Annual Report 2019

of the Certified Pancreatic Cancer Centres

Audit year 2018 / Indicator year 2017

DKG
GERMAN CANCER SOCIETY
Certification

Table of Contents

General information

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.

Quote = Rate,

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

Box plot:

A box plot consists of a **box with median**, **whiskers** and **outliers**. 50 percent of the Centres are within the box. The median divides the entire available cohort into two halves with an equal number of Centres. The whiskers and the box encompass a 90th percentile area/range. The extreme values are depicted here as dots.

Status of the certification system for Pancreatic Cancer Centres 2018

	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Ongoing procedures	5	10	5	8	11	9
Certified Centres	112	98	91	77	67	50
Certified clinical sites	115	100	93	79	68	50

General information

	31.12.2018	31.12.2017	31.12.2016	31.12.2015	31.12.2014	31.12.2013
Clinical sites included in the Annual Report	106	93	83	72	52	42
equivalent to	92,2%	93%	89,2%	91,1%	76,5%	84,0%
Primary cases total*	5.104	4.526	3.877	3.177	2.378	1.813
Primary cases per clinical site (mean)*	48	49	47	44	46	43
Primary cases per clinical site (median)*	45	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.

106 of the 115 certified clinical sites of the Centres are included in the Annual Report. 8 clinical sites, certified for the first time in 2018, are not included (data depiction of a full calendar year is not mandatory for initial certifications).

Within 114 certified clinical sites a total of 5,401 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 2017. They are the assessment basis for the audits conducted in 2018.

Tumour documentation systems at the Centre's clinical sites

CREDOS: 6 (5,66 %)

GTDS: 29 (27,36 %)

ONKOSTAR: 6 (5,66 %)

Eigenentwicklung (MS Excel, MS Access etc.): 6 (5,66 %)

Ondis: 7 (6,60 %)

Andere: 19 (17,92 %)

c37.CancerCenter: 6 (5,66 %)

onkodok (XAXOA): 4 (3,77 %)

ODSeasy / ODSeasy Net: 23 (21,70 %)

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	121 (90,30%)	281 (85,41%)	164 (81,59%)	854 (91,04%)	542 (57,84%)	161 (7,39%)	2.123 (44,99%)
Non-surgical primary cases	13 (9,70%)	48 (14,59%)	37 (18,41%)	84 (8,96%)	395 (42,16%)	2.019 (92,61%)	2.596 (55,01%)
Primary cases total	134 (100%)	329 (100%)	201 (100%)	938 (100%)	937 (100%)	2.180 (100%)	4.719 (100%)

Basic data - Primary cases Pancreatic cancer

Primary cases NET/NEC of the Pancreas
7,54%

Primary cases pancreatic carcinoma
92,46%

Primary cases Pancreatic cancer		
Pancreatic carcionoma	Neuro-endocrine Pancreatic Tumours (NET) and neuroendokrine Pancreatic Carcinomas (NEC)	Primary cases Total
4,719 (92.46%)	385 (7.54%)	5,104 (100%)

Comment:
A documentation of neuro-endocrine primary cases of pancreatic cancer was documented for the first time in the indicator year 2017. This facilitates an easier calculation of the indicator.

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
255 (66,23%)	130 (33,77%)	385 (100%)

Non-surgical Primary cases
33,77%

Surgical Primary cases
66,23%

1. Primary cases Centre

Number

Median 44,00

Sollvorgabe ≥ 25

Sollvorgabe = target value

106 clinical sites

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Number	Primary cases	45	18 - 141	5,104
	Target value ≥ 25			

		2013	**2014**	**2015**	**2016**	**2017**
●	max	157,00	156,00	155,00	136,00	141,00
	95th percentile	70,90	77,95	81,60	84,40	91,50
	75th percentile	53,50	50,00	53,00	57,00	55,00
	Median	39,00	37,50	43,00	44,00	45,00
	25th percentile	32,75	32,00	33,50	35,00	34,25
	5th percentile	27,00	25,55	26,10	27,00	26,25
●	Min	25,00	20,00	25,00	25,00	18,00

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	104	98.11%

Comments:
The median for the number of primary cases continued to increase slightly. 2 Centres failed to meet the target value. In audit year 2018 one of them was undergoing a surveillance audit (need to document the primary case number for the re-audit [every three years]) and one Centre was recertified and was able to document that it had met the target value on average for the previous three years. With 5,401 primary cases, 638 more patients were treated than the previous year in certified Centres (including Centres that are not covered in the annual report). 5,056 of these primary cases were handled by Centres in Germany. In terms of the incidence of malignant pancreatic tumours in 2014 (17,127, www.krebsdaten.de), this means that 29.5% of primary cases were treated in certified Centres in indicator year 2017 (2016: 25.7%).

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
** Percentage of centre patients who were treated according to the indicator

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2. Pretherapeutic case presentation

Rate

Median 95,88%

Sollvorgabe ≥ 95%

20   40   60   80   100

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Primary cases with pancreatic cancer who were presented at the pre-operative conference	41*	16 - 139	4,726
Denominator	Primary cases (= Indicator 1)	45*	18 - 141	5,104
Rate	Target value ≥ 95%	95.88%	62.75% - 100%	92.59%**

		2013	2014	2015	2016	2017
●	max	100%	100%	100%	100%	100%
	95th percentile	100%	100%	100%	100%	100%
	75th percentile	97,16%	97,12%	100%	98,04%	98,16%
	Median	94,30%	94,73%	95,52%	95,74%	95,88%
	25th percentile	86,77%	85,28%	88,68%	88,24%	90,34%
	5th percentile	74,94%	58,18%	73,16%	78,06%	79,38%
●	Min	27,27%	26,39%	41,75%	62,26%	62,75%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	58	54.72%

Comments:
Ongoing very good implementation of the indicator over the course of time. 48 Centres failed to meet the target value, including 11 Centres that had their first audit in 2017. The reasons given by the Centres that failed to meet the required presentation rate of ≥95% were the lack of a pre-operative suspected malignancy, emergency surgery, palliative/multimorbid patients or cases that had already been discussed in external tumour conferences. The auditors once again made a series of remarks. The Centres sought to improve their results by examining standard operating procedures in quality circles, staff training courses and raising the awareness of cooperation partners.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
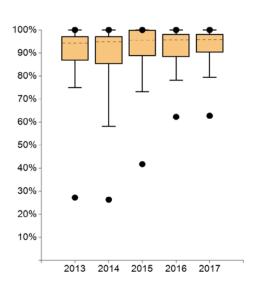** Percentage of centre patients who were treated according to the indicator

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3. Post-operative case presentation

Rate

Median 100,00%
Sollvorgabe ≥ 95%

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Surgical primary cases pancreas presented in the post-operative conference	18*	6 - 70	,2312
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff with ICD-10 C25) (= Indicator 8)	19*	6 - 72	2,378
Rate	Target value ≥ 95%	100%	81.82% - 100%	97.22%**

		2013	2014	2015	2016	2017
●	max	100%	100%	100%	100%	100%
	95th percentile	100%	100%	100%	100%	100%
	75th percentile	100%	100%	100%	100%	100%
	Median	100%	100%	100%	100%	100%
	25th percentile	96,61%	94,44%	95,74%	96,00%	95,94%
	5th percentile	85,58%	80,36%	86,14%	87,36%	90,00%
●	Min	63,04%	48,89%	68,75%	80,00%	81,82%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	84	79,25%

Comments:
Unchanged good implementation of the indicator in the Centres. 7 of the 14 Centres that failed to meet the target value the previous year, achieved the post-operative presentation rate of ≥95% in 2018. 64 Centres managed to maintain or increase their presentation rate. In 27 Centres fewer surgical primary cases were discussed post-operatively. The reason given by the Centres with a low presentation rate was that patients had died post-operatively. These cases were presented in the morbidity & mortality (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.
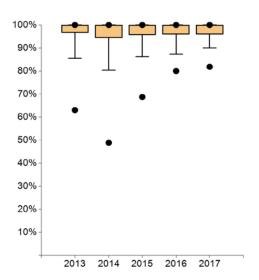
** ** Percentage of centre patients who were treated according to the indicator.

4. Psycho-oncological counselling

Rate

Begründungspflicht > 95%

Median 48,98%

Begründungspflicht < 30%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Patients who received psycho-oncological care (length of consultation ≥ 25 min)	25.5*	5 - 79	2,856
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	47.5*	23 - 166	5,907
Rate	Mandatory statement of reasons*** < 30% and >95%	48.98%	12.77% - 92.94%	48.35%**

		2013	2014	2015	2016	2017
•	max	92,68%	91,89%	88,89%	90,00%	92,94%
	95th percentile	85,03%	83,45%	78,04%	84,28%	85,32%
	75th percentile	66,67%	58,89%	58,06%	61,33%	61,25%
	Median	45,51%	42,41%	40,48%	45,71%	48,98%
	25th percentile	24,68%	28,43%	25,41%	31,71%	36,47%
	5th percentile	8,66%	8,37%	11,51%	17,01%	21,52%
•	Min	3,03%	0,00%	0,00%	11,96%	12,77%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
106	100.00%	93	87.74%

Comments:
Good implementation of the indicator with a rising median compared to the previous year. 52 Centres were able to increase their psycho-oncological counselling rate compared to the previous year. In 39 Centres fewer patients received psycho-oncological counselling. The reasons given by the Centres for the low counselling rates were limited take-up by patients and the length of the sessions <25 minutes. An improvement is to be achieved particularly by raising staff awareness and the systematic use of screening instruments in the outpatient units, too.

*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
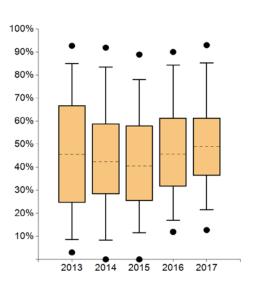** Percentage of centre patients who were treated according to the indicator.
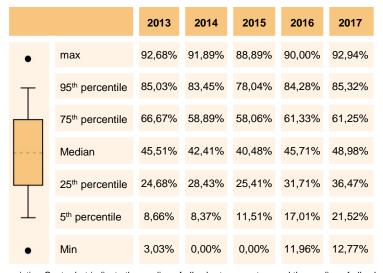*** For values outside the plausibility limit(s) the Centres must give the reasons.

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5. Social services counselling

Rate

Begründungspflicht = 100%

Median 66,32%

Begründungspflicht < 45%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patienten Gesamt**
Numerator	Patients who received counselling from the social services	32*	9 - 105	3,768
Denominator	Primary cases (= Indicator 1) + patients with recurrence or new metastasis	47.5*	23 - 166	5,907
Rate	Mandatory statement of reasons*** < 45% and =100%	66.32%	23.77% - 94.44%	63.79%**

		2013	2014	2015	2016	2017
●	max	87,76%	93,33%	92,86%	95,74%	94,44%
	95th percentile	82,52%	87,84%	84,00%	81,83%	86,53%
	75th percentile	71,63%	74,08%	70,01%	70,21%	73,59%
	Median	63,07%	62,02%	60,81%	63,83%	66,32%
	25th percentile	52,25%	50,49%	51,86%	55,56%	57,40%
	5th percentile	33,70%	32,18%	35,28%	38,84%	39,93%
●	Min	12,00%	18,75%	26,98%	25,42%	23,77%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
106	100.00%	97	91.51%

Comments:
Ongoing very good implementation of the indicator over the course of time, with a rising median. 5 of the 7 Centres with the lowest social services counselling rates (<45%) the previous year, were able to improve their results in audit year 2018. In audit year 2018 9 Centres had a counselling rate of <45%. The reasons they gave were limited take-up, social counselling by the specialist outpatient palliative care team/oncological care or pastoral care (not calculable for the indicator) or rapid death of the patients. 3 Centres with a rate requiring a statement of reasons were located in a German-speaking region outside Germany where the statutory provisions for social services care are different.

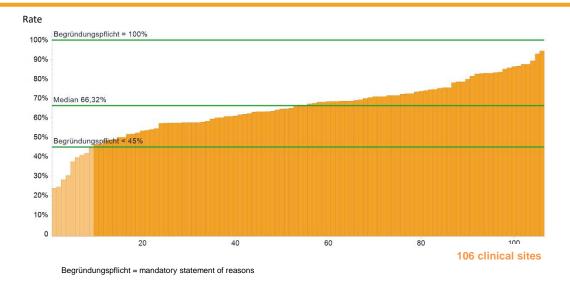*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
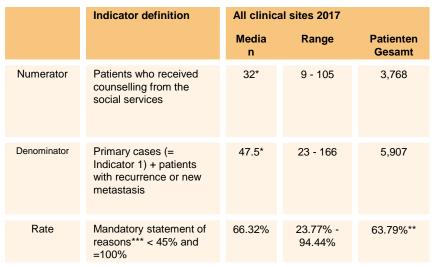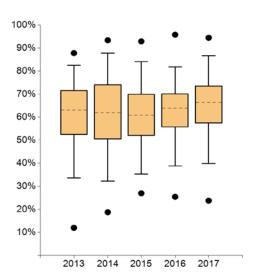** Percentage of centre patients who were treated according to the indicator
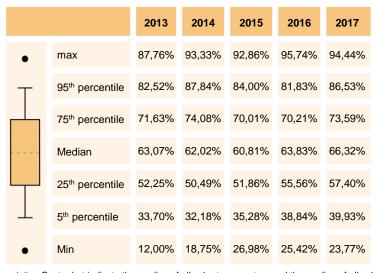*** For values outside the plausibility limit(s) the Centres must give the reasons.

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6. Study participation

Rate

Median 14,29%
Sollvorgabe ≥ 5%

106 clinical sites

Sollvorgabe = target value

	Indicator definition	**All clinical sites 2017**		
		Median	**Range**	**Patients Total**
Numerator	Patients with pancreatic cancer (not only primary cases) who were included in a study	6*	0 - 133	1,581
Denominator	Primary cases (= Indicator 1)	45*	18 - 141	5,104
Rate	Target value ≥ 5%	14.29%	0.00% - 144.57%	30.98%**

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		2013	**2014**	**2015**	**2016**	**2017**
●	max	71,11%	93,55%	88,52%	151,61%	144,57%
	95th percentile	47,52%	46,47%	67,71%	80,83%	94,87%
	75th percentile	23,10%	16,73%	30,52%	32,89%	33,20%
	Median	10,88%	6,25%	13,95%	11,76%	14,29%
	25th percentile	4,81%	2,65%	6,71%	5,00%	6,71%
	5th 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	%
106	100.00%	93	87.74%

Comments:
In audit year 2018 61 Centres were able to maintain or increase their study rate from the previous year. In 30 Centres it had fallen. 14 of the 23 Centres that failed to meet the target value the previous year, were able to improve their result to ≥ 5% in audit year 2018. In audit year 2018 13 Centres failed to meet the target value. The reasons they gave were understaffing, no studies on offer or recruitment problems because of comorbidity. Centres with a high study rate achieved this, inter alia, by participating in studies on quality of life/psycho-oncology and biobanking projects. .
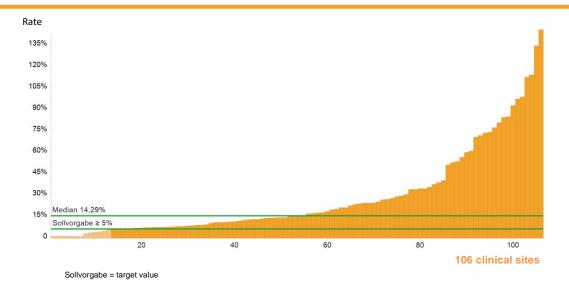
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
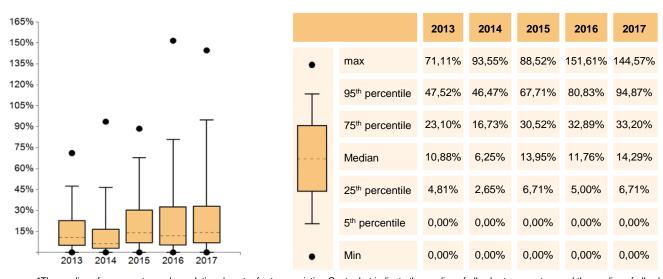** Percentage of centre patients who were treated according to the indicator
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7a. Endoscopy complications - Pancreatitis after ERCP (CR 2.1)

Rate

Sollvorgabe ≤ 10%

Median 1,45%

20   40   60   80   100

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Patients with endoscopy-specific complications Pancreatitis after ERCP (CR 2.1)	5*	0 - 39	867
Denominator	ERCPs for each endoscopy unit	368*	40 – 1,879	46,191
Rate	Target value ≤ 10%	1.45%	0.00% - 9.11%	1.88%**

		2013	2014	2015	2016	2017
●	max	-----	-----	-----	8,56%	9,11%
	95th percentile	-----	-----	-----	5,73%	5,11%
	75th percentile	-----	-----	-----	2,86%	2,50%
	Median	-----	-----	-----	1,42%	1,45%
	25th percentile	-----	-----	-----	0,93%	0,80%
	5th percentile	-----	-----	-----	0,31%	0,30%
●	Min	-----	-----	-----	0,00%	0,00%

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

Comments:
Since indicator year 2016 complications after an ERCP (Indicator 7a/b) have been recorded in relation to all ERCPs performed and no longer in relation to the patients examined using ERCP. In audit year 2018 all Centres met the target value of maximum 10% pancreatitis as an ERCP complication. 6 out of the 8 Centres with the highest complications rate (≥ 5%) the previous year, were able to improve their result in audit year 2018.

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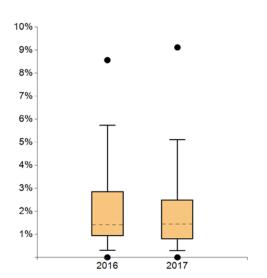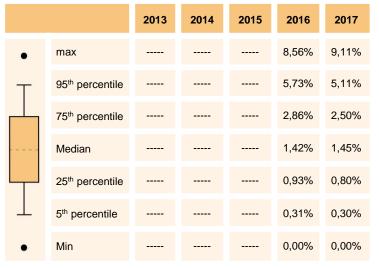** Percentage of centre patients who were treated according to the indicator

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

Rate

Sollvorgabe ≤ 5%

Median 0,80%

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Patients with endoscopy-specific complications bleeding and perforation after ERCP (CR 2.1)	3*	0 - 17	416
Denominator	ERCPs for each endoscopy unit	368*	40 – 1,879	46,191
Rate	Target value ≤ 5%	0,80%	0.00% - 3.62%	0.90%**

		2013	2014	2015	2016	2017
●	max	-----	-----	-----	3,29%	3,62%
	95th percentile	-----	-----	-----	2,17%	2,55%
	75th percentile	-----	-----	-----	1,17%	1,32%
	Median	-----	-----	-----	0,62%	0,80%
	25th percentile	-----	-----	-----	0,34%	0,35%
	5th percentile	-----	-----	-----	0,00%	0,00%
●	Min	-----	-----	-----	0,00%	0,00%

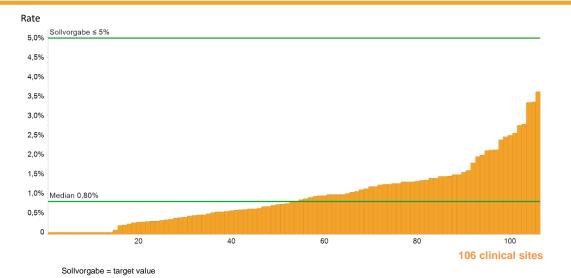| Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	93106	100.00%

Comments:
Since indicator year 2016 complications after an ERCP (Indicator 7a/b) have been recorded in relation to all ERCPs performed and no longer in relation to the patients examined using ERCP. In audit year 2018 all Centres met the target value of maximum 5% bleeding/perforation as complications of ERCP. 5 out of the 6 Centres with the highest complication rates (≥ 2%) the previous year, were able to improve their results in audit year 2018.

*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
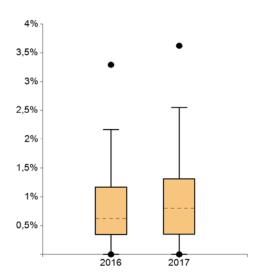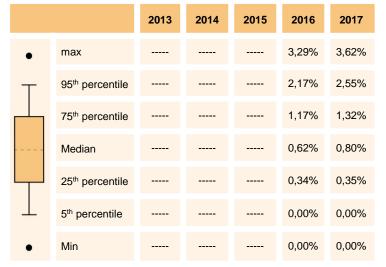** Percentage of centre patients who were treated according to the indicator

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

Number

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Number	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) (Def. 5.2.4)	19	6 - 72	2,378
	Target value ≥ 12			

		2013	2014	2015	2016	2017
●	max	61,00	53,00	66,00	68,00	72,00
	95th percentile	42,15	44,45	48,90	48,80	47,00
	75th percentile	26,00	24,00	25,00	26,00	28,00
	Median	18,00	18,00	19,00	19,00	19,00
	25th percentile	13,75	14,75	14,00	16,00	14,00
	5th percentile	10,00	9,10	10,10	10,00	10,25
●	Min	7,00	6,00	5,00	7,00	6,00

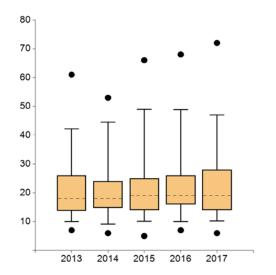| Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	95	89.62%

Comments:
The median of surgical primary cases was unchanged compared with the previous year. When looking at the Centres that were taken into account for audit years 2017 and 2018 in the annual report, the total number of surgical primary cases increased from 2,036 to 2,057. 11 Centres failed to meet the target value in audit year 2018. The reasons they gave were palliative/inoperable situations and rapid progress under pre-operative treatment and no detection of malignancy in post-operative histology. The auditors made a series of remarks.

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9. Overall surgical expertise pancreas

Number

Median 35,50

Sollvorgabe ≥ 20

20   40   60   80   100

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Number	Pancreas resections (left resection of the pancreas. pancreatic head resection. total pancreatectomy. 5-524ff and 5-525ff with and without ICD-10 C25).	35.5	12 - 180	4,916
	Target value ≥ 20			

Sollvorgabe = target value

		2013	2014	2015	2016	2017
●	max	147,00	166,00	150,00	175,00	180,00
	95th percentile	87,00	102,45	105,70	109,80	107,75
	75th percentile	49,00	50,75	48,00	57,00	49,00
	Median	36,00	33,50	40,00	38,00	35,50
	25th percentile	30,75	27,00	29,00	29,00	27,00
	5th percentile	18,65	18,65	21,00	22,00	20,00
●	Min	10,00	11,00	12,00	18,00	12,00

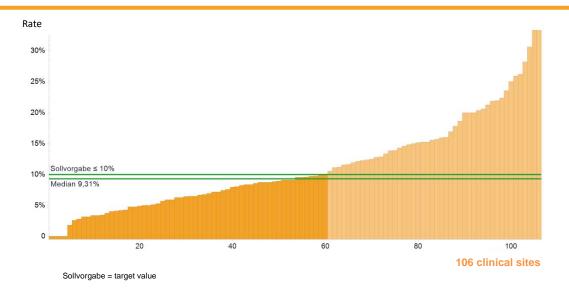| Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	102	96.23%

Comments:

The median of the cross-indication pancreatic resections performed fell further compared with the previous year and the minimum value was lower, too. Overall, in indicator year 2017 the Centres carried out 4,916 pancreatic resections (irrespective of the indication), i.e. 472 more surgical procedures than the previous year (2016: 4,444). The two Centres that did not meet the target value the previous year, were able to document at least 20 pancreatic resections in audit year 2018. 4 Centres failed to meet the target value in audit year 2018. In three of these Centres a surveillance audit was conducted in 2018 (proof of competence required for recertification every three years). One Centre was recertified and could document that it met the target value on average over the previous three years.

10. Revision surgeries pancreas

Rate

Sollvorgabe ≤ 10%
Median 9,31%

106 clinical sites

Sollvorgabe = target value

	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%**

		2013	**2014**	**2015**	**2016**	**2017**
●	max	35,48%	28,57%	36,96%	32,50%	34,69%
	95th percentile	23,72%	24,55%	21,78%	24,77%	25,70%
	75th percentile	13,44%	14,81%	13,92%	16,67%	15,11%
	Median	10,44%	8,70%	9,52%	9,68%	9,31%
	25th percentile	6,06%	5,73%	5,07%	7,27%	5,97%
	5th percentile	1,94%	0,00%	2,20%	2,36%	2,62%
●	Min	0,00%	0,00%	0,00%	0,00%	0,00%

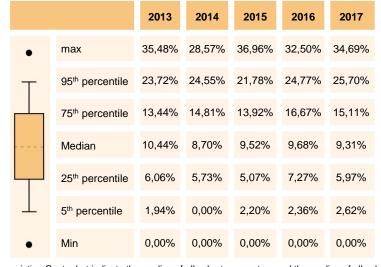| Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	60	56.60%

Comments:

The median of revision surgeries after pancreatic resections was slightly lower than the previous year. Compared to the previous year a higher proportion of Centres met the target value in audit year 2018 (2017: 51.61%). 12 of the 45 Centres with a revision rate >10% the previous year, were able to improve their result in audit year 2018. 46 Centres failed to meet the target value in audit year 2018. The reasons given were, inter alia, anastomosis insufficiencies, secondary bleeding and pancreatitis. In Centres that failed to meet the target value, individual case analyses were conducted during the audits and improvement measures (e.g. change in surgical technique, different suturing material, adjustment of peri-operative management) were agreed.
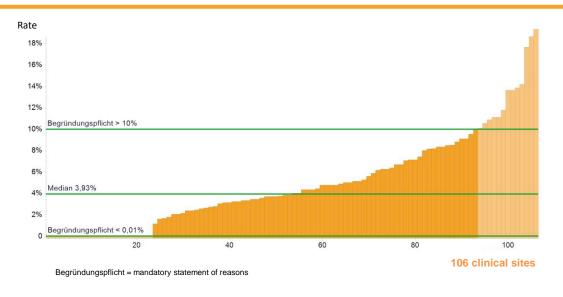
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
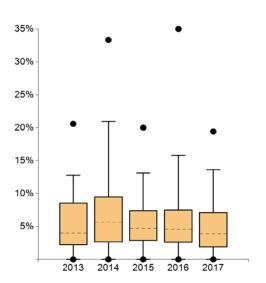** Percentage of centre patients who were treated according to the indicator

11. Post-operative wound infections

Rate

Begründungspflicht > 10%

Median 3,93%

Begründungspflicht < 0,01%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Post-operative wound infection within 30d of pancreatic resection with need for surgical wound revision (flushing. opening. VAC dressing)	1*	0 - 19	258
Denominator	Pancreatic resections (5-524ff and 5-525ff. with and without ICD-10 C25) (= Indicator 9)	35,5*	12 - 180	4,916
Rate	Mandatory statement of reasons*** < 0.01% and >10%	3,93%	0,00% - 19,44%	5.25%**

		2013	2014	2015	2016	2017
●	max	20,59%	33,33%	20,00%	35,00%	19,44%
	95th percentile	12,80%	20,93%	13,13%	15,79%	13,64%
	75th percentile	8,57%	9,52%	7,41%	7,50%	7,14%
	Median	4,01%	5,65%	4,72%	4,57%	3,93%
	25th percentile	2,21%	2,60%	2,86%	2,56%	1,85%
	5th 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	%
106	100.00%	70	66.04%

Comments:
Lower median than the previous year and maximum value for the rate of post-operative wound infections. The proportion of Centres with a wound infection rate of >10% requiring a statement of reasons was slightly lower in audit year 2018 (12.26%) than the previous year 2017: 12.9%). Nonetheless, all 12 Centres with a high infection rate requiring a statement of reasons the previous year improved their result in audit year 2018. The 13 Centres with wound infection rates >10% in audit year 2018 gave as the reasons, inter alia, the treatment of high-risk cohorts (e.g. advanced tumours, severe obesity) and comorbidities. The data from the Centres were checked for plausibility during the audits using individual case analyses and systematic errors were ruled out.

*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.
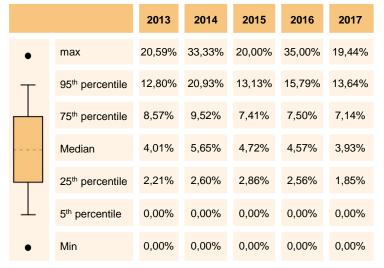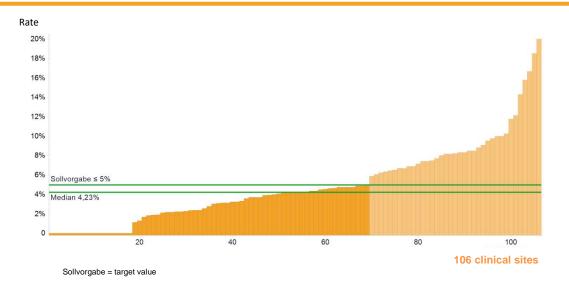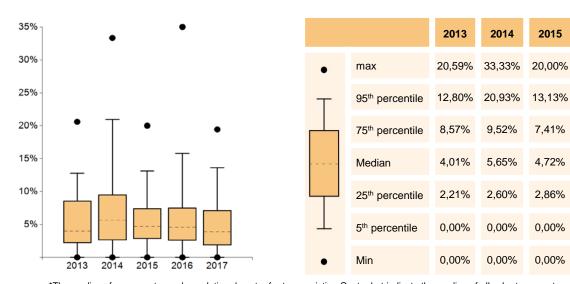** Percentage of centre patients who were treated according to the indicator
*** For values outside the plausibility limit(s) the Centres must give the reasons.

12. Post-operative mortality

Rate

Sollvorgabe ≤ 5%
Median 4,23%

Sollvorgabe = target value

106 clinical sites

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Post-operative deceased patients after pancreatic resections within 30d	1*	0 - 19	258
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 ≤ 5%	3.93%	0.00% - 19.44%	5.25%**

	2013	2014	2015	2016	2017
max	20,59%	33,33%	20,00%	35,00%	19,44%
95th percentile	12,80%	20,93%	13,13%	15,79%	13,64%
75th percentile	8,57%	9,52%	7,41%	7,50%	7,14%
Median	4,01%	5,65%	4,72%	4,57%	3,93%
25th percentile	2,21%	2,60%	2,86%	2,56%	1,85%
5th 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	%
106	100.00%	70	66.04%

Comments:
In indicator year 2017 a total of 217 out of the 4,916 patients who had undergone a pancreatic resection died within 30 days post-operatively (4.41%). The previous year 197 who undergone pancreatic resection (4,444 resections) died post-operatively (4.43%). 27 of the 35 Centres with mortality rates >5% the previous year, were able to improve their result and 18 of the irregular Centres the previous year documented a post-operative mortality rate of ≤5% in audit year 2018. 37 Centres exceeded the target value and the causes underwent critical analysis. The post-operative mortalities were frequently cardiovascular or haemorrhagic in nature. Other causes were necrotising pancreatitis or septic complications. In many cases the deceased were multimorbid patients or patients with advanced stage tumours. The individual cases were processed in the Centres in M&M conferences and analysed during the audits. Systematic errors could be ruled out. The Centres took a series of steps to improve peri-operative and complication management, cooperation between the surgical team and anaesthetics, and pre-operative patient selection.
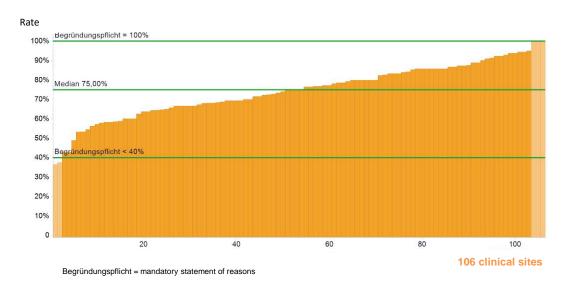
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
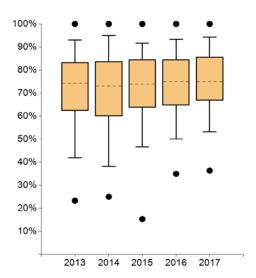** Percentage of centre patients who were treated according to the indicator

23

13. Local R0 resections pancreas (GL QI 1)

Rate

Begründungspflicht = 100%

Median 75,00%

Begründungspflicht < 40%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

		Indicator definition	All clinical sites 2017		
			Median	**Range**	**Patients Total**
	Numerator	Local R0 resections pancreas after completion of surgical therapy	15*	3 - 49	1,765
	Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) (= Indicator 8)	19*	6 - 72	2,378
	Rate	Mandatory statement of reasons*** < 40% and =100%	75.00%	36.36% - 100%	74.22%**

		2013	2014	2015	2016	2017
●	max	-----	-----	-----	100%	100%
	95th percentile	-----	-----	-----	100%	100%
	75th percentile	-----	-----	-----	95,24%	100%
	Median	-----	-----	-----	88,00%	91,67%
	25th percentile	-----	-----	-----	77,78%	81,39%
	5th percentile	-----	-----	-----	58,38%	65,81%
●	Min	-----	-----	-----	23,08%	36,84%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	101	95.28%

Comments:
More or less same implementation of the indicator over the course of time.
47 Centres were able to maintain or increase their local R0 rate compared with the previous year. In 44 Centres this rate was lower. The Centre with the low R0 rate requiring a statement of reasons the previous year, was able to markedly increase this to >40% in audit year 2018. In the audit year 2 Centres had a R0 resection rate of <40%. In these Centres the auditors analysed the individual cases to rule out any systematic errors.
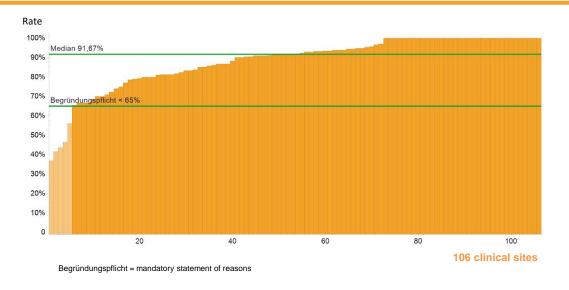
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
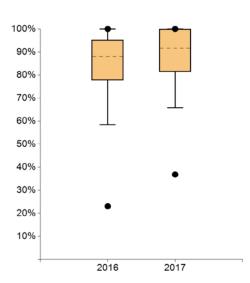** Percentage of centre patients who were treated according to the indicator
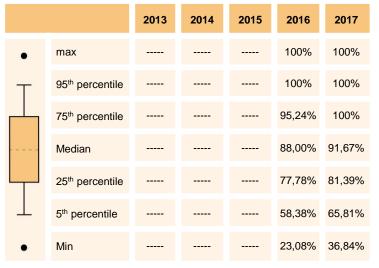*** For values outside the plausibility limit(s) the Centres must give the reasons.

14. Lymph node examination (GL QI 2)

Median 91,67%

Begründungspflicht < 65%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patients Total**
Numerator	Surgical primary cases pancreas with ≥ 12 regional lymph nodes in the surgical specimen after conclusion of surgical therapy	14.5*	4 - 62	1,856
Denominator	Surgical primary cases pancreas (5-524ff. 5-525ff only with ICD-10 C25) who have undergone a lymphadenectomy	16*	5 - 65	2,128
Rate	Mandatory statement of reasons*** < 65%	91.67%	36.84% - 100%	87.22%**

		2013	2014	2015	2016	2017
●	max	-----	-----	-----	100%	100%
	95th percentile	-----	-----	-----	100%	100%
	75th percentile	-----	-----	-----	95,24%	100%
	Median	-----	-----	-----	88,00%	91,67%
	25th percentile	-----	-----	-----	77,78%	81,39%
	5th percentile	-----	-----	-----	58,38%	65,81%
●	Min	-----	-----	-----	23,08%	36,84%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
106	100.00%	101	95.28%

Comments:
From indicator year 2016 onwards the numerator of the indicator was adjusted in line with the updated TNM Classification (8th edition) according to which at least 12 lymph nodes (LNs) are to be examined to determine N0 status.
The quality indicator from the Guideline was implemented very well in the Centres with a clearly rising median. 5 Centres had a lower proportion (<65%) of surgical primary cases, requiring a statement of reasons, with ≥ 12 regional lymph nodes in the surgical specimen. The analysis of the individual cases during the audits showed that frequently further processing of the pancreas specimens was not carried out if there was a pN1 status at <12 detected lymph nodes. In the Centres concerned, the updated instructions were jointly discussed with the surgeons and pathologists in quality circles and then implemented.
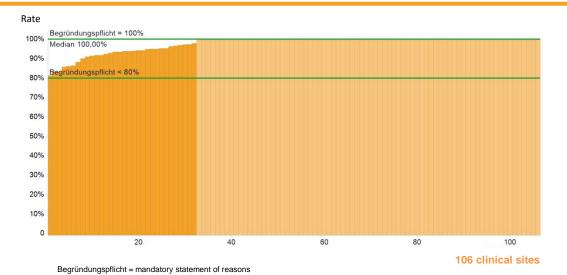
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
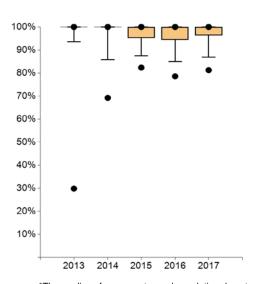** Percentage of centre patients who were treated according to the indicator
*** For values outside the plausibility limit(s) the Centres must give the reasons.

16. Content Pathology Report (GL QI 3)

Rate

Begründungspflicht = 100%
Median 100,00%
Begründungspflicht < 80%

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		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*	6 - 65	2,311
Denominator	Pathology Report from surgical primary cases	19.5*	6 - 65	2,369
Rate	Mandatory statement of reasons*** < 80% and =100%	100%	81.25% - 100%	97.55%**

		2013	2014	2015	2016	2017
●	max	100%	100%	100%	100%	100%
	95th percentile	100%	100%	100%	100%	100%
	75th percentile	100%	100%	100%	100%	100%
	Median	100%	100%	100%	100%	100%
	25th percentile	100%	100%	95,23%	94,44%	96,36%
	5th percentile	93,62%	85,84%	87,50%	85,00%	86,80%
●	Min	29,87%	69,23%	82,35%	78,57%	81,25%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	32	30.19%

Comments:
Ongoing very good implementation of the indicator over the course of time.
In no Centre were <80% of the pathology reports complete in line with the Guidelines.
74 Centres were able to document by means of their pathology reports a 100% compliance rate with the instructions in the S3 Guideline.
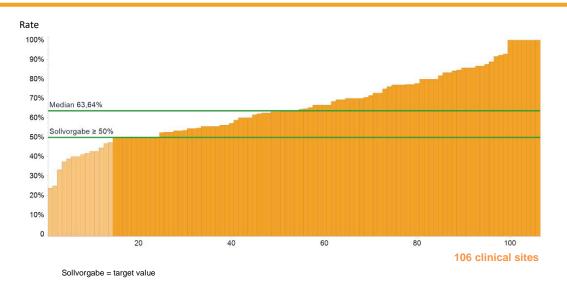
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
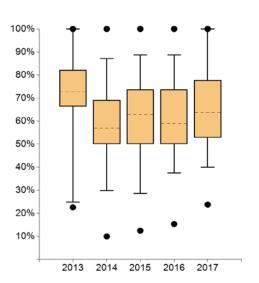** Percentage of centre patients who were treated according to the indicator
*** For values outside the plausibility limit(s) the Centres must give the reasons.

17. Adjuvant chemotherapy (GL QI 4)

Rate

Median 63,64%

Sollvorgabe ≥ 50%

106 clinical sites

Sollvorgabe = target value

	Indicator definition	All clinical sites 2017		
		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	8*	1 - 37	953
Denominator	Surgical primary cases pancreatic cancer UICC stages I-III and R0 resection	12.5*	2 - 44	1,472
Rate	Target value ≥ 50%	63.64%	23.81% - 100%	64.74%**

		2013	2014	2015	2016	2017
●	max	100%	100%	100%	100%	100%
	95th percentile	100%	87,14%	88,75%	88,69%	100%
	75th percentile	82,22%	69,06%	73,80%	73,68%	77,65%
	Median	72,73%	56,98%	62,96%	59,09%	63,64%
	25th percentile	66,35%	50,00%	50,00%	50,00%	52,81%
	5th percentile	24,97%	29,78%	28,57%	37,48%	40,00%
●	Min	22,58%	10,00%	12,50%	15,38%	23,81%

Clinical sites with evaluable data		Clinical sites meeting the target value	
Number	%	Number	%
106	100.00%	92	86.79%

Comments:
The quality indicator in the Guideline was implemented better compared with the previous year with a rising median and minimum value. From audit year 2018 the population was specified for the indicator which means that, in future, the neuroendocrine tumours and carcinomas of the pancreas will be explicitly excluded. 11 out of the 15 Centres that failed to meet the target value the previous year, were able to increase their rate in audit year 2018. In audit year 2018 14 Centres performed adjuvant chemotherapy for <50% of R0-resected surgical primary cases at UICC stages I-III. The reasons they gave were rejection of therapy by the patients or the wish for therapy close to home, renunciation of chemotherapy because of comorbidity/general condition and rapid death of patients. The plausibility of the information from the Centres was verified during the audits using individual case checks. .
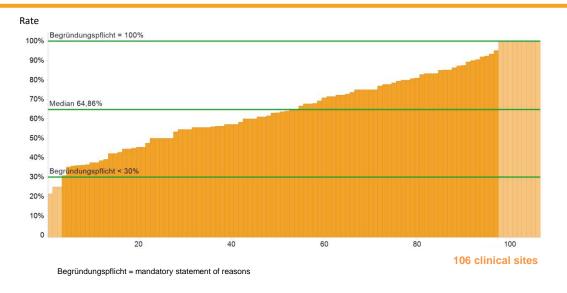
*The medians for numerator and population do not refer to an existing Centre but indicate the median of all cohort numerators and the median of all cohort denominators.
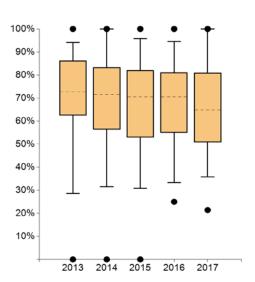** Percentage of centre patients who were treated according to the indicator

18. Palliative chemotherapy (GL QI 5)

Rate

Begründungspflicht = 100%
Median 64,86%
Begründungspflicht < 30%

20   40   60   80   100

106 clinical sites

Begründungspflicht = mandatory statement of reasons

	Indicator definition	All clinical sites 2017		
		Median	**Range**	**Patient Total**
Numerator	Primary cases with pancreatic cancer UICC stages III and IV. ECOG 0-2 and palliative chemotherapy	11*	1 - 46	1,369
Denominator	Primary cases with pancreatic cancer UICC stages III (palliative situation) and IV and ECOG 0-2	18*	1 - 60	2,094
Rate	Mandatory statement of reasons*** < 30% and =100%	64.86%	21.43% - 100%	65.38%**

		2013	2014	2015	2016	2017
●	max	100%	100%	100%	100%	100%
	95th percentile	94,12%	100%	95,87%	94,57%	100%
	75th percentile	86,21%	83,33%	82,09%	81,08%	80,89%
	Median	72,73%	71,43%	70,59%	70,59%	64,86%
	25th percentile	62,50%	56,45%	52,94%	55,00%	50,83%
	5th percentile	28,57%	31,58%	30,85%	33,33%	35,78%
●	Min	0,00%	0,00%	0,00%	25,00%	21,43%

Clinical sites with evaluable data		Clinical sites within the plausibility limits	
Number	%	Number	%
106	100.00%	94	88.68%

Comments:
The median of the quality indicator fell for the first time again compared to the previous year. 42 Centres were able to increase or maintain their rate of palliative chemotherapies compared with the previous year. 3 Centres performed palliative chemotherapy for <30% of primary cases at UICC stages III and IV. The reasons they gave were rejection of therapy by the patients, foregoing of chemotherapy because of a poor general condition, lack of information about palliative chemotherapy provided close to home or rapid death of 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.

28

WISSEN AUS ERSTER HAND
(FIRST-HAND KNOWLEDGE)

Find out more on www.krebsgesellschaft.de

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