DKG Health Services Research Notes 1/2023

PCO study: Overview of patients' characteristics (August 2023)

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Background

The aim of the PCO (" Prostate Cancer Outcomes") study is to compare the quality of outcomes (especially patient-reported) between certified centres using the EPIC-26 questionnaire (1). Centres are thus provided with an additional tool for quality development: If, for example, a centre has unsatisfactory results in patient-reported continence 12 months after radical prostatectomy, this can be taken as an opportunity to review the surgical procedures, work more intensively with rehabilitation clinics or optimise follow-up care. Current results of the PCO study are made available to the centres in annual reports (German report available at https://www.pco-study.com/centersinfo).

The inclusion criteria for the PCO study are:

- localised or locally advanced prostate cancer
- a primary case of a certified prostate cancer centre (2)
- patient informed consent.

Patients are surveyed with the EPIC-26 questionnaire before and 12 months after the beginning of treatment. Questionnaire data is then linked to quality assurance data used for certification purposes based on clinical documentation, including information about treatment, diagnosis and processes of care. Details on the study purpose and data collection have been previously reported (3).

Aim of this research note

For the PCO study, numerous data from the centres' clinical documentation are used for case-mix adjustment when calculating the comparisons in the annual reports (4). Many of these clinical documentation data have not yet been published separately. This is now being done with this short report, as these data from the documentation provide important information about the care provided in certified centres that are not available elsewhere, not on this scale or not with the same documentation quality. We, therefore, show the following for patients included in the PCO study since 2016 with either radical prostatectomy (RP), radiotherapy, the combination of RP and radiotherapy, active surveillance or watchful waiting:

- median age at diagnosis
- Gleason grade at diagnosis
- T stage at diagnosis
- N stage at diagnosis
- median PSA level at the time of diagnosis
- risk classification according to German S3-guideline for prostate cancer (5)

In addition to what is being reported in the annual reports, unadjusted medians of the five EPIC-26 scores separately are reported here. For this analysis, only patients that completed the questionnaire both before and 12 months after diagnosis were included.

published: 09-08-2023
DOI: 10.13140/RG.2.2.16410.00969
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Clinical and patient-reported characteristics of PCO study patients

Characteristic*	only RP (n = 18452)	only radiation (n = 2608)	RP and radiation (n = 702)	active surveillance (n = 359)	watchful waiting (n = 120)
age	66 (61, 71)	74 (69, 78)	67 (62, 71)	69 (63, 74)	79 (76, 82)
Gleason grade at diagnosis					
grade group 1	4310 (23 %)	589 (23 %)	54 (8%)	320 (89%)	68 (57%)
grade group 2	7054 (48 %)	831 (32 %)	147 (21 %)	33 (9 %)	41 (34 %)
grade group 3	3584 (19 %)	544 (21 %)	149 (21 %)	5 (1 %)	6 (5 %)
grade group 4	2337 (13 %)	404 (15 %)	172 (25 %)	0 (0 %)	4 (3 %)
grade group 5	1167 (6 %)	240 (9 %)	180 (26 %)	1 (0 %)	1 (1 %)
cT at diagnosis					
T0	8 (0 %)	0 (0%)	0 (0%)	1 (0 %)	0 (0%)
T1	77 (0 %)	25 (1 %)	2 (0 %)	0 (0 %)	0 (0 %)
T1a	86 (1 %)	29 (1 %)	0 (0 %)	74 (21 %)	72 (60 %)
T1b	110 (1 %)	38 (2 %)	5 (1 %)	8 (2 %)	19 (16 %)
T1c	12782 (69 %)	1403 (54 %)	398 (57 %)	235 (65 %)	15 (12 %)
T2	1 (0 %)	2 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)
T2a	1921 (10 %)	284 (11 %)	54 (8 %)	30 (8 %)	4 (3 %)
T2b	1059 (6 %)	206 (8 %)	62 (9 %)	5 (1 %)	5 (4 %)
T2c	1784 (10 %)	394 (15 %)	116 (17 %)	4 (1 %)	4 (3 %)
T3	150 (1 %)	64 (3 %)	24 (3 %)	1 (0 %)	0 (0 %)
T3a	334 (2 %)	75 (3 %)	25 (7 %)	1 (0 %)	1 (0 %)
T3b	127 (1 %)	70 (3 %)	13 (2 %)	0 (0 %)	0 (0 %)
T4	12 (0 %)	18 (1 %)	3 (0 %)	0 (0 %)	0 (0 %)
cN at diagnosis					
N0	18306 (9 %)	2535 (97 %)	675 (96 %)	359 (100 %)	120 (100 %)
N1	146 (1 %)	73 (3 %)	27 (4 %)	0 (0 %)	0 (0 %)
PSA level at diagnosis	7 (5, 11)	8 (6, 13)	11 (7, 23)	6 (4, 8)	5 (2, 10)
Missing***	3	1	0	0	0
risk classification					
localised, low risk	2992 (16 %)	398 (15 %)	23 (3 %)	283 (79 %)	52 (43 %)
localised, intermediate risk	9612 (52 %)	1070 (41 %)	197 (28 %)	65 (18 %)	56 (47 %)
localised, high risk	5131 (28 %)	879 (34 %)	397 (57 %)	9 (3 %)	11 (9 %)
locally advanced	571 (3 %)	188 (7 %)	58 (8 %)	2 (1 %)	1 (1 %)
advanced (N1)	146 (1 %)	73 (3 %)	27 (4 %)	0 (0 %)	0 (0 %)
not defined	0 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)
EPIC-26 incontinence (T0**)	100 (92, 100)	100 (86, 100)	100 (86, 100)	100 (81, 100)	80 (60, 100)
missing	918	197	66	5	10
EPIC-26 incontinence (T1**)	79 (52, 100)	100 (79, 100)	71 (44, 92)	100 (86, 100)	92 (67, 100)
missing	458	184	24	18	7

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EPIC-26 irritative/obstructive (T0)	88 (75, 100)	88 (81, 100)	88 (75, 100)	88 (69, 94)	81 (56, 89)
missing	1248	294	82	25	12
EPIC-26 irritative/obstructive (T1)	94 (88, 100)	88 (75, 94)	88 (81, 100)	94 (75, 100)	88 (75, 100)
missing	1036	293	51	26	14
EPIC-26 bowel function (T0)	100 (96, 100)	100 (96, 100)	100 (96, 100)	100 (92, 100)	100 (90, 100)
missing	1171	342	66	22	14
EPIC-26 bowel function (T1)	100 (92, 100)	96 (79, 100)	96 (83, 100)	100 (92, 100)	100 (92, 100)
missing	960	315	54	21	15
EPIC-26 sexual function (T0)	67 (39, 88)	36 (17, 67)	55 (26, 83)	58 (33, 83)	18 (17, 35)
missing	597	151	36	13	10
EPIC-26 sexual function (T1)	17 (8, 40)	18 (12, 40)	12 (4, 17)	56 (27, 80)	20 (17, 44)
missing	317	112	20	11	7
EPIC-26 hormonal function (T0)	95 (85, 100)	95 (80, 100)	94 (80, 100)	95 (85, 100)	90 (80, 100)
missing	887	258	45	16	18
EPIC-26 hormonal function (T1)	90 (75, 100)	85 (69, 95)	80 (60, 95)	95 (85, 100)	90 (75, 100)
missing	643	217	29	18	16

* for continuous data, median (interquartile range) is shown, for categorical data, absolute (relative frequencies); ** T0: at diagnosis, T1: 12 months after beginning of treatment; *** missing values only reported for variables in which missingness is possible

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