Patients count on an effective vaccine

Many people have come to rely on influenza vaccines—parents of young children, people at high risk for influenza-related complications, healthcare workers, and healthy people who simply want to avoid getting the flu.

Influenza vaccines are prepared in advance of the season and comprise the 3 strains predicted by the US Public Health Service and the World Health Organization to be most prevalent in the coming season. The vaccine is available as either a nasally administered, attenuated, live cold-adapted influenza vaccine (CAIV), or as injectable trivalent influenza vaccines that contain inactivated virus.
0.6 mg/kg daily, administered intravenously in four divided doses. All adjunctive treatments were administered for 2 days, and the children were followed until the end of their hospitalization. The primary end points of the study were death and severe neurologic sequelae, including blindness, profound hearing loss, quadriparesis or quadriplegia, hydrocephalus requiring placement of a shunt, and/or severe psychomotor retardation.

Patients treated with glycerol had a 42% reduced risk of death, compared with placebo, a statistically significant difference. Patients treated with dexamethasone had a 15% reduced risk of death, compared with placebo, a difference that was not statistically significant. Patients who received both treatments had a mortality reduction of 32%.

In all groups, the benefit of adjunctive treatment was best in the subgroup of patients with the most severe disease at baseline, those with a Glasgow Coma Scale score of less than 13. In this subgroup, mortality was cut by 21% among patients treated with dexamethasone, and by 61% among those treated with glycerol, said Dr. Peltola at the conference, sponsored by the American Society for Microbiology.

Glycerol treatment led to better outcomes for all parameters analyzed. When death and severe neurologic sequelae were combined as an end point, patients with a Glasgow Coma Scale score of less than 13 who were treated with glycerol had 55% fewer events than those treated with placebo.

“The mechanisms of glycerol’s effect are not fully understood, but improved cerebral circulation seems a likely explanation,” Dr. Peltola said. It’s also unclear why the combination of glycerol and dexamethasone was less effective than glycerol alone.

“I’m pleased to see these results. It’s a superb idea because of the low cost and ready availability of glycerol,” commented Neal A. Halsey, M.D., director of the Institute for Vaccine Safety at Johns Hopkins University in Baltimore.

Attenuated live vaccines are safe and effective

Questions about influenza vaccine efficacy often arise during years with strain mismatch—years in which the predicted strains do not match the prevailing wild influenza virus. The efficacy of Fluminist®, the only commercially available CAIV, has been demonstrated even in a year with mismatched strains. In a subgroup from a 2-year clinical study in children aged 5 and older, Fluminist® reduced the number of children contracting influenza by 87% vs placebo during both the year with mismatched strains (1997-1998) and the year with matched strains (1996-1997).

A first line of defense

The cold-adapted vaccine strains replicate primarily in the nasopharynx, initiating an immune response at influenza’s point of entry. Due to temperature sensitivity, the vaccine strains in Fluminist® do not replicate efficiently in the warmer temperatures of the lower airways and lungs.

Substantial efficacy, combined with a demonstrated safety profile, makes Fluminist® an effective choice to help protect your healthy patients this influenza season and in the seasons to come.

Fluminist® is indicated for active immunization for the prevention of disease caused by influenza A and B viruses in healthy children and adolescents, 5 to 17 years of age, and healthy adults, 18 to 49 years of age. There are risks associated with all vaccines, including Fluminist®. Fluminist® does not protect 100% of individuals vaccinated, and may not protect against viral strains not represented in the vaccine.

In placebo-controlled clinical trials, the most common solicited adverse events in the indicated population (n=2,762) included runny nose/nasal congestion, headache, cough, sore throat, tiredness/weakness, irritability, decreased activity, and muscle aches.

Fluminist® is contraindicated in persons with hypersensitivity to any component of the vaccine, including eggs; in children and adolescents receiving aspirin therapy or aspirin-containing therapy; in individuals with a history of Guillain-Barré syndrome; and in individuals with known or suspected immune deficiency. The safety and efficacy of Fluminist® have not been established in pregnant women or for patients with chronic underlying medical conditions, including asthma or reactive airways disease; the vaccine should not be administered to these patients.

For indications and usage, dosage and administration, and safety information, see the Brief Summary on the adjacent page. For more information, visit flumist.com.