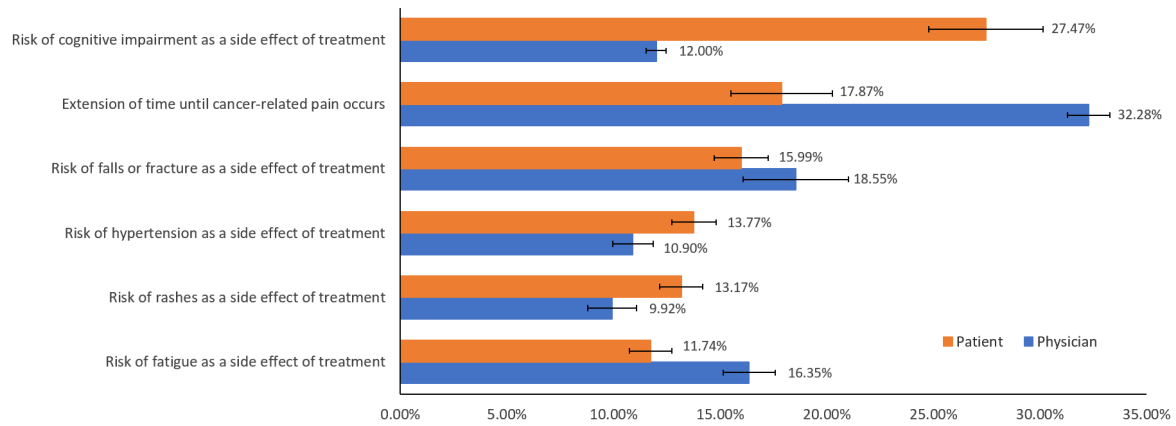


## Supplementary material

### Supplementary figure 1 Relative importance of treatment attributes: patients vs. physicians.



**Supplementary table 1** Patient-reported demographics and other baseline characteristics.

		<b>Total (N = 137)</b>	
		<b>N</b>	<b>%</b>
Age [year] Category	<60	5	3.65%
	60-<70	20	14.60%
	70-<80	65	47.45%
	80-<90	43	31.39%
	≥90	3	2.19%
Marital status	Single	6	4.38%
	Married	115	83.94%
	Divorced	2	1.46%
	Separated	1	0.73%
	Widowed	10	7.30%
	Living with partner	2	1.46%
Level of education	Elementary school	0	0.00%
	Junior high school	23	16.79%
	High school	50	36.50%
	2-year college	4	2.92%
	4-year college	54	39.42%
	Graduate school	4	2.92%
	Decline to answer	1	0.73%
Employment status	Employed full-time	18	13.14%
	Self-employed	17	12.41%
	Part-time employed	6	4.38%
	Retired	62	45.26%
	Long-term disability	0	0.00%
	Short-term disability	0	0.00%
	Not employed (other than retired)	33	24.09%
Region of residence	Chubu	1	0.73%
	Kanto	105	76.64%
	Kyushu (including Okinawa)	30	21.90%
Household income	Less than ¥2,500,000	28	20.44%
	2,500,000 to ¥4,999,999	57	41.61%
	¥5,000,000 to ¥7,499,999	14	10.22%
	¥7,500,000 to ¥9,999,999	6	4.38%
	¥10,000,000 to ¥12,499,999	3	2.19%
	¥12,500,000 to ¥14,999,999	3	2.19%
	¥15,000,000 or more	2	1.46%
	Decline to answer	23	16.79%
Type of medical insurance	National health insurance	40	29.20%
	Late stage elderly insurance	76	55.47%
	Company/Social insurance	18	13.14%
	Welfare recipient	2	1.46%
	None of the above (all costs paid by myself/my family)	0	0.00%
Currently cared by a primary caregiver for prostate cancer	Yes	7	5.11%
	No	129	94.16%
Primary caregiver relationship	Wife	4	57.14%
	Child	1	14.29%

	Grandchild	0	0.00%
	Sibling	0	0.00%
	Other relative (parent, niece/nephew)	0	0.00%
	Hired professional caregiver	2	28.57%
	Other non-relative	0	0.00%
Physician-diagnosed comorbid condition	Cardiovascular disease	19	13.87%
	Chronic pulmonary disease	3	2.19%
	Rheumatologic disease	1	0.73%
	Peptic ulcer disease	16	11.68%
	Mild liver disease	13	9.49%
	Diabetes without chronic complications	16	11.68%
	Diabetes with chronic complications	5	3.65%
	Hemiplegia or paraplegia	1	0.73%
	Renal disease	4	2.92%
	Any malignancy, including leukemia and lymphoma	1	0.73%
	Moderate or severe liver disease	1	0.73%
	Other metastatic solid tumor currently being treated (other than that of the prostate)	1	0.73%
	AIDS/HIV	0	0.00%
	Hypertension	58	42.34%
	Prior malignancy, now in remission (malignancy other than that of the prostate)	10	7.30%
	None of the above	51	37.23%
		<b>Mean</b>	
Age		75.8	7.5

**Supplementary table 2** List of attributes and levels in DCE

Attributes	Levels
i. Risk of fatigue as a side-effect of treatment	<ul style="list-style-type: none"><li>• 15%</li><li>• 25%</li><li>• 35%</li></ul>
ii. Risk of falls or fractures as a side-effect of treatment	<ul style="list-style-type: none"><li>• 3%</li><li>• 10%</li><li>• 20%</li></ul>
iii. Risk of cognitive impairment as a side-effect of treatment	<ul style="list-style-type: none"><li>• 0%</li><li>• 5%</li><li>• 10%</li></ul>
iv. Risk of hypertension as a side-effect of treatment	<ul style="list-style-type: none"><li>• 5%</li><li>• 15%</li><li>• 25%</li></ul>
v. Extension of time until cancer-related pain occurs	<ul style="list-style-type: none"><li>• 15 months</li><li>• 35 months</li><li>• 45 months</li></ul>
vi. Risk of rashes as a side-effect of treatment	<ul style="list-style-type: none"><li>• 5%</li><li>• 15%</li><li>• 25%</li></ul>

**Supplementary table 3** Attribute-level preference weights: overall sample (N=137)

Attribute	Levels	Mean preference weight	SE	95% CI	p-value
Risk of fatigue as a side-effect of treatment	15%	0.633	0.035	0.564, 0.703	<0.001
	25%	0.034	0.013	0.009, 0.059	0.009
	35%	-0.667	0.043	-0.752, -0.582	<0.001
Risk of falls or fracture as a side-effect of treatment	3%	0.802	0.057	0.691, 0.913	<0.001
	10%	0.136	0.013	0.110, 0.161	<0.001
	20%	-0.938	0.054	-1.044, -0.831	<0.001
Risk of cognitive impairment as a side-effect of treatment	0%	1.385	0.058	1.271, 1.498	<0.001
	5%	0.035	0.012	0.012, 0.059	0.005
	10%	-1.420	0.056	-1.530, -1.310	<0.001
Risk of hypertension as a side-effect of treatment	5%	0.642	0.024	0.595, 0.689	<0.001
	15%	0.210	0.018	0.173, 0.246	<0.001
	25%	-0.852	0.037	-0.925, -0.779	<0.001
Extension of time until cancer-related pain occurs	15 months	-0.933	0.068	-1.066, -0.799	<0.001
	35 months	0.281	0.015	0.252, 0.309	<0.001
	45 months	0.652	0.064	0.526, 0.778	<0.001
Risk of rashes as a side-effect of treatment	5%	0.705	0.050	0.606, 0.803	<0.001
	15%	-0.056	0.016	-0.088, -0.024	<0.001
	25%	-0.648	0.051	-0.749, -0.548	<0.001

Supplementary table 4 Differences in preference weights across demographic and health history factors

	N	Risk of fatigue as a side-effect of treatment			Risk of falls or fracture as a side-effect of treatment			Risk of cognitive impairment as a side-effect of treatment			Risk of hypertension as a side-effect of treatment			Extension of time until cancer-related pain occurs			Risk of rashes as a side-effect of treatment			
		15%	25%	35%	3%	10%	20%	0%	5%	10%	5%	15%	25%	15 months	35 months	45 months	5%	15%	25%	
Age group	<60	5	0.468	0.045	-0.513	0.429	0.123	-0.552	1.453	-0.083	-1.370	0.545	0.124	-0.669	-1.220	0.251	0.969	0.409	-0.093	-0.316
	60-<70	20	0.617	0.024	-0.641	0.755	0.170	-0.925	1.465	0.007	-1.472	0.646	0.174	-0.820	-1.015	0.274	0.741	0.728	-0.078	-0.651
	70-<80	65	0.620	0.021	-0.641	0.789	0.138	-0.927	1.362	0.055	-1.417	0.657	0.183	-0.840	-0.999	0.283	0.716	0.736	-0.037	-0.700
	≥80	46	0.691	0.059	-0.750	0.897	0.116	-1.013	1.353	0.031	-1.384	0.635	0.273	-0.908	-0.775	0.283	0.492	0.690	-0.074	-0.616
	p-value		0.621	0.602	0.595	0.455	0.621	0.479	0.922	0.119	0.966	0.849	0.096	0.625	0.380	0.978	0.297	0.683	0.689	0.548
Marital status	Married / Living with partner	117	0.646	0.034	-0.680	0.827	0.135	-0.961	1.373	0.043	-1.415	0.644	0.203	-0.848	-0.948	0.284	0.664	0.732	-0.060	-0.672
	Not	20	0.586	0.043	-0.629	0.686	0.135	-0.822	1.407	-0.012	-1.395	0.642	0.249	-0.891	-0.846	0.260	0.586	0.558	-0.040	-0.518
	p-value		0.558	0.797	0.687	0.394	0.980	0.377	0.837	0.113	0.902	0.975	0.396	0.690	0.608	0.568	0.679	0.234	0.681	0.303
Level of education	Completed university education	62	0.628	0.029	-0.657	0.785	0.141	-0.925	1.423	0.035	-1.457	0.625	0.219	-0.844	-0.899	0.290	0.609	0.699	-0.053	-0.646
	Not	75	0.647	0.040	-0.686	0.826	0.130	-0.956	1.339	0.035	-1.375	0.659	0.202	-0.862	-0.963	0.273	0.690	0.715	-0.061	-0.654
	p-value		0.790	0.677	0.733	0.721	0.681	0.784	0.476	0.970	0.467	0.487	0.656	0.820	0.640	0.566	0.532	0.879	0.821	0.939
Employment status	Employed	41	0.706	0.047	-0.753	0.879	0.149	-1.028	1.358	0.024	-1.382	0.667	0.228	-0.895	-0.994	0.279	0.714	0.740	-0.058	-0.682
	Not employed	96	0.609	0.030	-0.638	0.776	0.128	-0.905	1.386	0.040	-1.426	0.634	0.202	-0.836	-0.908	0.281	0.627	0.694	-0.057	-0.636
	p-value		0.211	0.533	0.228	0.409	0.476	0.301	0.824	0.555	0.723	0.532	0.531	0.476	0.569	0.945	0.536	0.675	0.989	0.685
Household income	Less than ¥5,000,000	85	0.644	0.037	-0.681	0.817	0.148	-0.965	1.413	0.038	-1.451	0.642	0.220	-0.862	-0.849	0.284	0.566	0.699	-0.051	-0.647
	¥5,000,000 to ¥9,999,999	20	0.660	0.062	-0.722	0.786	0.080	-0.866	1.263	0.019	-1.282	0.699	0.267	-0.966	-0.917	0.248	0.669	0.682	-0.040	-0.642
	¥10,000,000 or more	8	0.797	0.019	-0.816	1.191	0.090	-1.281	0.975	0.115	-1.090	0.669	0.150	-0.819	-1.453	0.398	1.055	0.864	-0.148	-0.717
	Decline to answer	24	0.540	0.010	-0.550	0.656	0.150	-0.807	1.486	0.010	-1.497	0.595	0.144	-0.738	-1.080	0.258	0.823	0.707	-0.063	-0.644
	p-value		0.468	0.701	0.533	0.274	0.253	0.297	0.237	0.297	0.335	0.677	0.227	0.393	0.164	0.177	0.206	0.893	0.571	0.991
Type of medical insurance	National health insurance	40	0.605	0.022	-0.627	0.746	0.137	-0.883	1.408	0.044	-1.452	0.628	0.196	-0.824	-0.989	0.272	0.718	0.685	-0.026	-0.659
	Late stage elderly insurance	76	0.677	0.040	-0.717	0.875	0.129	-1.004	1.348	0.047	-1.396	0.648	0.226	-0.874	-0.879	0.294	0.586	0.731	-0.070	-0.662
	Company/Social insurance	18	0.505	0.009	-0.513	0.587	0.163	-0.749	1.484	-0.029	-1.455	0.634	0.158	-0.793	-1.095	0.252	0.843	0.592	-0.067	-0.525
	Welfare recipient	2	1.017	0.342	-1.359	1.428	0.058	-1.486	0.904	-0.023	-0.880	0.894	0.343	-1.236	-0.445	0.225	0.221	1.292	-0.125	-1.167
	p-value		0.214	0.022	0.094	0.181	0.749	0.245	0.651	0.175	0.666	0.635	0.505	0.531	0.573	0.737	0.444	0.418	0.645	0.518
Currently cared by a primary caregiver for prostate cancer	Yes	7	0.665	0.058	-0.723	0.815	0.046	-0.861	1.137	0.071	-1.208	0.582	0.301	-0.883	-1.021	0.307	0.714	0.575	-0.062	-0.513
	No	129	0.636	0.034	-0.670	0.807	0.139	-0.946	1.390	0.033	-1.424	0.647	0.205	-0.852	-0.929	0.279	0.650	0.715	-0.057	-0.658
	p-value		0.858	0.678	0.789	0.975	0.116	0.731	0.334	0.480	0.398	0.551	0.254	0.858	0.769	0.681	0.827	0.542	0.944	0.536

Duration of prostate cancer (median split)	≤5 years	76	0.619	0.024	-0.643	0.808	0.135	-0.943	1.365	0.035	-1.401	0.635	0.197	-0.832	-0.994	0.295	0.699	0.700	-0.067	-0.633
	>5 years	60	0.662	0.049	-0.711	0.806	0.135	-0.941	1.393	0.035	-1.427	0.655	0.226	-0.882	-0.858	0.262	0.596	0.717	-0.045	-0.672
	p-value		0.553	0.337	0.443	0.984	0.990	0.986	0.815	0.969	0.815	0.676	0.427	0.508	0.327	0.270	0.431	0.867	0.511	0.709
ECOG grade at study enrolment	Grade 0	105	0.631	0.027	-0.658	0.811	0.135	-0.946	1.373	0.036	-1.409	0.639	0.205	-0.844	-0.973	0.282	0.690	0.719	-0.058	-0.661
	Grade 1	31	0.662	0.062	-0.724	0.796	0.132	-0.928	1.392	0.031	-1.423	0.661	0.227	-0.888	-0.802	0.275	0.527	0.669	-0.056	-0.613
	p-value		0.718	0.252	0.528	0.915	0.922	0.893	0.888	0.847	0.917	0.701	0.609	0.617	0.299	0.830	0.293	0.680	0.970	0.695
Symptomatic status at study enrolment	Symptomatic	3	0.853	-0.081	-0.772	0.979	0.097	-1.076	0.755	0.081	-0.836	0.547	0.124	-0.671	-1.990	0.252	1.739	1.039	-0.210	-0.829
	Asymptomatic	133	0.633	0.038	-0.671	0.803	0.136	-0.939	1.391	0.034	-1.425	0.646	0.212	-0.858	-0.910	0.281	0.629	0.700	-0.054	-0.646
	p-value		0.364	0.171	0.734	0.651	0.667	0.713	0.107	0.563	0.123	0.548	0.489	0.465	0.020	0.768	0.011	0.324	0.165	0.603

**Supplementary table 5** Regression coefficients for preference weights and HRQoL sub-scale scores

	N	Risk of fatigue as a side-effect of treatment			Risk of falls or fracture as a side-effect of treatment			Risk of cognitive impairment as a side-effect of treatment			Risk of hypertension as a side-effect of treatment			Extension of time until cancer-related pain occurs			Risk of rashes as a side-effect of treatment		
		15%	25%	35%	3%	10%	20%	0%	5%	10%	5%	15%	25%	15 months	35 months	45 months	5%	15%	25%
Symptom scale: Urinary symptoms	137	0.002	0.000	-0.001	-0.001	0.001	0.000	0.003	0.000	-0.003	-0.001	0.002	-0.001	0.004	-0.001	-0.004	-0.001	0.000	0.001
p-value		0.455	0.896	0.567	0.848	0.500	0.970	0.375	0.865	0.380	0.367	0.065	0.745	0.291	0.530	0.329	0.722	0.938	0.709
Symptom item: Incontinence aid	36	-0.004	-0.001	0.006	-0.007	-0.002	0.009	-0.001	-0.001	0.002	-0.004	-0.001	0.004	-0.005	0.000	0.005	-0.009	-0.001	0.010
p-value		0.022	0.052	0.012	0.020	0.103	0.003	0.741	0.148	0.519	0.011	0.545	0.060	0.249	0.596	0.247	0.002	0.524	0.002
Symptom scale: Bowel symptoms	137	-0.004	-0.001	0.004	-0.007	-0.001	0.009	0.004	-0.001	-0.003	-0.005	0.002	0.003	0.006	0.001	-0.007	-0.011	-0.001	0.012
p-value		0.256	0.603	0.280	0.144	0.217	0.068	0.428	0.564	0.487	0.020	0.233	0.368	0.303	0.366	0.195	0.013	0.370	0.006
Symptom scale: Hormonal treatment-related symptoms	137	0.004	0.000	-0.004	0.004	0.000	-0.003	-0.001	0.001	0.000	-0.002	0.000	0.002	0.001	0.003	-0.004	-0.002	0.000	0.002
p-value		0.148	0.908	0.224	0.422	0.725	0.451	0.894	0.472	0.988	0.315	0.834	0.586	0.800	0.036	0.460	0.608	0.908	0.590
Functional scales: Sexual activity	137	-0.002	0.000	0.003	-0.004	0.000	0.005	0.001	-0.003	0.002	-0.004	-0.004	0.007	-0.002	-0.001	0.003	-0.002	-0.002	0.004
p-value		0.587	0.852	0.619	0.546	0.843	0.498	0.850	0.054	0.835	0.227	0.131	0.127	0.830	0.734	0.761	0.716	0.367	0.519
Functional scales: Sexual functioning	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA