impairment").² The dimensions of RAND-36 have scores between 0–100 (where 100="best possible health").³

Results: BASFI-scores were highest in third trimester, significantly higher than six weeks postpartum (mean BASFI 3.6 vs. 2.6, $p<0.001$). In line with this result, scores of RAND-36 physical functioning was significantly lower in third trimester compared to six weeks postpartum (mean physical function 54.5 vs. 71.0, $p<0.001$). The women reported considerable pain throughout the study period, with worst reported pain in second trimester, when scores of RAND-36 bodily pain were significantly lower than six weeks after postpartum (mean bodily pain 44.3 vs. 49.6, $p=0.01$). Scores of RAND-36 mental health were high and stable throughout the study period, with best reported mental health six weeks after delivery, when mental health was significantly better than in all time points in pregnancy.

Abstract THU0672 – figure 1. shows changes in functionality and mental health from preconception to one year after delivery, and disease activity and CRP in the same time period.

Conclusions: Even though women with axSpA reported considerable pain and gradually worsening of physical function in pregnancy, they experienced good and stable mental health from preconception to one year after delivery.

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THU0673 DISEASE ACTIVITY DURING AND AFTER PREGNANCY IN WOMEN WITH PSORIATIC ARTHRITIS

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Background: The few previous studies on disease activity of psoriatic arthritis in pregnancy have shown diverging results.^{1–3} None of the studies used validated disease activity measures and the only prospective study was conducted before the widespread use of biological DMARDs.

Objectives: The aim of this project was to prospectively study disease activity in women with psoriatic arthritis before, during and after pregnancy with DAS28-CRP-3 as disease activity measure.

Methods: RevNatus is a Norwegian nationwide register designed for the follow-up of pregnant women with rheumatic diseases. Our study comprised 108 pregnancies in 103 women with psoriatic arthritis with mainly peripheral involvement, included in RevNatus between 2006 - 2017. The women had seven visits at a rheumatology unit; before pregnancy, in each trimester, and six weeks, six months and twelve months postpartum. DAS28-CRP-3-scores from each visit

were analysed in a linear mixed model. We did additional analyses with "tumour necrosis factor inhibitor (TNFi) in pregnancy (yes/no)" as covariate.

Results: Altogether, our study demonstrated stable, low disease activity during and after pregnancy in women with psoriatic arthritis. However, as shown in figure 1, disease activity decreased in pregnancy and increased within six months postpartum, with disease activity six months postpartum significantly higher than six weeks postpartum (estimated mean DAS28 2.71 vs. 2.45, $p=0.016$). Women using TNFi in pregnancy had significantly lower disease activity than women not using TNFi (estimated mean DAS28 six weeks postpartum 1.97 vs. 2.48, $p=0.039$).

Abstract THU0673 – Figure 1. also shows self-reported pain, physical functioning and mental health throughout the study period.

Conclusions: Studying women with psoriatic arthritis, we found that disease activity was highest six months postpartum, but altogether stable in the period from planning pregnancy to one year after delivery. Women using TNFi in pregnancy had significantly lower disease activity.

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THU0674 RHEUMATIC DISEASES AND PREGNANCY: A SINGLE CENTRE DEDICATED CLINIC EXPERIENCE

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Background: Pregnancy causes immune and endocrine systems alterations, therefore it can change the course of the rheumatic diseases. On the other hand, rheumatic diseases can negatively influence pregnancy outcome. Therefore, in the past pregnancy has been discouraged in patients with rheumatic diseases, for high maternal-fetal risks. Nowadays we are aware that counselling, planning of pregnancy, multidisciplinary management and follow up in a dedicated clinic are mandatory for a good maternal-fetal outcome.

Objectives: To assess the impact of close multidisciplinary rheumatological-obstetrical management on high risk pregnancies.

Methods: We considered patients diagnosed with a rheumatic disease before pregnancy who had at least one pregnancy prospectively followed at our dedicated clinic. Each patient underwent a monthly rheumatological and obstetrical evaluation during the all pregnancy. All obstetrical complications were recorded and a final pregnancy outcome was assessed: favourable outcome (delivery) or

unfavourable outcome (spontaneous abortion/stillbirth/induced abortion). We then compared prospective versus anamnestic pregnancy outcomes.

Results: Between 2005 and 2016, 862 women were evaluated. We included in the study 201 patients followed prospectively during 261 pregnancies. The patients were affected by 19 different rheumatic diseases, alone or in association.

The most represented diagnoses were undifferentiated connective tissue disease (UCTD) (72 patients, 33.03%), rheumatoid arthritis (33, 15.14%), systemic lupus erythematosus (LES) (22, 10.09%), ankylosing spondylitis (14, 6.42%), psoriatic arthropathy (12, 5.5%), antiphospholipid antibody syndrome (APS) (10, 4.59%). Maternal age at conception was 34 years (range 18.3–45.7); 19 patients underwent medically assisted reproductive techniques. The most frequent obstetric complications were fluximetric changes, premature rupture of membranes, hypertension and related disorders, gestational diabetes, hypothyroidism and intrauterine growth retardation. The average gestational age at delivery was 38.24 weeks (range 26.71–41.29) with higher frequency of prematurity in patients with APS (55%), LES (39%) and UCTD (19%), as well as in the two pregnancies of patients with mixed connective tissue disease and systemic sclerosis. The comparison between favourable outcomes of prospective versus anamnestic pregnancies showed a significant difference ($p < 0.001$) for prospectively followed pregnancies, regardless of maternal diagnosis.

Figure 1: Outcome of anamnestic vs prospective pregnancies in patients followed in our dedicated clinic.

Abstract THU0674 – Figure 1 Outcome. of anamnestic vs prospective pregnancies in patients followed in our dedicated clinic.

Conclusions: Pre-conception counselling and close multidisciplinary follow-up during pregnancy are essential for a better maternal-fetal outcome in patients with rheumatic diseases.

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THU0675 THE IMPACT OF AUTOIMMUNE RHEUMATIC DISEASES ON BIRTH OUTCOMES IN AN ETHNICALLY DIVERSE COHORT OF WOMEN IN THE UNITED STATES

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Background: Autoimmune rheumatic diseases (ARDs) often affect women of childbearing age and have been associated with adverse pregnancy outcomes. Most of the literature on the impact of ARDs on birth outcomes to date has focused on the burden of common ARDs (e.g., rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE)) within Caucasian populations. The effect of race/

ethnicity on birth outcomes among women with ARDs is not well understood. Identification of groups who are at highest risk of adverse birth outcomes may aid in increased prenatal surveillance and prevention of maternal and fetal morbidity.

Objectives: To evaluate the impact of ARD on adverse birth outcomes, specifically preterm birth (PTB), congenital anomalies, and low birth weight (LBW), in a large, ethnically diverse cohort.

Methods: We conducted a matched cohort analysis of retrospective data from all singleton live births in California occurring between 2007 and 2012. Data on ARD diagnosis, including RA, SLE, antiphospholipid syndrome (APS), psoriatic arthritis (PsA), ankylosing spondylitis (AS), or juvenile idiopathic arthritis (JIA), and birth outcomes were derived from birth certificate records linked to hospital/discharge ICD9 codes present anytime at or one year prior to delivery. Women without any of the previously mentioned rheumatic diseases were age- and ethnicity-matched in 2:1 ratio to women with ARD; their characteristics were compared using conditional logistic regression. We also examined the association between specific ARD diagnoses and birth outcomes stratified by race/ethnicity.

Results: We identified 10 975 women with a recorded ARD diagnosis (RA: 3129 (26%), SLE: 3863 (33%), APS: 4180 (35%), PsA: 173 (2%), AS: 144 (1%), and JIA: 354 (3%). The odds of PTB were increased for women with any ARD (aOR 1.90 (95% CI 1.76–2.05)) and among those with RA (aOR 1.65 (95% CI 1.47–1.85)), SLE (aOR 2.25 (95% CI 2.05–2.47)), APS (aOR 1.82 (95% CI 1.64–2.01)), and JIA (aOR 1.76 (95% CI 1.32–2.35)) compared to women without ARD. After stratifying by race/ethnicity, the odds of PTB and congenital anomalies were highest among Asian women and the odds of LBW were highest among Hispanic women compared to other race/ethnicity-matched controls (table 1). Further sub-analyses revealed that it was predominantly women with SLE who were contributing to the adverse outcomes seen in the combined ARD group.

Abstract THU0675 – Table 1. Odds of adverse birth outcomes among women with autoimmune rheumatic disease (ARD) compared with women without a recorded ARD by race/ethnicity.

Variable	Total Population		White, non-Hispanic		Hispanic		Black		Asian	
	No ARD n/N (95% CI)	ARD n/N (95% CI)	No ARD n/N (95% CI)	ARD n/N (95% CI)	No ARD n/N (95% CI)	ARD n/N (95% CI)	No ARD n/N (95% CI)	ARD n/N (95% CI)	No ARD n/N (95% CI)	ARD n/N (95% CI)
Sample size	71,960	10,975	6,960 (64.7)	4,488 (28.3)	7,548 (66.7)	3,779 (23.3)	1,544 (66.7)	772 (23.3)	1,086 (66.7)	948 (23.3)
Median gestational age (SD, weeks)	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
Any	1,888 (2.1)	1,888 (2.1)	544 (8.3)	588 (13.4)	583 (7.7)	709 (18.8)	1,041 (11.0)	701 (28.6)	1,041 (11.0)	1,041 (11.0)
Any PTB	333 (2.3)	333 (2.3)	103 (3.1)	137 (3.1)	122 (1.6)	143 (3.8)	40 (2.8)	40 (2.8)	40 (2.8)	40 (2.8)
Preterm labor	708 (3.8)	708 (3.8)	155 (16.3)	251 (2.8)	251 (2.8)	324 (14.1)	115 (11.8)	115 (11.8)	115 (11.8)	115 (11.8)
Medically indicated	308 (3.1)	308 (3.1)	103 (16.3)	122 (3.4)	122 (3.4)	143 (3.8)	40 (2.8)	40 (2.8)	40 (2.8)	40 (2.8)
Congenital anomalies	3,173 (2.4)	3,173 (2.4)	103 (16.3)	122 (3.4)	122 (3.4)	143 (3.8)	40 (2.8)	40 (2.8)	40 (2.8)	40 (2.8)
Low birth weight	1,095 (2.6)	1,095 (2.6)	338 (3.9)	338 (3.9)	338 (3.9)	338 (3.9)	338 (3.9)	338 (3.9)	338 (3.9)	338 (3.9)

Conclusions: Consistent with prior literature, we found that women with ARDs tend to be more likely to have PTB and infants of LBW. To our knowledge, this is the largest study to date to analyse these associations in Asian women. Our results suggest that Asian and Hispanic women with ARDs may disproportionately benefit from additional monitoring throughout pregnancy. Our study raises the need for public health initiatives that can help improve pregnancy outcomes in women with autoimmune rheumatic diseases across all races and ethnicities.

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