Adjunctive treatment with oral dexamethasone in non-ICU patients hospitalised with community-acquired pneumonia: a randomised clinical trial

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Shareable abstract (@ERSpublications)
Adjunctive treatment with oral dexamethasone in adults hospitalised with community-acquired pneumonia (CAP) reduced length of stay and ICU admission rate. However, it remains unclear for which CAP subgroup the risk–benefit ratio is optimal. https://bit.ly/35tXfPX

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Abstract

Background Adjunctive intravenous corticosteroid treatment has been shown to reduce length of stay (LOS) in adults hospitalised with community-acquired pneumonia (CAP). We aimed to assess the effect of oral dexamethasone on LOS and whether this effect is disease severity dependent.

Methods In this multicentre, stratified randomised, double-blind, placebo-controlled trial, immunocompetent adults with CAP were randomly assigned (1:1 ratio) to receive oral dexamethasone (6 mg once daily) or placebo for 4 days in four teaching hospitals in the Netherlands. Randomisation (blocks of four) was stratified by CAP severity (pneumonia severity index class I–III and IV–V). The primary outcome was LOS.

Results Between December 2012 and November 2018, 401 patients were randomised to receive dexamethasone (n=203) or placebo (n=198). Median LOS was shorter in the dexamethasone group (4.5 days, 95% CI 4.0–5.0 days) than in the placebo group (5.0 days, 95% CI 4.6–5.4 days; p=0.033). Within both CAP severity subgroups, differences in LOS between treatment groups were not statistically significant. The secondary ICU admission rate was lower in the dexamethasone arm (5 (3%) *versus* 14 (7%); p=0.030); 30-day mortality did not differ between groups. In the dexamethasone group the rate of hospital readmission tended to be higher (20 (10%) *versus* 9 (5%); p=0.051) and hyperglycaemia (14 (7%) *versus* 1 (1%); p=0.001) was more prevalent.

Conclusion Oral dexamethasone reduced LOS and ICU admission rate in adults hospitalised with CAP. It remains unclear for which patients the risk–benefit ratio is optimal.