25 September 2019
EMA/HMPC/327107/2017
Committee on Herbal Medicinal Products (HMPC)

European Union herbal monograph on *Valeriana officinalis* L., radix and *Humulus lupulus* L., flos

Final – Revision 1

Initial assessment	
Discussion in Working Party on European Union monographs and list (MLWP)	January 2008 May 2008 March 2009 May 2009
Adoption by Committee on Herbal Medicinal Products (HMPC) for release for consultation	14 May 2009
End of consultation (deadline for comments)	15 September 2009
Re-discussion in MLWP	4 May 2010
Adoption by HMPC Monograph (EMA/HMPC/585558/2007) Assessment report (EMA/HMPC/215214/2008) List of references (EMA/HMPC/216362/2008) Overview of comments received during public consultation (EMA/HMPC/132077/2010) HMPC Opinion (EMA/HMPC/282834/2010)	6 May 2010
First systematic review	
Discussion in Working Party on European Union monographs and European Union list (MLWP)	January 2017 March 2017 May 2017 July 2017 September 2017
Adoption by Committee on Herbal Medicinal Products (HMPC) for release for consultation	21 November 2017
End of consultation (deadline for comments)	15 March 2018

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Re-discussion in HMPC/MLWP	June 2018 September 2018 January 2019 May 2019 July 2019 September 2019
Adoption by HMPC	25 September 2019

Keywords	Herbal medicinal products; HMPC; European Union herbal monographs; well-established medicinal use; traditional use; *Valeriana officinalis* L.; *Humulus lupulus* L.; Valerianae radix; Lupuli flos; valerian root and hop strobile

BG (bulgarski): Валериана, корен / хмел, лист CS (čeština): kozlíkový kořen/chmelová šištice DA (dansk): Baldrianrod/humlekopper DE (Dutsch): Baldrianwurzel/Hopfenzapfen EL (elliniká): ρίζα βαλεριανής και άνθος λυκίσκου EN (English): valerian root / hop strobile ES (español): valeriana, raíz de/lúpulo, flor de ET (eesti keel): palderjanijuur/humalakäbi FI (suomi): rohtovirmajuuri, juuri / humala, kukka FR (français): valériane (racine de) / houblon (cône de) HR (hrvatski) odoljenov korijen/cvijet uzgojenog hmelja HU (magyar): macskagyökér és komlótoboz IT (italiano): Valeriana radice/luppolo fiore LT (lietuvių kalba): Valerijonų šaknys ir apynių spurgai	LV (latviešu valoda): Baldriāna saknes / Apiņu ziedi MT (Malti): għerq tal-valerjana u fjura tal-ħops NL (Nederlands): Valeriaanwortel/Hopbellen PL (polski): Korzeń kozłka/szyszka chmielu PT (português): valeriana, raiz/lúpulo, cone RO (română): rădăcină de valeriană şi conuri de hamei SK (slovenčina): koreň valeriány/kvet chmeľu SL (slovenščina): korenina zdravilne špajke/cvet navadnega hmelja SV (svenska): vänderot, rot / humle, blomma IS (íslenska): NO (norsk): valerianarot/humle

European Union herbal monograph on *Valeriana officinalis* L., radix and *Humulus lupulus* L., flos

1. Name of the medicinal product

To be specified for the individual finished product.

2. Qualitative and quantitative composition[1, 2]

Well-established use	**Traditional use**
With regard to the marketing authorisation application of Article 10a of Directive 2001/83/EC Fixed combinations of *Valeriana officinalis* L., radix (valerian root) and *Humulus lupulus* L., flos (hop strobile) i) Herbal substance Not applicable ii) Herbal preparations used in fixed combinations of a) Dry extracts of valerian root (DER 4-8:1, methanol 45-51% m/m) and hop strobile (DER 3-10:1, methanol 40-51% m/m) b) Dry extracts of valerian root (DER 4-7:1, ethanol 70% V/V) and hop strobile (DER 4-8:1, methanol 40% V/V)	With regard to the registration application of Article 16d(1) of Directive 2001/83/EC Fixed combinations of *Valeriana officinalis* L., radix (valerian root) and *Humulus lupulus* L., flos (hop strobile) i) Herbal substance Not applicable ii) Herbal preparations used in fixed combinations of Liquid extracts: a) Liquid extract (DER 1:6.3) from a mixture of valerian root-hop strobile (1:1), extraction solvent ethanol 40% V/V b) Mixture (1:1) of valerian root tincture (DER 1:10-11), extract solvent ethanol 58% V/V and hop strobile tincture (DER 1:12-13) extract solvent ethanol 65% V/V 1 ml contains: 460 mg *Valeriana officinalis* L., fresh root, tincture (DER 1:10). Extraction solvent: ethanol 58 % (V/V) 460 mg *Humulus lupulus* L., fresh strobile, tincture (DER 1:12). Extraction solvent: ethanol 65 % (V/V) Dry extracts: a) Dry extracts of valerian root (DER 4-6:1), extraction solvent water and hop strobile

[1] The declaration of the active substance(s) for an individual finished product should be in accordance with relevant herbal quality guidance.
[2] Detailed specifications for the herbal substance shall be given by references to bibliographic sources in absence of a monograph in the European Pharmacopoeia, a national pharmacopoeia or national codex currently used officially in a Member State.

Well-established use	Traditional use
	(DER 3-6:1), extraction solvent water b) Dry extracts of valerian root (DER 5-7:1), extraction solvent methanol 45% m/m and hop strobile (DER 5-7:1), extraction solvent water c) Dry extracts of valerian root (DER 4-5:1), extraction solvent ethanol 60% V/V and hop strobile (DER 5-9:1), extraction solvent water d) Dry extracts of valerian root (DER 4-7:1), extraction solvent methanol 45% V/V and hop strobile (DER 4-8:1), extraction solvent ethanol 40% V/V e) Dry extracts of valerian root (DER 3-7:1), extraction solvent ethanol 70% V/V and hop strobile (DER 4-8:1), extraction solvent ethanol 40% V/V f) Dry extracts of valerian root (DER 6-7:1), extraction solvent ethanol 70% V/V and hop strobile (DER 11-14:1), extraction solvent ethanol 96% V/V g) Dry extracts of valerian root (DER 5-8:1), extraction solvent ethanol 85% V/V and hop strobile (DER 9-11:1), extraction solvent ethanol 90% V/V

3. Pharmaceutical form

Well-established use	Traditional use
Herbal preparation in solid dosage forms for oral use. The pharmaceutical form should be described by the European Pharmacopoeia full standard term.	Herbal preparation in solid or liquid dosage forms for oral use. The pharmaceutical form should be described by the European Pharmacopoeia full standard term.

4. Clinical particulars

4.1. Therapeutic indications

Well-established use	Traditional use
Herbal medicinal product for the relief of sleep disorders.	Indication 1) Traditional herbal medicinal product for relief of

Well-established use	Traditional use
	mild symptoms of mental stress. Indication 2) Traditional herbal medicinal product used to aid sleep. The product is a traditional herbal medicinal product for use in specified indications exclusively based on long-standing use.

4.2. Posology and method of administration

Well-established use	Traditional use
Posology *Adolescents, adults, elderly* Single dose Herbal preparation a) Fixed combinations of 187-374 mg/28 mg-500 mg/65 mg dry extracts of valerian root and hop strobile, respectively 1-2 doses half to one hour before bedtime, not exceeding 500 mg of valerian extract. Herbal preparation b) Fixed combination of 200 mg/45 mg–350 mg/70 mg of dry extracts of valerian root and hop strobile, respectively 1-2 doses half to one hour before bedtime, not exceeding 500 mg of valerian extract. The use in children below the age of 12 years is not recommended (see 4.4. 'Special warning and precautions for use'). **Duration of use** Because of its gradual onset of efficacy fixed combinations of valerian root and hops are not suitable for acute interventional treatment of mild nervous tension or sleep disorders. To achieve an optimal treatment effect, the continued use over 4 weeks is recommended. If symptoms persist or worsen after 4 weeks of continued use, a doctor should be consulted.	**Posology** *Adolescents, adults, elderly* Liquid extracts: a) Liquid extract (DER 1:6.3): Indication 1): 2.4 ml, 3 times daily Indication 2): 2.4 ml, 1 hour before bedtime b) Liquid extract (1:1): Indication 1): 1 ml in ½ glass of water, 3-5 times daily Indication 2): 2 ml in ½ glass of water, 1 hour before bedtime Dry extracts: a) Fixed combinations of 80 mg/20 mg or 160 mg/40 mg dry extracts of valerian root and hop strobile, respectively Indication 1): 240 mg/60 mg or 320 mg/80 mg, 3 times daily Indication 2): 240 mg/60 mg or 320 mg/80 mg, 1 hour before bedtime b) Fixed combination of 187 mg/45 mg dry extracts of valerian root and hop strobile, respectively Indication 1): 187 mg/45 mg, up to 3 times daily Indication 2): 187 mg/45 mg, 1 hour before bedtime

Well-established use	Traditional use
Method of administration Oral use	c) Fixed combinations of 100 mg/30 mg of dry extracts of valerian root and hop strobile, respectively. Indication 1): 100 mg/30 mg, 2-3 times daily Indication 2): 200mg/60 mg, 1 hour before bedtime d) Fixed combinations of 125 mg/25 mg of dry extracts of valerian root and hop strobile, respectively. Indication 1): 125 mg/25 mg, 3 times daily Indication 2): 125 mg/25 mg or 250 mg/50 mg, 1 hour before bedtime e1) Fixed combinations of 100 mg/24 mg–32 mg dry extracts of valerian root and hop strobile, respectively. Indication 1): 200 mg/48 mg-64 mg, 3 times daily Indication 2): 200 mg/48 mg-64 mg, 1 hour before bedtime e2) Fixed combinations of 68 mg/16 mg of dry extracts of valerian root and hop strobile, respectively. Indication 1): 204 mg/48 mg, 3 times daily Indication 2): 204 mg/48 mg, 1 hour before bedtime. e3) Fixed combinations of 200 mg/46-68 mg of dry extracts from valerian root and hop strobile, respectively. Indication 1): 200 mg/46-68 mg, 3 times daily Indication 2): 200 mg/46-68 mg or 400 mg/ 92-136 mg, ½ to 1 hour before bedtime. f) Fixed combinations of 225 mg/30 mg dry extracts of valerian root and hop strobile, respectively. Indication 1): 225 mg/30 mg, 3 times daily Indication 2): 225 mg/30 mg or 450 mg/60 mg, 1 hour before bedtime g) Fixed combinations of 77 mg/18.8 mg of dry

Well-established use	Traditional use
	extracts of valerian root and hop strobile, respectively. Indication 1): 154 mg/37.6 mg, 3 times daily Indication 2): 154 mg/37.6 mg, 1 hour before bedtime The use in children below the age of 12 years is not recommended (see 4.4. 'Special warning and precautions for use'). **Duration of use** If the symptoms persist longer than 4 weeks of continued use of the medicinal product, a doctor or a qualified health care practitioner should be consulted. **Method of administration** Oral use

4.3. Contraindications

Well-established use	Traditional use
Hypersensitivity to the active substances.	Hypersensitivity to the active substances.

4.4. Special warnings and precautions for use

Well-established use	Traditional use
The use of these fixed combinations is not recommended in children under 12 years of age, due to lack of adequate data. If the symptoms worsen during the use of medicinal product, a doctor or a pharmacist should be consulted.	The use of these fixed combinations is not recommended in children under 12 years of age, due to lack of adequate data. For extracts containing ethanol, the appropriate labelling for ethanol, taken from the "Guideline on excipients in the label and package leaflet of medicinal products for human use" must be included. If the symptoms worsen during the use of medicinal product, a doctor or a pharmacist should be consulted.

4.5. Interactions with other medicinal products and other forms of interaction

Well-established use	Traditional use
None reported	None reported

4.6. Fertility, pregnancy and lactation

Well-established use	Traditional use
Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended. No fertility data available.	Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended. No fertility data available.

4.7. Effects on ability to drive and use machines

Well-established use	Traditional use
May impair ability to drive and use machines. Affected patients should not drive or operate machinery.	May impair ability to drive and use machines. Affected patients should not drive or operate machinery.

4.8. Undesirable effects

Well-established use	Traditional use
Gastrointestinal symptoms (e.g. nausea, abdominal cramps) may occur. The frequency is not known. If other adverse reactions not mentioned above occur, a doctor or a pharmacist should be consulted.	Gastrointestinal symptoms (e.g. nausea, abdominal cramps) may occur. The frequency is not known. If other adverse reactions not mentioned above occur, a doctor or a pharmacist should be consulted.

4.9. Overdose

Well-established use	Traditional use
No case of overdose has been reported.	No case of overdose has been reported.

5. Pharmacological properties

5.1. Pharmacodynamic properties

Well-established use	Traditional use
Pharmacotherapeutic group: Hypnotics and sedatives.	Not required as per Article 16c(1)(a)(iii) of Directive 2001/83/EC.

Well-established use	Traditional use
ATC Code: N05CM. The mechanism of action is not known.	

5.2. Pharmacokinetic properties

Well-established use	Traditional use
No data available.	Not required as per Article 16c(1)(a)(iii) of Directive 2001/83/EC.

5.3. Preclinical safety data

Well-established use	Traditional use
Tests on reproductive toxicity, genotoxicity and carcinogenicity of the combination of valerian root and hop strobile have not been performed.	Not required as per Article 16c(1)(a)(iii) of Directive 2001/83/EC, unless necessary for the safe use of the product. Tests on reproductive toxicity, genotoxicity and carcinogenicity of the combination of valerian root and hop strobile have not been performed.

6. Pharmaceutical particulars

Well-established use	Traditional use
Not applicable	Not applicable

7. Date of compilation / last revision

25 September 2019