PRODUCT INFORMATION
ORUDIS® 2.5% w/w GEL

NAME OF THE MEDICINE

Non-proprietary Name
Ketoprofen

DESCRIPTION
Ketoprofen is DL-2-(3-benzoylphenyl) propionic acid. It is a white or off-white powder with melting point of about 93°C. MW: 254.3. Ketoprofen is very slightly soluble in water at 20°C, 2% soluble in dimethylformide and readily soluble in benzene, ethanol, chloroform, acetone and ethyl acetate at 20°C. Orudis 2.5% Gel is a colourless, non-greasy, non-staining gel for topical application only. Excipients are lavender oil, carbomer 980, triethanolamine, alcohol and water.

PHARMACOLOGY
Ketoprofen is a non-steroidal anti-inflammatory drug of the propionic acid group derived from arylcarboxylic acid. It has anti-inflammatory and analgesic action. Ketoprofen has been shown to have inhibitory effects on prostaglandin synthesis, to have antibradykinin activity, as well as to have lysosomal membrane-stabilising action.

Pharmacokinetics

Absorption
Applied locally as a gel, ketoprofen is absorbed very slowly through intact skin and there is minimum likelihood of accumulation in the body.

Distribution
The plasma concentration attained on the 10th day of treatment with ketoprofen gel was 200µg/L. No accumulation observed.

Elimination
Ketoprofen is mainly excreted in the urine. The apparent half-life of ketoprofen administered as a gel is 17 hours which is much longer than the elimination half-life following oral administration (t½ = 1-2 hours). The apparently long elimination half-life would appear to correspond to absorption of ketoprofen across the cutaneous surface. The bioavailability of the gel relative to oral forms of ketoprofen is approximately 5%, enabling a local effect without significant systemic activity.

INDICATIONS
The short term (up to 7 days) treatment of musculo-skeletal inflammation and injury, such as sports injuries, sprains, tendinitis, musculotendinous contusions, swelling and post-traumatic pain.

CONTRAINDICATIONS
Proven allergy to ketoprofen or to other non-steroidal anti-inflammatory agents including aspirin. The gel shall not be used in patients with history of hypersensitivity to one of the excipients. Do not use on skin conditions such as eczema or acne; or infected skin or open wounds. Ketoprofen is also contraindicated during the third trimester of pregnancy.
PRECAUTIONS

Although plasma levels after administration of ketoprofen gel are much lower than those reached after oral administration, caution should still be exercised in patients with a history of or active gastrointestinal bleeding, peptic ulcer, inflammatory disease of the gastrointestinal tract or severe renal impairment.

Should a skin rash occur after gel application, cease treatment.

Do not apply to mucous membranes, eyes, broken skin, exudative dermatoses, eczema, infected skin lesions or sores.

Although systemic effects are minimal, the gel should be used with caution in patients with reduced heart, liver and renal function.

As is the case with other non-steroidal anti-inflammatory drugs, ketoprofen does not cure the underlying disease and may mask the usual signs of infection.

The gel should not be used with occlusive dressings.

Direct sunlight, including solarium, should be avoided during treatment and for two weeks following treatment.

Use In Pregnancy

Category C.

No embryopathic effects have been demonstrated in animals and there is epidemiological evidence of the safety of ketoprofen in human pregnancy. Nevertheless, it is recommended that ketoprofen should be avoided during pregnancy. Non-steroidal anti-inflammatory drugs may also delay labour.

During the third trimester of pregnancy, all prostaglandin synthetase inhibitors including ketoprofen, may induce cardiopulmonary and renal toxicity in the foetus. At the end of pregnancy, prolonged bleeding time in both mother and child may occur. Therefore, ketoprofen is contraindicated in the last trimester of pregnancy.

Use In Lactation

Trace amounts of ketoprofen are excreted in breast milk, following oral administration, therefore Orudis Gel should not be used during lactation.

Paediatric Use

Not recommended as safety in children has not been established.

Interactions with Other Medicines

As the plasma levels following administration of ketoprofen gel are low, interactions with other drugs are less likely than with oral administration. Nevertheless, it would be wise to use with caution when used concomitantly with diuretics, anticoagulants and aspirin. The combination of ketoprofen with probenecid or methotrexate is not recommended.

Warfarin: Concurrent use of NSAIDs and warfarin has been associated with severe, sometimes fatal haemorrhage. The exact mechanism of the interaction between NSAIDs and warfarin is unknown, but may involve enhanced bleeding from NSAID-induced gastrointestinal ulceration, or an additive effect of anticoagulation by warfarin and inhibition of platelet function by NSAIDs. Ketoprofen should be used in combination with warfarin only if absolutely necessary, and patients taking this combination of drugs should be closely monitored.

ADVERSE EFFECTS

Allergic skin reactions, including pruritus, eczema and localised erythema have occurred, particularly during exposure to sunlight or UV light (see CONTRAINDICATIONS). It is recommended that exposure to UV light should be avoided during treatment with ketoprofen gel.

Very rare cases of aggravation of previous renal insufficiency have been reported.
DOSAGE AND ADMINISTRATION
Gently massage sufficient gel (for example, a circular mass the size of a 50 cent coin for a knee injury) into the affected area 2-4 times daily for up to 7 days.

OVERDOSAGE
The risk of overdosage is minimal with topical application. If accidentally ingested, the gel may cause systemic adverse effects depending on the amount ingested. If overdosage should occur, treat symptomatically and supportive. Contact the Poisons Information Centre for advice on management of overdosage.

PRESENTATION AND STORAGE CONDITIONS
Colourless, transparent gel in 30g tube and 60g tube. Store below 25°C in a dry place. Protect from light.

NAME AND ADDRESS OF THE SPONSOR
sanofi-aventis australia pty ltd
12-24 Talavera Road
Macquarie Park NSW 2113
AUSTRALIA

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