Clinical Practice Guidelines

Influenza and Pneumococcal Immunization

Canadian Diabetes Association Clinical Practice Guidelines Expert Committee

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KEY MESSAGES

- Influenza immunization can reduce hospitalization rates by approximately 40% for those individuals deemed to be at high risk.
- Pneumococcal immunization is desired in people with diabetes as they are considered as likely to be infected as those with other chronic diseases.
- For those who are >65 years of age, a 1-time revaccination is recommended if the original vaccine was administered when they were <65 years of age with at least 5 years between administrations.

Introduction

People with diabetes are considered to be at high risk for morbidity and mortality from influenza and pneumococcal disease (1,2). During recent influenza epidemics, diabetes was considered a significant risk factor for hospitalization (3). Influenza immunization is associated with up to a 40% risk reduction in mortality (2). Clinical recommendations for vaccination are derived from large cohort studies that included people with diabetes as trials specific to individuals with diabetes are currently lacking.

Influenza Immunization in Adults

Data regarding influenza morbidity and mortality in people with diabetes are based on retrospective analyses during influenza epidemics (3,4). A recent epidemiological analysis of pandemic influenza demonstrated that people with diabetes are more likely to be hospitalized or to require intensive care (5).

Over a period of 10 influenza seasons, influenza vaccination was shown to be effective in reducing both death and hospitalization from influenza and pneumonia in a cohort that included people with diabetes (6).

RECOMMENDATIONS

1. People with diabetes should receive an annual influenza immunization to reduce the risk of complications associated with influenza [Grade D, Consensus].

2. Pneumococcal immunization should be offered to people with diabetes. A single dose is recommended for those >18 years of age. A 1-time revaccination is recommended for those >65 years of age (if the original vaccine was given when they were <65 years of age) with at least 5 years between administrations [Grade D, Consensus].

A Dutch case control study documented that the incidence of complications was 2 times higher in the unvaccinated group compared to the vaccinated group (7). The rates of hospitalization for influenza, pneumonia, other acute respiratory diseases, myocardial infarction, congestive heart failure, and stroke or diabetes events were reduced by 70%.

Pneumococcal Immunization in Adults

People with diabetes are at increased risk of hospitalization for pneumococcal disease (1,8). Prior pneumococcal vaccination is associated with a reduction in death and complications in hospitalized adults with community-acquired pneumonia (9). It is accepted that people with diabetes are at similar risk of developing pneumococcal disease as those with other chronic conditions (1), and, therefore, those with diabetes are encouraged to receive pneumococcal vaccination. Revaccination is recommended as a 1-time event for individuals >65 years of age if the original vaccine was given when they were <65 years of age and >5 years earlier.

Related Websites


References