

Evaluation of severity score-guided approaches to macrolide use in community-acquired pneumonia

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International guidelines including those in the **UK, Japan, Australia and South Africa** recommend the **avoidance of macrolides** in patients with **low-severity community-acquired pneumonia (CAP)**. We hypothesised that severity scores are poor predictors of atypical pneumonia and response to macrolide therapy, and thus, inadequate tools for guiding antibiotic prescriptions.

Secondary analysis of four independent prospective CAP datasets was conducted. The predictive values of the **CURB-65** and **pneumonia severity index (PSI)** for clinically important groups of causative pathogens were evaluated. The effect of macrolide use according to risk class was assessed by multivariable analysis.

Patients (3297) were evaluated, and the predictive values of CURB-65 and PSI for atypical pathogens were poor (AUC values of 0.37 and 0.42, respectively). **No significant differences** were noted among the effects of macrolide use **on mortality** in patients with mild, moderate and severe CAP, according to either CURB-65 (interaction testing severe versus mild disease OR=0.74 (0.29–1.89)) or PSI (severe versus mild disease OR=3.4 (0.055–2.10)), indicating that severity scores were not significant modifiers of response to macrolide therapy.

Severity scores did not accurately predict response to macrolide therapy in CAP, suggesting that current guidance to use these tools for empirical antibiotic choices might not be justified.