have had continuous oral corticosteroids of at least the equivalent of prednisolone 5 mg per day for the previous 6 months'. Omalizumab eligibility defined as 'evidence of severe persistent allergic asthma and need for continuous or frequent treatment with oral corticosteroids (defined as ≥4 courses in the previous year), and meeting bodyweight and IgE criteria for omalizumab treatment'.

**Results** Of 748 SA subjects enrolled in the study, 670 met the analysis criteria and were included in this post-hoc analysis (mean age=50.9 years; 62% female). 90 subjects (13%) were eligible for mepolizumab and 184 (27%) were eligible for omalizumab. Of the 90 mepolizumab eligible patients, 31 (5%) were receiving omalizumab therapy, while of the remaining 59 (9%) patients not on a biologic 11 (2%) were also eligible for omalizumab.

**Conclusions** This is the first cross-sectional study providing estimation of the proportion of SA patients eligible for biologic therapy in accordance with NICE guidance, indicating 13% mepolizumab-eligibility and 27% omalizumab-eligibility with limited overlap. (Funded by GSK; 2 01 722.)

## P17 MONITORING INHALED CORTICOSTEROID ADHERENCE OF PATIENTS ON OMALIZUMAB IN A REAL WORLD COHORT

LJ Holmes, R Daly, K Hince, C Ustabashi, DJ Allen. *University Hospital of South Manchester, Manchester, UK*

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**Background**

- Omalizumab (Xolair) is licensed for the treatment of severe allergic asthma patients with IgE mediated disease.
- Within the UK NICE guidance includes criteria for documented adherence to Inhaled Corticosteroids (ICS) and other asthma related medications.
- Within the UK there is no clear definition of 'documented compliance' Within the Severe Asthma North West MDT this is defined as a≥80% collection of ICS based on GP data.

**Objective** To assess adherence to ICS treatment for patients on Omalizumab therapy and to explore causal relationships and outcomes between the adherent and non-adherent groups.

**Methods** Over a 2 week period in Feb 2017 patients attending for routine Omalizumab care (post 16 week assessment) underwent standard observations (FEV1, FeNO and ACQ-7) additionally each patient was asked to clarify the type and frequency of current ICS and adherence data was obtained from the patients GP for the last 6 months.

**Results** Of 79 patients (67.1%) were female and (32.9%) were male, with a mean age of 50.7 (SD 14.12). ICS adherence was observed in 39 (49.4%) of patients. Comparison between the two groups (Table 1), demonstrates little difference between both groups. The adherent group have a lower baseline FEV1 (55%) and FeNO (15.5 ppb) compared to the non-adherent group (61.9% and 22.0 ppb), and demonstrate a higher percentage change in FEV1 from baseline (8.3% compared to 5.67%). Both groups demonstrate a significant improvement in ACQ-7 from baseline, and there was a trend (p=0.067) for better control (lower ACQ-7 score) in the non-adherent group.

**Conclusion**

- Non adherence to ICS in patients on Omalizumab therapy is a significant issue.
- There were no significant differences between the 2 groups in terms of exacerbations or ICS treatment regimes.
- There was a statistical, but not clinically significant rise in FeNO in the non-adherent group.
- There was a trend towards better perceived asthma control as measured by the ACQ-7 in the non-adherent group which may influence ongoing adherence to ICS.

### REFERENCE

1. Asthma Control Questionnaire. https://www.qoltech.co.uk/acq.html

**Abstract P17 Table 1**

| | Adherent group (>76%) | Non-adherent group (0%–75%) | Test statistic |
|---|---|---|---|
| Baseline% Fev1 | 55.00 (SD 15.72) | 61.95(SD 22.61) | ANOVA F=1.317, df=1, p=0.258 |
| Current%Fev1 | 65.71 (IQR 37.00) | 69.85 (IQR 28.00) | Mann-Whitney U=507, p=0.387 |
| Current FeNO (ppb) | 15.50 (IQR 14.75) | 22.00 (IQR18.75) | Mann-Whitney U=158.0, p=0.048 |
| Baseline ACQ-7 | 3.85 (IQR 2.00) | 2.85(IQR 1.72) | Mann-Whitney U=20.00, p=0.397 |
| Current ACQ-7 | 2.36 (SD 1.60) | 1.79 (SD 1.02) | ANOVA F=3.448,df=1, p=0.067 |
| BDP equivalent | 2000 (IQR 1000) | 1600 (IQR1200) | Mann-Whitney U=502.50, p=0.039 |

## P18 EARLY EXPERIENCE INITIATING MEPOLIZUMAB FROM NICE TO THE REAL WORLD

LJ Holmes, L Elsey, R Niven. *University Hospital of South Manchester, Manchester, UK*

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**Objective** To identify barriers which prevent patients meeting the NICE criteria for mepolizumab.

**Background** Mepolizumab is a steroid sparing agent for patients with severe eosinophilic asthma. All patients must meet the NICE[1] criteria:

- Eosinophil count≥300 cells/microlitre in past 12 months
- Adherence to optimised therapy
- Four or more courses of oral corticosteroids (OCS) in past 12 months or continuous OCS equivalent to at least 5 mg of for 6 months

**Methods** Adherence data was obtained from the patient's GP and eosinophil counts recorded from the hospital electronic patient records. If a patient did not meet the approval criteria the following data was collected: their current OCS dose; number of years under the severe asthma service; last eosinophil count ≥300 cells/ microlitre.

**Results** Of the 269 patients identified as potential mepolizumab candidates 133 have been assessed and 32 (24%) have so far been approved, 38 (28%) have not been approved due to non-adherence to inhaled corticosteroid (ICS) therapy. In this cohort the average ICS adherence was 47% (±SD 0.23) and time under severe asthma specialist care equates to 6.1 years (±3.6). 63 (51%) patients did not have an eosinophil count ≥300 cells/microlitre in the last 12 months. In this