

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Dalacin 100 mg Vaginal Ovule

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Clindamycin phosphate equivalent to 100mg clindamycin.  
For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Pessary.

Semisolid, white to off-white pessaries.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic indications

Dalacin is indicated for the treatment of bacterial vaginosis (formerly referred to as *Haemophilus* vaginitis, *Gardnerella* vaginitis, nonspecific vaginitis, *Corynebacterium* vaginitis, or anaerobic vaginosis).

### 4.2 Posology and method of administration

#### Posology

The recommended dose is one ovule intravaginally at bedtime for three consecutive days. (see section 6.6).

#### *Older people*

The use of Dalacin Vaginal Ovule has not been studied in patients over 65 years of age.

#### *Patients with renal impairment*

The use of Dalacin Vaginal Ovule has not been studied in patients with impaired renal function.

#### *Paediatric population*

The safety and efficacy of Dalacin Vaginal Ovule in children under 16 years of age has not been established.

#### Method of administration

Dalacin should be administered intravaginally (see section 6.6).

Consideration should be given to official guidance on the appropriate use of antibacterial agents.

### 4.3 Contraindications

Hypersensitivity to the active substance, to lincomycin, or to any of the excipients listed in section 6.1.

Dalacin is also contraindicated in individuals with a history of antibiotic-associated colitis.

### 4.4 Special warnings and precautions for use

Before or after initiation of therapy with Dalacin, other infections including *Trichomonas vaginalis*, *Candida albicans*, *Chlamydia trachomatis* and gonococcal infections may need to be investigated by adequate laboratory tests.

The use of Dalacin may result in the overgrowth of nonsusceptible organisms, particularly yeasts.

Onset of symptoms suggestive of pseudomembranous colitis may occur during or after antimicrobial treatment (see section 4.8). Pseudomembranous colitis has been reported with nearly all antibacterial agents, including clindamycin, and may range in severity from mild to life-threatening. Therefore, it is important that this is considered in patients who present with diarrhoea subsequent to the administration of antibacterial agents. Moderate cases may improve following withdrawal of the drug.

Clindamycin treatment must be stopped if pseudomembranous diarrhoea occurs. An adequate antibacterial therapy should be prescribed. Drugs inhibiting peristalsis are contra-indicated in this situation.

Caution is advised in patients when prescribing Dalacin 100mg Vaginal Ovules to individuals with Inflammatory Bowel Disease such as Crohn's Disease or Ulcerative Colitis.

As with all vaginal infections, sexual intercourse during treatment with Dalacin Vaginal Ovule is not recommended. Latex condoms and diaphragms may be weakened if exposed to the suppository base used in Dalacin Vaginal Ovules (see section 6.2). The use of such products within 72 hours following treatment with Dalacin Vaginal Ovules is not recommended as such use could be associated with diminished contraceptive efficacy or protection against sexually transmitted disease.

The use of other vaginal products (such as tampons and douches) during the treatment with Dalacin Vaginal Ovule is not recommended.

Safety and efficacy studies have not been performed with Dalacin Vaginal Ovule in the following populations: pregnant, lactating women, patients with impaired hepatic function, immunodeficiency or colitis.

#### Paediatric population

Safety and efficacy of Dalacin Vaginal Ovule in paediatric patients has not been established (see section 4.2).

### **4.5 Interaction with other medicinal products and other forms of interaction**

No information is available on the concomitant use of other vaginal medications with Dalacin Vaginal Ovule.

Systemic clindamycin phosphate has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Therefore, it should be used with caution in patients receiving such agents (see sections 4.9 and 5.2).

### **4.6 Fertility, pregnancy and lactation**

#### Pregnancy

Studies in animals have shown reproductive toxicity (see section 5.3).

Use of Dalacin is not recommended during the first trimester, as there are no adequate and well-controlled studies in pregnant women over this period.

In clinical trials, intravaginal use of Dalacin Vaginal products in pregnant women during second trimester and systemic use of clindamycin phosphate during the second and third trimester has not been associated with congenital abnormalities.

Dalacin may be used to treat pregnant women if clearly necessary during the second and third trimester of pregnancy. Digital application of the vaginal ovule is recommended during pregnancy.

#### Breast-feeding

It is unknown whether clindamycin is excreted in human breast milk following vaginal administration, but it is used in much lower doses than systemic clindamycin, and approximately 30% (range: 6%-70%) is systemically absorbed. Following systemic use, clindamycin has been reported to appear in human breast milk in ranges from <0.5 to 3.8 µg/mL. If clindamycin is administered systemically to a breastfeeding mother, there is a risk for adverse effects on the breastfed infant's gastrointestinal flora such as diarrhoea or blood in the stool, or rash. Use of Dalacin vaginal ovules in a breastfeeding woman can be considered if the expected benefit to the mother outweighs the risks for the child.

#### Fertility

Studies in animals revealed no effect on fertility.

**4.7 Effects on ability to drive and use machines**

Dalacin has no or negligible influence on the ability to drive and use machines.

**4.8 Undesirable effects**

The safety of clindamycin vaginal ovules was evaluated in non-pregnant patients in clinical trials. Frequencies reported are as follows :

common ( $\geq 1/100$  to  $< 1/10$ ); Uncommon ( $\geq 1/1,000$  to  $< 1/100$ ).

<b>System Organ Class</b>	<b>Common <math>\geq 1/100</math> to <math>&lt; 1/10</math></b>	<b>Uncommon <math>\geq 1/1,000</math> to <math>&lt; 1/100</math></b>
<b>Infections and infestations</b>	Fungal infection, candida infection	
<b>Nervous system disorders</b>	Headache	
<b>Gastrointestinal disorders</b>	Abdominal pain, diarrhoea, nausea	Vomiting
<b>Skin and subcutaneous tissue disorders</b>	Pruritus (non-applicable site)	Rash
<b>Musculoskeletal and connective tissue disorders</b>		Flank pain
<b>Renal and urinary disorders</b>		Pyelonephritis, dysuria
<b>Reproductive system and breast disorders</b>	Vulvovaginal candidiasis, vulvovaginal pain, vulvovaginal disorder,	Vaginal infection, vaginal discharge, menstrual disorder
<b>General disorders and administration site conditions</b>		Application site pain, pruritus (topical applicable site), localized oedema, pain, pyrexia

Pseudomembranous colitis is a class event for antibacterials.

#### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2;

Tel: + 353 1 6764971

Fax : + 353 1 6762517

Website : <http://www.hpra.ie/>

E-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie)

#### **4.9 Overdose**

There are no reports of overdose with Dalacin Vaginal Ovule.

Vaginally applied clindamycin phosphate contained in Dalacin can be absorbed in sufficient amounts to produce systemic effects.

In the event of overdosage, general symptomatic and supportive measures are indicated as required.

Accidental oral intake can lead to effects comparable with those of therapeutic concentrations of orally administered clindamycin.

### **5 PHARMACOLOGICAL PROPERTIES**

#### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Antiinfectives and antiseptics, excl. combinations with corticosteroids, antibiotics, **ATC Code:**G01AA10.

#### Mechanism of action:

Clindamycin is a lincosamide antibiotic that inhibits bacterial protein synthesis at the level of the bacterial ribosome. The antibiotic binds preferentially to the 50S ribosomal subunit and affects the translation process. Although clindamycin phosphate is inactive *in vitro*, rapid *in vivo* hydrolysis converts this compound to the antibacterially active clindamycin.

Clindamycin, like most protein synthesis inhibitors, is predominantly bacteriostatic and efficacy is associated with the length of time the concentration of active ingredient remains above the MIC of the infecting organism.

Resistance to clindamycin is most often due to modification of the target site on the ribosome, usually by chemical modification of RNA bases or by point mutations in RNA or occasionally in proteins. Cross resistance has been demonstrated *in vitro* between lincosamides, macrolides and streptogramins B in some organisms. Cross resistance has been demonstrated between clindamycin and lincomycin.

#### Susceptibility *in vitro*:

Clindamycin is active *in vitro* against most strains of the following organisms that have been reported to be associated with bacterial vaginosis:

- *Bacteroides* spp.
- *Gardnerella vaginalis*
- *Mobiluncus* spp.
- *Mycoplasma hominis*
- *Peptostreptococcus* spp.

Standard methodology for the susceptibility testing of the potential bacterial vaginosis pathogens, *Gardnerella vaginalis* and *Mobiluncus* spp. has not been defined. Clindamycin susceptibility breakpoints for Gram-negative and Gram-positive anaerobes have been published by EUCAST. Clinical isolates that test susceptible to clindamycin and resistant to erythromycin should also be tested for inducible clindamycin resistance using the D-test. However, the breakpoints are intended to guide systemic, rather than localized, antibiotic treatment.

## 5.2 Pharmacokinetic properties

### Absorption

Systemic absorption of clindamycin was estimated following a once-a-day intravaginal dose of one clindamycin phosphate vaginal suppository (equivalent to 100 mg clindamycin) administered to 11 healthy female volunteers for 3 days. Approximately 30% (range 6% to 70%) of the administered dose was absorbed systemically on day 3 of dosing based on area under the concentration-time curve (AUC). Systemic absorption was estimated using a subtherapeutic 100 mg intravenous dose of clindamycin phosphate as a comparator in the same volunteers as well as a 100 mg dose of clindamycin phosphate vaginal cream. The mean AUC following day 3 of dosing with the suppository was 3.2  $\mu\text{g}\cdot\text{hr}/\text{mL}$  (range 0.42 to 11  $\mu\text{g}\cdot\text{hr}/\text{mL}$ ). The  $C_{\text{max}}$  observed on day 3 of dosing with the suppository averaged 0.27  $\mu\text{g}/\text{mL}$  (range 0.03 to 0.67  $\mu\text{g}/\text{mL}$ ) and was observed about 5 hours after dosing (range 1 to 10 hours). In contrast, the AUC and  $C_{\text{max}}$  after the single intravenous dose averaged 11  $\mu\text{g}\cdot\text{hr}/\text{mL}$  (range 5.1 to 26  $\mu\text{g}\cdot\text{hr}/\text{mL}$ ) and 3.7  $\mu\text{g}/\text{mL}$  (range 2.4 to 5.0  $\mu\text{g}/\text{mL}$ ), respectively. The mean apparent elimination half-life after dosing with the suppository was 11 hours (range 4 to 35 hours) and is considered to be limited by the absorption rate.

The results from this study showed that systemic exposure to clindamycin (based on AUC) from the suppository was, on average, three-fold lower than that from a single subtherapeutic 100 mg intravenous dose of clindamycin. Relative to a comparable dose of clindamycin vaginal cream, systemic absorption of the ovule was approximately 7-fold greater than that following dosing of the vaginal cream with average values of AUC and  $C_{\text{max}}$  of 0.4  $\mu\text{g}\cdot\text{hr}/\text{mL}$  (range 0.13 to 1.16  $\mu\text{g}\cdot\text{hr}/\text{mL}$ ) and 0.02  $\mu\text{g}/\text{mL}$  (range 0.01 to 0.07  $\mu\text{g}/\text{mL}$ ) respectively for the clindamycin vaginal cream. In addition, the recommended daily and total doses of intravaginal clindamycin suppository are far lower than those typically administered in oral or parenteral clindamycin therapy (100 mg of clindamycin per day for 3 days equivalent to about 30 mg absorbed per day from the ovule relative to 600 to 2700 mg/day for up to 10 days or more, orally or parenterally). The overall systemic exposure to clindamycin from clindamycin vaginal ovules is substantially lower than the systemic exposure from therapeutic doses of oral clindamycin hydrochloride (two-fold to 20-fold lower) or parenteral clindamycin phosphate (40-fold to 50-fold lower).

## 5.3 Preclinical safety data

### Toxicology:

Clindamycin phosphate (5 mg) suspended in a hard fat (a suppository base consisting of a mixture of glycerides of saturated fatty acids) suppository was tested in the ovariectomized rat model. The results indicated that the formulation caused mild vaginal irritation during treatment that quickly reversed after treatment was stopped.

### Carcinogenicity/Mutagenicity:

Long-term studies have not been performed in animals with clindamycin to evaluate carcinogenic potential. A rat micronucleus and an Ames genotoxicity test were negative.

### Toxicity to reproduction

Fertility studies in rats treated orally with up to 300mg/kg/day of clindamycin (31 times the human exposure based on  $\text{mg}/\text{m}^2$ ) revealed no effects on fertility or mating ability. No animal fertility studies have been performed using the vaginal route of administration.

In oral embryo-fetal development studies in rats and subcutaneous embryo-fetal development studies in rats and rabbits, embryo-fetal toxicity was observed at doses that produced maternal toxicity. In rats, maternal death occurred with exposure margins of approximately 400-fold relative to patient exposure. In rabbits, maternal toxicity, including abortions, occurred at

exposure margins of 50-fold relative to patient exposure. Embryo-fetal toxicity, including post-implantation loss and decreased viability, occurred in rabbits at exposure margins of 120-fold. Clindamycin was not teratogenic in rats and rabbits.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Hard Fat

### **6.2 Incompatibilities**

No information is available on concomitant use with other intravaginal products. The use of latex condoms is not recommended during therapy with Dalacin Vaginal Ovules. There are no data available regarding the effect of Dalacin Vaginal Ovule on latex diaphragms.

### **6.3 Shelf life**

Three years

### **6.4 Special precautions for storage**

Store below 25°C.

### **6.5 Nature and contents of container**

Three ovules are supplied in individually sealed laminated foil pouches (strip) packed in a box.

### **6.6 Special precautions for disposal and other handling**

Do not use this product if the foiled pouches containing vaginal ovules are torn, opened, or incompletely sealed.

Insertion:

- Remove the ovule from the foil pouch.
- Lie on your back with your knees drawn up to your chest.
- Insert the ovule into the vagina with the tip of your third (middle) finger as far as possible without causing discomfort.

## **7 MARKETING AUTHORISATION HOLDER**

Pfizer Healthcare Ireland  
9 Riverwalk  
National Digital Park  
Citywest Business Campus  
Dublin 24  
Ireland

## **8 MARKETING AUTHORISATION NUMBER**

PA0822/119/001

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 21st December 1998

Date of last renewal: 22nd May 2006

## **10 DATE OF REVISION OF THE TEXT**

July 2021