Background

Dengue patients with comorbidities may be at higher risk of death, but there are few large scale studies. Data mining of hospital databases provides insights on the impact of the healthcare infrastructure and contributes to document the disease burden on public health. Predictive factors for dengue mortality in high risk populations could aid in determining those that would benefit most from dengue preventative measures.

Materials & Methods

Retrospective analysis of risk factors for dengue mortality in a hospitalized patient database.

RESULTS

Prevalence of Risk factors

Mortality Rates

CONCLUSIONS

In Mexico, severe hospitalized dengue occurs at any age but the majority of cases were in pre-adolescents and adults.

At any age, risk of dying from hospitalized dengue was even higher with comorbid conditions such as pulmonary disease, renal disease, diabetes, ischaemic heart disease, obesity and HIV.

Cox survival for Duration and Logistic regressions for Death and ICU admission.

Risk scores are relative to reference cases: dengue, 9-45 year old, 2008, no comorbidities.

Measures of risk of death: Log odds ratio

Tools

 Cox survival for Duration and Logistic regressions for Death and ICU admission after controlling by potential confounders (sex age, year of inclusion).

REFERENCES


5. a) KEM (Knowledge Extraction and Management) data mining platform, Ariana Pharmaceuticals


8. Галтеровский Р.А. Эпидемиология вирусных инфекций. Москва, Медицина, 1994, 312 стр.

9. Patients with severe dengue were 2-fold higher than death from diabetes

10. Duration of hospital stay, ICU admission and death are strongly correlated

11. Age, dengue severity, comorbidities are independent and cumulative risk factors for longer hospital duration, ICU admission and death.

12. Risk scores are relative to reference cases: dengue, 9-45 year old, 2008, no comorbidities.

13. Cox survival for Duration and Logistic regressions for Death and ICU admission.

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