

SUPPLEMENTARY DATA
Supplementary Table 1. Total healthcare resource costs (€) in controlled and uncontrolled carcinoid syndrome (8 months)

Total cost (€)	Controlled CS (n=64)	Uncontrolled CS (n=64)	Difference (n=64)
Surgical interventions	15,793	67,093	51,301
Tumor-related medical interventions	57,725	185,859	128,134
Locoregional	28,716	90,082	61,366
Hepatic artery embolization	28,716	62,839	34,123
Radiofrequency ablation	0	27,243	27,243
Peptide receptor radionuclide therapy	17,363	62,644	45,280
External radiotherapy	11,646	33,133	21,488
Tumor-related examinations	4,367	71,589	67,223
Imaging	35,982	63,918	27,936
Outpatient visits	29,616	38,296	8,681
Inpatient admissions	133,158	135,037	1,879
Prescribed drugs			
SSAs	644,054	779,000	134,946
Interferon	70,441	42,949	-27,492
Chemotherapy	483	2,869	2,386
Targeted therapy	0	0	0
Therapy for diarrhea	1,013	2,106	1,093
Total	992,632	1,388,716	396,084

CS: carcinoid syndrome; SSAs: somatostatin analogues.

Supplementary Table 2. Mean healthcare resource use per patient in controlled and uncontrolled carcinoid syndrome

Mean [95% CI]	Controlled CS (n=64)	Uncontrolled CS (n=64)	Difference (n=64)	p value
Surgical interventions	0.016 [-0.016, 0.047]	0.063 [0.002, 0.123]	0.047 [-0.022, 0.116]	0.380
Tumor-related medical interventions	0.172 [0.050, 0.294]	0.438 [0.211, 0.664]	0.266 [0.076, 0.456]	0.006
Locoregional	0.063 [0.002, 0.123]	0.172 [0.067, 0.277]	0.109 [0.019, 0.200]	0.039
Hepatic artery embolization	0.063 [0.002, 0.123]	0.141 [0.042, 0.239]	0.078 [-0.003, 0.159]	0.130
Radiofrequency ablation	0.000	0.031 [-0.013, 0.075]	0.031 [-0.013, 0.075]	0.500
Peptide receptor radionuclide therapy	0.047 [-0.022, 0.116]	0.172 [-0.004, 0.347]	0.125 [-0.019, 0.269]	0.130
External radiotherapy	0.063 [-0.013, 0.138]	0.094 [-0.038, 0.225]	0.031 [-0.077, 0.140]	1.000
Tumor-related examinations	0.047 [-0.006, 0.100]	0.094 [0.020, 0.167]	0.047 [-0.036, 0.129]	0.450
Imaging	0.172 [0.050, 0.294]	0.234 [0.095, 0.373]	0.063 [-0.097, 0.222]	0.470
Outpatient visits	1.110 [0.850, 1.370]	1.530 [1.050, 2.010]	0.422 [0.019, 0.824]	0.056
Inpatient admissions	0.344 [0.170, 0.517]	0.391 [0.161, 0.620]	0.047 [-0.195, 0.288]	0.960
Prescribed drugs				
SSAs	N/A	N/A	N/A	–
Interferon	N/A	N/A	N/A	–
Chemotherapy	N/A	N/A	N/A	–
Targeted therapy	N/A	N/A	N/A	–
Therapy for diarrhea	N/A	N/A	N/A	–

Prescribed drug resource use is given as N/A (not available), as the Swedish Prescribed Drugs Register does not provide information on the amount or dosage of drugs purchased. CI: confidence interval; CS: carcinoid syndrome; SSAs: somatostatin analogs. All p values were calculated using the Mann-Whitney U test for continuous variables, Fisher's exact test for dichotomous variables, or Chi-square test for non-ordered categorical variables, assuming a two-tailed test of significance, and conducted at the $\alpha=0.05$ significance level.

Supplementary Table 3. Mean healthcare resource use per patient with each resource in controlled and uncontrolled carcinoid syndrome

Mean (Total number of resources/Number of patients with each resource)	Controlled CS (n=64)	Uncontrolled CS (n=64)	Difference
Surgical interventions	1.0 (–) ^a	1.0 (–) ^a	0.0
Tumor-related medical interventions	1.4 (11/8)	1.8 (28/16)	0.4
Locoregional	1.0 (–) ^a	1.1 (11/10)	0.1
Hepatic artery embolization	1.0 (–) ^a	1.1 (9/8)	0.1
Radiofrequency ablation	0.0	1.0 (–) ^a	1.0
Peptide receptor radionuclide therapy	1.5 (–) ^a	2.8 (–) ^a	1.3
External radiotherapy	1.3 (–) ^a	3.0 (–) ^a	1.7
Tumor-related examinations	1.0 (–) ^a	1.0 (6/6)	0.0
Imaging	1.4 (11/8)	1.4 (15/11)	0.0
Scintigraphy	1.0 (5/5)	1.0 (–) ^a	0.0
CT	1.3 (–) ^a	1.6 (11/7)	0.3
Other imaging	1.0 (–) ^a	1.0 (–) ^a	0.0
Outpatient visits	1.7 (71/43)	2.1 (98/47)	0.4
GEP-NET or metastasis as main diagnosis	1.6 (60/37)	2.0 (85/42)	0.4
Carcinoid syndrome as main diagnosis	1.0 (11/11)	1.4 (13/9)	0.4
Inpatient admissions	1.4 (22/16)	1.8 (25/14)	0.4
GEP-NET or metastasis as main diagnosis	1.3 (20/15)	1.8 (24/13)	0.5
Carcinoid syndrome as main diagnosis	2.0 (–) ^a	1.0 (–) ^a	-0.1
Prescribed drugs (number of purchases)			
SSAs	5.2 (330/64)	5.3 (342/64)	0.1
Interferon	5.4 (113/21)	6.1 (79/13)	0.7
Chemotherapy	1.0 (–) ^a	11.0 (–) ^a	10.0
Targeted therapy	0.0	0.0	0.0
Therapy for diarrhea	3.0 (64/21)	4.6 (114/25)	1.6

^aExact numbers not reported to protect patient privacy and confidentiality. CS: carcinoid syndrome; CT: computed tomography; GEP-NET: Gastroenteropancreatic neuroendocrine tumors; SSAs: somatostatin analogs.

Supplementary Table 4. Mean healthcare resource use per patient by carcinoid heart disease status

Mean [95% CI]	-CHD (n=292)	+CHD (n=20)	p value
CHD-related surgical interventions	0.00	0.35 [0.08; 0.62]	<0.001
CHD-related medical interventions			
Drug administration	0.01 [-0.00; 0.02]	0.00	0.655
Electrocardioversion	0.02 [0.00; 0.04]	0.00	0.560
CHD-related examinations	0.24 [0.18; 0.31]	0.55 [0.16; 0.94]	0.047
Imaging	0.44 [0.31; 0.57]	3.15 [1.67; 4.63]	<0.001
Echocardiography	0.20 [0.12; 0.28]	2.25 [1.16; 3.34]	<0.001
CT	0.21 [0.12; 0.29]	0.60 [-0.25; 1.45]	0.162
X-ray	0.02 [0.00; 0.04]	0.10 [-0.11; 0.31]	0.379
Other imaging	0.01 [-0.00; 0.02]	0.20 [0.01; 0.39]	<0.001
Outpatient visits	0.02 [-0.00; 0.04]	0.10 [-0.04; 0.24]	0.002
Inpatient admissions	0.01 [-0.00; 0.02]	0.05 [-0.05; 0.15]	0.129
Prescribed drugs			
SSAs	24.02 [21.8; 26.2]	28.50 [20.9; 36.1]	0.143
Digitalis glycosides	0.30 [0.06; 0.55]	0.20 [-0.04; 0.44]	0.009
Antiarrhythmics (class III)	0.02 [-0.02; 0.07]	0.45 [-0.49; 1.39]	0.012
Diuretics	3.49 [2.47; 4.50]	11.60 [5.19; 18.01]	<0.001
Beta-blocking agents	3.88 [2.84; 4.92]	2.90 [-0.06; 5.86]	0.726
ACE inhibitors	3.18 [2.04; 4.32]	2.20 [-0.14; 4.54]	0.742
Angiotensin II antagonists	2.18 [1.21; 3.15]	2.80 [-0.38; 5.98]	0.389

ACE: angiotensin converting enzyme; CI: confidence interval; CHD: carcinoid heart disease; CT: computed tomography; SSAs: somatostatin analogs. All p values were calculated using the Mann-Whitney U test for continuous variables, Fisher's exact test for dichotomous variables, or Chi-square test for non-ordered categorical variables, assuming a two-tailed test of significance, and conducted at the $\alpha=0.05$ significance level.

Supplementary Table 5. Healthcare resource use by carcinoid heart disease status – total number of resources and number of patients with each resource

Total number of resources (Number of patients with each resource)	-CHD (n=292)	+CHD (n=20)
CHD-related surgical interventions	0	7 (6)
Drug administration	(-) ^a	0
Electrocardioversion	6 (5)	0
CHD-related examinations	71 (54)	11 (7)
Imaging	129 (62)	63 (15)
Echocardiography	59 (33)	45 (14)
CT	60 (29)	(-) ^a
X-ray	7 (6)	(-) ^a
Other imaging	(-) ^a	(-) ^a
Outpatient visits	(-) ^a	(-) ^a
Inpatient admissions	(-) ^a	(-) ^a
SSAs	7,015 (292)	570 (20)
Digitalis glycosides	89 (9)	(-) ^a
Antiarrhythmics (class III)	(-) ^a	(-) ^a
Diuretics	1,018 (111)	232 (17)
Beta-blocking agents	1,133 (109)	58 (7)
ACE inhibitors	929 (84)	44 (7)
Angiotensin II antagonists	637 (51)	56 (5)

^aExact numbers not reported to protect patient privacy and confidentiality. ACE: angiotensin converting enzyme; CHD: carcinoid heart disease; CT: computed tomography; SSAs: somatostatin analogs.