

Table S1: Baseline characteristic in all 6 time periods

		First wave					Second wave			
	April-June 2020	April-June 2019	p-value 2019 vs 2020	April-June 2018	P-value 2019 vs 2018	Nov.2020 - Jan. 2021	Nov.2019- Jan. 2020	p-value 2020 vs 2019	Nov.2018- Jan. 2019	P-value 2019 vs 2018
Numbers of patients	286	339		238		249	341		322	
Scheduled questionnaires	399	494		426		364	496		507	
Mean time in QoL-MM Days (SD)	308.6 (234.1)	266.9 (214.7)	0.004	127.6 (109.8)	<0.0001	289.6 (243.3)	282.9 (249.5)	0.319	200.9 (180.8)	<0.0001
Response to questionnaire invitation			0.120		0.128			0.935		0.179
Responders N (%)	389 (97%)	472 (96%)		415 (97%)		349 (96%)	475 (96%)		476 (94%)	
Non-responders N (%)	10 (3%)	22 (4%)		11 (3%)		15 (4%)	21 (4%)		31 (6%)	
Clinical status			0.288		<0.0001			0.024		0.013
Patients with newly diagnosed MM N (%)	290 (73%)	343 (69%)		233 (55%)		228 (63%)	347 (70%)		317 (63%)	
Patients with Relaps MM N (%)	109 (27%)	151 (31%)		193 (45%)		136 (37%)	149 (30%)		190 (37%)	
Mean Age (SD)	68.6 (9.5)	67.7 (9.1)	0.153	67.2 (9.3)	0.546	68.3 (8.9)	68.0 (9.3)	0.823	67.3 (9.1)	0.217
Sex N(%):			0.748		0.396			0.672		0.581
Female	117 (41%)	143 (42%)		92 (39%)		103 (41%)	147 (43%)		132 (41%)	
Male	169 (59%)	196 (58%)		146 (61%)		146 (59%)	194 (57%)		190 (59%)	
Marital status			0.707		0.510			0.900		0.480
Married/cohabiting N (%)	218 (76%)	254 (75%)		184 (77%)		188 (76%)	259 (76%)		252 (78%)	
Single N (%)	68 (24%)	85 (25%)		54 (23%)		61 (24%)	82 (24%)		70 (22%)	
IMWG frailty score N (%):			0.458		0.923			0.695		0.907
Fit	146 (51%)	187 (55%)		134 (56%)		130 (52%)	187 (55%)		179 (56%)	
Intermediate Fitness	96 (34%)	110 (32%)		77 (32%)		82 (33%)	111 (33%)		106 (33%)	
Frail	44 (15%)	42 (12%)		27 (11%)		37 (15%)	43 (13%)		37 (11%)	
Karnofsky N(%)			0.229		0.307			0.778		0.313
100%	111 (39%)	113 (33%)		70 (29%)		96 (39%)	122 (36%)		106 (33%)	
90%	99 (35%)	132 (39%)		100 (42%)		91 (37%)	133 (39%)		122 (38%)	
80%	31 (11%)	49 (14%)		44 (18%)		25 (10%)	40 (12%)		54 (17%)	
<=70%	45 (16%)	45 (13%)		24 (10%)		37 (15%)	46 (13%)		40 (12%)	

Charlson comorbidity index			0.944		0.831		0.724		0.994
0	151 (53%)	187 (55%)		140 (59%)		127 (51%)	186 (55%)		178 (55%)
1	51 (18%)	56 (17%)		37 (16%)		41 (16%)	59 (17%)		55 (17%)
2	52 (18%)	59 (17%)		36 (15%)		51 (20%)	60 (18%)		57 (18%)
3+	32 (11%)	37 (11%)		25 (11%)		30 (12%)	36 (11%)		32 (10%)
Freiburg comorbidity index			0.674		0.551		0.977		0.702
0	223 (78%)	268 (79%)		196 (82%)		197 (79%)	272 (80%)		257 (80%)
1	56 (20%)	66 (19%)		40 (17%)		47 (19%)	62 (18%)		61 (19%)
2	7 (2%)	5 (1%)		2 (1%)		5 (2%)	7 (2%)		4 (1%)
Method of answering N(%):			0.812		0.406		0.191		0.478
Electronic by mail	241 (84%)	288 (85%)		208 (87%)		221 (89%)	290 (85%)		280 (87%)
Paper and pencil	45 (16%)	51 (15%)		30 (13%)		28 (11%)	51 (15%)		42 (13%)
Alcohol units pr. week			0.871		0.872		0.859		0.847
No	58 (20%)	70 (21%)		59 (20%)		52 (21%)	68 (20%)		67 (21%)
1-7	153 (53%)	188 (55%)		160 (54%)		142 (57%)	188 (55%)		173 (54%)
8-14	51 (18%)	52 (15%)		44 (15%)		36 (14%)	58 (17%)		51 (16%)
>14	24 (8%)	29 (9%)		32 (11%)		19 (8%)	27 (8%)		31 (10%)
Smoking:			0.149		0.953		0.635		0.573
Current	25 (9%)	38 (11%)		27 (11%)		20 (8%)	34 (10%)		37 (12%)
Former	150 (53%)	152 (45%)		104 (44%)		131 (53%)	169 (50%)		147 (46%)
Never	110 (39%)	148 (44%)		107 (45%)		97 (39%)	137 (40%)		137 (43%)

Table S2 Quality of life data of all 6 time periods

All patients included in the COVID-19 cohort											
			First wave			Second wave					
	April-June 2018 Q=426	April-June 2019 Q=472	April-June 2020 Q=389	P-value 2018 vs 2019	P-value 2019 vs 2020	November 2018 – January 2019 Q=476	November 2019 – January 2020 Q=475	November 2020 – January 2021 Q=349	P-value 2018 vs 2019	P-value 2019 vs 2020	
EORTC-QLQ-C30 Mean (SD)											
Global health status QoL	58.70 (22.55)	61.04 (22.83)	60.37 (22.56)	0.611	0.921	60.42 (22.81)	60.52 (22.81)	59.83 (21.46)	0.867	0.673	
Functional scales											
Physical functioning	70.63 (20.75)	72.26 (20.48)	72.47 (21.54)	0.187	0.067	72.90 (21.44)	70.11 (22.65)	70.81 (22.44)	0.114	0.670	
Role functioning	56.63 (30.97)	60.32 (28.93)	61.44 (31.18)	0.805	0.087	62.18 (29.97)	58.42 (32.54)	60.32 (30.90)	0.059	0.300	
Emotional functioning	78.26 (21.03)	81.82 (18.90)	79.91 (19.84)	0.583	0.255	81.99 (19.52)	79.47 (20.80)	80.21 (17.92)	0.367	0.802	
Cognitive functioning	84.02 (21.80)	82.91 (20.44)	84.36 (19.53)	0.171	0.217	83.54 (21.19)	81.33 (22.63)	82.66 (20.17)	0.658	0.424	
Social functioning	75.32 (26.57)	76.79 (24.65)	75.28 (28.05)	0.181	0.519	78.84 (24.47)	76.79 (26.22)	73.97 (27.30)	0.229	0.071	
Symptom scales											
Fatigue	42.42 (25.36)	40.19 (24.31)	38.43 (24.82)	0.208	0.030	39.96 (26.00)	40.05 (25.48)	39.80 (23.51)	0.762	0.768	
Nausea and vomiting	7.63 (14.19)	6.75 (14.43)	6.86 (13.44)	0.231	0.966	8.40 (16.45)	7.24 (14.55)	7.14 (15.53)	0.492	0.802	
Pain	32.45 (29.99)	27.49 (26.76)	29.01 (27.69)	0.321	0.356	26.75 (28.83)	31.54 (29.66)	30.56 (27.46)	0.005	0.443	
Dyspnoea	26.63 (27.88)	21.39 (26.05)	19.19 (24.35)	0.047	0.055	22.39 (25.84)	22.46 (27.03)	23.88 (27.04)	0.406	0.431	
Insomnia	25.70 (27.86)	26.87 (28.47)	24.68 (25.48)	0.182	0.899	27.24 (27.91)	27.50 (29.34)	29.61 (29.50)	0.203	0.605	
Appetite loss	18.93 (26.16)	15.82 (26.36)	18.81 (28.22)	0.891	0.265	18.84 (26.97)	16.60 (25.30)	15.13 (24.81)	0.600	0.555	
Constipation	17.71 (26.50)	14.57 (23.03)	15.38 (24.70)	0.773	0.689	15.83 (25.72)	18.46 (27.05)	18.30 (24.81)	0.229	0.498	
Diarrhoea	14.11 (24.32)	15.31 (24.79)	12.17 (21.81)	0.117	0.016	17.37 (27.14)	14.76 (23.52)	15.80 (26.22)	0.261	0.742	
Financial difficulties	8.60 (20.34)	6.18 (17.53)	7.03 (17.64)	0.024	0.790	6.54 (18.57)	8.39 (19.23)	7.28 (18.72)	0.930	0.276	
SF 12v2 Mean (SD)											
Mental health	44.46 (10.54)	46.54 (10.01)	43.95 (10.96)	0.655	0.007	46.75 (10.95)	44.68 (11.40)	43.49 (11.29)	0.006	0.378	
Physical health	40.11 (10.73)	41.50 (9.87)	41.80 (10.27)	0.718	0.691	41.69 (11.05)	41.09 (10.64)	42.83 (10.10)	0.351	0.059	
EORTC CIPN20 Mean (SD)											
Autonomic scale	22.03 (19.99)	21.59 (18.82)	22.22 (19.56)	0.696	0.899	20.50 (19.34)	21.62 (20.38)	24.17 (19.98)	0.684	0.515	
Motor scale	12.79 (15.58)	13.60 (13.77)	12.27 (12.59)	0.148	0.326	11.51 (12.57)	12.18 (13.09)	13.48 (14.45)	0.362	0.142	
Sensory scale	13.17 (16.97)	13.63 (15.28)	13.48 (15.07)	0.300	0.919	12.24 (15.24)	12.13 (15.27)	14.11 (14.54)	0.762	0.215	
Sum score	13.50 (14.41)	14.22 (12.92)	13.52 (12.50)	0.119	0.570	12.46 (12.65)	12.69 (12.90)	14.49 (12.71)	0.825	0.149	
EORTC QLQ-MY20 Mean (SD)											
Future perspectives	61.78 (24.19)	66.14 (22.72)	66.48 (23.80)	0.946	0.476	66.20 (25.07)	64.22 (25.78)	61.78 (25.81)	0.547	0.272	
Body image	76.45 (29.38)	76.71 (27.93)	76.95 (28.96)	0.382	0.876	77.31 (27.56)	76.78 (28.76)	75.70 (26.57)	0.970	0.551	
Disease symptoms	24.02 (20.34)	21.67 (18.77)	21.45 (17.89)	0.874	0.947	20.29 (19.80)	25.22 (18.94)	23.43 (18.80)	0.005	0.681	

Side effect of treatment 19.18 (14.57) 17.73 (13.83) 19.80 (15.67) 0.680 0.065 18.32 (14.90) 18.21 (14.17) 18.23 (14.74) 0.685 0.974

Future perspectives	58.56 (28.04)	67.92 (24.62)	70.19 (22.42)	0.287	0.616	65.40 (25.16)	68.28 (24.05)	64.86 (28.87)	0.644	0.222
Body image	76.58 (33.21)	73.58 (30.91)	79.67 (27.77)	0.437	0.303	71.97 (28.70)	77.42 (30.64)	77.48 (28.39)	0.349	0.823
Disease symptoms	24.50 (19.89)	21.05 (17.71)	20.73 (17.34)	0.833	0.647	23.21 (21.98)	25.22 (18.82)	24.18 (20.28)	0.214	0.923
Side effect of treatment	17.99 (12.60)	18.84 (14.92)	17.49 (14.03)	0.498	0.237	18.20 (14.47)	16.44 (11.72)	18.97 (16.77)	0.755	0.159

COVID-19 cohort patients under 65 years										
	First wave					Second wave				
	April-June 2018 Q=140	April-June 2019 Q=157	April-June 2020 Q= 128	P-value 2018 vs 2019	P-value 2019 vs 2020	November 2018 – January 2019 Q=152	November 2019 – January 2020 Q=154	November 2020 – January 2021 Q=123	P-value 2018 vs 2019	P-value 2019 vs 2020
EORTC-QLQ-C30 Mean (SD)										
Global health status QoL	58.87 (21.61)	58.98 (24.57)	62.07 (23.04)	0.327	0.045	58.17 (22.11)	58.88 (22.71)	60.00 (21.86)	0.374	0.567
Functional scales										
Physical functioning	74.58 (19.32)	72.27 (21.78)	77.34 (19.91)	0.025	0.001	72.50 (20.51)	73.98 (20.86)	72.38 (24.15)	0.948	0.693
Role functioning	55.95 (31.61)	54.67 (30.65)	63.02 (31.30)	0.332	<0.001	56.80 (32.06)	57.25 (33.27)	59.62 (32.36)	0.679	0.197
Emotional functioning	77.50 (22.48)	78.37 (21.16)	78.39 (19.41)	0.206	0.538	79.95 (19.98)	75.05 (21.51)	80.69 (15.62)	0.534	0.215
Cognitive functioning	82.86 (21.43)	79.94 (23.32)	83.20 (19.34)	0.026	0.064	83.22 (21.74)	79.87 (24.15)	81.17 (20.57)	0.493	0.530
Social functioning	75.00 (24.44)	72.12 (26.72)	70.18 (32.11)	0.070	0.909	75.77 (26.43)	75.00 (27.23)	68.70 (29.38)	0.752	0.112
Symptom scales										
Fatigue	41.55 (23.82)	43.17 (28.52)	37.15 (26.51)	0.153	<0.001	42.73 (26.73)	41.27 (25.65)	39.11 (23.04)	0.398	0.309
Nausea and vomiting	9.05 (15.27)	9.13 (17.14)	8.98 (15.78)	0.160	0.491	10.86 (18.32)	9.85 (17.42)	8.94 (16.57)	0.733	0.911
Pain	31.79 (28.62)	31.53 (26.46)	26.04 (24.90)	0.099	0.009	28.73 (28.72)	31.93 (28.39)	31.84 (28.23)	0.086	0.351
Dyspnoea	23.98 (26.02)	22.51 (25.66)	14.84 (19.08)	0.906	0.004	21.93 (25.19)	19.26 (24.63)	21.14 (25.35)	0.226	0.778
Insomnia	28.10 (25.06)	32.70 (30.54)	22.92 (23.57)	0.007	0.002	29.82 (29.00)	31.39 (29.08)	31.98 (31.77)	0.825	0.979
Appetite loss	16.43 (24.16)	15.92 (27.11)	18.23 (28.63)	0.445	0.963	20.39 (28.72)	15.37 (23.84)	16.26 (26.44)	0.828	0.849
Constipation	17.62 (27.83)	12.31 (22.74)	10.50 (20.45)	0.576	0.615	10.96 (22.95)	16.02 (25.05)	16.80 (25.02)	0.265	0.822
Diarrhoea	14.73 (23.14)	17.62 (26.57)	13.80 (24.93)	0.112	0.018	16.45 (25.73)	15.80 (23.55)	16.53 (25.38)	0.529	0.744
Financial difficulties	14.05 (25.31)	11.54 (24.73)	13.54 (24.55)	0.200	0.644	13.25 (26.96)	14.94 (25.58)	10.93 (23.25)	0.742	0.125
SF 12v2 Mean (SD)										
Mental health	44.91 (10.18)	45.09 (9.87)	43.84 (11.12)	0.427	0.254	44.91 (9.43)	44.63 (11.15)	42.24 (11.14)	0.654	0.059
Physical health	40.74 (10.67)	40.69 (10.46)	43.85 (8.46)	0.791	0.016	41.57 (11.87)	42.33 (10.40)	46.02 (9.89)	0.986	0.004
EORTC CIPN20 Mean (SD)										
Autonomic scale	18.51 (17.64)	18.77 (18.01)	16.58 (15.70)	0.520	0.135	16.30 (17.94)	17.00 (17.18)	20.19 (17.98)	0.447	0.084
Motor scale	9.40 (10.51)	11.63 (12.38)	7.89 (9.15)	0.081	0.001	9.23 (9.79)	8.99 (11.54)	10.27 (10.40)	0.969	0.933
Sensory scale	12.07 (14.94)	11.89 (14.37)	10.00 (12.31)	0.568	0.185	10.88 (14.16)	10.45 (13.53)	11.73 (13.27)	0.952	0.797

Sum score	11.22 (11.47)	12.49 (12.13)	9.60 (9.78)	0.136	0.014	10.47 (10.47)	10.22 (11.76)	11.92 (10.40)	0.969	0.867
EORTC QLQ-MY20 Mean (SD)										
Future perspectives	61.75 (24.56)	62.06 (22.34)	65.43 (20.21)	0.009	0.938	64.99 (25.70)	62.00 (25.39)	60.52 (25.24)	0.296	0.887
Body image	72.68 (28.87)	69.05 (29.66)	73.46 (30.63)	0.214	0.521	76.71 (27.04)	71.19 (32.38)	75.00 (26.40)	0.103	0.632
Disease symptoms	23.77 (19.38)	23.90 (17.46)	19.09 (14.05)	0.315	0.025	17.94 (18.81)	25.51 (19.50)	21.93 (19.06)	0.016	0.307
Side effect of treatment	18.36 (14.17)	19.96 (16.42)	19.86 (14.54)	0.050	0.508	17.79 (15.78)	16.86 (14.98)	16.30 (12.93)	0.970	0.941