Authors' response: single versus combination antibiotic therapy in adults hospitalised with community acquired pneumonia

We thank van der Eerden *et al*¹ for their interest in our work². We agree that pathogen-directed therapy (PDT) is desirable in adults with community-acquired pneumonia (CAP) admitted to hospital. In their report, the authors claim that microbiological investigations including sputum and pleural fluid Gram stain can be obtained 'within 2 h of admission 24 h a day'. However, in practice, the time required to obtain results from microbiological investigations is usually significantly longer in most hospitals. Greater use of point-of-care tests has the potential to reduce the time to a microbiological diagnosis. However, the cost-effectiveness of such an approach has not yet been adequately established and the limited sensitivity of currently available microbiological tests further compounds this issue. In the meantime, most adults hospitalised with CAP are treated empirically.

Their observation of higher mortality in adults receiving empirical therapy in the intensive care unit compared with PDT is unexplained. The study was not powered to reliably estimate an effect on mortality in this subset of severely ill adults and data regarding the baseline characteristics of these adults between the two groups were not reported.

An adequately powered randomised controlled trial of combination β -lactam/macrolide antibiotics versus single-agent β -lactam antibiotics given as empirical therapy in adults hospitalised with CAP will address many of the unmeasurable biases that cannot be adequately adjusted for in cohort studies.

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