

## **xTitle page**

**Title:** Pain in Long-Term Cancer Survivors: A Cohort Study of Prevalence and Impact

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**Short title:** Pain Prevalence and Impact in Long-Term Cancer Survivors

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**Significance:** Pain in long-term cancer survivors is associated to reductions of quality of life as well as emotional and professional performance. The neuropathic component is often underdiagnosed and/or undertreated. Adopting appropriate neuropathic pain diagnostic tools should be standard clinical practice and targeting the neuropathic component seems a good and underused therapeutic approach to improve cancer survivors' health outcomes.

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## Supplementary Tables

**Table S1: Correlates of EQ-5D Quality of Life Index (multivariable linear Gaussian regression)**

	95% confidence interval			
	Estimate <sup>a</sup>	Lower <sup>a</sup>	Upper <sup>a</sup>	P-value
Intercept	<b>1.14</b>	<b>0.90</b>	<b>1.38</b>	<b>&lt;0.001</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>-0.38</b>	<b>-0.43</b>	<b>-0.32</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>-0.23</b>	<b>-0.29</b>	<b>-0.17</b>	<b>&lt;0.001</b>
Age, change per additional year	0.00	0.00	0.00	0.705
Male gender	0.02	-0.07	0.11	0.654
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	<b>-0.01</b>	<b>-0.01</b>	<b>0.00</b>	<b>0.002</b>
Being married	0.00	-0.04	0.05	0.875
Having paid job	0.06	0.00	0.11	0.063
Having superior studies	0.01	-0.04	0.05	0.802
Smoking or routine alcohol intake	-0.02	-0.07	0.03	0.418
Having any chronic disease	-0.04	-0.09	0.00	0.056
Time since cancer onset, chg. per year	0.00	-0.01	0.00	0.656
Having had breast cancer	-0.02	-0.12	0.07	0.625
Having had advanced cancer	-0.01	-0.07	0.05	0.669
Two surgeries (vs. one or none)	0.02	-0.03	0.06	0.534
Three or more surgeries (vs. one or none)	-0.05	-0.12	0.02	0.171
One or two chemotherapies (vs. none)	0.00	-0.08	0.09	0.951
Three or more chemotherapies (vs. none)	-0.02	-0.12	0.09	0.777
Radiotherapy	<b>-0.06</b>	<b>-0.11</b>	<b>-0.01</b>	<b>0.025</b>
Vinca alkaloids or platinum compounds	0.00	-0.09	0.09	0.986
Taxanes	-0.01	-0.07	0.04	0.629
Anthracyclines	0.03	-0.07	0.14	0.548
Nitrogen mustards	0.03	-0.08	0.14	0.625
Aromatase inhibitors	<b>0.07</b>	<b>0.02</b>	<b>0.12</b>	<b>0.008</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S2: Correlates of EQ-5D Health Status score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>89.44</b>	<b>68.59</b>	<b>110.29</b>	<b>&lt;0.001</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>-14.79</b>	<b>-19.45</b>	<b>-10.14</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>-7.71</b>	<b>-12.74</b>	<b>-2.68</b>	<b>0.003</b>
Age, change per additional year	-0.12	-0.34	0.10	0.303
Male gender	4.78	-3.03	12.59	0.230
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	-0.20	-0.60	0.21	0.341
Being married	2.13	-1.58	5.84	0.261
Having paid job	2.65	-2.38	7.69	0.302
Having superior studies	0.12	-3.93	4.16	0.955
Smoking or routine alcohol intake	-1.01	-5.31	3.30	0.647
Having any chronic disease	<b>-6.96</b>	<b>-10.88</b>	<b>-3.03</b>	<b>0.001</b>
Time since cancer onset, chg. per year	-0.02	-0.38	0.34	0.921
Having had breast cancer	-1.14	-9.35	7.06	0.785
Having had advanced cancer	0.83	-4.24	5.89	0.750
Two surgeries (vs. one or none)	4.15	-0.06	8.36	0.054
Three or more surgeries (vs. one or none)	4.41	-1.65	10.47	0.154
One or two chemotherapies (vs. none)	4.09	-3.36	11.53	0.282
Three or more chemotherapies (vs. none)	1.73	-7.52	10.97	0.715
Radiotherapy	-4.25	-8.65	0.16	0.059
Vinca alkaloids or platinum compounds	-1.51	-8.93	5.91	0.689
Taxanes	-0.06	-4.58	4.47	0.979
Anthracyclines	0.67	-8.44	9.77	0.886
Nitrogen mustards	3.90	-5.55	13.35	0.419
Aromatase inhibitors	2.15	-2.36	6.65	0.350

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S3: Correlates of HADS anxiety score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>10.17</b>	<b>4.27</b>	<b>16.07</b>	<b>0.001</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>3.89</b>	<b>2.56</b>	<b>5.22</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>1.92</b>	<b>0.50</b>	<b>3.33</b>	<b>0.008</b>
Age, change per additional year	<b>-0.07</b>	<b>-0.13</b>	<b>-0.01</b>	<b>0.024</b>
Male gender	0.70	-1.51	2.92	0.535
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	-0.02	-0.13	0.09	0.714
Being married	0.06	-0.99	1.11	0.906
Having paid job	-0.64	-2.06	0.77	0.374
Having superior studies	-0.71	-1.85	0.43	0.223
Smoking or routine alcohol intake	0.24	-0.98	1.46	0.698
Having any chronic disease	-0.23	-1.35	0.89	0.687
Time since cancer onset, chg. per year	<b>0.10</b>	<b>0.00</b>	<b>0.20</b>	<b>0.049</b>
Having had breast cancer	0.12	-2.22	2.46	0.922
Having had advanced cancer	0.45	-0.99	1.89	0.538
Two surgeries (vs. one or none)	<b>-1.49</b>	<b>-2.67</b>	<b>-0.31</b>	<b>0.014</b>
Three or more surgeries (vs. one or none)	-1.60	-3.33	0.12	0.069
One or two chemotherapies (vs. none)	-1.91	-4.02	0.21	0.077
Three or more chemotherapies (vs. none)	-1.86	-4.48	0.75	0.163
Radiotherapy	-0.81	-2.05	0.43	0.202
Vinca alkaloids or platinum compounds	-1.00	-3.11	1.10	0.351
Taxanes	0.20	-1.08	1.48	0.758
Anthracyclines	-0.98	-3.57	1.62	0.460
Nitrogen mustards	2.63	-0.08	5.33	0.057
Aromatase inhibitors	-0.67	-1.93	0.59	0.300

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S4: Correlates of HADS depression score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	−0.52	−5.72	4.68	0.844
Having probable neuropathic pain (DN4≥4)	<b>3.13</b>	<b>1.95</b>	<b>4.30</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>1.76</b>	<b>0.51</b>	<b>3.00</b>	<b>0.006</b>
Age, change per additional year	0.02	−0.04	0.07	0.575
Male gender	0.54	−1.44	2.52	0.593
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	<b>0.12</b>	<b>0.02</b>	<b>0.21</b>	<b>0.023</b>
Being married	<b>−1.02</b>	<b>−1.95</b>	<b>−0.10</b>	<b>0.030</b>
Having paid job	−1.04	−2.29	0.21	0.103
Having superior studies	−0.71	−1.72	0.30	0.168
Smoking or routine alcohol intake	0.41	−0.67	1.49	0.456
Having any chronic disease	0.68	−0.31	1.67	0.180
Time since cancer onset, chg. per year	0.07	−0.02	0.16	0.133
Having had breast cancer	−0.10	−2.17	1.97	0.926
Having had advanced cancer	0.48	−0.79	1.75	0.455
Two surgeries (vs. one or none)	−0.62	−1.66	0.43	0.247
Three or more surgeries (vs. one or none)	−0.39	−1.91	1.13	0.612
One or two chemotherapies (vs. none)	−1.07	−2.93	0.79	0.261
Three or more chemotherapies (vs. none)	−1.34	−3.65	0.97	0.255
Radiotherapy	−0.21	−1.30	0.89	0.714
Vinca alkaloids or platinum compounds	−0.47	−2.33	1.39	0.623
Taxanes	0.95	−0.18	2.08	0.099
Anthracyclines	−0.83	−3.11	1.46	0.478
Nitrogen mustards	1.41	−0.98	3.79	0.248
Aromatase inhibitors	<b>−1.23</b>	<b>−2.34</b>	<b>−0.12</b>	<b>0.030</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S5: Correlates of HADS total score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	9.66	−0.24	19.55	0.056
Having probable neuropathic pain (DN4≥4)	<b>7.01</b>	<b>4.78</b>	<b>9.24</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>3.69</b>	<b>1.32</b>	<b>6.06</b>	<b>0.002</b>
Age, change per additional year	−0.06	−0.16	0.05	0.279
Male gender	0.97	−2.79	4.74	0.611
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	0.10	−0.09	0.29	0.308
Being married	−1.01	−2.77	0.76	0.264
Having paid job	−1.68	−4.05	0.70	0.167
Having superior studies	−1.34	−3.26	0.58	0.172
Smoking or routine alcohol intake	0.69	−1.36	2.74	0.510
Having any chronic disease	0.38	−1.50	2.26	0.691
Time since cancer onset, chg. per year	<b>0.17</b>	<b>0.01</b>	<b>0.34</b>	<b>0.043</b>
Having had breast cancer	−0.11	−4.04	3.83	0.958
Having had advanced cancer	0.96	−1.45	3.38	0.435
Two surgeries (vs. one or none)	<b>−2.08</b>	<b>−4.06</b>	<b>−0.09</b>	<b>0.040</b>
Three or more surgeries (vs. one or none)	−1.96	−4.85	0.94	0.185
One or two chemotherapies (vs. none)	−2.98	−6.52	0.56	0.099
Three or more chemotherapies (vs. none)	−3.28	−7.67	1.11	0.143
Radiotherapy	−0.95	−3.04	1.13	0.370
Vinca alkaloids or platinum compounds	−1.54	−5.08	2.00	0.394
Taxanes	1.19	−0.96	3.34	0.277
Anthracyclines	−1.80	−6.15	2.56	0.418
Nitrogen mustards	4.02	−0.52	8.56	0.083
Aromatase inhibitors	−1.87	−3.99	0.24	0.083

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.



**Table S6: Correlates of PCS total score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	3.59	−8.44	15.63	0.558
Having probable neuropathic pain (DN4≥4)	<b>13.07</b>	<b>10.32</b>	<b>15.81</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>5.18</b>	<b>2.30</b>	<b>8.07</b>	<b>&lt;0.001</b>
Age, change per additional year	−0.05	−0.18	0.07	0.422
Male gender	2.78	−1.85	7.41	0.239
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	0.08	−0.15	0.31	0.503
Being married	−0.79	−2.95	1.38	0.476
Having paid job	−1.72	−4.63	1.18	0.245
Having superior studies	−2.15	−4.50	0.21	0.074
Smoking or routine alcohol intake	−0.47	−2.95	2.00	0.708
Having any chronic disease	<b>2.76</b>	<b>0.46</b>	<b>5.07</b>	<b>0.019</b>
Time since cancer onset, chg. per year	−0.05	−0.26	0.16	0.621
Having had breast cancer	3.17	−1.68	8.02	0.200
Having had advanced cancer	1.01	−1.93	3.95	0.499
Two surgeries (vs. one or none)	<b>−2.90</b>	<b>−5.34</b>	<b>−0.47</b>	<b>0.019</b>
Three or more surgeries (vs. one or none)	<b>−3.84</b>	<b>−7.40</b>	<b>−0.29</b>	<b>0.034</b>
One or two chemotherapies (vs. none)	0.42	−3.93	4.76	0.851
Three or more chemotherapies (vs. none)	2.59	−2.77	7.96	0.343
Radiotherapy	−0.67	−3.21	1.87	0.604
Vinca alkaloids or platinum compounds	−0.78	−5.14	3.59	0.728
Taxanes	0.16	−2.44	2.77	0.903
Anthracyclines	0.37	−4.90	5.65	0.889
Nitrogen mustards	−0.07	−5.56	5.42	0.979
Aromatase inhibitors	<b>−3.62</b>	<b>−6.21</b>	<b>−1.04</b>	<b>0.006</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S7: Correlates of WPAI-GH paid employment (multivariable logistic regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>14.67</b>	<b>8.55</b>	<b>20.80</b>	<b>&lt;0.001</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>-1.47</b>	<b>-2.66</b>	<b>-0.27</b>	<b>0.016</b>
Having probable nociceptive pain (DN4<4)	0.13	-1.10	1.36	0.839
Age, change per additional year	<b>-0.25</b>	<b>-0.33</b>	<b>-0.17</b>	<b>&lt;0.001</b>
Male gender	2.47	-0.41	5.35	0.093
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	-0.02	-0.12	0.08	0.746
Being married	<b>-0.94</b>	<b>-1.84</b>	<b>-0.03</b>	<b>0.043</b>
Having paid job	-0.04	-1.09	1.01	0.947
Having superior studies	0.06	-0.89	1.00	0.907
Smoking or routine alcohol intake	-0.15	-1.10	0.80	0.756
Having any chronic disease	-0.04	-0.14	0.06	0.429
Time since cancer onset, chg. per year	0.77	-2.20	3.73	0.612
Having had breast cancer	-0.05	-1.25	1.15	0.933
Having had advanced cancer	0.97	-0.07	2.01	0.068
Two surgeries (vs. one or none)	1.08	-0.51	2.67	0.183
Three or more surgeries (vs. one or none)	0.22	-1.67	2.11	0.821
One or two chemotherapies (vs. none)	-0.12	-2.41	2.17	0.918
Three or more chemotherapies (vs. none)	-0.40	-1.51	0.72	0.484
Radiotherapy	-0.80	-3.06	1.47	0.491
Vinca alkaloids or platinum compounds	-0.14	-1.22	0.94	0.797
Taxanes	-1.74	-3.88	0.40	0.110
Anthracyclines	<b>2.24</b>	<b>0.12</b>	<b>4.35</b>	<b>0.039</b>
Nitrogen mustards	-0.75	-1.79	0.30	0.163
Aromatase inhibitors	<b>14.67</b>	<b>8.55</b>	<b>20.80</b>	<b>&lt;0.001</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> A logit link was used in this binary model; thus, the estimates are log odds ratios.

**Table S8: Correlates of WPAI-GH presenteeism score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>85.70</b>	<b>29.26</b>	<b>142.15</b>	<b>0.003</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	1.16	-11.11	13.42	0.853
Having probable nociceptive pain (DN4<4)	3.66	-9.42	16.74	0.584
Age, change per additional year	<b>-1.03</b>	<b>-1.76</b>	<b>-0.29</b>	<b>0.006</b>
Male gender	-29.57	-62.02	2.87	0.074
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	0.68	-0.43	1.78	0.232
Being married	<b>-10.12</b>	<b>-19.52</b>	<b>-0.73</b>	<b>0.035</b>
Having paid job	<b>-14.48</b>	<b>-27.42</b>	<b>-1.54</b>	<b>0.028</b>
Having superior studies	-7.16	-17.67	3.35	0.182
Smoking or routine alcohol intake	<b>-9.76</b>	<b>-18.64</b>	<b>-0.88</b>	<b>0.031</b>
Having any chronic disease	0.38	-0.90	1.65	0.562
Time since cancer onset, chg. per year	-29.39	-63.00	4.22	0.087
Having had breast cancer	2.04	-10.42	14.51	0.748
Having had advanced cancer	-1.68	-13.64	10.28	0.783
Two surgeries (vs. one or none)	7.35	-8.66	23.37	0.368
Three or more surgeries (vs. one or none)	11.12	-12.65	34.90	0.359
One or two chemotherapies (vs. none)	27.29	-1.64	56.21	0.064
Three or more chemotherapies (vs. none)	8.55	-5.24	22.34	0.224
Radiotherapy	<b>-30.58</b>	<b>-57.76</b>	<b>-3.40</b>	<b>0.027</b>
Vinca alkaloids or platinum compounds	-5.49	-19.10	8.11	0.429
Taxanes	-15.26	-34.25	3.73	0.115
Anthracyclines	0.66	-22.43	23.75	0.955
Nitrogen mustards	-11.09	-22.80	0.61	0.063
Aromatase inhibitors	<b>85.70</b>	<b>29.26</b>	<b>142.15</b>	<b>0.003</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S9: Correlates of WPAI-GH disability score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>-43.31</b>	<b>-72.24</b>	<b>-14.38</b>	<b>0.003</b>
Having probable neuropathic pain (DN4 $\geq$ 4)	6.70	-0.57	13.97	0.071
Having probable nociceptive pain (DN4<4)	<b>10.41</b>	<b>2.63</b>	<b>18.20</b>	<b>0.009</b>
Age, change per additional year	<b>0.43</b>	<b>0.13</b>	<b>0.73</b>	<b>0.004</b>
Male gender	-0.60	-12.77	11.56	0.923
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	<b>1.00</b>	<b>0.38</b>	<b>1.63</b>	<b>0.002</b>
Being married	-1.58	-7.31	4.14	0.588
Having paid job	0.25	-6.04	6.53	0.939
Having superior studies	-2.17	-8.90	4.57	0.528
Smoking or routine alcohol intake	0.50	-5.68	6.67	0.875
Having any chronic disease	-0.35	-0.90	0.20	0.210
Time since cancer onset, chg. per year	1.98	-10.86	14.83	0.762
Having had breast cancer	6.28	-1.67	14.23	0.121
Having had advanced cancer	-4.15	-10.66	2.37	0.212
Two surgeries (vs. one or none)	-6.40	-15.91	3.11	0.187
Three or more surgeries (vs. one or none)	<b>16.78</b>	<b>5.12</b>	<b>28.44</b>	<b>0.005</b>
One or two chemotherapies (vs. none)	<b>17.92</b>	<b>3.49</b>	<b>32.35</b>	<b>0.015</b>
Three or more chemotherapies (vs. none)	0.40	-6.45	7.25	0.909
Radiotherapy	-0.60	-12.24	11.03	0.919
Vinca alkaloids or platinum compounds	-2.57	-9.61	4.47	0.474
Taxanes	3.44	-10.83	17.72	0.636
Anthracyclines	-12.97	-27.84	1.90	0.087
Nitrogen mustards	2.27	-4.59	9.13	0.517
Aromatase inhibitors	<b>-43.31</b>	<b>-72.24</b>	<b>-14.38</b>	<b>0.003</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S10: Correlates of WPAI-Pain paid employment (multivariable logistic regression)**

	95% confidence interval			P-value
	Estimate <sup>a</sup>	Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	<b>11.47</b>	<b>6.20</b>	<b>16.73</b>	<b>&lt;0.001</b>
Having probable neuropathic pain (DN4≥4)	-0.85	-1.89	0.20	0.112
Having probable nociceptive pain (DN4<4)	-0.29	-1.45	0.87	0.623
Age, change per additional year	<b>-0.21</b>	<b>-0.27</b>	<b>-0.14</b>	<b>&lt;0.001</b>
Male gender	<b>2.74</b>	<b>0.03</b>	<b>5.45</b>	<b>0.048</b>
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	-0.04	-0.13	0.05	0.411
Being married	<b>-1.07</b>	<b>-1.91</b>	<b>-0.22</b>	<b>0.013</b>
Having paid job	0.13	-0.83	1.09	0.794
Having superior studies	-0.18	-1.05	0.69	0.689
Smoking or routine alcohol intake	-0.13	-1.01	0.75	0.775
Having any chronic disease	-0.05	-0.14	0.05	0.319
Time since cancer onset, chg. per year	2.49	-0.24	5.23	0.074
Having had breast cancer	0.11	-0.97	1.19	0.846
Having had advanced cancer	0.59	-0.34	1.52	0.212
Two surgeries (vs. one or none)	0.35	-1.07	1.77	0.628
Three or more surgeries (vs. one or none)	1.01	-0.73	2.75	0.256
One or two chemotherapies (vs. none)	0.54	-1.57	2.64	0.616
Three or more chemotherapies (vs. none)	-0.26	-1.29	0.77	0.618
Radiotherapy	0.12	-1.92	2.16	0.905
Vinca alkaloids or platinum compounds	-0.58	-1.57	0.41	0.254
Taxanes	-1.50	-3.54	0.54	0.150
Anthracyclines	1.53	-0.44	3.49	0.128
Nitrogen mustards	-0.60	-1.54	0.34	0.210
Aromatase inhibitors	<b>11.47</b>	<b>6.20</b>	<b>16.73</b>	<b>&lt;0.001</b>

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> A logit link was used in this binary model; thus, the estimates are log odds ratios.

**Table S11: Correlates of WPAI-Pain disability score (multivariable linear Gaussian regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	-26.39	-53.19	0.40	0.054
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>46.06</b>	<b>39.36</b>	<b>52.76</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>31.40</b>	<b>24.23</b>	<b>38.58</b>	<b>&lt;0.001</b>
Age, change per additional year	0.16	-0.11	0.43	0.255
Male gender	-9.09	-20.40	2.22	0.115
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	0.40	-0.17	0.97	0.171
Being married	1.47	-3.80	6.74	0.585
Having paid job	-1.64	-7.44	4.16	0.580
Having superior studies	1.76	-4.45	7.96	0.579
Smoking or routine alcohol intake	1.95	-3.75	7.65	0.503
Having any chronic disease	0.28	-0.23	0.79	0.277
Time since cancer onset, chg. per year	0.93	-10.90	12.77	0.877
Having had breast cancer	3.96	-3.41	11.33	0.293
Having had advanced cancer	-3.99	-9.99	2.01	0.192
Two surgeries (vs. one or none)	-5.43	-14.20	3.34	0.225
Three or more surgeries (vs. one or none)	5.97	-4.78	16.71	0.276
One or two chemotherapies (vs. none)	9.44	-3.85	22.73	0.164
Three or more chemotherapies (vs. none)	1.97	-4.36	8.30	0.542
Radiotherapy	-0.17	-10.92	10.58	0.975
Vinca alkaloids or platinum compounds	3.46	-3.05	9.97	0.297
Taxanes	-5.67	-18.83	7.48	0.398
Anthracyclines	-1.97	-15.67	11.73	0.778
Nitrogen mustards	-4.45	-10.77	1.87	0.168
Aromatase inhibitors	-26.39	-53.19	0.40	0.054

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> An identity link was used in this binary model; thus, the estimates are in the response scale.

**Table S12: Correlates of Insomnia (multivariable logistic regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	-0.05	-3.24	3.15	0.976
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>1.44</b>	<b>0.70</b>	<b>2.17</b>	<b>&lt;0.001</b>
Having probable nociceptive pain (DN4<4)	<b>0.82</b>	<b>0.07</b>	<b>1.56</b>	<b>0.032</b>
Age, change per additional year	-0.02	-0.05	0.02	0.303
Male gender	0.07	-1.17	1.31	0.912
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	-0.02	-0.09	0.04	0.450
Being married	0.34	-0.23	0.91	0.239
Having paid job	0.22	-0.55	1.00	0.576
Having superior studies	-0.05	-0.67	0.57	0.875
Smoking or routine alcohol intake	0.02	-0.64	0.68	0.945
Having any chronic disease	0.35	-0.26	0.95	0.263
Time since cancer onset, chg. per year	0.04	-0.02	0.10	0.156
Having had breast cancer	0.30	-0.97	1.58	0.641
Having had advanced cancer	-0.25	-1.05	0.56	0.550
Two surgeries (vs. one or none)	-0.40	-1.04	0.25	0.229
Three or more surgeries (vs. one or none)	-0.36	-1.33	0.61	0.463
One or two chemotherapies (vs. none)	0.93	-0.22	2.08	0.112
Three or more chemotherapies (vs. none)	0.96	-0.47	2.39	0.190
Radiotherapy	-0.09	-0.77	0.58	0.784
Vinca alkaloids or platinum compounds	-0.80	-1.96	0.35	0.174
Taxanes	0.04	-0.67	0.75	0.919
Anthracyclines	-0.58	-2.00	0.84	0.422
Nitrogen mustards	-0.03	-1.52	1.46	0.971
Aromatase inhibitors	0.35	-0.34	1.04	0.318

Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> A logit link was used in this binary model; thus, the estimates are log odds ratios.

**Table S13: Correlates of Fatigue (multivariable logistic regression)**

	Estimate <sup>a</sup>	95% confidence interval		P-value
		Lower <sup>a</sup>	Upper <sup>a</sup>	
Intercept	-1.85	-5.13	1.43	0.269
Having probable neuropathic pain (DN4 $\geq$ 4)	<b>1.05</b>	<b>0.32</b>	<b>1.79</b>	<b>0.005</b>
Having probable nociceptive pain (DN4<4)	0.36	-0.41	1.12	0.359
Age, change per additional year	0.00	-0.03	0.04	0.845
Male gender	-0.64	-1.85	0.56	0.297
BMI, change per 1-unit (kg/m <sup>2</sup> ) increase	0.04	-0.02	0.10	0.210
Being married	-0.41	-0.99	0.17	0.163
Having paid job	0.28	-0.50	1.06	0.489
Having superior studies	0.35	-0.27	0.98	0.269
Smoking or routine alcohol intake	-0.08	-0.76	0.60	0.810
Having any chronic disease	<b>0.64</b>	<b>0.02</b>	<b>1.25</b>	<b>0.042</b>
Time since cancer onset, chg. per year	-0.04	-0.10	0.02	0.202
Having had breast cancer	-0.73	-2.04	0.59	0.280
Having had advanced cancer	-0.28	-1.06	0.50	0.485
Two surgeries (vs. one or none)	-0.25	-0.90	0.41	0.461
Three or more surgeries (vs. one or none)	0.11	-0.85	1.07	0.818
One or two chemotherapies (vs. none)	0.78	-0.41	1.96	0.200
Three or more chemotherapies (vs. none)	<b>1.54</b>	<b>0.07</b>	<b>3.00</b>	<b>0.040</b>
Radiotherapy	0.62	-0.08	1.32	0.083
Vinca alkaloids or platinum compounds	-0.53	-1.70	0.64	0.372
Taxanes	-0.06	-0.76	0.64	0.861
Anthracyclines	<b>-1.81</b>	<b>-3.27</b>	<b>-0.35</b>	<b>0.015</b>
Nitrogen mustards	0.43	-1.08	1.94	0.574
Aromatase inhibitors	0.40	-0.29	1.08	0.257

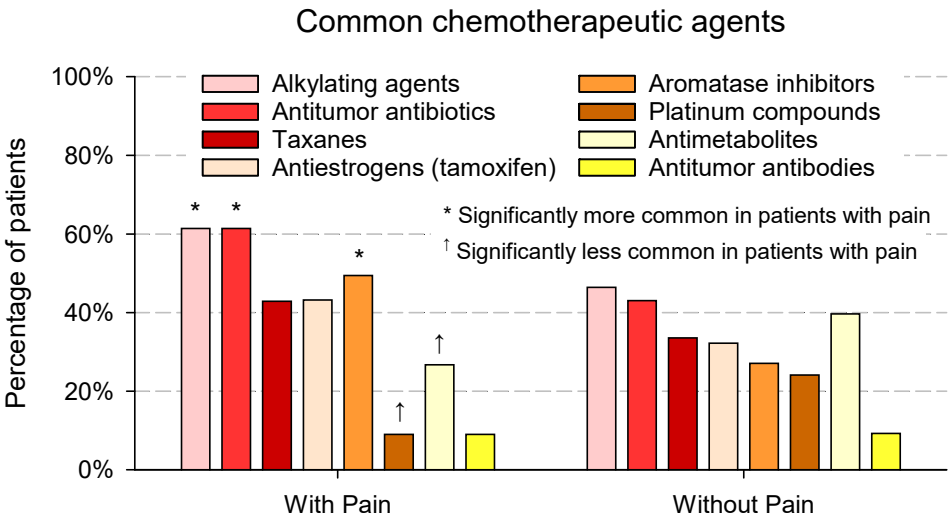
Abbreviations: BMI: body mass index, chg.: change, kg: kilogram, m: metre.

<sup>a</sup> A logit link was used in this binary model; thus, the estimates are log odds ratios.

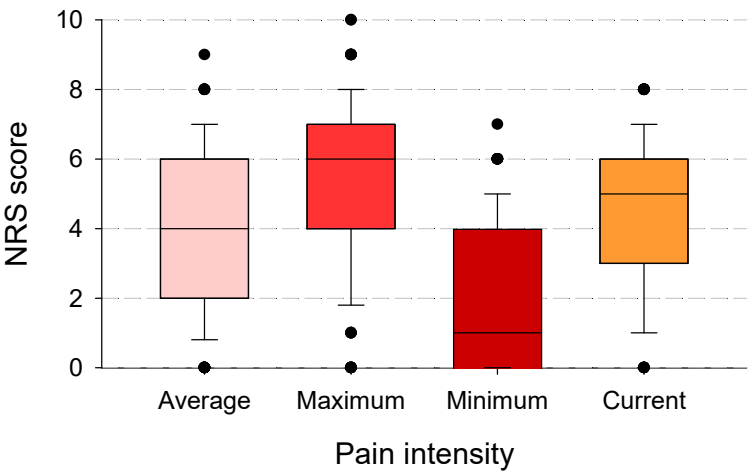


Supplementary Figures

Figure S1: Frequencies of common chemotherapeutic agents by study cohort

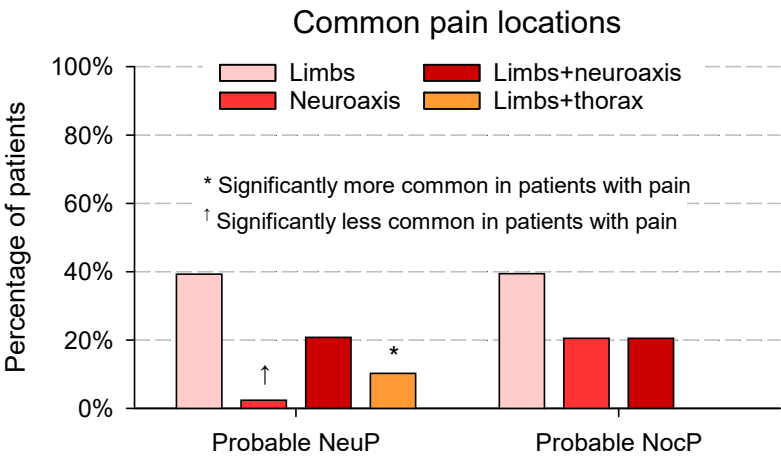


**Figure S2: Brief Pain Inventory (BPI) scores’ distribution by intensity category**

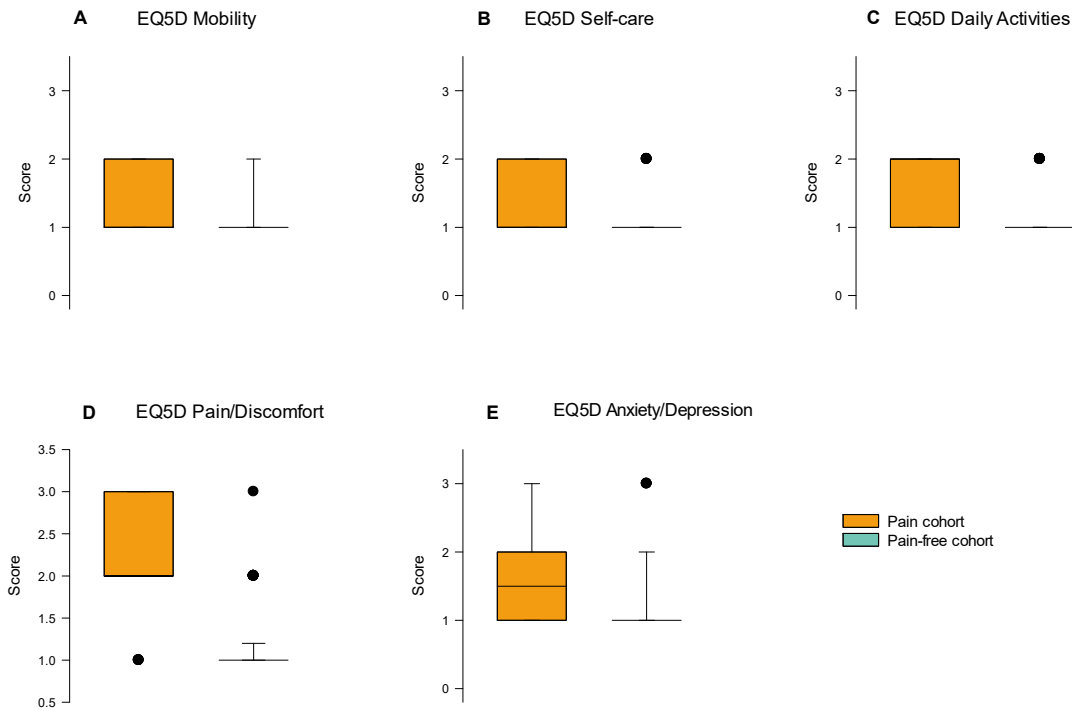


BPI: Brief Pain Inventory. Maximum, Minimum, Average, and “Right Now” intensities refer, respectively, to BPI’s questions 3, 4, 5, and 6.

**Figure S3: Frequencies of pain locations by pain type**



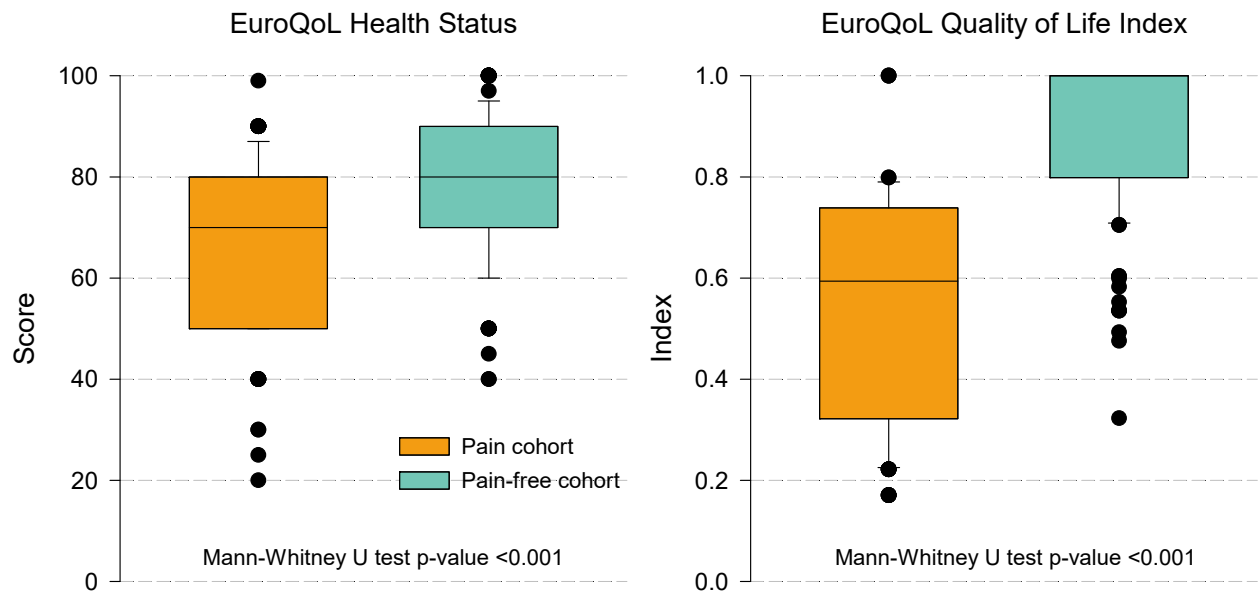
**Figure S4: EuroQoL 5 Dimensions**



EuroQoL 5 Dimensions instrument. A) Mobility dimension; B) Self-care dimension; C) Daily activities dimension; D) Pain/Discomfort dimension; E) Anxiety/Depression dimension.

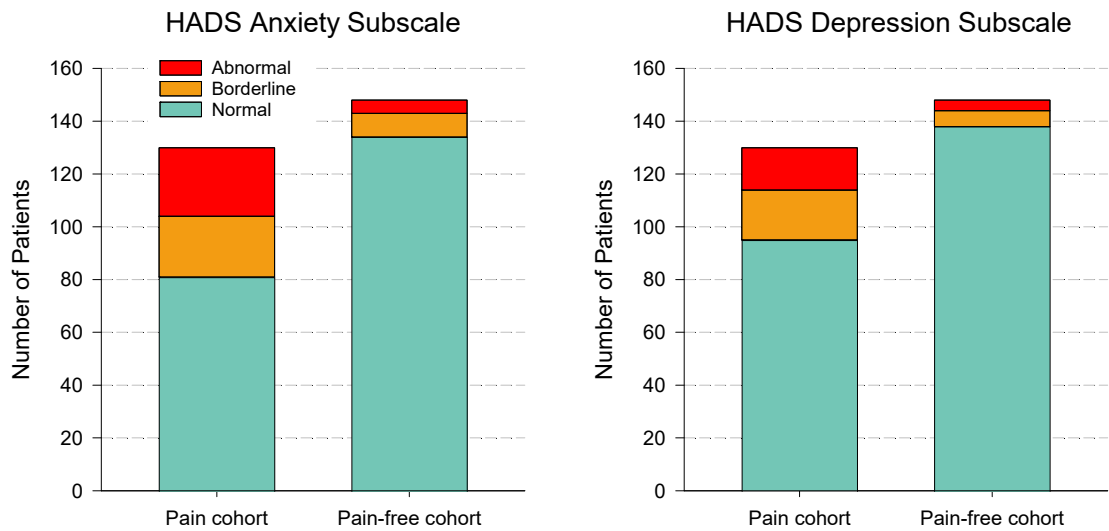
**Figure S5: EQ5D Health Status Visual Analogue Scale and EQ5D Pain/Discomfort**

**Domain**



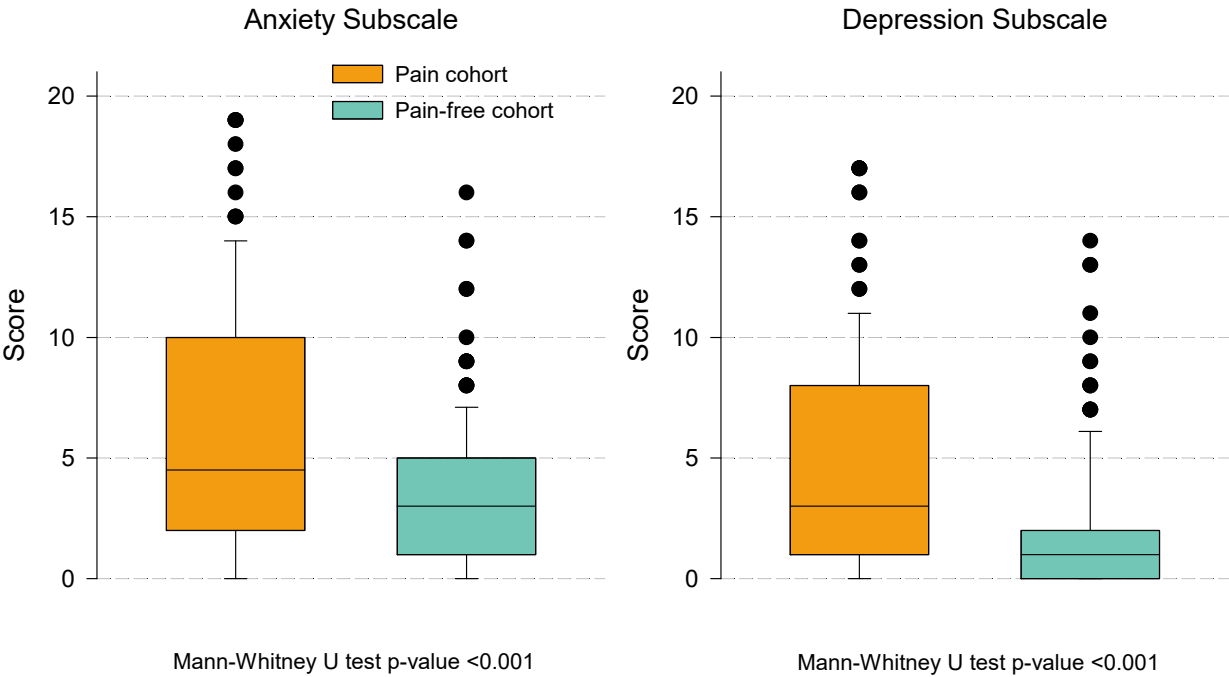
EuroQoL 5 Dimensions instrument. Health Status is scored from zero (worst health status possible) to 100 (best health status possible) and consists of a visual analogue scale. The Quality-of-Life Index is based on individual preferences and the index of preference values for each health state are obtained from general population or patient groups' studies. The Quality-of-Life Index oscillates from one (best health state) to zero (death), although there are negative values that correspond to those health states valued as worse than death.

**Figure S6: Number of Patients per category in each HADS subscale**



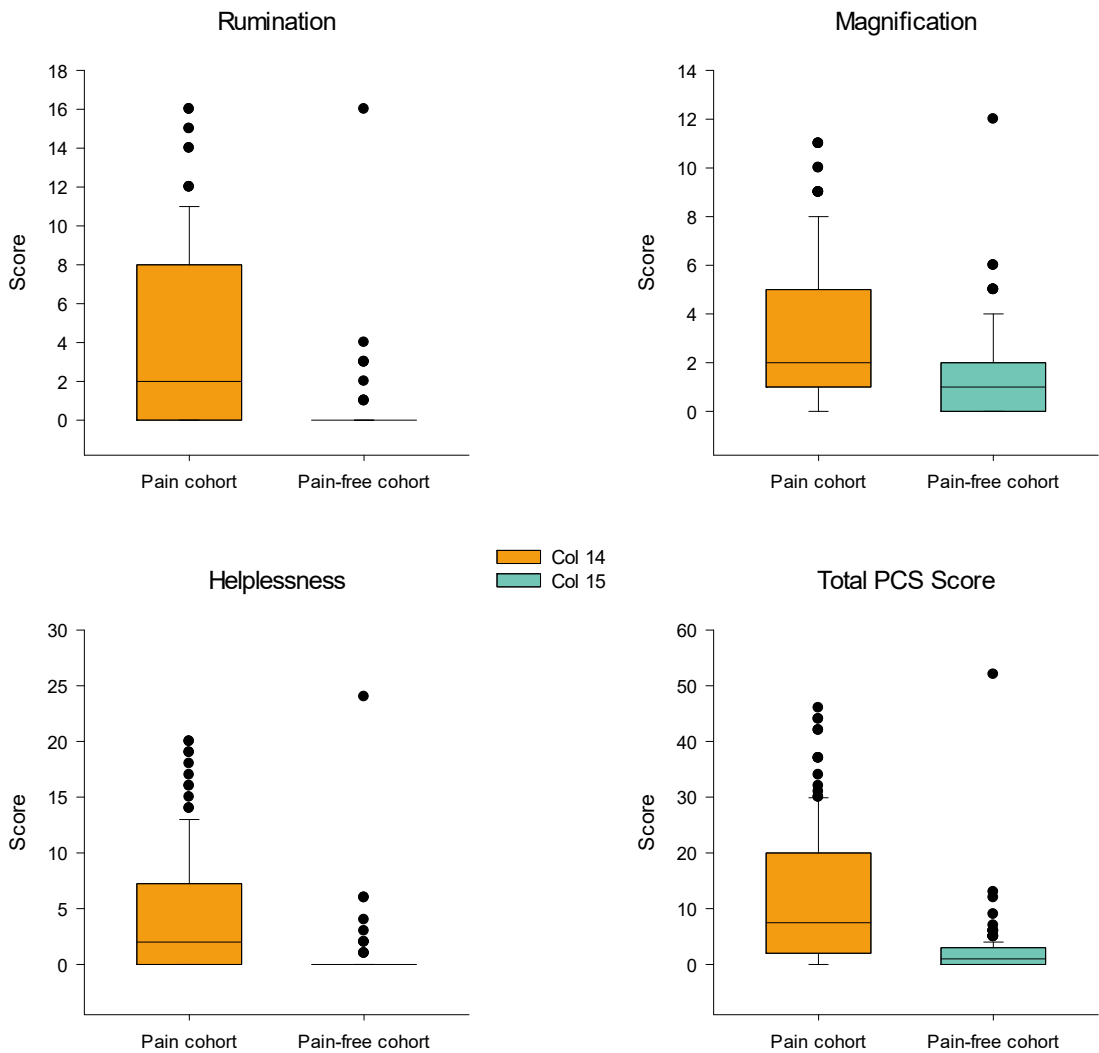
HADS: Hospital Anxiety and Depression Scale. Scores from 0 – 7 are considered normal; scores from 8 – 10 are considered borderline; scores from 11 – 21 are considered abnormal.

**Figure S7: Hospital Anxiety and Depression Scale (HADS) Scores**



HADS: Hospital Anxiety and Depression Scale.

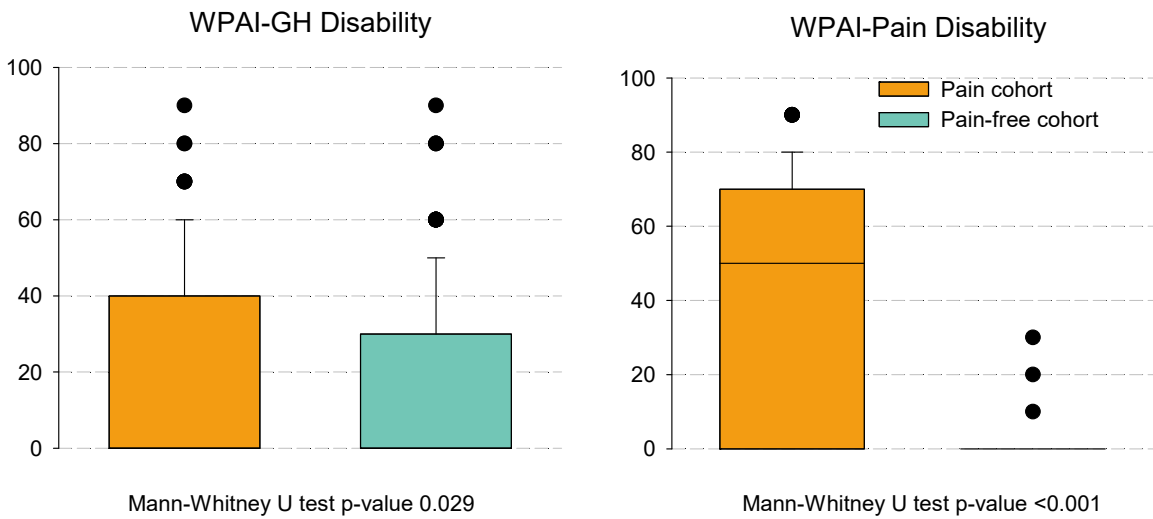
Figure S8: Components and total PCS scores



PCS: Pain Catastrophising Scale



**Figure S9: Absenteeism and Disability measured with the Work Productivity and Activity Impairment (WPAI) Questionnaire**



WPAI – GH: Work Productivity and Activity Impairment (WPAI) General Health Questionnaire; WPAI - Pain: WPAI Pain Questionnaire.