

Diabetes and Infections: An Increasing Double Burden

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Background

- ❑ Many diabetes-related complications, particularly macro-vascular disease and related mortality have fallen dramatically in the past 20 years
- ❑ This has led to longer life expectancy and, in turn, an increase in the total years of life spent living with diabetes
- ❑ Longer life expectancy may be enabling a wider range of diabetes-related complications, including infections
- ❑ Despite this, little attention has been given to the prevention of infectious disease in people with diabetes

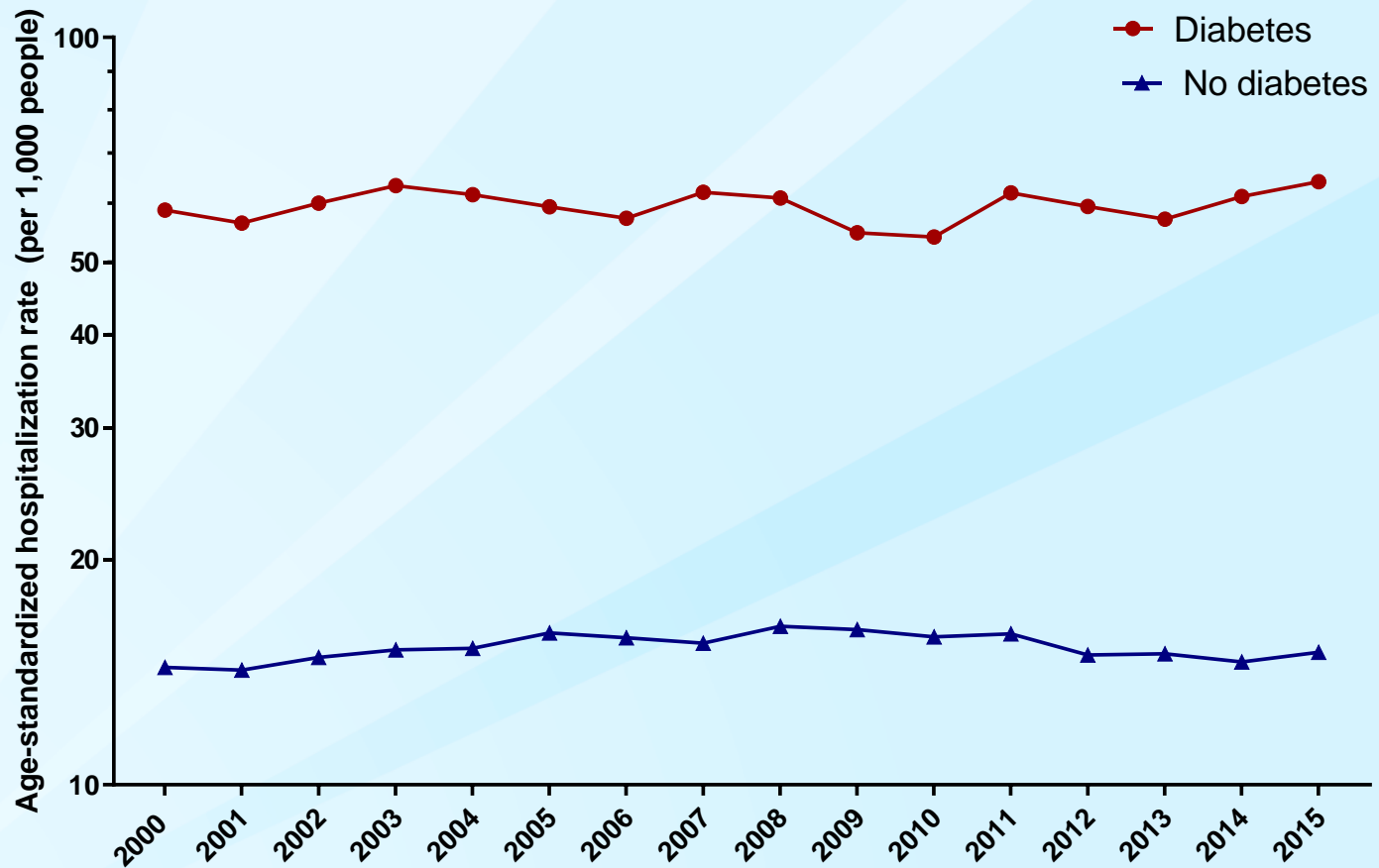
Aim

- ❑ To examine trends in the rate of common infections requiring hospitalization in adults with vs. without diabetes in the United States between 2000 and 2015

Methods

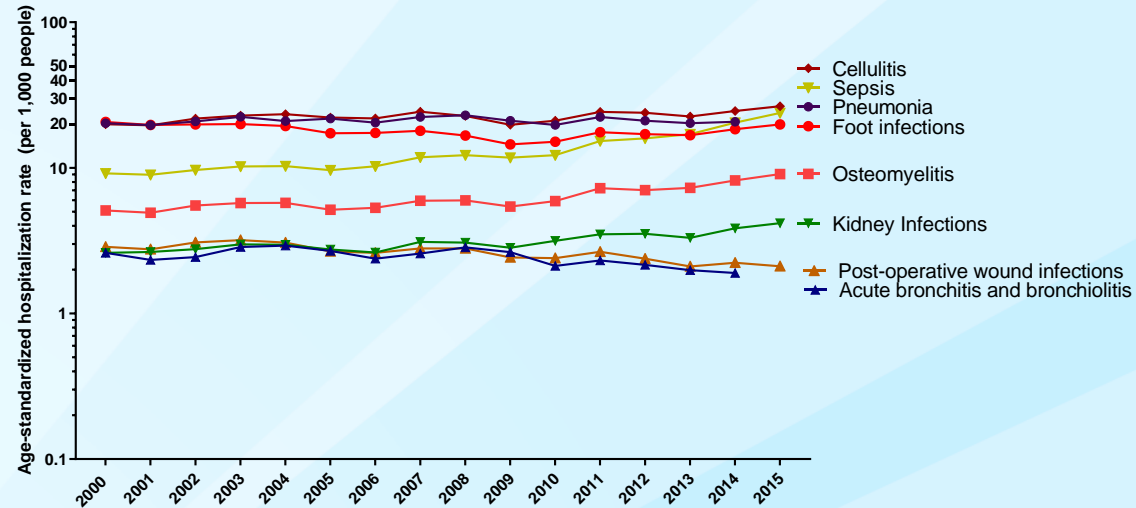
- ❑ Annual data from the National Inpatient Sample (NIS) and the National Health Interview Surveys from 2000 to 2015 were analysed
- ❑ Infections were based on known associations with diabetes: pneumonia, influenza, bronchitis, cellulitis, osteomyelitis, foot infections, kidney infections, sepsis, post-operate wound infections
- ❑ Age-standardized infection hospitalization rates were calculated for adults with and without diabetes
- ❑ Data were weighted to make estimates representative of the demographic characteristics of the U.S. noninstitutionalized population
- ❑ Trends over time were assessed using join point regression with annual percent change ($\Delta\%/year$) reported

Rates of any infection requiring hospitalizations

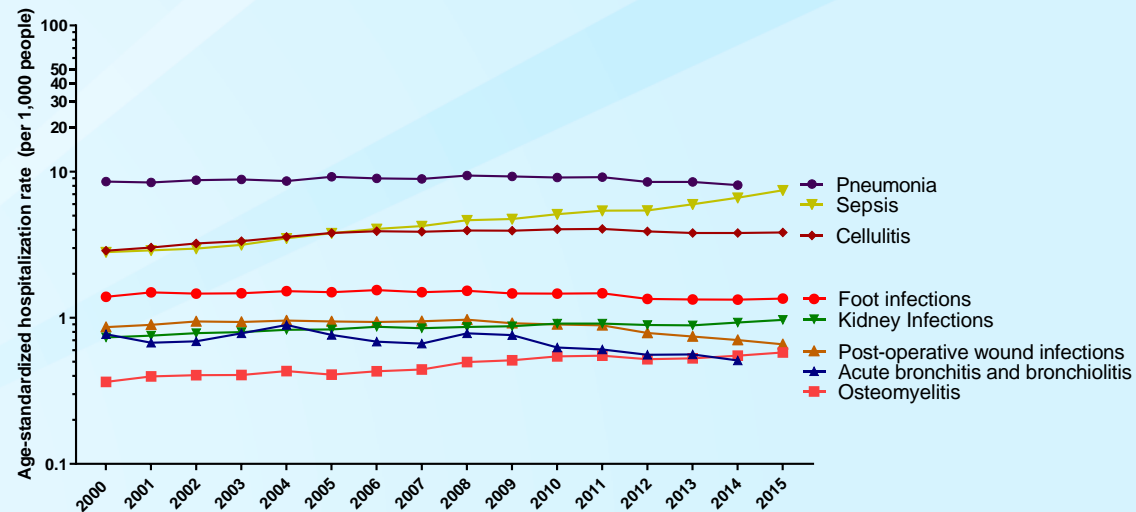


Rates of common infections requiring hospitalizations

Diabetes

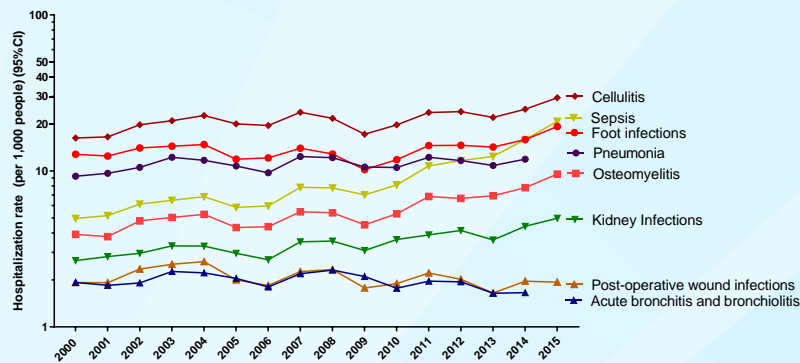


No diabetes

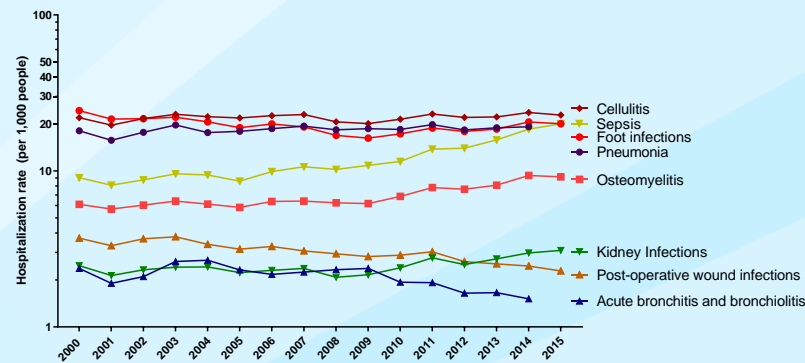


Rates of common infections requiring hospitalization in people with diabetes, by age group

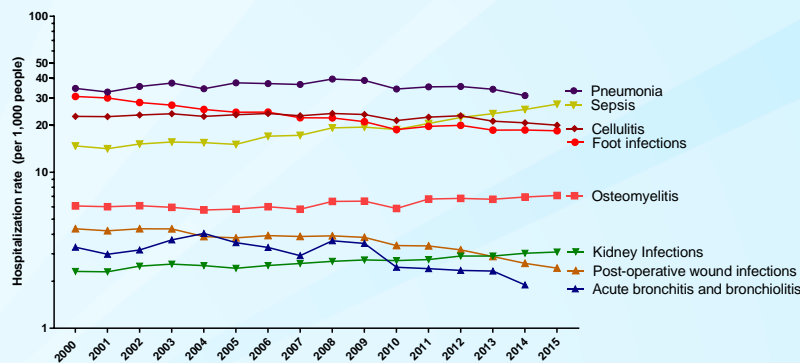
18-44



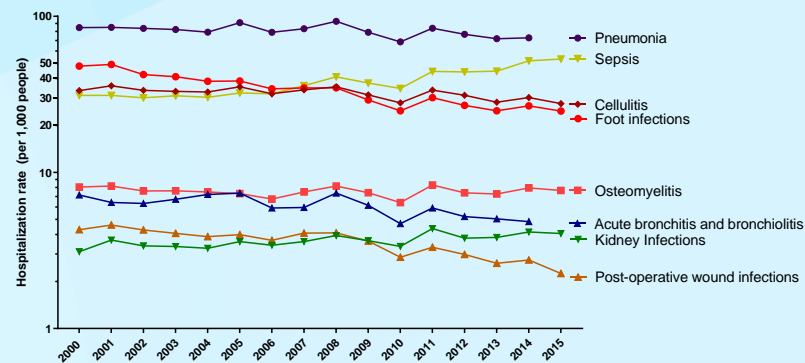
45-64



65-74



75+



Conclusions

- ❑ In 2015, hospitalization rates remained more than 2-15 times as high in adults with vs. without diabetes, depending on infection type
- ❑ Rates of hospitalizations with an infection declined in adults without but not with diabetes
- ❑ Declines were noted for acute bronchitis and bronchiolitis and post-operative wound infections, while increases were observed for sepsis, influenza, kidney infections, osteomyelitis and cellulitis
- ❑ Declines in pneumonia and foot infections were noted in adults without, but not with diabetes, with significant increases observed in young adults with diabetes
- ❑ Findings from this study highlight the need for greater infectious risk factor mitigation in adults with diabetes, in particular young adults with diabetes

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IDEG 2019

16th Symposium of International Diabetes Epidemiology Group

NOV 29 ~ DEC 2, 2019

(PRIOR TO IDF CONGRESS)

ABMRC, Severance Hospital
Seoul, Korea

Save the dates

*Abstract Submission and Bursary Request : **June 30, 2019***

*Early bird registration : **30 June 2019***



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