



Chronic Urticaria

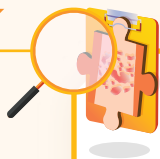
**Chronic
Spontaneous
Urticaria (CSU)**

**Chronic
Inducible
Urticaria (CIndU)**

What is Urticaria ?

URTICARIA

Skin condition characterized by hives or wheals, angioedema, or both.¹



HIVES OR WHEELS:¹



ANGIOEDEMA:¹



TYPICAL FEATURES OF URTICARIA



Hives may subside within 24 hours without leaving scars or bruises; and suddenly reappear.



Angioedema can be painful.



Symptoms can be partially alleviated with anti-histamines or steroids.



Hives, which come in different shapes or sizes, can be very itchy.

CLASSIFICATION OF CHRONIC URTICARIA

Recurring chronic urticaria lasts longer than six weeks, and is classified as:

Chronic Spontaneous Urticaria (CSU)

Related to disorders of the immune system, or autoimmune diseases such as thyroid diseases.²

Or

Chronic Inducible Urticaria (CIndU)

Induced by specific physical or environmental stimuli, e.g. temperature, exercise, pressure.²

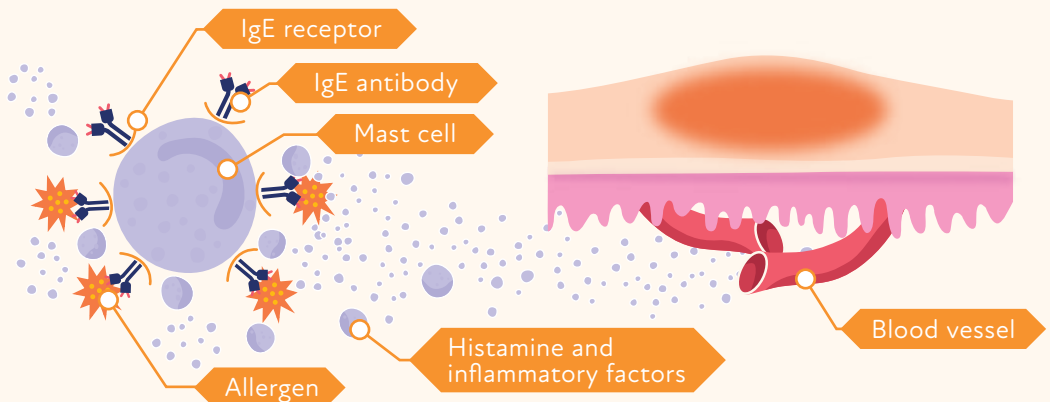
CAUSES OF CHRONIC URTICARIA

1

Activated skin mast cells release histamine and other inflammatory factors.

2

Distension of blood vessels causes redness, swelling, and itchiness of the skin, which are symptoms of urticaria.



IgE=immunoglobulin E.

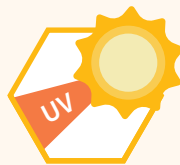
Triggers of Chronic Inducible Urticaria (CIndU)^{2,3}



Low temperature



High temperature



Exposure to sunlight



Pressure on affected area after a period of time, such as carrying a heavy bag



Scratching or tight clothing



Vibratory angioedema (e.g. motorcycle riding, lawn mowing)



Aquagenic urticaria



Cholinergic urticaria (e.g. sweat, exercise, hot shower)



Dermatographism

OTHER FACTORS THAT TRIGGER OR WORSEN URTICARIA

Eliciting factors of urticaria may vary, patients should try to identify and avoid the related triggers including:

- Viral or bacterial infections
- Certain medications such as nonsteroidal anti-inflammatory drugs (NSAIDs)
- Alcoholic drinks, hot and spicy food
- Sulphite-containing foods
- Emotional stress

Difference between Chronic Spontaneous Urticaria and Allergy

	Chronic Spontaneous Urticaria	Allergy
Disease mechanism	Endogenous triggers (e.g. autoimmunity) resulting in mast cell activation and release of histamine	Overreaction of immune response to a usually harmless exogenous culprit (i.e. allergen from external source)
Trigger	Spontaneous (without specific triggers) or induced by specific physical and environmental stimuli	Symptoms only appear when exposed to culprit food or drug
Severity	Usually not life-threatening	Anaphylaxis can be life-threatening
Pattern of symptoms	Unpredictable for CSU	Reproducible when exposed to specific allergen
Diet restriction	None, but alcoholic drinks, hot and spicy food should be avoided	Yes, if diagnosed with food allergy
Drug avoidance	Certain drugs, such as nonsteroidal anti-inflammatory drugs (NSAIDs) may be relevant	Yes, if diagnosed with drug allergy

IS CHRONIC SPONTANEOUS URTICARIA COMMON?

Urticaria is a common disease, affecting about **20%** of people during their lifetime.⁴

Chronic spontaneous urticaria affects approximately **0.5-1%** of the world's population.⁴

Women suffer from urticaria nearly **2X** as often as men do.⁴

Peak incidence is seen between **20 to 40 years** of age.⁴

HOW IS CHRONIC SPONTANEOUS URTICARIA DIAGNOSED?

Diagnosis is mainly based on clinical symptoms and medical history of patient. Blood tests and allergy tests are usually not necessary unless your doctor has special consideration. Allergen provocation tests may be performed only when allergy is suspected.

IS MISDIAGNOSIS COMMON?

Chronic spontaneous urticaria is commonly misdiagnosed or mistaken as food allergy, drug allergy, atopic dermatitis, or hereditary angioedema. Please consult your doctor for further information.⁵

IF URTICARIA IS SUSPECTED, DO I NEED TO SEE THE DOCTOR?

Yes. Early diagnosis and appropriate treatment can control symptoms and rule out other causes of urticaria, like allergy and autoimmune diseases, by referring to specialists in Immunology & Allergy if deemed necessary.



Treatment for Chronic Spontaneous Urticaria

- Goal of treatment is to control symptoms and improve quality of life.¹
- Disease course is unpredictable. Symptoms may persist from 6-12 months, to even a couple of months or years.^{1,2}

TREATMENT REGIMEN



LIFESTYLE MODIFICATIONS



Avoid physical and environmental stimuli which trigger inducible urticaria



Reduce physical and emotional stress



PHARMACOLOGICAL AGENTS

Chronic spontaneous urticaria is managed according to the Hong Kong–Macau Severe Hives and Angioedema Referral Pathway (SHARP) clinical management guideline:⁵

1

Second-generation H1 anti-histamines



2

For patients unresponsive to standard doses, consider second-generation H1 anti-histamines up to fourfold



3

Anti-histamines + Omalizumab



4

Anti-histamines + Ciclosporin

Medications for Chronic Spontaneous Urticaria^{1,2,6-11}

Treatment Regimen	Class of Medication	Examples	Common Side Effects
1 st Line Treatment	Second-Generation Anti-Histamines	Cetirizine Loratadine Fexofenadine Bilastine	Minimal side effects, occasionally may cause dry mouth, dry nose, headache
Additional Agents	Leukotriene Receptor Antagonists	Montelukast	Minimal side effects, occasionally may cause headache, diarrhoea
	Traditional Immunosuppressive Agents	Ciclosporin	High blood pressure, numbness, excessive hair growth, kidney impairment
	Anti-IgE Biologics	Omalizumab	Headache, gastrointestinal discomfort, injection site reaction, allergic reaction (0.1% incidence rate)
	Anti-IL-4 and Anti-IL-13 Biologics	Dupilumab (Licensed in certain countries)	Injection site reactions, upper respiratory tract infections, eye and eyelid inflammation, cold sores of mouth or lips

TAKE MEDICATIONS AS DIRECTED BY YOUR DOCTOR IS IMPORTANT FOR MANAGEMENT OF CHRONIC SPONTANEOUS URTICARIA.¹²



1 ANTI-HISTAMINES⁷

- Inhibit histamine action to reduce inflammation, vasodilation and tissue swelling, relieve itchy skin and hives.

1ST GENERATION ANTI-HISTAMINES

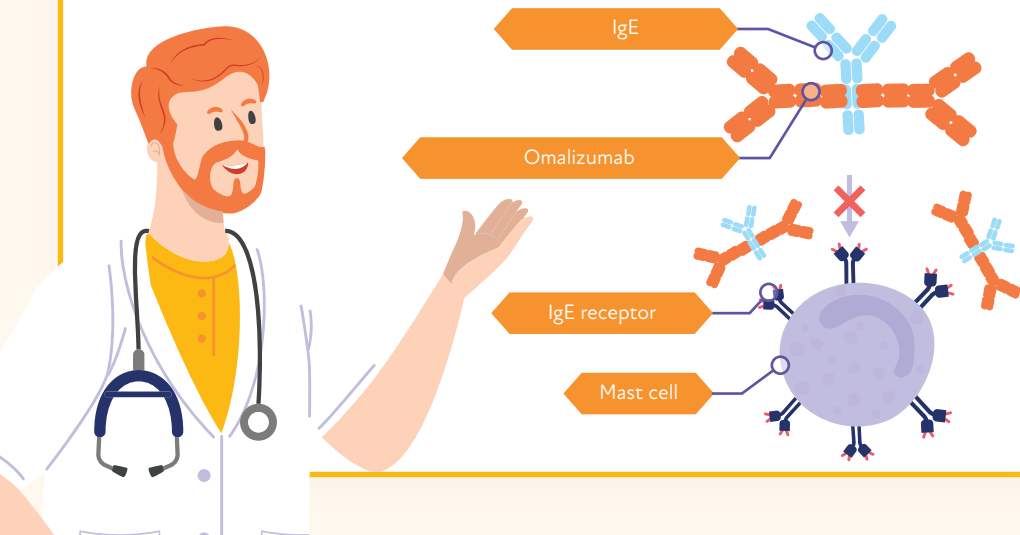
Such as chlorpheniramine and hydroxyzine are NOT recommended due to sedative effects and long-term risk of developing dementia.

2 LEUKOTRIENE RECEPTOR ANTAGONISTS⁸

- Administered if symptoms are uncontrolled by anti-histamines.

3 OMALIZUMAB⁹

- Biologics (monoclonal antibody) to treat chronic spontaneous urticaria that is not responsive to first line therapy.
- Block immunoglobulin E (IgE) to reduce the severity and frequency of urticaria.
- Self-administered by subcutaneous injection, usually every 4 weeks.
- Duration of treatment depends on symptoms.



4 DUPILUMAB

- Subcutaneous injection biologics prescribed by doctor.
- Inhibit IL-4 and IL-13 signalling to downregulate TH2 inflammation in a variety of allergic disorders.
- Injection once every 2-4 weeks.
- Self-administration after simple training.
- Duration of treatment depends on treatment response and disease progression.

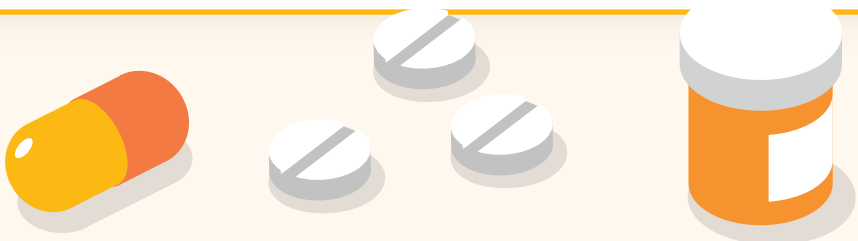
 NOT YET LICENSED IN ALL COUNTRIES,
PLEASE CHECK WITH YOUR HEALTHCARE PROVIDER!

5 CICLOSPORIN^{10,11}

- Immunosuppressants that relieve itchy, red and swollen skin.
- Ciclosporin can be considered for the treatment of severe chronic urticaria unresponsive to fourfold dosing of second-generation H1 anti-histamines and omalizumab; or when biologics are unavailable or contraindicated.⁵

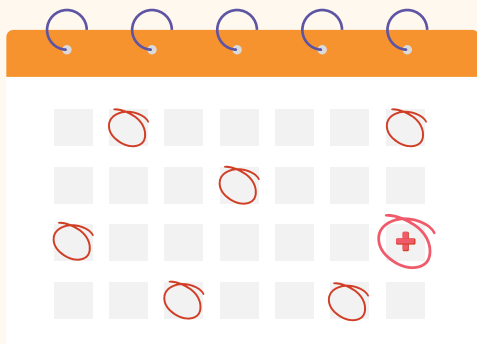
Points to note:

- Regular monitoring of complete blood count and kidney function is recommended.
- Patients with high blood pressure should monitor blood pressure regularly.
- Alcohol, grapefruit juice and high potassium foods may alter the level of ciclosporin in the body.
- Ciclosporin may have drug-drug interaction with certain medications. Please consult your doctor if you need to take different medications at the same time.



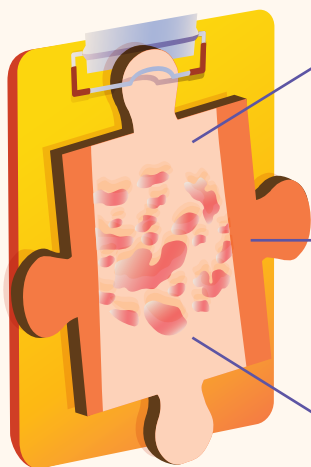
Monitoring and Follow-Up of Chronic Urticaria

- Severity and onset frequency of chronic urticaria may change over time.¹
- Regular monitoring to assess treatment response and disease progression is required.



If you have urticaria,

**PLEASE FILL IN THE FOLLOWING FORMS
BEFORE YOUR NEXT DOCTOR'S APPOINTMENT.**



1

**WEEKLY
URTICARIA ACTIVITY SCORE
(UAS7)¹**

2

**URTICARIA CONTROL TEST
SCORE
(UCT, Hong Kong Version)^{13,14}**

3

**URTICARIA
TREATMENT RECORD**

Self-record and monitoring of disease:

Urticaria Activity Score Over 7 Days (UAS7)¹

Number of wheals
(hives)

+

Itch intensity

=

**Symptom
assessment**

SELF-EVALUATION OF URTICARIA SYMPTOMS

Urticaria Activity Score Over 7 Days (UAS7) involves Wheals (hives) Score and Itching Score. Please assess the severity of urticaria symptoms using the scale described in the table below:

Score	Wheals (hives) Score	Itching Score
0 (None)	No wheals	No itching
1 (Mild)	<20 Wheals within 24 hours	Present but not annoying or troublesome
2 (Moderate)	20-50 Wheals within 24 hours	Troublesome but does not interfere with normal daily activity or sleep
3 (Intense)	>50 Wheals or spread across large areas within 24 hours	Severe itch, which is sufficiently troublesome to interfere with normal daily activity or sleep

With the symptom rating scale, you will obtain a score ranging from 0 to 3 respectively for Number of Wheals and Itch Intensity.

SYMPTOM DIARY

Record your Wheals Score and Itching Score every day, add up the two scores to obtain your total Urticaria Activity Score (UAS) for the day (ranging from 0-6). At the end of the week, add up the seven daily scores to obtain Urticaria Activity Score Over 7 Days (UAS7), which ranges from 0-42.

Summing
once-daily UAS scores
over a 7-day period

=

UAS7


BRING YOUR UAS7 RECORDS DURING REGULAR FOLLOW-UP

Please remember to bring the completed UAS7 records to your next appointment for continue monitoring of severity of urticaria. UAS7 records help the doctor to assess your disease control and treatment response during regular follow-up.

Self-record and monitoring of disease:

Urticaria Activity Score Over 7 Days (UAS7)¹

Please fill in the date of record. Circle the most appropriate score for “Number of Wheals” and “Itch Intensity” for your urticaria symptoms and sum up the scores as instructed.

Week 	<div> <div>Number of Wheals</div> <div>+</div> <div>Itch Intensity</div> </div>								UAS
	None	Mild	Moderate	Intense	None	Mild	Moderate	Intense	
		Within 24 hours							
		<20 Wheals	20-50 Wheals	>50 Wheals or spread across large areas		Present but not annoying or troublesome	Troublesome but does not interfere with normal daily activity or sleep	Severe itch, which is sufficiently troublesome to interfere with normal daily activity or sleep	
Date									
Day 1 __/__/__	0	1	2	3	0	1	2	3	
Day 2 __/__/__	0	1	2	3	0	1	2	3	
Day 3 __/__/__	0	1	2	3	0	1	2	3	
Day 4 __/__/__	0	1	2	3	0	1	2	3	
Day 5 __/__/__	0	1	2	3	0	1	2	3	
Day 6 __/__/__	0	1	2	3	0	1	2	3	
Day 7 __/__/__	0	1	2	3	0	1	2	3	

UAS7

Sum up the UAS over 7 days

Self-record and monitoring of disease:

Urticaria Control Test Score (UCT, Hong Kong)^{13,14}

Name: _____

Date: _____

(dd/mm/yyyy) _____

Date of birth: _____

(dd/mm/yyyy) _____

If you have urticaria, the following questions will help us understand your current health situation.

Please limit yourself to **the last four weeks**, answer all questions and provide only one answer to each question.

1. How much have you **suffered from the physical symptoms** of the urticaria (itch, hives, welts, and/or swelling) in the last four weeks?

☐ Very much
(Score 0)

☐ Much
(Score 1)

☐ Somewhat
(Score 2)

☐ A little
(Score 3)

☐ Not at all
(Score 4)

2. How much was your **quality of life affected** by the urticaria in the last 4 weeks?

☐ Very much
(Score 0)

☐ Much
(Score 1)

☐ Somewhat
(Score 2)

☐ A little
(Score 3)

☐ Not at all
(Score 4)

3. How often was the treatment for your urticaria in the last 4 weeks **not enough to control your urticaria symptoms**?

☐ Very often
(Score 0)

☐ Often
(Score 1)

☐ Sometimes
(Score 2)

☐ Seldom
(Score 3)

☐ Not at all
(Score 4)

4. **Overall**, how well have you had your urticaria under control in the last 4 weeks?

☐ Not at all
(Score 0)

☐ A little
(Score 1)

☐ Somewhat
(Score 2)

☐ Well
(Score 3)

☐ Very well
(Score 4)

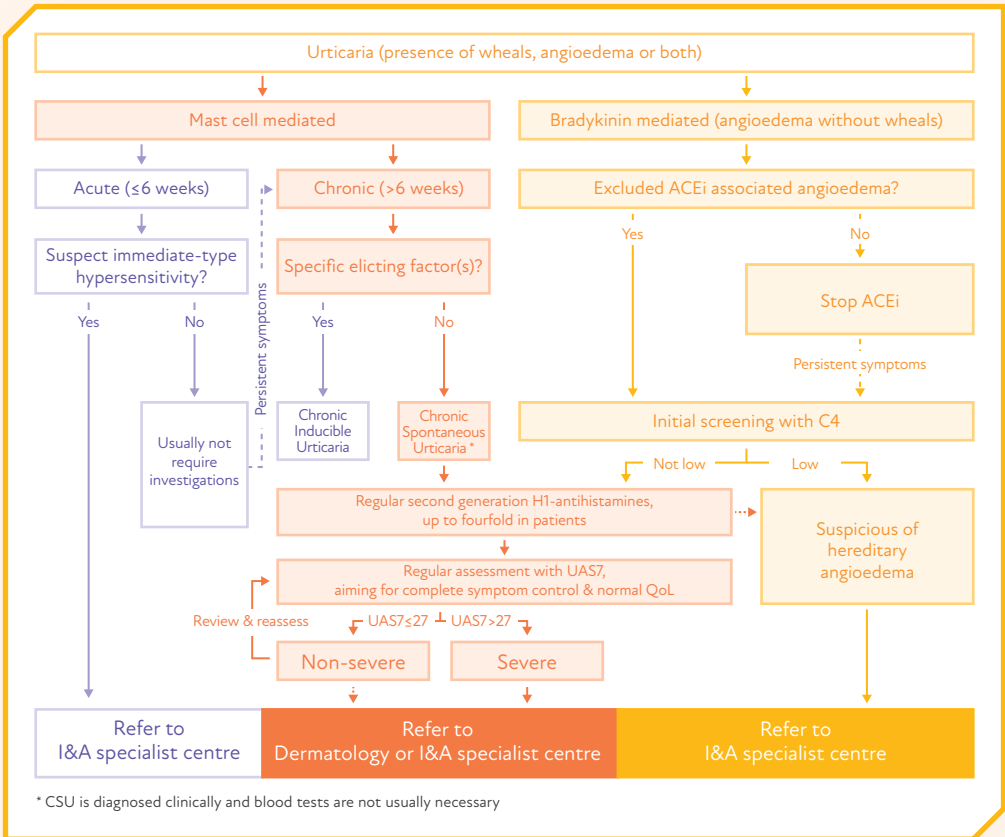
Self-record and monitoring of disease: Urticaria Treatment Record

◆ PLEASE FILL THIS IN BEFORE EVERY DOCTOR'S VISIT. ◆

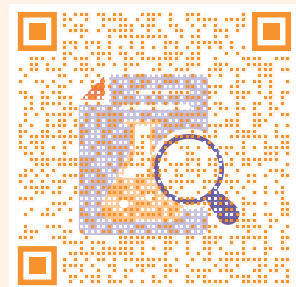
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Hong Kong-Macau Severe Hives and Angioedema Referral Pathway (SHARP)⁵

Hong Kong-Macau Severe Hives and Angioedema Referral Pathway (SHARP) was established in 2023 by the Hong Kong Institute of Allergy and Macau Society of Dermatology. It provides guidance for urticaria management and ensures timely referral of patients to specialists in the region.⁵



You may find more details about SHARP
via the QR code:





BOOKLET

Chronic Spontaneous Urticaria (CSU)
Chronic Inducible Urticaria (CIndU)



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References: 1. Zuberbier, T., et al. *Allergy*. 2018; 73 (7): 1393-1414. 2. Kolkhir, P., et al. *Nat Rev Dis Primers*. 2022; 8 (61). 3. Soria, A. *J Eur Acad Dermatol Venereol*. 2024; 38: 452–453. 4. Maurer, M., et al. *Allergy*. 2011; 66(3): 317-30. 5. Li, PH., et al. *Front Allergy*. 2023;4:1290021. 6. Mustari, AP., et al. *Indian Dermatol Online J*. 2022; 14(1):9-20. 7. Podder, I., et al. *J Clin Aesthet Dermatol*. 2023; 16(3):44-50. 8. de Silva, NL., et al. *Allergy Asthma Clin Immunol*. 2014; 10(1):24. 9. Casale, TB., et al. *Dermatol Ther (Heidelb)*. 2023;13(11):2573-2588. 10. LaCava, AF., et al. *Allergy Asthma Clin Immunol*. 2023; 19 (78). 11. Kulthanan, K., et al. *J Allergy Clin Immunol Pract*. 2018; 6(2):586-599. 12. Mak, HWF., et al. *J Allergy Clin Immunol Glob*. 2024;3(2):100243. 13. Weller, K., et al. *J Allergy Clin Immunol*. 2014; 133:1365. 14. Mak, HWF., et al. *J Allergy Clin Immunol Glob*. 2024;3(3):100290.

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