Practice Parameter: Algorithmic Management of Urticaria



Indian Academy of Pediatrics – Allergy and Applied Immunology Chapter

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Introduction

Urticaria is a common skin condition characterized by transient development of wheals (hives), angioedema, or both. It affects up to 20% of the population during their lifetime, with chronic urticaria (CU) affecting around 5%. Urticaria is classified into Acute Urticaria (AU) and Chronic Urticaria (CU) based on symptom duration, with acute forms resolving within 6 weeks and chronic forms persisting beyond 6 weeks. Proper diagnosis and management are essential to prevent complications and improve quality of life.

I. Clinical Diagnosis of Urticaria

A. Symptoms and Signs

Category	Clinical Features		
Skin Rash	Erythematous, itchy, elevated wheals that		
	disappear within 24 hours and may		
	reappear elsewhere. No residual marks or		
	scars.		
Angioedema	Swelling of eyes, lips, hands, feet,		
	genitalia, often painful.		
Systemic Symptoms	Rare but may include fatigue, fever, or		
	joint pain in chronic urticaria.		

Red flags to rule out other conditions:

- Urticarial vasculitis
- Schnitzler syndrome

- Mast cell mediated angioedema
- Hereditary angioedema

II. Diagnostic Algorithm

- 1. Clinical Suspicion
- Acute onset of transient wheals and/or angioedema
- Associated history: Food intake, drug intake, insect bites, infections, stress

2. Rule Out Differentials

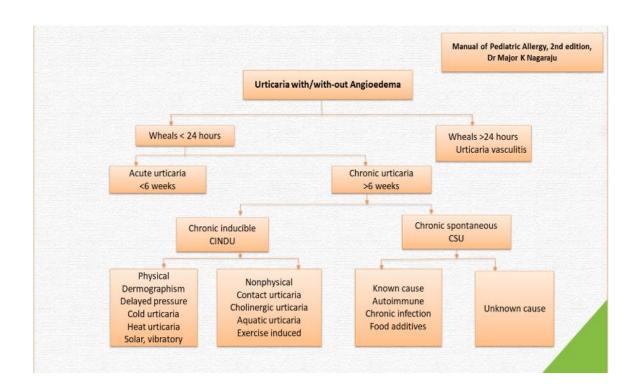
- Urticarial vasculitis (painful, persistent lesions)
- Infections
- Autoimmune disorders (e.g., Hashimoto's Thyroiditis)

3. Assessment Tools

- Urticaria Activity Score (UAS7)
- Urticaria Control Test (UCT)
- 4. Optional Investigations (Indicated by History)
- CBC with differential
- ESR, CRP
- TSH, Anti-TPO Antibodies

III. Classification of Urticaria Severity

efinition
mptoms <6 weeks
mptoms ≥6 weeks without known trigger
riggered by physical stimuli (cold, essure)
/1 /1



IV. Management Algorithm

Step 1: Non-Pharmacological Measures

- Patient education (CU not life-long, medications safe)
- Stress reduction (Yoga, Pranayama)
- Good sleep, healthy diet avoiding pseudo-allergens
- Weight reduction

Step 2: Pharmacologic Therapy

Start with standard dose 2nd generation H₁-AH If needed: Consider referral to specialist Increase 2nd generation H₁-AH dose (up to 4x) If inadequate control on high dose: After 2-4 weeks or earlier, if symptoms are intolerable Add on to 2nd generation H₁-AH: omalizumab b If needed: Increase dose and/or shorten interval c under the supervision of Should be performed a specialist If inadequate control: Within 6 months or earlier, if symptoms are intolerable Add on to 2nd generation H₁-AH: ciclosporin d a Second line and third line treatment apply only for CU b 300mg every 4 weeks c Up to 600mg every 2 weeks d Up to 5mg/kg body weight This algorithm was voted on after finishing all separate GRADE questions taking into consideration the existing consensus. It was decided that omalizumab should be tried before ciclosporin since the latter is not licensed for urticaria and has an inferior profile of adverse effects. In addition: A short course of glucocorticosteroids may be considered in case of severe exacerbation. Other treatment options are available,

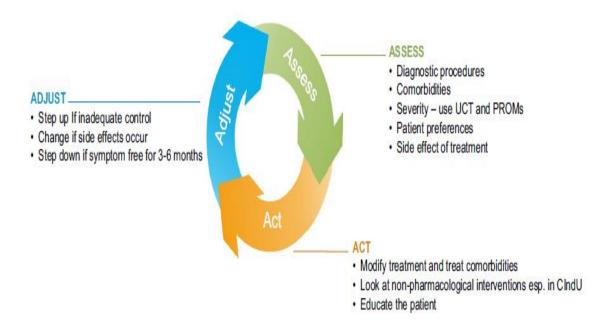
Figure is based on expert consensus and achieved ≥70% agreement in the consensus conference.

see table 11

Severity	First-line Therapy	Second-line / Third-line Therapy	
Mild AU/CSU	2nd-generation antihistamines	Increase dose (up to 4x),	
	(e.g., cetirizine)	Omalizumab (specialist care)	
Severe CU	Oral corticosteroids (short	Omalizumab → Ciclosporin (specialist care)	
	course)	• , •	

CHRONIC URTICARIA:

MANAGEMENT DECISIONS & TREATMENT ADJUSTMENTS [5]



UCT Score	UCT Score <12	UCT Score 12-15	UCT Score =16
Control Level	Uncontrolled	Well Controlled	Completely
			Controlled
Action	Step-up* if: On 1-4	Well-controlled *	Completely
	fold $2gAH > 7-28d$	Continue therapy	controlled Step
	_	and try to optimize	Down: based on
	On OMA > 3		individual factors
	MONTHS		by reducing dose or
			extending intervals

Tips in Management

- Give time to the patient
- Involve patient in the treatment Non pharmaceutical approach
- Patient Education
 - ■CU Not Life long
 - CU Generally does not lead to any complications in future

■CU – Medications used a safe

- First follow up after 15 days
- Once achieved control step by step decrease medications and stop
- Inform patient to reinitiate antihistamine if next time symptoms recur

Step 3: Long-term Strategy

- Taper therapy gradually once controlled
- Educate on reinitiation of therapy if symptoms recur

V. Follow-Up and Monitoring

Component	Recommendation
Symptom Assessment	Every 4–6 weeks using UAS7 and UCT
Medication Adjustment	Step down therapy after control is achieved for 3–6 months
Monitor Comorbidities	Thyroid disorders, stress, infections

Urticaria Activty Score

Score	Wheals	Pruritus
0	None	None
1	Mild (<20 wheals/24h)	Mild (present but not annoying or troublesome)
2	Moderate (20 – 50 wheals/24h)	Moderate (troublesome but does not interfere with normal daily activity or sleep)
3	Intense (>50 wheals/24 h or large confluent areas of wheals)	Intense (severe pruritis, which is sufficiently troublesome to interfere with normal daily activity or sleep)

UAS7, the sum of the score (0-3 for wheals +0-3 for pruritis) for each day is summarized over one week (7 days) – Min – 0 and maximum is 42

Min – 1, Max – 5 For each question

URTICARIA CONTROL TEST – UCT

1.	How much have you suffered from the physical symptoms of the urticaria (itch, hives (welts) and/or swelling) in the last four weeks?					
	O very much	O much	O somewhat	O a little	O not at all	
2.	How much was	your quality o	f life affected by the	urticaria in the la	ast 4 weeks?	
	O very much	O much	O somewhat	O a little	O not at all	
3.	How often was the treatment for your urticaria in the last 4 weeks not enough to control your urticaria symptoms?					
	O very often	O often	O sometimes	O seldom	O not at all	
4.	Overall, how well have you had your urticaria under control in the last 4 weeks?					
	O not at all	O a little	O somewhat	O well	O very well	

VI. Practical Tips

- Avoid pseudo-allergens
- Maintain a food/event diary to identify triggers
- Proper use of antihistamines
- Avoid long-term corticosteroids
- First follow-up after 15 days, then regular reviews

Conclusion

A structured algorithm combining detailed history, minimal investigations, patient education, and stepwise pharmacologic management offers an effective approach to managing urticaria in pediatric practice. Emphasis on culturally appropriate counseling and patient empowerment ensures better long-term outcomes.

Suggested Reading

1. Kayiran MA, Akdeniz N. Diagnosis and treatment of urticaria in primary care. North Clin Istanb. 2019 Feb 14;6(1):93-99. doi: 10.14744/nci.2018.75010. PMID: 31180381; PMCID: PMC6526977.

- 2. Schaefer P. Acute and Chronic Urticaria: Evaluation and Treatment. Am Fam Physician. 2017 Jun 1;95(11):717-724. PMID: 28671445.
- 3. Bernstein, J.A, Lang, D.M., Khan, D.A., Craig, T., Dreyfus, D., Hsieh, F., ... Wallace, D. (2014). The diagnosis and management of acute and chronic urticaria: 2014 update. *J Allergy Clin Immunol*, 133(5), 1270-1277. https://doi.org/10.1016/j.jaci.2014.02.036
- 4. Bernstein, J.A., Kavati, A., Tharp, M.D., Ortiz, B., MacDonald, K., Denhaerynck, K. & Abraham, I.L. (2018). Effectiveness of omalizumab in adolescent and adult patients with chronic idiopathic/spontaneous urticaria: a systemic review of 'real-world' evidence. *Expert Opinion on Biological Therapy*, 18(4), 425-448. https://doi.org/10.1080/14712598.2018.1438406