"The condition is usually benign and can be managed by primary care physicians. Conjunctivitis is the most common cause of red eye."

Both viral and bacterial conjunctivitis are usually self-limiting and rarely lead to serious complications.

Allergies or irritants also may cause conjunctivitis.

Other common causes of red eye conjunctivitis include blepharitis, corneal abrasion, foreign body, subconjunctival hemorrhage, keratitis, iritis, glaucoma, chemical burn, and scleritis.
Red Eye in Primary Care

Complete patient history and thorough eye examination are needed to diagnose the cause of red eye. Useful questions to cover in the history include:

- duration of symptoms,
- whether they are unilateral or bilateral,
- type and amount of discharge,
- visual changes,
- pain severity,
- photophobia,
- response to previous treatments,
- use of contact lenses,
- history of allergies or systemic illness.
Viral conjunctivitis

**Etiology:** Adenovirus is the most common cause of viral conjunctivitis, and other causes include enterovirus, coxsackievirus, varicella zoster virus, Epstein-Barr virus, herpes simplex virus, and influenza.

**Anamnestic:** - pain mild or absent, like a discomfort;
   - photophobia rarerly;

**Clinical exam:**
   - Vision, pupil size, and reaction to light are typically normal;
   - Diffuse conjunctival injections (redness);
   - Preauricular lymphadenopathy;
Bacterial conjunctivitis

Etiology: *Staphylococcus aureus* is the most common pathogen in adults, and *Streptococcus pneumoniae* and nontypeable *Haemophilus influenzae* are most common in children.

Forms:

- **Hyperacute**: is the most serious form caused by *Neisseria gonorrhoeae*, presenting with rapid onset, purulent discharge, pain, and leading to corneal perforation.

- **Acute**; - **Chronic**;

  Acute and chronic bacterial conjunctivitis are associated with:
  
  - eyelid edema,
  - conjunctival injection,
  - mild to moderate pain with stinging foreign-body sensation,
  - mild to moderate purulent discharge.

  The most predictive factor is the presence of mucopurulent secretions with bilateral glued eyes on awakening.
Red Eye in Primary Care

When we send to an ophthalmologist?

- severe pain refractory to topical anesthetics,
- need for topical steroids,
- vision loss,
- copious purulent discharge, corneal involvement,
- traumatic eye injury,
- recent ocular surgery,
- distorted pupil,
- herpes infection,
- recurrent ocular infections.
Specific clinical recommendations for practice:

- Meticulous hand washing and other good hygiene practices are keys to reducing transmission of acute viral conjunctivitis (level of evidence, C).
- For the treatment of acute bacterial conjunctivitis, any ophthalmic antibiotics may be considered because of their similar cure rates (level of evidence, A).
- An over-the-counter antihistamine/vasoconstrictor agent, or a more effective second-generation topical histamine H1 receptor antagonist, may be used to treat mild allergic conjunctivitis (level of evidence, C).
- For moderate dry eye, appropriate therapies include anti-inflammatory agents, such as topical corticosteroids, topical cyclosporine, and systemic omega-3 fatty acids (level of evidence, C).
- An oral tetracycline or doxycycline may be helpful for patients with chronic blepharitis in whom response to eyelid hygiene and topical antibiotics is inadequate.
Clinical Implications

- Causes of red eye include conjunctivitis (viral, bacterial, and allergic), corneal abrasion, dry eye, blepharitis, trauma, and subconjunctival hemorrhage.
- Treatments that involve topical corticosteroids or surgery require ophthalmologic referral.
**Fever syndrom**

**Definition**

Normal temperature is 36-37.4 °C with variations of 1 ° day at ovulation. Fever is a rise of body temperature to a point of balance, mediated by pyrogenic cytokines that act on the hypothalamus. It is the consequence of increasing the production of heat or reduce losses. If hipotatamusul is free, does not exceed 41.1 ° C.

Hipertermia is not mediated by Cytokines and is the consequence of production-loss disorder. Exceed and 41.1 ° C causes brain damage.

Neuroleptic malignant syndrome is a idiosincrazică from some Neuroleptics, haloperidol.

Can be absent in children and old or hidden by antipyretics, NSAIDS, corticosteroids.

Prolonged fever can cause malformations in the first trimester of pregnancy, increases insulin, alter the metabolism and distribution of drugs in the body.
Fever. Classification on organs:

1. **Lung**: coughing and productive coughs, breathlessness, chest pain
   - Acute infections: bacterial, viral, parasitic, etc.
   - Tbc, secondary infections due to ailments cornice: asthma, emphysema, silicosis.
   - Pleurezii of various etiologies, pulmonary embolism.
   - Chronic: COPD, tuberculosis, pneumonia, fungal luetice.
   - Bronhopulmonary Cancer, Lung embolisms and mitral, repeated or suprainfectate, hematological disease with pleuropulmonară determination, Sarcoidosis.
Fever. Classification on organs:

2. Cardiovascular:
Rubbing elbows and pericardial pain:
- Acute pericarditis, Acute myocardial infarction
- Chronic adhesive pericarditis is chronic
Precordiale angina type pains - myocardial infarction, pericarditis.
Palpitations, rhythm disturbances:
- Acute myocarditis, acute infection
- Chronic-colagenoze with infarction, determinism pericardite TB, fungal.
Dyspnea, edema, cyanosis:
- Acute pulmonary embolism, heart attack, Lung failure suprainfectat.
- Chronic: Chronic pulmonary heart, subacut.
Aching limbs and or swelling:
- Thrombophlebitis, Acute equine
- Chronic-colagenoze (PAN), thrombosis migratory (cancers, chronic infections).
Fever. Classification on organs:

3. **Digestive**: Sharp Hepatomegalie pain syndrome and Budd-Chiari;
   - Pain and diarrhea-borne, acute enterocolitis;
   - Pain in the right hipocondrul-Biliary colic, cholecystitis jaundice, anuria, acute ±-, angiocolită;
   - Abdominal pain-peritoneal-peritonitis, acute pancreatitis.

4. **Skin**:
   - Acute: contagious diseases infecto-allergy.
   - Chronic: colagenoze.

5. **Bleeding** Symptoms: purpura, allergic trombocitopenică.
Fever. Classification on organs:

6. **Angina**: streptococică, viral, leucosis (Necrotizing).
7. **Arthralgia**, myalgia, neuralgia, rheumatic diseases, disease, presence of bone pain-multiple myeloma.
10. General Symptoms: fatigue, weight loss fatigabilitate:
   - Acute: septicemii
   - Chronic: colagenoze, neoplazii.
11. Isolated.
Treatment

- General and specific measures: cold wraps, bags of ice.
- Antipyretic drugs are not recommended for patients with hemodynamic precarious status. You can administer aspirin, paracetamol.
- Administrare de lichide.
- Antibioterapie ghidată sau empirică, la pacienții tarați.
Hives (urticaria), urtica-nettle = is a cutaneous vasomotor rhinitis and characterized by inflammatory: edema, *Erythema and pruritus*. Its evolution can be:

- **acute (UA)** – self-limited, with quick turn around, often due to a spontaneous mechanism allergic IgE-mediated histamine which has an important role.

- **chronic (UC)** over 6 weeks with p-gene and only partially elucidated.

The incidence is relatively high, 10% of the present population at least once in a lifetime episode urticaria.
Urticaria is a syndrome and not a well-defined clinical entity, being evident heterogeneity.

**Immunologic:**
- type I hypersensitivity-IgE;
- latent by IgE and IgG anti IgE;
- complement activation – type III.

**Non-immunologic:**
- histamine (in food or released non-immunologic);
- substances with similar action of histamine-thyramine;
- allergen-food: preservatives, dyes; NSAIDS;
- complement activation on the alternative;
- endotoxins, bacteria, veninus, yeasts;
- protease inhibitors deficiency (Alpha-1-antitripsină);
- cholinergic urticaria mechanism (acetylcholine).

**Mixed:**
- immunological + nervous + anti-inflammatory enzyme deficits.
Factors risk

- mentally ill: lability, emotions, anxiety, depressive moods, strained;
- infectious: (subclinical) Chronic bacterial infections, fungal, parasitic, viral.

C. the mediators involved in the UC:
- *histamine* (the release is done with an intracellular calcium influx):
  - produce edema, Erythema through receptors H;
  - increase the skin allergicilor;
  - therapeutic effect of antihistaminicelor is prompt;
- *other mediators* who have allergic inflammation:
  - serotonin, acetylcholine;
  - enzymes (triptaza);
  - mediators: prostaglandins, tromboxani fat, Leukotrienes, plachetar activator, which can cause vasodilation, permeabilizarea membrane, edema.
  - These factors increase the release of histamine:
    - complement C3, C5;
    - kinine, heparin.
Symptomatology

Urticaria is characterized by Erythema, edema, pruritus. The defining element is *papula*, with net margins delineated, each new lesion is accompanied by pruritus, last-minute inaugural hour and disappears without a trace. The number, size, location of the variables, accompanied or not by damage to patches.

**Types of rash:**
- located: contact urticaria; pressure urticaria; urticaria of insect stings;
- generalized.

**General Signs**: fever, chills, myalgia, arthralgia, headache;

**Digestive Forms**: allergic manifestations digestive: stomach cramps, nausea, vomiting, diarrhea;

**Respiratory Forms**: runny nose, cough, dyspnea, wheezing;

**Systemic Forms**: generalized, with cardio-vascular damage, shock allergic;

**Acute recurrent urticaria** are those which are common-pusee may be considered U. Chronic Urticaria lasts more than 6 weeks, months, years.

**Medical History** it is very important in order to establish the conditions of occurrence: cold, sunlight, drugs, etc.(about 30% of cases), but sometimes you can't stroke etiology (70% of cases).
## Causes

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drugs</td>
<td>Penicillins, Opiates, Aspirin (NSAID), Vancomycin, ACE</td>
</tr>
<tr>
<td>Food</td>
<td>Nuts, eggs, strawberries, chocolate, fish, cheese, tomatoes, food additives (salicylates, dyes)</td>
</tr>
<tr>
<td>Infections</td>
<td>HBV (prodromal phase), Streptococci, EBV, Coxackie, Candida, Giardia, Ascaris</td>
</tr>
<tr>
<td>Allergens</td>
<td>dust, pollen, detritus, cosmetics, spider bites, bee</td>
</tr>
<tr>
<td>General diseases</td>
<td>RAA, lymphomas, Hypo-/hipertiroidism, neoplazii, vasculite with/without hipocomplementemie</td>
</tr>
<tr>
<td>Genetic abnormalities</td>
<td>angioedema, urticaria family pressure cold, congenital angioneurotic edema.</td>
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<tr>
<td>with the activation of the C</td>
<td>Henoch-Schönlein purpura, LES</td>
</tr>
<tr>
<td>Psychological factors</td>
<td>take the strain</td>
</tr>
<tr>
<td>Physical agents</td>
<td>colinergic recurrent, cold, heat, pressure</td>
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Differential diagnosis

To do with dermatologic diseases:
– eczema, fotochematoze, chemical specific context;
– dermatomyositis, polymorphous erythema.
Ideal treatment is avoidance, causes justified but patogenic treatment:

Antihistamine H1 (can cause mild State of sedation):
- clorfeniramina (4-8 mg/day);
- cetirizine (5-10 mg/day) (ALERID, ZYRTEC);
- loratadine (10-20 mg/day) (CLARITINE, SYMPHORAL);
- desloratadine (5-10 mg/day) (AERIUS);

Associated (or not) with antihistamine H2:
- cimetidina (400-800 mg/day);
- ranitidine (150 mg/day);

Corticoterapia: when no results were obtained with antihistamines: 20-40-60 mg/day per os or PDN parenteral (hemi-hydrocortisone succinate-100-200 mg/day).

Sympathomimetics are indicated in severe and treatment-resistant (ephedrine, epinephrine, s.l., s.c. or i.v.1 %).
Therapy

– masts membrane stabilizers: cromoglicat sodium, ketotifen;
– i.v., calcium Sodium Thiosulphate i.v.;
– sedative therapy, anxiolitics.

Dietary measures:
- avoiding of allergens;
- avoiding of favorising factors:
  - aspirin and other NSAIDS;
  - foods rich in H, precursors of H;
  - heat, cold, alcohol, smoking

Prognosis is good
- vital risk only exists in the heart that can assign anaphylactic shock or cold-urticaria in total immersion in cold water;
- avoid exposure to environments with allergens: chemical, pharmaceutical industry and so on, so the orientation of the individual occupational allergic.