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Title: Prognostic factors for short and long term outcomes of outpatient exacerbations in moderate-to-severe COPD

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Body: Introduction Older patients with severe COPD, frequent exacerbations and comorbidities are at higher risk of poor outcomes. Additional risk factors for short and long term outcomes are yet to be fully identified. Methods In the MAESTRAL study, COPD patients¹ were treated with 5-day moxifloxacin or 7-day amoxicillin/clavulanic acid for an Anthonisen type 1 exacerbation², stratified to oral corticosteroid treatment at the physician's discretion. Predictive factors for clinical failure at end-of-therapy (EOT) and 8 weeks post-EOT were compared by post-hoc multivariate stepwise logistic regression analysis. Results Patients with frequent exacerbations, purulent sputum, higher respiration rate, low body temperature and bacterial resistance to study drug had a higher risk to fail at EOT. While patients who, in addition to frequent exacerbations and low body temperature, required systemic corticosteroids for their current exacerbation, were on LABA, suffered from sleep disturbances, had longer duration of chronic bronchitis, increased heart rate, low FEV₁, low BMI and positive sputum culture at EOT were more likely to fail up to 8 weeks post-therapy. Conclusion Several new risk factors have been identified that may help identify exacerbation patients who are at risk of failure despite adequate antibiotics. These patients should be closely monitored during and after treatment of their exacerbation.