pregnancy. Of these patients, when compared to their previous pregnancies 18% reported better symptom control, 43% reported that their asthma remained unchanged and 39% reported worsening control.

Objective data on severity followed this pattern also. The mean number of steroid courses prescribed per patient was 0.2 in those who reported better control, 0.58 in those who reported no change to control, and 1 in those reporting worsening symptoms. Similarly, the number of average number of admissions per patient increased in accordance with subjective severity.

Conclusions Our analysis confirms that asthma control in pregnancy does not follow the simple one-third rule as previously speculated. When using subjective and objective measurements, a greater proportion of patients experienced either worsening asthma control or no changes to control during pregnancy, with only a small percentage reporting that their asthma improved.

REFERENCE

1. Schatz M, et al. The course of asthma during pregnancy, post-partum, and with successive pregnancies: a prospective analysis. *Journal of Allergy and Clinical Immunology*. 1988;**81**:509–51.

P47 A PILOT STUDY FOR AN ASTHMA IN PREGNANCY SERVICE WITHIN A UK TERTIARY CENTRE

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Background Suboptimal asthma control has implications for maternal and neonatal health, preterm labour and instrumental birth. An *Asthma in Pregnancy Clinic* was initiated to support our tertiary obstetric centre, to assess maternal asthma demographics and record foetal outcomes with a view to further development of an Asthma in Pregnancy Service.

Method A retrospective analysis was performed for patients referred to clinic between July 2018 and February 2021. Data were collated for population demographics, asthma severity, treatment optimisation and foetal outcome. Birth weight and delivery method were used as crude measures of foetal outcome.

Results 99 consecutive referrals to the clinic were reviewed (mean age 30 ± 5.9 years, Caucasian ethnicity 64%; 11% smoking prevalence). At baseline, 52% had moderate asthma as graded by the asthma severity/treatment guidelines¹; 72% were taking inhaled corticosteroids; 24% had raised serum eosinophils ($>0.34 \times 10^9/L$); only 5% had FeNO >50 parts per billion (ppb) at presentation.

10% required no change to their existing asthma treatment regimen once adherence was optimised. 62% had inhaled therapies escalated and 17% required oral prednisolone during their pregnancy.

55% had significant reflux symptoms. In a subgroup analysis, there was statistically significant improvement in asthma control as per GINA following reflux treatment optimisation; $2.38(1.5)$ to $2.21(1.4)$, $p < 0.001$.

83% of patients had full term births with a mean foetal weight 3205(589) grams. Foetal birth weight and delivery method were not significantly related to oral or inhaled corticosteroid use.

Conclusion This pilot demonstrates that an Asthma in Pregnancy Clinic in a tertiary centre is both feasible and

Abstract P47 Table 1 Demographics of study cohort

Demographics (n=99)	Result (mean $\pm$ SD)
Age (years)	30.3($\pm$ 5.9)
Ethnicity	64% Caucasian, 35% BAME
Stage of pregnancy at referral	1st trimester 26%; 2nd trimester 64%; 3rd trimester 9%
FEV ₁ (L)	2.48($\pm$ 0.47)
Serum eosinophil count ($\times 10^9/L$)	0.31($\pm$ 0.12) n=24 (24%) n=8 (8%)
Eosinophil count >0.34	
Eosinophil count ≥ 0.6	
FeNO (ppb) (median/IQR)	21(11–30) n=5 (5%)
FeNO > 50 ppb	
Foetal birth weight (BW) (g)	3205($\pm$ 589)
Local average birthweight (BW) (g)	3247
Delivery method	18% instrumental, 38% CS
Local annual CS rate	35.1%

Abbreviations used:

BAME Black Asian and Minority Ethnic; FEV₁ forced expiratory Volume in one second; FeNO fractional exhaled nitric oxide; CS caesarean section

efficacious with a significant proportion requiring asthma treatment optimisation. However, simple measures (education, enhancing therapy compliance) remains essential. Optimisation of anti-reflux treatment significantly improved GINA scores, highlighting the importance of adequate reflux management in pregnant asthmatics.

The Asthma in Pregnancy Clinic is the first step in developing a dedicated multi-disciplinary service to support pregnant asthmatics. This pilot has highlighted the importance of standardised paperwork and rigorous data collection to provide up-to-date and locally relevant improvements in clinical outcomes.

REFERENCE

1. <https://www.sign.ac.uk/sign-158-british-guideline-on-the-management-of-asthma> SIGN 158, July 2019. Accessed 06/06/2021.

P48 LONG-TERM EFFICACY OF DUPILUMAB IN PATIENTS WITH MODERATE-TO-SEVERE ASTHMA IN THE LIBERTY ASTHMA TRAVERSE OPEN-LABEL EXTENSION STUDY: IMPROVEMENTS IN ASTHMA CONTROL AND HEALTH-RELATED QUALITY OF LIFE

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Introduction and Objectives For asthma patients, achieving asthma control and improving health-related quality of life (HRQoL) are important long-term management goals. Dupilumab is a monoclonal antibody targeting interleukin-4 and interleukin-13, key and central drivers of type 2 inflammation