



Annual Report 2020

of the Certified Pancreatic Cancer Centres

Audit year 2019 / Indicator year 2018

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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. Unter Patienten Gesamt ist die Prozentzahl der in den Zentren insgesamt gemäß der Kennzahl behandelten Patienten angegeben.

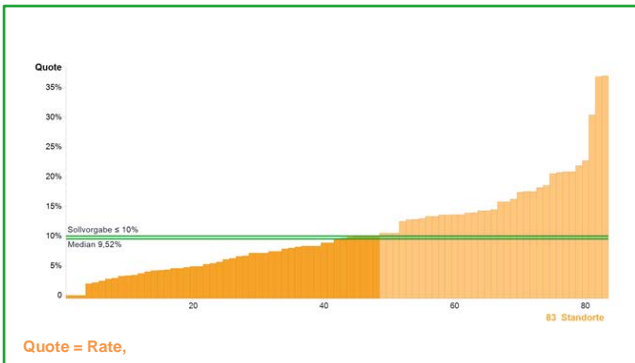
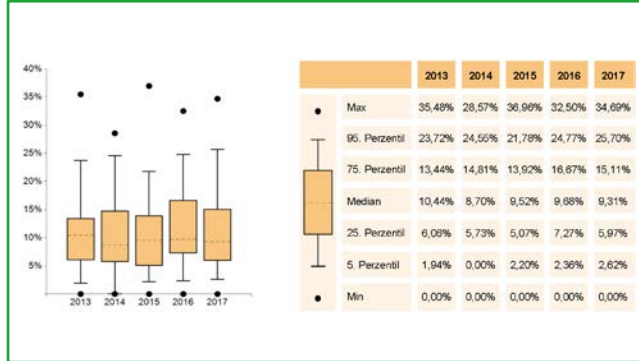


Diagram:

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.

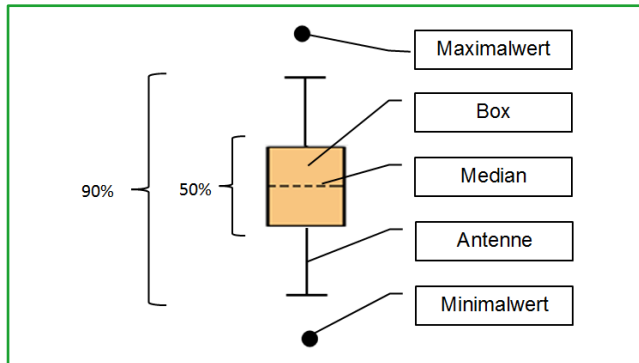
*For further information on the methodological approach see „Development of guideline-based quality indicators” (https://www.leitlinienprogramm-onkologie.de/fileadmin/user_upload/Downloads/Methodik/QIEP_OL_Version2_english.pdf)

General information



Cohort development:

Cohort development in the years **2014, 2015, 2016, 2017** and **2018** 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 2018

	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014
Ongoing procedures	8	5	10	5	8	11
Certified Centres	117	112	98	91	77	67
Certified clinical sites	120	115	100	93	79	68

General information

	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014
Clinical sites included in the Annual Report	116	106	93	83	72	52
equivalent to	96.7%	92.2%	93%	89.2%	91.1%	76.5%
Primary cases total*	5,683	5,104	4,526	3,877	3,177	2,378
Primary cases per clinical site (mean)*	49	48	49	47	44	46
Primary cases per clinical site (median)*	43	45	44	43	37.5	39

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

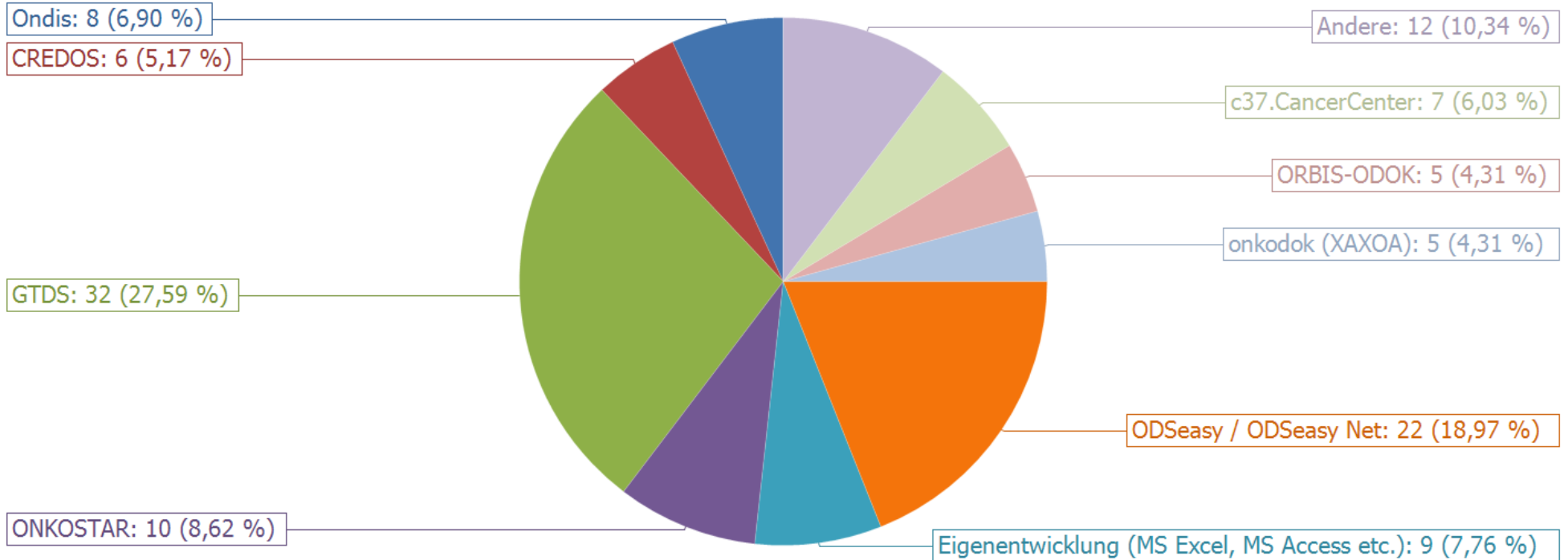
This Annual Report looks at the Pancreatic Cancer Centres certified in the Certification System of the German Cancer Society (DKG). The Data Sheet, which is part of the Catalogue of Requirements, is the basis for the diagrams in the Annual Report.

116 of the 120 certified clinical sites of the Centres are included in the Annual Report. 4 clinical sites, certified for the first time in 2019, are not included (data depiction of a full calendar year is not mandatory for initial certifications).

Within 120 certified clinical sites a total of 5,767 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 2018. They are the assessment basis for the audits conducted in 2019.

Tumour documentation systems at the Centre's clinical sites



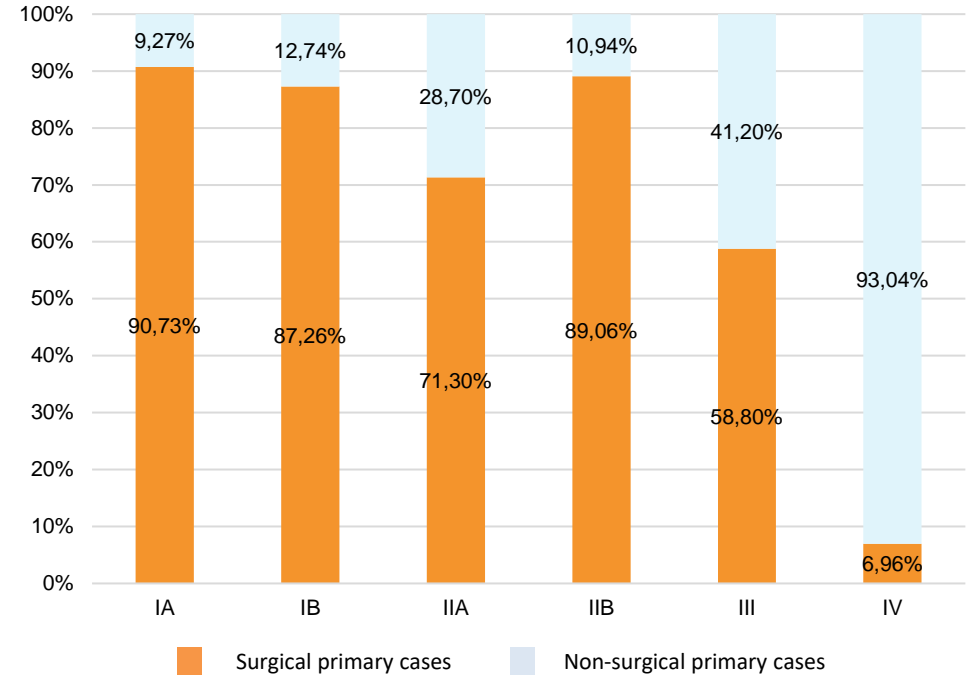
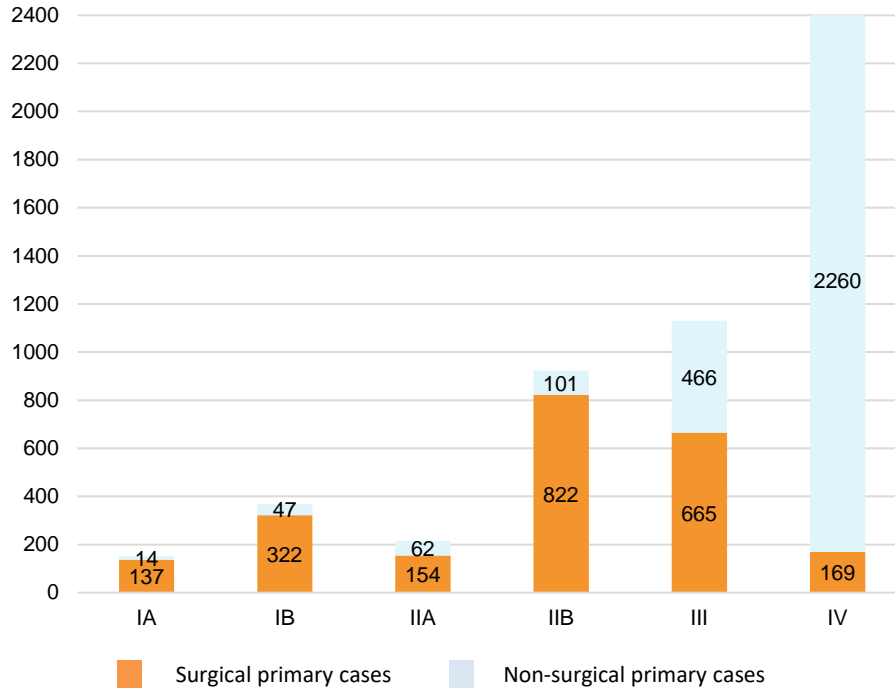
Legend:

Other

System used in ≤ 3 clinical sites

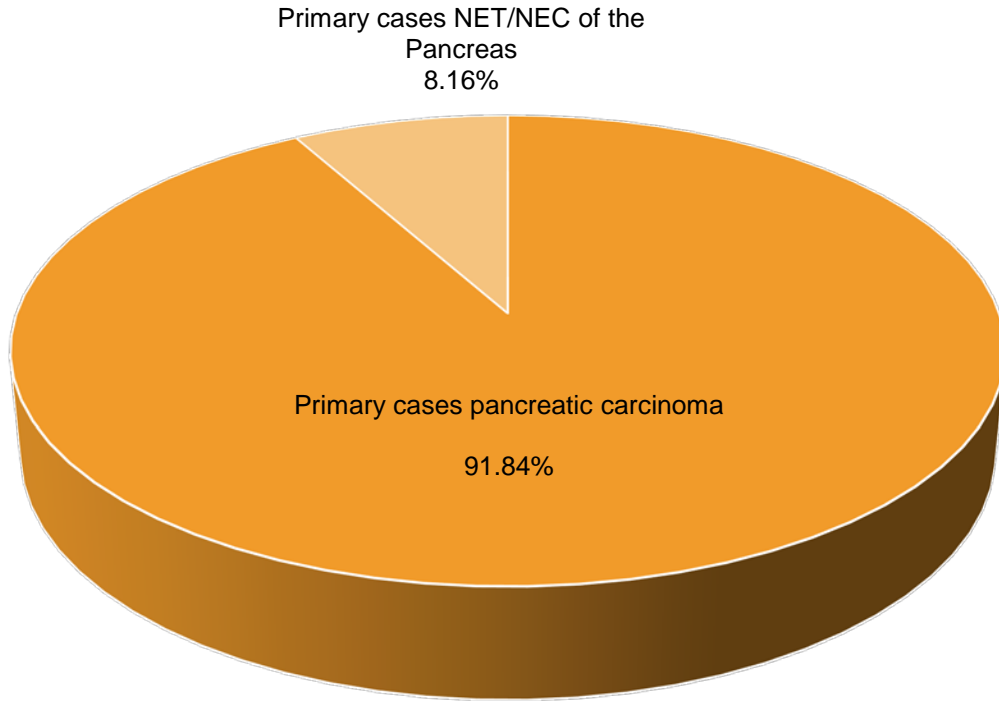
The information on the tumour documentation system was taken from the data sheet (Basic Data Sheet). It is not possible to specify more than one system. In many cases, support is provided by the cancer registries or there may be a direct link to the cancer registry via a specific tumour documentation system.

Basic data - Primary cases - Pancreatic cancer



	IA	IB	IIA	IIB	III	IV	Total
Surgical primary cases	137 (90.73%)	322 (87.26%)	154 (71.30%)	822 (89.06%)	665 (58.80%)	169 (6.96%)	2,269 (43.48%)
Non-surgical primary cases	14 (9.27%)	47 (12.74%)	62 (28.70%)	101 (10.94%)	466 (41.20%)	2,260 (93.04%)	2,950 (56.52%)
Primary cases total	151 (100%)	369 (100%)	216 (100%)	923 (100%)	1,131 (100%)	2,429 (100%)	5,219 (100%)

Basic data - Primary cases Pancreatic cancer

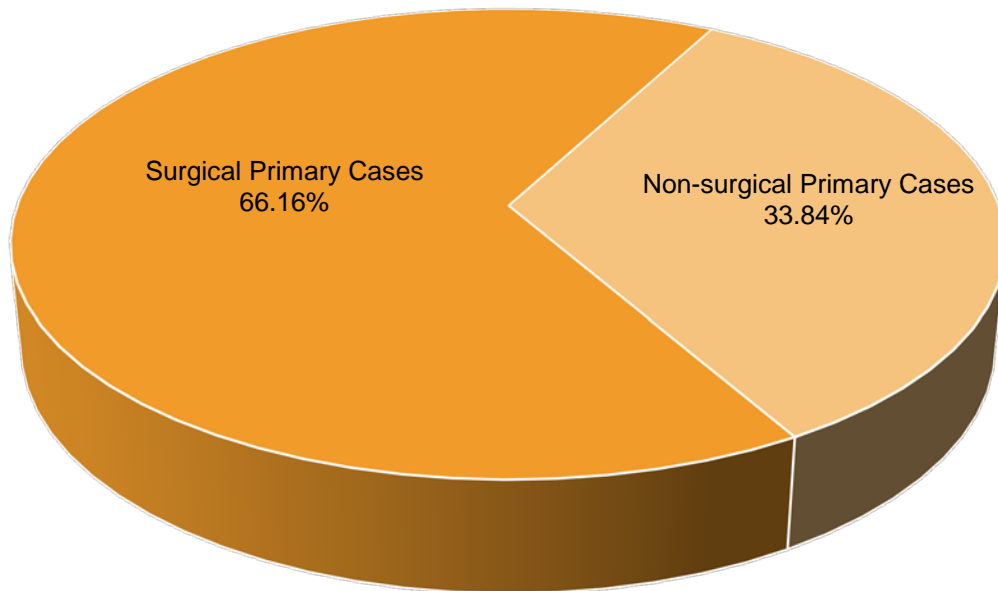


Primary cases Pancreatic cancer		
Pancreatic carcinoma	Neuro-endocrine Pancreatic Tumours (NET) and neuroendocrine Pancreatic Carcinomas (NEC)	Primary cases Total
5,219 (91.84%)	464 (8.16%)	5,683 (100%)

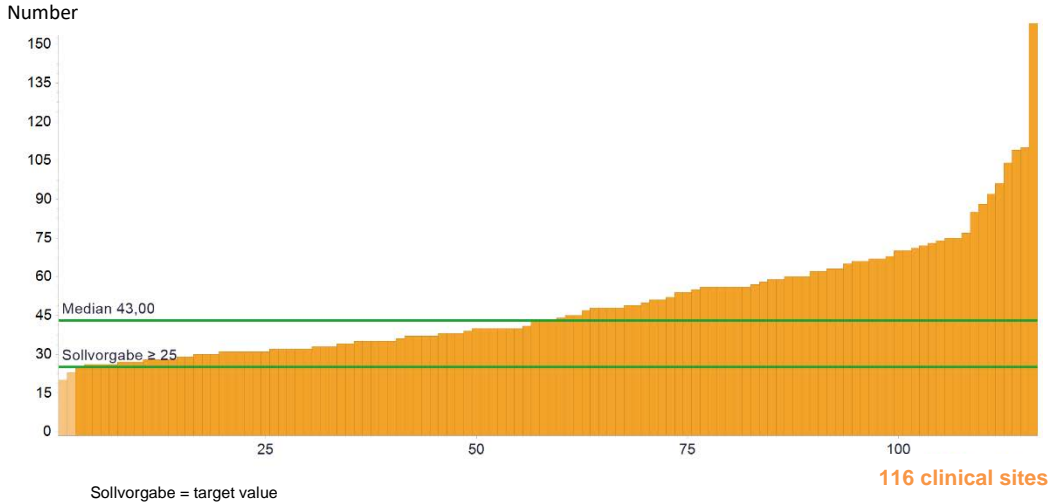
Basic data

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

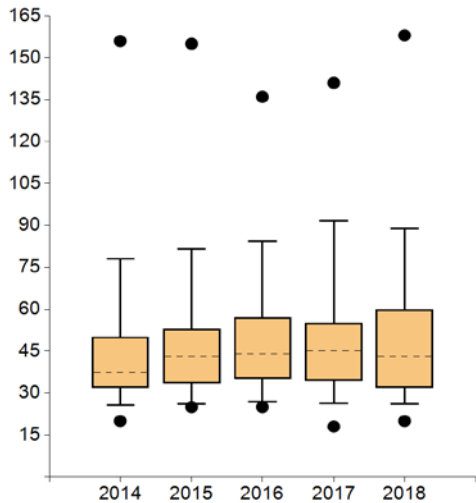
Surgical Primary cases	Non-surgical Primary cases	Primary cases Total
307 (66.16%)	157 (33.84%)	464 (100%)



1. Primary cases Centre



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Number	Primary cases	43	20 - 158	5,683
	Target value ≥ 25			



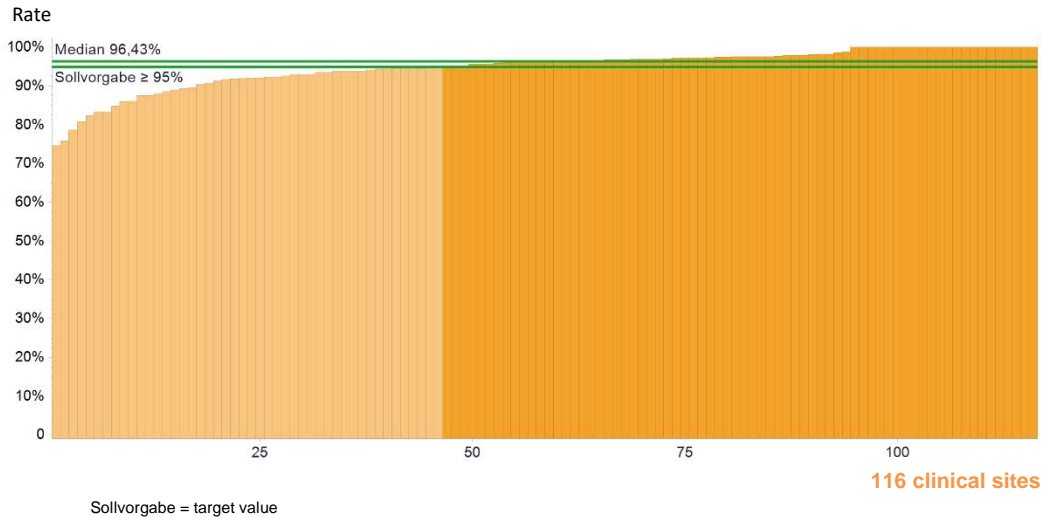
	2014	2015	2016	2017	2018
max	156.00	155.00	136.00	141.00	158.00
95 th percentile	77.95	81.60	84.40	91.50	89.00
75 th percentile	50.00	53.00	57.00	55.00	60.00
Median	37.50	43.00	44.00	45.00	43.00
25 th percentile	32.00	33.50	35.00	34.25	32.00
5 th percentile	25.55	26.10	27.00	26.25	26.00
Min	20.00	25.00	25.00	18.00	20.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100,00%	114	98,28%

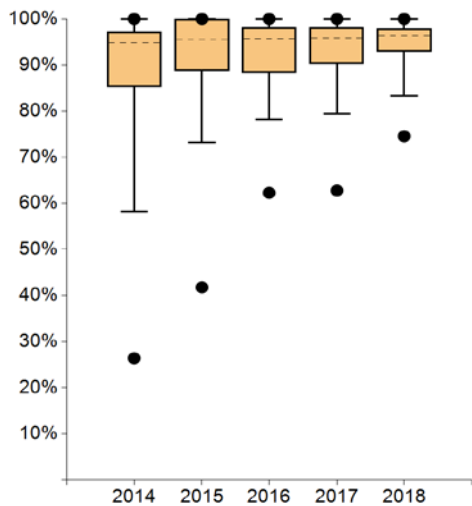
Comments:

The number of primary cases treated in the centers increases by 11.34%. As in the previous year, 2 centres missed the target of at least 25 primary cases. Both had to prove the fulfilment of the indicator in a re-audit. One of the centres fulfilled the case numbers on average over the last 3 years, one applied for suspension of the certificate. Comparing the primary cases of the centres with the incidences in the whole of Germany in 2016 (18,370, www.krebsdaten.de), 29.2% of primary diseases are treated in certified centres.

2. Pretherapeutic case presentation



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Primary cases with pancreatic cancer who were presented at the pre-operative conference	40*	20 - 154	5,367
Denominator	Primary cases (= Indicator 1)	43*	20 - 158	5,683
Rate	Target value ≥ 95%	96.43%	74.55% - 100%	94.44%**



	2014	2015	2016	2017	2018
max	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	97.12%	100%	98.04%	98.16%	97.88%
Median	94.73%	95.52%	95.74%	95.88%	96.43%
25 th percentile	85.28%	88.68%	88.24%	90.34%	92.92%
5 th percentile	58.18%	73.16%	78.06%	79.38%	83.33%
Min	26.39%	41.75%	62.26%	62.75%	74.55%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	70	60.34%

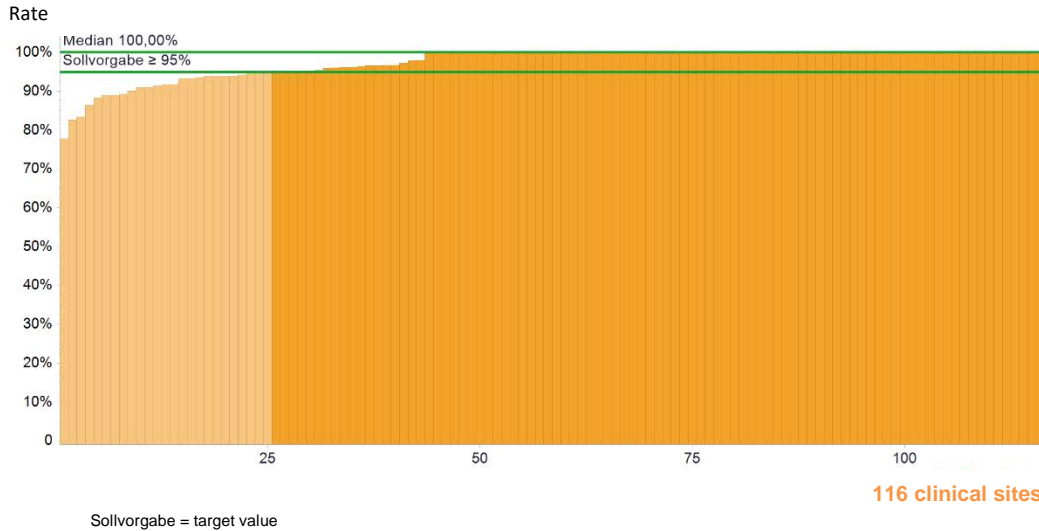
Comments:

The last few years show a positive development of this indicator, although 46 centres miss the target. In contrast, 22 centres achieve a rate of 100%, 56 centres improved it. A pretherapeutic case presentation was usually not made in case of emergency interventions (e.g. ileus symptoms), intra-/postoperative diagnosis (e.g. suspected pancreatitis), externally started diagnosis/therapy or palliative situation. In the audits, training and SOPs were suggested to ensure the complete presentation of all primary cases, especially in the case of clear indication, urgent surgery (ad hoc conference) and palliative patients. 2 centres received a deviation due to repeated undercutting and were able to remedy this by changing their processes.

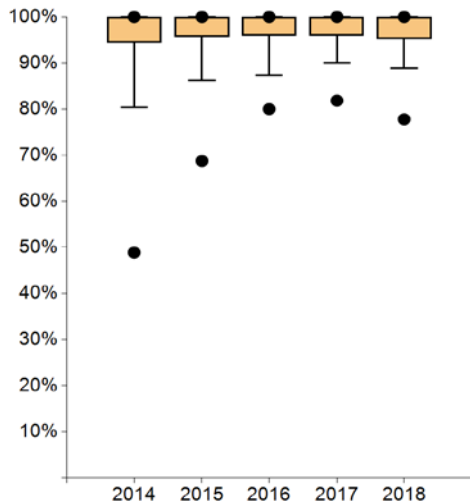
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

3. Post-operative case presentation



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Surgical primary cases pancreas presented in the post-operative conference	19*	4 - 61	2,501
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff with ICD-10 C25) (= Indicator 8)	19.5*	4 - 64	2,576
Rate	Target value ≥ 95%	100%	77.78% - 100%	97.09%**



	2014	2015	2016	2017	2018
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	94.44%	95.74%	96.00%	95.94%	95.20%
5 th percentile	80.36%	86.14%	87.36%	90.00%	88.89%
Min	48.89%	68.75%	80.00%	81.82%	77.78%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	91	78.45%

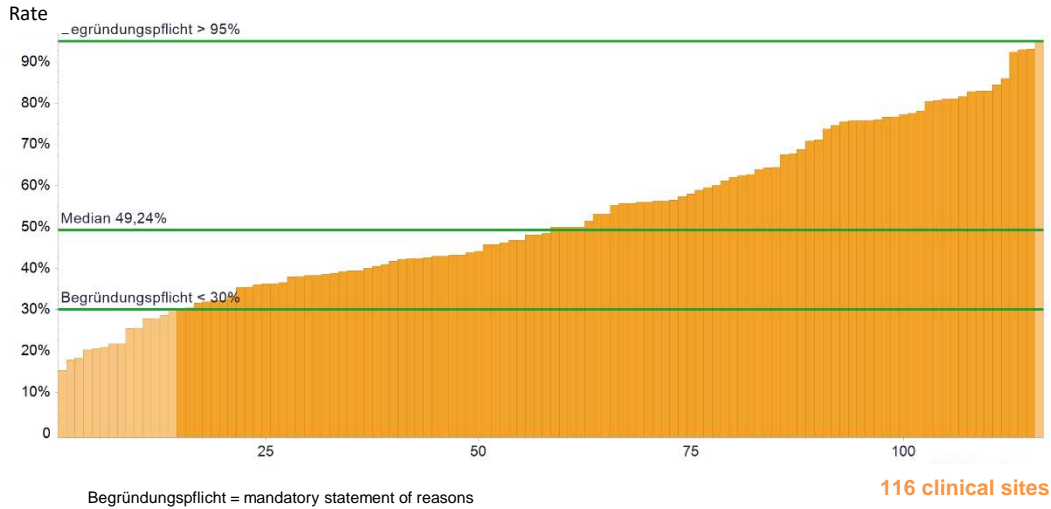
Comments:

The degree of fulfilment of the postoperative presentation is still good and remains at the previous year's level. 73 centres have 100% fulfilled. Of the 25 centres that missed the target, 17 achieve at least 90%. Postoperative deaths were in almost all cases the reason why the target was not met.

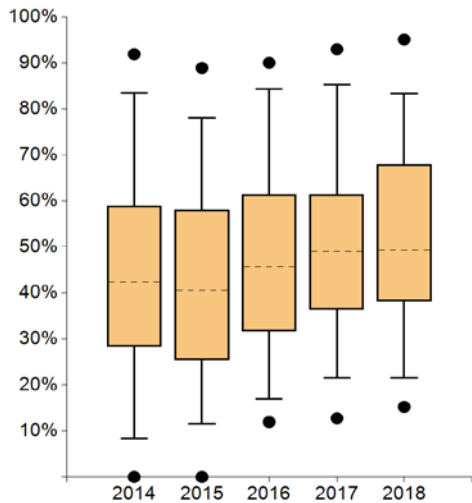
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

4. Psycho-oncological counselling



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Patients who received psycho-oncological care (length of consultation ≥ 25 min)	25*	10 - 107	3,282
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	49*	21 - 170	6,583
Rate	Mandatory statement of reasons*** < 30% and >95%	49.24%	15.24% - 95.08%	49.86%**



	2014	2015	2016	2017	2018
max	91.89%	88.89%	90.00%	92.94%	95.08%
95 th percentile	83.45%	78.04%	84.28%	85.32%	83.29%
75 th percentile	58.89%	58.06%	61.33%	61.25%	67.97%
Median	42.41%	40.48%	45.71%	48.98%	49.24%
25 th percentile	28.43%	25.41%	31.71%	36.47%	38.19%
5 th percentile	8.37%	11.51%	17.01%	21.52%	21.51%
Min	0.00%	0.00%	11.96%	12.77%	15.24%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
116	100.00%	101	87.07%

Comments:

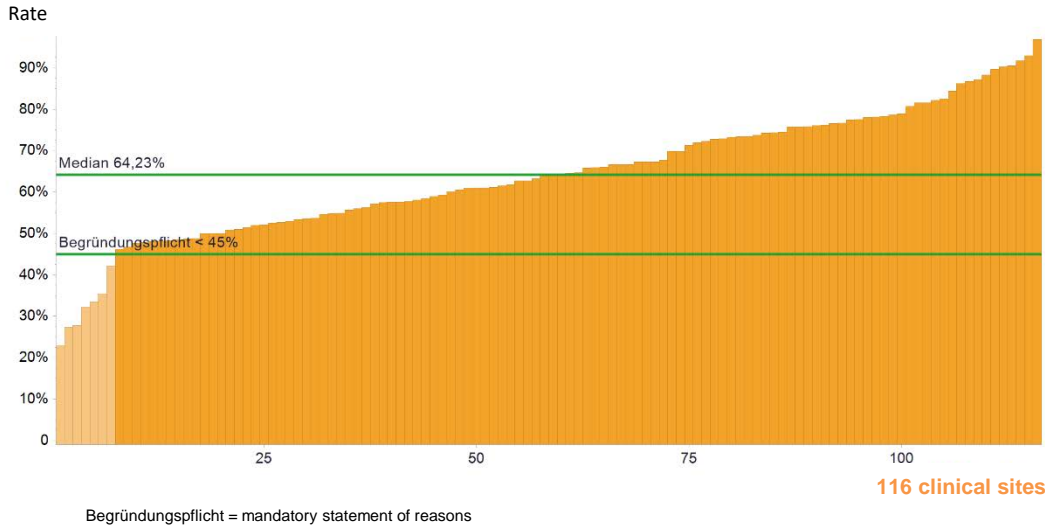
The psycho-oncological care rate continues the positive trend of the last years, although in the indicator year 2018 15 centres (previous year: 13) are outside the plausibility limits. 14 of them fall short of 30% and in this respect often refer to a low demand on the part of the patients (partly despite screening at admission and in the course). Also, conversations <25 min. and documentation problems in the context of palliative complex treatment were occasionally considered to be the reason. Measures agreed upon in the audit were primarily aimed at training and sensitizing the 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

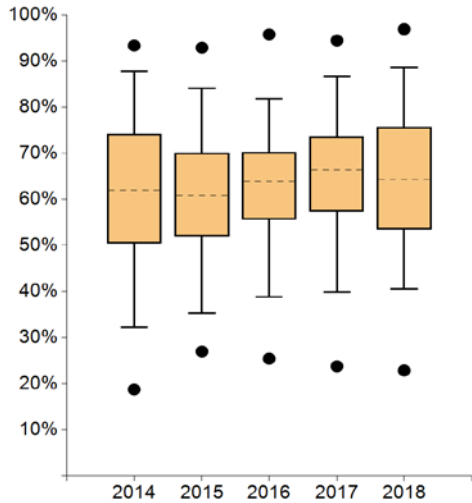
** Percentage of centre patients who were treated according to the indicator.

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

5. Social services counselling



	Indicator definition	All clinical sites 2018		
		Median	Range	Patienten Gesamt
Numerator	Patients who received counselling from the social services	31*	11 - 105	4,112
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	49*	21 - 170	6,583
Rate	Mandatory statement of reasons*** < 45%	64.23%	22.86% - 96.88%	62.46%**



	2014	2015	2016	2017	2018
max	93.33%	92.86%	95.74%	94.44%	96.88%
95 th percentile	87.84%	84.00%	81.83%	86.53%	88.57%
75 th percentile	74.08%	70.01%	70.21%	73.59%	75.63%
Median	62.02%	60.81%	63.83%	66.32%	64.23%
25 th percentile	50.49%	51.86%	55.56%	57.40%	53.51%
5 th percentile	32.18%	35.28%	38.84%	39.93%	40.54%
Min	18.75%	26.98%	25.42%	23.77%	22.86%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
116	100.00%	109	93.97%

Comments:

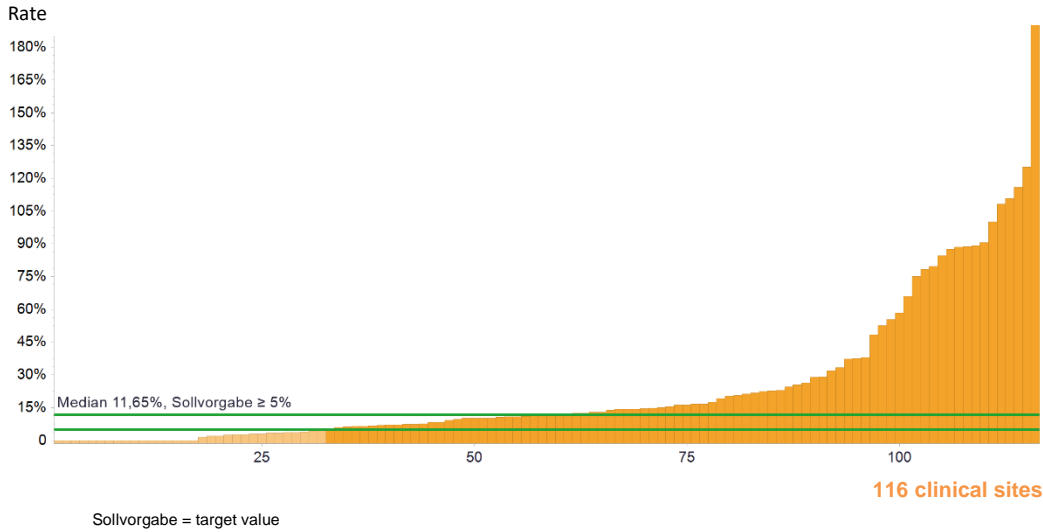
The ratio continues to be met very well. Quotas of 100% are no longer subject to justification since the indicator year 2018. 7 centres are below 40% as in the previous year, 3 of which are located outside of Germany with different legal regulations for the social service. Further reasons for the comparatively low rates are the rejection by patients, especially of consultations held during previous stays, and the inadequate recording of consultations of palliative patients. The audits pointed out the importance of a higher consultation 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.

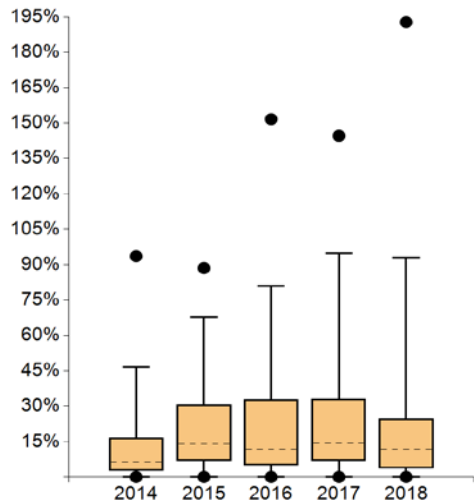
** Percentage of centre patients who were treated according to the indicator

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

6. Study participation



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Patients with pancreatic cancer (not only primary cases) who were included in a study	5*	0 - 212	1,704
Denominator	Primary cases (= Indicator 1)	43*	20 - 158	5,683
Rate	Target value ≥ 5%	11.65%	0.00% - 192.73%	29.98%**



	2014	2015	2016	2017	2018
max	93.55%	88.52%	151.61%	144.57%	192.73%
95 th percentile	46.47%	67.71%	80.83%	94.87%	92.97%
75 th percentile	16.73%	30.52%	32.89%	33.20%	24.72%
Median	6.25%	13.95%	11.76%	14.29%	11.65%
25 th percentile	2.65%	6.71%	5.00%	6.71%	3.81%
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	%
116	100,00%	84	72,41%

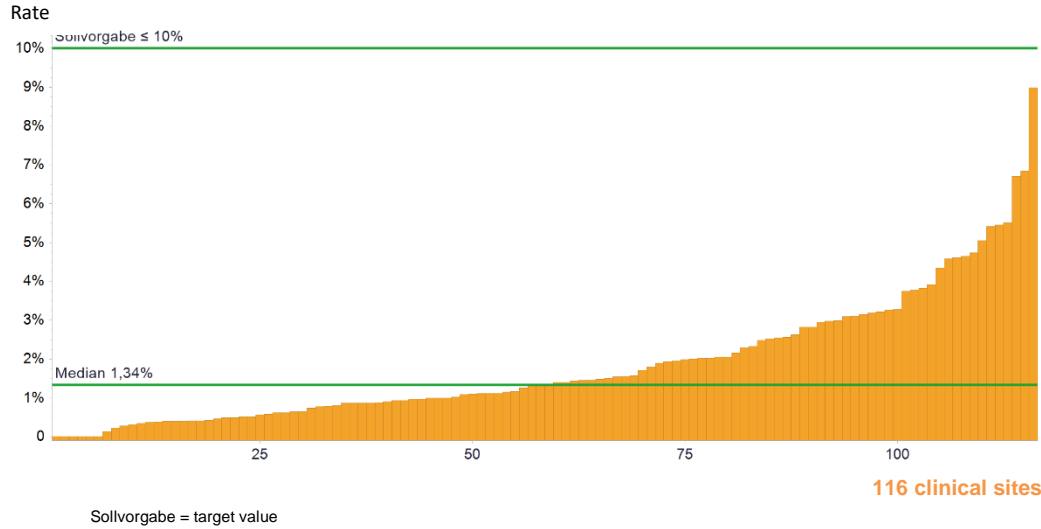
Comments:

In the participation rate in studies, the increasing scattering is noticeable with an overall decreasing median. 32 centres (previous year: 13) missed the target, 10 of them already missed it in the previous year. 17 centres are unable to enrol patients in a study (previous year: 7 centres). Reasons for low participation are cancellations, delayed start or recruitment stops of studies, lack of suitable patients, personnel changes in the centres and rejection by patients. In the audits, various measures for improvement were discussed (including quality circles, cooperation with university hospitals/practices, establishment and staffing of study centres). Seven deviations and numerous comments were made.

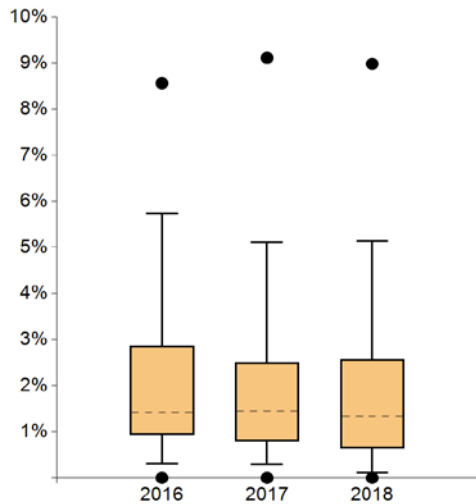
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

** 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 2018		
		Median	Range	Patients Total
Numerator	Patients with endoscopy-specific complications Pancreatitis after ERCP (CR 2.1)	5*	0 - 56	841
Denominator	ERCPS for each endoscopy unit	363*	116 - 1480	49,074
Rate	Target value ≤ 10%	1.34%	0.00% - 8.98%	1.71%**



	2014	2015	2016	2017	2018
max	-----	-----	8.56%	9.11%	8.98%
95 th percentile	-----	-----	5.73%	5.11%	5.14%
75 th percentile	-----	-----	2.86%	2.50%	2.58%
Median	-----	-----	1.42%	1.45%	1.34%
25 th percentile	-----	-----	0.93%	0.80%	0.64%
5 th percentile	-----	-----	0.31%	0.30%	0.11%
Min	-----	-----	0.00%	0.00%	0.00%

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

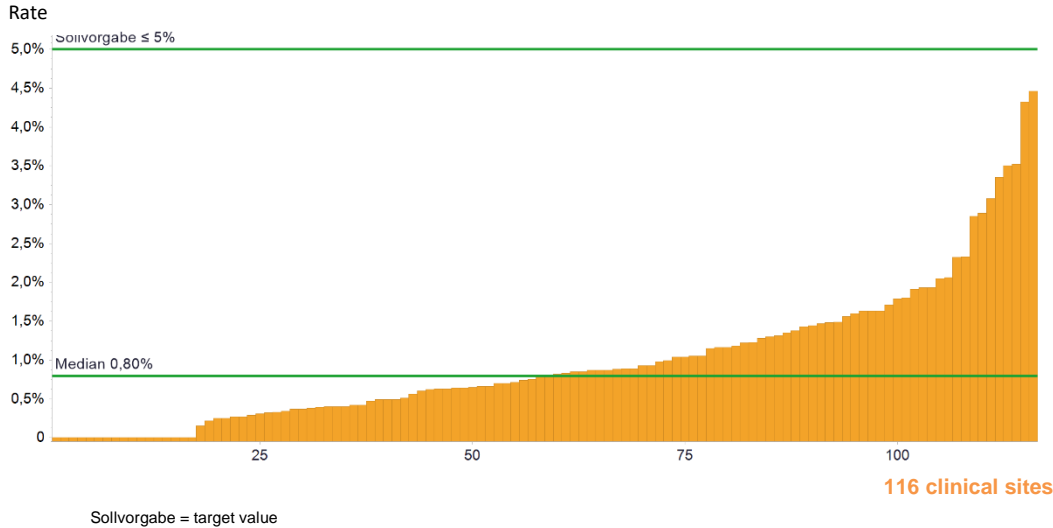
Comments:

Since the indicator year 2016, the performed ERCPS and no longer the treated patients form the reference value in the denominator. With a slightly improved median, all centers meet the target of a maximum of 10% ERCPS with complications, as in the previous year. 47 centres have a complication rate of a maximum of 1%. 62 centers are reducing their rates compared to the previous year.

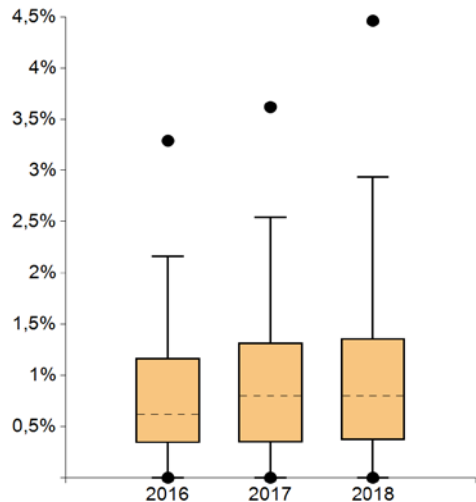
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

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



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Patients with endoscopy-specific complications bleeding and perforation after ERCP (CR 2.1)	3*	0 - 18	446
Denominator	ERCPs for each endoscopy unit	363*	116 - 1480	49,074
Rate	Target value ≤ 5%	0.80%	0.00% - 4.46%	0.91%**



	2014	2015	2016	2017	2018
max	----	----	3.29%	3.62%	4.46%
95 th percentile	----	----	2.17%	2.55%	2.94%
75 th percentile	----	----	1.17%	1.32%	1.36%
Median	----	----	0.62%	0.80%	0.80%
25 th percentile	----	----	0.34%	0.35%	0.37%
5 th percentile	----	----	0.00%	0.00%	0.00%
Min	----	----	0.00%	0.00%	0.00%

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

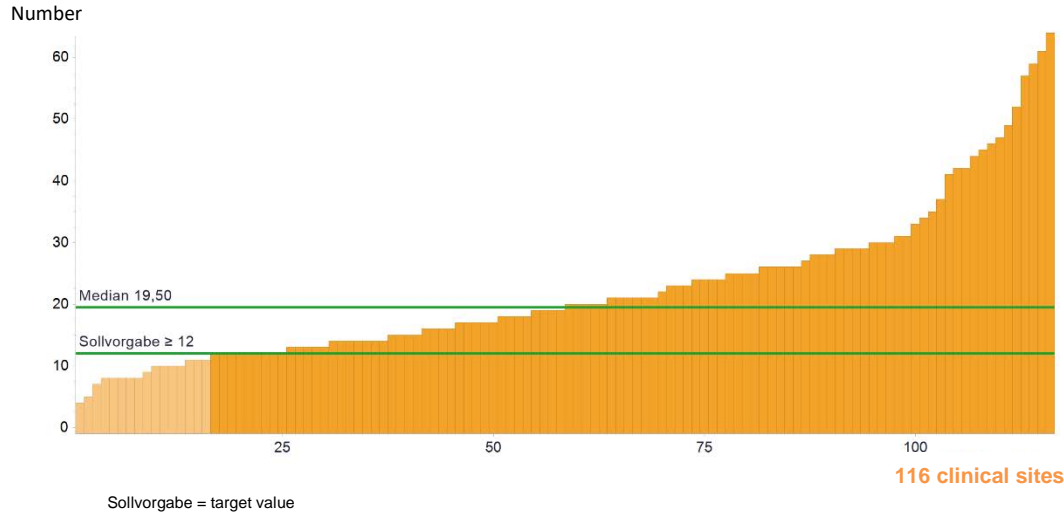
Comments:

Since the indicator year 2016, the performed ERCPs and no longer the treated patients form the reference value in the denominator. The dispersion has increased due to the results of 6 centres with values above 3%. Only 2 of them reported rates of a similar size in the previous year.

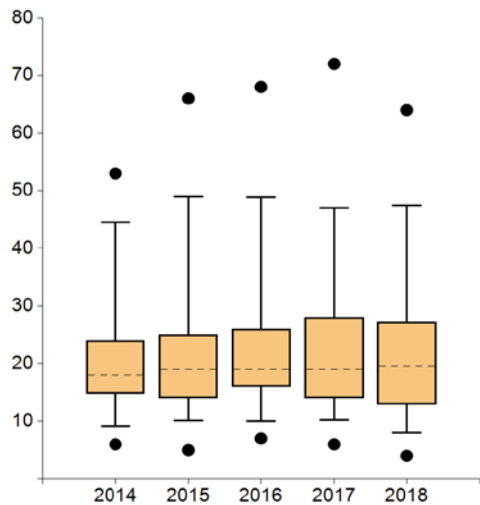
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

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



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Number	Surgical primary cases pancreas (5-524ff, 5-525ff only with ICD-10 C25) (Def. 5.2.4)	19.5	4 - 64	2,576
	Target value ≥ 12			



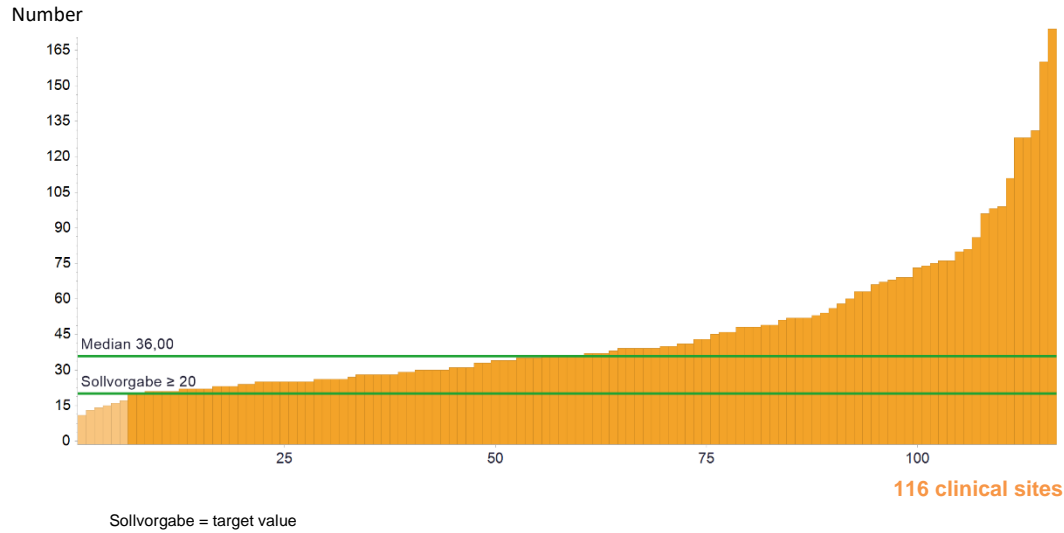
	2014	2015	2016	2017	2018
max	53.00	66.00	68.00	72.00	64.00
95 th percentile	44.45	48.90	48.80	47.00	47.50
75 th percentile	24.00	25.00	26.00	28.00	27.25
Median	18.00	19.00	19.00	19.00	19.50
25 th percentile	14.75	14.00	16.00	14.00	13.00
5 th percentile	9.10	10.10	10.00	10.25	8.00
Min	6.00	5.00	7.00	6.00	4.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	100	86.21%

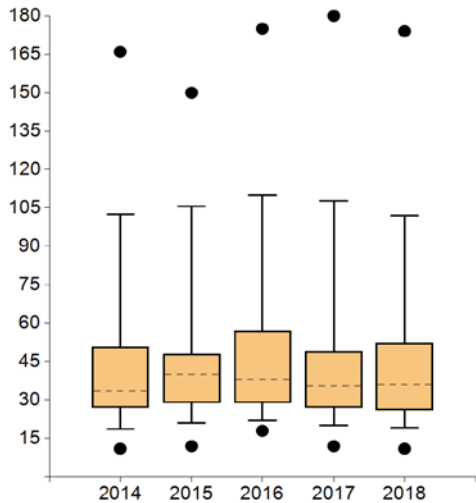
Comments:

At 8.33%, the total number of primary surgical cases is increasing less strongly than the number of primary cases (+11.34%, cf. figure 1). The 16 centres below the target of 12 cases frequently identified changes in personnel as causes for the shortfall. According to the "Evaluation Guideline Case Numbers", falling below the operative primary case numbers is not per se a reason for withdrawal of the certificate, but rather the failure to meet the total case number and operative expertise. Nevertheless, the audits of the 6 centres that fell short of the target number received 4 deviations. One of the centres applied for a suspension of the certificate due to simultaneous undercutting of the primary case numbers. Measures to increase the number of cases included centralization of the operating theater and information events for referring physicians and patients. Most of the centres with undercutting expect an increase in case numbers in 2019.

9. Overall surgical expertise pancreas



	Indicator definition	All clinical sites 2018		
		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	11 - 174	5,255
	Target value ≥ 20			



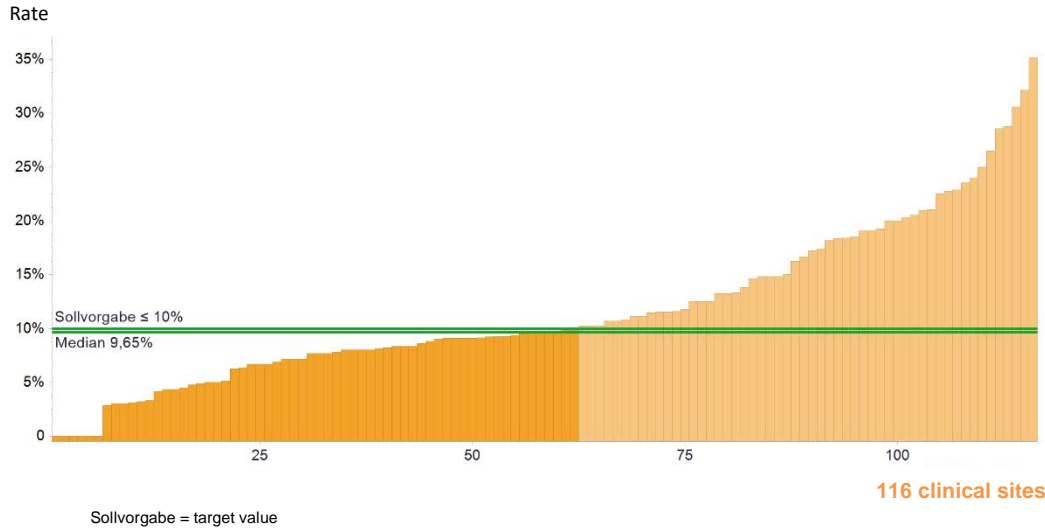
	2014	2015	2016	2017	2018
max	166.00	150.00	175.00	180.00	174.00
95 th percentile	102.45	105.70	109.80	107.75	102.00
75 th percentile	50.75	48.00	57.00	49.00	52.25
Median	33.50	40.00	38.00	35.50	36.00
25 th percentile	27.00	29.00	29.00	27.00	26.00
5 th percentile	18.65	21.00	22.00	20.00	19.25
Min	11.00	12.00	18.00	12.00	11.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	110	94.83%

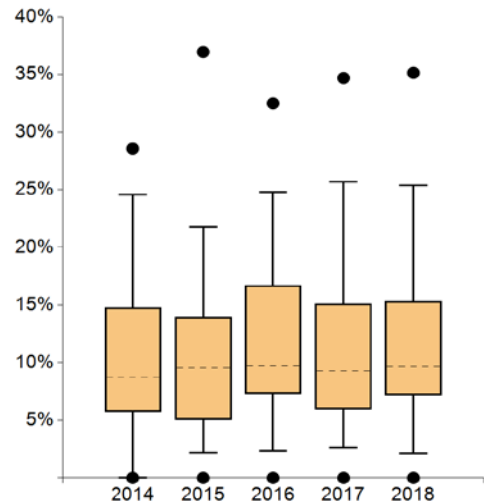
Comments:

The number of pancreas resections performed in the certified centers increases by 6.9%. With regard to the individual centre, the figures remain at the same level as the previous year. 6 centres missed the target for this indicator. At the same time, these 6 centres also fail to meet the target for the primary cases operated on (see indicator 8). Accordingly, comparable statements were made by the centres. In one case, the figures had to be verified in a re-audit. However, on average over the last 3 years the target was achieved.

10. Revision surgeries pancreas



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Revision surgeries after peri-operative complications within 30d of pancreatic resection	4*	0 - 23	628
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	36*	11 - 174	5,255
Rate	Target value ≤ 10%	9.65%	0.00% - 35.14%	11.95%**



	2014	2015	2016	2017	2018
max	28.57%	36.96%	32.50%	34.69%	35.14%
95 th percentile	24.55%	21.78%	24.77%	25.70%	25.37%
75 th percentile	14.81%	13.92%	16.67%	15.11%	15.31%
Median	8.70%	9.52%	9.68%	9.31%	9.65%
25 th percentile	5.73%	5.07%	7.27%	5.97%	7.14%
5 th percentile	0.00%	2.20%	2.36%	2.62%	2.15%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	62	53.45%

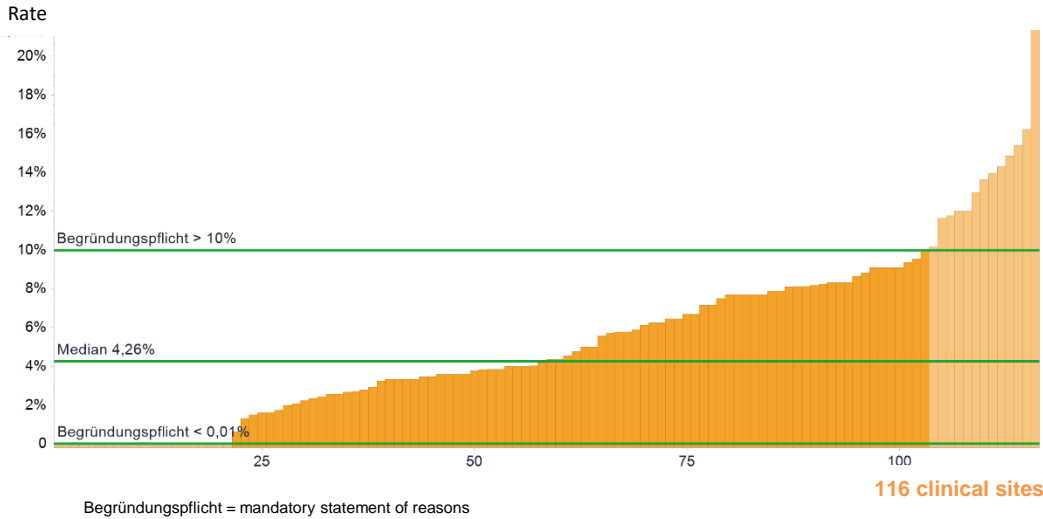
Comments:

The proportion of revision surgeries remained constant in the indicator year 2018, with a good half of the centres meeting the target of a maximum of 10%. 54 centres failed to meet the target, 31 of them already did so in the previous year. According to the centres, the main causes were anastomosis insufficiencies, bleeding, fistulas, abscesses and pancreatitis. In addition to recommending specific measures (e.g. M&M conferences, review of surgical techniques, increased use of interventional procedures), the auditors also set the quotas in relation to mortality: some centres with generous indications for revision surgery showed very low mortality rates and thus high quality of results.

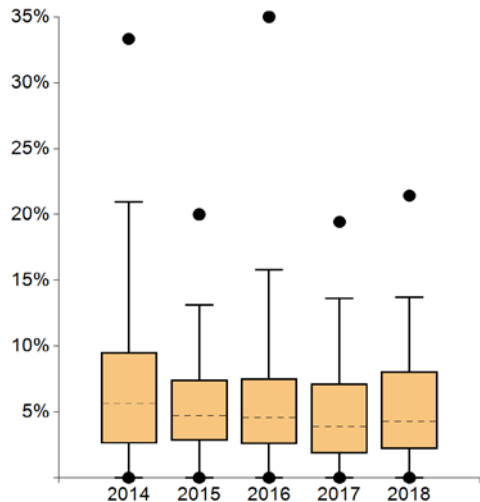
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

11. Post-operative wound infections



	Indicator definition	All clinical sites 2018		
		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 - 19	297
Denominator	Pancreatic resections (5-524ff and 5-525ff, with and without ICD-10 C25) (= Indicator 9)	36*	11 - 174	5,255
Rate	Mandatory statement of reasons*** < 0.01% and >10%	4.26%	0.00% - 21.43%	5.65%**



	2014	2015	2016	2017	2018
max	33.33%	20.00%	35.00%	19.44%	21.43%
95 th percentile	20.93%	13.13%	15.79%	13.64%	13.72%
75 th percentile	9.52%	7.41%	7.50%	7.14%	8.09%
Median	5.65%	4.72%	4.57%	3.93%	4.26%
25 th percentile	2.60%	2.86%	2.56%	1.85%	2.19%
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	%
116	100.00%	82	70.69%

Comments:

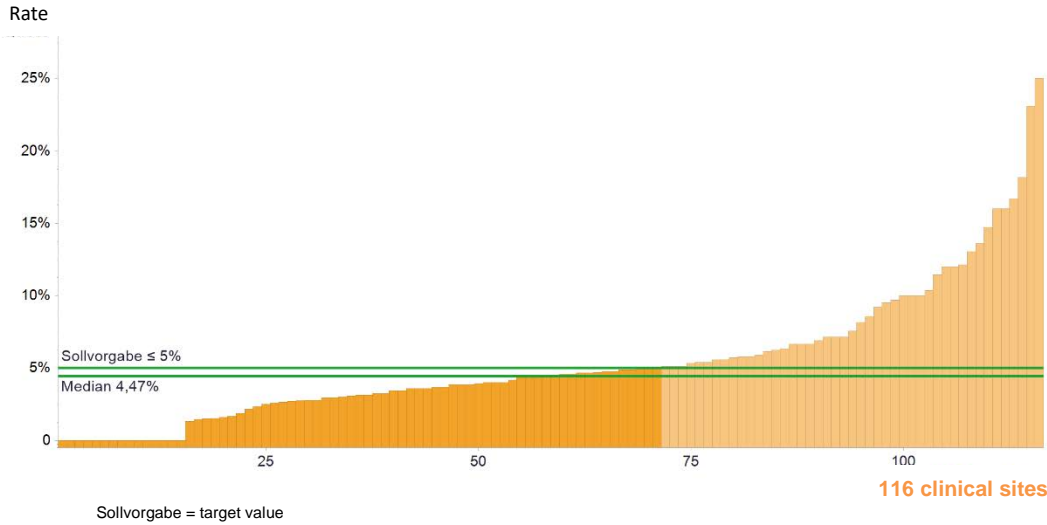
The median rate of postoperative wound infections increases slightly in the 2018 year of data collection. 21 centres had no documented wound infection. As in the previous year, 13 centres had to explain a rate >10%, referring among other things to multimorbidity and a high re-operation rate. Many centres took their results as an opportunity to initiate improvement measures, e.g. adapting antibiotic prophylaxis to the haematopoietic bacterial spectrum, adapting preoperative hygiene measures, more generous insertion of wound drains and consistent wound irrigation.

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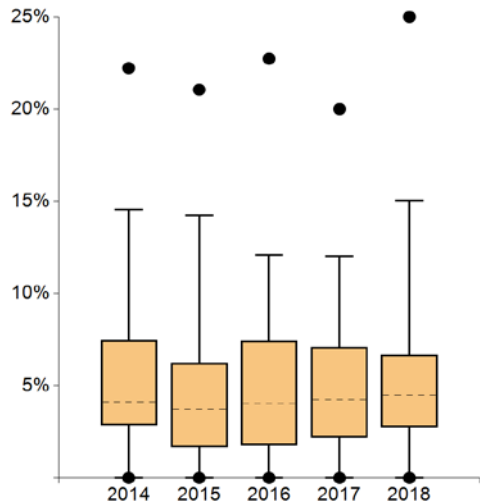
** Percentage of centre patients who were treated according to the indicator

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

12. Post-operative mortality



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Post-operative deceased patients after pancreatic resections within 30d	2*	0 - 7	250
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	36*	11 - 174	5,255
Rate	Target value ≤ 5%	4.47%	0.00% - 25.00%	4.76%**



	2014	2015	2016	2017	2018
max	22.22%	21.05%	22.73%	20.00%	25.00%
95 th percentile	14.52%	14.24%	12.08%	12.03%	15.03%
75 th percentile	7.46%	6.24%	7.41%	7.08%	6.67%
Median	4.11%	3.70%	4.05%	4.23%	4.47%
25 th percentile	2.86%	1.68%	1.75%	2.18%	2.77%
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	%
116	100.00%	71	61.21%

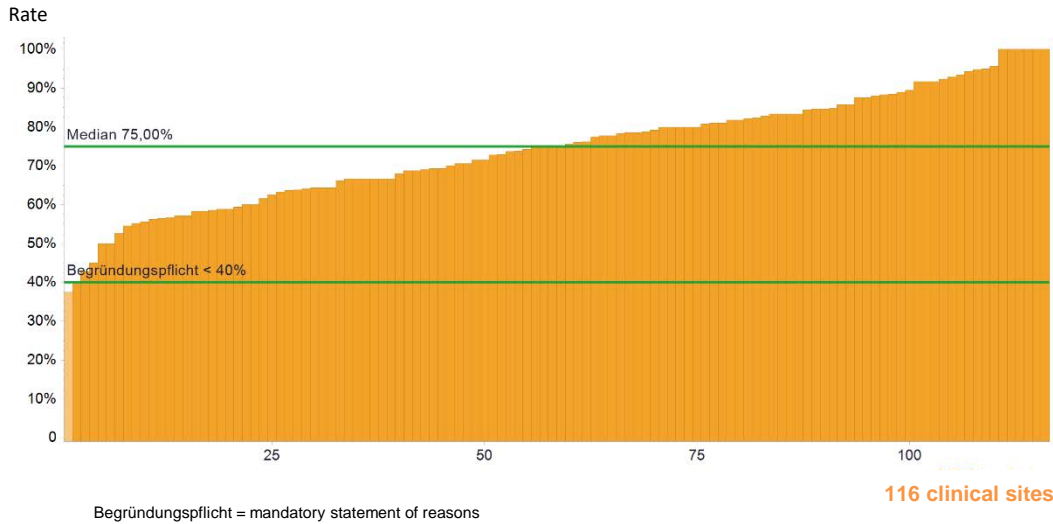
Comments:

The median of postoperative mortality has slightly increased, also the dispersion in the higher percentage ranges is larger compared to the previous year. 45 centres (previous year: 37) missed the target, 19 of which were already conspicuous in the previous year. Causes of death were in the majority of cases septic disease progression, liver/kidney failure, heart attack, thromboembolic events and generally multimorbidity and/or old age. In many of the cases no systematic errors were identified in the audits. In addition to concrete measures such as M&M conferences, revision of perioperative antibiotic management or establishment of preoperative risk scores, the critical individual case audits also resulted in explicit recommendations for a more critical indication for surgery, especially in cases of metastasis, old age and vascular infiltration. In one case a deviation was pronounced.

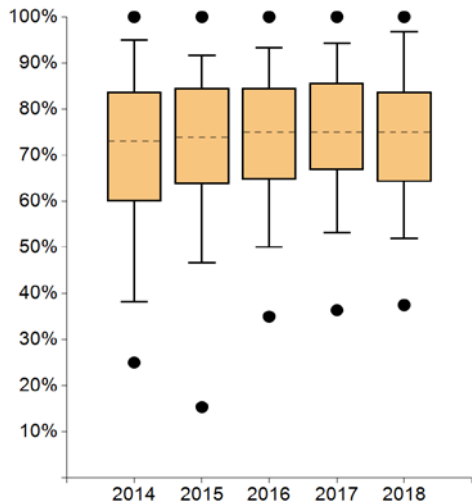
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

13. Local R0 resections pancreas (GL QI 1)



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Local R0 resections pancreas after completion of surgical therapy	14*	2 - 49	1,910
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) (= Indicator 8)	19.5*	4 - 64	2,576
Rate	Mandatory statement of reasons*** < 40%	75.00%	37.50% - 100%	74.15 %**



	2014	2015	2016	2017	2018
● max	100%	100%	100%	100%	100%
95th percentile	94.86%	91.67%	93.26%	94.27%	96.74%
75th percentile	83.65%	84.62%	84.62%	85.71%	83.61%
Median	73.03%	73.91%	75.00%	75.00%	75.00%
25th percentile	60.00%	63.69%	64.71%	66.67%	64.22%
5th percentile	38.16%	46.67%	50.00%	53.26%	51.97%
● Min	25.00%	15.38%	35.00%	36.36%	37.50%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	115	99.14%

Comments:

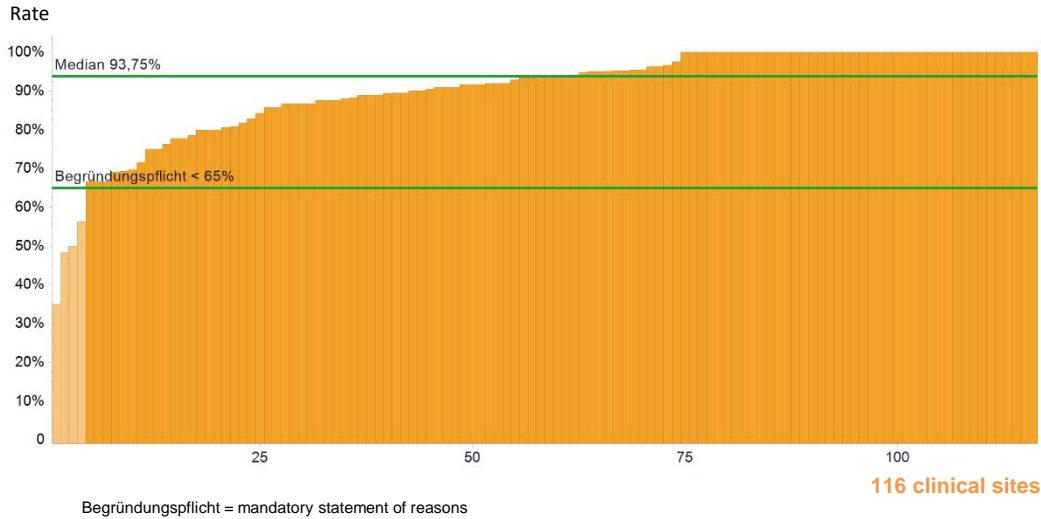
The indicator continues to be implemented very well by the centres and remains at a high level. A rate of 100% R0 resections (achieved by 6 centres) was no longer subject to justification in the indicator year 2018. Only 1 centre (previous year: 2) had to justify a rate below 40%. This centre had only 8 patients in the denominator and was able to plausibly verify the low rate in the audit (R0 resection at the edge of withdrawal, but postoperative detection of a perineural vaginal infiltration).

*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.

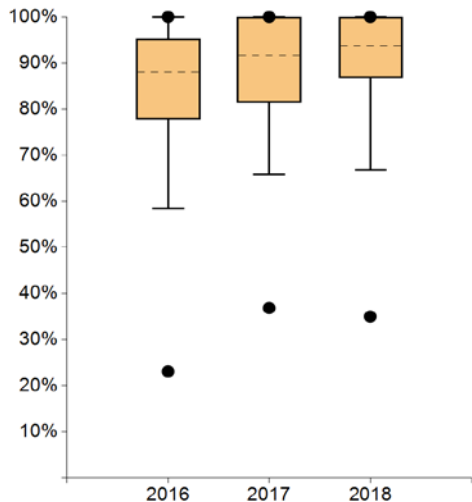
** Percentage of centre patients who were treated according to the indicator

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

14. Lymph node examination (GL QI 2)



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Surgical primary cases pancreas with ≥ 12 regional lymph nodes in the surgical specimen after conclusion of surgical therapy	15*	2 - 46	1,974
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) who have undergone a lymphadenectomy	16*	3 - 56	2,211
Rate	Mandatory statement of reasons*** < 65%	93.75%	35.00% - 100%	89.28%**



	2014	2015	2016	2017	2018
max	----	----	100%	100%	100%
95 th percentile	----	----	100%	100%	100%
75 th percentile	----	----	95.24%	100%	100%
Median	----	----	88.00%	91.67%	93.75%
25 th percentile	----	----	77.78%	81.39%	86.67%
5 th percentile	----	----	58.38%	65.81%	66.67%
Min	----	----	23.08%	36.84%	35.00%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
116	100.00%	112	96.55%

Comments:

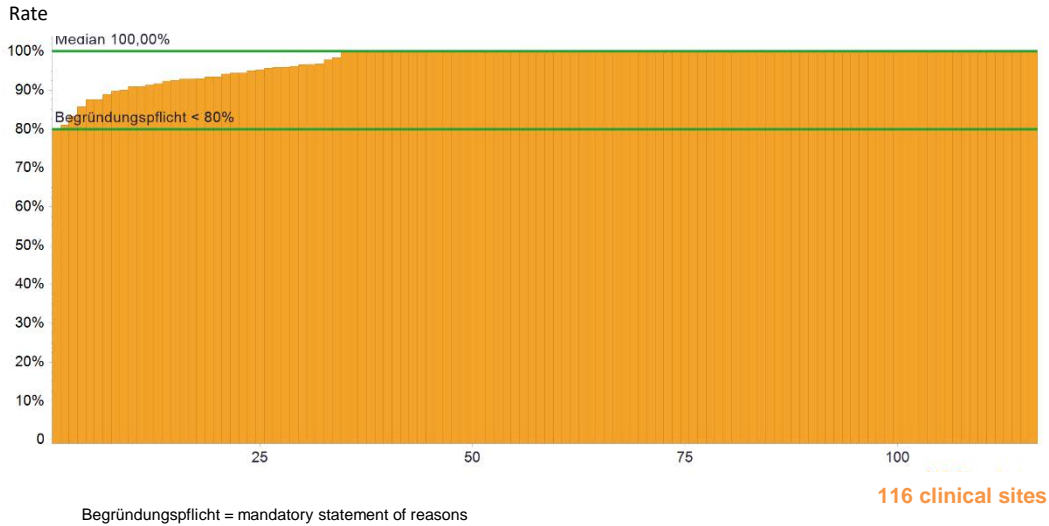
The ratio continues to develop positively, so that only 4 centers (previous year: 5) have a justifiably low rate of primary surgical cases with at least 12 regional lymph nodes in the surgical specimen. 2 of these centres were already subject to the obligation to give reasons in the previous year. In the audits, the 4 centers explained their low rates with fewer lymph nodes in the resected tissue of patients pretreated with neoadjuvant, a very strict differentiation between lymph nodes and lymph follicles in pathology, and already established pN1 status. During the audits, consultations with the pathology department and working groups were agreed upon to standardize the LK sampling standards.

*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.

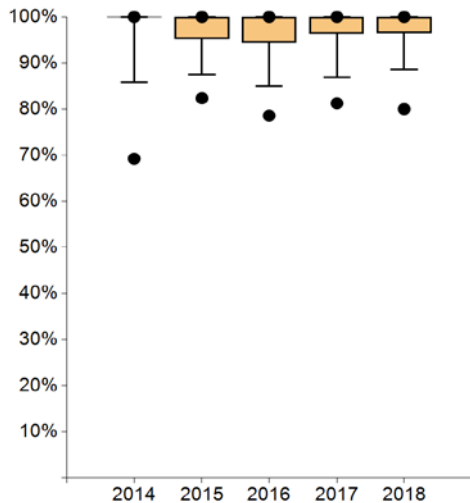
** Percentage of centre patients who were treated according to the indicator

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

16. Content Pathology Report (GL QI 3)



	Indicator definition	All clinical sites 2018		
		Median	Range	Patients Total
Numerator	Pathology reports from surgical primary cases with remarks of: pT. pN. M. tumour grading: proportion LN affected non-affected	19*	4 - 59	2,468
Denominator	Pathology Report from surgical primary cases	19*	4 - 64	2,534
Rate	Mandatory statement of reasons*** < 80%	100%	80.00% - 100%	97.40%**



	2014	2015	2016	2017	2018
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	100%	95.23%	94.44%	96.36%	96.45%
5 th percentile	85.84%	87.50%	85.00%	86.80%	88.54%
Min	69.23%	82.35%	78.57%	81.25%	80.00%

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

Comments:

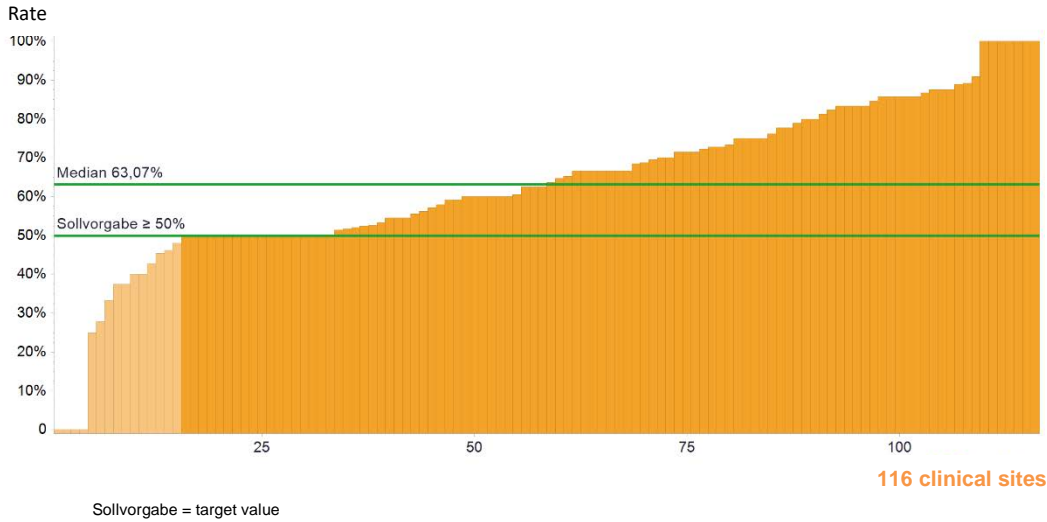
As of the indicator year 2018, the 82 centres with complete pathology reports throughout (previous year: 74) are also within the plausibility limits and are therefore no longer required to provide reasons. As in the previous year, none of the centres falls below 80%, so that an excellent implementation of this guideline requirement can be assumed.

*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.

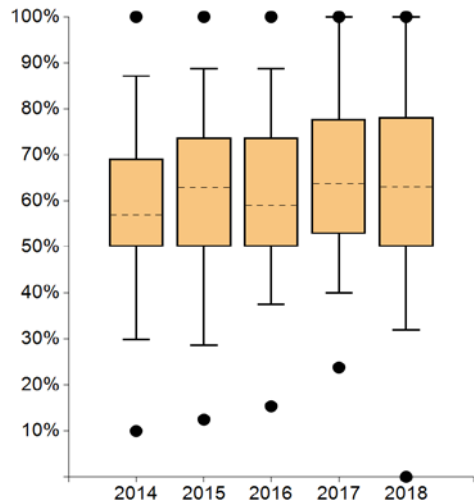
** Percentage of centre patients who were treated according to the indicator

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

17. Adjuvant chemotherapy (GL QI 4)



	Indicator definition	All clinical sites 2018		
		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*	0 - 33	1,013
Denominator	Surgical primary cases pancreatic cancer UICC stages I-III and R0 resection	12*	1 - 40	1,571
Rate	Target value ≥ 50%	63.07%	0.00% - 100%	64.48%**



	2014	2015	2016	2017	2018
max	100%	100%	100%	100%	100%
95 th percentile	87.14%	88.75%	88.69%	100%	100%
75 th percentile	69.06%	73.80%	73.68%	77.65%	78.07%
Median	56.98%	62.96%	59.09%	63.64%	63.07%
25 th percentile	50.00%	50.00%	50.00%	52.81%	50.00%
5 th percentile	29.78%	28.57%	37.48%	40.00%	31.94%
Min	10.00%	12.50%	15.38%	23.81%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
116	100.00%	101	87.07%

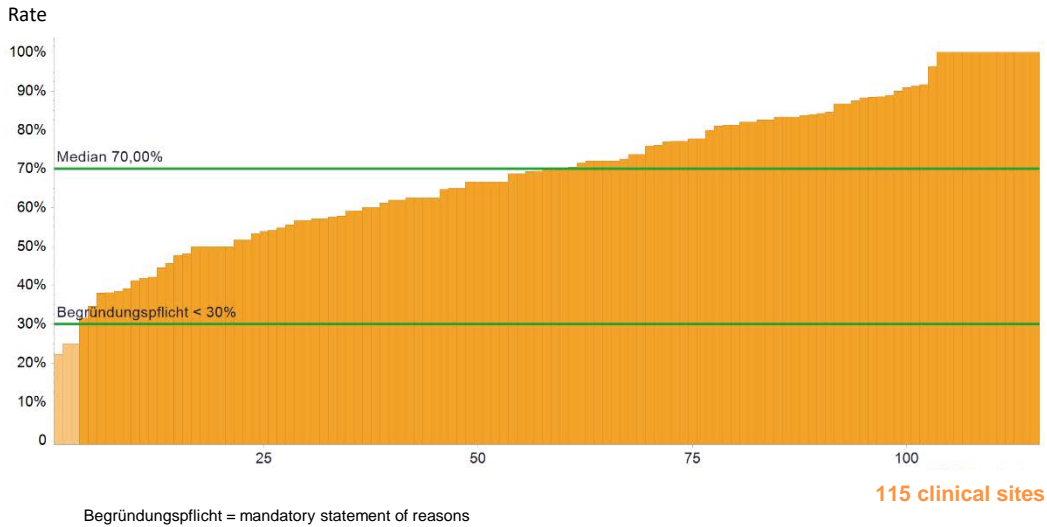
Comments:

With an almost constant degree of fulfillment the scatter of results increases. 15 centres (previous year: 14) miss the target of at least 50%, in part significantly, whereas the 3 centres with a rate of 0% could only count 3 or 4 patients in the denominator. Only 2 centres were already required to justify their results in the previous year. The reasons given for falling below the target are use of other chemotherapies (especially FOLFIRINOX), renunciation due to rejection by patients, death before the start of chemotherapy and poor general condition or comorbidities. This could be confirmed in the audits.

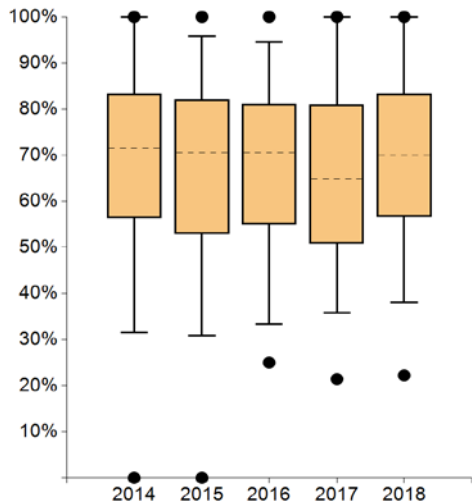
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.

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

18. Palliative chemotherapy (GL QI 5)



	Indicator definition	All clinical sites 2018		
		Median	Range	Patient Total
Numerator	Primary cases with palliative chemotherapy	13*	1 - 55	1,699
Denominator	Primary cases with pancreatic cancer UICC stages III (palliative situation) and IV and ECOG 0-2 (without NET and NEC)	20*	1 - 67	2,520
Rate	Mandatory statement of reasons*** < 30%	70.00%	22.22% - 100%	67.42%**



	2014	2015	2016	2017	2018
max	100%	100%	100%	100%	100%
95 th percentile	100%	95.87%	94.57%	100%	100%
75 th percentile	83.33%	82.09%	81.08%	80.89%	83.33%
Median	71.43%	70.59%	70.59%	64.86%	70.00%
25 th percentile	56.45%	52.94%	55.00%	50.83%	56.72%
5 th percentile	31.58%	30.85%	33.33%	35.78%	38.05%
Min	0.00%	0.00%	25.00%	21.43%	22.22%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
115	99.14%	112	97.39%

Comments:

The indicator continues to develop positively: 57 centres are able to maintain or improve on their previous year's results. 12 centres achieve 100%. Due to the elimination of the obligation to give reasons when the ratio is fully met, only 3 centres are outside the plausibility limits. These centres explained their results with a delayed start of chemotherapy in the following year and with older or multimorbid patients in advanced stages of the disease who refused chemotherapy.

*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)



Find out more on www.krebsgesellschaft.de

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