



Annual Report 2018

of the Certified Pancreatic Cancer Centres

Audit year 2017 / Indicator year 2016

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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

	Kennzahldefinition	Alle Standorte 2015	
		Median	Range
Zähler	Revisions-OP's infolge von perioperativen Komplikationen innerhalb von 30d nach Pankreasresektion	4*	0 - 17
Nenner	Pankreasresektionen (OPS: 5-524ff und 5-525ff, mit u. ohne ICD-10 C25) (= Kennzahl 9)	39,5*	12 - 150
Quote	Sollvorgabe ≤ 10%	9,21%	0,00% - 36,96%

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.

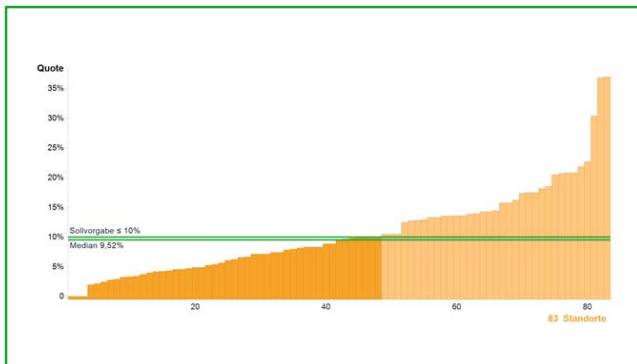
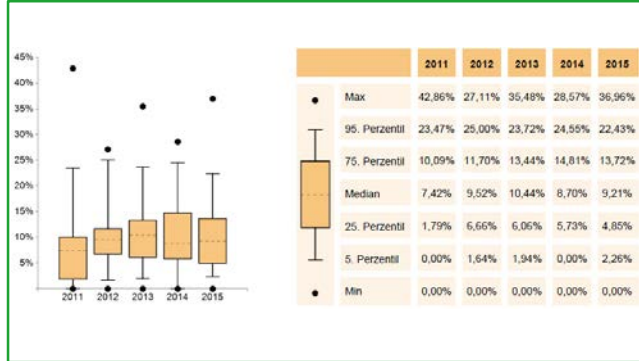


Diagram:

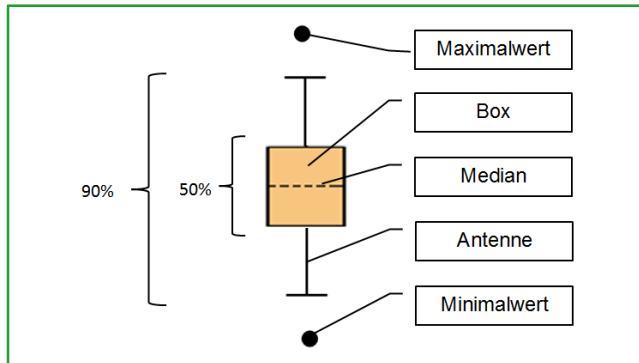
The x-axis indicates the number of Centres, the y-axis gives the values in percent or number (e.g. primary cases). The target value is depicted as a horizontal green line. The median, which is also depicted as a green horizontal line, divides the entire group into two equal halves.

General information



Cohort development:

Cohort development in the years **2012, 2013, 2014, 2015** and **2016** 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 2016

	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Ongoing procedures	10	5	8	11	9
Certified Centres	98	91	77	67	50
Certified clinical sites	100	93	79	68	50

General information

	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Clinical sites included in the Annual Report	93	83	72	52	42
equivalent to	93%	89.2%	91.1%	76.5%	84.0%
Primary cases total*	4,526	3,877	3,177	2,378	1,813
Primary cases per clinical site (mean)*	49	47	44	46	43
Primary cases per clinical site (median)*	44	43	37,5	39	39

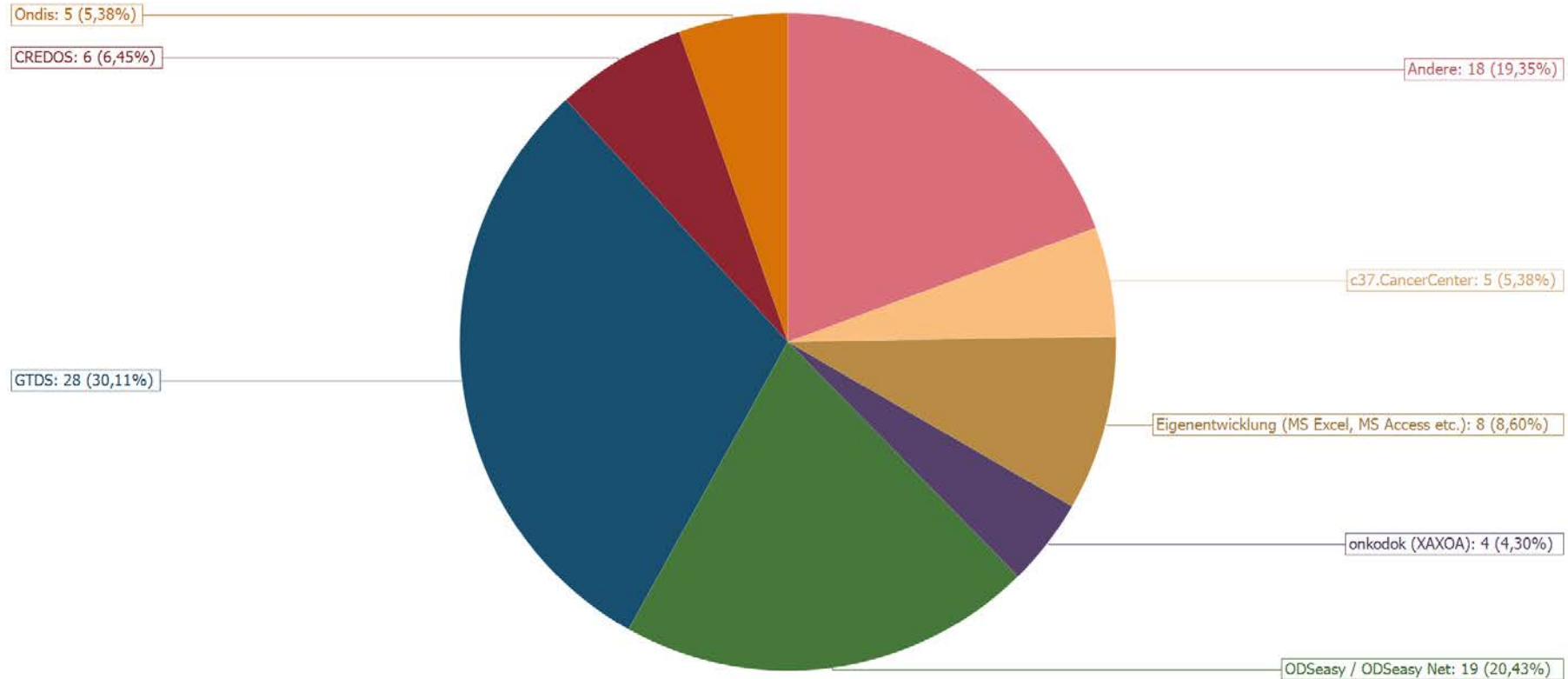
*The figures are based on the clinical sites listed in the Annual Report.

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.

Only 93 of the 100 certified clinical sites of the Centres are included in the Annual Report. 7 clinical sites, certified for the first time in 2017, are not included (data depiction of a full calendar year is not mandatory for initial certifications).

The indicators published here refer to the indicator year 2016. They are the assessment basis for the audits conducted in 2017.

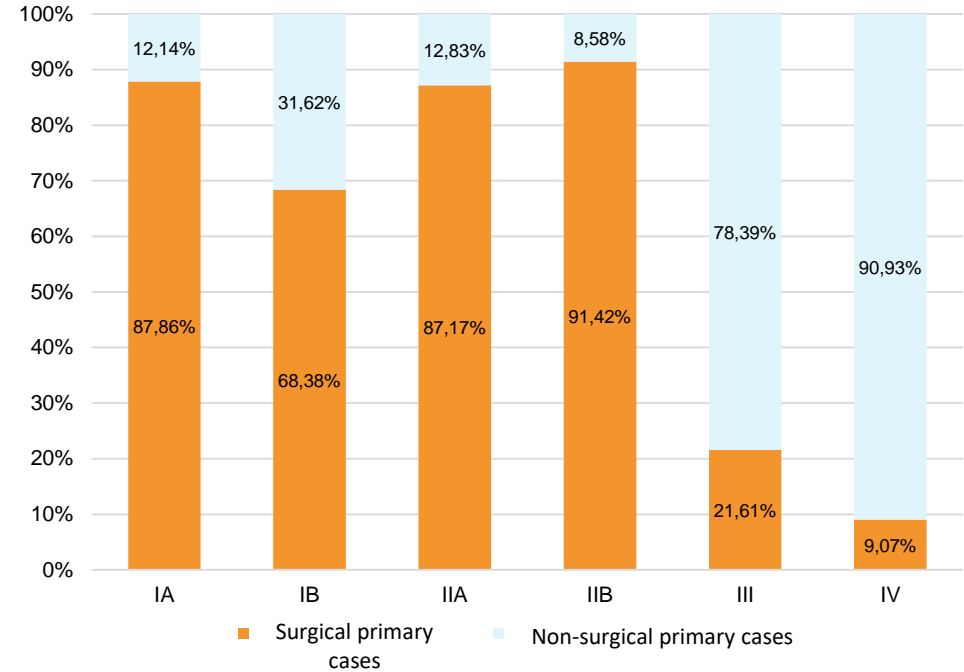
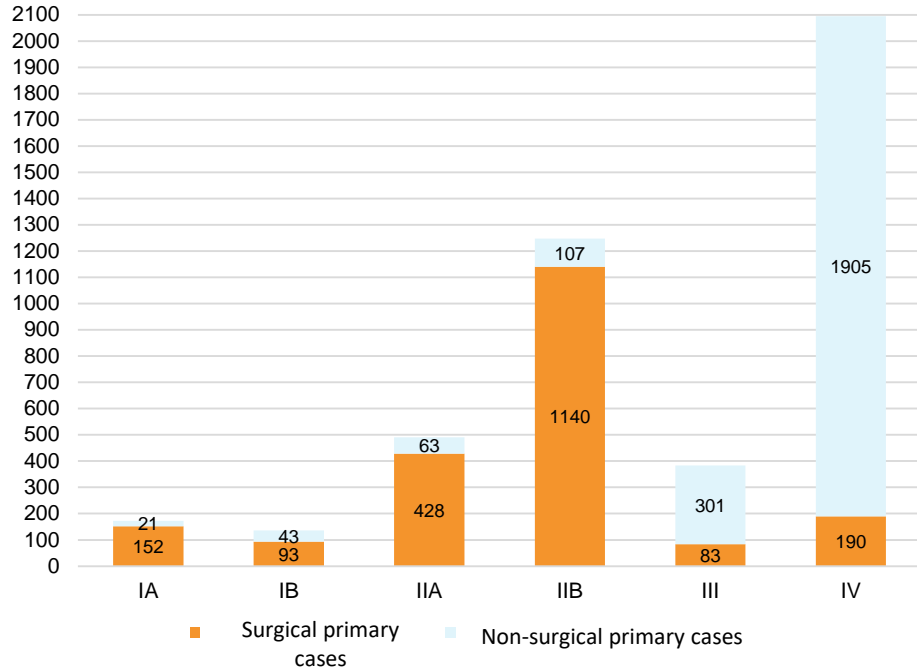
Tumour documentation systems at the Centre's clinical sites



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

Legend:	
Other	System used in ≤ 3 clinical sites

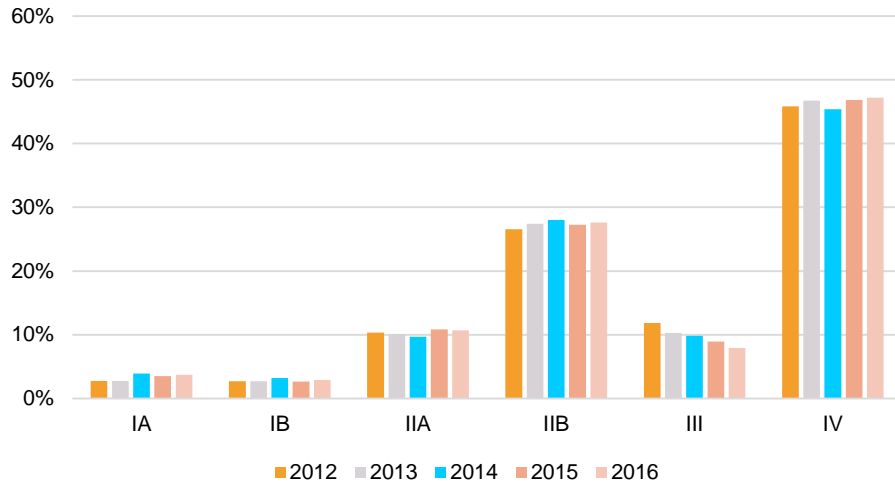
Basic data – Primary cases- Pancreatic cancer



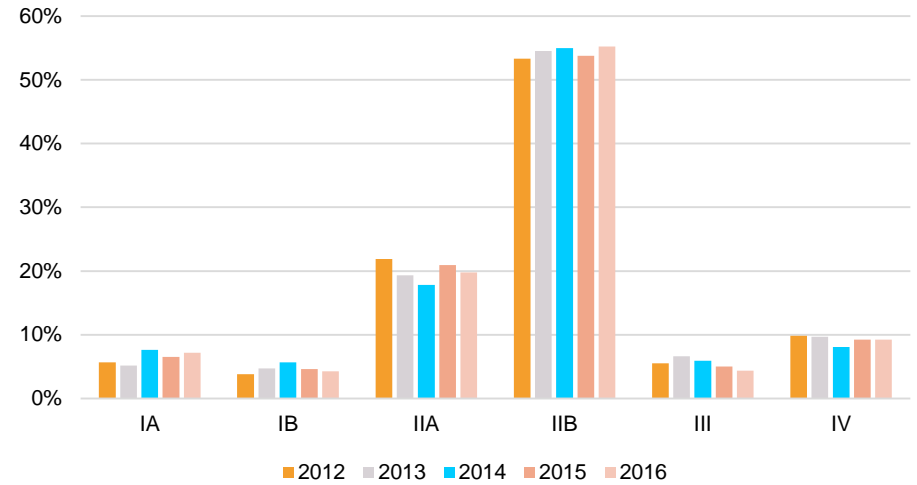
	IA	IB	IIA	IIB	III	IV	Total
Surgical primary cases	152 (87.86%)	93 (68.38%)	428 (87.17%)	1,140 (91.42%)	83 (21.61%)	190 (9.07%)	2,086 (46.09%)
Non-surgical primary cases	21 (12.14%)	43 (31.62%)	63 (12.83%)	107 (8.58%)	301 (78.39%)	1,905 (90.93%)	2,440 (53.91%)
Primary cases total	173 (100%)	136 (100%)	491 (100%)	1,247 (100%)	384 (100%)	2,095 (100%)	4,526 (100%)

Basic data – Development 2012-2016

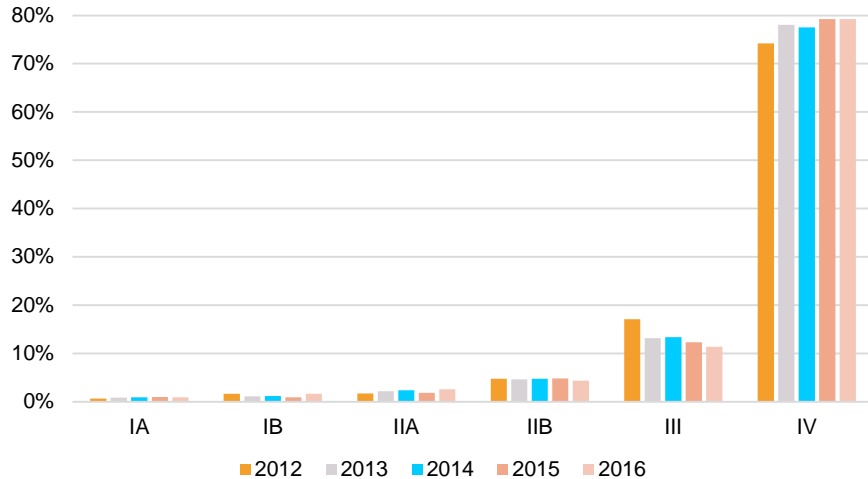
Stage distribution primary cases 2012-2016



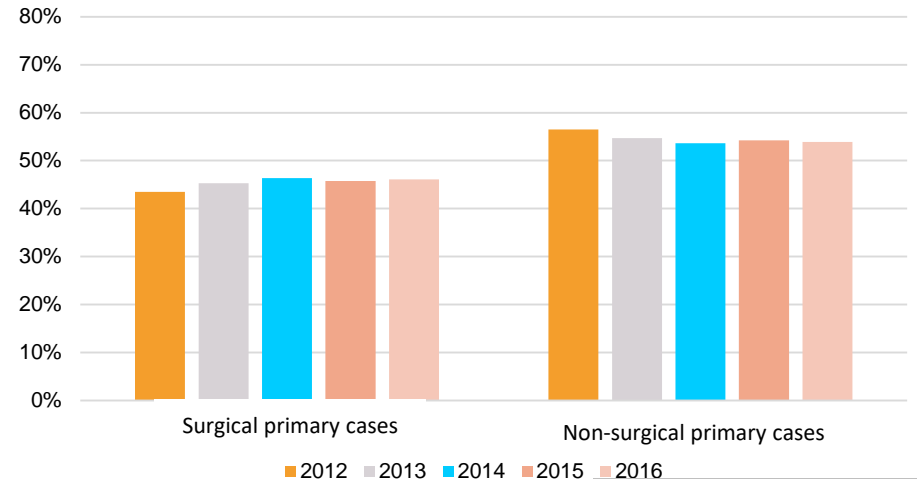
Stage distribution surgical primary cases 2012-2016



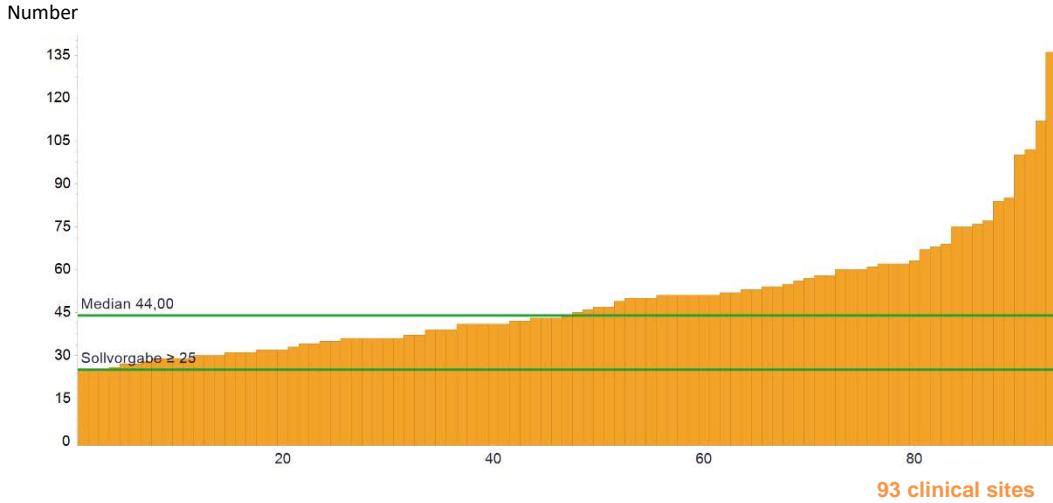
Stage distribution non-surgical primary cases 2012-2016



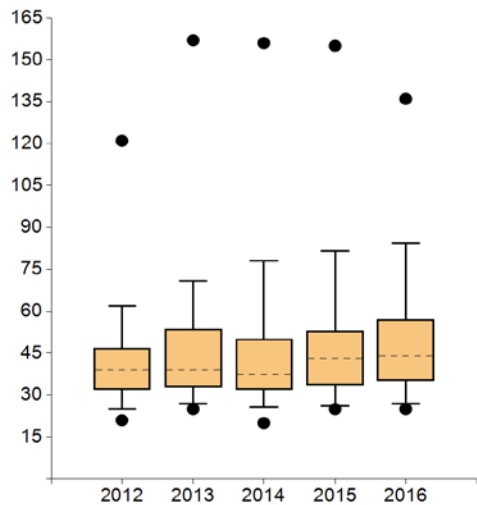
Distribution between surgical and non-surgical primary cases 2012-2016



1. Primary cases Centre



	Indicator definition	All clinical sites 2016	
		Median	Range
Number	Primary cases	44	25 - 136
	Target value ≥ 25		



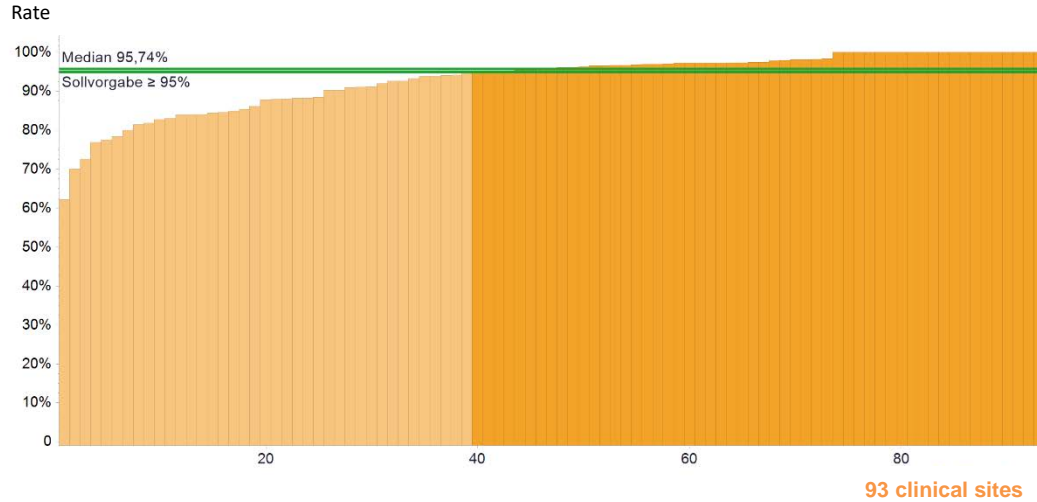
	2012	2013	2014	2015	2016
max	121.00	157.00	156.00	155.00	136.00
95 th percentile	61.85	70.90	77.95	81.60	84.40
75 th percentile	46.75	53.50	50.00	53.00	57.00
Median	39.00	39.00	37.50	43.00	44.00
25 th percentile	32.00	32.75	32.00	33.50	35.00
5 th percentile	25.00	27.00	25.55	26.10	27.00
Min	21.00	25.00	20.00	25.00	25.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	93	100.00%

Comments:

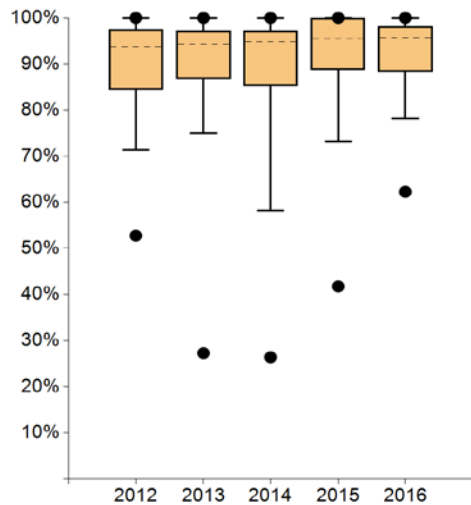
The median of primary cases increased compared with the previous year. All centres met the target. With 4,763 primary cases, 446 more patients were treated than the previous year in Certified Centres (including Centres that are not included in the annual report). 4,392 of the primary cases were treated in Centres in Germany. In terms of the incidence of malignant pancreatic tumours in 2014 (17,126, www.krebsdaten.de), this means that 25.7% of primary cases were treated in Certified Centres.

2. Pretherapeutic case presentation



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Primary cases with pancreatic cancer who were presented at the pre-operative conference	41*	20 - 115
Denominator	Primary cases (= Indicator 1)	44*	25 - 136
Rate	Target value ≥ 95%	95.74%	62.26% - 100%

*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.



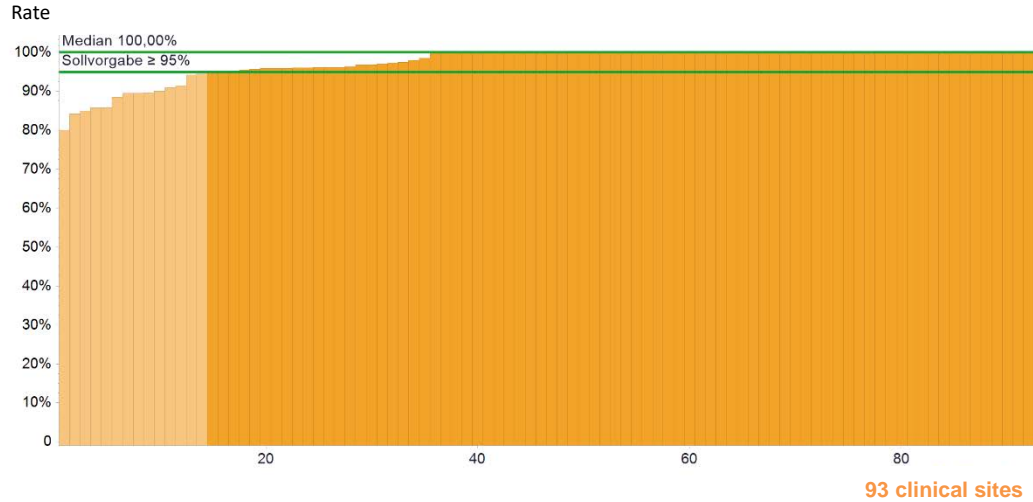
	2012	2013	2014	2015	2016
max	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	97.38%	97.16%	97.12%	100%	98.04%
Median	93.77%	94.30%	94.73%	95.52%	95.74%
25 th percentile	84.44%	86.77%	85.28%	88.68%	88.24%
5 th percentile	71.32%	74.94%	58.18%	73.16%	78.06%
Min	52.77%	27.27%	26.39%	41.75%	62.26%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	54	58.06%

Comments:

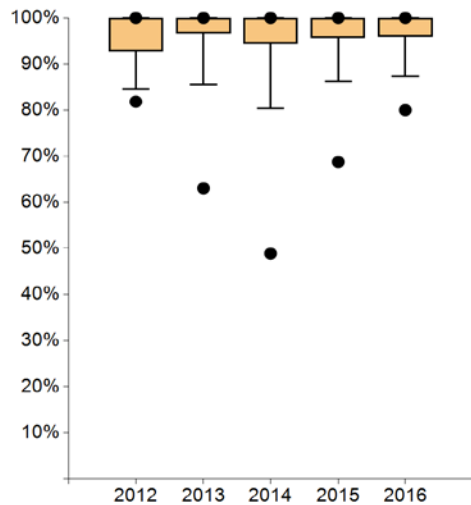
The median of the indicator remained more or less the same compared with the previous year. Most of the Centres were able to increase the rate of pretherapeutic case presentations compared with 2015 and a larger number met the target value than the previous year (55.4% in 2015). Notwithstanding this, 39 Centres failed to meet the required target. They gave as the reasons: emergency operations, palliative situations, incidental reports and multi-morbid patients. They plan the following measures to improve the rate: quality circles, check lists or a second weekly tumour conference.

3. Post-operative case presentation



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Surgical primary cases pancreas presented in the post-operative conference	18*	6 - 67
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff with ICD-10 C25) (= Indicator 8)	19*	7 - 68
Rate	Target value ≥ 95%	100%	80.00% - 100%

*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.



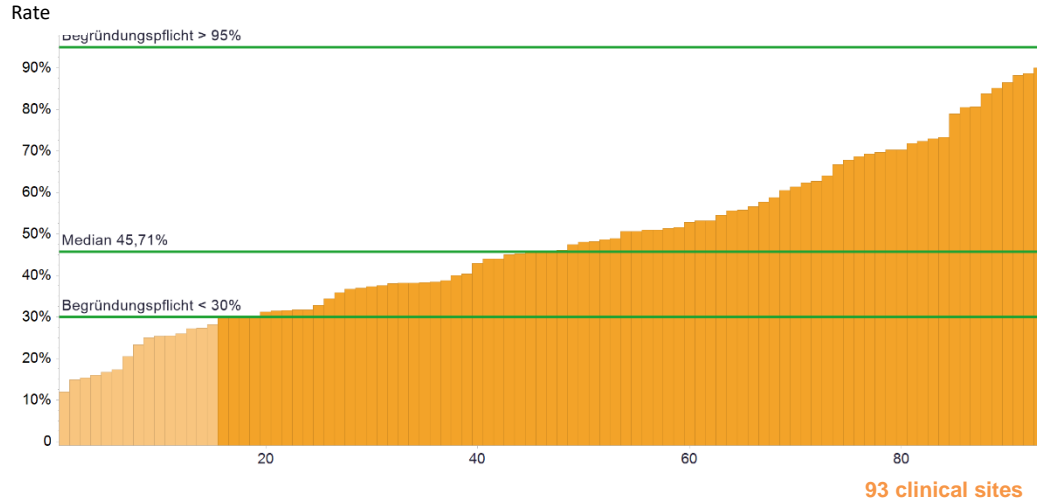
	2012	2013	2014	2015	2016
max	100%	100%	100%	100%	100%
95 th percentile	100%	100%	100%	100%	100%
75 th percentile	100%	100%	100%	100%	100%
Median	100%	100%	100%	100%	100%
25 th percentile	92.85%	96.61%	94.44%	95.74%	96.00%
5 th percentile	84.61%	85.58%	80.36%	86.14%	87.36%
Min	81.81%	63.04%	48.89%	68.75%	80.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	79	84.95%

Comments:

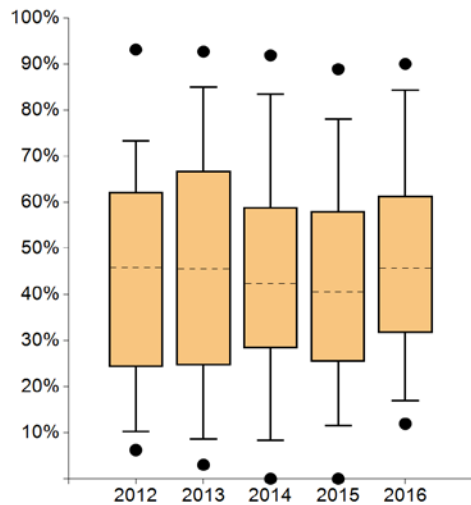
The process of post-operative case presentation continued to be well implemented in the Centres. Most of the Centres were able to increase or maintain the rate. Out of the 12 Centres that missed the target value in 2015, nine improved their rate in 2016 (75%) and seven of the 12 Centres met the target value in 2016 (58.3%). The 14 Centres that missed the target value in 2016, gave as the main reason: patients who died after surgery who were then presented in the morbidity/mortality conference.

4. Psycho-oncological counselling



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Patients who received psycho-oncological care (length of consultation ≥ 25 min)	25*	4 - 79
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	52*	25 - 153
Rate	Mandatory statement of reasons** < 30% and >95%	45.71%	11.96% - 90.00%

*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.



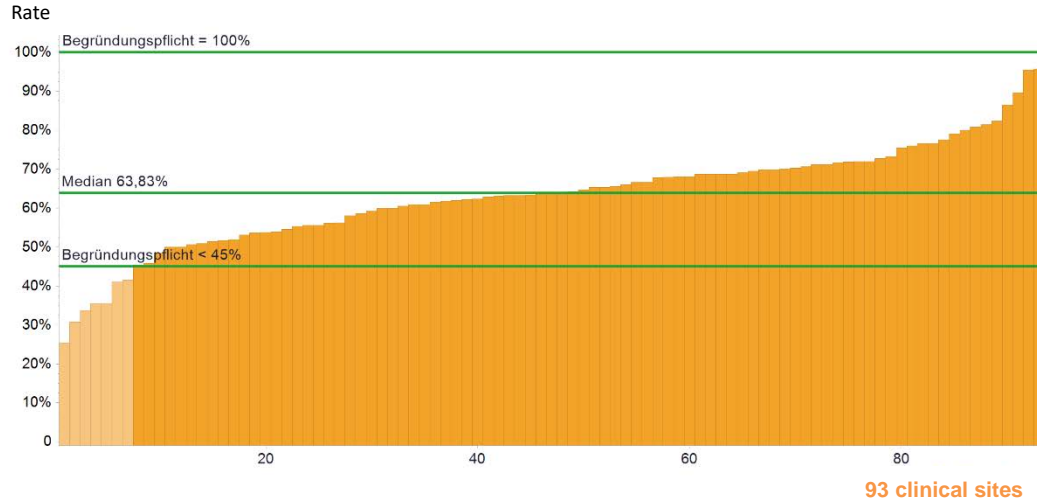
	2012	2013	2014	2015	2016
max	93.10%	92.68%	91.89%	88.89%	90.00%
95 th percentile	73.32%	85.03%	83.45%	78.04%	84.28%
75 th percentile	62.21%	66.67%	58.89%	58.06%	61.33%
Median	45.80%	45.51%	42.41%	40.48%	45.71%
25 th percentile	24.33%	24.68%	28.43%	25.41%	31.71%
5 th percentile	10.30%	8.66%	8.37%	11.51%	17.01%
Min	6.25%	3.03%	0.00%	0.00%	11.96%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	78	83.87%

Comments:

The median of primary cases increased compared with the previous year. Consequently, most of the Centres were able to increase the rate of psycho-oncological counselling. Centres with low counselling rates gave as the reasons: staffing capacities or the patient's wish. They indicated these improvement measures: introduction of screening, quality circles and ensuring a low-threshold offering.

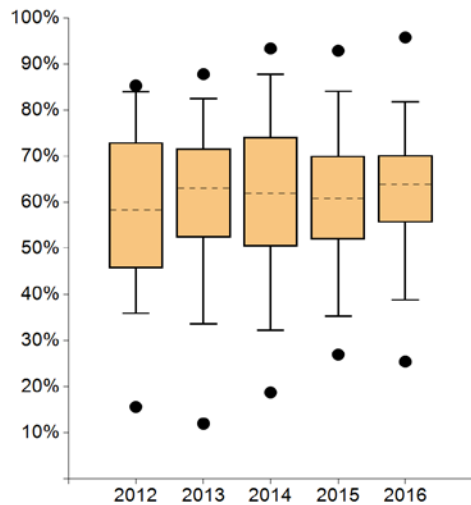
5. Social services counselling



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Patients who received counselling from the social services	32*	15 - 108
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	52*	25 - 153
Rate	Mandatory statement of reasons** < 45% and =100%	63.83%	25.42% - 95.74%

*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.



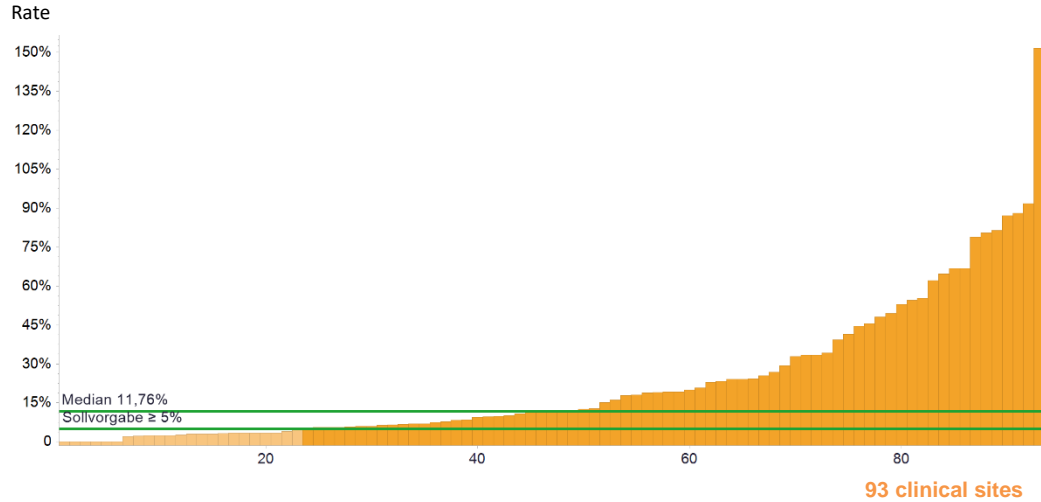
	2012	2013	2014	2015	2016
max	85.29%	87.76%	93.33%	92.86%	95.74%
95 th percentile	83.92%	82.52%	87.84%	84.00%	81.83%
75 th percentile	72.91%	71.63%	74.08%	70.01%	70.21%
Median	58.33%	63.07%	62.02%	60.81%	63.83%
25 th percentile	45.67%	52.25%	50.49%	51.86%	55.56%
5 th percentile	35.90%	33.70%	32.18%	35.28%	38.84%
Min	15.62%	12.00%	18.75%	26.98%	25.42%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	86	92.47%

Comments:

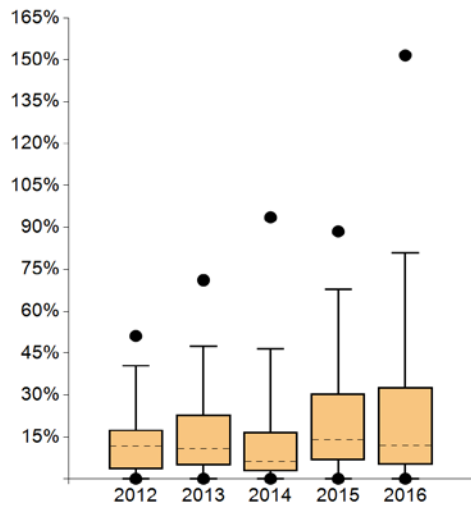
Compared with the previous year the median of the indicator continued to increase. Also the proportion of Centres who had a rate above the mandatory statement of reasons of 45% has increased (88.0% in 2015). Seven out of the ten Centres that were below 45% in 2015 were able to improve their rate in 2016. In 2016 seven Centres had a rate requiring a mandatory statement of reasons. Four of them were located in German-speaking countries abroad. There social services care is regulated differently (outpatient units for social services).

6. Study participation



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Patients with pancreatic cancer (not only primary cases) who were included in a study	5*	0 - 94
Denominator	Primary cases (= Indicator 1)	44*	25 - 136
Rate	Target value ≥ 5%	11.76%	0.00% - 151.61%

*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.



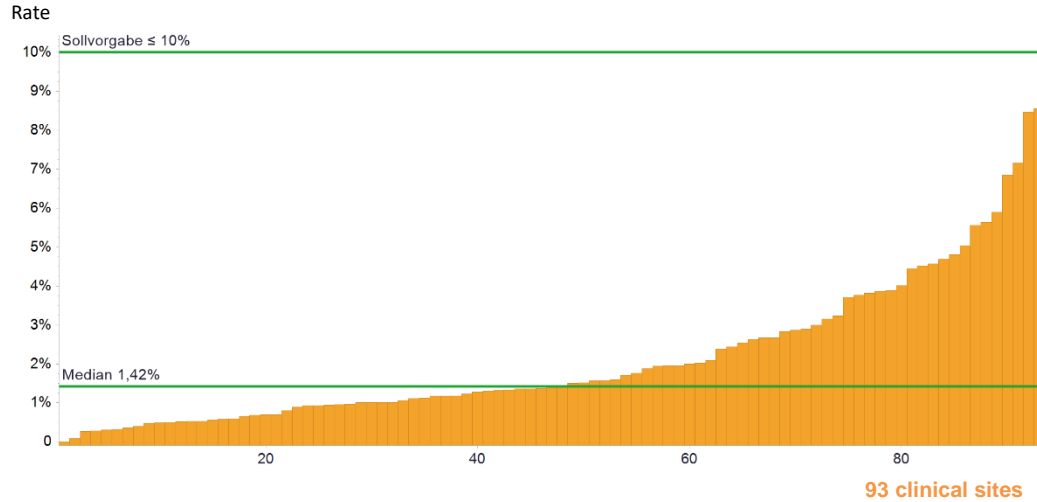
	2012	2013	2014	2015	2016
max	51.11%	71.11%	93.55%	88.52%	151.61%
95 th percentile	40.57%	47.52%	46.47%	67.71%	80.83%
75 th percentile	17.54%	23.10%	16.73%	30.52%	32.89%
Median	11.57%	10.88%	6.25%	13.95%	11.76%
25 th percentile	3.49%	4.81%	2.65%	6.71%	5.00%
5 th percentile	0.00%	0.00%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	70	75.27%

Comments:

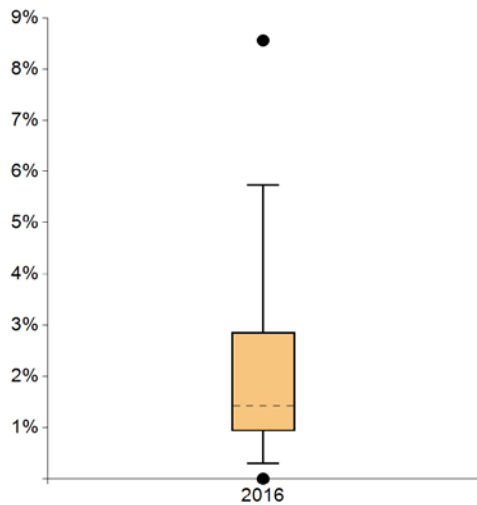
The median of the indicator of study participation fell compared with the previous year. The share of Centres that met the target value remained more or less the same (75.9% in 2015). Out of the 20 Centres that failed to meet the target value the previous year, 14 were able to increase the rate of patients participating in studies. Centres that missed the target value in 2016 gave as the reasons: no study offer and patients' refusal to take part in studies.

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



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Patients with endoscopy-specific complications Pancreatitis after ERCP (CR 2.1)	5*	0 - 38
Denominator	ERCPs for each endoscopy unit	401*	134 - 2305
Rate	Target value ≤ 10%	1.42%	0.00% - 8.56%

*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.



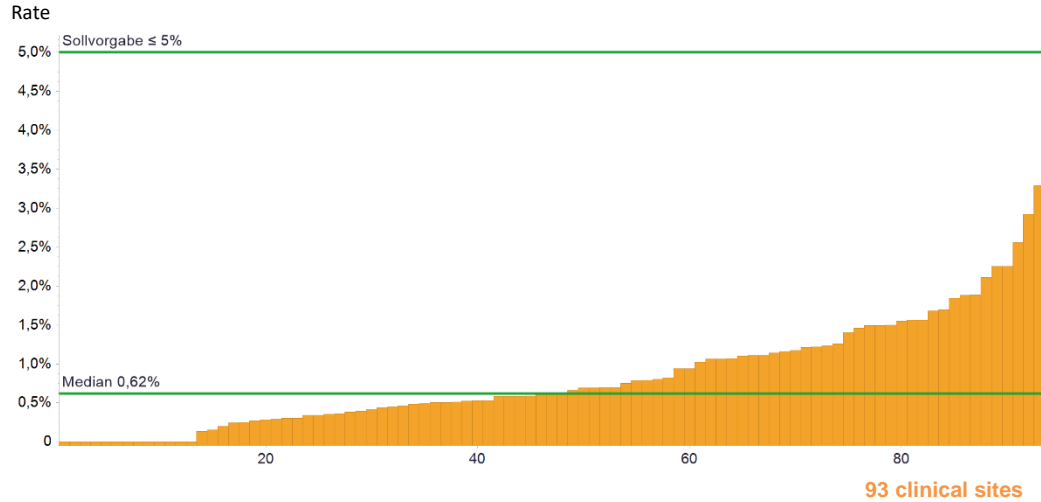
	2012	2013	2014	2015	2016
max	----	----	----	----	8.56%
95 th percentile	----	----	----	----	5.73%
75 th percentile	----	----	----	----	2.86%
Median	----	----	----	----	1.42%
25 th percentile	----	----	----	----	0.93%
5 th percentile	----	----	----	----	0.31%
Min	----	----	----	----	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	93	100.00%

Comments:

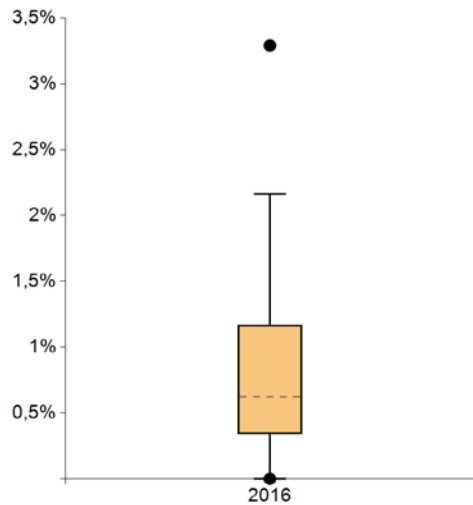
Complications after ERCP (Indicator 7a/b) have been recorded since 2016 related to all conducted ERCPs and no longer to the patients examined using ERCP. This means that the outcome quality of endoscopic procedures can be recorded more accurately. A comparison with the indicator values for the previous years is not appropriate given the change in the denominator. In 2016 all Centres met the target value of maximum 10% of pancreatitis as a complication after ERCP treatment.

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



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Patients with endoscopy-specific complications bleeding and perforation after ERCP (CR 2.1)	3*	0 - 21
Denominator	ERCPS for each endoscopy unit	401*	134 - 2305
Rate	Target value ≤ 5%	0.62%	0.00% - 3.29%

*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.



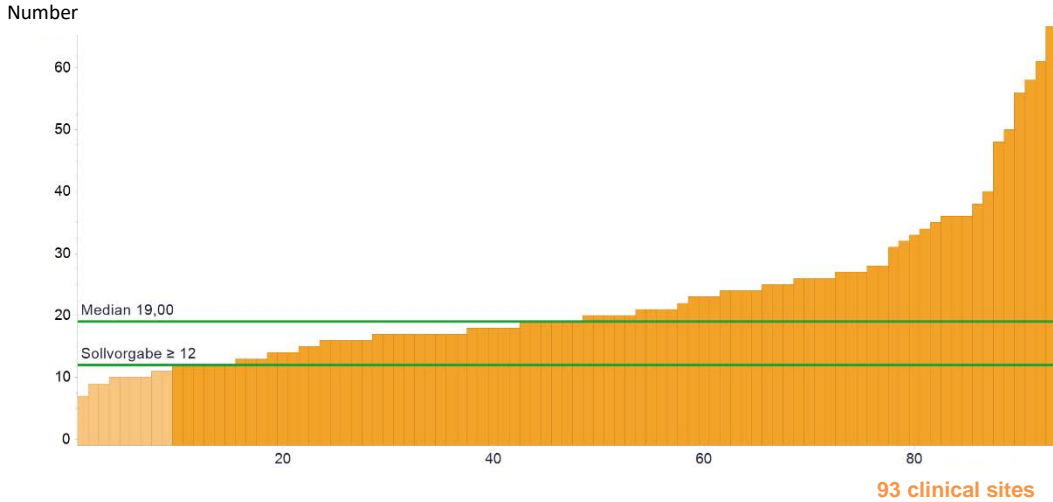
	2012	2013	2014	2015	2016
max	----	----	----	----	3.29%
95 th percentile	----	----	----	----	2.17%
75 th percentile	----	----	----	----	1.17%
Median	----	----	----	----	0.62%
25 th percentile	----	----	----	----	0.34%
5 th percentile	----	----	----	----	0.00%
Min	----	----	----	----	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	93	100.00%

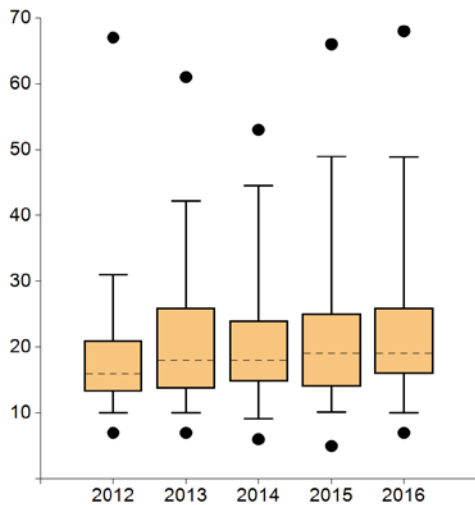
Comments:

Please refer to the notes for Indicator 7a for details of the change in the denominator definition. All Centres met the target value for bleeding and perforation rates after ERCP. The Centres with the highest complication rates of pancreatitis are different from those with high bleeding and perforation rates.

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



	Indicator definition	All clinical sites 2016	
		Median	Range
Number	Surgical primary cases pancreas (5-524ff, 5-525ff only with ICD-10 C25) (Def. 5.2.4)	19	7 - 68
	Target value ≥ 12		



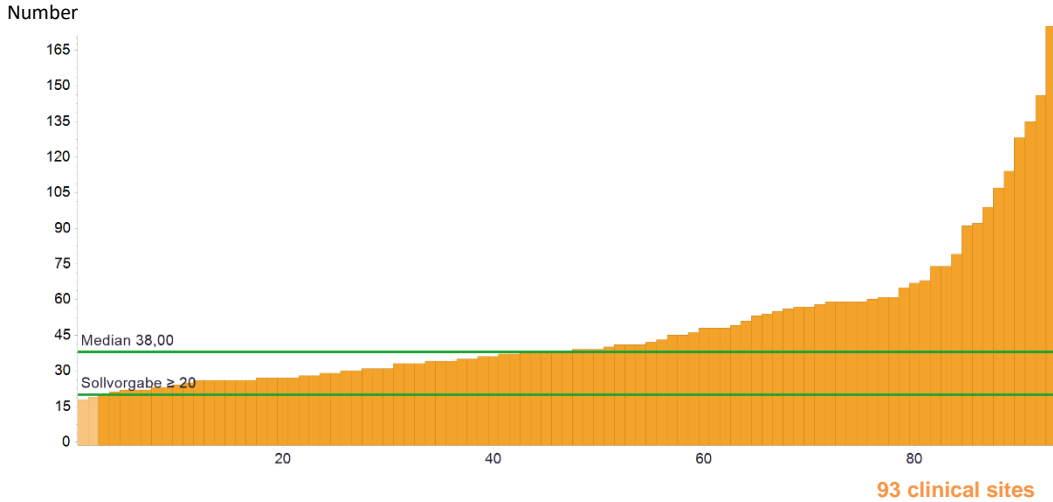
	2012	2013	2014	2015	2016
max	67.00	61.00	53.00	66.00	68.00
95 th percentile	31.00	42.15	44.45	48.90	48.80
75 th percentile	21.00	26.00	24.00	25.00	26.00
Median	16.00	18.00	18.00	19.00	19.00
25 th percentile	13.25	13.75	14.75	14.00	16.00
5 th percentile	10.05	10.00	9.10	10.10	10.00
Min	7.00	7.00	6.00	5.00	7.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	84	90.32%

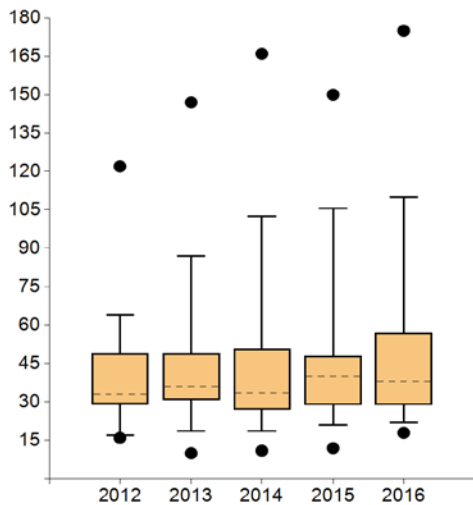
Comments:

The median of surgical primary cases was unchanged in the Centres compared with the previous year. When looking at the Centres that were included in the annual report 2015 and also 2016, the total number of surgical primary cases increased from 1,753 to 1,841. Nine Centres missed the target value. In these cases the auditors made remarks and formulated deviations. Out of a total of 5,178 resections performed in 2016 according to statistics of the German Diagnose related groups (DRG) in Germany, 1,969 (38%) were performed in a Certified Centre.

9. Overall surgical expertise pancreas



	Indicator definition	All clinical sites 2016	
		Median	Range
Number	Pancreas resections (left resection of the pancreas, pancreatic head resection, total pancreatectomy, 5-524ff and 5-525ff with and without ICD-10 C25).	38	18 - 175
	Target value ≥ 20		



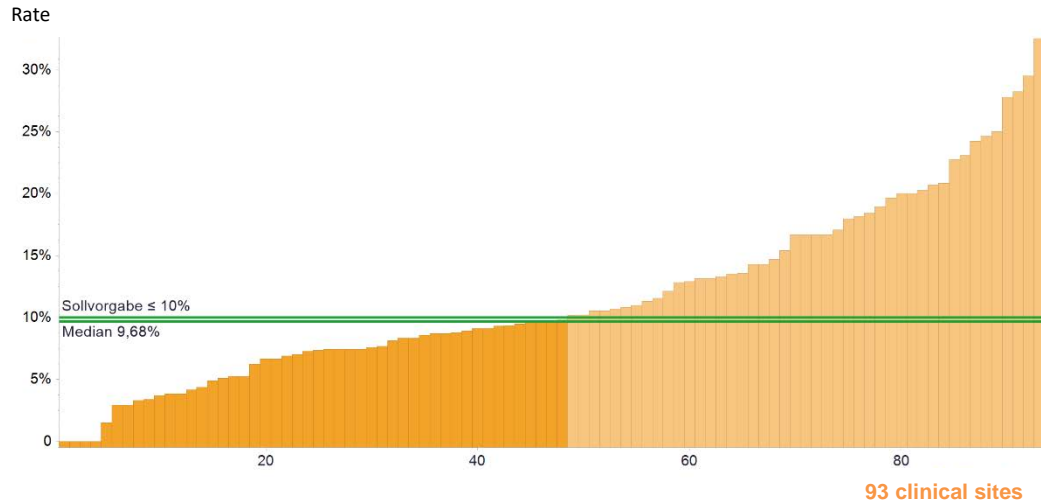
	2012	2013	2014	2015	2016
max	122.00	147.00	166.00	150.00	175.00
95 th percentile	63.90	87.00	102.45	105.70	109.80
75 th percentile	49.00	49.00	50.75	48.00	57.00
Median	33.00	36.00	33.50	40.00	38.00
25 th percentile	29.25	30.75	27.00	29.00	29.00
5 th percentile	17.05	18.65	18.65	21.00	22.00
Min	16.00	10.00	11.00	12.00	18.00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	91	97.85%

Comments:

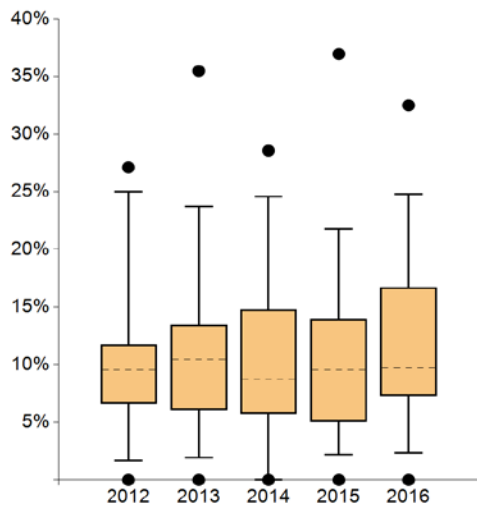
The median of the total pancreatic resections (independent of the indication) fell slightly compared with 2015. Across all Centres 4,444 pancreatic resections were performed in 2016(2015: 3,793). Two Centres missed the target value of at least 20 resections. In one of these Centres a surveillance audit was conducted in 2017 (proof of expertise is required for recertification every three years). The second Centre was recertified and could document the meeting of the target indicator on average over the previous three years.

10. Revision surgeries pancreas



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Revision surgeries after peri-operative complications within 30d of pancreatic resection	4*	0 - 23
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	38*	18 - 175
Rate	Target value ≤ 10%	9.68%	0.00% - 32.50%

*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.



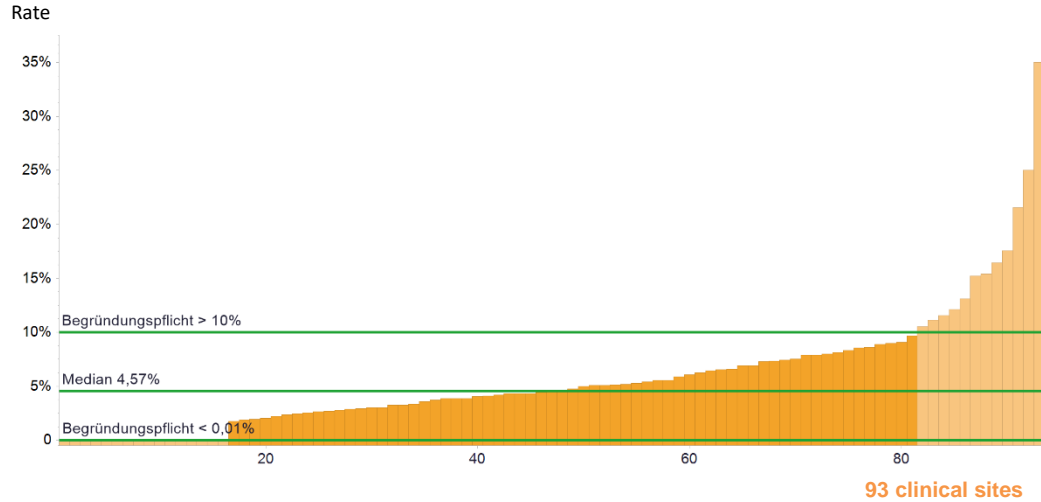
	2012	2013	2014	2015	2016
max	27.11%	35.48%	28.57%	36.96%	32.50%
95 th percentile	25.00%	23.72%	24.55%	21.78%	24.77%
75 th percentile	11.70%	13.44%	14.81%	13.92%	16.67%
Median	9.52%	10.44%	8.70%	9.52%	9.68%
25 th percentile	6.66%	6.06%	5.73%	5.07%	7.27%
5 th percentile	1.64%	1.94%	0.00%	2.20%	2.36%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	48	51.61%

Comments:

The median of revision surgeries after pancreatic resections was the same as the previous year. Here the number of Centres that met the target value fell (57.8% in 2015). Out of the 35 Centres that failed to meet the target value in 2015, 22 were able to lower the rate (62.9%). Frequent causes for revision surgeries were anastomotic insufficiencies, secondary bleeding and pancreatitis. In Centres that did not meet the target value, individual case analyses were conducted during the audits and improvement measures (e.g. change in surgical techniques) were agreed.

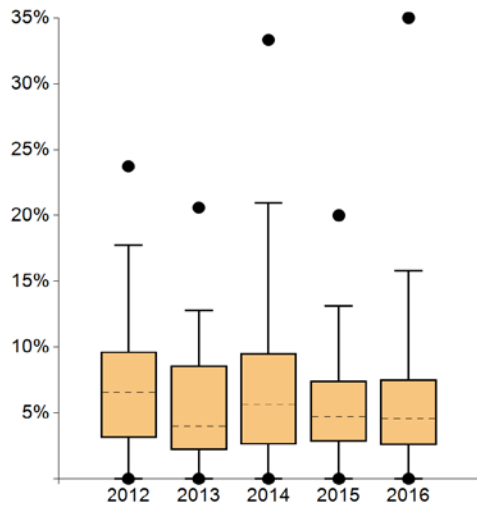
11. Post-operative wound infections



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Post-operative wound infection within 30d of pancreatic resection with need for surgical wound revision (flushing, opening, VAC dressing)	2*	0 - 21
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	38*	18 - 175
Rate	Mandatory statement of reasons** < 0.01% and >10%	4.57%	0.00% - 35.00%

*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.



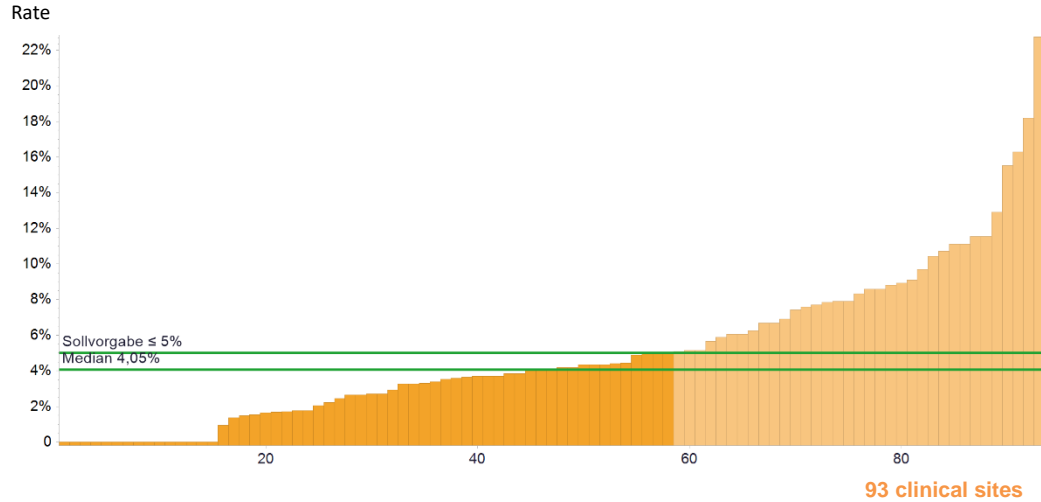
	2012	2013	2014	2015	2016
max	23.72%	20.59%	33.33%	20.00%	35.00%
95 th percentile	17.76%	12.80%	20.93%	13.13%	15.79%
75 th percentile	9.66%	8.57%	9.52%	7.41%	7.50%
Median	6.56%	4.01%	5.65%	4.72%	4.57%
25 th percentile	3.12%	2.21%	2.60%	2.86%	2.56%
5 th percentile	0.00%	0.00%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	65	69.89%

Comments:

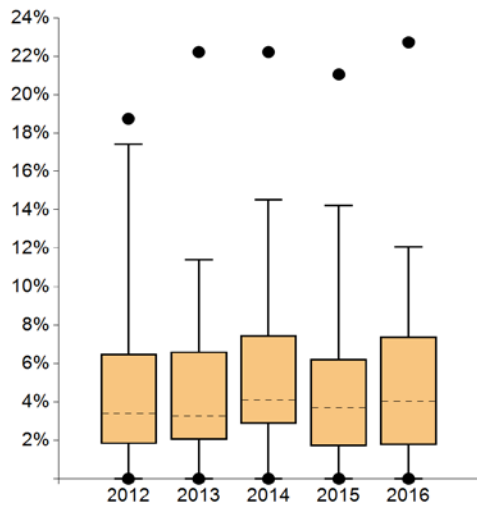
Compared with 2015 the median of the indicator remained almost the same with an increasing 95th percentile and a higher maximum value. The proportion of Centres with a wound infection rate requiring a mandatory statement of reasons >10% increased from 7.5% in 2015 to 12.9% in 2016. Five out of the six Centres with a rate >10% in 2015 were able to improve their rate. One of the reasons given by the Centres with high wound infection rates was the comorbidities of their patients. Individual case analyses were undertaken in the audits and systematic errors were ruled out.

12. Post-operative mortality



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Post-operative deceased patients after pancreatic resections within 30d	2*	0 - 9
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	38*	18 - 175
Rate	Target value ≤ 5%	4.05%	0.00% - 22.73%

*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.



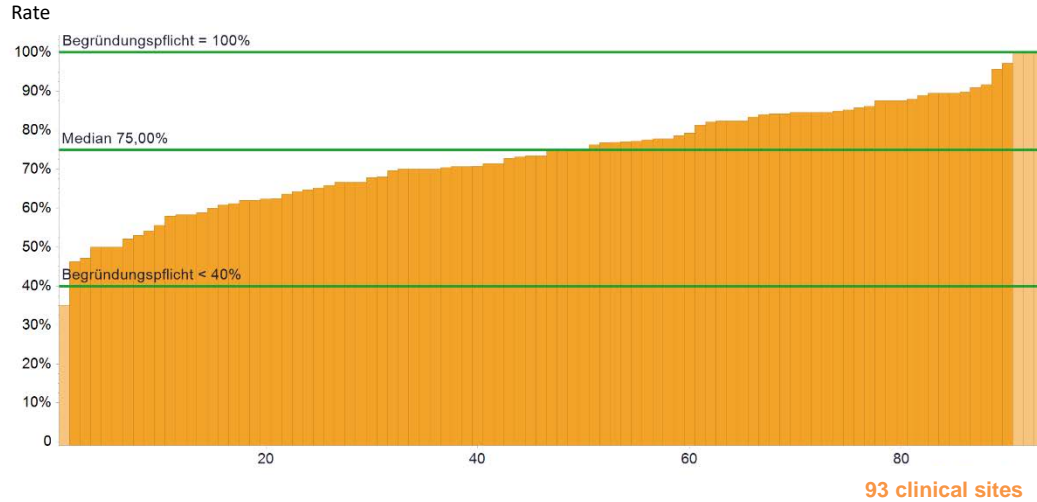
	2012	2013	2014	2015	2016
max	18.75%	22.22%	22.22%	21.05%	22.73%
95 th percentile	17.42%	11.40%	14.52%	14.24%	12.08%
75 th percentile	6.50%	6.62%	7.46%	6.24%	7.41%
Median	3.41%	3.28%	4.11%	3.70%	4.05%
25 th percentile	1.83%	2.04%	2.86%	1.68%	1.75%
5 th percentile	0.00%	0.00%	0.00%	0.00%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	58	62.37%

Comments:

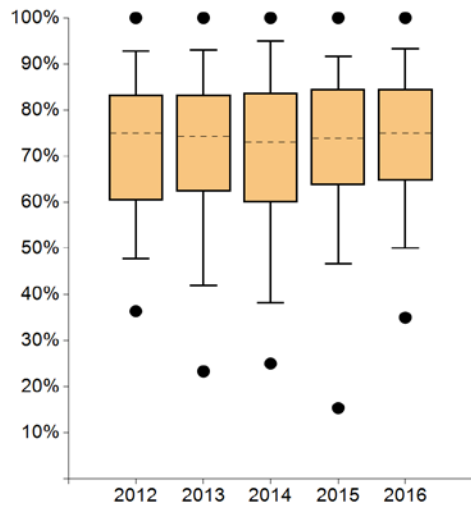
The median of the post-operative mortality rate remained steady over the years in the Centres and increased slightly compared with 2015. The proportion of Centres that met the target value fell compared with the previous year (2015: 68.7%). The Centres with highest values in 2015 were able to markedly reduce their mortality rate. The most frequent causes of post-operative mortalities were myocardial infarctions, pulmonary embolisms and necrotising pancreatitis. Individual case analyses were undertaken during the audits; systematic errors could be ruled out.

13. Local R0 resections pancreas (GL QI 1)



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Local R0 resections pancreas after completion of surgical therapy	14*	5 - 61
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) (= Indicator 8)	19*	7 - 68
Rate	Mandatory statement of reasons** < 40% and =100%	75.00%	35.00% - 100%

*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.



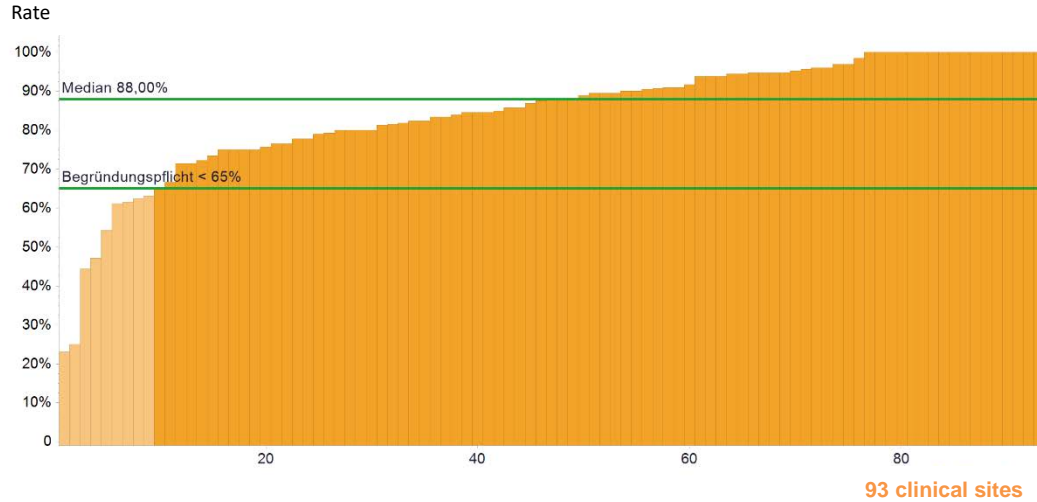
	2012	2013	2014	2015	2016
max	100%	100%	100%	100%	100%
95 th percentile	92.82%	93.07%	94.86%	91.67%	93.26%
75 th percentile	83.33%	83.33%	83.65%	84.62%	84.62%
Median	75.00%	74.34%	73.03%	73.91%	75.00%
25 th percentile	60.38%	62.37%	60.00%	63.69%	64.71%
5 th percentile	47.88%	41.96%	38.16%	46.67%	50.00%
Min	36.36%	23.33%	25.00%	15.38%	35.00%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	89	95.70%

Comments:

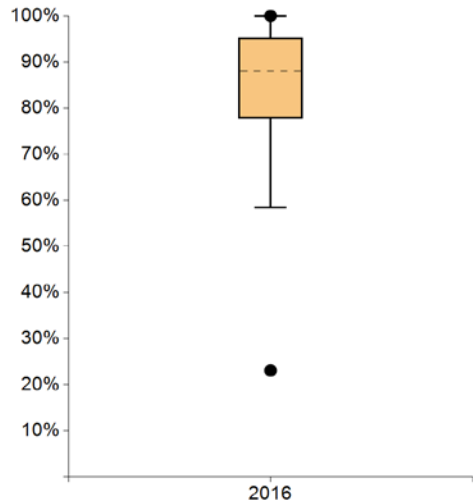
The implementation of the quality indicator of the Guidelines remained the same over the course of time. Most of the Centres were able to increase their rate of R0 resections from 2015 to 2016. Also the three Centres that had a rate requiring a mandatory statement of reasons <40% were able to markedly increase their rate of R0 resections in 2016.

14. Lymph node examination (GL QI 2)



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Surgical primary cases pancreas with ≥ 12 regional lymph nodes in the surgical specimen after conclusion of surgical therapy	16*	3 - 67
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) who have undergone a lymphadenectomy	19*	7 - 68
Rate	Mandatory statement of reasons** < 65%	88.00%	23.08% - 100%

*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.

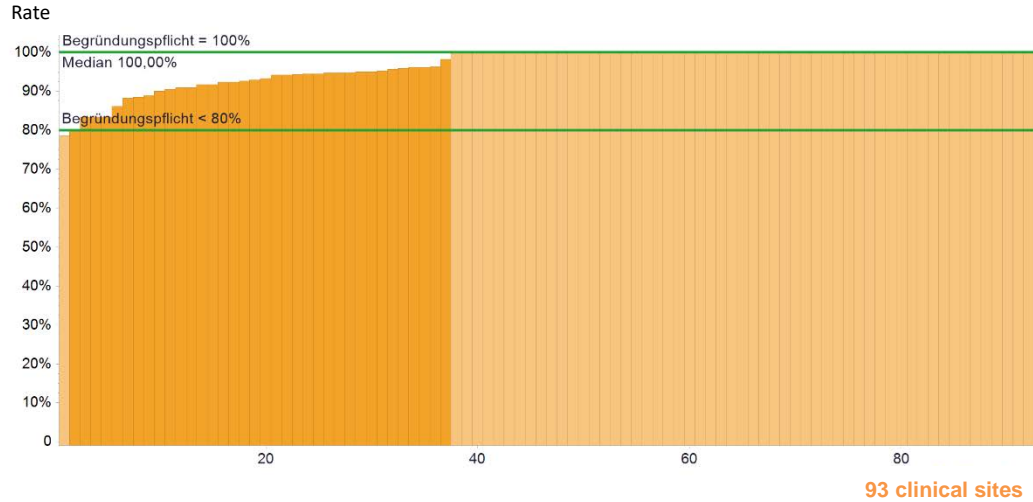


	2012	2013	2014	2015	2016
max	----	----	----	----	100%
95 th percentile	----	----	----	----	100%
75 th percentile	----	----	----	----	95.24%
Median	----	----	----	----	88.00%
25 th percentile	----	----	----	----	77.78%
5 th percentile	----	----	----	----	58.38%
Min	----	----	----	----	23.08%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	84	90.32%

Comments:
 Compared with the previous years the numerator of the indicator has changed as, after the updating of the TNM classification (8th edition) at least 12 lymph nodes are to be examined to determine N0 status. Hence, no comparison with the previous years (numerator: ≥ 10 lymph nodes) is possible. Furthermore, the procedure for lymph node examination has been implemented well in the Centres. The Centres with low rates are currently realigning their procedures with the changed requirement and are holding quality circles with surgeons and pathologists.

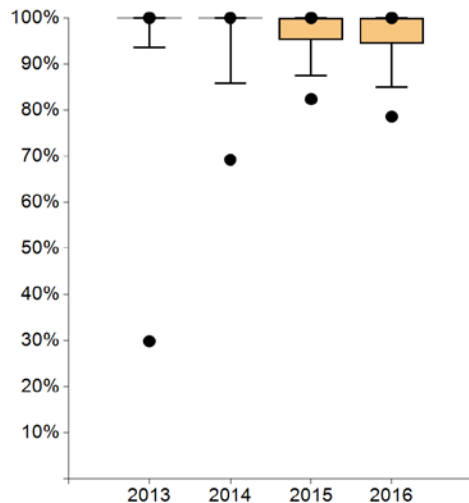
16. Content Pathology Report (GL QI 3)



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Pathology reports from surgical primary cases with remarks of: pT. pN. M. tumour grading: proportion LN affected non-affected	19*	7 - 68
Denominator	Pathology Report from surgical primary cases	19*	7 - 68
Rate	Mandatory statement of reasons** < 80% and =100%	100%	78.57% - 100%

*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.



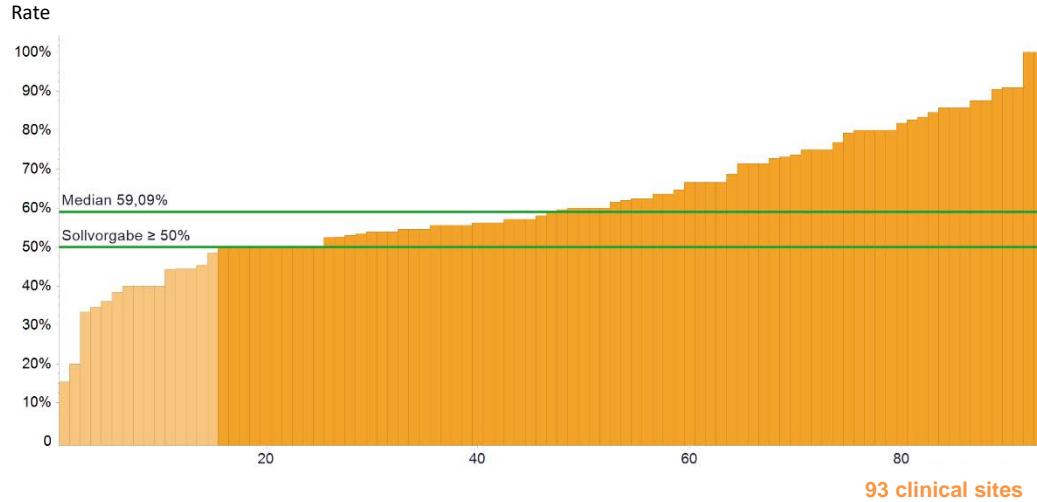
	2012	2013	2014	2015	2016
max	-----	100%	100%	100%	100%
95 th percentile	-----	100%	100%	100%	100%
75 th percentile	-----	100%	100%	100%	100%
Median	-----	100%	100%	100%	100%
25 th percentile	-----	100%	100%	95.23%	94.44%
5 th percentile	-----	93.62%	85.84%	87.50%	85.00%
Min	-----	29.87%	69.23%	82.35%	78.57%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	36	38.71%

Comments:

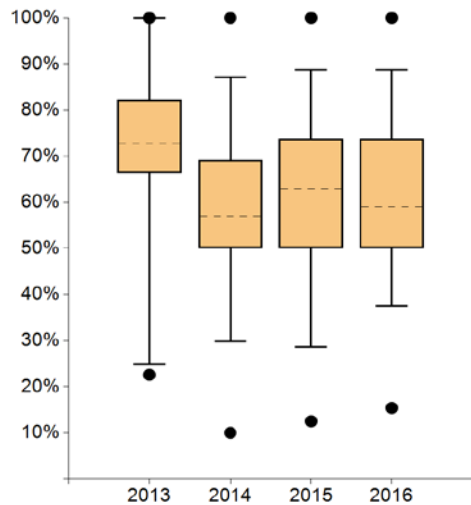
The quality indicator in the Guidelines continued to be implemented well in the Centres. With a constant median the 25th and 5th percentiles fell in comparison with 2015. Only one Centre had a rate requiring a mandatory statement of reasons <80%. In the audit the expert pointed out the need to improve the quality of the pathology reports.

17. Adjuvant chemotherapy (GL QI 4)



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Surgical primary cases pancreatic cancer UICC stages I-III. R0 resection and adjuvant chemotherapy with gemcitabine or 5-FU/folinic acid	8*	2 - 50
Denominator	Surgical primary cases pancreatic cancer UICC stages I-III and R0 resection	13*	4 - 57
Rate	Target value ≥ 50%	59.09%	15.38% - 100%

*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.



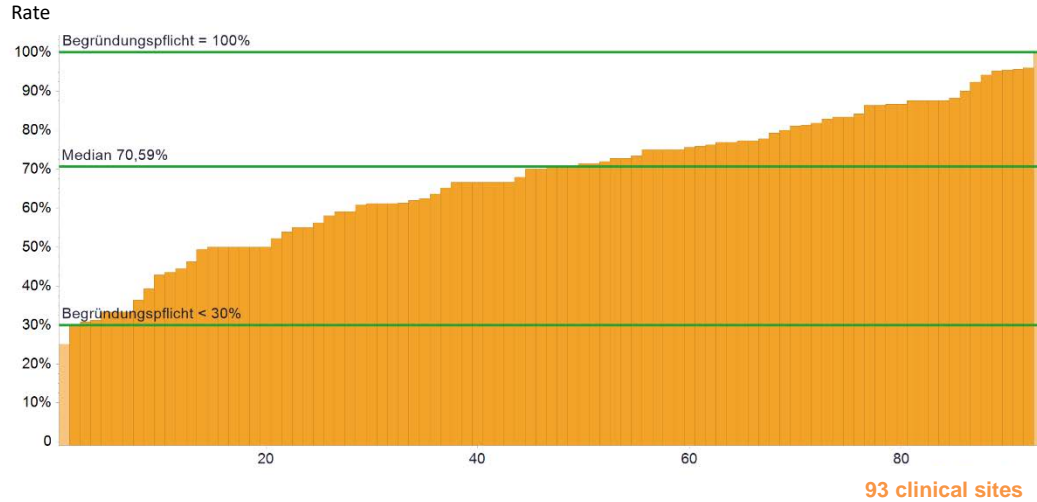
	2012	2013	2014	2015	2016
max	----	100%	100%	100%	100%
95 th percentile	----	100%	87.14%	88.75%	88.69%
75 th percentile	----	82.22%	69.06%	73.80%	73.68%
Median	----	72.73%	56.98%	62.96%	59.09%
25 th percentile	----	66.35%	50.00%	50.00%	50.00%
5 th percentile	----	24.97%	29.78%	28.57%	37.48%
Min	----	22.58%	10.00%	12.50%	15.38%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
93	100.00%	78	83.87%

Comments:

The median of this quality indicator in the Guidelines fell compared with the previous year. The proportion of Centres that met the target value increased (2015: 81.9%). 14 out of the 15 Centres that failed to meet the target value in 2015 were able to increase their rate. Centres that missed the target value in 2016 gave as the reasons for the non-performance of adjuvant chemotherapy: the general health of patients, patient wish or treatment close to home that could no longer be documented in the Centre.

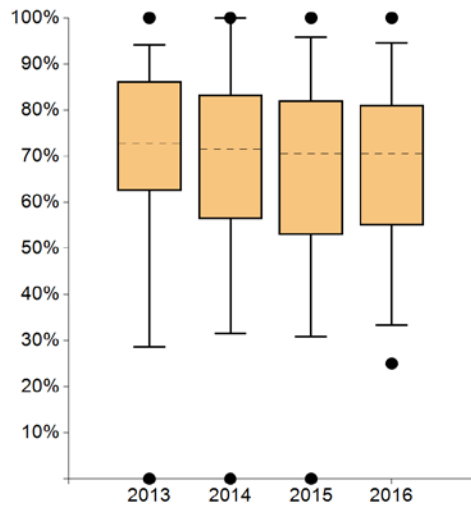
18. Palliative chemotherapy (GL QI 5)



	Indicator definition	All clinical sites 2016	
		Median	Range
Numerator	Primary cases with pancreatic cancer UICC stages III and IV. ECOG 0-2 and palliative chemotherapy	12*	2 - 51
Denominator	Primary cases with pancreatic cancer UICC stages III (palliative situation) and IV and ECOG 0-2	20*	3 - 73
Rate	Mandatory statement of reasons** < 30% and =100%	70.59%	25.00% - 100%

*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.



	2012	2013	2014	2015	2016
max	----	100%	100%	100%	100%
95 th percentile	----	94.12%	100%	95.87%	94.57%
75 th percentile	----	86.21%	83.33%	82.09%	81.08%
Median	----	72.73%	71.43%	70.59%	70.59%
25 th percentile	----	62.50%	56.45%	52.94%	55.00%
5 th percentile	----	28.57%	31.58%	30.85%	33.33%
Min	----	0.00%	0.00%	0.00%	25.00%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
93	100.00%	91	97.85%

Comments:

The quality indicator of the Guidelines remained the same over the course of time. The majority of Centres were able to increase or maintain their rate of palliative chemotherapies compared with 2015. For cases in which the performance of palliative chemotherapy was not documented, the Centres gave as the reasons: patient wish, general health of patients or treatment close to home (no information about the conducting of chemotherapy for the Centre is available).

WISSEN AUS ERSTER HAND (FIRST-HAND KNOWLEDGE)

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