

### 1.11 An increase in Peak Flow variability reflects T2 inflammation more than ACT or change in FEV1

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**Background:** Asthma control is assessed by laboratory spirometry (LS) and by patient-reported outcomes (PROs). However, spirometry provides a point-in-time measure and self-reported questionnaires are biased by non-specific symptoms. We tested the hypothesis that daily PEF reflects changes in T2 inflammation better than LS or PROs. **Methods:** Post-hoc analysis of data from the INCA Sun study was performed. T2 status was determined by blood eosinophil (PBE) count and FeNO. Changes in spirometry from day 0 to day 30 were compared with the adjusted PEF variance. Asthma Control Test (ACT) was assessed at day 0 and day 30. **Results:** Ordinal logistic regressions, adjusting for age, BMI, gender & prior month's corticosteroid exposure demonstrated association of T2 status with PEF variability (OR 1.04,  $p < 0.01$ , 95%CI 1.03-1.05). While  $\Delta$ FEV1 was associated with higher T2 status, median values across categories did not reach a clinically meaningful 10% change in predicted FEV1. Those with lower ACT were likely to be T2-low, though those whose ACT improved were more frequently T2-high (OR 1.12,  $p < 0.01$ , 95% CI 1.119-1.127). **Conclusion:** T2 status correlates with PEF variability. Changes in ACT did not reflect T2 biomarkers nor measures of lung function. **Disclosures:** **Conflict of Interest:** The Authors declare that they have no conflict of interest.