

**Supplementary table 4: Analyses when intramuscular GCs are included in prednisone dose variable**

Outcome glucose over time	Complete analyses		Sensitivity analyses	
	$\beta$	95% CI	$\beta$	95% CI
Current prednisone dose <sup>1</sup>	0.00	-0.01; 0.01	0.01	-0.01; 0.02
Current prednisone dose <sup>2</sup>	0.00	-0.01; 0.01	0.01	-0.01; 0.02
Any previous prednisone use <sup>1</sup>	0.03	-0.07; 0.12	-0.02	-0.13; 0.08
Any previous prednisone use <sup>2</sup>	0.03	-0.06; 0.13	-0.02	-0.13; 0.10
Previous time on prednisone <sup>1</sup>	-0.00	-0.01; 0.00	-0.00	-0.01; 0.00
Previous time on prednisone <sup>2</sup>	-0.00	-0.01; 0.00	-0.00	-0.01; 0.00
Cumulative prednisone dose <sup>1</sup>	-0.00	-0.01; 0.01	-0.00	-0.01; 0.01
Cumulative prednisone dose <sup>2</sup>	-0.00	-0.01; 0.01	-0.00	-0.01; 0.01
Maximum previous prednisone dose <sup>1</sup>	0.00	-0.00; 0.01	-0.00	-0.01; 0.01
Maximum previous prednisone dose <sup>2</sup>	0.00	-0.00; 0.01	0.00	-0.01; 0.01
Current DAS <sup>3</sup>	1.04	0.96; 1.14	<b>1.29</b>	<b>1.17; 1.42</b>
Current DAS <sup>4</sup>	1.04	0.96; 1.13	<b>1.29</b>	<b>1.17; 1.42</b>
Outcome hyperglycaemia $\geq 7.8$	Complete analyses		Sensitivity analyses	
	OR	95% CI	OR	95% CI
Current prednisone dose <sup>1</sup>	1.01	0.99; 1.04	<b>1.03</b>	<b>1.00; 1.06</b>
Current prednisone dose <sup>2</sup>	1.01	0.99; 1.04	<b>1.03</b>	<b>1.00; 1.06</b>
Any previous prednisone use <sup>1</sup>	1.22	0.95; 1.57	0.89	0.69; 1.14
Any previous prednisone use <sup>2</sup>	1.22	0.94; 1.59	0.88	0.67; 1.14
Previous time on prednisone <sup>1</sup>	1.00	1.00; 1.03	0.99	0.98; 1.00
Previous time on prednisone <sup>2</sup>	1.00	1.00; 1.01	0.99	0.98; 1.00
Cumulative prednisone dose <sup>1</sup>	1.01	0.99; 1.03	0.99	0.97; 1.00
Cumulative prednisone dose <sup>2</sup>	1.01	0.99; 1.04	0.99	0.97; 1.01
Maximum previous prednisone dose <sup>1</sup>	1.01	1.00; 1.02	1.00	0.99; 1.01
Maximum previous prednisone dose <sup>2</sup>	1.01	1.00; 1.02	1.00	0.99; 1.01
Current DAS <sup>3</sup>	1.04	0.96; 1.14	<b>1.29</b>	<b>1.17; 1.42</b>
Current DAS <sup>4</sup>	1.04	0.96; 1.13	<b>1.29</b>	<b>1.17; 1.42</b>
Outcome diabetes by any definition	Complete analyses		Sensitivity analyses	
	HR	95% CI	HR	95% CI
Current prednisone dose <sup>1</sup>	1.07	1.00; 1.14	1.07	1.00; 1.15
Current prednisone dose <sup>2</sup>	1.07	1.00; 1.14	1.07	1.00; 1.14
Any previous prednisone use <sup>1</sup>	0.72	0.33; 1.56	0.72	0.33; 1.56
Any previous prednisone use <sup>2</sup>	0.65	0.30; 1.41	0.65	0.30; 1.42
Previous time on prednisone <sup>1</sup>	0.97	0.93; 1.01	0.97	0.93; 1.01
Previous time on prednisone <sup>2</sup>	0.97	0.93; 1.01	0.97	0.93; 1.01
Cumulative prednisone dose <sup>1</sup>	0.96	0.90; 1.03	0.97	0.90; 1.03
Cumulative prednisone dose <sup>2</sup>	0.97	0.90; 1.03	0.97	0.90; 1.03
Maximum previous prednisone dose <sup>1</sup>	1.00	0.96; 1.03	1.00	0.96; 1.03
Maximum previous prednisone dose <sup>2</sup>	1.00	0.96; 1.03	1.00	0.96; 1.03
Current DAS <sup>3</sup>	<b>1.80</b>	<b>1.28; 2.53</b>	<b>1.80</b>	<b>1.28; 2.53</b>
Current DAS <sup>4</sup>	<b>1.80</b>	<b>1.28; 2.53</b>	<b>1.80</b>	<b>1.28; 2.53</b>

CI: confidence interval, DAS: 44/53-joint disease activity, GC: glucocorticoid, HR: hazard ratio, OR: odds ratio.

Glucose over time was evaluated with mixed models, hyperglycaemia with mixed effects logistic regression and diabetes with Cox regression models over time. Sensitivity analyses were conducted in patients including only timepoints from a first hyperglycaemia.

1\*: adjusted for disease activity over time, effect over time, BMI and age, without intramuscular glucocorticoids included in the predictor

2: adjusted for disease activity over time, effect over time, BMI and age, with intramuscular glucocorticoids included in the predictor

3\*: adjusted for prednisone dose, effect over time, BMI, age and sex, without intramuscular glucocorticoids included in the predictor

4: adjusted for prednisone dose, effect over time, BMI, age and sex, with intramuscular glucocorticoids included in the predictor

\*: <sup>1</sup> and <sup>3</sup> same analyses as table 4, repeated here for easier comparison to the models with imGCs included in the predictor.