



Table S1. Changes (mean and SD together with n) between baseline and immediately after IMMRRP in the repeated outcomes in women and in men. Group comparison (t-test) and effect size (ES; computed when t-test had $p < 0.001$) are to the far right.

<i>Variables</i>	<i>Sex Women</i>		<i>Men</i>				Statistics p	ES (Hedges' g)
	n	Mean	SD	N	Mean	SD		
NRS-7d	10 801	0.89	2.03	3 345	0.95	2.01	0.184	
HAD-A	11 270	1.24	3.91	3 504	1.15	3.68	0.212	
HAD-D	11 268	1.86	3.85	3 504	1.58	3.67	<0.001	
MPI-Pain sever	11 209	0.52	0.98	3 483	0.51	1.02	0.711	
MPI-Pain interfer	11 102	0.46	0.92	3 450	0.42	0.91	0.085	
MPI-control	11 194	0.59	1.23	3 493	0.52	1.21	0.003	
MPI-distress	11 201	0.56	1.38	3 496	0.59	1.28	0.309	
MPI-SOCSupp	11 165	-0.19	1.01	3 453	-0.28	0.98	<0.001	0.09
MPI-punish	10 087	0.02	1.16	2 967	0.03	1.14	0.666	
MPI-protect	10 041	-0.11	1.06	2 958	-0.15	0.99	0.070	
MPI-distract	10 081	0.02	1.02	2 967	0.00	0.98	0.179	
MPI-GAI	11 196	0.19	0.72	3 480	0.20	0.78	0.596	
EQ-5D-index	10 614	0.13	0.33	3 375	0.14	0.33	0.404	
EQ-VAS	10 459	10.06	22.15	3 318	8.83	21.59	0.005	
sf36-pf	10 834	4.78	15.99	3 419	5.32	16.50	0.091	
sf36-rp	10 611	10.11	33.63	3 334	9.36	33.58	0.264	
sf36-bp	10 847	8.71	16.62	3 421	8.26	16.85	0.170	
sf36-gh	10 638	5.30	17.23	3 350	4.04	17.04	<0.001	0.07
sf36-vt	10 805	12.08	21.79	3 401	10.53	21.68	<0.001	0.07
sf36-sf	10 827	7.75	25.59	3 402	7.29	24.51	0.355	
sf36-re	10 442	8.44	47.58	3 259	8.21	45.78	0.812	
sf36-mh	10 796	7.62	20.02	3 398	7.22	19.52	0.313	

* = small effect ES, ** = medium effect ES, *** large effect ES; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOCSupp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses; MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based om five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health

Table S2. Changes (mean and SD together with n) between baseline and 12-month follow-up in the repeated outcomes in women and in men. Group comparison (t-test) and effect size (ES; computed when t-test had $p < 0.001$) are to the far right.

<i>Sex</i>	Women			Men			Statistics	ES
<i>Variables</i>	n	Mean	SD	n	Mean	SD	t-test	(Hedges' g)
NRS-7d	6 594	1.05	2.20	1 974	1.08	2.29	0.661	
HAD-A	6 828	1.46	4.09	2 037	0.98	4.02	<0.001	0.12
HAD-D	6 830	1.58	4.07	2 035	0.98	4.14	<0.001	0.15
MPI-Pain sever	6 862	0.66	1.15	2 042	0.64	1.24	0.516	
MPI-Pain interfer	6 811	0.62	1.14	2 018	0.57	1.14	0.049	
MPI-control	6 834	0.53	1.28	2 037	0.44	1.29	0.007	
MPI-distress	6 848	0.51	1.44	2 041	0.46	1.41	0.198	
MPI-SOCSupp	6 813	-0.39	1.16	2 017	-0.46	1.14	0.028	
MPI-punish	6 103	0.01	1.24	1 721	-0.01	1.20	0.519	
MPI-protect	6 075	-0.17	1.19	1 709	-0.22	1.11	0.177	
MPI-distract	6 092	-0.06	1.10	1 719	-0.09	1.01	0.379	
MPI-GAI	6 832	0.17	0.80	2 027	0.14	0.85	0.056	
EQ-5D-index	6 701	0.17	0.36	2 143	0.19	0.36	0.027	
EQ-VAS	6 541	11.38	23.85	2 066	10.04	23.87	0.026	
sf36-pf	6 500	6.79	18.36	1 959	6.23	19.12	0.235	
sf36-rp	6 387	14.43	37.44	1 914	15.50	38.52	0.272	
sf36-bp	6 498	10.81	19.06	1 960	10.81	20.16	0.996	
sf36-gh	6 412	5.22	19.29	1 930	3.23	18.84	<0.001	0.10
sf36-vt	6 489	9.75	23.01	1 952	8.46	22.08	0.028	
sf36-sf	6 503	9.23	27.19	1 956	6.98	26.71	0.001	
sf36-re	6 281	10.82	49.51	1 878	11.21	49.76	0.766	
sf36-mh	6 485	6.76	21.42	1 950	5.03	20.94	0.002	

* = small effect ES, ** = medium effect ES, *** large effect ES; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOCSupp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses; MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based om five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health

Table S3. Changes (mean and SD together with n) between baseline and immediately after IMMRP in the repeated outcomes for education level. Group comparison (ANOVA with post hoc tests) and effect size (ES for Elementary school vs. University; computed when ANOVA had $p < 0.001$) are to the far right.

Education level	Elementary school	Me	SD	Upper school	Mean	SD	University	Me	SD	ANOVA	post-hoc	ES (Hedges' g)
Variables	N	an	SD	N	Mean	SD	N	an	SD	p-value		
NRS-7d	2655	0.85	1.9	780			35	0.9	2.0	0.008	NA	
			9	8	0.88	2.01	05	9	7			
HAD-A	2781	1.03	3.8	810			36	1.4	3.7	<0.00	Esc=USS, other	0.10
			2	7	1.20	3.88	51	2	9			
HAD-D	2782	1.71	3.8	810			36	1.9	3.7	0.098	NA	
			2	5	1.78	3.81	52	1	9			
MPI-Pain sever	2748	0.45	0.9	809			36	0.5	1.0	<0.00	USS=U, other	0.10
			7	3	0.52	0.98	24	5	1			
MPI-Pain interfer	2714	0.41	0.9	802			35	0.4	0.9	<0.00	Esc=USS, other	0.09
			0	9	0.44	0.90	86	9	5			
MPI-control	2744	0.51	1.2	810			36	0.6	1.2	0.001	NA	
			5	2	0.57	1.23	13	2	0			
MPI-distress	2752	0.53	1.3	810			36	0.6	1.3	0.057	NA	
			6	1	0.57	1.37	16	1	3			
MPI-SOCSupp	2736	0.23	-	806			-			0.717	NA	
			0.9	0	-0.21	1.02	35	0.2	0.9			
MPI-punish	2417	0.02	1.1	719			95	1	8	0.594	NA	
			9	8	0.01	1.17	32	0.0	1.1			
MPI-protect	2404	0.14	-	717			-			0.115	NA	
			1.0	1	-0.11	1.08	32	0.1	0.9			
MPI-distract	2419	0.01	1.0	719			39	5	5	0.210	NA	
			4	6	0.03	1.02	32	0.0	0.9			
MPI-GAI	2750	0.17	0.7	808			47	1	5	0.304	NA	
			4	4	0.20	0.74	36	0.1	0.7			
EQ-5D-index	2605	0.11	0.3	764			15	9	2	0.005	NA	
			3	4	0.13	0.33	35	0.1	0.3			
EQ-VAS	2553	8.41	23.	752		22.0	01	4	3	<0.00	USS=U, other	0.10
			24	4	9.73	6	75	69	88			
sf36-pf	2689	4.70	16.	780		16.0	34	10.	20.	0.182	NA	
			73	0	4.76	0	35	5.3	15.			
sf36-rp	2592	7.77	32.	764		33.4	55	2	79	<0.00	USS=U, other	0.11
			86	6	9.91	9	35	11.	34.			

			16.	781		16.5	35	9.4	17.	<0.00		
sf36-bp	2688	7.58	52	0	8.55	3	60	2	00	1	all different	
			17.	767		17.2	34	6.1	17.	<0.00	Esc=USS, other	
sf36-gh	2620	3.95	08	5	4.81	2	93	5	15	1	different	0.13
		10.8	21.	777		21.6	35	12.	22.			
sf36-vt	2673	7	63	9	11.59	5	46	64	05	0.005	NA	
			25.	778		25.0	35	10.	25.	<0.00		
sf36-sf	2680	5.32	70	6	7.36	6	57	03	35	1	all different	0.18
			47.	750		47.0	34	9.3	47.			
sf36-re	2541	7.23	06	5	8.25	7	62	6	32	0.219	NA	
			20.	777		19.9	35	7.6	19.			
sf36-mh	2668	7.20	38	5	7.59	0	45	9	42	0.599	NA	

* = small effect ES, ** = medium effect ES, *** large effect ES; Esc=Elementary School; USS=upper secondary school; U=University; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOCSupp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses; MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based on five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health

Table S4. Changes (mean and SD together with n) between baseline and 12-month follow-up in the repeated outcomes for education level. Group comparison (ANOVA with post hoc tests) and effect size (ES for Elementary school vs. University); computed when ANOVA had $p < 0.001$) are to the far right.

Education level	Elementary school	Me	SD	Upper secondary school	Mean	SD	University	Me	SD	ANOVA	post-hoc	ES (Hedge's g)
Variables	N			N			N			p-value		
NRS-7d	1613	0.89	2.1	470			21	1.1	2.2	<0.00		
			5	1.05	2.21	39	9	9	1	all different	0.13	
			4.1	481		22	1.5	4.0				
HAD-A	1665	1.20	4.1	481			22	1.7	4.0	0.011	NA	
			1	9	1.32	4.07	31	7	2	<0.00	Esc=USS, other	
HAD-D	1666	1.20	7	9	1.43	4.06	31	1	6	1	different	0.12
MPI-Pain sever	1672	0.51	1.1	485			22	0.7	1.1	<0.00		
			4	1	0.65	1.16	33	7	8	1	all different	0.22*
MPI-Pain interfer			1.0	480			22	0.7	1.1	<0.00		
	1661	0.48	7	6	0.61	1.14	17	2	9	1	all different	0.21*

MPI-control	1668	0.41	8	1.2	483	0	0.51	1.30	22	0.5	1.2	<0.00	USS=U, other	0.14
MPI-distress	1669	0.38	2	1.4	483	9	0.50	1.44	22	0.5	1.4	<0.00	USS=U, other	0.14
MPI-SOCSupp	1658	0.36	9	-	481	9	-0.40	1.15	22	0.4	1.1	0.020	NA	
MPI-punish	1436	0.03	5	-	427	8	0.01	1.25	19	0.0	1.1	0.485	NA	
MPI-protect	1428	0.19	3	-	426	0	-0.18	1.19	19	0.1	1.0	0.960	NA	
MPI-distract	1433	0.05	0	-	427	5	-0.06	1.08	19	0.1	1.0	0.200	NA	
MPI-GAI	1668	0.13	1	0.8	482	1	0.16	0.80	22	0.2	0.8	0.001	NA	
EQ-5D-index	1662	0.15	5	0.3	474	7	0.17	0.36	22	0.2	0.3	<0.00		
EQ-VAS	1617	9.08	91	24.	461	9	10.92	6	22	12.	22.	<0.00		
sf36-pf	1590	4.01	86	18.	456	9	6.84	7	21	8.0	18.	<0.00		
sf36-rp	1539	2	68	11.4	448	9	14.92	1	69	3	45	1	all different	0.22*
sf36-bp	1594	8.62	33	18.	457	0	10.82	3	21	16.	37.	<0.00	USS=U, other	
sf36-gh	1561	2.76	98	18.	451	2	4.83	7	43	37	90	1	different	0.13
sf36-vt	1583	8.13	38	22.	456	3	9.36	7	21	12.	19.	<0.00		
sf36-sf	1592	5.41	97	26.	457	2	8.20	6	62	32	93	1	all different	0.19
sf36-re	1500	8.39	96	47.	441	0	11.55	5	21	6.1	19.	<0.00		
sf36-mh	1582	5.37	61	21.	455	9	6.45	0	63	40	3	1	all different	0.18
									21	10.	23.	0.006	NA	
									63	54	44	<0.00		
									21	12.	27.	1	all different	0.25*
									63	29	68	0.087	NA	
									21	11.	50.			
									22	47	87			
									21	7.0	20.			
									63	5	93	0.056	NA	

* = small effect ES, ** = medium effect ES, *** large effect ES; Esc=Elementary School; USS=upper secondary school; U=University; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOCSupp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses;

MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based on five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health

Table S5. Changes (mean and SD together with n) between baseline and immediately after IMMRP in the repeated outcomes in patients born in Europe vs. patients born outside Europe. Group comparison (t-test) and effect size (ES; computed when t-test had $p < 0.001$) are to the far right.

Country of birth	Europe			Outside Europe			Statistics	ES
Variables	N	Mean	SD	N	Mean	SD	p-value	(Hedges' g)
NRS-7d	12 631	0.89	2.03	1 444	1.05	1.99	0.005	
HAD-A	13 098	1.19	3.81	1 546	1.53	4.17	0.001	
HAD-D	13 093	1.82	3.77	1 550	1.61	4.16	0.042	
MPI-Pain sever	13 061	0.52	0.99	1 509	0.46	0.95	0.035	
MPI-Pain interfer	12 964	0.45	0.91	1 472	0.38	0.93	0.003	
MPI-control	13 069	0.57	1.22	1 499	0.55	1.29	0.496	
MPI-distress	13 070	0.57	1.35	1 508	0.55	1.37	0.609	
MPI-SOC supp	13 000	-0.22	1.00	1 497	-0.17	1.08	0.108	
MPI-punish	11 667	0.03	1.13	1 293	-0.05	1.37	0.014	
MPI-protect	11 625	-0.12	1.03	1 280	-0.17	1.18	0.087	
MPI-distract	11 658	0.02	0.98	1 296	-0.01	1.24	0.372	
MPI-GAI	13 062	0.19	0.69	1 494	0.21	1.02	0.186	
EQ-5D-index	12 359	0.13	0.33	1 486	0.13	0.35	0.754	
EQ-VAS	12 229	10.01	21.80	1 419	7.39	23.63	<0.001	0.12
sf36-pf	12 662	4.95	15.79	1 483	4.31	18.54	0.144	
sf36-rp	12 476	10.33	33.53	1 364	5.87	34.11	<0.001	0.13
sf36-bp	12 680	8.57	16.54	1 480	8.89	17.67	0.486	
sf36-gh	12 475	5.15	17.14	1 410	3.53	17.63	0.001	
sf36-vt	12 633	11.95	21.59	1 467	9.74	23.19	<0.001	0.10
sf36-sf	12 654	7.70	25.25	1 467	6.88	25.93	0.242	
sf36-re	12 296	8.33	47.26	1 306	8.49	46.13	0.906	
sf36-mh	12 625	7.56	19.60	1 464	7.16	22.23	0.464	

* = small effect ES, ** = medium effect ES, *** large effect ES; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOC supp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses; MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based on five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health

Table S6. Changes (mean and SD together with n) between baseline and 12-month follow-up in the repeated outcomes in patients born in Europe vs. patients born outside Europe. Group comparison (t-test) and effect size (ES; computed when t-test had $p < 0.001$) are to the far right.

Country of birth Variables	Europe			Outside Europe			Statistics	ES
	N	Mean	SD	N	Mean	SD	p-value	(Hedges' g)
NRS-7d	7733	1.05	2.23	799	1.07	2.18	0.795	
HAD-A	7963	1.35	4.04	830	1.39	4.49	0.777	
HAD-D	7961	1.51	4.04	833	0.80	4.56	<0.001	0.17
MPI-Pain sever	8013	0.66	1.17	824	0.56	1.12	0.018	
MPI-Pain interfer	7959	0.62	1.14	806	0.47	1.15	<0.001	0.13
MPI-control	7992	0.52	1.27	812	0.39	1.38	0.007	
MPI-distress	8005	0.50	1.43	818	0.38	1.43	0.018	
MPI-SOCSupp	7948	-0.41	1.15	816	-0.33	1.18	0.041	
MPI-punish	7080	0.02	1.21	691	-0.12	1.41	0.007	
MPI-protect	7047	-0.18	1.17	684	-0.20	1.21	0.645	
MPI-distract	7070	-0.06	1.06	689	-0.16	1.24	0.018	
MPI-GAI	7986	0.17	0.78	806	0.14	1.03	0.338	
EQ-5D-index	7850	0.17	0.36	905	0.20	0.37	0.048	
EQ-VAS	7669	11.25	23.84	854	8.74	23.80	0.004	
sf36-pf	7619	6.77	18.32	783	5.38	20.42	0.045	
sf36-rp	7520	15.13	37.65	724	9.19	37.40	<0.001	0.16
sf36-bp	7617	10.75	19.22	783	10.98	19.86	0.751	
sf36-gh	7531	4.95	19.15	757	2.75	19.61	0.003	
sf36-vt	7604	9.58	22.71	779	7.75	23.50	0.032	
sf36-sf	7622	8.69	27.01	780	8.30	27.73	0.700	
sf36-re	7432	10.86	49.67	673	10.62	48.62	0.905	
sf36-mh	7602	6.41	21.06	776	5.57	23.65	0.296	

* = small effect ES, ** = medium effect ES, *** large effect ES; NRS-7d = pain intensity previous 7 days; HAD=Hospital Anxiety and Depression Scale; HAD-A=subscale anxiety; HAD-D=subscale depression; MPI=Multidimensional Pain inventory: MPI-Pain-sever=subscale pain severity; MPI-Pain-interfer=subscale pain related Interference; MPI-control=subscale life control; MPI-distress=subscale affective distress; MPI-SOCSupp=subscale social support; MPI-punish=subscale punishing responses; MPI-protect=subscale solicitous responses; MPI-distract=subscale distracting responses; MPI-GAI=subscale General Activity Index; EQ=European Quality of Life instrument; EQ-5D-index=index based on five dimensions; EQ-VAS=self-estimation of health; sf36=Short Form Health Survey; sf36-pf=physical functioning; sf36-rp=role limitations due to physical functioning; sf36-bp=bodily pain; sf36-gh=general health; sf36-vt=vitality; sf36-sf=social functioning; sf36-re=role limitations due to emotional problems; sf36-mh=mental health