

ORAL PRESENTATION

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The use of antibiotics in treatment of acute COPD exacerbations does not adhere to national guidelines

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Background

Acute chronic obstructive pulmonary disease (COPD) exacerbation is a serious condition with a mortality of 10%, and the condition often require treatment with antibiotics.

The aims of the study were 1) to evaluate which antibiotics, the physicians prescribe in first line treatment to patients with acute COPD exacerbation, and 2) to compare the given treatments with national guidelines.

Methods

The study included 100 randomly selected patient charts; 25 from each of the 4 emergency wards in Region Sjælland (Køge, Slagelse, Nykøbing Falster and Holbæk).

Data were collected retrospectively from electronic charts in the period August-December 2009.

Inclusion criteria were COPD patients older than 18 years with acute exacerbation of COPD, need for antibiotics, no concurrent treatment with chemotherapy or immunosuppressive drugs admitted to the emergency wards.

The national guidelines included guidelines from the Danish Society of Respiratory Medicine, Medicin.dk, Institute for Rational Pharmacotherapy and the Danish College of General Practitioners.

Results

The study showed that cefuroxime, benzylpenicillin and amoxicillin in combination with clavulanic acid were the most frequently used antibiotics for the treatment of acute COPD exacerbation.

In total, 82% of the patients received intravenous antibiotic treatment exclusively. Of these patients, 73% were treated with cefuroxime and 27% with benzylpenicillin.

Oral antibiotics were used in 17% of the patients. Of these, 88% were treated with amoxicillin in combination with clavulanic acid and 12% with phenoxymethylpenicillin. One patient was treated with cefuroxime in combination with oral azithromycin.

The national guidelines recommend cefuroxime as first choice drug in hospital treatment of acute COPD exacerbation.

Conclusion

Cefuroxime was the most commonly used antibiotic in the treatment of acute COPD exacerbation. According to national guidelines, benzylpenicillin is not recommended for the treatment of acute COPD exacerbations. However, this antibiotic was used in 27% of the patients.

Consequently, the results indicate a need for a regional guideline composed in co-operation with specialists in Infectious Disease, Clinical microbiology and Pulmonary disease.

This will help the physicians choosing the right treatment, and contribute to standardized treatment of patients with acute COPD exacerbation in Region Sjælland.

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