



POCKET GUIDE CHRONIC PRURITUS

based on the German guideline

Scientific Editors

Prof. Dr. med. Dr. h.c. Sonja Ständer

Prof. Dr. med. Matthias Augustin

Prof. Dr. med. Marc A. Radtke

LEO®



Contents

1	Classification.....	4
2	Etiology.....	6
3	Medical History.....	11
4	Diagnosis.....	12
5	Treatment.....	14

List of abbreviations

IFSI	International Forum for the Study of Itch
NRS	Numerical Rating Scale
VAS	Visual Analog Scale

References:

Ständer S, Zeidler C, Augustin M, Bayer G, Kremer AE, Legat FJ, Maisel P, Mettang T, Metz M, Nast A, Niemeier V, Raap U, Schneider G, Ständer HF, Staubach P, Streit M, Weisshaar, S2k Guideline for the Diagnosis and Treatment of Chronic Pruritus Update - Short Version, J Dtsch Dermatol Ges. 2017 Aug;15(8):860–873.

In cooperation with the following societies:
German Society of Dermatology, Professional Association of German Dermatologists, German Society of Allergology and Clinical Immunology, German College of General Practitioners and Family Physicians, German Society of Digestive and Metabolic Disorders, German Society of Nephrology, German Society of Psychosomatic Medicine and Medical Psychotherapy, German Society of Social Medicine and Prevention, German College of Psychosomatic Medicine, Austrian Society of Dermatology and Venereology.

Neuroanatomic classification

Pruriceptive itch

- Originates in the skin (e.g. as a result of dermatoses)

Neuropathic Itch

- Caused by damage to itch-signalling afferent nerve fibers of the peripheral and central nervous systems (e.g. neuralgia with itch following herpes zoster infection)

Neurogenic Itch

- Induced by pruritogenic mediators, without nerve damage (e.g. opioid-induced pruritus)

Psychogenic Itch

- Itch caused by psychological disorders

International classification according to IFSI*: Clinical classification

Groups:

IFSI I: Chronic pruritus on (primarily) altered skin

- Dermatological conditions present (e.g. psoriasis, neurodermatitis)

IFSI II: Chronic pruritus on (primarily) unaltered skin

- No initial skin changes present (previously: pruritus sine materia)

IFSI III: Chronic pruritus with scratch lesions

- Secondary scratch lesions that cannot be categorized under the first two groups (e.g. chronic prurigo, lichen simplex)

Differential diagnosis categories:

1. Dermatological disorders
2. Systemic disorders
3. Neurological disorders
4. Psychological/Psychosomatic (somatoform) disorders
5. Pruritus with multiple causes
6. Pruritus of unknown origin (PUO)

*IFSI: International Forum for the Study of Itch

Algorithm for clinical classification

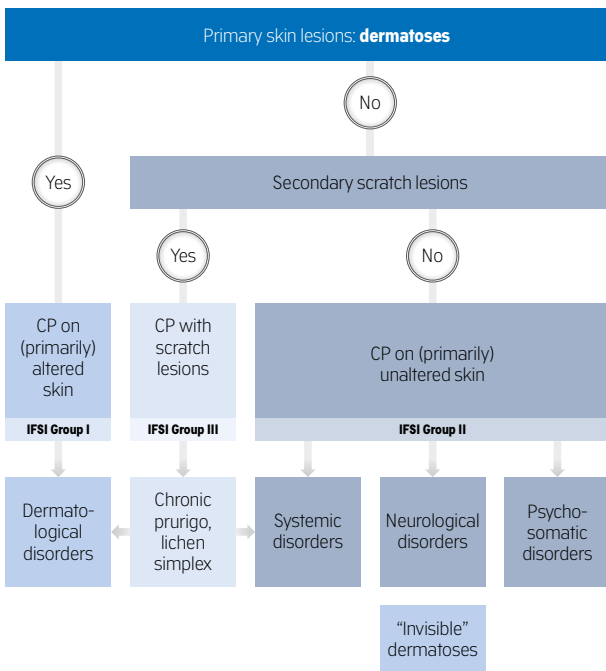


Figure Algorithm for clinical classification (clinical grouping according to the International Forum for the Study of Itch (IFSI)).

CP = chronic pruritus; IFSI = International Forum for the Study of Itch

Generalized chronic pruritus on apparently normal skin

1 „Invisible“ dermatological conditions

- Asteatosis
- Initial stage of cutaneous mastocytosis
- Bullous pemphigoid
- Duhring's disease
- Polymorphous light eruption

2 Endocrine and metabolic conditions

- Chronic kidney failure
- Diabetes mellitus
- Celiac disease
- Hepatobiliary diseases
- Hyper/hypothyroidism
- Hyperparathyroidism
- Malabsorption
- Perimenopausal itch

3 Infections

- Helminths
- HIV infection
- Intestinal parasitosis (e.g. Giardia lamblia)
- Onchocerciasis

4 Hematological and lymphoproliferative conditions

- Iron deficiency
- Hypereosinophilic syndrome
- Myeloproliferative neoplasms
- Hodgkin's lymphoma
- Non-Hodgkin lymphoma
- Multiple myeloma
- Systemic mastocytosis

5 Solid tumors

- Carcinoma of the cervix, prostate, bronchlung, pancreas, large intestine

6 Neurological conditions

- Spinal stenosis
- Small fiber neuropathy
- Multiple sclerosis
- Neuralgia following herpes zoster infection

7 Psychological/psychosomatic conditions

- Anorexia nervosa
- Depression

Generalized pruritus on primarily changed skin

1 Inflammatory dermatoses

- Allergic contact eczema
- Asteatotic eczema
- Atopic eczema
- Drug eruption
- Dyshidrosis
- Irritant contact dermatitis
- Lichen planus
- Lichen sclerosus et atrophicans
- M. Grover's disease
- Mastocytosis
- Nummular dermatitis
- Persistent arthropod bite/sting reaction
- Polymorphous light eruption
- Psoriasis
- Urticaria

2 Infectious dermatoses

- Bacterial infection (e.g. folliculitis)
- Fungal infection
- Pediculosis
- Scabies
- Viral infection (e.g. chickenpox)

3 Autoimmune dermatoses

- Duhring's disease
- Bullous pemphigoid

4 Genetic dermatoses

- Ichthyosis (e.g. Netherton syndrome)
- Neurofibromatosis

5 Dermatoses of pregnancy

- Atopic eruption of pregnancy (AEP)
- Polymorphic eruption of pregnancy (PEP)
- Gestational pemphigoid
- (Intrahepatic cholestasis of pregnancy: arises in apparently normal skin)

6 Neoplasms

- Cutaneous T cell lymphoma

Genitoanal pruritus

1 Inflammatory dermatoses

- Atopic eczema
- Allergic contact eczema
- Lichen planus
- Lichen sclerosus et atrophicans
- Psoriasis
- Plasma cell vulvitis

2 Infectious dermatoses

- Bacterial infection (non-sexually transmitted)
 - *Streptococcus pyogenicus* or *pneumonia*, *Staphylococcus aureus*, *Haemophilus influenzae*, *Shigella*, *Yersinia*, *Erythrasma*
- Bacterial infection (sexually transmitted)
 - Gonorrhoea, chlamydia, trichomoniasis
- Scabies, candidiasis
- Herpes simplex infection, human papilloma virus infection, molluscum contagiosum
- *Giardia lamblia*, pinworms (*Oxyuren*, Helminths)

3 Neoplasms

- M. Bowen's disease
- Erythroplasia of Queyrat
- Syringoma
- Extramammary Paget's disease
- Langerhans cell histiocytosis
- Squamous epithelial carcinoma
- Hodgkin's lymphoma
- Prostate colon cancer

4 Endocrine and metabolic conditions

- Iron deficiency
- Inflammatory bowel disease
- Diabetes mellitus
- Vaginal estrogen deficiency
- Sjögren's syndrome

5 Neuropathic

- Diseases of the spine in lumbosacral junction
- Vulvodynia, "red scrotum" syndrome

6 Psychological/psychosomatic

- Somatoform pruritus, depression

Drug-induced pruritus

1 Opioids and opioid antagonists

Codeine, fentanyl, levomethadone, morphine and derivatives, pentazocine, sufentanil (up to 25%), tramadol

2 Antimalarials

Chloroquine (up to 90% of patients), hydroxychloroquine (1.5%), amodiaquine (23.8%)

3 Antihypertensives

Amlodipine

4 Chemotherapeutic agents

Paclitaxel, carboplatin (17%), cisplatin, mitomycin C, gemcitabine

5 Disinfectants for dialysis machines

Ethylene oxide

6 Uricostatic agents

Allopurinol

7 ACE inhibitors

E.g. captopril, enalapril, lisinopril

8 Antiarrhythmics

E.g. amiodarone, disopyramide, flecainide

9 Antibiotics

E.g. amoxicillin, ampicillin, cefotaxime, ceftriaxone, ciprofloxacin, clarithromycin, clindamycin, cotrimoxazole, erythromycin, gentamicin, metronidazole, minocycline, ofloxacin, penicillin, tetracyclines

10 Antidepressants

E.g. amitriptyline, citolapram, clomipramine, desipramine, doxepin, fluoxetine, fluvoxamine, imipramine

11 Antidiabetics

E.g. glimepiride, metformin, tolbutamide

12 Antihypertensives

E.g. clonidine, doxazosin, hydralazine, methyldopa, minoxidil, prazosin, reserpine

13 Anticonvulsants

E.g. carbamazepine, clonazepam, gapapentin, lamotrigine, phenobarbital, phenytoin, topiramate, valproate

Drug-induced pruritus

14 Anti-inflammatories

E.g. acetylsalicylic acid, celecoxib, diclofenac, ibuprofen, indometacin, ketoprofen, naproxen, piroxicam

15 AT-II Antagonists

Irbesartan, telmisartan, valsartan

16 Beta blockers

E.g. acebutolol, atenolol, bisoprolol, metoprolol, nadolol, pindolol, propranolol

17 Bronchodilators, broncholytics, respiratory stimulants

Aminophylline, doxapram, ipatropium bromide, salmeterol, terbutalin

18 Calcium Antagonists

Amlodipine, diltiazem, felodipine, isradipine, nifedipine, nimodipine, nisoldipine, verapamil

19 Diuretics

E.g. amiloride, furosemide, hydrochlorothiazide, spironolactone, triamterene

20 Hormones

E.g. clomifen, danazole, oral contraceptives, estrogen, progesterone, steroids, testosterone and derivatives, tamoxifen

21 Immunosuppressants

E.g. cyclophosphamide, cyclosporin, methotrexate, mycophenolate, tacrolimus (up to 36%), thalidomide

22 Lipid-lowering medications

E.g. clofibrate, fenofibrate, fluvastatin, lovastatin, pravastatin, simvastatin

23 Neuroleptics

E.g. chlorpromazine, haloperidole, risperidone

24 Plasma expanders, rheological therapy

Hydroxylethyl starch, pentoxifyllin

25 Tranquilizers

Alprazolam, chlordiazepoxide, lorazepam, oxazepam, prazepam

26 Uricostatics, uricosurics

Allopurinol, colchicine, probenecid, tiopronin

Specific history and measurements of pruritus

TIP: For measurement see PRURImeter (www.prurimeter.com)

- Start of symptoms, duration
- Localization (at start, while spreading)
- Character (e.g. pure itch, aquagenic, mechanical)
- Intensity: strength, according to Numerical Rating Scale (NRS) or Visual Analogue Scale (VAS)
- Progression: daily fluctuations, continuous/attack-like progression, spontaneous improvement/worsening
- Trigger factors/relieving factors
- Scratching behavior
- Coincides with previous conditions, surgeries, administration of medication, other events
- Previous successful/unsuccessful treatments
- Patient's own theories regarding cause
- Psychological stress factors
- Reductions in quality of life, distress, sleep disorders

General considerations

- Previous conditions, including dermatoses
- Medication intake, infusions, blood transfusions
- Previous surgery
- Allergies
- Atopic disposition
- B symptoms
- Pregnancy

Special considerations

- Scabies or other parasitic infections
 - Multiple family members affected?
- Pruritus during physical activity
 - Cholinergic pruritus?
- Aquagenic pruritus with polycythemia vera: pruritus during cold or hot showers/bathing or upon cooling down of the skin after bathing?
 - Hodgkin's lymphoma
 - B symptoms, pruritus with shivering, fatigue, weakness
 - Cholestatic hepatitis, intrahepatic cholestasis of pregnancy, pancreas carcinoma
 - Pruritus and jaundice

Initial laboratory tests

- ESR/ CRP
- Differential blood count; ferritin
- Potassium, creatine, urea, GFR
- GGT, GPT, GOT, alkaline phosphatase, bilirubin
- Fasting blood sugar level, HbA_{1c}
- TSH, LDH
- Urine status

Anal pruritus:

- Worm eggs, parasites, PSA

Skin changes:

- Bacterial and fungal swabs
- Indications of scabies mites
- Skin biopsy (histology, immunofluorescence, electron microscopy)

Pruritus during pregnancy:

- Dermatological examination to exclude PEP, pemphigoid gestationis
- Fasting bile acid level

Additional biochemical diagnostics

- For aquagenic and genital pruritus, pruritus of unclear cause: lactose/ sorbitol intolerance tests
- Changes in blood count: vitamin B12, folic acid, protein electrophoresis, immunofixation, JAK2 status, bone marrow examination with immunocytology and histology
- Iron deficiency/ stool irregularities: fecal occult blood test
- Pathological liver function values: hepatitis serology, antimitochondrial antibodies (AMA), pANCA, ANA, SMA, anti-soluble liver antigen antibodies (SLA), anti-liver kidney microsomal antibodies (LKM), anti-tissue transglutaminase antibodies, alpha-fetoprotein (for liver cirrhosis/ hepatomegaly)
- For pathological fasting blood glucose: HbA_{1c}, glucose tolerance test
- Primary or secondary skin changes: direct and indirect immunofluorescence, autoantibodies against dermal proteins (BP180, 230, desmoglein)
- Suspected allergy: total IgE, specific IgE, prick test, epicutaneous test

- Suspected endocrine disorder: parathormone, phosphate, Ca²⁺, fT₃, fT₄, 25-OH cholecalciferol, TSH-receptor antibodies (TRAb), anti-thyroperoxidase antibodies (TPOAb)
- Suspected HIV: HIV serology, syphilis serology
- Suspected mastocytosis: tryptase
- Suspected neuroendocrine tumors: chromogranin A
- 24 h urine collection: porphyrines, 5-hydroxyindole acetic acid (neuroendocrine tumors), methylimidazole acetic acid (mastocytosis)

Imaging

A chest x-ray and abdominal ultrasound exam can be performed to detect any signs of a possible malignancy if no specific disease is suspected based on the patient's medical history, physical examination and laboratory tests.

- Chest x-ray
- Abdominal ultrasound (including retroperitoneal lymph nodes)
- Ultrasound of the lymph nodes (cervical, supraclavicular, axillary, inguinal), paracentesis/ extirpation
- Ultrasound of the thyroid
- Gastroscopy (with biopsy and test for *H.p.*), colonoscopy (with biopsy)
- CT, MRI, MRCP, ultrasound, ERCP, liver biopsy

Interdisciplinary cooperation

- Neurological or psychiatric findings
- Cooperation with other disciplines including general medicine, dermatology, internal medicine
- (gastroenterology, hepatology, endocrinology, hematology), urology, gynecology

Symptomatic therapeutic approach to chronic pruritus (>6 weeks duration)

STEP 1

- General therapeutic measures, emollient therapy
- Initial symptomatic treatment: Non-sedating systemic H1-antihistamines (possibly high-dose)

STEP 2

- Symptomatic, causally-directed treatment

STEP 3

When cause unclear or patient refractory to treatment in Step 2:

- Symptomatic topical and/or systemic therapy e.g. capsaicin, calcineurin inhibitors, naltrexone, gabapentin, UV therapy, immunosuppressants (ciclosporin)
- Clinical studies at specialized centers

Adjunctive therapy at each step

- General therapeutic measures
- Causal treatment (possibly interdisciplinary)

Erosive scratch lesions:

- Topical antiseptics, topical steroids

Sleep disorders:

- Hypnotics, sedative antidepressants
- Low potency neuroleptics

Psychological/psychosomatic factors:

- Psychosomatic primary care, psychotherapy according to guidelines

Treatment options for uremic pruritus



1st choice:

Gabapentin after dialysis as follows:

- 100 mg 4x/week or
- 300 mg 3x/week or
- 400 mg 2x/week

2nd choice:

- Pregabalin (75 mg/d or 2x/week)

3rd choice:

- UVB treatment

4th choice:

- Capsaicin, 3-5 x/d topically

Alternatives:

- Cromoglycinic acid p.o. (e.g. 3 x 100 mg/d)
- Turmeric (3 x 500 mg/d p.o.)
- Activated carbon 6 g/d
- Nalfurafine 5 mg i.v. after dialysis or 2.5–5.0 daily p.o. (currently not available in Europe)

References

1. Maneti L, et al. *J Nephrol* 2005; 18: 86–91.
2. Gunal AI, et al. *Nephrol Dial Transplant* 2004; 19: 3137–3139.
3. Marquez D, et al. *J Bras Nefrol* 2012; 34: 148–152.
4. Naini AE, et al. *Saudi J Kidney Dis Transpl* 2007; 18: 378–381.
5. Rayner H al. *Nephron Clin Pract* 2012; 122: 75–79.
6. Aperis G, et al. *J Ren Care* 2010; 36: 180–185.
7. Yue J, et al. *Int Urol Nephrol* 2015; 47: 161–167.
8. Carmichael, A. In: Bernhard JD. *Itch: Mechanisms and management of pruritus*, McGraw Hill, New York, 1994: 217–228.
9. Breneman DL, et al. *J Am Acad Dermatol* 1992; 26: 91–94.
10. Tarrg DC, et al. *Nephron* 1996; 72: 617–622.

Treatment options for cholestatic pruritus



1st choice:

- Colestyramine 4–16 g/d (4 h before/after other medication)

2nd choice:

- Rifampicin 150–600 mg/d
- For long-term treatment: Cave: hepatotoxicity after 4–12 weeks

3rd choice:

Opiate antagonists:

- Naltrexone 25–50 mg/d (Cave: opiate withdrawal symptoms at treatment start)
- Naloxone 0.2 µg/kg KG/min i.v.

4th choice:

- Sertraline (75–100 mg/d)

For intrahepatic cholestasis of pregnancy:

- Ursodeoxycholic acid
10–20 mg/kg/d

References

1. Hägermark Ö, Wahlgren CF. *Semin Dermatol* 1995; 14: 320–325.
2. Ghent CN, Carruthers SG. *Gastroenterology* 1988; 94: 488–493.
3. Wolfhagen FH, et al. *Gastroenterology* 1997; 113: 1264–1269.
4. Terg R, et al. *J Hepatol* 2002; 37: 717–722.
5. Bergasa NV, et al. *Ann Intern Med* 1995; 123: 161–167.
6. Mayo MJ, et al. *Hepatology* 2007; 45: 666–674.
7. EASL. Clinical Practice Guidelines: Management of Cholestatic Liver Diseases. *J Hepatol* 2009; 51: 237–267.
8. Kondrackiene J, et al. *Gastroenterology* 2005; 129: 894–901.

Treatment options for chronic prurigo



TOPICAL

1st choice:

- Topical steroids e.g. hydrocortisone 1% 2x/d, betamethasonvalerate 0.1% occlusive 1x/d or
- Pimecrolimus 2x/d, do not combine with UV

2nd choice:

- Capsaicin cream 0.025% to 0.1%, 4 to 6 x/d or
- Tacrolimus 0.1% 1-2x/d

SYSTEMIC

1st choice (if necessary in combination with antihistamines):

- UV phototherapy: e.g. UVB 311 nm, UVA, PUVA bath or PUVA bath + 308 nm excimer UVB

2nd choice (in combination with UV treatment or as monotherapy):

- Non-sedating H1-antihistamines e.g. desloratadine, cetirizine, fexofenadine

3rd choice:

- Gabapentin 900 mg/d or
- Pregabalin 75–225 mg/d

4th choice:

- Ciclosporin 3–5 mg/kg body weight/d or
- Methotrexate 7.5–20 mg/week

5th choice:

- Naltrexone 50–100 mg/d
- Aprepitant 80 mg/d

References

1. Siepmann D, et al. *Dermatology* 2013; 227: 353–60.
2. Saraceno R, et al. *J Dermatolog Treat* 2010; 21: 363–366.
3. Ständer S, et al. *J Am Acad Dermatol* 2001; 44: 471–8.
4. Lee HH, et al. *J Dtsch Dermatol Ges* 2005; 3: 690–694.
5. Tamagawa-Mineoka R, et al. *J Dermatol* 2007; 34: 691–695.
6. Bruni E, et al. *Clin Exp Dermatol* 2010; 35: 549–50.
7. Hammes S, et al. *J Eur Acad Dermatol Venereol* 2011; 25: 799–803.
8. Shintani T, et al. *Dermatol Ther* 2014; 27: 135–139.
9. Gencoglan G, et al. *Dermatol Ther* 2010; 23: 194–198.
10. Imai K, et al. *Intern Med* 2013; 52: 2629–2633.
11. Spring P, et al. *Clin Exp Dermatol* 2014; 39: 468–473.
12. Brune A, et al. *Hautarzt* 2004; 55: 1130–1136.
13. Ständer S, et al. *PLoS One* 2010; 5; DOI: 10.1371/journal.pone.0010968.

Treatment options for chronic pruritus of unclear cause

1st choice:

- H1-antihistamines, if necessary high dose

2nd choice:

- Gabapentin up to 3600 mg/d
- Pregabalin up to 600 mg/d

3rd choice:

- Paroxetine 20 mg/d, if necessary in combination with gabapentin/pregabalin

4th choice:

- Mirtazapine 15 mg evenings, if necessary in combination with gabapentin/pregabalin

5th choice:

- UVB 311 nm therapy (not in combination with antidepressants)

6th choice:

- Naloxone (1.6 mg/h for 4 h, i.v.) or naltrexone (50–150 mg/d oral)

References

1. Schulz S, et al. *Hautarzt* 2009; 60: 564–568.
2. Valdes-Rodriguez R, et al. *Drugs Aging* 2015; 32: 201–215.
3. Park JM, et al. *J Dermatol* 2012; 39: 790–791.
4. Yosipovitch G, Bernhard JD. *N Engl J Med* 2013; 368: 1625–1634.
5. Smitz S, et al. *Ann Intern Med* 1982; 97: 788–789.
6. Brune A, et al. *Hautarzt* 2004; 55: 1130–1136.
7. Phan NQ, et al. *J Am Acad Dermatol* 2010; 63: 680–688.

Treatment options for paraneoplastic pruritus

Antipruritic effect demonstrated in clinical studies:

- Paroxetine 20 mg/d

Cutaneous T cell lymphoma:

- Gabapentin 300 mg to 2400 mg/d
- Mirtazapine 7.5–30 mg at night
- Naltrexone 50–150 mg/d
- Aprepitant 80 mg/d

Hematological neoplasms:

- Mirtazapine 7.5–30 mg at night
- Paroxetine 20 mg/d
- Fluoxetine 10 mg/d
- Naltrexone 50–150 mg/d
- Acetylsalicylic acid 300 mg before contact with water for PV
- Cimetidine 800 mg–1g/d

Solid neoplasms:

- Naltrexone 50–150 mg/d for prostate carcinoma
- Paroxetine 20 mg/d for prostate carcinoma

References

1. Zyllicz Z, et al. *J Pain Symptom Manage* 1998; 16: 121–124.
2. Demierre MF, Taverna J. *J Am Acad Dermatol* 2006; 55: 543–544.
3. Davis MP, et al. *J Pain Symptom Manage* 2003; 25: 288–291.
4. Brune A, et al. *Hautarzt* 2004; 55: 1130–1136.
5. Duval A, Dubertret L. *N Engl J Med* 2009; 361: 1415–1416.
6. Tefferi A, Fonseca R. *Blood* 2002; 99: 2627.
7. Zyllicz Z, et al. *J Pain Symptom Manage* 2003; 26: 1105–1112.
8. Jackson N, et al. *Br J Dermatol* 1987; 116: 21–29.
9. Easton P, Galbraith PR. *N Engl J Med* 1978; 299: 1134.
10. Aymard JP, et al. *Br Med J* 1980; 280: 151–152.
11. Weisshaar E. *Acta Derm Venereol* 2008; 88: 488–490.

Antipruritic substances – Topical therapy



Topical local anesthetics

- Notalgia paresthetica

Topical glucocorticosteroids

- Atopic eczema
- Inflammatory dermatoses
- Scratch lesions

Capsaicin

- Aquagenic pruritus
- Chronic prurigo
- Hydroxyethyl starch-induced pruritus
- Inflammatory dermatoses
- Cutaneous T cell lymphoma
- Lichen simplex
- Nephrogenic pruritus
- Notalgia paresthetica
- Paraneoplastic pruritus (e.g. in Hodgkin's lymphoma)
- Psoriasis
- PUVA-induced pruritus

Calcineurin inhibitors

- Chronic prurigo
- Inflammatory dermatoses e.g. atopic eczema
- Genital pruritus
- Lichen sclerosus et atrophicus
- Nephrogenic pruritus
- Psoriasis (facial, genital)

Cannabinoid receptor agonists

- Atopic eczema
- Chronic prurigo
- Nephrogenic pruritus
- Pruritus of unclear origin

References

S2k Leitlinie chronischer Pruritus Nr. 013/048; Version 3.0 / 2016 Stand: 08.05.2016

Antipruritic substances – Systemic treatments



Antihistamines

- Aquagenic pruritus
- Chronic pruritus
- Nephrogenic pruritus
- Urticaria

Mast cell stabilizers (ketotifen)

- Nephrogenic pruritus
- Neurofibromatosis

Cimetidine

- Paraneoplastic pruritus (e.g. in Hodgkin's lymphoma)
- Polycythemia vera
- Burn-related pruritus
- Nephrogenic pruritus

Systemic steroids

- Inflammatory dermatoses (e.g. atopic eczema)

Opioid antagonists (naltrexone, naloxone)

- Aquagenic pruritus
- Cholestatic pruritus
- Chronic prurigo
- Inflammatory dermatoses (e.g. urticaria, atopic eczema, psoriasis)
- Hydroxyethyl starch-induced pruritus
- Pruritus of unclear origin

Opioid agonists (nalfurafine)

- Nephrogenic pruritus

UV phototherapy

- Aquagenic pruritus
- Cholestatic pruritus
- Chronic prurigo
- HIV infection
- Inflammatory dermatoses
- Cutaneous T cell lymphoma
- Nephrogenic pruritus
- Paraneoplastic pruritus (e.g. Hodgkin's lymphoma)
- Polycythemia vera
- Pruritus of unclear origin

Leukotriene receptor antagonists (montelukast)

- Atopic eczema
- Urticaria

Antipruritic substances – Systemic treatments



Gabapentinoids (e.g. gabapentin, pregabalin)

- Aquagenic pruritus
- Brachioradial pruritus
- Chronic prurigo
- Nephrogenic pruritus
- Neuropathic pruritus
- Notalgia parasthetica

Selective serotonin reuptake inhibitors (e.g. paroxetine, fluvoxamine, sertraline)

- Aquagenic pruritus
- Atopic eczema
- Cholestatic pruritus
- Chronic prurigo
- Cutaneous T cell lymphoma
- Paraneoplastic pruritus
- Polycythemia vera
- Pruritus of unclear origin
- Somatoform pruritus

Mirtazapine

- Atopic eczema
- Cholestatic pruritus
- Paraneoplastic pruritus (e.g. adenocarcinoma, Hodgkin's lymphoma, CLL)

Doxepin

- HIV-induced pruritus
- Urticaria

Serotonin antagonists (e.g. ondansetron, tropisetron, granisetron)

- Cholestatic pruritus
- Nephrogenic pruritus
- Opiate-induced pruritus

References

S2k Leitlinie chronischer Pruritus Nr. 013/048; Version 3.0 / 2016 Stand: 08.05.2016

Ständer S et al. J Dtsch Dermatol Ges. 2017; 15: 860–873.

General therapeutic measures for relief of pruritus

Avoidance of:

- Factors leading to dryness of the skin e.g. dry climate, heat (e.g. sauna), alcohol-soaked compresses, frequent washing and bathing
- Contact with irritating materials or substances (e.g. compresses with Rivanol, Chamomile, tea tree oil)
- Very hot and well seasoned food, large amounts of hot drinks and alcohol
- Overexcitement, tension, negative stress
- For atopy: avoidance of allergens (e.g. dust or dust mites) which could severely aggravate pruritus

Use of:

- Mild, non-alkaline soaps, emollient detergents, shower or bath oils (emulsions with low tenside content)
- Lukewarm water, 20 minutes maximum bathing time. If skin dermatoses are visible, the skin should be dabbed dry (instead of rubbing) to avoid additional injuries

- Appropriate, soft, breathable clothing e.g. cotton
- Treatment considering individual skin condition; optimally, application should be carried out at least once daily, in particular after taking a shower/bath
- Preparations for short-term relief, including treatment of nocturnal pruritus: creams/ lotions/ sprays with urea, camphor, menthol, polidocanol, tannins, moist or cooling compresses, or wet emollient compresses, cold showers, black tea compresses

Psychosomatic interventions:

- Relaxation techniques (e.g. autogenic training)
- Cognitive techniques (e.g. decatastrophizing)
- Standardized training programs

Chronic Pruritus

ICD-10: L28.0, L28.1, L28.2, L29.0, L29.1, L29.2,
L29.3, L29.8, L29.9

Scientific Editors

Prof. Dr. med. Dr. h.c. Sonja Ständer

Center of Chronic Pruritus, Dept. of Dermatology
University Hospital Münster

Prof. Dr. med. Matthias Augustin

Prof. Dr. med. Marc A. Radtke

Institute for Health Services Research in Dermatology and Nursing
University Hospital Hamburg-Eppendorf

© S. Ständer, M. Augustin, M. A. Radtke

www.prurimeter.com



With friendly support from

LEO Pharma GmbH
Frankfurter Strasse 233, A3
63263 Neu-Isenburg

Telefon + 49 6102 201 - 0
Telefax + 49 6102 201 - 200
www.leo-pharma.de