

Influenza and Pneumococcal Vaccination Rates in the Elderly

Petersen RL, Saag K, Wallace RB, Doebbeling BN. Influenza and pneumococcal vaccine receipt in older persons with chronic disease: a population-based study. Med Care 1999;37:502-9.

Study Overview

Objective. To identify factors associated with pneumococcal and influenza vaccination rates among community-dwelling older persons with chronic disease.

Design. Telephone survey of a population-based sample.

Setting and participants. Urban and rural Iowa adults aged 65 years and older with at least 1 self-reported target medical condition. During a phone interview, data were obtained on various clinical and demographic factors and aspects of health care access that were potential determinants of receipt of recommended vaccines.

Main outcome measures. Number of patients who received influenza vaccination in the past year and pneumococcal vaccination ever.

Main results. A total of 787 interviews were completed (response rate was 68%; completion rate for screened, eligible subjects was 91%). Two thirds of participants reported influenza vaccination in the past year, and half reported ever receiving the pneumococcal vaccine. Both vaccines were received at recommended intervals by 347 participants (44%).

Multivariate logistic regression identified receiving medical care in the past year as the most important determinant of whether patients received both vaccines in a timely manner. For example, having a current prescription medication (odds ratio [OR] = 2.04; 95% confidence interval [CI], 1.32 to 3.14) or having had a physician visit in the past year (OR = 2.53; 95% CI, 1.52 to 4.19) were both associated with a doubling in the usage rate of the vaccines. Similarly, having an increased number of chronic medical conditions was associated with increased vaccination rates (OR = 1.3 for each; 95% CI, 1.09 to 1.54).

Demographic characteristics independently associated with receipt of both vaccines included age 70 years or older (OR = 1.64; 95% CI, 1.15 to 2.32); married (OR = 1.41; 95% CI, 1.03 to 1.92); self-owned residence (OR = 0.57; 95% CI, 0.33 to 0.97); or working (OR = 2.94; 95% CI, 1.38 to 6.18). Receipt of the vaccines was unrelated to being located in a rural area.

Conclusion

Many older persons with chronic medical conditions have not received either influenza or pneumococcal vaccines. Personal demographic and clinical characteristics were more highly associated with underutilization of these vaccines than were health care access characteristics, including type of health plan coverage (eg, managed care or not).

Commentary

Adult immunization rates appear to be suboptimal despite a supportive body of medical literature and policies to promote pneumococcal and influenza vaccinations in the elderly [1-4]. Although this study was conducted in only 1 state, its findings suggest that further efforts to promote the value of immunizations in this patient group are needed.

Applications for Clinical Practice

Health education and promotion efforts should be directed toward the elderly, especially those most at risk, to ensure that they understand the advantages of these vaccines. In particular, elderly persons having less than a high school education and who do not carry insurance to supplement Medicare (eg, so-called MediGap insurance) should be targeted and, if necessary, assisted in receiving the relevant vaccinations.

References

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