**WHAT IS DUPILUMAB AND HOW DOES IT WORK?**

Dupilumab is a “biologic” medication called a monoclonal antibody. It was created to target a specific part of the immune system. It targets the receptor that allows two proteins to cause the inflammation in atopic dermatitis. These proteins are called cytokines. The ones targeted in atopic dermatitis are called interleukin 4 and interleukin 13. These cytokines are part of a family of proteins that are involved in the type 2 immune response. This immune response leads to atopic dermatitis, asthma, and various forms of allergy.

**WHEN SHOULD I CONSIDER DUPILUMAB FOR MY CHILD’S ATOPIC DERMATITIS?**

» Dupilumab may be considered for atopic dermatitis management in a number of different circumstances (e.g., when your doctor determines your child has atopic dermatitis that has not improved enough with proper use of moisturizer and topical medications.) Proper use means use of the right strength and frequency of application.

» When phototherapy (a type of light treatment) or other systemic medications have failed to control the atopic dermatitis.

» When topical medication or other systemic medications cannot be used in your child.

» When atopic dermatitis is affecting your child’s quality of life extensively. Uncontrolled atopic dermatitis can also affect the quality of life of the entire family.

**HOW IS DUPILUMAB DOSED AND GIVEN?**

Dupilumab is approved for the treatment of atopic dermatitis in children six years of age and older. It is given by a subcutaneous injection. It comes as a pre-filled syringe or a pre-filled pen. The pre-filled syringe is often used when someone else gives dupilumab to your child. The pre-filled pen can be given by pressing directly on skin without pinching it.

The most common sites for injections are the stomach, thighs, or upper outer arms. Ideally, these sites are used on a rotating basis. If there is a bruise or other abnormal skin finding at the site where you plan to inject, avoid this area and choose a different location.
Your doctor will determine if the patient or caregiver is able to give the injection. In patients older than 12, it is recommended that the injection be given by the patient and supervised by an adult. In patients younger than 12, it should be given by a caregiver/adult. Before starting the injections, training should be done so that your child and family know how to prepare and inject the dupilumab.

ARE ANY TESTS OR PROCEDURES NEEDED BEFORE STARTING DUPILUMAB?

There are no standard tests that need to be done before starting dupilumab. The only contraindication to using this medication is an allergy to dupilumab or to any of the ingredients in it.

In pediatric patients, it is always recommended that the child’s immunizations are up-to-date. It is also important to tell your doctor if you have a history of eye problems.

DO I CHANGE HOW I TREAT MY CHILD’S ATOPIC DERMATITIS WHILE ON DUPILUMAB?

Using dupilumab is not a cure for atopic dermatitis. Patients still need to continue using gentle skin care, moisturizer, and topical medications as needed. With ongoing use of dupilumab, the need for topical medications may decrease.

IS THERE ANYTHING I SHOULD BE AWARE OF WHILE MY CHILD IS ON DUPILUMAB?

There is no specific blood monitoring that needs to be done while on dupilumab. In general, live vaccines should be avoided while on biologic medications such as dupilumab. Some examples of live vaccines are nasal influenza, MMR (measles, mumps, and rubella), rotavirus, oral polio, varicella, typhoid, and yellow fever vaccines. You can find more information about vaccines in the Society for Pediatric Dermatology’s Vaccine handout: https://pedsderm.net/for-patients-families/patient-handouts/

HOW LONG WILL MY CHILD TAKE DUPILUMAB?

The length of treatment with dupilumab varies from person to person. As atopic dermatitis is a chronic skin disease, many patients need to stay on the medication for a long time, but you should discuss this with your physician. It is important to continue to follow up with your doctor while using dupilumab to ensure proper treatment duration and access to the medication.

The amount of medication and frequency of use depends on age and weight:

- **In children six years of age and older weighing 60 kg or more:** Your child will receive 600 mg of dupilumab (two 300 mg injections) the first time. After this first dose, they will receive 300 mg (one injection) every other week.
- **In children six years of age and older weighing between 30 and 60 kg:** Your child will receive 400 mg of dupilumab (two 200 mg injections). After this first dose, they will receive 200 mg (one injection) every other week.
- **In children six years of age and older weighing between 15 and 30 kg:** Your child will receive 600 mg of dupilumab (two 300 mg injections). After this first dose, they will receive 300 mg every four weeks.
- **In children younger than six years of age:** The use of dupilumab is off-label (not FDA-approved) in this age group; the dose will be determined by your doctor.

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