Treatment of Atopic Dermatitis

Clinical Guideline

This guideline supports initial treatment of patients with Atopic Dermatitis and includes information for referral to the Children's Wisconsin Dermatology Clinic.
To support collaborative care, we have developed guidelines for our community providers to use when referring to, and managing patients with, the pediatric specialists at Children's Wisconsin. These guidelines provide information and recommendations for jointly managing patient care between community providers and our pediatric specialists.

Diagnosis/symptoms/Causes	Referring provider's initial evaluation and management:	When to initiate referral/ consider refer to Dermatology Clinic:	What can referring provider send to Dermatology Clinic?	Specialist's workup will likely include:
Signs and symptoms Pruritus and a chronic or relapsing history are essential features when making this diagnosis. Symptom onset typically presents during infancy or early childhood and a personal or family history of atopy (eczema, asthma, food and/or seasonal allergies) is commonly observed. In addition, it is important to note that the distribution of skin findings varies with age. Infants and younger children typically have more extensor surface involvement and older children/adults have more flexural involvement. **Causes** Immune dysregulation, epidermal barrier dysfunction, genetic factors and environmental triggers. A family history of atopy is a major risk factor for this condition.	**Diagnosis and Treatment** Atopic dermatitis is a clinical diagnosis based upon history, morphology and distribution of skin findings and associated symptoms. • Restore and maintain the skin barrier • Once daily or every other day showers or baths that last 10-minutes or less are recommended. • A fragrance-free cleanser should be used. • Application of a moisturizer should be applied twice daily. Fragrance-free creams or ointments are preferred over lotions. • Avoidance of triggers, such as environmental and (rarely) food allergens, may also be helpful in certain individuals after allergy testing has been performed. • Topical steroids ○ Topical steroids are first-line treatment for atopic dermatitis	**Urgent Referral (within 24 hours)** • Atopic dermatitis with concerns for eczema herpeticum • Atopic dermatitis with concerns for severe bacterial skin infection • Severe atopic dermatitis with erythroderma, or widespread redness of skin Non-Urgent Referral • Uncertain diagnosis • Need for treatment escalation beyond mid-potency topical steroids • Recurrent infections • Treatment failure • Atopic dermatitis negatively impacting quality of life	**How to refer:** 1. **In Children's Epic:** place an Ambulatory referral to Dermatology. **2. External providers:** • **In your instance of Epic -** Place an external referral order to CHW DERMATOLOGY CLINICS **or** • **Fax (414-607-5288) or** • **Online ambulatory referral** **For urgent requests:** Contact the Physician Consultation Line (414-266-2460).	A multifaceted approach would take place in order to try to limit symptoms and decrease inflammation. Depending on multiple factors, such as the degree of skin inflammation and location of involvement, treatment options may include the use of topical corticosteroids, emollients, a nonsteroidal treatment alternative, narrowband UVB phototherapy, and/or use of a systemic agent. Referral to Allergy may be recommended in some patients.

For questions concerning this work, contact
CWGuidelines&Pathways@Childrenswi.org

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More information is available from the AAP: Atopic Dermatitis: Update on Skin-Directed Management: Clinical Report	and should be applied ideally 2 times per day. ○ Consider body location as well as the strength and vehicle when choosing a topical steroid. Higher potency topical steroids (clobetasol, halobetasol, betamethasone, fluocinonide, mometasone) should be reserved for the WORST areas (lichenified plaques and areas of thicker skin such as hands, feet, elbows, and knees). Lower potency topical steroids (hydrocortisone 2.5%, desonide, triamcinolone 0.025%) should be considered on thinner lesions and areas of thinner skin such as face, axillae, and groin. Ointments generally provide better penetration and act as an occlusive barrier, but ointments can be perceived as greasy and non-compliance can be an issue. Creams can be associated with better compliance; however, are less potent for the same steroid and can sting when applied. Lotions, solutions and foams can be ideal for application of the scalp and other hair bearing sites; however, these can cause dryness and stinging.			

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	○ When evaluating quantity, approximately 0.5 grams (a fingertip amount) is enough medication to cover an area equivalent to two adult palms with one application. Multiply as necessary to estimate a one month supply. ○ Side effects of topical steroids should be monitored. These include skin atrophy, absorption, striae and various adverse skin reactions, such as steroid folliculitis, perioral dermatitis, allergic contact dermatitis and local skin infections. ○ Generally, consider using hydrocortisone 2.5% ointment, desonide 0.05% ointment, and triamcinolone 0.025% ointment BID PRN for face/axillae/groin and triamcinolone 0.1% ointment BID PRN for body before referral to dermatology. • <u>Topical calcineurin inhibitors (TCIs)</u> ○ TCIs are anti-inflammatory agents approved in the US as a second-line therapy for atopic dermatitis. ○ Available formulations include tacrolimus ointment (0.03% and 0.1%) and pimecrolimus cream (1%).			

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	○ They do not cause skin atrophy and therefore can be very effective when applied to areas that are at an increased risk for skin atrophy or if needing more chronic therapy. ○ Common side effects include a reported burning sensation when this class of medications are applied. **These medications have a black-box warning issued by the FDA** and long-term effects have not been established. Despite the black box warning, most pediatric dermatologists feel that they are very safe to use.			
Superinfection is a common complication of atopic dermatitis and can present with edema, erythema and crust formation. **<u>Causes</u>** Superinfection is most frequently caused by *Staphylococcus aureus*. Less commonly, *Streptococcus pyogenes* can infect atopic dermatitis as well.	• If skin findings are concerning for a bacterial skin infection, a skin culture can be performed to help guide antibiotic therapy if appropriate. • Judicious use of antibiotics, both topical and systemic must be considered, given increasing rates of antimicrobial resistance. Mild infections can be effectively treated with Mupirocin 2% ointment. If more extensive involvement is present and an oral antibiotic is required, cephalosporins (cephalexin) are first-line treatment in patients with	See above	See above	See above

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	no known history of MRSA. When MRSA is present, oral antibiotics treatment considerations include clindamycin, TMP/SMX and doxycycline (must be >8 years old). • Weekly bleach baths can also be an adjunct therapy to decrease inflammation.			
Eczema herpeticum can present with erosions, crusting and vesicles. Associated systemic symptoms, such as fevers and chills, can also be present, and patients may complain that skin is more painful than pruritic. **Causes** Eczema herpeticum is a cutaneous HSV infection on eczematous skin.	• An HSV PCR or NAAT is helpful when making this diagnosis and systemic antiviral treatment is necessary. • Prompt initiation of oral acyclovir or valacyclovir is essential. • If lesions are present near the eye, urgent ophthalmology evaluation is necessary. • Admission for IV antivirals may be warranted in infants and young children, those with systemic symptoms (e.g. fever), and moderate to severe cases.	See above	See above	See above

Send referrals to Children's Wisconsin

Internal referral via Children's Epic
Send an ambulatory referral to Dermatology **Via fax**: 414-607-5288

External referral via Epic
Send to CHW DERMATOLOGY CLINICS

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Medical Disclaimer

This Clinical Guideline (CG) is designed to provide a framework for evaluation and treatment. It is not intended to establish a protocol for all patients with this condition, nor is it intended to replace a clinician's judgement. Adherence to this CPG is voluntary. Decisions to adopt recommendations from this CG must be made by the clinician in light of available resources and the individual circumstances of the patient. Medicine is a dynamic science; as research and clinical experience enhance and inform the practice of medicine, changes in treatment protocols and drug therapies are required. The authors have checked with sources believed to be reliable in their effort to provide information that is complete and generally in accord with standards accepted at the time of publication. However, because of the possibility of human error and changes in medical science, neither the authors nor Children's Hospital and Health System, Inc., nor any other party involved in the preparation of this work warrant that the information contained in this work is in every respect accurate or complete, and they are not responsible for any errors in, omissions from, or results obtained from the use of this information.