maternal country of birth, BMI, smoking in early pregnancy, educational level, and disposable income in the year before pregnancy.

**Results:** Women with SpA (n=1394) were found to be at increased risk of several adverse outcomes compared to general population comparators (n=13932), as displayed in the Figure 1. Women with SpA had an increased risk of gestational diabetes (adjusted RR 1.88 [95% CI 1.10; 2.56]), elective and emergency Cesarean delivery (adjusted RR 1.54 [95% CI 1.32; 1.79] and 1.23 [95% CI 1.02; 1.48], respectively), and moderately preterm birth (adjusted RR 1.52 [95% CI 1.18; 1.97]). An association was seen with both spontaneous and medically indicated preterm birth, but the increase was only significant for spontaneous preterm birth. The risk estimate for preeclampsia was also increased, but failed to reach significance (adjusted RR 1.32 [95% CI 0.96; 1.81]). Infants to mothers with SpA were not more likely to be born SGA, but there was a slightly increased risk estimate of infection during their first year of life (adjusted RR 1.23 [95% CI 0.98; 1.53]).

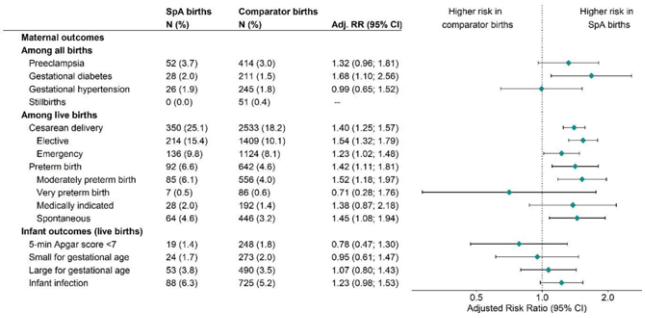


**Figure 1.** Number of events of adverse pregnancy outcomes among a nationwide cohort of births (n=1394) in Swedish women with SpA and comparator births (n=13932, matched 1:10 on birth year, maternal age, and parity). Relative risks from Poisson regression, adjusted for maternal country of birth, BMI, smoking in early pregnancy, educational level, and disposable income in the year before pregnancy.

**Conclusion:** While most pregnancies in women with SpA are uneventful, there is an increased risk for a number of adverse pregnancy outcomes. The increased risks for both emergency Cesarean delivery and spontaneous preterm birth suggest that these differences are not only driven by a different management of SpA pregnancies.

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## OP0127 UNFAVORABLE PREGNANCY OUTCOME IS SIGNIFICANTLY ASSOCIATED WITH CORTICOSTEROID EXPOSURE DURING PREGNANCY IN WOMEN WITH RHEUMATOID ARTHRITIS: ANALYSIS OF THE PROSPECTIVE GR2 COHORT

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**Background:** Rheumatoid arthritis (RA) is one of the most common chronic inflammatory diseases and regularly affects women of childbearing age[1]. However, there is limited knowledge about the impact of the disease and its treatment on pregnancy.

**Objectives:** The aim of the study was to determine the factors associated with adverse pregnancy outcome in women with RA.

**Methods:** All RA patients (diagnosis according to the Rheumatologist) included in the national multicenter GR2 cohort from 2015 to June 2021 were included in the analysis. Patients could be included either with a pregnancy wish (i.e., preconceptional period) or because of a clinical pregnancy (<12 weeks of gestation). The main endpoint was favorable pregnancy outcome, a composite outcome defined as a live birth at term ≥ 37 gestation weeks of a healthy newborn with a weight greater than the 10th percentile. Disease activity was defined by a DAS28-CRP score > 3.2 at least once during pregnancy. We performed a multilevel logistic regression model, in which we considered patient and center random effects (patient random effect for some women included in the cohort two times). We used a multiple imputation procedure to address missing data among the explanatory variables. Results are presented as an odds ratio (OR) with confidence interval (CI).

**Results:** Among the 167 pregnancies in women with RA included in the GR2 cohort, 92 were retained for analysis of obstetrical outcome. Of these, 43 (46.2%), 8 (7.9%), 40 (43.5%) were exposed to corticosteroid, NSAID and biologics at least once during pregnancy, respectively. A moderate or severe disease activity at least once during pregnancy was found in 20 (21.8%) pregnancies. A live birth was found in 83 (90.2%) women, including 69 (83.1%) full-term births. Early miscarriages were observed in 9 (0.1%) women. A caesarean section was performed in 22 (23.9%) cases.

A favorable pregnancy outcome was found in 52 (56.5%) of the women. Unfavorable pregnancy outcome was mainly due to prematurity and small for gestational age, observed in 14 (16.9%) and 17 (20.5%), respectively. The multivariate model adjusted for age, BMI, nulliparity, active disease during pregnancy, smoking, and exposure to biologics and corticosteroids during pregnancy found an association between an unfavorable pregnancy outcome and nulliparity (OR 6.2 95% CI [2.1-17.8] p = 0.002), age (OR (per year) 1.1 95% CI [1.0-1.3] p = 0.02) and exposition to corticosteroids during pregnancy (OR 3.2 95% CI [1.1-9.6] p = 0.04).

**Conclusion:** This study provides original results on pregnancy in women with RA. It found a favorable pregnancy outcome in 56.5% of women. Unfavorable pregnancy outcome was associated with age, nulliparity and corticosteroids use during pregnancy, which argues for their careful use during pregnancy.

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**Table 1. Multilevel logistic regression model: factors associated with unfavorable pregnancy outcome in women with RA.**

| | Univariate analyses | | Multivariate analyses | |
|---|---|---|---|---|
| | Crude OR 95% CI | p | Adjusted OR 95% CI | p |
| Age | 1.09 [1.01-1.19] | 0.036 | 1.14 [1.02-1.28] | 0.019 |
| BMI | 0.93 [0.83-1.04] | 0.196 | 0.91 [0.77-1.08] | 0.204 |
| Nulliparity | 4.18 [1.66-10.53] | 0.003 | 6.16 [2.13-17.76] | 0.002 |
| Smoking | 1.08 [0.29-3.36] | 0.996 | 1.65 [0.37-7.22] | 0.141 |
| Disease activity* | 1.06 [0.40-2.81] | 0.911 | 0.98 [0.21-2.28] | 0.753 |
| Corticosteroids** | 2.45 [1.05-5.68] | 0.039 | 3.22 [1.09-9.57] | 0.038 |
| Biologics** | 1.05 [0.11-3.54] | 0.589 | 2.02 [0.70-4.12] | 0.194 |

* Moderate or severe disease activity at least once during pregnancy. ** Use at least once during pregnancy

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## OP0128 ADHERENCE TO MEDICATIONS DURING PREGNANCY IN SYSTEMIC AUTOIMMUNE DISEASE

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**Background:** Low medication adherence is a well known issue in the management of patients with systemic autoimmune diseases (SAD), little however is known on adherence to medication during pregnancy, especially in these patients with high risk pregnancies.

**Objectives:** This study is aimed at evaluating the level of adherence to medication in pregnant patients with SAD in comparison with non-pregnant patients with SAD, and at identifying determinants of low adherence.

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