

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Difene ampoules 75 mg/3 ml Solution for Injection or Concentrate for Solution for Infusion

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Diclofenac sodium 75mg/3ml

Each millilitre of solution for injection contains 25mg of diclofenac sodium

Excipients with known effect: benzyl alcohol [105mg/3ml per ampoule (35mg/ml)]

For list of excipients, see section 6.1 List of excipients.

## 3 PHARMACEUTICAL FORM

Solution for intramuscular injection or concentrate for solution for infusion.

A clear colourless solution.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

#### Intramuscular use:

Difene can be used in the symptomatic management of acute exacerbation of rheumatoid arthritis and osteoarthritis, in acute back pain, acute gout, post operative pain, relief of pain in acute traumatic musculo-skeletal disorders and fractures and renal colic.

#### Intravenous infusion:

For the treatment or prevention of post-operative pain in the hospital setting.

### 4.2 Posology and method of administration

For intravenous infusion or intramuscular use only.

For Instruction on dilution of the product before IV administration, see section 6.6.

Renal colic: One 75 mg ampoule intramuscularly. A further ampoule may be administered after 30 minutes if necessary.

As with oral Difene the total daily dose should not exceed 150 mg. Difene ampoules should not be given for more than 2 days; if necessary, treatment can be continued with capsules or suppositories.

Elderly: NSAIDs should be used with particular caution in elderly patients who are more prone to adverse events. The lowest dose compatible with adequate safe clinical control should be employed. See also *section 4.4, Special warnings and precautions for use*.

Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms (*see section 4.4, Special warnings and precautions for use*).

Treatment should be reviewed at regular intervals and discontinued if no benefit is seen or intolerance occurs.

Children: Not suitable for children

### 4.3 Contraindications

- Known hypersensitivity to the active substance, sodium metabisulphite or to any of the excipients.
- Active gastric or intestinal ulcer, bleeding or perforation.
- History of gastrointestinal bleeding or perforation, related to previous NSAIDs therapy. Active, or history of recurrent peptic ulcer/haemorrhage (two or more distinct episodes of proven ulceration or bleeding)
- Last trimester of pregnancy (see section 4.6, Fertility, pregnancy and lactation).
- Severe hepatic, renal or cardiac failure (see section 4.4, Special warnings and precautions for use).
- Like other non-steroidal anti-inflammatory drugs (NSAIDs), diclofenac is also contraindicated in patients in whom attacks of asthma, urticaria, or acute rhinitis are precipitated by acetylsalicylic acid or other NSAIDs

### 4.4 Special warnings and precautions for use

#### General

Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms (see 4.2, and GI and cardiovascular risks below).

The concomitant use of diclofenac with systemic NSAIDs including cyclooxygenase-2 selective inhibitors should be avoided due to the absence of any evidence demonstrating synergistic benefits and the potential for additive undesirable effects.

Caution is indicated in the elderly on basic medical grounds. In particular, it is recommended that the lowest effective dose be used in frail elderly patients or those with a low body weight.

As with other NSAIDs, allergic reactions, including anaphylactic/anaphylactoid reactions, can also occur in rare cases with diclofenac without earlier exposure to the drug.

Like other NSAIDs, diclofenac may mask the signs and symptoms of infection due to its pharmacodynamic properties.

The sodium metabisulphite present in solution for injection can also lead to isolated severe hypersensitivity reactions and bronchospasm.

diclofenac solution for injection must not be given to premature babies or neonates. Benzylalcohol may cause toxic reactions and anaphylactoid reactions in infants and children up to 3 years of age.

#### Gastrointestinal effects

Gastrointestinal bleeding, ulceration or perforation, which can be fatal, has been reported with all NSAIDs, including diclofenac, and may occur at any time during treatment, with or without warning symptoms or a previous history of serious gastrointestinal events. They generally have more serious consequences in the elderly. If gastrointestinal bleeding or ulceration occurs in patients receiving diclofenac, the medicinal product should be withdrawn.

As with all NSAIDs, including diclofenac, close medical surveillance is imperative and particular caution should be exercised when prescribing diclofenac in patients with symptoms indicative of gastrointestinal (GI) disorders or with a history suggestive of gastric or intestinal ulceration, bleeding or perforation (see 4.8). The risk of GI bleeding is higher with increasing NSAID doses and in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation. The elderly have an increased frequency of adverse reactions to NSAIDs especially gastrointestinal bleeding and perforation which may be fatal.

To reduce the risk of GI toxicity in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation, and in the elderly, the treatment should be initiated and maintained at the lowest effective dose.

Combination therapy with protective agents (e.g. proton pump inhibitors or misoprostol) should be considered for these patients, and also for patients requiring concomitant use of medicinal products containing low-dose acetylsalicylic acid (ASA)/aspirin or other medicinal products likely to increase gastrointestinal risk.

Patients with a history of GI toxicity, particularly the elderly, should report any unusual abdominal symptoms (especially GI bleeding). Caution is recommended in patients receiving concomitant medications which could increase the risk of ulceration or bleeding, such as systemic corticosteroids, anticoagulants, anti-platelet agents or selective serotonin-reuptake inhibitors (see section 4.5, Interaction with other medicinal products and other forms of interaction).

Close medical surveillance and caution should also be exercised in patients with ulcerative colitis or Crohn's disease, as their condition may be exacerbated (see 4.8, Undesirable effects).

### **Hepatic effects**

Close medical surveillance is required when prescribing diclofenac to patients with impaired hepatic function, as their condition may be exacerbated.

As with other NSAIDs, including diclofenac, values of one or more liver enzymes may increase. During prolonged treatment with diclofenac, regular monitoring of hepatic function is indicated as a precautionary measure. If abnormal liver function tests persist or worsen, if clinical signs or symptoms consistent with liver disease develop, or if other manifestations occur (e.g. eosinophilia, rash), diclofenac should be discontinued. Hepatitis may occur with use of diclofenac without prodromal symptoms.

Caution is called for when using diclofenac in patients with hepatic porphyria, since it may trigger an attack.

### **Renal effects**

As fluid retention and oedema have been reported in association with NSAID therapy, including diclofenac, particular caution is called for in patients with impaired cardiac or renal function, history of hypertension, the elderly, patients receiving concomitant treatment with diuretics or medicinal products that can significantly impact renal function, and in those patients with substantial extracellular volume depletion from any cause, e.g. before or after major surgery (see 4.3). Monitoring of renal function is recommended as a precautionary measure when using diclofenac in such cases. Discontinuation of therapy is usually followed by recovery to the pre-treatment state.

### **Skin effects**

Serious skin reactions, some of them fatal, including exfoliative dermatitis, Stevens-Johnson syndrome, and toxic epidermal necrolysis, have been reported very rarely in association with the use of NSAIDs (see section 4.8, Undesirable effects). Patients appear to be at highest risk for these reactions early in the course of therapy: the onset of the reaction occurring in the majority of cases within the first month of treatment. diclofenac should be discontinued at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity.

### **Cardiovascular and cerebrovascular effects**

Appropriate monitoring and advice are required for patients with a history of hypertension and/or mild to moderate congestive heart failure as fluid retention and oedema have been reported in association with NSAID therapy.

Clinical trial and epidemiological data suggest that use of diclofenac (particularly at high doses, 150mg daily and in long term treatment) may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke).

Patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease should only be treated with < *diclofenac* after careful consideration. Similar consideration should be made before initiating longer-term treatment of patients with risk factors for cardiovascular disease (e.g. hypertension, hyperlipidaemia, diabetes mellitus, and smoking).

### **Haematological effects**

During prolonged treatment with diclofenac, as with other NSAIDs, monitoring of the blood count is recommended.

Like other NSAIDs, diclofenac may temporarily inhibit platelet aggregation. Patients with defects of haemostasis should be carefully monitored

### **Pre-existing asthma**

In patients with asthma, seasonal allergic rhinitis, swelling of the nasal mucosa (i.e. nasal polyps), chronic obstructive pulmonary diseases or chronic infections of the respiratory tract (especially if linked to allergic rhinitis-like symptoms), reactions on NSAIDs like asthma exacerbations (so-called intolerance to analgesics / analgesics-asthma), Quincke's oedema or urticaria are more frequent than in other patients. Therefore, special precaution is recommended in such

patients (readiness for emergency). This is applicable as well for patients who are allergic to other substances, e.g. with skin reactions, pruritus or urticaria.

Special caution is recommended when diclofenac is used parenterally in patients with bronchial asthma because symptoms may be exacerbated.

Contains benzyl alcohol 35mg/ml (105mg/3ml ampoule). May cause toxic reactions and anaphylactoid reactions in infants and children up to 3 years old.

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

The following interactions include those observed with Diclofenac gastro-resistant tablets and/or other pharmaceutical forms of diclofenac.

**Lithium:** If used concomitantly, diclofenac may raise plasma concentrations of lithium. Monitoring of the serum lithium level is recommended.

**Digoxin:** If used concomitantly, diclofenac may raise plasma concentrations of digoxin. Monitoring of the serum digoxin level is recommended.

**Diuretics and antihypertensive agents:** Like other NSAIDs, concomitant use of diclofenac with diuretics or antihypertensive agents (e.g. beta-blockers, angiotensin converting enzyme (ACE) inhibitors) may cause a decrease in their antihypertensive effect. Therefore, the combination should be administered with caution and patients, especially the elderly, should have their blood pressure periodically monitored. Patients should be adequately hydrated and consideration should be given to monitoring of renal function after initiation of concomitant therapy and periodically thereafter, particularly for diuretics and ACE inhibitors due to the increased risk of nephrotoxicity. Concomitant treatment with potassium-sparing drugs may be associated with increased serum potassium levels, which should therefore be monitored frequently (see 4.4).

**Other NSAIDs and corticosteroids:** Concomitant administration of diclofenac and other systemic NSAIDs or corticosteroids may increase the frequency of gastrointestinal undesirable effects (see 4.4).

**Anticoagulants and anti-platelet agents:** Caution is recommended since concomitant administration could increase the risk of bleeding (see 4.4). Although clinical investigations do not appear to indicate that diclofenac affects the action of anticoagulants, there are isolated reports of an increased risk of haemorrhage in patients receiving diclofenac and anticoagulants concomitantly. Close monitoring of such patients is therefore recommended.

**Selective serotonin reuptake inhibitors (SSRIs):** Concomitant administration of systemic NSAIDs, including diclofenac, and SSRIs may increase the risk of gastrointestinal bleeding (see 4.4).

**Antidiabetics:** Clinical studies have shown that diclofenac can be given together with oral antidiabetic agents without influencing their clinical effect. However, there have been isolated reports of both hypoglycaemic and hyperglycaemic effects necessitating changes in the dosage of the antidiabetic agents during treatment with diclofenac. For this reason, monitoring of the blood glucose level is recommended as a precautionary measure during concomitant therapy.

**Methotrexate:** Diclofenac can inhibit the tubular renal clearance of methotrexate hereby increasing methotrexate levels. Caution is recommended when NSAIDs, including diclofenac, are administered less than 24 hours before or after treatment with methotrexate, since blood concentrations of methotrexate may rise and the toxicity of this substance be increased.

**Ciclosporin:** Diclofenac, like other NSAIDs, may increase the nephrotoxicity of ciclosporin due to the effect on renal prostaglandins. Therefore, it should be given at doses lower than those that would be used in patients not receiving ciclosporin.

**Quinolone antibacterials:** There have been isolated reports of convulsions which may have been due to concomitant use of quinolones and NSAIDs.

**Phenytoin:** When using phenytoin concomitantly with diclofenac, monitoring of phenytoin plasma concentrations is recommended due to an expected increase in exposure to phenytoin.

**Colestipol and cholestyramine:** These agents can induce a delay or decrease in absorption of diclofenac. Therefore, it is recommended to administer diclofenac at least one hour before or 4 to 6 hours after administration of colestipol/cholestyramine.

**Potent CYP2C9 inhibitors:** “Caution is recommended when co-prescribing diclofenac with potent CYP2C9 inhibitors (such as sulfinpyrazone and voriconazole), which could result in a significant increase in peak plasma concentration and exposure to diclofenac due to inhibition of diclofenac metabolism.

**Aminoglycosides:** Reduction in renal function in susceptible individuals, decreased elimination of aminoglycoside and increased plasma concentrations.

**Probenecid:** Reduction in metabolism and elimination of NSAID and metabolites.

## 4.6 Fertility, pregnancy and lactation

### Pregnancy

Inhibition of prostaglandin synthesis may adversely affect the pregnancy and/or the embryo/foetal development. Data from epidemiological studies suggest an increased risk of miscarriage and of cardiac malformation and gastroschisis after use of a prostaglandin synthesis inhibitor in early pregnancy. The absolute risk for cardiovascular malformation was increased from less than 1%, up to approximately 1.5 %.

The risk is believed to increase with dose and duration of therapy. In animals, administration of a prostaglandin synthesis inhibitor has been shown to result in increased pre- and post-implantation loss and embryo-foetal lethality. In addition, increased incidences of various malformations, including cardiovascular, have been reported in animals given a prostaglandin synthesis inhibitor during the organogenetic period. During the first and second trimester of pregnancy, diclofenac should not be given unless clearly necessary. If diclofenac is used by a woman attempting to conceive, or during the first and second trimester of pregnancy, the dose should be kept as low and duration of treatment as short as possible.

During the third trimester of pregnancy, all prostaglandin synthesis inhibitors may expose the foetus to:

- cardiopulmonary toxicity (with premature closure of the ductus arteriosus and pulmonary hypertension);
  - renal dysfunction, which may progress to renal failure with oligo-hydroamniosis;
- the mother and the neonate, at the end of pregnancy, to:
- possible prolongation of bleeding time, an anti-aggregating effect which may occur even at very low doses.
  - inhibition of uterine contractions resulting in delayed or prolonged labour.

Consequently, diclofenac is contraindicated during the third trimester of pregnancy.

### Lactation

Like other NSAIDs, diclofenac passes into the breast milk in small amounts. Therefore, diclofenac should not be administered during breast feeding in order to avoid undesirable effects in the infant.

### Fertility

As with other NSAIDs, the use of diclofenac may impair female fertility and is not recommended in women attempting to conceive. In women who have difficulties conceiving or who are undergoing investigation of infertility, withdrawal of diclofenac should be considered.

## 4.7 Effects on ability to drive and use machines

Patients experiencing visual disturbances, dizziness, vertigo, somnolence or other central nervous system disturbances while taking diclofenac, should refrain from driving or using machines.

## 4.8 Undesirable effects

Adverse reactions (Table 1) are ranked under heading of frequency, the most frequent first, using the following convention: very common: ( $>1/10$ ); common ( $\geq 1/100$ ,  $<1/10$ ); uncommon ( $\geq 1/1,000$ ,  $<1/100$ ); rare ( $\geq 1/10,000$ ,  $<1/1,000$ ); very rare ( $<1/10,000$ ); Not known: cannot be estimated from the available data.

The following undesirable effects include those reported with either short-term or long-term use.

**Table 1**

<b>Blood and lymphatic system disorders</b>	
Very rare	Thrombocytopenia, leukopenia, anaemia (including haemolytic and aplastic anaemia), agranulocytosis.
<b>Immune system disorders</b>	
Rare	Hypersensitivity, anaphylactic and anaphylactoid reactions (including hypotension and shock).
Very rare	Angioneurotic oedema (including face oedema).
<b>Psychiatric disorders</b>	
Very rare	Disorientation, depression, insomnia, nightmare, irritability, psychotic disorder.
<b>Nervous system disorders</b>	
Common	Headache, dizziness.
Rare	Somnolence, tiredness
Very rare	Paraesthesia, memory impairment, convulsion, anxiety, tremor, aseptic meningitis, taste disturbances, cerebrovascular accident.
<b>Eye disorders</b>	
Very rare	Visual disturbance, vision blurred, diplopia.
<b>Ear and labyrinth disorders</b>	
Common	Vertigo.
Very rare	Tinnitus, hearing impaired.
<b>Cardiac disorders</b>	
Very rare	Palpitations, chest pain, cardiac failure, myocardial infarction.
<b>Vascular disorders</b>	
Very rare	Hypertension, vasculitis.
<b>Respiratory, thoracic and mediastinal disorders</b>	
Rare	Asthma (including dyspnoea).
Very rare	Pneumonitis.
<b>Gastrointestinal disorders</b>	
Common	Nausea, vomiting, diarrhoea, dyspepsia, abdominal pain, flatulence, anorexia.
Rare	Gastritis, gastrointestinal haemorrhage, haematemesis, diarrhoea haemorrhagic, melaena, gastrointestinal ulcer (with or without bleeding or perforation).
Very rare	Colitis (including haemorrhagic colitis and exacerbation of ulcerative colitis or Crohn's disease), constipation, stomatitis (including ulcerative stomatitis), glossitis, oesophageal disorder, diaphragm-like intestinal strictures,

	pancreatitis.
<b>Hepatobiliary disorders</b>	
Common Rare Very rare	Transaminases increased. Hepatitis, jaundice, liver disorder. Fulminant hepatitis, hepatic necrosis, hepatic failure.
<b>Skin and subcutaneous tissue disorders</b>	
Common Rare Very rare	Rash. Urticaria. Bullous eruptions, eczema, erythema, erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis (Lyell's syndrome), dermatitis exfoliative, loss of hair, photosensitivity reaction, purpura , allergic purpura, pruritus.
<b>Renal and urinary disorders</b>	
Very rare	Acute renal failure, haematuria, proteinuria, nephrotic syndrome, interstitial nephritis, renal papillary necrosis.
<b>General disorders and administration site conditions</b>	
Common   Rare	Injection site reaction, injection site pain, injection site induration Application site irritation. Oedema Injection site necrosis.
<b>Infections and infestations</b>	
Very rare	Injection site abscess.

Clinical trial and epidemiological data suggest that use of diclofenac, particularly at high doses (150 mg daily) and in long term treatment may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke) (see 4.4, Special warnings and precautions for use ).

## 4.9 Overdose

### Symptoms

There is no typical clinical picture resulting from diclofenac over dosage. Over dosage can cause symptoms such as vomiting, gastrointestinal haemorrhage, diarrhoea, dizziness, tinnitus or convulsions. In the event of significant poisoning, acute renal failure and liver damage are possible.

### Therapeutic measures

Management of acute poisoning with NSAIDs, including diclofenac, essentially consists of supportive measures and symptomatic treatment. Supportive measures and symptomatic treatment should be given for complications such as hypotension, renal failure, convulsions, gastrointestinal disorder, and respiratory depression.

Special measures such as forced diuresis, dialysis or haemo-perfusion are probably of no help in eliminating NSAIDs, including diclofenac, due to the high protein binding and extensive metabolism.

## 5 PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamic properties

Diclofenac sodium is a phenylacetic acid derivative and a non-steroidal anti-inflammatory agent with analgesic, anti-inflammatory and anti-pyretic properties. Diclofenac is an inhibitor of cyclo-oxygenase and therefore reduces

prostaglandin synthesis. Reduction in prostaglandin levels reduces the inflammatory response by the body.

## 5.2 Pharmacokinetic properties

### ***Absorption:***

Absorption is complete but onset is delayed until passage through the stomach, which may be affected by food which delays stomach emptying. The mean peak plasma diclofenac concentrations reached at about 2 hours (50mg dose produces  $1.48 \pm 0.65$ g/ml (1.5g/ml 5mol/l)).

### ***Bioavailability:***

About half of the administered diclofenac is metabolised during its first passage through the liver ("first-pass" effect), the area under the concentrations curve (AUC) following oral administration is about half that following an equivalent parenteral dose.

### ***Distribution:***

The active substance is 99.7% protein bound, mainly to albumin (99.4%).

Diclofenac enters the synovial fluid, where maximum concentrations are measured 2-4 hours after the peak plasma values have been attained. The apparent half-life for elimination from the synovial fluid is 3-6 hours. Two hours after reaching the peak plasma values, concentrations of the active substance are already higher in the synovial fluid than they are in the plasma, and remain higher for up to 12 hours.

### ***Metabolism:***

Biotransformation of diclofenac takes place partly by glucuronidation of the intact molecule, but mainly by single and multiple hydroxylation and methoxylation, resulting in several phenolic metabolites, most of which are converted to glucuronide conjugates. Two phenolic metabolites are biologically active, but to a much lesser extent than diclofenac.

### ***Elimination:***

Total systemic clearance of diclofenac in plasma is  $263 \pm 56$ mL/min (mean value  $\pm$ SD). The terminal half-life in plasma is 1-2 hours.

Four of the metabolites, including the two active ones, also have short plasma half-lives of 1-3 hours.

About 60% of the administered dose is excreted in the urine as the glucuronide conjugate of the intact molecule and as metabolites, most of which are also converted to glucuronide conjugates. Less than 1% is excreted as unchanged substance. The rest of the dose is eliminated as metabolites through the bile in the faeces.

## **Characteristics in patients**

***Elderly:*** No relevant age-dependent differences in the drug's absorption, metabolism, or excretion have been observed, other than the finding that in five elderly patients, a 15 minute iv infusion resulted in 50% higher plasma concentrations than expected with young healthy subjects.

***Patients with renal impairment:*** In patients suffering from renal impairment, no accumulation of the unchanged active substance can be inferred from the single-dose kinetics when applying the usual dosage schedule. At a creatinine clearance of  $<10$ mL/min, the calculated steady-state plasma levels of the hydroxy metabolites are about 4 times higher than in normal subjects. However, the metabolites are ultimately cleared through the bile.

***Patients with hepatic disease:*** In patients with chronic hepatitis or non-decompensated cirrhosis, the kinetics and metabolism of diclofenac are the same as in patients without liver disease.

### 5.3 Preclinical safety data

Animal studies have been carried out in a number of species to determine the toxicity of diclofenac sodium. Acute toxicity studies have been carried out in the rat and when administered orally an LD50 of 53 mg/kg produced behavioural effects and respiratory stimulation. Acute oral toxicity studies in the rabbit showed no toxic effect at a dose of 157 mg/kg.

Toxicity by the intravenous route has been measured in the rat, an administered dose of 117 mg/kg has been shown to have no adverse effect. Intraperitoneal studies have shown an no adverse effect level of 25 mg/kg in the rat, and subcutaneous toxicity in the rat shows a no toxic effect level of 83 mg/kg.

Reproductive toxicity has been studied in both the rat and the rabbit, a dose of 1 mg/kg/day for 21 days in rats has been shown to produce developmental abnormalities of the cardiovascular system. In the rabbit a dose of 10 mg/kg has been shown to reduce fertility.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Benzyl alcohol  
 Propylene glycol  
 Acetylcysteine  
 Mannitol  
 Sodium hydroxide

### 6.2 Incompatibilities

Difene Ampoules for intramuscular use should not be mixed with other injection solutions.

Difene Ampoules for intravenous use should not be mixed with other medicinal products except those mentioned in section 6.6.

### 6.3 Shelf life

Shelf life of the medicinal product as packaged for sale.

3 years.

Shelf life after dilution for IV infusion

From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2 to 8°C, unless reconstitution/dilution (etc.) has taken place in controlled and validated aseptic conditions.

### 6.4 Special precautions for storage

Do not store above 25°C. Store in the original package to protect from light and moisture.

### 6.5 Nature and contents of container

Five colourless, Type 1 Ph. Eur. glass ampoules in an ampoule tray, one or two trays per box.

Pack size: 5 or 10 ampoules.

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal of a used medicinal product or waste materials derived from such medicinal product and other handling of the product**

Adults:

### Intravenous use:

One ampoule should be diluted in a minimum of 300 ml of normal saline and administered intravenously over a minimum of 30 minutes. A second dose may be administered 8 hours after the first infusion.

A maximum of two doses may be given intravenously.

### Intramuscular use:

One ampoule once (or in severe cases twice) daily intramuscularly by deep intragluteal injection into the upper outer quadrant. If two injections daily are required it is advised that the alternative buttock be used for the second injection.

Standard precautions for disposal of glass ampoules should be followed.

For single use only. Discard any unused injection.

## **7 MARKETING AUTHORISATION HOLDER**

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5 Waterside  
Citywest Business Campus  
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## **8 MARKETING AUTHORISATION NUMBER**

PA 1241/012/006

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

Date of first authorisation: 28 August 1990

Date of last renewal: 28 August 2010

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

April 2013