



Clinical Digest

ONLINE EDITION

PREVENTIVE MEDICINE

Vaccine Shortages May Lead to Disparities

During influenza vaccine shortages, racial and ethnic disparities in vaccination rates begin to appear, according to a cohort analysis conducted by researchers from the University of Rochester in New York.

Researchers analyzed the 2000–2005 Medicare Current Beneficiary Surveys—a multipurpose survey of the health experiences of a nationally representative sample of the Medicare population combined with Medicare claims data. They compared vaccination rates in consecutive seasons: Period 1 (2000–2001 and 2001–2002), Period 2 (2001–2002 and 2002–2003), Period 3 (2002–2003 and 2003–2004), and Period 4 (2003–2004 and 2004–2005). The 2000–2001 season saw a severe delay in supply; 2001–2002 was improved with moderate delay. The 2003–2004 season had a moderate shortage because of exceptional demand and was followed by a severe shortage in 2004–2005.

The study participants were Medicare beneficiaries aged 65 years and older and were classified as white, African American, English-speaking Hispanic, and Spanish-speaking Hispanic.

For all groups, the vaccination rate generally rose when vaccine supply improved and declined when vaccine supply worsened. Despite the similar vaccine supply between the 2 seasons in Period 3, vaccination rates rose in 2003–2004 when an unusually early onset of a relatively severe epidemic

led to high demand late in the vaccination period causing a moderate supply shortage.

In Period 1, which saw a large vaccine supply increase, the vaccination rate rose in all groups. The rate increased most among Spanish-speaking Hispanics (13.9%), compared with African Americans (10.4%), English-speaking Hispanics (9.69%), and whites (3.1%). But in Period 4, which saw the steepest decline in supply, vaccination rates fell among whites by 6.8%, African Americans by 9.1%, English-speaking Hispanics by 12.9%, and Spanish-speaking Hispanics by 0.3%.

Racial/ethnic disparities narrowed when vaccine supply improved. For example, during Period 1, the disparities in vaccination rates decreased by 7.4% between whites and African Americans, by 6.6% between whites and English-speaking Hispanics, and by 10.9% between whites and Spanish-speaking Hispanics. In contrast, disparities intensified during shortages. During Period 4, for instance, disparities in vaccination rates increased by 2.3% between whites and African Americans, and by 6.1% between whites and English-speaking Hispanics.

The researchers say their analysis indicates that ensuring an adequate and consistent vaccine supply will help improve overall vaccination rates with fewer disparities. They suggest creating “an adult program similar to the Vaccines-for-Children program to sustain delivery of vaccines to safety-net providers with limited vaccine investment resources, such as federally qualified health centers and practices that serve large proportions

of African American and Hispanic patients.” They also suggest creating more provider and patient reminder systems and targeted communication campaigns.

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EMERGENCY MEDICINE

Table Maneuver: When Heimlich Doesn't Work

Inspired by a maneuver used to rescue choking infants, a clinical team from France invented a technique they call the “table maneuver” for unconscious choking older adults. Over a 6-year period, nurses used the technique “empirically” and successfully to expel foreign bodies from the airways of 4 unconscious elderly patients in a long-term care facility.

The maneuver is simple: The choking person is laid prone on a table with head facing down and arms hanging over the table edge, then, given sharp blows between the scapulas with the heel of the hand.

After just a few back blows (and, in 1 case, cardiopulmonary resuscitation [CPR]), the patients spit out the obstructions (pieces of beets, Brussels sprouts, milk-soaked croissant pieces, banana pieces) with no ill effects. The maneuver was successful in 3 cases where conventional rescue methods had failed and, in the fourth case, was the first maneuver the nurse attempted.

The first patient, an 89-year-old woman, had a history of vascular dementia. Although the nurse performed the Heimlich maneuver 5

times, the woman collapsed, whereupon, the nurse tried the table maneuver. By the time the emergency service arrived, the patient had fully recovered.

The second and third cases involved a 70-year-old woman, also with a history of dementia. Her first choking episode was resolved with the table maneuver; the second, more severe episode required a number of resuscitation methods: Heimlich, chest thrusts, the table maneuver, then chest thrusts again, and finally, a second table maneuver, which was

successful. The patient was taken to the hospital and recovered her normal consciousness in 1 hour, and was discharged the day after with no new neurologic symptoms.

The fourth case, a 72-year-old obese man with dementia, was still eating when the other patients had left the restaurant. The nurse arrived to find him unconscious and cyanosed; she performed the table maneuver. After several back blows, the man spit out the banana pieces that were choking him and rapidly recovered normal consciousness.

The authors acknowledge that the obstructive pieces were all slick and soft, and say it remains to be determined whether the table maneuver would work as well with a solid and large object, such as meat. Furthermore, they suggest the technique should not be used as the first intervention in choking victims but could be attempted after the failure of other maneuvers or in combination with CPR. ●

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