Children's Wisconsin

Co-Management Guidelines

To support collaborative care, we have developed guidelines for our community providers to utilize when referring to, and managing patients with, the pediatric specialists at Children's Wisconsin. These guidelines provide protocols for jointly managing patient cases between community providers and our pediatric specialists.

Atopic Dermatitis

The purpose of this guideline is to determine initial treatment of atopic dermatitis and when the patient should be referred to dermatology

Diagnosis/symptoms	Referring provider's initial evaluation and management:	When to initiate referral/ consider referring to the Dermatology Clinic:	What can the referring provider send to Dermatology Clinic?	Specialist's workup will likely include:

<u>Signs and symptoms</u>
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 is commonly observed. In addition, it is important to note that the distribution of skin findings varies with age, typically with more extensor surface involvement in infants and younger children and more flexural surface involvement in older children and adults.
 	
<u>Causes</u>
A complex interaction of processes is involved in the pathogenesis of atopic dermatitis, including
	<u>Diagnosis and Treatment</u>
	Atopic dermatitis is a clinical diagnosis based upon history, morphology and distribution of skin findings and associated symptoms.
	
	<u>Treatment</u>
	– Restore and maintain the skin barrier
	– Once daily or every other day showers or baths in 10-minute intervals or less are recommended.
	– A fragrance-free soap should be used.
	– Application of a moisturizer should be applied twice daily. A moisturizer should be fragrance free and should be applied twice daily. 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
		<u>Urgent Referral (within 24 hours)</u>
		• 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, that is present
		
		<u>Non-Urgent Referral</u>
			Internal Provider using Epic:
			• Place ambulatory referral to Dermatology
			
			External Provider using EPIC:
			• Place an external referral order to CHW Dermatology
			OR fax the information to (414-607-5288)
			• It would also be helpful to include:
			  • Chief complaint, onset, frequency
			  • Recent progress notes
			  • Labs and imaging results
			  • Other Diagnoses
				A multifaceted approach would take place in order to try to limit symptoms and decrease inflammation. Depending on a plethora of factors, such as the level of skin inflammation and location of involvement, treatment options would 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 recommend in some patients.

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immune dysregulation, epidermal barrier dysfunction, genetic factors and environmental triggers. A family history of atopy is a major risk factor for this condition.	– Topical steroids are first-line treatments for atopic dermatitis and should be applied ideally 2 times per day. – Considerations when selecting a topical steroid include affected body location as well as the strength and vehicle. Higher potency topical steroids should be applied to lichenified plaques and areas of thicker skin such as hands, feet, elbows, and knees. Lower potency topical steroids should be considered on thinner lesions and areas of thinner skin such as face, axillae, and groin. While an ointment provides better penetration as an occlusive barrier, 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, can cause dryness and stinging on more typical sites. – 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. Multiple as necessary to estimate a one month supply. – Side effects of topical steroids should be monitored, including but not limited to atrophy, absorption, striae and various adverse skin reactions, such as steroid folliculitis, perioral dermatitis, allergic contact dermatitis and local skin infections. • Topical calcineurin inhibitors – Topical calcineurin inhibitors are anti-inflammatory agents approved in the US as a second-line therapy for atopic dermatitis.	• Uncertain diagnosis • Need for treatment escalation beyond mid-potency topical steroids • Recurrent infections • Treatment failure • Atopic dermatitis negatively impacting quality of life	• Office notes with medications tried/failed in the past and any lab work that may have been obtained regarding this patient's problems.	

	– Available formulations include tacrolimus ointment (0.03% and 0.1%) and pimecrolimus cream (1%). – 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. • Topical phosphodiesterase 4 (PDE4) inhibitor – Crisaborale 2% ointment is a nonsteroidal treatment alternative that has been approved for the treatment of mild to moderate atopic dermatitis. – Crisaborale does 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. – Although this medication is overall safe and well-tolerated, burning and stinging upon application has been reported. • Topical JAK-inhibitor – Ruxolitinib 1.5% cream is a newly-approved nonsteroidal treatment approved for the treatment of mild to moderate atopic dermatitis. – Topical ruxolitinib does 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. – Cost and insurance coverage may be an issue when prescribing.			

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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 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.	See above	See above	See above
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. <u>Causes</u> 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

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