The relationship between initial management in emergency department by junior residents and hospital deaths of pneumonia patients: a single-center retrospective cohort study

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INTRODUCTION: Some previous study showed that the experience of physician affects the prognosis of hospitalized patients, but it is not known whether the junior residents’ management affect the prognosis of patients in emergency department in Japan.

Objective: To investigate the relationship between initial management in emergency department by junior residents and hospital deaths of pneumonia patients.

METHODS:

Study Design: A retrospective cohort study

Setting & Participants: In a tertiary care hospital we conducted continuous sampling for adult patients with pneumonia who admitted between April 2016 to November 2017.

Exposure: Initial management by junior residents

Comparison: Initial management by non-junior residents

Outcomes: In-hospital death

Statistical methods: We used logistic regression model by EZR (ver. 1.36)

RESULTS: A total of 630 patients were included. The number of males aged 70 years or older or females 75 years or older was 193 (73.1%) in junior resident care group and 197 (68.2%) in non-junior resident care group.

The risk ratio of in-hospital mortality for junior residents management was 1.17 (95% confidence interval (CI): 0.73 to 1.89) compared with non-junior residents. The adjusted odds ratio was 1.23 (95%CI 0.69 to 2.19), respectively.

CONCLUSION: The in-hospital mortality of pneumonia patients initially managed by junior residents was not inferior to patients managed by non-junior residents.