

Poster presentation

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Prehospital evaluation of patients with chronic obstructive pulmonary disease

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Introduction

The mobile emergency care unit (MECU) in Copenhagen visits emergency patients in an urban setting and is manned by an experienced anesthesiologist and a specially trained fireman. The function of the MECU is to perform emergency treatment and evaluate the need for further treatment in a hospital. The aim of this study was to assess predictive measures of subsequent hospital admission in primarily completed patients with acute exacerbation of chronic obstructive pulmonary disease (COPD).

Methods

Through the MECU database we identified patients treated in the year 2002 with the primary diagnosis COPD. Depending on the MECU physician charts these patients were subdivided into a primary admitted group and a primary completed group. The MECU charts of the completed patients were then scrutinized for following parameters: age, sex, stethoscopic findings (normal or abnormal), saturation by pulse oxymetry (pre and post treatment), systolic blood pressure, treatment (inhaled beta-agonist and/or corticosteroid), and denial of hospital admission (yes or no). In addition, the completed patients were crosschecked with the Danish Central Personal Register for admissions within 72 hours of the MECU visit. Statistical analysis was performed comparing the primary treated patient with and without subsequent admission within 72 hours.

Results

In the year 2002 the MECU treated a total of 338 patients with COPD as primary diagnosis. Following initial treatment a large part, comprising 274 (81%) of the COPD patients, were directly admitted to a hospital. 64 (19%) of COPD patients were considered sufficiently treated by the emergency physician to stay in their own home. Of these patients left at home, 12 (19%) were subsequently admitted in a hospital within 72 h. The subsequent admitted patients were on average 7,5 years older than those who were not admitted ($p < 0.01$). Regarding the other parameters there were no statistically significant differences between the two groups.

Conclusion

The evaluation of COPD patients with acute exacerbation is a considerable clinical challenge. The present study was not able to identify easy accessible clinical predictors, besides age, that in an acute setting allows discrimination between COPD patients, who needs admission within 72 hours and those who do not.