

Table SI. Risk of adverse events in singleton pregnancies, psoriatic arthritis (PsA) (n=896). Pregnancies without psoriasis and PsA serves as reference. Excluding women who have a diagnosis of rheumatoid arthritis (RA) after their latest PsA-diagnosis

Adverse event	n (%)	OR (95% CI)	Model 1 ^a OR (95% CI)	Model 2 ^b OR (95% CI)
Gestational diabetes ^c	23 (2.6)	1.40 (0.91–2.16)	1.36 (0.89–2.1)	1.23 (0.79–1.91)
Gestational hypertension ^c	36 (4.0)	1.76 (1.24–2.49)	1.72 (1.21–2.45)	1.57 (1.08–2.27)
Antepartum haemorrhage	24 (2.7)	1.07 (0.71–1.6)	1.04 (0.70–1.57)	1.03 (0.67–1.57)
Venous thromboembolism	5 (0.6)	2.49 (1.03–5.99)	2.32 (0.96–5.61)	2.33 (0.97–5.62)
Pre-eclampsia	44 (4.9)	1.52 (1.12–2.07)	1.61 (1.18–2.19)	1.42 (1.01–1.99)
Elective caesarean	117 (13.1)	1.60 (1.30–1.98)	1.41 (1.14–1.74)	1.34 (1.07–1.68)
Emergency caesarean	95 (10.6)	1.15 (0.92–1.44)	1.21 (0.96–1.51)	1.09 (0.85–1.39)
Preterm birth (<37 weeks)	52 (5.8)	1.17 (0.88–1.55)	1.22 (0.92–1.62)	1.19 (0.89–1.59)
Very or extremely preterm birth (<32 gestational weeks)	6 (0.7)	0.80 (0.36–1.79)	0.84 (0.38–1.88)	0.78 (0.32–1.88)
Moderate preterm birth (32–36 weeks)	46 (5.1)	1.24 (0.92–1.68)	1.29 (0.96–1.75)	1.27 (0.93–1.72)
Apgar <7	17 (1.9)	0.92 (0.57–1.48)	0.99 (0.62–1.6)	0.97 (0.58–1.62)
Small for gestational age (SGA)	13 (1.5)	0.66 (0.38–1.13)	0.69 (0.40–1.2)	0.67 (0.38–1.18)
Low birth weight	29 (3.2)	0.93 (0.65–1.35)	0.99 (0.68–1.43)	0.97 (0.66–1.42)
Stillbirth	4 (0.4)	1.21 (0.45–3.25)	1.27 (0.47–3.38)	1.04 (0.33–3.22)
Congenital malformations	43 (4.8)	1.15 (0.85–1.55)	1.13 (0.83–1.53)	1.11 (0.81–1.53)

^aModel 1: adjusted for country, maternal age, parity. ^bModel 2: adjusted for country, maternal age, parity, body mass index, hypertension, diabetes, mellitus, depression, smoking. ^cOnly women without prescriptions of antidiabetic and antihypertensive medications up to 1 year prior to pregnancy were eligible to develop gestational diabetes or hypertension, respectively.
OR: odds ratio; CI: confidence interval.

Table SII. Risk of adverse events in singleton pregnancies, psoriatic arthritis (PsA) (n=882). Pregnancies without psoriasis and PsA serves as reference. Excluding women who have a diagnosis of rheumatoid arthritis (RA) after their latest PsA diagnosis, and more frequent RA diagnoses than PsA diagnoses

Adverse event	n (%)	OR (95% CI)	Model 1 ^a OR (95% CI)	Model 2 ^b OR (95% CI)
Gestational diabetes ^c	23 (2.6)	1.42 (0.92–2.19)	1.39 (0.90–2.14)	1.24 (0.80–1.94)
Gestational hypertension ^c	35 (4.0)	1.73 (1.21–2.48)	1.70 (1.19–2.43)	1.54 (1.06–2.25)
Antepartum haemorrhage	24 (2.7)	1.09 (0.72–1.63)	1.06 (0.71–1.59)	1.05 (0.69–1.6)
Venous thromboembolism	5 (0.6)	2.53 (1.05–6.08)	2.37 (0.98–5.71)	2.37 (0.98–5.72)
Pre-eclampsia	43 (4.9)	1.51 (1.11–2.07)	1.59 (1.16–2.18)	1.40 (0.99–1.97)
Elective caesarean	114 (12.9)	1.59 (1.28–1.96)	1.40 (1.13–1.73)	1.33 (1.06–1.66)
Emergency caesarean	95 (10.8)	1.17 (0.94–1.46)	1.23 (0.98–1.54)	1.10 (0.87–1.41)
Preterm birth (<37 weeks)	52 (5.9)	1.19 (0.90–1.58)	1.24 (0.93–1.65)	1.21 (0.90–1.62)
Very or extremely preterm birth (<32 gestational weeks)	6 (0.7)	0.82 (0.37–1.82)	0.86 (0.38–1.91)	0.79 (0.33–1.91)
Moderate preterm birth (32–36 weeks)	46 (5.2)	1.26 (0.94–1.71)	1.31 (0.97–1.78)	1.29 (0.95–1.75)
Apgar <7	17 (1.9)	0.93 (0.58–1.51)	1.01 (0.63–1.63)	0.99 (0.59–1.64)
Small for gestational age (SGA)	13 (1.5)	0.67 (0.39–1.15)	0.70 (0.41–1.22)	0.68 (0.38–1.2)
Low birth weight	29 (3.3)	0.95 (0.66–1.37)	1.00 (0.69–1.45)	0.98 (0.67–1.44)
Stillbirth	4 (0.5)	1.23 (0.46–3.3)	1.29 (0.48–3.44)	1.05 (0.34–3.26)
Congenital malformations	41 (4.6)	1.11 (0.81–1.51)	1.09 (0.80–1.49)	1.10 (0.80–1.52)

^aModel 1: adjusted for country, maternal age, parity. ^bModel 2: adjusted for country, maternal age, parity, body mass index, hypertension, diabetes, mellitus, depression, smoking. ^cOnly women without prescriptions of antidiabetic and antihypertensive medications up to 1 year prior to pregnancy were eligible to develop gestational diabetes or hypertension, respectively.
OR: odds ratio; CI: confidence interval.

Table SIII. Risk of adverse pregnancy and birth events in singleton pregnancies with and without psoriasis. Pregnancies without psoriasis serves as reference. Body mass index and maternal age are continuous variables

Adverse event	Psoriasis n=8,097 n (%)	Without psoriasis n=943,846 n (%)	Crude OR (95% CI)	Model 1 ^a OR (95% CI)	Model 2 ^b OR (95% CI)
Gestational diabetes ^c	215 (2.7)	17,418 (1.8)	1.45 (1.26–1.68)	1.36 (1.17–1.57)	1.21 (1.03–1.41)
Gestational hypertension ^c	231 (2.9)	21,988 (2.3)	1.23 (1.08–1.41)	1.25 (1.10–1.44)	1.16 (1.00–1.33)
Antepartum haemorrhage	211 (2.6)	23,712 (2.5)	1.04 (0.90–1.19)	1.06 (0.92–1.22)	0.98 (0.84–1.14)
Venous thromboembolism	19 (0.2)	2,126 (0.2)	1.04 (0.66–1.64)	0.97 (0.61–1.55)	0.87 (0.53–1.43)
Pre-eclampsia	323 (4.0)	30,954 (3.3)	1.23 (1.09–1.38)	1.28 (1.14–1.44)	1.15 (1.01–1.3)
Elective caesarean	835 (10.3)	80,817 (8.6)	1.23 (1.14–1.33)	1.17 (1.08–1.26)	1.10 (1.02–1.2)
Emergency caesarean	863 (10.7)	88,140 (9.3)	1.16 (1.08–1.25)	1.16 (1.08–1.25)	1.09 (1.00–1.18)
Preterm birth (<37 weeks)	436 (5.4)	47,207 (5.0)	1.08 (0.98–1.19)	1.10 (1.00–1.22)	0.98 (0.88–1.09)
Very or extremely preterm birth (<32 gestational weeks)	70 (0.9)	7,852 (0.8)	1.04 (0.81–1.33)	1.07 (0.84–1.37)	0.91 (0.68–1.23)
Moderate preterm birth (32–36 weeks)	366 (4.5)	39,355 (4.2)	1.09 (0.98–1.21)	1.11 (1.00–1.23)	0.99 (0.88–1.12)
Apgar <7	154 (1.9)	19,470 (2.1)	0.92 (0.78–1.08)	0.98 (0.83–1.15)	0.90 (0.75–1.09)
Small for gestational age (SGA)	175 (2.2)	20,693 (2.2)	0.99 (0.85–1.15)	1.02 (0.87–1.19)	0.95 (0.81–1.12)
Low birth weight	300 (3.7)	32,643 (3.5)	1.07 (0.95–1.21)	1.09 (0.97–1.23)	0.98 (0.86–1.12)
Stillbirth	23 (0.3)	3,471 (0.4)	0.77 (0.50–1.18)	0.82 (0.53–1.25)	–
Congenital malformations	346 (4.3)	39,739 (4.2)	1.02 (0.91–1.13)	1.03 (0.93–1.15)	1.01 (0.90–1.13)

Categories of body mass index (BMI) and maternal age were used, given that using a continuous variable would imply an assumption of a linear relationship between exposure and outcome, which may not be true for BMI and maternal age where both low and high values have been associated with adverse outcomes. We did, however, also conduct a sensitivity analysis to determine the effect of this choice of analysis strategy. With BMI and maternal age as continuous variables, the results of psoriasis vs. population remained practically unchanged.

^aModel 1: adjusted for country, maternal age, parity. ^bModel 2: adjusted for country, maternal age, parity, BMI, hypertension, diabetes, mellitus, depression, smoking. ^cOnly women without prescriptions of antidiabetic and antihypertensive medications up to 1 year prior to pregnancy were eligible to develop gestational diabetes or hypertension, respectively.

Table SIV. Maternal characteristics of singleton births with psoriasis (all and by severity), with psoriatic arthritis, and without psoriasis or psoriatic arthritis (PsA), in Denmark and Sweden between 1 April 2007 and 31 December 2012.

Characteristics	Psoriasis (All)	Severe psoriasis*	Non-severe psoriasis**	Psoriatic arthritis	Women without psoriasis
Total	8,097 (100.0)	312 (100.0)	7,785 (100.0)	964 (100.0)	943,846 (100.0)
Maternal age at delivery					
13–19 years	106 (1.3)	2 (0.6)	104 (1.3)	1 (0.1)	14,594 (1.5)
20–24 years	831 (10.3)	35 (11.2)	796 (10.2)	77 (8.0)	117,410 (12.4)
25–29 years	2,198 (27.1)	89 (28.5)	2,109 (27.1)	200 (20.7)	278,776 (29.5)
30–34 years	3,025 (37.4)	105 (33.7)	2,920 (37.5)	385 (39.9)	330,501 (35.0)
>35 years	1,937 (23.9)	81 (26.0)	1,856 (23.8)	301 (31.2)	202,551 (21.5)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	14 (0.0)
Parity					
Primiparous	3,216 (39.7)	127 (40.7)	3,089 (39.7)	351 (36.4)	420,684 (44.6)
Multiparous	4,845 (59.8)	180 (57.7)	4,665 (59.9)	609 (63.2)	516,759 (54.8)
Missing	36 (0.4)	5 (1.6)	31 (0.4)	4 (0.4)	6,403 (0.7)
Smoking					
Non-smoker	6,727 (83.1)	226 (72.4)	6,501 (83.5)	807 (83.7)	831,560 (88.1)
Smoker	1,114 (13.8)	76 (24.4)	1,038 (13.3)	125 (13.0)	81,329 (8.6)
Missing	256 (3.2)	10 (3.2)	246 (3.2)	32 (3.3)	30,957 (3.3)
Pre-pregnancy body mass index					
11.0–18.4	223 (2.8)	12 (3.8)	211 (2.7)	17 (1.8)	30,499 (3.2)
18.5–24.9	4,141 (51.1)	144 (46.2)	3,997 (51.3)	473 (49.1)	526,275 (55.8)
25.0–29.9	1,908 (23.6)	72 (23.1)	1,836 (23.6)	241 (25.0)	206,516 (21.9)
>30.0	1,232 (15.2)	63 (20.2)	1,169 (15.0)	152 (15.8)	108,930 (11.5)
Missing	593 (7.3)	21 (6.7)	572 (7.3)	81 (8.4)	71,626 (7.6)

Table SV. Prevalence of outcomes in each cohort when considering complete cases included in the adjusted analyses, Model 1 and Model 2^a

Outcome	Psoriasis		Severe psoriasis		Non-severe psoriasis		Psoriatic arthritis		Women without psoriasis	
	Model 1 n = 8,061 n (%)	Model 2 n = 7,398 n (%)	Model 1 n = 307 n (%)	Model 2 n = 283 n (%)	Model 1 n = 7,754 n (%)	Model 2 n = 7,115 n (%)	Model 1 n = 960 n (%)	Model 2 n = 870 n (%)	Model 1 n = 937,430 n (%)	Model 2 n = 860,520 n (%)
Gestational diabetes	214 (2.7)	193 (2.6)	16 (5.2)	13 (4.6)	198 (2.6)	180 (2.5)	24 (2.5)	23 (2.6)	17,266 (1.8)	15,705 (1.8)
Gestational hypertension	230 (2.9)	215 (2.9)	17 (5.5)	15 (5.3)	213 (2.7)	200 (2.8)	40 (4.2)	36 (4.1)	21,882 (2.3)	20,203 (2.3)
Antepartum haemorrhage	211 (2.6)	182 (2.5)	7 (2.3)	6 (2.1)	204 (2.6)	176 (2.5)	26 (2.7)	24 (2.8)	23,599 (2.5)	21,560 (2.5)
Venous thromboembolism	18 (0.2)	16 (0.2)	0 (0.0)	0 (0.0)	18 (0.2)	16 (0.2)	5 (0.5)	5 (0.6)	2,116 (0.2)	1,930 (0.2)
Pre-eclampsia	320 (4.0)	290 (3.9)	21 (6.8)	17 (6.0)	299 (3.9)	273 (3.8)	49 (5.1)	44 (5.1)	30,783 (3.3)	28,355 (3.3)
Elective caesarean	833 (10.3)	765 (10.3)	40 (13.0)	37 (13.1)	793 (10.2)	728 (10.2)	135 (14.1)	44 (5.1)	80,592 (8.6)	73,855 (8.6)
Emergency caesarean	857 (10.6)	781 (10.6)	45 (14.7)	42 (14.8)	812 (10.5)	739 (10.4)	106 (11.0)	44 (5.1)	87,343 (9.3)	80,326 (9.3)
Preterm birth (<37 weeks)	434 (5.4)	363 (4.9)	27 (8.8)	24 (8.5)	407 (5.2)	339 (4.8)	60 (6.3)	54 (6.2)	46,715 (5.0)	41,443 (4.8)
Very or extremely preterm birth ^b	70 (0.9)	52 (0.7)	4 (1.3)	3 (1.1)	66 (0.9)	49 (0.7)	8 (0.8)	6 (0.7)	7,665 (0.8)	6,302 (0.7)
Moderate preterm birth (32–36 weeks)	364 (4.5)	311 (4.2)	23 (7.5)	21 (7.4)	341 (4.4)	290 (4.1)	52 (5.4)	48 (5.5)	39,050 (4.2)	35,141 (4.1)
Apgar <7	150 (1.9)	121 (1.6)	6 (2.0)	4 (1.4)	144 (1.9)	117 (1.6)	19 (2.0)	17 (2.0)	17,935 (1.9)	15,131 (1.8)
Small for gestational age (SGA)	172 (2.1)	151 (2.0)	11 (3.6)	8 (2.8)	161 (2.1)	143 (2.0)	16 (1.7)	14 (1.6)	20,520 (2.2)	18,560 (2.2)
Low birth weight	298 (3.7)	247 (3.3)	23 (7.5)	20 (7.1)	275 (3.5)	227 (3.2)	37 (3.9)	32 (3.7)	32,259 (3.4)	28,515 (3.3)
Stillbirth	23 (0.3)	19 (0.3)	1 (0.3)	1 (0.4)	22 (0.3)	18 (0.3)	4 (0.4)	3 (0.3)	3,283 (0.4)	2,758 (0.3)
Congenital malformations	346 (4.3)	314 (4.2)	11 (3.6)	9 (3.2)	335 (4.3)	305 (4.3)	48 (5.0)	43 (4.9)	39,520 (4.2)	35,953 (4.2)

^aModel 1 is adjusted for country, maternal age, parity. Model 2 is adjusted for country, maternal age, parity, body mass index (BMI), hypertension, diabetes, mellitus, depression, smoking. ^b<32 gestational weeks.