

**Supplementary Table S1:** Subanalysis: Determinants of utilization of inpatient rehabilitation therapy: results of bivariate and multiple logistic regression analysis including the functional status

	Sub-sample (n = 1973)		
Sociodemographic, clinical & lifestyle characteristics	IRT. Yes / No	Bivariate analysis OR (CI 95%)	Multivariable analysis <sup>1</sup> OR (CI 95%)
Functional status			
Excellent	296 / 284	Ref.	Ref.
Fair	342 / 377	0.87 (0.70-1.08)	0.91 (0.71-1.16)
Poor	292 / 382	<b>0.73 (0.59-0.92)</b>	0.87 (0.66-1.15)
Age at diagnosis (in years)			
< 50	55 / 40	<b>1.62 (1.06-2.48)</b>	1.00 (0.59-1.71)
50-64	256 / 237	<b>1.27 (1.03-1.58)</b>	0.98 (0.72-1.33)
65-79	462 / 545	Ref.	Ref.
≥ 80	157 / 221	0.84 (0.66-1.06)	0.83 (0.64-1.09)
Sex			
Men	541 / 653	Ref.	Ref.
Women	389 / 390	<b>1.20 (1.01-1.44)</b>	1.10 (0.89-1.37)
Employment status <sup>2</sup>			
Retired/ early retired	595 / 749	Ref.	Ref.
Housewife/-husband	86 / 95	1.14 (0.84-1.56)	0.97 (0.68-1.39)
Employed	218 / 143	<b>1.92 (1.51-2.43)</b>	<b>1.75 (1.23-2.49)</b>
Self-employed	18 / 34	0.67 (0.38-1.19)	0.75 (0.40-1.40)
Unemployed	10 / 14	0.90 (0.40-2.04)	0.80 (0.33-1.97)
Living in a partnership			
Yes	656 / 784	Ref.	Ref.
No	271 / 259	<b>1.25 (1.02-1.53)</b>	<b>1.41 (1.13-1.76)</b>
Health insurance			
Statutory	846 / 893	Ref.	Ref.
Private	79 / 143	<b>0.58 (0.44-0.78)</b>	<b>0.54 (0.40-0.74)</b>
Unknown	5 / 7	0.75 (0.24-2.39)	0.49 (0.15-1.60)
Tumor location			
Colon	609 / 652	Ref.	Ref.
Rectum	321 / 391	0.88 (0.73-1.06)	0.88 (0.72-1.07)
Tumor stage, UICC			
I	211 / 232	Ref.	Ref.
II	333 / 311	1.18 (0.92-1.50)	1.22 (0.95-1.58)
III	302 / 320	1.04 (0.81-1.32)	1.07 (0.82-1.38)
IV	84 / 174	<b>0.53 (0.39-0.73)</b>	<b>0.60 (0.41-0.90)</b>
Tumor resection			
Open	815 / 891	Ref.	Ref.
Laparoscopic	108 / 123	0.96 (0.73-1.26)	0.91 (0.67-1.23)
Non	6 / 29	<b>0.23 (0.09-0.55)</b>	<b>0.37 (0.14-0.96)</b>
Palliative treatment			
Yes	76 / 131	Ref.	Ref.
No	853 / 912	<b>1.61(1.20-2.17)</b>	1.21 (0.83-1.77)
CCI scores			
0	518 / 543	Ref.	Ref.
1	207 / 211	1.03 (0.82-1.30)	1.10 (0.86-1.39)
2	103 / 152	<b>0.71 (0.54-0.94)</b>	0.79 (0.59-1.07)
3+	102 / 137	0.78 (0.59-1.04)	0.84 (0.61-1.15)
Surgical volume <sup>3</sup>			
High (150+)	449 / 307	Ref.	Ref.
Medium (70-149)	228 / 329	<b>0.76 (0.62-0.95)</b>	<b>0.78 (0.61-0.98)</b>
Low (<70)	253 / 386	0.96 (0.77-1.19)	1.02 (0.80-1.30)
Prediagnosis physical activity level <sup>4</sup>			
Low	255 / 386	Ref.	Ref.
Medium	328 / 329	<b>1.51 (1.21-1.88)</b>	<b>1.32 (1.05-1.67)</b>
High	335 / 307	<b>1.65 (1.32-2.06)</b>	<b>1.38 (1.08-1.77)</b>

CCi, Charlson comorbidity index score; UICC, International Union against Cancer; IRT, Inpatient rehabilitation therapy;  
Significant Odd ratios (ORs) are printed in bold

<sup>1</sup> Multiple regression model includes 1918 participants (97.2 % of subsample)

<sup>2</sup> Participants with unclear employment status (n=11) were not included in the analysis.

<sup>3</sup> Number of colorectal cancer surgeries per year

<sup>4</sup> Physical activity level was assessed as metabolic equivalents hours per week and categorized by tertiles.

Low: Q1 < 80.6; medium: Q2 = 80.6-140.9, high: Q3 ≥ 141 MET hours /week

Missing values per variable (if applicable): employment status (n = 1), partnership (n = 3), tumor stage (n = 6), tumor resection (n = 1), palliative treatment (n = 1), physical activity (n = 33)