Supplementary Online Content

eTable 12. Multivariable Analysis of Survival Risk

eTable 13. Treatment Satisfaction and Quality of Dying and Death

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. EQ5D Utility and VAS Scores for Proxies and Caregiver

EQ5D		N	Nonoperative Proxy	N	Caregiver	N	Operative Proxy	N	Caregiver	P-value Proxy	Caregiver
Utility	W1	83	0.17 (0.11-0.23)	86	0.13 (0.06-0.21)	84	0.26 (0.20-0.33)	84	0.21 (0.13-0.29)	<.001	.002
	W2	20	0.19 (0.10-0.27)	20	0.17 (0.07-0.28)	65	0.28 (0.22-0.35)	70	0.23 (0.15-0.32)		
	W4	14	0.24 (0.15-0.34)	14	0.21 (0.09-0.33)	58	0.34 (0.28-0.41)	61	0.33 (0.25-0.42)		
	W12	7	0.27 (0.15-0.39)	8	0.16 (0.02-0.30)	47	0.40 (0.33-0.47)	49	0.37 (0.28-0.45)		
	W24	5	0.20 (0.07-0.34)	5	0.21 (0.05-0.36)	41	0.39 (0.32-0.46)	44	0.36 (0.27-0.45)		
VAS	W1	83	38 (32-43)	86	38 (33-42)	84	46 (41-52)	84	45 (40-50)	.001	<.001
	W2	20	33 (26-40)	20	40 (32-47)	65	48 (43-54)	70	50 (44-55)		
	W4	14	33 (25-41)	14	39 (31-48)	58	50 (45-56)	61	53 (47-59)		
	W12	7	40 (30-50)	8	46 (36-56)	47	51 (46-57)	49	54 (48-60)		
	W24	5	33 (21-44)	5	43 (32-56)	41	53 (47-59)	44	55 (49-61)		

Data are presented as mean (95% CI) with a p-value for the total effect of the mixed-effects regression model with regards to the effect of NOM and OM.
EQ5D, EuroQoL-5D-5L; VAS, visual analog scale; W, Week

eFigure 1. EQ-5D Domains With the Levels of Problems per Domain and Point of Time in the Nonoperative and Operative Group
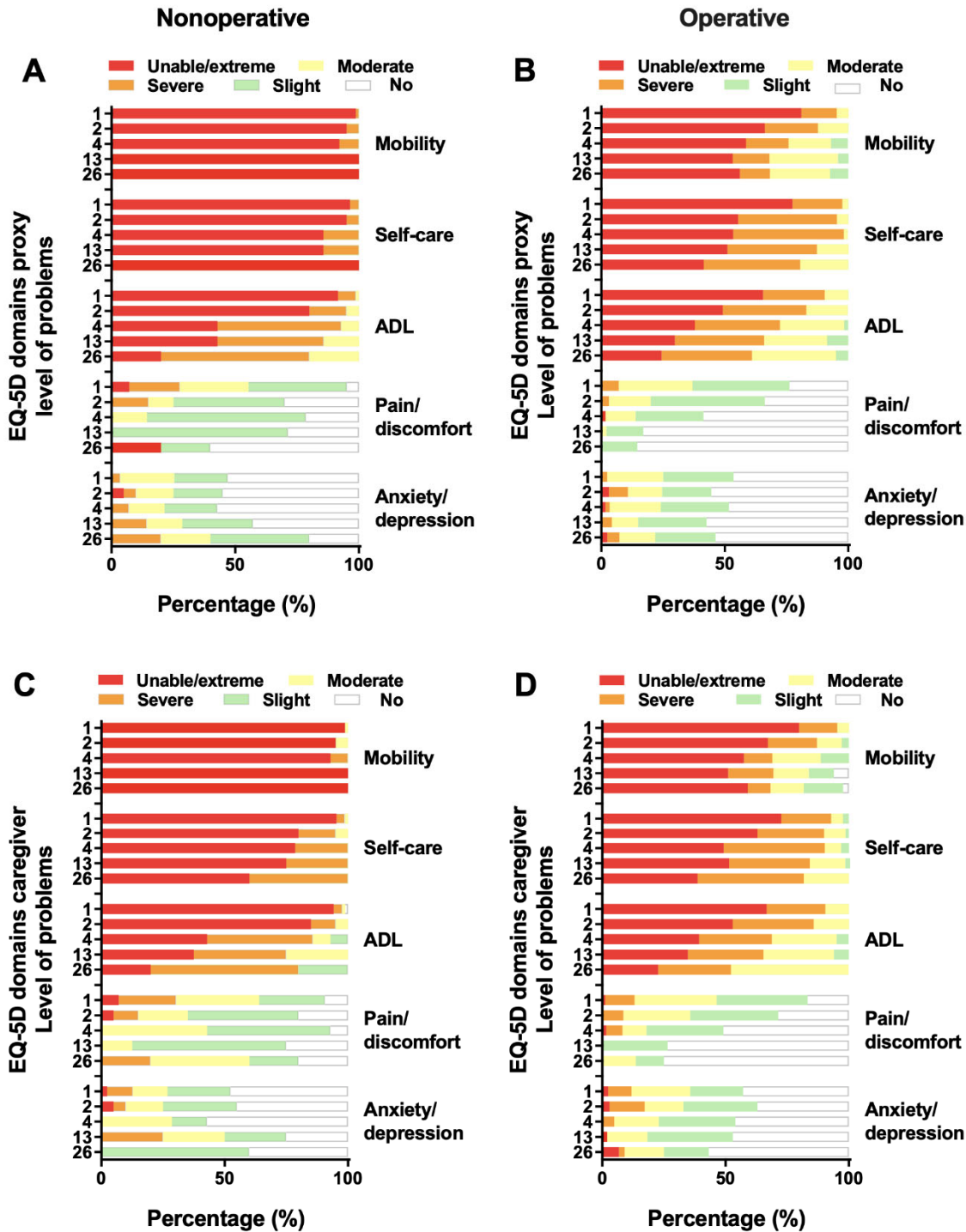
The data are presented as percentage of total of patients alive at the different follow-up moments. The number of patients for whom data were available are the same as in Figure 1 for the proxies and caregivers.

ADL, Activities of daily life.

eTable 2. EQ5D Mobility Domain With Levels of Problems per Point of Time

EQ5D Mobility		Proxy			Caregiver		
		NOM	**OM**	**p**	**NOM**	**OM**	**p**
W1	n=	83	84		86	84	
	No problems	-	-	0.001	-	-	<.001
	Slight	-	-		-	-	
	Moderate	-	4 (5%)		1 (1%)	4 (5%)	
	Severe	1 (1%)	12 (14%)		-	13 (16%)	
	Unable	82 (99%)	68 (81%)		85 (99%)	67 (80%)	
W2	n=	20	65		20	70	
	No problems	-	-	0.037	-	-	.08
	Slight	-	-		-	2 (3%)	
	Moderate	-	8 (12%)		1 (5%)	7 (10%)	
	Severe	1 (5%)	14 (22%)		-	14 (20%)	
	Unable	19 (95%)	43 (66%)		19 (95%)	47 (67%)	
W4	n=	14	58		14	61	
	No problems	-	-	0.104	-	-	.08
	Slight	-	4 (7%)		-	7 (12%)	
	Moderate	-	10 (17%)		-	12 (20%)	
	Severe	1 (7%)	10 (17%)		1 (7%)	7 (12%)	
	Unable	13 (92%)	34 (59%)		13 (93%)	35 (57%)	
W12	n=	7	47		8	49	
	No problems	-	-	0.137	-	3 (6%)	.15
	Slight	-	2 (4%)		-	5 (10%)	
	Moderate	-	13 (28%)		-	7 (14%)	
	Severe	-	7 (15%)		-	9 (18%)	
	Unable	7 (100%)	25 (53%)		8 (100%)	25 (51%)	
W24	n=	5	41		5	44	
	No problems	-	-	0.307	-	1 (2%)	.52
	Slight	-	3 (7%)		-	7 (16%)	
	Moderate	-	10 (24%)		-	6 (14%)	
	Severe	-	5 (12%)		-	4 (9%)	
	Unable	5 (100%)	23 (56%)		5 (100%)	26 (59%)	

The number are presented as percentage of total of patients alive at the particular point of time.
EQ5D, EuroQoL-5D-5L; NOM, nonoperative management; OM, operative management; W, Week

eTable 3. EQ5D Self-Care Domain With Levels of Problems per Point of Time

EQ5D Self-care		Proxy			Caregiver		
		NOM	OM	p	NOM	OM	p
W1	n=	83	84		86	84	
	No problems	-	-	0.001	-	-	.001
	Slight	-	-		-	2 (2%)	
	Moderate	-	2 (2%)		1 (1%)	4 (5%)	
	Severe	3 (4%)	17 (20%)		3 (4%)	17 (20%)	
	Unable	80 (96%)	65 (77%)		82 (95%)	61 (73%)	
W2	n=	20	65		20	70	
	No problems	-	-	0.005	-	-	.54
	Slight	-	-		-	1 (1%)	
	Moderate	-	3 (5%)		1 (5%)	6 (9%)	
	Severe	1 (5%)	26 (40%)		3 (15%)	19 (27%)	
	Unable	19 (95%)	36 (55%)		16 (80%)	44 (63%)	
W4	n=	14	58		14	61	
	No problems	-	-	0.086	-	-	.23
	Slight	-	-		-	2 (3%)	
	Moderate	-	1 (2%)		-	4 (7%)	
	Severe	2 (14%)	26 (45%)		3 (21%)	25 (41%)	
	Unable	12 (86%)	31 (53%)		11 (79%)	30 (49%)	
W12	n=	7	47		8	49	
	No problems	-	-	0.214	-	-	.54
	Slight	-	-		-	1 (2%)	
	Moderate	-	6 (13%)		-	7 (14%)	
	Severe	1 (14%)	17 (36%)		2 (25%)	16 (33%)	
	Unable	6 (86%)	24 (51%)		6 (75%)	25 (51%)	
W24	n=	5	41		5	44	
	No problems	-	-	0.047	-	-	.49
	Slight	-	-		-	-	
	Moderate	-	8 (20%)		-	8 (18%)	
	Severe	-	16 (39%)		2 (40%)	19 (43%)	
	Unable	5 (100%)	17 (42%)		3 (60%)	17 (39%)	

The number are presented as percentage of total of patients alive at the particular point of time.
EQ5D, EuroQoL-5D-5L; NOM, nonoperative management; OM, operative management; W, Week

eTable 4. EQ5D Activities of Daily Life Domain With Levels of Problems per Point of Time

EQ5D		Proxy			Caregiver		
Activities of daily life		NOM	OM	p	NOM	OM	p
W1	n=	83	84		86	84	
	No problems	-	-	<0.001	1 (1%)	-	<.001
	Slight	-	-		-	-	
	Moderate	1 (1%)	8 (10%)		1 (1%)	10%	
	Severe	6 (7%)	21 (25%)		3 (4%)	24%	
	Unable	76 (92%)	55 (66%)		81 (94%)	67%	
W2	n=	20	65		20	70	
	No problems	-	-	0.051	-	-	.04
	Slight	-	-		-	-	
	Moderate	1 (5%)	11 (17%)		1 (5%)	10 (14%)	
	Severe	3 (1%)	22 (34%)		2 (10%)	23 (33%)	
	Unable	16 (80%)	32 (49%)		17 (85%)	37 (53%)	
W4	n=	14	58		14	61	
	No problems	-	-	0.421	-	-	.46
	Slight	-	1 (2%)		1 (7%)	3 (5%)	
	Moderate	1 (7%)	15 (25%)		1 (7%)	16 (26%)	
	Severe	7 (50%)	20 (35%)		6 (43%)	18 (30%)	
	Unable	6 (43%)	22 (38%)		6 (43%)	24 (39%)	
W12	n=	7	47		8	49	
	No problems	-	-	0.724	-	-	.89
	Slight	-	4 (9%)		-	3 (6%)	
	Moderate	1 (14%)	12 (26%)		2 (25%)	14 (29%)	
	Severe	3 (43%)	17 (36%)		3 (38%)	15 (31%)	
	Unable	3 (43%)	14 (30%)		3 (38%)	17 (35%)	
W24	n=	5	41		5	44	
	No problems	-	-	0.758	-	-	.006
	Slight	-	2 (5%)		1 (20%)	-	
	Moderate	1 (20%)	14 (34%)		-	21 (48%)	
	Severe	3 (60%)	15 (37%)		3 (60%)	13 (30%)	
	Unable	1 (20%)	10 (24%)		1 (20%)	10 (23%)	

The number are presented as percentage of total of patients alive at the particular point of time.
EQ5D, EuroQoL-5D-5L; NOM, nonoperative management; OM, operative management; W, Week

eTable 5. EQ5D Pain/Discomfort Domain With Levels of Problems per Point of Time

EQ5D Pain/discomfort		Proxy			Caregiver		
		NOM	OM	p	NOM	OM	p
W1	n=	83	84		86	84	
	No	4 (5%)	20 (24%)	<0.001	8 (9%)	14 (17%)	.05
	Slight	33 (40%)	33 (39%)		23 (27%)	31 (37%)	
	Moderate	23 (28%)	25 (30%)		29 (34%)	28 (33%)	
	Severe	17 (21%)	6 (7%)		20 (23%)	10 (12%)	
	Extreme	6 (7%)	-		6 (7%)	1 (1%)	
W2	n=	20	65		20	70	
	No	6 (30%)	22 (34%)	0.236	4 (20%)	20 (29%)	.33
	Slight	9 (45%)	30 (46%)		9 (45%)	25 (36%)	
	Moderate	2 (10%)	11 (17%)		4 (20%)	19 (27%)	
	Severe	3 (15%)	2 (3%)		2 (10%)	6 (9%)	
	Extreme	-	-		1 (5%)	-	
W4	n=	14	58		14	61	
	No	3 (21%)	34 (59%)	0.053	1 (7%)	31 (51%)	.004
	Slight	9 (64%)	16 (28%)		7 (50%)	19 (31%)	
	Moderate	2 (14%)	7 (12%)		6 (43%)	6 (10%)	
	Severe	-	-		-	4 (7%)	
	Extreme	-	1 (2%)		-	1 (2%)	
W12	n=	7	47		8	49	
	No	2 (29%)	39 (83%)	0.004	2 (25%)	36 (74%)	.003
	Slight	5 (71%)	7 (15%)		5 (63%)	13 (27%)	
	Moderate	-	1 (2%)		1 (13%)	-	
	Severe	-	-		-	-	
	Extreme	-	-		-	-	
W24	n=	5	41		5	44	
	No	3 (60%)	35 (85%)	0.013	1 (20%)	33 (75%)	.005
	Slight	1 (20%)	6 (15%)		1 (20%)	5 (11%)	
	Moderate	-	-		2 (40%)	6 (14%)	
	Severe	-	-		1 (20%)	-	
	Extreme	1 (20%)	-		-	-	

The number are presented as percentage of total of patients alive at the particular point of time.
EQ5D, EuroQoL-5D-5L; NOM, nonoperative management; OM, operative management; W, Week

eTable 6. EQ5D Activities of Daily Life Domain With Levels of Problems per Point of Time

EQ5D Anxiety/depression		Proxy			Caregiver		
		NOM	OM	p	NOM	OM	p
W1	n=	83	84		86	84	
	No	44 (53%)	39 (46%)	0.710	41 (48%)	36 (43%)	.60
	Slight	18 (22%)	24 (29%)		22 (26%)	18 (21%)	
	Moderate	18 (22%)	19 (23%)		12 (14%)	20 (24%)	
	Severe	3 (4%)	2 (2%)		9 (11%)	8 (10%)	
	Extreme	-	-		2 (2%)	2 (2%)	
W2	n=	20	65		20	70	
	No	11 (55%)	36 (55%)	0.988	9 (45%)	26 (37%)	.82
	Slight	4 (20%)	13 (20%)		6 (30%)	21 (30%)	
	Moderate	3 (15%)	9 (14%)		3 (15%)	11 (16%)	
	Severe	1 (5%)	5 (8%)		1 (5%)	10 (14%)	
	Extreme	1 (5%)	2 (3%)		1 (5%)	2 (3%)	
W4	n=	14	58		14	61	
	No	8 (57%)	28 (48%)	0.734	8 (57%)	28 (46%)	.43
	Slight	3 (21%)	16 (28%)		2 (14%)	19 (31%)	
	Moderate	2 (14%)	12 (21%)		4 (29%)	11 (18%)	
	Severe	1 (7%)	1 (2%)		-	3 (5%)	
	Extreme	-	1 (2%)		-	-	
W12	n=	7	47		8	49	
	No	3 (43%)	27 (57%)	0.703	2 (25%)	23 (47%)	.008
	Slight	2 (29%)	13 (28%)		2 (25%)	17 (35%)	
	Moderate	1 (14%)	5 (11%)		2 (25%)	8 (16%)	
	Severe	1 (14%)	2 (4%)		2 (25%)	-	
	Extreme	-	-		-	1 (2%)	
W24	n=	5	41		5	44	
	No	1 (20%)	22 (54%)	0.526	3 (40%)	25 (58%)	.29
	Slight	2 (40%)	10 (24%)		3 (60%)	8 (18%)	
	Moderate	1 (20%)	6 (15%)		-	7 (16%)	
	Severe	1 (20%)	2 (5%)		-	1 (2%)	
	Extreme	-	1 (2%)		-	3 (7%)	

The number are presented as percentage of total of patients alive at the particular point of time.

EQ5D, EuroQoL-5D-5L; NOM, nonoperative management; OM, operative management; W, Week

**eTable 7.** Mobility Outcomes per Study Arm and Point of Time

Nonoperative (N=88)					
	n=	**Bed-bound**	**Bed- chair**	**Few steps***	**Mobile**
Baseline	88	-	15 (17%)	24 (14%)	57 (65%)
W1	88	79 (90%)	8 (9%)	-	1 (1%)
W2	24	12 (50%)	11 (46%)	-	1 (4%)
W4	16	2 (18%)	9 (82%)	-	-
W12	11	2 (18%)	9 (82%)	-	-
W24	8	1 (13%)	7 (88%)	-	-
Operative (N=84)					
	n=	**Bed-bound**	**Bed-chair**	**Few steps***	**Mobile**
Baseline	84	-	10 (12%)	8 (10%)	66 (79%)
W1	84	16 (19%)	50 (60%)	15 (17%)	4 (5%)
W2	73	8 (11%)	44 (60%)	10 (14%)	11 (15%)
W4	70	6 (9%)	39 (56%)	8 (11%)	17 (24%)
W12	57	1 (2%)	31 (54%)	6 (11%)	19 (33%)
W24	48	-	28 (58%)	2 (4%)	18 (38%)

Maximum mobility at last follow-up visit (% of total)			
	Nonoperative (N=88)	**Operative (N=84)**	**p**
Bed-bound	78 (89%)	15 (18%)	<.001
Bed-chair	10 (11%)	45 (54%)	
Few steps*	-	5 (6%)	
Mobile	-	19 (22%)	

Data are presented as number (% of total still alive) or number (% of total)
* Few steps; few steps possible with an action radius of <10 meters
FU, Follow-up; W, Week

eFigure 2. Quality of Life With Regards to the QUALIDEM Scores for the Nine Domains in the Nonoperative and Operative Group
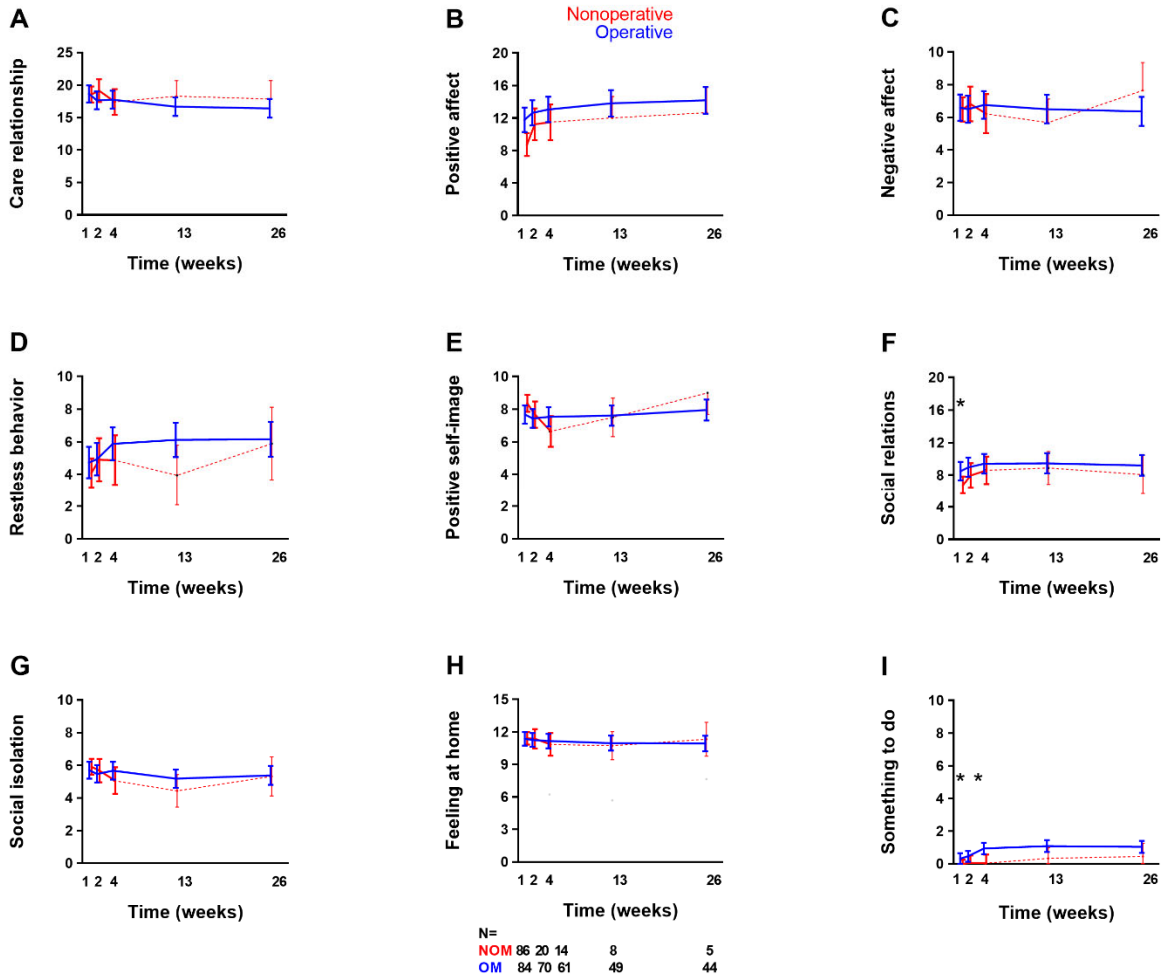
Data are presented as mean (95% CI). The table displays the number of patients featuring with a measurement at the different points of time. The numbers below the figure indicate the number of patients for whom EQ-5D scores could be determined at the different follow up moment. The dotted line represents unadjusted measurements featuring less than 10 patients. Note that there are varying maximum scores per domain.

*statistical difference (p<0.05).

NOM, nonoperative management; OM, operative management

eTable 8. Quality of Life With Regards to the QUALIDEM Scores for the Nine Domains

|	NOM	OM	p	NOM	OM	p	NOM	OM	p
	Care relationship (0-21)			**Positive affect (0-18)**			**Negative affect (0-9)**		
W1	19 (17-20)	19 (17-20)	.22	9 (7-10)	12 (10-13)	0.001	6 (6-7)	7 (6-7)	.94
W2	19 (17- 21)	18 (16-19)		11 (9-13)	13 (11-14)		7 (6-8)	6 (6-7)	
W4	17 (15-19)	18 (16-19)		11 (9-14)	13 (11-15)		6 (5-7)	7 (6-8)	
W12	18 (16-21)	17 (15-18)		12 (9-15)	14 (12-15)		6 (4-7)	6 (6-7)	
W24	18 (15-21)	16-(15-18)		13 (10-16)	14 (13-16)		8 (6-9)	6 (5-7)	
	Restless tense behavior (0-9)			**Positive self-image (0-9**			**Social relations (0-18)**		
W1	4 (3-5)	5 (4-6)	.09	8 (7-8)	8 (8-9)	.45	7 (7-10)	8 (7-10)	.07
W2	5 (4-6)	5 (4-6)		7 (7-8)	8 (7-8)		8 (8-10)	9 (8-10)	
W4	5 (3-6)	6 (5-7)		8 (7-8)	7 (6-8)		9 (8-11)	9 (8-11)	
W12	4 (2-6)	6 (5-7)		8 (7-8)	7 (6-9)		9 (8-11)	9 (8-11)	
W24	6 (4-8)	6 (5-7)		8 (7-9)	9 (8-9)		8 (8-10)	9 (8-10)	
	Social isolation (0-9)			**Feeling at home (0-12)**			**Having something to do (0-6)**		
W1	6 (5-6)	6 (5-6)	.44	11 (11-12)	11 (11-12)	>.99	0 (0-0)	0 (0-1)	<.001
W2	6 (5-6)	5 (5-6)		11 (10-12)	11 (11-12)		0 (0-1)	0 (0-1)	
W4	5 (4-6)	6 (5-6)		11 (10-12)	11 (10-12)		0 (0-1)	1 (1-1)	
W12	4 (3-5)	5 (5-6)		11 (9-12)	11 (10-12)		0 (0-1)	1 (1-1)	
W24	5 (4-7)	5 (5-6)		11 (18-13)	11 (10-12)		0 (0-1)	1 (1-1)	

Data are presented as mean (95% CI) with a p-value for the total effect of the mixed-effects regression model with regards to the effect of NOM and OM. QUALIDEM score: higher scores indicate a better quality of life.
Nonoperative responses per FU stage: W1=86, W2= 20, W4= 14, W12= 8, W24= 5
Operative responses per FU stage: W1=84, W2= 70, W4= 61, W12= 49, W24= 44

NOM, nonoperative management; OM, operative management; W, week; FU, Follow-up

eFigure 3. Level of Pain and Morphine Administration During the Study Period in the Nonoperative and Operative Group
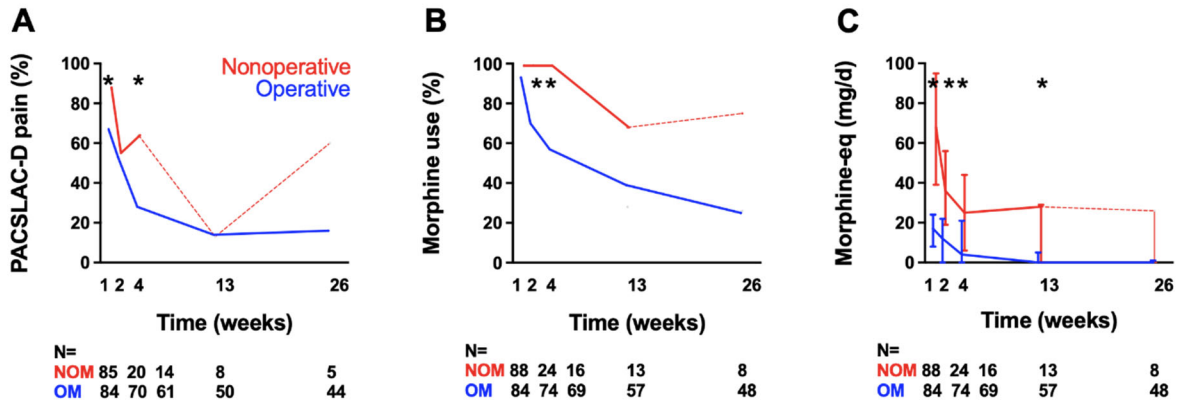
Data are presented as percentages of patients still alive or median (P_{25}-P_{75}). The dotted line represents measurements with less than 10 patients, in which case no statistical calculations were performed. The table displays the number of patients featuring with a measurement at the different points of time.

*statistical difference (p<0.05).

Morphine-eq (mg/d), Oral morphine equivalent of 1 mg per day; NOM, nonoperative management; OM, operative management.

eTable 9. Pain Based on PACSLAC-D Scores per Point of Time

PACSLAC-D	Nonoperative			Operative			P-value	
	n	Median	≥4 (pain)	n	Median	≥4 (pain)	Median	≥4 (pain)
W1	85	6 (4-9)	75 (88%)	84	4.5 (2-8)	56 (67%)	.01	.001
W2	20	4 (1-6)	11 (55%)	70	4 (0-6)	37 (53%)	.76	>.99
W4	14	4 (1-5)	9 (64%)	61	0 (0-5)	17 (28%)	.01	.14
W12	8	0 (0-2)	1 (13%)	50	0 (0-0)	7 (14%)	.46	.70
W24	5	5 (0-7)	3 (60%)	44	0 (0-1)	7 (16%)	.09	.05

Data are presented as median (P_{25}-P_{75}) or as n (%)

eTable 10. Morphine Administration per Point of Time

Morphine use	Nonoperative			Operative			P-value	
	n	n (%)	Daily MG	n	n (%)	Daily MG	n (%)	Daily MG
W1	88	87 (99%)	68 (39-95)	84	78 (93%)	17 (8-24)	.06	<.001
W2	24	23 (99%)	36 (19-56)	74	52 (70%)	12 (0-22)	.01	<.001
W4	16	15 (99%)	25 (6-44)	69	39 (57%)	4 (0-22)	.008	<.001
W12	13	9 (68%)	28 (0-29)	57	22 (39%)	4 (0-21)	.06	.002
W24	8	6 (75%)	26 (0-31)	48	12 (25%)	0 (0-5)	.01	.004
Total	88	88 (100%)	68 (38-95)	84	83 (99%)	6 (1-26)	.49	<.001

Data are presented as median (P$_{25}$-P$_{75}$) or as n (%)

Daily MG, Daily equivalent amount of 1 milligram of oral morphine per day

eTable 11. Cumulative Mortality Rates and Cause of Death

Characteristic		Nonoperative N=88	Operative N=84
Mortality (% of total)	In hospital	4 (4.5%)	3 (4%)
	1 week	44 (50%)	3 (4%)
	2 weeks	66 (75%)	11 (13%)
	30-day	73 (83%)	21 (25%)
	3 months	80 (91%)	34 (40%)
	6 months	83 (94%)	40 (48%)
	Time to death	7 (5-12)	29 (12-62)
Cause of death		**N=83**	**N=40**
	Dehydration /cachexia	59 (71%)	15 (38%)
	Pneumonia	9 (11%)	9 (23%)
	Heart failure	5 (6%)	3 (8%)
	Surgery related	-	4 (10%)
	Urosepsis	2 (2%)	-
	Sepsis	1 (1%)	1 (3%)
	Other	1 (1%)	4 (10%)
	Unknown	7 (8%)	4 (10%)
Palliative sedation		41 (51%)	12 (31%)

Data are presented as number (% of total) or as number (% of death)

eFigure 4. Cox Proportional Hazard Survival Curve
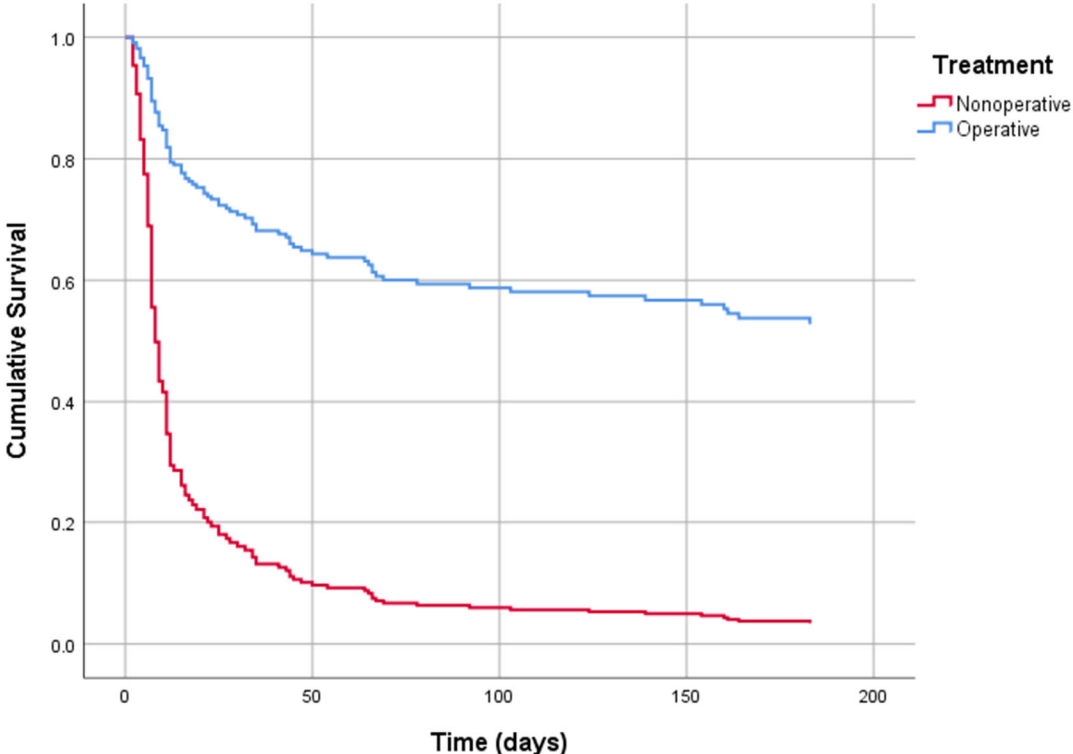
Multivariable analysis of the survival over time in days with the Cox proportional hazard survival curve of patients treated nonoperatively and operatively adjusted for age, sex and ASA-classification.

eTable 12. Multivariable Analysis of Survival Risk

| Characteristic | B | SE | Wald | df | Sig. | Exp(B) | 95% CI for Exp(B) | |
							Lower	Upper
Treatment (operative)	-1.666	0.202	68.260	1	<.001	0.189	0.127	0.281
Sex (female)	-.427	0.216	3.911	1	.05	0.653	0.427	0.996
Age (years)	0.022	0.014	2.392	1	.12	1.022	0.994	1.052
ASA classification	-.076	0.174	0.189	1	.66	0.927	0.659	1.304

ASA, American Society of Anesthesiologists

eTable 13. Treatment Satisfaction and Quality of Dying and Death

Treatment satisfaction (NRS)		N	NOM (N=84)	N	OM (N=84)	P-value
Proxy	Completed FU	5	8 (4-9)	41	8 (8-9)	.23
	Death prior to end of FU	79	8 (8-9)	39	8 (7-8)	.001
Healthcare provider	Completed FU	5	8 (4-9)	37	8 (7-9)	.48
	Death prior to end of FU	79	8 (8-9)	36	7 (5-8)	<.001
QODD	'Terrible-poor'	51	2 (4%)	21	0 (0%)	.34
	'Intermediate'		23 (45%)		13 (62%)	
	'Good-almost perfect'		26 (51%)		8 (38%)	

Data are presented as median (P25-P75) or as n (%)

NRS, Numeric Rating Scale; NOM, nonoperative management; OM, operative management; FU, Follow-up; QODD, Quality of Dying and Death