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Late Breaking Abstract - Mepolizumab is efficacious in COPD irrespective of dyspnoea severity at baseline: pooled results from Phase III randomised trials

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Background: While Phase III studies show mepolizumab reduces COPD exacerbations in patients with type 2 inflammation across a wide spectrum of clinical presentations, there is a need for data on how baseline characteristics like breathlessness severity, influence those outcomes.

Aims: Evaluate mepolizumab efficacy across mMRC dyspnoea grades (</≥2) and screening blood eosinophilic counts (BEC).

Results: See **Table**. Annualised rates of moderate/severe exacerbations were reduced with mepolizumab vs placebo in patients with mMRC <2 by 18% (BEC ≥150 cells/μL) and 17% (≥300 cells/μL); mMRC ≥2 by 19% and 22%, respectively. Time to first event was also reduced: mMRC <2 by 12% (BEC ≥150 cells/μL) and 25% (≥300 cells/μL); mMRC ≥2 by 25% and 28%, respectively. Despite low numbers of events underpowering subgroups, exacerbations requiring ED visit and/or hospitalisation trended generally similarly.

Conclusions: Mepolizumab improves exacerbation outcomes across the full spectrum of dyspnoea grades, including patients not yet highly symptomatic. There may be benefit in initiating therapy in patients with lower symptom severity and continued exacerbations on inhaled triple therapy, to mitigate avoidable exacerbations and hospitalisations.

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