Paracet
(Paracetamol)

INFUSION

COMPOSITION
Each 100ml vial contains:
Paracetamol (B.P).....1g

DESCRIPTION
PARACET is an established antipyretic and analgesic.

CHEMISTRY
PARACET is part of the class of drug known as "aniline analgesic". It is the active metabolite of phenacetin.

MECHANISM OF ACTION
PARACET reduces the production of prostaglandins (pro-inflammatory chemicals) PARACET reduces the oxidized form of Cyclo-Oxygenase enzyme, preventing from forming pro-inflammatory chemicals. PARACET also modulates the endogenous cannabinoid system. Paracetamol is metabolized to AM404, a compound with several actions: most important, it inhibits the uptake of endogenous cannabinoid/vanilloid anandamide by neuron. Anandamide uptake would result in the activation of main pain receptor of the body, Furthermore, AM404 inhibits sodium channels.

PHARMACOKINETICS
ADULTS
ABSORPTION: Paracetamol pharmacokinetics is linear up to 2g after single administration and after repeated administration during 24 hours.
The maximal plasma concentration (Cmax) of paracetamol observed at the end of 15-minutes intravenous infusion of 1g of PARACET is 30µg/ml.

DISTRIBUTION: The volume of distribution of paracetamol is approximately 1L/kg. Paracetamol is not extensively bound to plasma proteins.
Following infusion of 1g paracetamol, significant concentrations of paracetamol (about 1.5µg/ml) were observed in the cerebrospinal fluid at and after the 20 minutes following infusion.

METABOLISM: Paracetamol is metabolised mainly in the liver, following two major hepatic pathways: Glucuronic acid conjugation and sulphuric acid conjugation.

ELIMINATION: The metabolites of paracetamol are mainly excreted in the urine. 90% of the dose administered is excreted within 24 hours, mainly as glucuronide (60-80%) and sulphate (20-30%) conjugates. Less than 5% is eliminated unchanged. Plasma half-life is 2.7 hours and total body clearance is 18L/h.

NEONATES, INFANTS AND CHILDREN
The pharmacokinetic parameters of paracetamol observed in infants and children are similar to those observed in adults, except for the plasma half-life that is slightly shorter (1.5 to 2h) than in adults. In neonates, the plasma half-life is longer than in infants i.e. around 3.5 hours. Neonates, infants and children up to 10 years excrete significantly less glucuronide and more sulphate conjugates than adults.

PHARMACODYNAMICS
PARACET provides onset of pain relief within 5 to 10 minutes after the start of administration. The peak analgesic effect is obtained in 1 hour and the duration of this effect is usually 4 to 6 hours.
PARACET reduces fever within 30 minutes after the start of administration with duration of the antipyretic effect of at least 6 hours.

INDICATIONS
PARACET is indicated for the short-term treatment of moderate pain, especially following surgery, and for the short-term treatment of fever, when administration by intravenous route is clinically justified by an urgent need to treat pain or hyperthermia and/or when other routes of administration are not possible.

DOSAGE AND ADMINISTRATION

- **Adolescents and adults weighing more than 50kg:**
  Paracetamol 1g per administration, i.e. one 100ml vial, up to four times a day.
  The minimum interval between each administration must be 4 hours.
  The maximum daily dose must not exceed 4g.

- **Children weighing more than 33kg (approximately 11 years old), adolescents and adults weighing less than 50kg:**
  Paracetamol 15mg/kg per administration, i.e. 1.5ml; solution per kg up to four times a day.
  The minimum interval between each administration must be 4 hours.
  The maximum daily dose must not exceed 60mg/kg (without exceeding 3g).

- **Children weighing more than 10kg (approximately 1 year old) and weighing less than 33kg:**
  Paracetamol 15mg/kg per administration, i.e. 1.5ml solution per kg up to four times a day.
  The minimum interval between each administration must be 4 hours.
  The maximum daily dose must not exceed 60mg/kg (without exceeding 2g).

- **Term newborn infants, infants, toddlers and children weighing less than 10kg (up to approximately 1 year old):**
  Paracetamol 7.5mg/kg per administration i.e. 0.75ml solution per kg up to four times a day.
  The minimum interval between each administration must be 4 hours.
  The maximum daily dose must not exceed 30mg/kg.
  No safety and efficacy data are available for premature neonates.

- **Severe renal insufficiency:**
  It is recommended, when giving paracetamol to patients with severe renal impairment (creatinine clearance 30ml/min) to increase the

minimum interval between each administration to 6 hours.

- **Method of administration:**
  The paracetamol solution is administered as a 15-minute intravenous infusion.

OR

As directed by the physician

CONTRAINDICATIONS

Patients with hypersensitivity to paracetamol or to propacetamol hydrochloride (prodrug of paracetamol) or to any of the excipients.
In cases of severe hepatocellular insufficiency.

PRECAUTIONS

Paracetamol should be used with caution in cases of:
Hepatocellular insufficiency, severe renal insufficiency (creatinine clearance 30ml/min), chronic alcoholism, chronic malnutrition (low-reserves of hepatic glutathione) and dehydration.

WARNINGS:

It is recommended that a suitable analgesic oral treatment be used as soon as this route of administration is possible.
In order to avoid the risk of overdose, check that no other medicines administered contain paracetamol.
Doses higher than those recommended entail the risk of very serious liver damage. Clinical signs and symptoms of liver damage are not usually seen until 2 days, and up to a maximum of 4-6 days, after administration.

SERIOUS SKIN REACTIONS

Rarely, acetaminophen (paracetamol) may cause serious skin reactions such as acute generalized exanthematous pustulosis (AGEP), Stevens-Johnson Syndrome (SJS), and toxic epidermal necrolysis (TEN), which can be fatal. Patients should be informed about the signs of serious skin reactions, and use of the drug should be discontinued at the first appearance of skin rash or any other sign of hypersensitivity.

DRUG INTERACTIONS

Probenecid causes an almost 2-fold reduction in clearance of paracetamol by inhibiting its conjugation with glucuronic acid. A reduction in the paracetamol dose should be considered if it is to be used concomitantly with probenecid.
Salicylamide may prolong the elimination t1/2 of paracetamol.
Caution should be taken with the concomitant intake of enzyme-inducing substances.
Concomitant use of paracetamol (4g per day for at least 4 days) with oral anticoagulants may lead to slight variations of INR (International Normalized Ratio) values. In this case, increased monitoring of INR values should be conducted during the period of concomitant use as well as for one week after paracetamol treatment has been discontinued.

UNDESIRABLE EFFECTS

Very rare cases of hypersensitivity reactions ranging from simple skin rash or urticaria to anaphylactic shock have been reported and require discontinuation of treatment.

OVERDOSAGE

There is a risk of poisoning, particularly in elderly subjects, in young children, in patients with liver disease, in cases of chronic alcoholism, in patients with chronic malnutrition and in patients receiving enzyme inducers. Overdosing may be fatal in these cases.

SHELF LIFE

From a microbiological point of view, unless the method of opening precludes the risk of microbial contamination, the product should be used immediately. If not used immediately, in-use storage times and conditions are the responsibility of the user.
If diluted in 0.9% sodium chloride or 5% glucose, the solution should also be used immediately. However, if the solution is not used immediately, do not store for more than 1 hour (infusion time included)

INSTRUCTIONS

Store below 30°C. Protect from heat & light. Avoid from freezing. Keep all medicines out of the reach of children. To be sold on the prescription of a registered medical practitioner only.

Do not use if vial is leaking, solution is cloudy or contains undissolved particles. To be administered by I.V. Infusion over a period of 15 minutes.

PRESENTATION

PARACET I.V. Infusion: 1 x 100ml bottle.

پیراسِٹ اِنفیوژن

(پیراسیٹامول)

ہدایات:

دوا کو °30 سینٹی گریڈ سے کم درجہ حرارت پر رکھیں۔ گرمی اور روشنی سے بچائیں۔ منجمد ہونے سے بچائیں۔ تمام دوائیں بچوں کی پہنچ سے دُور رکھیں۔
صرف مستند ڈاکٹر کے نسخہ پر فروخت کریں۔

وائل کے لیک ہونے، دھندلا ہونے یا اس میں غیر حل پذیر ذرات نظر آنے کی صورت میں ہرگز استعمال نہ کریں۔ آئی وی اِنفیوژن مریض کے جسم میں **15** منٹ کے دوران داخل کیا جائے۔

Manufactured by:
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