

**Juvenile Arthritis Disease Activity Score**

Table 1: JADAS10

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	10	11	5.78 (5.21)	4.44 (1.9, 7.5)	0, 16.2
Visit 1	13	8	2.62 (3.64)	1.1 (0.1, 3.46)	0, 11.5
Visit 2	11	8	3.04 (2.86)	1.9 (0.2, 5.23)	0.1, 8.5
Visit 3	9	6	4.79 (3.98)	3.9 (2, 5)	0.2, 12.31
Visit 4	4	2	2.88 (4.23)	1.1 (0.25, 5.51)	0.2, 9.13
Visit 5	5	1	3.27 (3.46)	2.2 (1.54, 3.3)	0.2, 9.13
Visit 6	3	1	3.11 (4.78)	0.6 (0.1, 8.63)	0.1, 8.63

Table 2: JADAS27

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	10	11	5.58 (5.04)	4.44 (1.9, 7.5)	0, 15.2
Visit 1	13	8	2.46 (3.3)	1.1 (0.1, 3.46)	0, 10.5
Visit 2	11	8	3.04 (2.86)	1.9 (0.2, 5.23)	0.1, 8.5
Visit 3	9	6	4.79 (3.98)	3.9 (2, 5)	0.2, 12.31
Visit 4	4	2	2.88 (4.23)	1.1 (0.25, 5.51)	0.2, 9.13
Visit 5	5	1	3.07 (3.49)	2.2 (1.54, 2.3)	0.2, 9.13
Visit 6	3	1	3.11 (4.78)	0.6 (0.1, 8.63)	0.1, 8.63

Table 3: JADAS71

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	10	11	5.78 (5.21)	4.44 (1.9, 7.5)	0, 16.2
Visit 1	13	8	2.62 (3.64)	1.1 (0.1, 3.46)	0, 11.5
Visit 2	11	8	3.04 (2.86)	1.9 (0.2, 5.23)	0.1, 8.5
Visit 3	9	6	4.79 (3.98)	3.9 (2, 5)	0.2, 12.31
Visit 4	4	2	2.88 (4.23)	1.1 (0.25, 5.51)	0.2, 9.13
Visit 5	5	1	3.27 (3.46)	2.2 (1.54, 3.3)	0.2, 9.13
Visit 6	3	1	3.11 (4.78)	0.6 (0.1, 8.63)	0.1, 8.63

Table 4: Physician global assessment

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	21	0	2 (2.04)	1.6 (0.2, 3.02)	0, 7.5
Visit 1	20	1	0.96 (1.46)	0.56 (0, 1.28)	0, 6
Visit 2	19	0	0.95 (1.02)	0.93 (0, 1.2)	0, 4
Visit 3	15	0	1.33 (1.61)	0.72 (0.31, 1.8)	0, 5
Visit 4	6	0	0.72 (1.2)	0.31 (0, 0.6)	0, 3.13
Visit 5	6	0	0.93 (1.22)	0.57 (0, 1.3)	0, 3.13
Visit 6	4	0	0.41 (0.28)	0.5 (0.25, 0.56)	0, 0.63

Table 5: Parent/ Patient global assessment

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	13	8	1.69 (2.76)	0 (0, 2.6)	0, 7.5
Visit 1	14	7	0.99 (1.65)	0.45 (0, 1.1)	0, 6
Visit 2	12	7	0.92 (1.47)	0.3 (0.1, 0.95)	0, 5
Visit 3	9	6	2.79 (2.73)	3 (0.2, 3.9)	0, 7.5
Visit 4	4	2	1.9 (2.79)	0.75 (0.15, 3.65)	0.1, 6
Visit 5	5	1	1.76 (2.53)	0.5 (0.1, 2.2)	0, 6
Visit 6	3	1	1.73 (2.83)	0.1 (0.1, 5)	0.1, 5

Table Error! No text of specified style in document.: Active joint count 0-10 joints

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	21	0	0.86 (1.68)	0 (0, 1)	0, 6
Visit 1	20	1	0.4 (0.82)	0 (0, 0.5)	0, 3
Visit 2	19	0	0.63 (1.26)	0 (0, 1)	0, 5
Visit 3	15	0	0.67 (1.59)	0 (0, 1)	0, 6
Visit 4	6	0	0.17 (0.41)	0 (0, 0)	0, 1
Visit 5	6	0	0.33 (0.82)	0 (0, 0)	0, 2
Visit 6	4	0	0.75 (1.5)	0 (0, 1.5)	0, 3

Table 7: Active joint counts 0-27 joints

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	21	0	0.57 (1.12)	0 (0, 1)	0, 4
Visit 1	20	1	0.3 (0.57)	0 (0, 0.5)	0, 2
Visit 2	19	0	0.63 (1.26)	0 (0, 1)	0, 5
Visit 3	15	0	0.67 (1.59)	0 (0, 1)	0, 6
Visit 4	6	0	0.17 (0.41)	0 (0, 0)	0, 1
Visit 5	6	0	0.17 (0.41)	0 (0, 0)	0, 1
Visit 6	4	0	0.75 (1.5)	0 (0, 1.5)	0, 3

Table 8: Active joint counts 0-71 joints

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	21	0	0.86 (1.68)	0 (0, 1)	0, 6
Visit 1	20	1	0.4 (0.82)	0 (0, 0.5)	0, 3
Visit 2	19	0	0.63 (1.26)	0 (0, 1)	0, 5
Visit 3	15	0	0.67 (1.59)	0 (0, 1)	0, 6
Visit 4	6	0	0.17 (0.41)	0 (0, 0)	0, 1
Visit 5	6	0	0.33 (0.82)	0 (0, 0)	0, 2
Visit 6	4	0	0.75 (1.5)	0 (0, 1.5)	0, 3

Table 9: ESR

Visit	N	Missing	Mean (SD)	Median (IQR)	Min, Max
Baseline	16	5	26.44 (11.48)	20 (20, 29)	20, 62
Visit 1	20	1	20 (0)	20 (20, 20)	20, 20
Visit 2	17	2	20.59 (2.43)	20 (20, 20)	20, 30
Visit 3	15	0	20 (0)	20 (20, 20)	20, 20
Visit 4	6	0	20 (0)	20 (20, 20)	20, 20

Visit 5	6	0	20 (0)	20 (20, 20)	20, 20
Visit 6	4	0	20 (0)	20 (20, 20)	20, 20

Figure 1

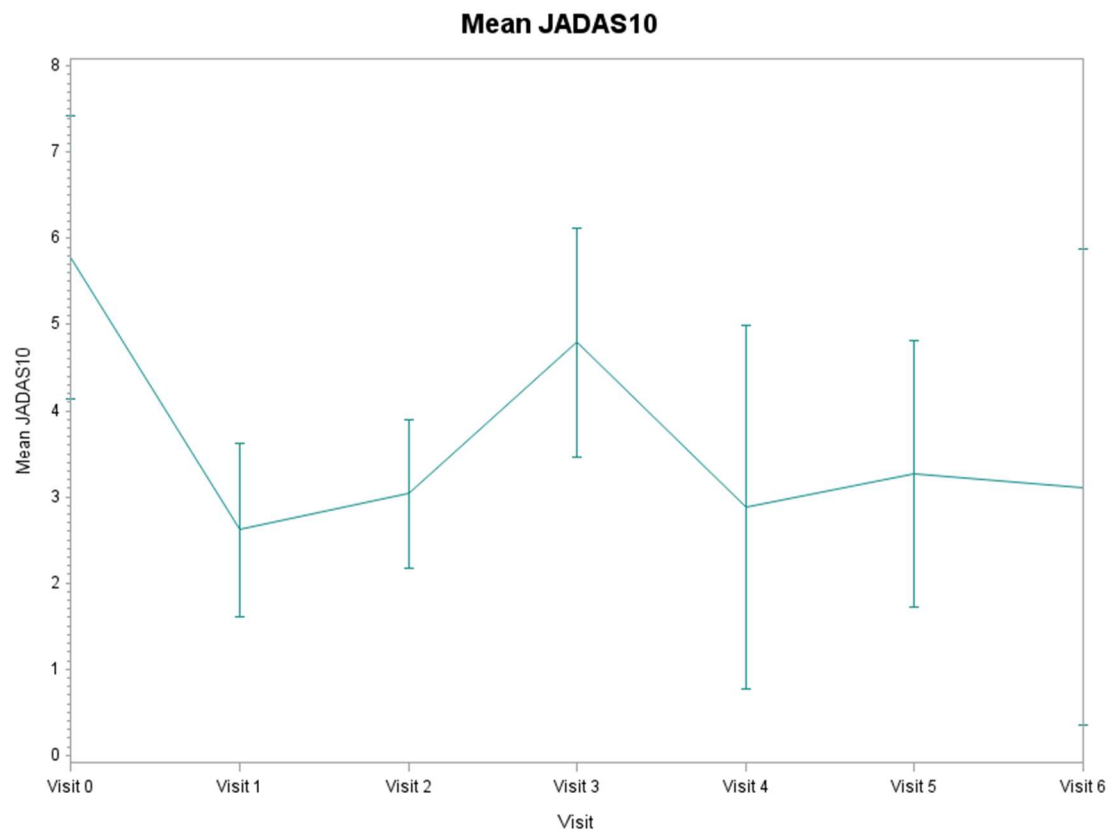


Figure 2

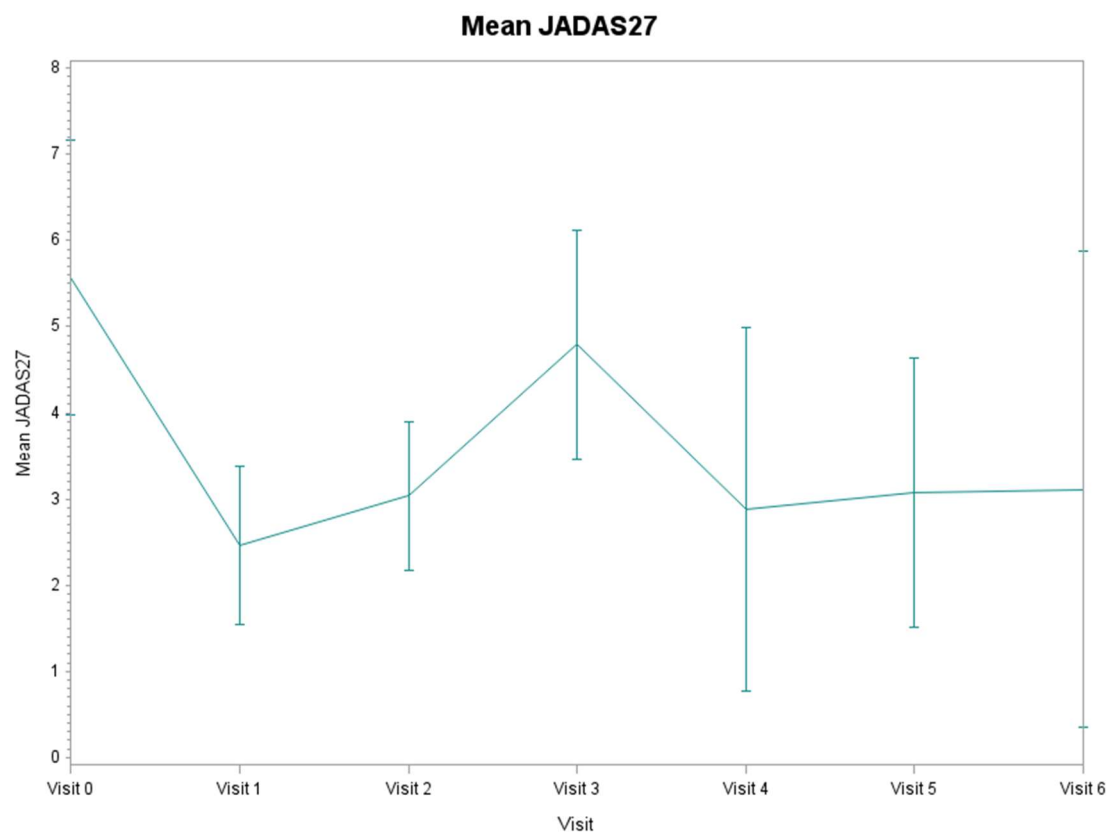


Figure 3

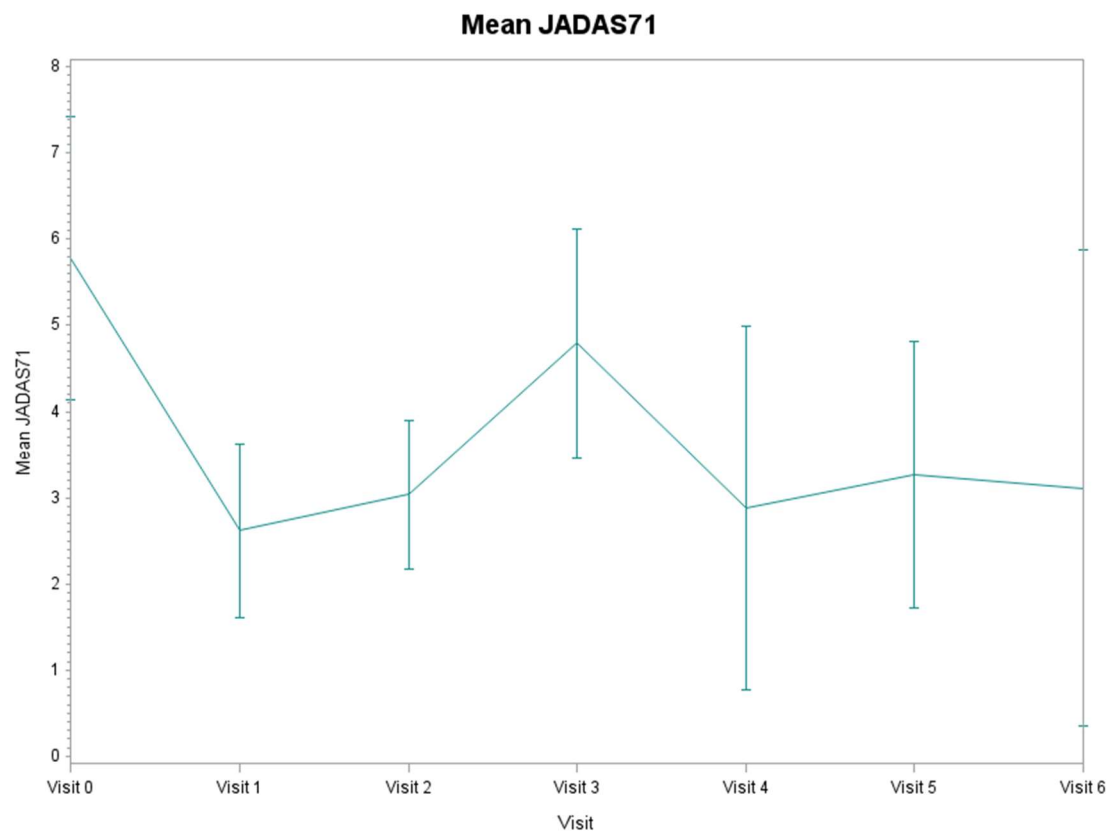


Table 10 : Joint modelling of JADAS and time to treatment failure

Number of observations: 27

Number of subjects: 10

Number of subjects that fail: 7 (70.0%)

\*\*For all JADAS outcomes note low numbers of subjects/observations. Some bootstrap models took various attempts before conversion. Treat results with caution.\*\*

		JADAS10			JADAS27			JADAS71		
	Parameter	Estimate	95% CI	p-value	Estimate	95% CI	p-value	Estimate	95% CI	p-value
Primary analysis	Association	0.14	-0.64, 2.23	0.857	0.13	-0.63, 2.18	0.868	0.14	-0.64, 2.23	0.857
	Time	-0.40	-2.02, 1.72	0.701	-0.36	-1.88, 1.63	0.720	-0.40	-2.02, 1.72	0.701
Sensitivity analysis	Association	0.16	-0.49, 0.98	0.625	0.15	-0.57, 0.97	0.638	0.16	-0.49, 0.98	0.625
	Time	-0.27	-1.31, 0.59	0.582	-0.25	-1.27, 0.59	0.596	-0.27	-1.31, 0.59	0.582

**Any notes resulting from visual inspection of data or comparisons between untransformed and transformed data:**

Baseline JADAS scores are skewed. QQ-plots of standardised residuals from untransformed and log-transformed models look similar. Difficult to see if log transformation improves distributions with such low number

