Immunizations

Pneumonia and influenza cause substantial morbidity and mortality for Medicare patients. Opportunities to improve care for these conditions have been documented. This project focuses on changing processes of care designed to improve outcomes for Medicare beneficiaries admitted to the hospital with pneumonia. In addition, an objective of this project is to increase rates of vaccination against influenza and pneumococcal disease.

Public Health Importance
Pneumonia and influenza are the seventh leading cause of death in the United States.\(^1\) Pneumonia accounts for nearly 600,000 Medicare patient hospitalizations utilizing more than 4.5 million inpatient days each year.\(^1,2\) In 1993, more than $3.5 billion was spent on inpatient care of Medicare patients with pneumonia.\(^3\) Pneumonia is also the principal reason for more than 500,000 emergency department visits by Medicare patients each year.\(^2\) The incidence of pneumonia increases with age, and more than 90 percent of deaths due to this condition are in the population aged 65 and older.\(^1,4,5\)

Two vaccine-preventable diseases, influenza and pneumococcal disease, contribute to the mortality of older persons in the United States. Influenza caused an average of 20,000 deaths per year during influenza epidemics in the United States from 1969 to 1996; person aged ≥65 years accounted for approximately 90% of these deaths.

Main Objective
To decrease the morbidity and mortality associated with community-acquired pneumonia in Medicare beneficiaries.

Clinical Background
Prevention of Influenza and Pneumococcal Disease
In spite of the fact that influenza and pneumococcal vaccines are effective\(^6-9\) and are Medicare Part B covered benefits, they remain underutilized.\(^10\) Strategies for immunization that include the recommendation for vaccination of outpatients and of inpatients prior to discharge have been suggested.\(^10-14\)

Guidelines for the management of pneumonia were published in 1983 by the British Thoracic Society,\(^15\) and the Canadian Infectious Disease Society.\(^16\) In 2000, the Infectious Diseases Society of America (IDSA) published evidence-based guidelines for the management of community-acquired pneumonia in immunocompetent adults.\(^17\) In 2001, the ATS revised the 1983 guidelines for the management of community-acquired pneumonia.\(^18\) Recommendations for adult immunization with influenza and pneumococcal vaccines have been published by the Advisory Committee on Immunization Practices (ACIP).\(^10-12\)
Opportunity for Improvement

Influenza and pneumococcal vaccines remain underused in the inpatient setting with 28 percent receiving influenza and 24 percent receiving pneumococcal vaccination. Analysis of both Medicare claims and survey data have demonstrated underuse of influenza and pneumococcal vaccines.\(^8\)

National health objectives for 2010 include increasing influenza and pneumococcal vaccination levels to \(\geq 90\%\) among persons aged \(\geq 65\) years. Influenza vaccination levels during 2000—2001 decreased from 1998—1999 levels in 27 of 52 reporting areas; pneumococcal vaccination prevalence increased a median of 7 percentage points from 1999 to 2001. Continued efforts are needed to increase the proportion of older adults who receive influenza and pneumococcal vaccines; health-care providers should offer pneumococcal vaccine all year and should continue to offer influenza vaccine during December and throughout the influenza season, even after influenza activity has been documented in the community.

The optimal time to administer influenza vaccination is during October—November. However, influenza vaccination should continue into December and later because many persons at high risk for influenza-related complications, household members of these persons, health-care workers, and other persons who want to decrease their risk for influenza remain unvaccinated by the of November. To maximize coverage among target groups and overall use, providers should offer influenza vaccine throughout the influenza season. Influenza activity peaked in January or later in 21 of the preceding 25 influenza seasons. During influenza season and all year, pneumococcal vaccination also should be offered to person aged \(\geq 65\) years and others at high risk who have not been vaccinated or whose vaccination status is unknown. Physicians can improve coverage by using strategies such as improved record keeping, standing orders, reminder/recall systems, and offering vaccination to hospitalized patients before discharge.

References


Additional References


