New CDC Recommendations: Annual Influenza Vaccination Recommended for Individuals With Spinal Cord Injuries

Barry Goldstein, MD, PhD^{1,2}; Frances M. Weaver, PhD³; Margaret C. Hammond, MD^{1,2}

¹Department of Veterans Affairs, VA Puget Sound Health Care System, Seattle, Washington; ²Department of Rehabilitation Medicine, School of Medicine, University of Washington, Seattle, Washington; ³Midwest Center for Health Services and Policy Research, Department of Veterans Affairs, Hines VA Medical Center, Hines, Illinois

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Serious, life-threatening complications of influenza among people with chronic diseases include pneumonia and exacerbations of coexisting conditions that can result in hospitalization or death. Persons with spinal cord injuries and disorders (SCI&D) are at increased risk for pulmonary impairments and respiratory illness complications due to impaired cough and less effective clearance of secretions, weak respiratory muscles, autonomic changes, including bronchoconstriction, and decreased overall mobility (1). In addition, changes in immune function have been demonstrated following complete cervical spinal cord injuries, which may result in altered clinical response to infection (1). The result is increased mortality and morbidity from respiratory-related illnesses in the SCI population (2). In fact, the most common causes of death have been respiratory complications during both the acute and chronic phases of SCI for the past 2 decades (2,3). DeVivo and colleagues reported that persons with SCI who contracted influenza or pneumonia were 37 times more likely to die from influenza or pneumonia than were comparable individuals from the general population (3).

There is overwhelming evidence that annual influenza immunizations are safe, simple, and cost effective. For individuals at high risk, such as those with SCI, influenza immunizations result in substantial reductions in complications, hospitalizations, and deaths. The value of influenza vaccine has been demonstrated in various age groups and within various populations, including healthy, working adults (4–7). The vaccine is effective in reducing hospitalization for pneumonia and influenza among noninstitutionalized elderly and preventing hospitalization and death from severe illness in institutionalized elderly (6). Most recently, the immunologic response to influenza vaccine in persons with SCI has been found to be similar to that of the able-bodied population (8).

For the first time in history, the Centers for Disease Control and Prevention (CDC) have included spinal cord injury as a high-risk condition in their recommendations for annual influenza vaccination. The Advisory Committee on Immunization Practices now recommends “that persons with any condition (eg, cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration be vaccinated against influenza” (9). Providers should offer the influenza vaccination to all of their patients with spinal cord injuries as a means to reduce the incidence of influenza and respiratory complications in this population.

Such recommendations can make a difference. In 2002, the Department of Veterans Affairs (VA) added spinal cord injury to their list of high-risk illnesses that warrant an annual influenza vaccination. Influenza vaccination rates for veterans with SCI&D have increased from 28% (2000) to 67% (2005). Work by the SCI Quality Enhancement Research Initiative and the VA SCI Strategic Healthcare Group has addressed barriers to vaccination in this population and has implemented strategies to help increase vaccination rates for veterans with SCI&D (10,11). Of greatest importance is education of patients, a strong recommendation by the health care team, and development of a simple system of care to administer influenza vaccinations.

Immunization rates for people 64 years of age and younger with SCI&D and other neuromuscular diseases are thought to be extremely low. The National Health Interview Survey (NHIS) through the CDC has reported immunization rates below 40% for chronically ill people 50 to 64 years of age and below 20% for people younger than 50 years of age. A large proportion of the population with SCI&D and brain injury are young and at great risk for complications from influenza. Further, a large proportion of people with SCI&D see specialists, known to be less likely to recommend and administer flu vaccinations (12). People with SCI&D, for example, often see physiatrists for care; physiatrists have been reported to vaccinate patients rarely (13). Finally, many generalists who see people with neuromuscular diseases do not appreciate the risks of respiratory complications.

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Please address correspondence to Barry Goldstein, MD, PhD, Spinal Cord Injury and Disorders Strategic Healthcare Group (128NAT), VAPSHCS, 1660 S. Columbian Way, Seattle, WA 98108, phone: 206.768.5401; fax: 206.768.5258 (e-mail: barry.goldstein@med.va.gov).

Considering the simplicity of administering the influenza vaccination, the small risks, and the enormous benefits, the 2005 recommendations by the CDC should be a call to arms to provide influenza vaccinations by health care teams who see people with SCI&D and other neuromuscular conditions. The system of care to administer influenza vaccinations should include all points of contact in the health care system for such vulnerable, high-risk patients. Specialists and generalists alike can invest relatively small amounts of time to organize these activities each fall. This is a remarkable opportunity in which a small investment can result in a huge difference in the health of people who live with neuromuscular disease.

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