Aim This multicentre observational study was conducted to confirm the observed retrospective findings prospectively in UK clinical practice.

Methods Retrospective data were collected in the 12 months prior to and prospective data for up to 12 months following omalizumab initiation. The primary endpoint was the change in mean daily OCS dosage (reported previously). Secondary endpoints included changes in mean exacerbation frequency (defined as requiring hospital admission or Accident and Emergency (A&E) attendance and/or a course of OCS (dosage increase of at least 10 mg/day for at least 3 days)), healthcare utilisation and societal burden in severe allergic asthma patients.

Results 235 patients were enrolled in the study at end December 2013 in 22 UK centres. Data for interim analysis were examined from patients with 12 months of assessment at database lock (n = 85, females, 54%, mean (±SD) age 44 yr (±13.2), mean (±SD) duration of asthma 26 yr (±14.0)). At the 16 weeks assessment 74/85 (87%) patients were classified as responders to omalizumab treatment. At 12 months, mean daily OCS dose decreased by 25% (n = 85, p < 0.001) from 10.77 mg/day (±7.87) to 8.08 mg/day (±8.39) and 55% (n = 46/84) of patients stopped OCS. 71% (n = 60/85) of patients stopped or reduced OCS by ≥20%. Comparing the 12 months periods prior to and following initiation of omalizumab, the mean ACT score improved from 9.8 (±4.8) to 14.2 (±5.2) (n = 75, p < 0.001) and the mean AQLQ score improved from 3.1 (±1.3) to 4.1 (±1.46) (n = 60, p < 0.001) [Graph 1].

Conclusions The data prospectively confirms that omalizumab is associated with statistically and clinically significant reduction in OCS and statistically and clinically significant improvement in asthma symptom control and quality of life.

Abstract S94 Graph 1 Mean AQLQ score pre and post omalizumab initiation - IIT group
Results Participants were allocated to vitamin D3 vs. placebo in equal numbers; 82% were vitamin D insufficient at baseline. Vitamin D3 supplementation did not influence time to first severe exacerbation (aHR 1.02, 95% CI 0.69–1.53, P = 0.91) or time to first URI (aHR 0.87, 95% CI 0.64–1.16, P = 0.34). The influence of vitamin D3 on co-primary outcomes was not modified by baseline vitamin D status or genotype. Of 16 prespecified secondary outcomes, only one showed a difference between arms: vitamin D supplementation induced a modest improvement in respiratory quality of life as evidenced by a reduction in mean total score for the St George’s Respiratory Questionnaire at 2 months (-3.9 points, p = 0.005), 6 months (-3.7 points, p = 0.038) and 12 months (-3.3 points, p = 0.060).

Conclusions Vitamin D3 supplementation did not influence time to exacerbation or URI in a population of adults with ICS-treated asthma with a high prevalence of baseline vitamin D insufficiency.

Oesophagectomy is a complicated procedure with high risk of complications in the immediate post-operative period. We have previously shown that patients undergoing oesophagectomy have ~25% risk of Acute Respiratory Distress Syndrome (ARDS) post op. Post-operative complications have been shown to decrease long term post-operative survival following major surgery. We hypothesised that long term survival would be reduced in patients who develop ARDS post oesophagectomy.

We analysed data from 55 patients recruited to the translational sub-study of the BALTI prevention trial. 26 of the 55 patients (47%) died within 2 years of their operation. Patients who died within two years of their oesophagectomy were more likely to have required ventilation for ARDS during their hospital admission. In addition, patients who survived less than two years were more likely to have developed a surgical complication (e.g. anastomotic leak, wound infection, chyle leak) post-op. There was no difference in age, lung function, BMI or cancer staging. Patients who did not survive more than 2 years post-op were more likely to be smoking at the time of the operation, but there was no difference in pack year smoking history between the two groups.

Perioperative markers of alveolar epithelial damage (PICCO EVLWI and PVPI), and the severity of both local (BAL CRP) and systemic inflammation (IL-17, ICAM-1, and TNF-1/2) were associated with outcome.

In conclusion, complications during recovery from oesophagectomy have an adverse effect on the chances of long term survival. Development of strategies to reduce post-operative morbidity may improve long term outcomes.