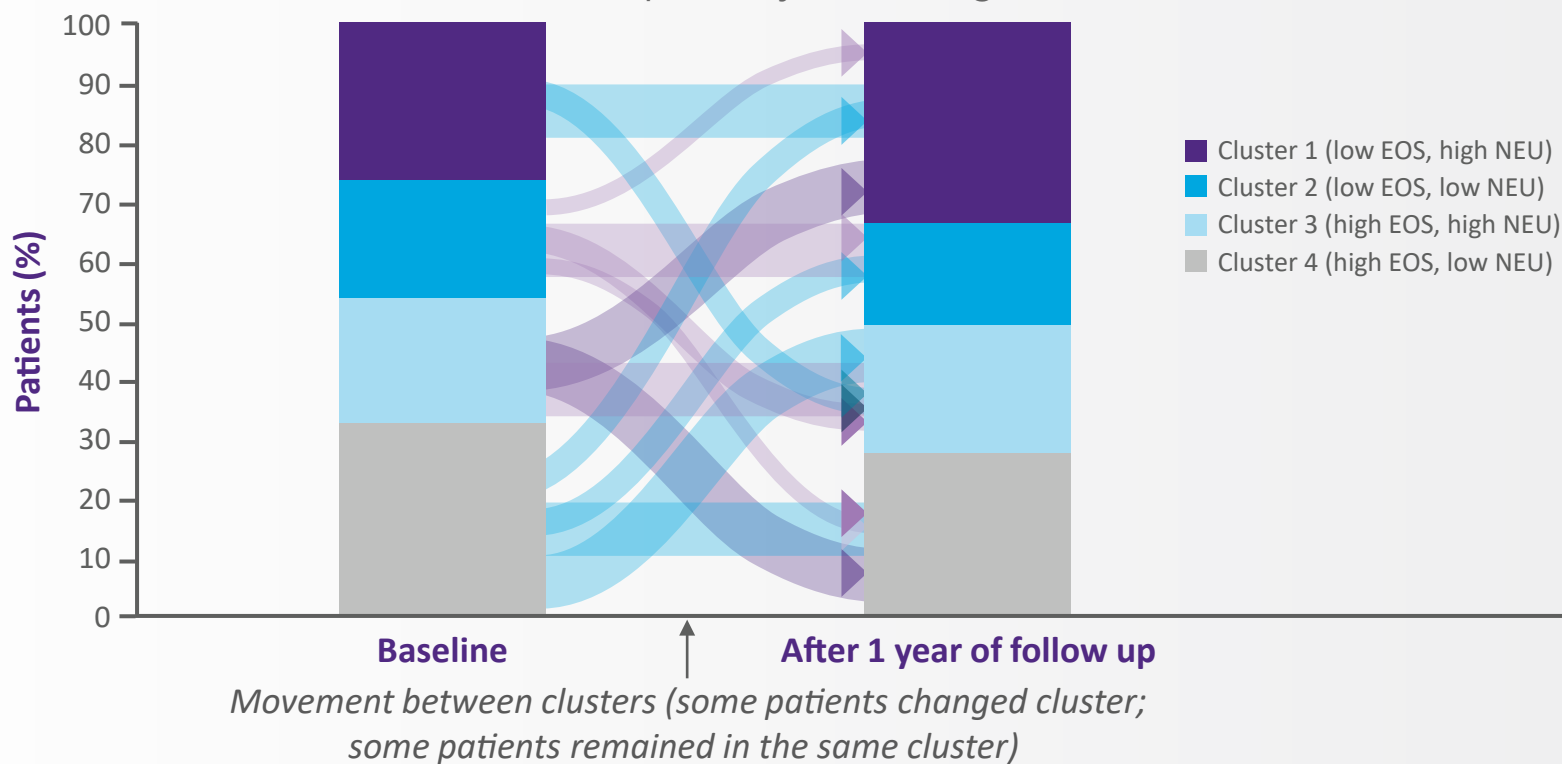


# Inflammation in asthma is heterogeneous and dynamic<sup>1-4</sup>

Patients can have concurrent overlapping pathways, and their dominant pathway can change over time<sup>1-4</sup>



In a study investigating phenotype stability by sputum analysis, ~50% of patients with severe asthma changed their biomarker profile after 1 year of follow up<sup>3,a</sup>

The number of lines is a relative representation of the number of patients. EOS high:  $\geq 2\%$ ; NEU high:  $\geq 40\%$  in induced sputum<sup>3</sup>

<sup>a</sup>Phenotype change (based on biomarkers) in full cohort (included patients with mild/moderate and severe asthma; n= 52)<sup>3</sup>

EOS = Eosinophils; NEU = Neutrophils

1. Busse WW. Allergol Int 2019;68:158–166; 2. Canonica GW. Oral presentation at WAC 2019 (Abstract OC35); 3. Kupczyk M, et al. Allergy 2014;69:1198–1204; 4. Tran TN et al. Ann Allergy Asthma Immunol 2016;116:37–42.