Summary of Product Characteristics for Pharmaceutical Products

1. Name of the medicinal product:

Poxicam 0.5% Gel

2. Qualitative and quantitative composition

Each 1 g of gel contains 5 mg of piroxicam (0.5% w/w).
For the full list of excipients, see section 6.1.

3. Pharmaceutical form

Gel.

4. Clinical particulars

4.1 Therapeutic indications

Piroxicam gel is a non-steroidal anti-inflammatory agent indicated for a variety of conditions characterised by pain, inflammation or stiffness. It is effective in the treatment of osteoarthritis of superficial joints such as the knee, acute musculoskeletal injuries, periarthritis, epicondylitis, tendinitis and tenosynovitis.

4.2 Posology and method of administration

Posology

No occlusive dressings should be used. Apply 1g of gel, corresponding to 3cm, and rub into the affected site three to four times daily leaving no residual material on the skin Therapy should be reviewed after 4 weeks.

Paediatric population

Dosage recommendations and indications for the use of piroxicam gel in children have not been established.

Elderly

No special precautions are required.

Method of administration

Piroxicam gel is for external use only.

4.3 Contraindications

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

The potential exists for cross-sensitivity to aspirin and other non-steroidal anti-inflammatory agents. Piroxicam gel should not be given to patients in whom aspirin and other non-steroidal anti-inflammatory agents induce the symptoms of asthma, nasal polyps, angioneurotic oedema or urticaria.

4.4 Special warnings and precautions for use

Piroxicam 0.5% gel is not suitable for use in children under 12 years of age. The gel should not be used for any condition other than those specified.

Life-threatening cutaneous reactions (Stevens-Johnson syndrome and toxic epidermal necrolysis) have been reported with the systemic administration of piroxicam. These reactions have not been associated with topical piroxicam, but the possibility of their occurring cannot be excluded. Patients should be advised of the signs and symptoms and monitored closely for skin reactions; the highest risk of occurrence is within the first weeks of treatment. If symptoms or signs are present (e.g. progressive skin rash, often with blisters or mucosal lesions), piroxicam treatment should be discontinued. The best results in managing these reactions come from early diagnosis and immediate discontinuation of any suspect medicinal product; early withdrawal is associated with a better prognosis. If a patient has developed Stevens-Johnson syndrome or toxic epidermal necrolysis with the use of piroxicam, piroxicam must not be restarted in that patient at any time.

Keep away from the eyes and mucosal surfaces. Do not apply to any sites affected by open skin lesions, dermatoses or infection. If local irritation develops, use of the gel should be discontinued and appropriate therapy instituted as necessary.

Non-steroidal anti-inflammatory medicinal products, including piroxicam, may cause interstitial nephritis, nephrotic syndrome and renal failure. There have also been reports of these events with topical piroxicam; although a causal relationship with treatment has not been established, the possibility that these events may be related to the use of topical piroxicam cannot be ruled out.

Patients should be instructed not to smoke or go near naked flames, because of the risk of severe burns. Fabric (clothing, bedding, dressings and similar) that has been in contact with this product burns more easily and is a serious fire hazard. Washing clothing and bedding may reduce product build-up but will not remove it entirely.

This medicinal product contains propylene glycol and may cause skin irritation. If local irritation develops, the use of the gel should be discontinued and appropriate therapy instituted as necessary

4.5 Interaction with other medicinal products and other forms of interaction

Dose-dependent percutaneous absorption of piroxicam has been demonstrated in rabbits and there is a theoretical possibility of systemic interactions or effects.

For example, oral piroxicam has been reported to potentiate the anticoagulant effect of dicoumarol because of its effect on platelets. It can cause sodium, potassium and fluid retention and may interfere with the natriuretic action of diuretic agents, and thus aggravate or precipitate heart failure.

Under conditions of solar or ultraviolet irradiation of treated exposed skin, phototoxic products may evolve which may induce cross-sensitivity reactions to thiomersal (sodium ethylmercurithiosalicylate) or thiosalicylic acid in the case of relevant allergy.

Sodium bisulphite, when used as a food additive, reduces the content of thiamine.

4.6 Pregnancy and Lactation

Fertility

Based on the mechanism of action, the use of non-steroidal anti-inflammatory medicinal products, including piroxicam, may delay or prevent rupture of ovarian follicles, which has been associated with reversible infertility in some women. In women who have difficulties conceiving or who are undergoing investigation of infertility, withdrawal of non-steroidal anti-inflammatory medicinal products, including piroxicam, should be considered.

Pregnancy

There are no studies of the use of topical piroxicam in pregnant women. Studies in animals have shown reproductive toxicity with the systemic formulations (see section 5.3), but their relevance to the use of topical formulations in pregnant women is unknown. As a precautionary measure, it is preferable to avoid the use of topical piroxicam in pregnant women.

Inhibition of prostaglandin synthesis might adversely affect pregnancy. Data from epidemiological studies suggest an increased risk of spontaneous abortion after use of prostaglandin synthesis inhibitors in early pregnancy. In animals, administration of prostaglandin synthesis inhibitors has been shown to result in increased pre- and post-implantation loss. The use of piroxicam gel during pregnancy is therefore not recommended.

Breast-feeding

Piroxicam gel is not recommended for use in nursing mothers, as clinical safety has not been established.

4.7 Effects on ability to drive and use machines

Not relevant.

4.8 Undesirable effects

Piroxicam gel is well tolerated. Mild to moderate local irritation, erythema, pruritus and dermatitis may occur at the application site.

The systemic absorption of piroxicam 0.5% gel is very low. In common with other topical non-steroidal anti-inflammatory medicinal products, systemic reactions occur infrequently.

Gastrointestinal disorders

Nausea, dyspepsia, abdominal pain and gastritis have been reported.

Respiratory, thoracic and mediastinal disorders

There have been isolated reports of bronchospasm and dyspnoea (see also section 4.3).

Skin and subcutaneous tissue disorders

Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported very rarely (see section 4.4). Contact dermatitis, eczema and photosensitivity skin reactions have also been observed from post-marketing experience.

Reporting of suspected adverse reactions

Healthcare professionals are asked to report any suspected adverse reactions via the Pharmacy and Poisons Board, Pharmacovigilance Electronic Reporting System (PvERS): https://pv.pharmacyboardkenya.org

4.9 Overdose

Overdose is unlikely to occur with this topical preparation.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: anti-inflammatory preparations, non-steroids for topical use. ATC code: M02AA07.

Piroxicam is a non-steroidal anti-inflammatory agent useful in the treatment of inflammatory conditions. Although the mode of action is not precisely understood, piroxicam inhibits prostaglandin synthesis and release through a reversible inhibition of the cyclo-oxygenase enzyme.

Data on the anti-inflammatory and analgesic effects of piroxicam gel compared with its vehicle and with indometacin 1% gel in rats and guinea pigs have been presented. Using established animal models of pain and inflammation, piroxicam gel was as effective as oral piroxicam and indometacin 1% gel, and significantly more effective than its vehicle.

5.2 Pharmacokinetic properties

A study in man examining skin biopsies following piroxicam gel administration concluded that piroxicam rapidly permeates through the stratum corneum into the epidermis and dermis after application of the gel, with plasma levels being low.

A separate study in man demonstrated mean plasma concentrations following piroxicam gel to be approximately 5% of those observed after equivalent doses of oral or intramuscular piroxicam.

In healthy subjects or patients following the administration of a single oral dose, the pharmacokinetics of piroxicam are linear, with maximum plasma concentration usually obtained in about 2 hours, although this can vary from 1 to 6 hours between subjects. It has a low clearance rate, and the half-life can vary from 30 to 60 hours. After repeated doses of 20 mg daily, steady-state concentrations are generally achieved in 7 to 12 days.

In humans, piroxicam penetrates into the synovial fluid of patients with rheumatoid arthritis, osteoarthritis and reactive synovitis, where mean concentrations are approximately 40% of those in plasma; it is also demonstrable in synovial tissues. Concentrations of piroxicam in breast milk are about 1% of those in maternal plasma at the same time. Overall, piroxicam is 99% bound to plasma protein. The pharmacokinetics do not appear to be age related, and renal function has only a limited influence on elimination, but plasma concentrations are increased in patients with severe liver dysfunction.

Piroxicam is eliminated by biotransformation in the liver. The major route is by hydroxylation, with the resultant products excreted alone or as a glucuronide in urine and faeces. The metabolites of piroxicam have little

or no anti-inflammatory activity in animal models. Approximately 10% of an oral dose is excreted as unchanged drug in 10 days.

5.3 Preclinical safety data

In reproductive toxicity studies, piroxicam increases the incidence of dystocia and delayed parturition in animals when administration is continued during pregnancy. Administration of prostaglandin synthesis inhibitors has also been shown to result in increased pre- and post-implantation loss. These observations were made using parenteral dosing and, as noted in section 5.2, equilibrium plasma levels of piroxicam obtained in patients using the topical gel are only approximately 5% of those achieved using an equivalent dose of parenteral product.

In animal studies with the topical gel, there were no treatment-related adverse effects using 1 gram of gel daily for up to 30 days, nor was there evidence of photo-allergy or skin sensitisation.

6. Pharmaceutical Particulars

6.1 List of Excipients

Carbomer
Trolamine
Disodium edetate
Propylene glycol
Purified water

6.2 Incompatibilities

The metabolism of Piroxicam is inhibited by cimetidine and it itself can inhibit antipyrine metabolism.

6.3 Shelf-Life

24 months.

6.4 Special Precautions for storage

Do not store above 25°C. Keep the tube tightly closed.

6.5 Nature and Content of container

Aluminium tubes with an inner protective lacquer and polypropylene screw caps. Each tube contains 25 g of gel.

6.6 Special precautions for disposal and other handling

Pierce the tube by reversing the cap and screwing down to break the seal on the tube. Apply 3cm (1¼" approximately) of the gel on the affected area. Rub the gel into the skin until the gel disappears. Do this three or four times a day. For muscle sprains and strains, you should start to feel better within one week. If the pain has not got any less after a week, tell your pharmacist or doctor. Replace the cap after use.

Wash hands after each application unless it is the hand that is being treated.

7. Marketing Authorization Holder
Bio-Labs (Pvt) Ltd.
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8. Marketing Authorization Number
H2022/CTD9451/19797

9. Date of first authorization/renewal of the authorization
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10. Date of revision of the text
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