

Benefit of early oseltamivir therapy for adults hospitalized with influenza A: an observational study

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Abstract

Background

Clinical guidelines recommend initiation of antiviral therapy as soon as possible for patients hospitalized with confirmed or suspected influenza.

Methods

A multicenter US observational sentinel surveillance network prospectively enrolled adults (aged ≥ 18 years) hospitalized with laboratory-confirmed influenza at 24 hospitals during October 1, 2022–July 21, 2023. A multivariable proportional odds model was used to compare peak pulmonary disease severity (no oxygen support, standard supplemental oxygen, high-flow oxygen/non-invasive ventilation, invasive mechanical ventilation, or death) after the day of hospital admission among patients starting oseltamivir treatment on the day of admission (early) versus those who did not (late or not treated), adjusting for baseline (admission day) severity, age, sex, site, and vaccination status. Multivariable logistic regression models were used to evaluate the odds of intensive care unit (ICU) admission, acute kidney replacement therapy or vasopressor use, and in-hospital death.

Results

A total of 840 influenza-positive patients were analyzed, including 415 (49%) who started oseltamivir treatment on the day of admission, and 425 (51%) who did not. Compared with late or not treated patients, those treated early had lower peak pulmonary disease severity (proportional aOR:

0.60, 95% CI: 0.49–0.72), and lower odds of intensive care unit admission (aOR: 0.24, 95% CI: 0.13–0.47), acute kidney replacement therapy or vasopressor use (aOR: 0.40, 95% CI: 0.22–0.67), and in-hospital death (aOR: 0.36, 95% CI: 0.22–0.57).

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Conclusion

Among adults hospitalized with influenza, treatment with oseltamivir on day of hospital admission was associated reduced risk of disease progression, including pulmonary and extrapulmonary organ failure and death.

Keywords: [oseltamivir](#), [antiviral therapy](#), [influenza](#), [severity](#)

Topic: [influenza](#), [adult](#), [antiviral agents](#), [disease progression](#), [inpatients](#), [influenzavirus a](#), [oseltamivir](#)

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