Report to the Boards of Health
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Vaccine Updates

1. ***Shingrix* for Prevention of Shingles.** Shingles is a painful rash caused by the reappearance of the chickenpox virus previously laying wait in a sensory nerve. It develops on one side of the body along the route of the inflicted nerve, often on the trunk or face. The incidence of chickenpox, which is caused by the varicella-zoster virus, has dropped dramatically since vaccination became available in 1996. However, anyone already infected with chickenpox is at risk of getting shingles as their own immunity to chickenpox drops with time.

   In 2006, Zostivax was recommended for use in patients age 60 and older to help prevent shingles infections. In studies, it was found to reduce the risk of getting shingles by 51% over a three-year period. Of those that got the vaccine, 1.6% got shingles, compared to 3.3% of those receiving a placebo. In the vaccinated individuals that did get shingles, they had shorter duration of pain and discomfort, as well as less chance of experiencing long lasting pain called postherpetic neuralgia. Longer studies found that the protection from the vaccine seemed to hold at five years, but dropped off dramatically by eight years after vaccination. This vaccine does contain a weakened, live virus, so it should not be used in people with significantly impaired immune systems as in very rare cases it could cause chickenpox-like illness.

   In October 2017, a new shingles vaccine called Shingrix was approved. This vaccine is made from inactivated parts of the varicella-zoster virus. It is bound to an adjuvant, which is an agent that improves the immune response to a vaccine. The adjuvant used in this vaccine was created from cholesterol and fats. Shingrix was studied against placebo over three years in people age 50 and over and was found to reduce the risk of getting shingles by 97.2%. Of those that got the vaccine, only 0.08% got shingles, compared to 2.72% of those receiving a placebo. It was also studied in people over age 70 and was found to prevent shingles by 90% (0.33% vs. 3.2%) and in those that were vaccinated and got shingles, postherpetic neuralgia was reduced by 89%. The difference in benefit between Zostivax and Shingrix was most notable in those over 70 years of age.

   Side effects with Zostivax consist mainly of pain at the site of injection, redness, swelling, or itching, all of which are typically mild. Shingrix can have similar side effects, as well as fatigue, headache, chills, body aches, fever, and symptoms of gastrointestinal illness. One in 10 people reported side effects that were bad enough to prevent normal activities. These side effects typically pass in two to three days.

   It is recommended Zostivax be given to those age 60 and over. Shingrix is a two-dose series, given two to six months apart. The second dose should be encouraged and given even if there were side effects experienced after the first dose. It is recommended for adults age 50 and over, even if they have already received Zostivax, have had shingles already, or are unsure if they had chickenpox in the past. It is recommended that if Zostivax has been given recently, Shingrix not be given for at least two months. Shingrix can be given on the same day as other needed vaccines. Shingrix can be used in those with chronic health problems, but the recommendations for those with immunocompromising illnesses is still being discussed.

   While influenza and pneumonia vaccines are covered by Medicare Part B, other vaccines including Zostivax and Shingrix are covered by Medicare Part D, which covers prescription drugs. In time, Shingrix can be given at a pharmacy and billed to Medicare with a prescription from a provider or given to by a provider. As a

recommended vaccine, private health insurance plans are required to cover it as preventative medical care as a provision of the Affordable Care Act. It will take time, however, for all insurances to make adjustments for the new vaccine billing.

2. **Mumps.** There has been a large increase in mumps outbreaks in the U.S. since 2015. The mumps vaccine is given as part of the two-dose series of the Measles, Mumps, Rubella (MMR) vaccination. Two doses are 88% effective at protecting against mumps (range: 66% to 95%). However, outbreaks can still occur in crowded environments, such as schools, colleges, sports teams, and camps, where it is easy to come in contact with saliva from others, either by inhaling droplets, or sharing personal items.

   Studies have been done during mumps outbreaks to determine if giving at-risk individuals a third dose of MMR vaccine was helpful to stop the spread of disease. In those given a third dose of MMR, the attack rate of mumps was cut 60 to 80 percent. No unexpected side effects or complications were noted. It is now recommended that persons previously vaccinated with two doses of a mumps virus–containing vaccine who are identified by public health authorities as being part of a group or population at increased risk for acquiring mumps because of an outbreak should receive a third dose of a mumps virus–containing vaccine to improve protection against mumps disease and related complications.

For More Information:

- http://www.vaccineinformation.org/shingles/
- http://www.vaccineinformation.org/mumps/

Healthy Living Recommendations

1. Healthy adults 50 years and older should get two doses of Shingrix, separated by two to six months. Shingrix should be given even if in the past the individual: had shingles; received Zostivax; are not sure if they had chickenpox; had side effects after the first dose of Shingrix.
2. Groups identified at risk for mumps due to outbreak should receive a third dose of MMR.

References

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