Algorithm for chronic urticaria (2012)

**Initial visit**

Review of History, medications, previous therapy

Discontinue medications (e.g. antibiotics, NSAIDS, ACE inh) associated with illness if possible

**Therapy**

1) Non-Sedating and Sedating anti-histamines (H1 and H2)
2) Trial of oral corticosteroids if not responding to antihistamines
3) Skin testing or IgE serum to specific agents, contact allergy testing or physical urticaria testing (e.g. ice cube test) if suggested by history (patient must be off anti-histamines at least 48 hours for skin or physical urticaria testing)
4) Laboratory testing if features suggesting system illness, vasculitis
   a. Thyroid TSH and anti-thyroglobulin
   b. CBC, serum protein electrophoresis
   c. Liver and kidney function, hepatitis C IgG
   d. H. pylori IgG, IgM, other infectious illness if suggested by history
   e. ANA and anti-DNA anti-bodies if history or exam suggestive of vasculitis
   f. C1 inh protein level and function, complement c2, c4 if angioedema present
   g. Chromagranin A or urine catecholamines if significant flushing, carcinoid features
   h. Serum Tryptase if significant component of anaphylaxis with urticaria, angioedema
   i. Chest x-ray and pulmonary testing if associated respiratory symptoms such as cough, wheezing
   j. Serum immunoglobulins IgE, A, M, G, B and T cell FACS subsets if history suggestive of parasite infection, chronic infection
   k. Pregnancy testing if relevant age and sex
   l. Serum basophil activation or histamine release in vitro and/or autologous skin testing (not required but may be useful to confirm diagnosis)

**Followup visits** at approximately 2 week interval until remission of symptoms or stable clinical improvement documented

1) Review response to previous therapy, laboratory testing, allergies, physical or other triggers if present
2) Alternate day oral corticosteroids 5-20 mg if partial response to therapy
3) Discuss alternative therapies, risks and benefits
   a. Cyclosporin A low dose (2mg/kg/day divided twice a day) with peak level and repeated kidney function if required for more than 2 weeks (only alternative therapy confirmed in double blind placebo controlled studies, not FDA approved.
   b. Gastroenterology evaluation for H. Pylori infection if present
   c. Antibiotic therapy of other bacterial, fungal, parasite infections if present
d. Leukotriene antagonists, not confirmed effective in meta analysis but may be useful in selected cases

e. Thyroid hormone and monitoring of TSH, endocrine evaluation if thyroid autoimmune disease present

f. Rheumatology evaluation, skin biopsy if ANA positive and/or suggestive of vasculitis, other autoimmune syndrome

g. Hematology evaluation if mastocytosis or other malignancy present

h. Multiple new therapy options for hereditary or acquired angioedema due to lack of C1 inh protein/function

i. Other alternative therapies not confirmed in double blind placebo studies or not currently FDA approved
   i. Colchicine, dapsone, NSAID desensitization, other anti-inflammatory or anti-viral agents (e.g. Valtrex if history of HSV)
   ii. Therapy of Hepatitis C (interferon FDA approved for hepatitis but not associated urticaria)
   iii. Omalizumab if patient has asthma or can obtain by other sources such as self pay (effectiveness confirmed in preliminary open label studies but not FDA approved for urticaria, angioedema)
   iv. Other monoclonal antibodies (eg anti TNF alpha, Rituximab B cell depletion not FDA approved and unknown safety profile)

✓ Followup visits at 3 month intervals when stable on medication or yearly if in remission off therapy