Dupilumab efficacy and safety in patients with asthma and blood eosinophils ⩾500 cells·μL^{-1}

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Dupilumab is well tolerated and improves clinical outcomes in patients with asthma and high eosinophils (⩾500 cells·μL^{-1}). Improvements in clinical outcomes correlate with eosinophil counts, demonstrating dupilumab efficacy in those with high eosinophils. https://bit.ly/3Jxvicb

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To the Editor:

Uncontrolled, moderate-to-severe asthma in patients with high baseline blood eosinophils (⩾500 cells·μL^{-1}) can be difficult to treat [1]. Global Initiative for Asthma guidelines recommend biologics as add-on therapy for patients with severe type 2 inflammatory asthma that remains uncontrolled despite treatment with high-dose inhaled corticosteroids [2]. Surrogate markers of type 2 inflammation, such as elevated levels of blood or sputum eosinophils and fractional exhaled nitric oxide (F_{eNO}) can be used to identify patients with a type 2 signature who might be eligible for such treatment [1–3]. Several biologics are now available that target different molecules in type 2 inflammatory pathways, notably IgE and type 2 cytokines [1–3]. One of these, dupilumab, is a fully human VelocImmune-derived [4, 5] monoclonal antibody that blocks the shared receptor component for interleukin-4 and -13, cytokines that are key and central drivers of type 2 inflammation in multiple diseases, thus inhibiting their signalling [6, 7].