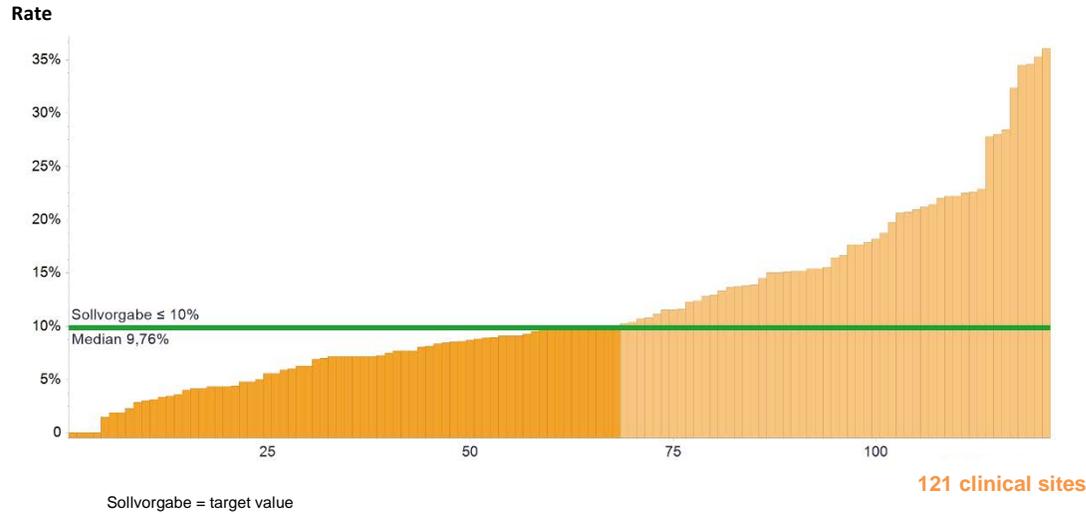
	2015	2016	2017	2018	2019
max	150.00	175.00	180.00	174.00	174.00
95 th percentile	105.70	109.80	107.75	102.00	110.00
75 th percentile	48.00	57.00	49.00	52.25	53.00
Median	40.00	38.00	35.50	36.00	36.00
25 th percentile	29.00	29.00	27.00	26.00	28.00
5 th percentile	21.00	22.00	20.00	19.25	20.00
Min	12.00	18.00	12.00	11.00	14.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	116	95.87%

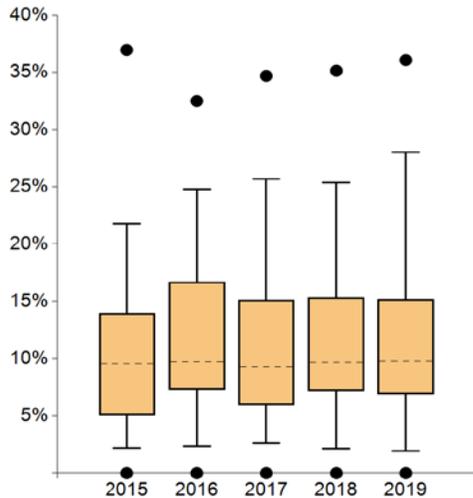
Comments:

The number of pancreas resections per centre remains constant. The target of 20 procedures was missed by 5 centres (previous year: 6). The reasons given by the centres focus more on staffing/operating theatre capacities. Due to the lack of restriction to C25 in this indicator, many centres are much more successful in achieving the target than in indicator 8.

10. Revision surgeries pancreas



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Revision surgeries after peri-operative complications within 30d of pancreatic resection	4*	0 - 25	658
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	36*	14 - 174	5,522
Rate	Target value ≤ 10%	9.76%	0.00% - 36.07%	11.92%**



	2015	2016	2017	2018	2019
max	36.96%	32.50%	34.69%	35.14%	36.07%
95 th percentile	21.78%	24.77%	25.70%	25.37%	28.00%
75 th percentile	13.92%	16.67%	15.11%	15.31%	15.15%
Median	9.52%	9.68%	9.31%	9.65%	9.76%
25 th percentile	5.07%	7.27%	5.97%	7.14%	6.90%
5 th percentile	2.20%	2.36%	2.62%	2.15%	1.92%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	68	56.20%

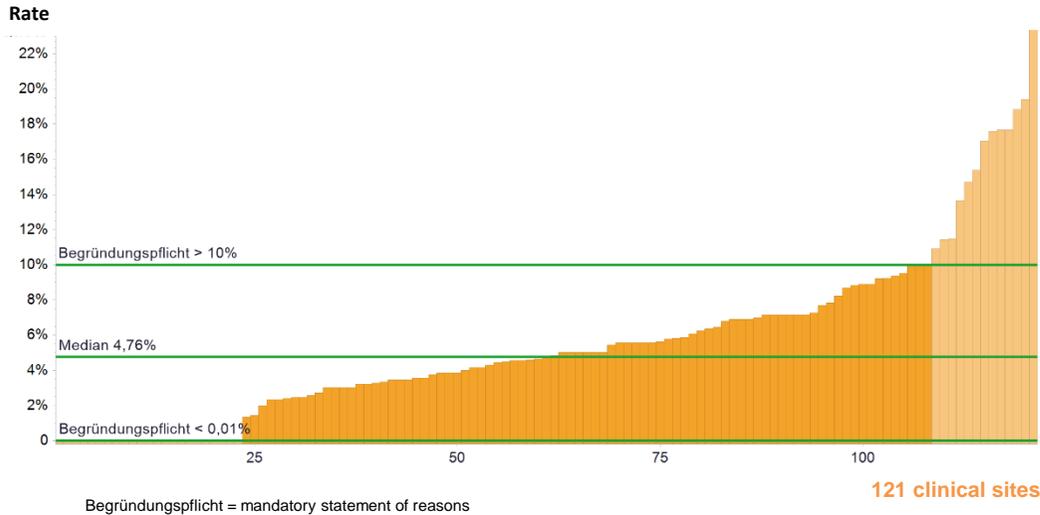
Comments:

Meeting the target continues to be challenging for many centres. The number of centres with a revision surgery rate above 10% decreases slightly from 54 to 53 with an increased population. Common complications (bleeding, anastomotic insufficiencies, burst belly, fistulae, necrosis, pancreatitis, wound infections, etc.) were discussed in M&M conferences. Some centres claimed a high-risk patient population and an early indication for revision to reduce mortality or avoid serious complications. In the audits, most of the rates above the target could be plausibilised; nevertheless, 10 notices were issued.

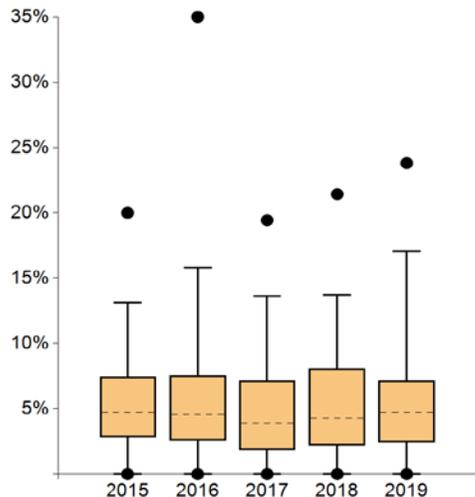
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

11. Post-operative wound infections



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Post-operative wound infection within 30d of pancreatic resection with need for surgical wound revision (flushing, opening, VAC dressing)	2*	0 - 26	334
Denominator	Pancreatic resections (5-524ff and 5-525ff, with and without ICD-10 C25) (= Indicator 9)	36*	14 - 174	5,522
Rate	Mandatory statement of reasons*** < 0.01% and >10%	4.76%	0.00% - 23.81%	6.05%**



	2015	2016	2017	2018	2019
max	20.00%	35.00%	19.44%	21.43%	23.81%
95 th percentile	13.13%	15.79%	13.64%	13.72%	17.05%
75 th percentile	7.41%	7.50%	7.14%	8.09%	7.14%
Median	4.72%	4.57%	3.93%	4.26%	4.76%
25 th percentile	2.86%	2.56%	1.85%	2.19%	2.44%
5 th percentile	0.00%	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 within the plausibility limits	
Number	%	Number	%
121	100.00%	85	70.25%

Comments:

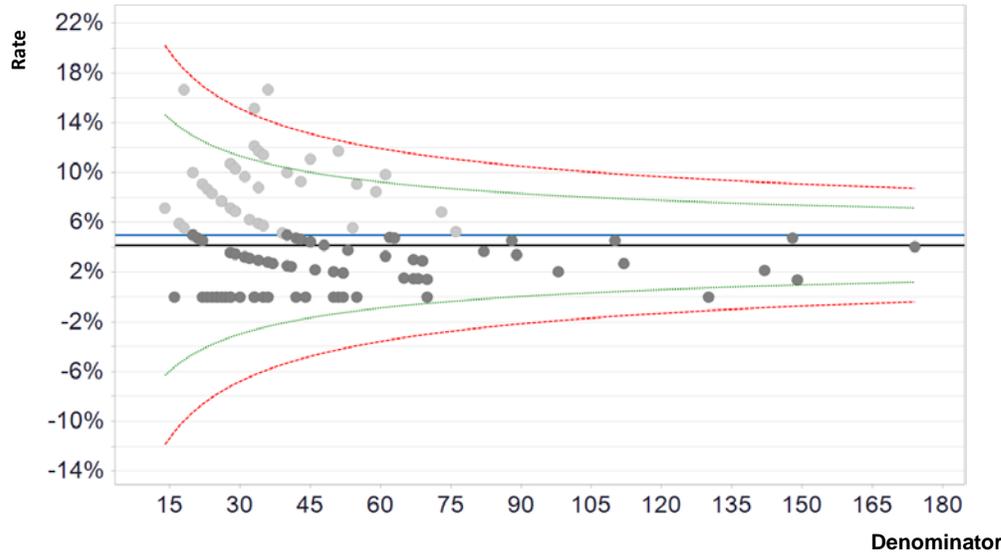
The rate of intervention-requiring postoperative wound infections overall again increased slightly compared to the previous year. 23 centres requiring justification recorded no patients in the numerator; as in the previous year, 13 were above 10%. These explained their result with a generous indication for revision as well as (partly due to the complexity of the intervention) increased rates of anastomotic leakages, fistulas, etc. No systematic errors were identified in the audits.

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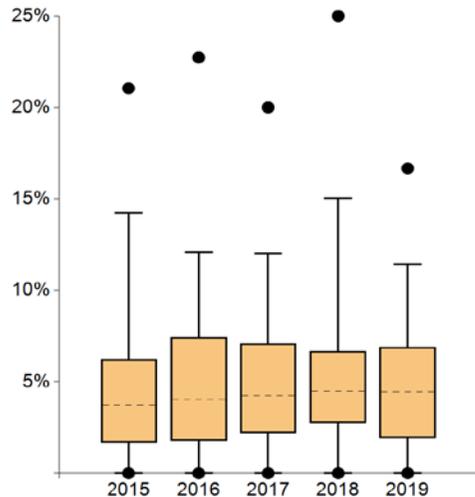
** Percentage of centre patients who were treated according to the indicator

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

12. Post-operative mortality



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Post-operative deceased patients after pancreatic resections within 30d	2*	0 - 7	231
Denominator	Pancreatic resections (5-524ff and 5-525ff, with and without ICD-10 C25) (= Indicator 9)	36*	14 - 174	5,522
Rate	Target value ≤ 5%	4.44%	0.00% - 16.67%	4.18%**



	2015	2016	2017	2018	2019
max	21.05%	22.73%	20.00%	25.00%	16.67%
95 th percentile	14.24%	12.08%	12.03%	15.03%	11.43%
75 th percentile	6.24%	7.41%	7.08%	6.67%	6.90%
Median	3.70%	4.05%	4.23%	4.47%	4.44%
25 th percentile	1.68%	1.75%	2.18%	2.77%	1.92%
5 th percentile	0.00%	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	%
121	100.00%	79	65.29%

Comments:

The postoperative mortality has decreased overall compared to the previous year (previously: 4.76%), especially the centres in the upper percentage range are improving. While 24 centres achieved 0%, 42 centres (previous year: 45) were above 5%. Reasons were primarily bleeding complications and anastomosis leakages/ pancreatitis leading to haemorrhagic or septic shock. In the audits, 5 remarks were given and improvement measures discussed (e.g. risk profile checklist, M&M conferences, adaptation of the antibiotic concept). No systematic error was found in the audits.

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

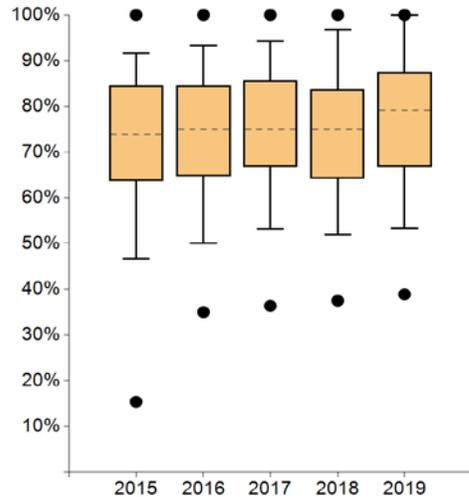
13. Local R0 resections pancreas (GL QI 1)



Begründungspflicht = mandatory statement of reasons

121 clinical sites

	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Local R0 resections pancreas after completion of surgical therapy	14*	3 - 61	2,078
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) (= Indicator 8)	18*	4 - 69	2,693
Rate	Mandatory statement of reasons*** < 40%	79.17%	38.89% - 100%	77.16%**



	2015	2016	2017	2018	2019
● max	100%	100%	100%	100%	100%
95 th percentile	91.67%	93.26%	94.27%	96.74%	100%
75 th percentile	84.62%	84.62%	85.71%	83.61%	87.50%
Median	73.91%	75.00%	75.00%	75.00%	79.17%
25 th percentile	63.69%	64.71%	66.67%	64.22%	66.67%
5 th percentile	46.67%	50.00%	53.26%	51.97%	53.33%
● Min	15.38%	35.00%	36.36%	37.50%	38.89%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	120	99.17%

Comments:

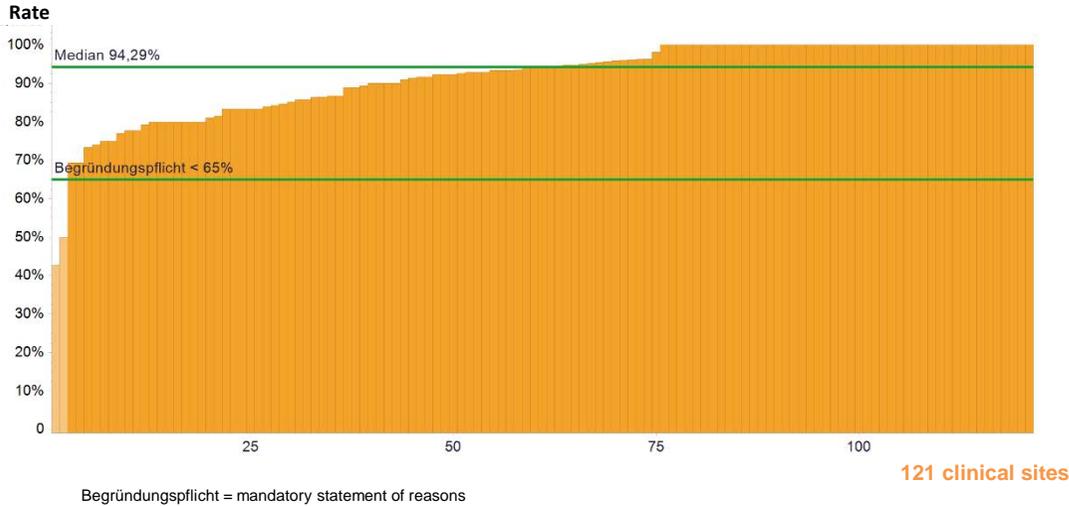
The R0 rate continues the positive trend of the past years. The ratio is thus still very well implemented in the centres. As in the previous year, 1 centre is just below 40% (different centre than in the previous year). The reason for this was that the frozen sections made intraoperatively were free of tumour tissue at the sedimentation margins, but R1/RX was found postoperatively.

*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

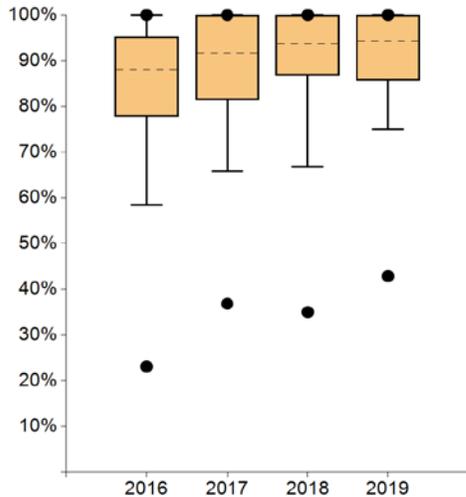
*** For values outside the plausibility limit(s) the Centres must give the reasons.

14. Lymph node examination (GL QI 2)



Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Surgical primary cases pancreas with ≥ 12 regional lymph nodes in the surgical specimen after conclusion of surgical therapy	14*	1 - 57	2,082
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) who have undergone a lymphadenectomy	15*	1 - 59	2,285
Rate	Mandatory statement of reasons*** < 65%	94.29%	42.86% - 100%	91.12%**



	2015	2016	2017	2018	2019
max	----	100%	100%	100%	100%
95 th percentile	----	100%	100%	100%	100%
75 th percentile	----	95.24%	100%	100%	100%
Median	----	88.00%	91.67%	93.75%	94.29%
25 th percentile	----	77.78%	81.39%	86.67%	85.71%
5 th percentile	----	58.38%	65.81%	66.67%	75.00%
Min	----	23.08%	36.84%	35.00%	42.86%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
121	100.00%	119	98.35%

Comments:

The past years show an extremely positive development of this guideline indicator, which is now almost completely implemented in the centres. The two centres (previous year: 4) that had a justifiable low rate of operative primary cases with at least 12 removed lymph nodes explained this, among other things, by the fact that the total peripancreatic fat tissue had only contained a maximum of 8 lymph nodes. No systematic quality deficit was identified in the audits.

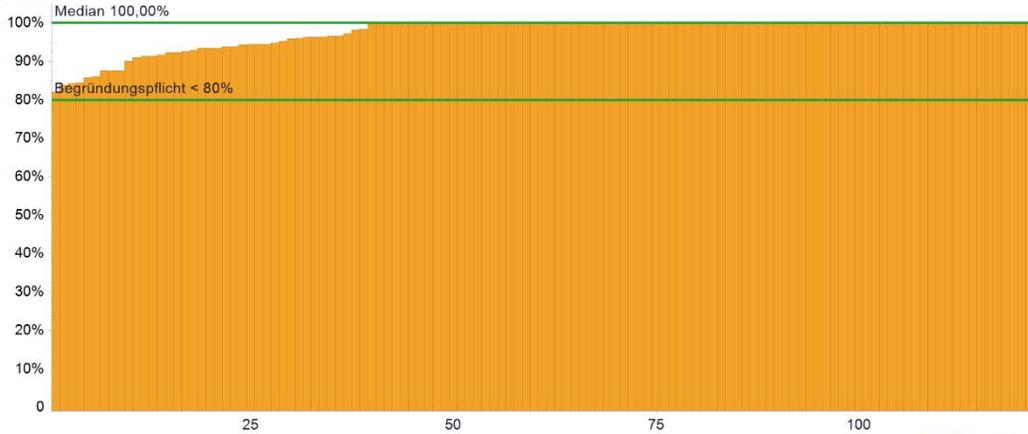
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

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

15. Content Pathology Report (GL QI 3)

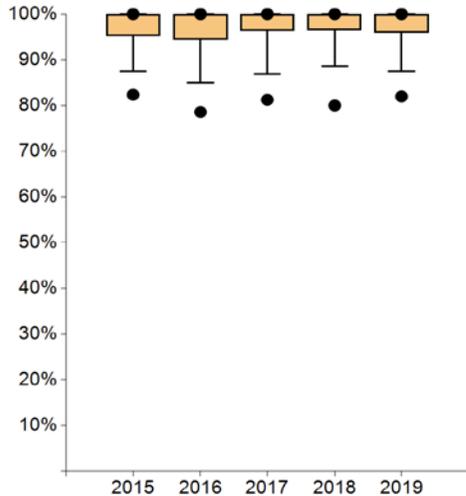
Rate



Begründungspflicht = mandatory statement of reasons

121 clinical sites

	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Pathology reports from surgical primary cases with remarks of: pT, pN, M, tumour grading: proportion LN affected non-affected	18*	4 - 63	2,570
Denominator	Pathology Report from surgical primary cases	18*	4 - 69	2,656
Rate	Mandatory statement of reasons*** < 80%	100%	81.97% - 100%	96.76%**



	2015	2016	2017	2018	2019
max	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	95.23%	94.44%	96.36%	96.45%	96.00%
5 th percentile	87.50%	85.00%	86.80%	88.54%	87.50%
Min	82.35%	78.57%	81.25%	80.00%	81.97%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	121	100.00%

Comments:

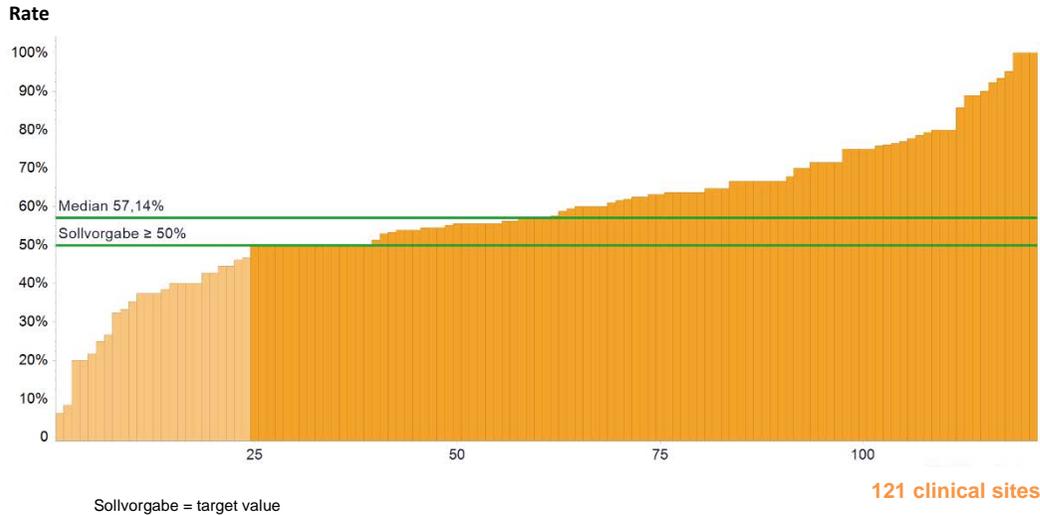
All centres are within the plausibility limits with regard to complete reports of findings in primary surgical cases. The guideline indicator is thus implemented very well in the centres. 82 centres were able to consistently present complete reports of findings.

*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.

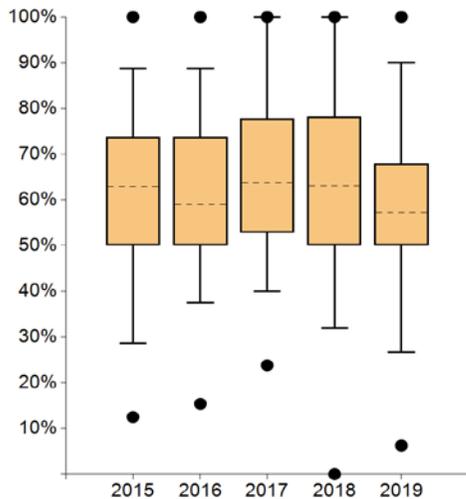
** Percentage of centre patients who were treated according to the indicator

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

16. Adjuvant chemotherapy (GL QI 4)



	Indicator definition	All clinical sites 2019		
		Median	Range	Patients Total
Numerator	Surgical primary cases pancreatic cancer UICC stages I-III. R0 resection and adjuvant chemotherapy with gemcitabine or 5-FU/folinic acid	7*	1 - 28	1,004
Denominator	Surgical primary cases pancreatic cancer UICC stages I-III and R0 resection	12*	2 - 46	1,727
Rate	Target value ≥ 50%	57.14%	6.25% - 100%	58.14%**



	2015	2016	2017	2018	2019
max	100%	100%	100%	100%	100%
95 th percentile	88.75%	88.69%	100%	100%	90.00%
75 th percentile	73.80%	73.68%	77.65%	78.07%	67.86%
Median	62.96%	59.09%	63.64%	63.07%	57.14%
25 th percentile	50.00%	50.00%	52.81%	50.00%	50.00%
5 th percentile	28.57%	37.48%	40.00%	31.94%	26.67%
Min	12.50%	15.38%	23.81%	0.00%	6.25%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
121	100.00%	97	80.17%

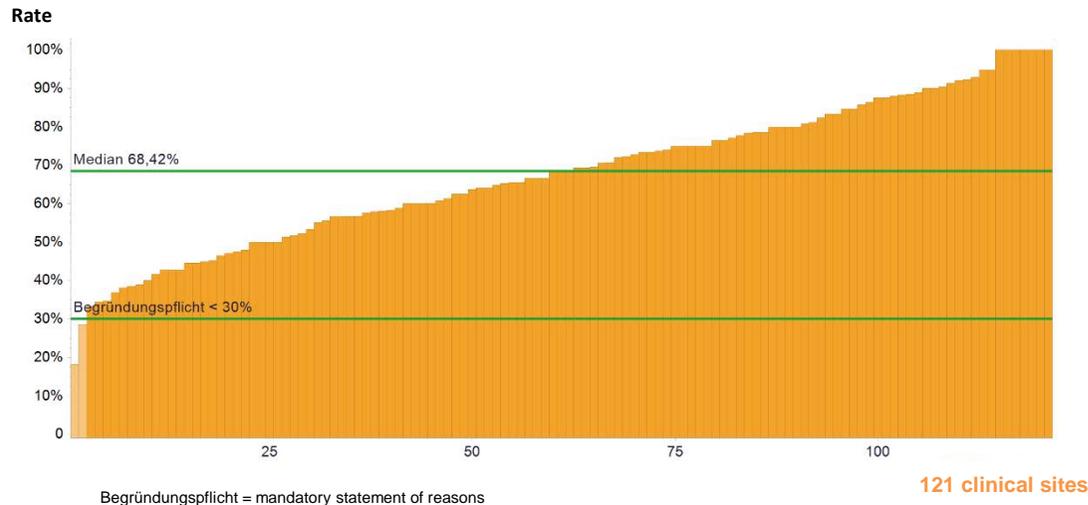
Comments:

The median and overall rate have fallen compared to the previous year. With 24 centres, 9 more than in the previous year failed to meet the target. Patient refusal, poor general condition, old age, comorbidities and death before the start of chemotherapy were the dominant reasons that could be plausibilised in the audits. Some patients also received alternative therapy regimens (especially FOLFIRINOX in case of progression), for others chemotherapy was administered close to home, which is why further information was missing. The centres were advised to ask the doctor who continued treatment or the cancer registries if necessary.

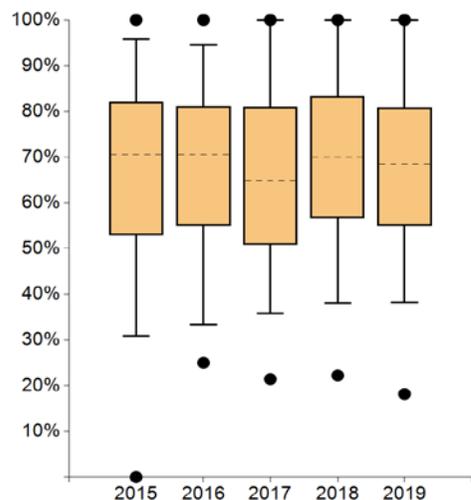
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

17. Palliative chemotherapy (GL QI 5)



	Indicator definition	All clinical sites 2019		
		Median	Range	Patient Total
Numerator	Primary cases with palliative chemotherapy	13*	1 - 66	1,763
Denominator	Primary cases with pancreatic cancer UICC stages III (palliative situation) and IV and ECOG 0-2 (without NET and NEC)	19*	1 - 78	2,691
Rate	Mandatory statement of reasons*** < 30%	68.42%	18.18% - 100%	65.51%**



	2015	2016	2017	2018	2019
max	100%	100%	100%	100%	100%
95 th percentile	95.87%	94.57%	100%	100%	100%
75 th percentile	82.09%	81.08%	80.89%	83.33%	80.77%
Median	70.59%	70.59%	64.86%	70.00%	68.42%
25 th percentile	52.94%	55.00%	50.83%	56.72%	55.00%
5 th percentile	30.85%	33.33%	35.78%	38.05%	38.10%
Min	0.00%	25.00%	21.43%	22.22%	18.18%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
121	100.00%	119	98.35%

Comments:

The wide range of results of the centres remains, although only 2 of them (previous year: 3) fall below the 30% mark and thus fall under the obligation to give reasons. In the specific cases, the patients had refused chemotherapy, were in too poor a general condition or had died before starting therapy.

*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.

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

WISSEN AUS ERSTER HAND (FIRST-HAND KNOWLEDGE)



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