



29 May 2024
EMA/HMPC/261304/2022
Committee on Herbal Medicinal Products (HMPC)

List of references supporting the assessment of *Urtica dioica L.; Urtica urens L., herba*

Draft – Revision 1

The European Medicines Agency acknowledges that copies of the underlying works used to produce this monograph were provided for research only with exclusion of any commercial purpose.

Baraibar CP, Broncano FJ, Lazaro-Carrasco MJ, Rebuelta M, Villuna L. Acute and chronic toxicity studies on Nettle (*Urtica dioica L.*). *An Bromatol* 1983, 35:99-103

Barnes J, Anderson LA, Phillipson JD. Nettle. In: Barnes J, Anderson LA, Phillipson JD, eds. *Herbal Medicines: A Guide for Health-Care Professionals*. Pharmaceutical Press, London 2002, 360-364

Basaran AA, Yu TW, Plewa MJ, Anderson D. An investigation of some Turkish herbal medicines in *Salmonella typhimurium* and COMET assay in human lymphocytes. *Theratog Carcinog Mutagen* 1996, 16(2):125-138

Bertok L. A csalán összetétele és táplálóértéke [The composition and the nutritive value of Nettle]. *Magyar Allatorvosok Lapja* 1956, 11: 62-166 [in Hungarian]

British Herbal Pharmacopoeia. British Herbal Medicine Association, Keighley 1983, 224-225

Bisset NG, ed. *Herbal Drugs and Phytopharmaceuticals: A Handbook for Practice on a Scientific Basis*. (translated from Wichtl, ed. Teedrogen 2nd ed) Medpharm Scientific Publishers, Stuttgart, 1994

Blaschek W, Hänsel R, Keller K, Reichling J, Rimpler H, Schneider G, eds. *Hagers Handbuch der Pharmazeutischen Praxis. Drogen L-Z.* Vol. 3 5th ed. Springer-Verlag, Berlin 1998 [in German]

Blumenthal M, Busse WR, Goldberg A, Gruenwald J, Hall T, Riggins CW et al., eds. *The complete German commission E monographs: Therapeutic guide to herbal medicines*. American Botanical Council, Austin/Texas, published in cooperation with Integrative Medicine Communications, Boston, MA, 1998, 216

Bnouham M, Merhfouf FZ, Ziyyat A, Mekhfi H, Aziz M, Legssyer A. Antihyperglycemic activity of the aqueous extract of *Urtica dioica*. *Fitoterapia* 2003, 74:677-681

Bradley P, ed. *British Herbal Compendium. A handbook of scientific information on widely used plant drugs; companion to volume 1 of the British Herbal Pharmacopoeia Volume 1*. British Herbal Medicine Association, Bournemouth, 1992



Broncano FJ, Rebuelta M, Vivas JM, G-Serranillos Fdez M. Étude de l'effet sur le centre cardiovasculaire de quelques préparations de l' *Urtica dioica* L. *Plant Med Phytothér* 1983, 17:222-229

Broncano FJ, Rebuelta M, Vivas JM, Diaz. MP. Estudio de diferentes preparados de *Urtica dioica* L sobre SCN. *An Real Acad Farm* 1987, 53:284-291 [in Spanish]

Czarnetzki BM, Thiele T, Rosenbach T. Immunoreactive leukotrienes in nettle plants (*Urtica urens*). *Int Arch Allergy Appl Immunol* 1990, 91(1):43-46

Daher CF, Baroody KG, Baroody GM. Effect of *Urtica dioica* extract intake upon blood lipid profile in rats. *Fitoterapia* 2006, 77(3):183-188

DAC. (Deutscher Arzneimittel-Codex, Ergänzungsbuch zum Arzneibuch in Deutschland).

Brennnesselkraut (B-135). In: Bundesvereinigung Deutscher Apothekerverbände (Hrsg.). Govi-Verlag Pharmazeutischer Verlag, Eschborn / Deutscher Apotheker-Verlag, Stuttgart. Stand 2020-1 [in German]

Eckstein F, Flamm S. Die Kneipp-Kräuterkur. Kneipp-Bund Gesundheitsverlag, Bad Wörishofen 1932, 89 cited in Blaschek W, Hänsel R, Keller K, Reichling J, Rimpler H, Schneider G, eds. Hagers Handbuch der Pharmazeutischen Praxis. Drogen L-Z. Vol. 3 5th ed. Springer-Verlag, Berlin 1998 [in German]

ESCOP. Urticae folium/herba. Nettle leaf/herb. In: ESCOP Monographs on the medicinal use of plant drugs. 1st ed. European Scientific Cooperative on Phytotherapy, Exeter 1997

ESCOP. Urticae folium/herba. Nettle leaf/herb. In: ESCOP Monographs. 2nd ed. European Scientific Cooperative on Phytotherapy, Thieme, Stuttgart 2003, 521-527

European Pharmacopoeia 11th Edition. Nettle leaf- Urticae folium. Council of Europe 01/2011:1897

Graf U, Moraga AA, Castro R, Díaz Carrillo E. Genotoxicity testing of different types of beverages in the *Drosophila* wing Somatic Mutation And Recombination Test. *Food Chem Toxicol* 1994, 32(5):423-430

Gülçin I, Küfrevoioglu OI, Oktay M, Büyükkokuroglu ME. Antioxidant, antimicrobial, antiulcer and analgesic activities of nettle (*Urtica dioica* L.). *J Ethnopharmacol* 2004, 90(2-3):205-215

Kirchhoff HW. Brennesselsaft als Diuretikum. *Z Phytother* 1983, 4:621-626 [in German]

Kneipp S. Meine Wasserkur. 34th ed. Verlag J. Kösel, Kempten 1891, 124-125 cited in Blaschek W, Hänsel R, Keller K, Reichling J, Rimpler H, Schneider G, eds. Hagers Handbuch der Pharmazeutischen Praxis. Drogen L-Z. Vol. 3 5th ed. Springer-Verlag, Berlin 1998 [in German]

Lasheras B, Turillas P, Cenarruzabeitia E. Étude pharmacologique préliminaire de *Prunus spinosa* L. *Amelanchier ovalis* Medikus, *Juniperus communis* L. et *Urtica dioica* L. *Plant Méd Phytothér* 1986, 20:219-226 [in French]

Les Cahier de l'Agence N°3: Médicaments à base de plantes. Agence du Médicament, Paris 1998, 1-88 [in French]

Lutomski J. Antibakterielle und salidiuretische Aktivität der Kneipp®-Präparate, Interner Versuchsbericht, Institut für Heilpflanzenforschung, Poznan 1981 cited in Blaschek W, Hänsel R, Keller K, Reichling J, Rimpler H, Schneider G, eds. Hagers Handbuch der Pharmazeutischen Praxis. Drogen L-Z. Vol. 3 5th ed. Springer-Verlag, Berlin 1998 [in German]

Lutomski J, Speichert H. Die Brennessel in Heilkunde und Ernährung. *Pharm Unserer Zeit* 1983, 12(6):181-186 [in German]

Neef H, Declercq P, Laekeman G. Hypoglycaemic activity of selected European plants. *Phytother Res* 1995, 9:45-48

Pharmacopoeia Helvetica. 7th ed. Urticae herba. Eidgenössisches Department des Inneren, Bern 1995 [in German]

Reile B, ed. Das große Kneippbuch von S. Kneipp. Verlag J. Kösel, München 1928, 909-911 [in German]

Schilcher H. Urtica –Arten – Die Brennessel. Z. *Phytotherapie* 1988; 9:160-164 [in German]

Sharma BB, Varshney MD, Gupta DN, Prakash AO. Antifertility screening of plants: Part I. effect of ten indigenous plants on early pregnancy in albino rats. *Int J Crude Drug Res* 1983, 21(4):183-187

Tahri A, Yamani S, Legssyer A, Aziz M, Mekhfi H, Bnouham M et al. Acute diuretic, natriuretic and hypotensive effects of a continuous perfusion of aqueous extract of *Urtica dioica* in the rat. *J Ethnopharmacol* 2000, 73(1-2):95-100

Tita B, Faccendini P, Bello U, Martinoli L, Bolle P. *Urtica dioica* L.: Pharmacological effect of ethanol extract. *Pharmacol Res* 1993, 27(Suppl. 1):21-22

Wren RC. Potter's New Cyclopaedia of Botanical Drugs and Preparations. Completely revised by Williamson EM, Evans FJ. Daniel, Saffron Walden, Essex 1988

Wegener T. Expressed juice of stinging nettle herb: Successful therapy in everyday practice. Evidence of effectiveness in irrigation therapy and rheumatic complaints. *Z Phyther* 2009; 30(5):243-248.
doi:10.1055/s-0029-1242927

Wichtl M. Herbal Drugs and Phytopharmaceuticals: A Handbook for Practice on a Scientific Basis. CRC Press, Stuttgart, 1994

References read but not included in the Assessment report

- Akbay P, Basaran AA, Undege U, Basaran N. In vitro immunomodulatory activity of flavonoid glycosides from *Urtica dioica* L. *Phytother Res* 2003, 17(1):34-37
- Antonopoulou S, Demopoulos CA, Andrikopoulos NK. Lipid separation from *Urtica dioica*: Existence of Platelet-Activating Factor. *J Agric Food Chem* 1996, 44(10):3052-3056
- Bathe AP. An unusual manifestation of nettle rash in three horses. *Vet Rec* 1994, 134(1):11-12
- Behzadi A, Kalalian-Moghaddam H, Ahmadi AH. Effects of *Urtica dioica* supplementation on blood lipids, hepatic enzymes and nitric oxide levels in type 2 diabetic patients: A double-blind, randomized clinical trial. *Avicenna J Phytomed* 2016; 6:686-695
- Broncano FJ, Rebuelta M, Lazaro-Carrasco MJ, Vivas JM. Estudio del efecto sobre musculatura lisa uterina de distintos preparados de las hojas de *Urtica dioica* L. *An Real Acad Farm* 1987, 53:69-76 [in Spanish]
- Chrubasik JE, Roufogalis BD, Wagner H, Chrupasik S. A comprehensive review on nettle effect and efficacy profiles, Part I: *Herba urticae*. *Phytomedicine* 2007, 14(6):423-435
- Chrupasik S, Enderlein W, Bauer R, Grabner W. Evidence for antirheumatic effectiveness of *Herba Urticae dioica* in acute arthritis: A pilot study. *Phytomedicine* 1997, 4(2):105-108
- Goun EA, Petrichenko VM, Solodnikov SU, Suhinina TV, Kline MA, Cunningham G et al. Anticancer and antithrombin activity of Russian plants. *J Ethnopharmacol* 2002, 81(3):337- 342
- Harput US, Saracoglu I, Ogihara Y. Stimulation of lymphocyte proliferation and inhibition of nitric oxide production by aqueous *Urtica dioica* extract. *Phytother Res* 2005, 19(4):346-348
- Legssyer A, Ziyyat A, Mekhfi H, Bnouham M, Tahri A, Serhrouchni M et al. Cardiovascular effects of *Urtica dioica* L. in isolated rat heart and aorta. *Phytother Res* 2002, 16(6):503-507
- Mavi A, Terzi Z, Ozgen U, Yildirim A, Coşkun M. Antioxidant properties of some medicinal plants: *Prangos ferulacea* (Apiaceae), *Sedum sempervivoides* (Crassulaceae), *Malva neglecta* (Malvaceae), *Cruciata taurica* (Rubiaceae), *Rosa pimpinellifolia* (Rosaceae), *Galium verum* subsp. *verum* (Rubiaceae), *Urtica dioica* (Urticaceae). *Biol Pharm Bull* 2004, 27(5):702-705
- Mekhfi H, El Haouari M, Legssyer A, Bnouham M, Aziz M, Atmani F et al. Platelet anti-aggregant property of some Moroccan medicinal plants. *J Ethnopharmacol* 2004 94(2-3):317-322
- Mittman P. Randomized, double-blind study of freeze-dried *Urtica dioica* in the treatment of allergic rhinitis. *Planta Med* 1990, 56(1):44-47
- Namazi N, Tarighat A, Asghari M, Bahrami A. The effect of hydroalcoholic Nettle (*Urtica dioica*) extracts on some cardiovascular risk factors in patients with type 2 diabetes. *Pak J Med Sci*, 2011b; 11(3):138-144
- Namazi N, Tarighat A, Bahrami A. The effect of hydro alcoholic nettle (*Urtica dioica*) extract on oxidative stress in patients with type 2 diabetes: A randomized double-blind clinical trial. *Pakistan J Biol Sci* 2012; 15:98-102. doi:10.3923/pjbs.2012.98.102
- Namazi N, Tarighat A, Heshmati J, Bahrami A. The effect of hydro alcoholic nettle (*Urtica dioica*) extracts on insulin sensitivity and some inflammatory indicators in patients with type 2 diabetes: A randomized double-blind control trial. *Pakistan J Biol Sci* 2011a; 14:775-779. doi:10.3923/pjbs.2011.775.779

Oliver-Bever B, Zahnd GR. Plants with Oral Hypoglycaemic Action. *Q J Crude Drug Res* 1979, 17(3-4):139-196

Önal S, Timur S, Okutucu B, Zihnioğlu F. Inhibition of α -glucosidase by aqueous extracts of some potent antidiabetic medicinal herbs. *Prep Biochem Biotechnol* 2005, 35(1):29-36

Tunón H, Olavsdotter C, Bohlin L. Evaluation of anti-inflammatory activity of some Swedish medicinal plants. Inhibition of prostaglandin biosynthesis and PAF-induced exocytosis. *J Ethnopharmacol* 1995, 48(2):61-76