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Editorial

Immunization for Measles Virus

Joy Stanley*

Department of Pharmaceutical and Chemical Sciences, Boston University, USA

Measles is one of the most commonly known airborne diseases that live in the mucus of nose and throat of the infected person. It is freely spread by coughing and sneezing of the infected person. The small areolar particles contaminate the air and others breathing this air or in contact with the contaminated surface are prone to be infected. Measles is an infection caused by virus mostly effecting children. Fever is the first symptom of measles which shows up about 10-12 days after the exposure to virus and lasts up to 4-7 days. Symptoms observed in the initial stage are running nose, cough, red and watery eyes and small spots inside the cheeks further developing into rashes usually on the face and neck. Unvaccinated children have a highest risk of measles and the complications may lead to death and people with less immune are highly prone to be infected. Measles is a highly contagious disease spreading through cough, sneeze, and close contact with the infected person's nasal or throat secretions. Unvaccinated pregnant women are prone to be infected. Immune serum globulin is a protein injection to boost immune system; it can prevent measles or control the symptoms which can be given to pregnant women.

For treating measles virus, there is no specific antiviral treatment that exists. Proper nutrition, adequate fluid intake and dehydration treatment is essential in reducing the complications occurred from measles. Vitamin A supplements should be given in two doses, 24 hours apart, to all children diagnosed with measles. This medication can help avoid eye damage and blindness by restoring low vitamin A levels during measles, which can occur even in well-nourished youngsters. Supplementing with vitamin A has also been demonstrated to lessen the number of people who die from measles.

The measles can further increase health complications including ear infections, Bronchitis, laryngitis, diarrhea, pneumonia, encephalitis and problems during pregnancy such as low birth weight and premature birth.

Measles can be prevented by giving routine vaccination for children. The vaccination for measles has been in use for around 60 years which is safe, effective and less expensive. Measles vaccine is often combined with rubella or mumps vaccine. Measles-mumps-rubella (MMR) vaccine is highly effective post two doses. It is recommended that children to be vaccinated for first dose between 12-15 months of age followed by second dose between 4-6 years of age. Although vaccine is safe, non-immune people and pregnant women or people with certain allergies can't be vaccinated. MMR vaccine contains inactivated live measles, mumps and rubella viruses which stimulate the immune system and cause no harm to healthy people.

MMRVaxPro and Priorix are two vaccines used in UK, both of which are composed of different ingredients. In other countries the same vaccine may contain different ingredients. Antigens are the active ingredients in vaccine apart from which MMR vaccines can contain other ingredients in small amounts such as purified gelatin and recombinant human serum albumin which are used as a stabilizer in MMRVaxPro alone, sorbitol or mannitol as stabilizers. Polysorbate 80 (Tween 80) is used as an emulsifier. Along with these there are traces of neomycin (an antibiotic) during manufacturing process.

The active ingredients for vaccines are grown in laboratory using human cell strains specifically rubella strain. Both measles and mumps strains for MMR vaccines are grown in culture media containing chick embryo cells. Viruses are not grown on the eggs resulting in no egg protein in the vaccine causing allergic reactions which is safe to administer for people having allergy to egg.

Side effects post vaccination is very rarely found that include sore, red, or swollen spot where you got the shot, fever, mild rash and temporary pain or stiffness in your joints. People having allergy to any ingredients, family history of immune system problems, TB or got another vaccine shot in duration of 4 weeks may skip MMR vaccine.

Correspondence to: Joy Stanley, Department of Pharmaceutical and Chemical Sciences, Boston University, USA; E-mail: stanley_joy@boston.edu

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