



“New Medication Available to Prevent Serious Breathing Disorder Due to Viral Infection”

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For many decades a virus that affects the airways and lungs, called Respiratory Syncytial Virus, or RSV, for "short," has affected many infants and young children, causing at times severe breathing disorders. The virus, RSV, has a seasonal variation and, like most other viruses, causes problems during the winter months (actually, from the end of October or mid November all the way through April). During this time of the year, RSV is frequent and affects many children, the majority of whom develop "just a minor cold" or mild breathing problems. However, the number of infants affected and the severity of the disease varies from season to season. Unfortunately, every season some infants do become very ill and even die due to RSV infection.

Recently it became clear that some infants are at greater risk than others of developing severe disease if they become infected with RSV during the RSV season.

Risk Factors

The following are well known risk factors for severe disease if an infection with RSV occurs:

- Infants who had been born prematurely (less than 32-35 weeks gestation at birth).
- Infants who were critically ill at birth requiring treatment with respirators for a long period of time.
- Infants who continue to have oxygen requirements for weeks or months after birth.
- Infants born with congenital heart disease.
- Infants exposed to passive smoking.
- Infants with siblings attending day care.
- Post-natal age: The younger the infant when infected, the greater is the risk. (RSV is most severe in infants under 3 months of age)

What can be done to prevent RSV infection?

Unfortunately, there is no vaccine to eradicate this viral infection. However, due to the revolutionary advances in biotechnology, a specific way of protection against RSV has been recently developed. The medication is a "humanized" monoclonal antibody; that is to say, a substance very similar to one we produce naturally, directed specifically "against" only one agent, organism, protein or substance. The humanized monoclonal antibody against RSV is now commercially available and its trade name is Synagis.

Of course, the practice of all measures of hygiene, particularly strict hand washing, and the avoidance of smoking at home and contact with children with viral illnesses, are excellent preventative measures, too.

How to use Synagis and for whom?

This medicine has to be given by injection into a muscle (IM) [of the thigh, for example]. After one IM injection, adequate levels of the monoclonal antibody last in the baby's blood for about one month. Therefore, for the medication to be effective throughout the whole RSV season, the dose of Synagis has to be repeated every month. In this way, the baby to be treated will receive anywhere from one to five injections, according to the birth date and to the date of discharge in relation to the RSV season. Prevention will therefore be offered and started in the NICU, but repeated doses will be needed after discharge from the hospital, also.

The medication cannot be used in all infants and it was found to be most useful for infants born prematurely, before 35 weeks of gestation, and also for infants with chronic lung disease ("CLD"). In summary then: RSV affects many infants and children when at home but frequently the infection is not very severe. Many of the infants who develop serious problems with RSV have a history of having been treated in the NICU. The doctors in the NICU will discuss with you if your baby will benefit from this medication in preparation for discharge.

As the RSV season has already started, it is important for babies who meet treatment criteria to be protected by administering them this new medication.