Supplementary Material: Determining the Relationship between Seizure days, Seizure-Free Days and Other Predictors of Health-Related Quality of Life in Patients with Dravet Syndrome and Their Carers from FFA registration studies

Authors

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Table S1. Testing interaction terms following the univariate analysis for patient PedsQL.

Covariate	Coefficient	p-value	Outcome variable
Age*28-day frequency of seizure days at baseline	-0.005	>0.1	PedsQL baseline
Age*28-day frequency of SFDs at baseline	0.005	>0.1	PedsQL baseline
Age * Study	-0.157	>0.5	PedsQL baseline
Age * Motor impairments	0.775 0.913	>0.1	PedsQL baseline
28-day frequency of seizure days at baseline *Study	0.045	>0.1	PedsQL baseline
28-day frequency of SFDs at baseline * Study	-0.045	>0.1	PedsQL baseline
28-day frequency of seizure days at baseline * Motor impairments	0.003 -0.128	>0.1 >0.1	PedsQL baseline
28-day frequency of SFDs at baseline* Motor impairments	-0.003 0.128	>0.1 >0.1	PedsQL baseline

Table S2. <u>Testing interaction terms following the univariate analysis for patient EQ-5D-Y data at baseline</u>

Covariate	Coefficient	p-value	Outcome variable
Age* 28-day frequency of seizure days at baseline	0.027	>0.1	EQ-5D-Y baseline
Age* 28-day frequency of SFDs at baseline	-0.027	>0.1	EQ-5D-Y baseline
Age * Study	-0.338	>0.1	EQ-5D-Y baseline
Age * Motor impairments	1.238 1.736	>0.1	EQ-5D-Y baseline
28-day frequency of seizure days at baseline * Study	0.220	>0.1	EQ-5D-Y baseline
28-day frequency of SFDs at baseline * Study	-0.220	>0.1	EQ-5D-Y baseline
28-day frequency of seizure days at baseline * Motor impairments	0.037 -0.031	>0.1 >0.1	EQ-5D-Y baseline
28-day frequency of SFDs at baseline * Motor impairments	-0.037 0.031	>0.1 >0.1	EQ-5D-Y baseline

For EQ-5D-Y coefficients refer to a 0-100 scale. All utility values predicted using these coefficients were divided by 100 before the predicted relationship was estimated (shown in Figure 1).

Table S3. <u>Stepwise testing of covariates with the random effects components of each model analysis for patient PedSQL and EQ-5D-Y data at the 3 follow-up time points</u>

Covariate	Coefficient	p-value	Outcome variable
age + (1|variable) + (1|subjid)	-0.746	**<0.001**	PedsQL
seizure day 28 freq + (1|variable) + (1|subjid)	-0.344	**<0.001**	PedsQL
seizure free day 28 freq + (1|variable) + (1|subjid)	0.344	**<0.001**	PedsQL
Study + (1|variable) + (1|subjid)	0.914	>0.5	PedsQL
physicalissues + (1|variable) + (1|subjid)	-4.098 -10.476	**<0.05** **<0.05**	PedsQL
age + (1|variable) + (1|subjid)	-0.767	**<0.05**	EQ-5D-Y
seizure day 28 freq + (1|variable) + (1|subjid)	-0.647	**<0.001**	EQ-5D-Y
seizure free day 28 freq + (1|variable) + (1|subjid)	0.647	**<0.001**	EQ-5D-Y
Study + (1|variable) + (1|subjid)	1.409	>0.1	EQ-5D-Y
physicalissues + (1|variable) + (1|subjid)	-7.458 -15.333	**<0.01** **<0.05**	EQ-5D-Y

†For EQ-5D-Y coefficients refer to a 0-100 scale. All utility values predicted using these coefficients were divided by 100 before the predicted relationship was estimated (shown in Figure 1).

Table S4. <u>Testing interaction terms following the univariate analysis for carer EQ-5D-3L data at baseline</u>

Covariate	Coefficient	p-value	Outcome variable
Age* 28-day frequency of seizure days at baseline	-0.130	**<0.05**	EQ-5D-3L baseline
Age* 28-day frequency of SFDs at baseline	-0.130	**<0.05**	EQ-5D-3L baseline
Age * Study	-1.451	>0.1	EQ-5D-3L baseline
Age * Motor impairments	0.465 0.919	>0.1	EQ-5D-3L baseline
28-day frequency of seizure days at baseline * Study	-0.268	>0.1	EQ-5D-3L baseline
28-day frequency of SFDs at baseline * study	0.268	>0.1	EQ-5D-3L baseline
28-day frequency of seizure days at baseline * Motor impairments	0.366 0.005	>0.1 >0.1	EQ-5D-3L baseline
28-day frequency of SFDs at baseline * Motor impairments	-0.366 -0.005	>0.1 >0.1	EQ-5D-3L baseline

┼Coefficients refer to a 0-100 scale. All utility values predicted using these coefficients were divided by 100 before the predicted relationship was estimated

Table S5. <u>Stepwise testing of covariates with the random effects components of each model analysis for carer EQ-5D-3L data at the 3 follow-up time points</u>

Covariate	Coefficient	p-value	Outcome variable
age + (1|variable) + (1|subjid)	-0.728	>0.05	EQ-5D-3L
seizure day 28 freq + (1|variable) + (1|subjid)	-0.473	**<0.05**	EQ-5D-3L
seizure free day 28 freq + (1|variable) + (1|subjid)	0.473	**<0.05**	EQ-5D-3L
Study + (1|variable) + (1|subjid)	1.770	>0.1	EQ-5D-3L
physicalissues + (1|variable) + (1|subjid)	-26.821 -14.998	**<0.001** >0.1	EQ-5D-3L

†Coefficients refer to a 0-100 scale. All utility values predicted using these coefficients were divided by 100 before the predicted relationship was estimated

Figure S1. PedsQL data for 128 patients in both study groups of the trial for each follow-up point.
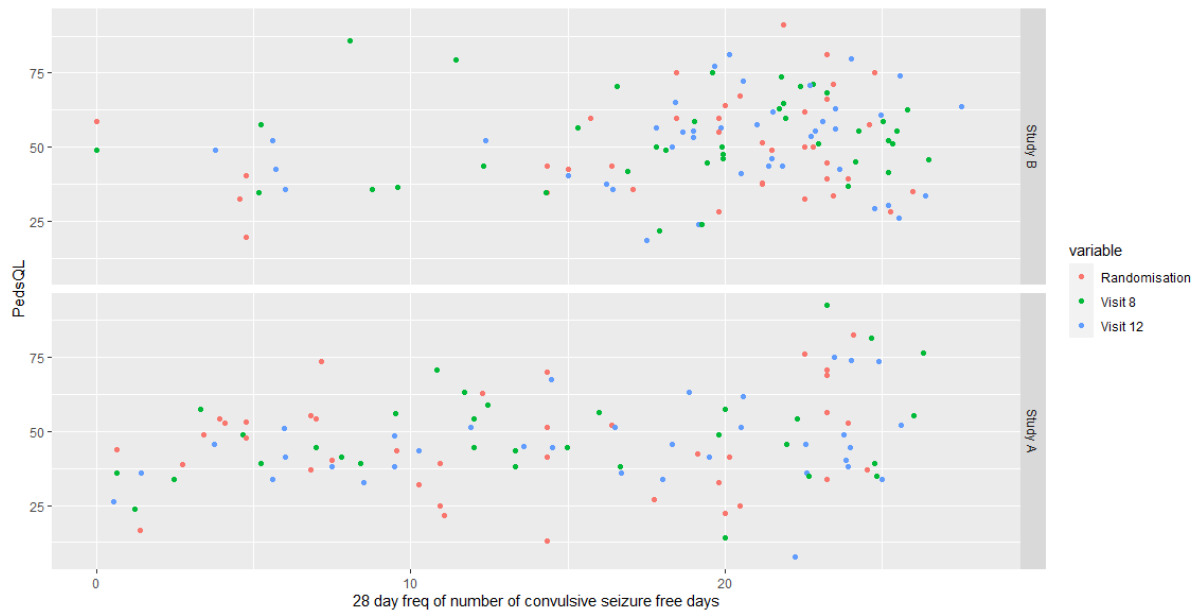

Figure S2. EQ-5D-Y data for 128 patients in both study groups of the trial for each follow-up point.
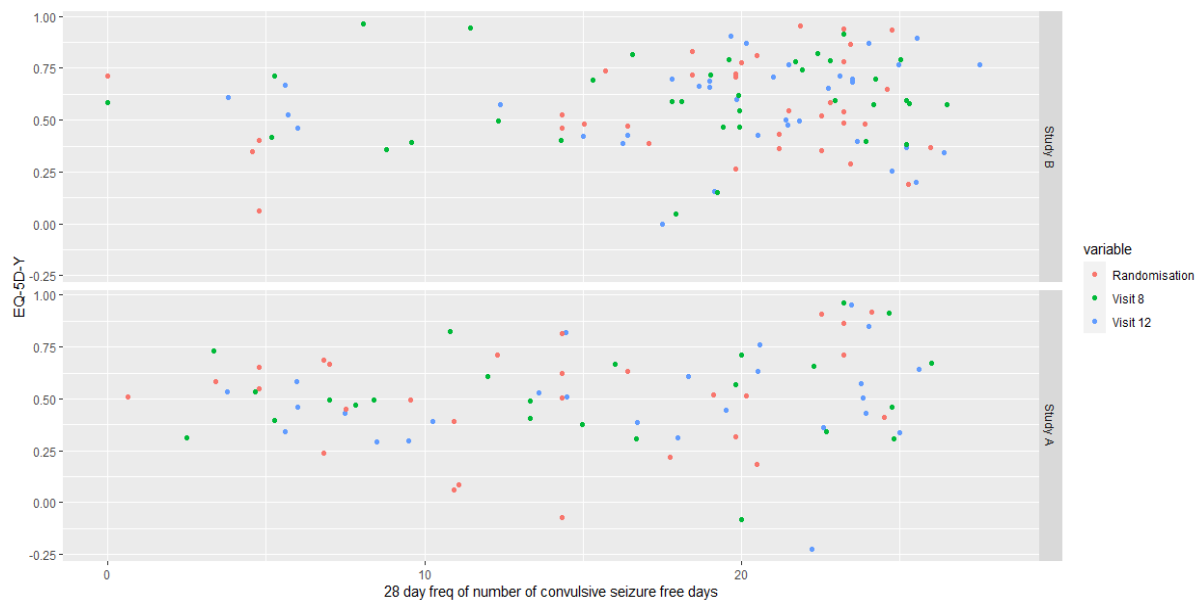
Figure S3. EQ-5D-3L data for 176 carers in both study groups of the trial for each follow-up point.