

which the linkages between glucose units are almost exclusively α -1,6. Its weight average molecular weight is about 1000.

A white to off-white, hygroscopic powder. Very soluble in water; sparingly soluble in alcohol. pH of a 15% solution in water is between 4.5 and 7.0. Store at a temperature between 4° and 30°.

Profile

Dextran 1 is used to prevent severe anaphylactic reactions to infusions of dextran. It is reported to occupy the binding sites of dextran-reactive antibodies and so prevent the formation of large immune complexes with higher molecular weight dextrans.

Dextran 1 is given in usual doses of 20 mL of a solution containing 150 mg/mL by intravenous injection about 1 to 2 minutes before the infusion of the higher molecular weight dextran; the interval should not exceed 15 minutes. A suggested dose for children is 0.3 mL/kg. The dose of dextran 1 should be repeated if further infusions of dextran are required more than 48 hours after the initial dose.

Use. Two large multicentre studies (involving about 29 200 and 34 950 patients) have suggested that dextran 1 prevented anaphylactic reactions by hapten inhibition in a dose-dependent way.^{1,2} It did not reduce the incidence of mild reactions, which are not generally mediated by antibodies. Another large study³ comparing the effects of giving dextran 1 either 2 minutes before injection of dextran 40 or 70 or mixed with the injection, was stopped after the occurrence of 2 severe reactions in the admixture group. A comparison⁴ of severe anaphylactic reactions to dextran infusion during the period 1983 to 1992 (when prophylaxis with dextran 1 was used) with reactions reported during the period 1975 to 1979 (no prophylaxis) found that the use of dextran 1 was associated with a 35-fold reduction in severe anaphylactic reactions to dextran infusion.

There were 21, 20, and 2 adverse reactions to dextran 1 in the first 3 studies respectively, including nausea, skin reactions, bradycardia, and hypotension. Apart from one patient, reactions to dextran 1 were mild and were considered to be of minor clinical importance. In the fourth study, adverse effects to dextran 1 were reported in about one case per 100 000 doses.

1. Ljungström K-G, *et al.* Prevention of dextran-induced anaphylactic reactions by hapten inhibition I: a Scandinavian multicenter study on the effects of 10 mL dextran 1, 15% administered before dextran 70 or dextran 40. *Acta Chir Scand* 1983; **149**: 341–8.
2. Renck H, *et al.* Prevention of dextran-induced anaphylactic reactions by hapten inhibition III: Scandinavian multicenter study on the effects of 20 mL dextran 1, 15% administered before dextran 70 or dextran 40. *Acta Chir Scand* 1983; **149**: 355–60.
3. Renck H, *et al.* Prevention of dextran-induced anaphylactic reactions by hapten inhibition II: a comparison of the effects of 20 mL dextran 1, 15% administered either admixed to or before dextran 70 or dextran 40. *Acta Chir Scand* 1983; **149**: 349–53.
4. Ljungström K-G. Safety of dextran in relation to other colloids - ten years experience with hapten inhibition. *Infusionsster Transfusionsmed* 1993; **20**: 206–10.

Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Promit; **Austria:** Praedex; Promit; **Denm.:** Promiten; **Ger.:** Promit; **Hung.:** Promit; **Neth.:** Promiten; **Norw.:** Promiten; **S.Afr.:** Promit; **Swed.:** Promiten; **Switz.:** Promit; **USA:** Promit.

Dextran 40 (BAN, USAN, rINN) ⊗

Dekstraani 40; Dekstran 40; Dekstrasnas 40; Dextrán 40; Dextranum 40; LMD; LMWD; Low-molecular-weight Dextran; LVD.

Декстран 40

CAS — 9004-54-0 (dextran).

ATC — B05AA05.

ATC Vet — QB05AA05.

Pharmacopoeias. In *Chin.*, *Jpn.*, and *US*.

Eur. (see p.vii) and *Jpn* describe Dextran 40 for Injection.

Ph. Eur. 6.2 (Dextran 40 for Injection). A mixture of polysaccharides, principally of the α -1,6-glucan type, obtained by hydrolysis and fractionation of dextrans produced by fermentation of sucrose using a certain strain or substrains of *Leuconostoc mesenteroides*. The average relative molecular mass is about 40 000.

A white or almost white powder. Very soluble in water; very slightly soluble in alcohol.

USP 31 (Dextran 40). It is derived by controlled hydrolysis and fractionation of polysaccharides elaborated by the fermentative action of certain strains of *Leuconostoc mesenteroides* on a sucrose substrate. It is a glucose polymer in which the linkages between glucose units are almost entirely of the α -1:6 type. Its weight average molecular weight is in the 35 000 to 45 000 range. A 10% solution in water has a pH of 4.5 to 7.0. Store at a temperature of 25°, excursions permitted between 15° and 30°.

Incompatibility. Incompatibilities may arise from the slightly acid pH of dextran 40 preparations.

Adverse Effects, Treatment, and Precautions

As for Dextran 70, p.1059.

Rapid renal excretion of dextran 40 in patients with reduced urine flow can result in high urinary concentrations which increase urinary viscosity and may cause oliguria or acute renal failure. Therefore, infusions of dextran 40 are contra-indicated in

renal disease with oliguria; should anuria or oliguria occur during treatment dextran 40 should be withdrawn. Dehydration should preferably be corrected before giving dextran 40. Dextran 40 can cause capillary oozing of wound surfaces.

Effects on the kidneys. Acute renal failure has been associated with dextran 40¹⁻⁴ and less frequently with dextran 70.¹ The mechanism of the effect is unclear but suggestions include an increase in plasma oncotic pressure that decreases filtration pressure in the glomerulus and hence decreases glomerular filtration rate,² obstruction within the tubules,^{2,4} or a direct toxic effect on renal cells.⁴ Plasmapheresis has been used successfully to remove dextran from the circulation.^{2,4}

1. Feest TG. Low molecular weight dextran: a continuing cause of acute renal failure. *BMJ* 1976; **2**: 1300.
2. Tsang RKY, *et al.* Acute renal failure in a healthy young adult after dextran 40 infusion for external-ear reattachment surgery. *Br J Plast Surg* 2000; **53**: 701–3.
3. Kato A, *et al.* Complication of oliguric acute renal failure in patients treated with low-molecular weight dextran. *Ren Fail* 2001; **23**: 679–84.
4. Vos SCB, *et al.* Acute renal failure during dextran-40 antithrombotic prophylaxis: report of two microsurgical cases. *Ann Plast Surg* 2002; **48**: 193–6.

Hypersensitivity. For reports of anaphylactic reactions associated with use of dextran 40, see Dextran 70, below, and Dextran 1, above.

Pharmacokinetics

After intravenous infusion dextran 40 is slowly metabolised to glucose. About 70% of a dose is excreted unchanged in the urine within 24 hours. A small amount is excreted into the gastrointestinal tract and eliminated in the faeces.

Uses and Administration

Dextran 40 is a plasma volume expander used in the management of hypovolaemic shock (p.1183). As a 10% solution, dextran 40 exerts a slightly higher colloidal osmotic pressure than plasma proteins and thus produces a greater expansion of plasma volume than dextrans of a higher molecular weight, although the expansion may have a shorter duration because of more rapid renal excretion. Dextran 40 also reduces blood viscosity and inhibits sludging or aggregation of red blood cells. It is used in the prophylaxis and treatment of postoperative thromboembolic disorders, in conditions where improved circulatory flow is required, and as a priming solution during extracorporeal circulation.

Dextran 40 is given by intravenous infusion as a 10% solution in sodium chloride 0.9% or glucose 5%. Doses depend on the clinical condition of the patient.

In **shock**, a maximum of 20 mL/kg during the first 24 hours has been recommended; the first 10 mL/kg may be given by rapid intravenous infusion. Doses of up to 10 mL/kg may be given daily thereafter for up to 5 days. Dehydration should preferably be corrected before dextran 40 is given.

In the treatment of **thromboembolic disorders** a suggested regimen is 500 to 1000 mL over 4 to 6 hours on the first day, then 500 mL over 4 to 6 hours on the next and subsequent alternate days for not more than 10 days.

For prophylaxis of postoperative thromboembolic disorders, 500 mL over 4 to 6 hours may be given during or at the end of surgery and the dose repeated on the next day; treatment may be continued in high risk patients on alternate days for up to 10 days. Infants may be given up to 5 mL/kg and children up to 10 mL/kg. A dose of 10 to 20 mL/kg has been added to extracorporeal perfusion fluids.

Dextran 40 is also an ingredient of artificial tears.

Post-dural puncture headache. Dextran 40 has been used in the treatment of post-dural puncture headache (p.1851) when other measures, including epidural autologous blood patch, have been ineffective. Reports¹⁻³ have described dextran 40 given in an epidural bolus dose of 20 mL. Sometimes this has been followed by a continuous epidural infusion of 3 to 4 mL/hour, and in these cases headache was relieved within 20 hours of starting the infusion.^{1,2}

1. Aldrete JA. Persistent post-dural-puncture headache treated with epidural infusion of dextran. *Headache* 1994; **34**: 265–7.
2. Reynvoet MEJ, *et al.* Epidural dextran 40 patch for postdural puncture headache. *Anaesthesia* 1997; **52**: 886–8.
3. Souron V, Hamza J. Treatment of postdural puncture headaches with colloid solutions: an alternative to epidural blood patch. *Anesth Analg* 1999; **89**: 1333–4.

Thromboembolic disorders. Dextran 40 is only one of a variety of drugs that have been used for the prophylaxis of venous thromboembolism (p.1189) resulting from surgical operations such as hip replacement surgery. Dextran 40 may be used to prevent thromboembolic complications in some types of vascular surgery including carotid endarterectomy.¹

1. Abir F, *et al.* Efficacy of dextran solutions in vascular surgery. *Vasc Endovascular Surg* 2004; **38**: 483–91.

Preparations

BP 2008: Dextran 40 Intravenous Infusion;

USP 31: Dextran 40 in Dextrose Injection; Dextran 40 in Sodium Chloride Injection.

Proprietary Preparations (details are given in Part 3)

Austria: Elorheo; Rheofusin; **Braz.:** Volumax D 40; **Canad.:** Gentran 40; **Cz.:** Rheodextran; **Denm.:** Rheomacrodex; **Ger.:** Infukoll M 40; Longastiril 40; **Rheomacrodex; Gr.:** Rheomacrodex;

Hung.: Rheomacrodex; **Israel:** Rheomacrodex; **Ital.:** Eudextran; Plander R; Solplex 40; **Mex.:** Rheomacrodex; **Norw.:** Rheomacrodex; **Philipp.:** LM Dextran; **Port.:** Neodextril 40; **Rus.:** Rheomacrodex (Реомакродекс); **Rheopolydex** (Реополидекс); **Rheopolyglukin** with Glucose (Реополиглюкин С Глюкозой); **S.Afr.:** Rheomacrodex; **Spain:** Rheomacrodex; **Swed.:** Perfadex; **Rheomacrodex; Switz.:** Rheomacrodex; **Thai.:** Onkovertin; **Turk.:** Rheomacrodex; **UK:** Gentran 40; **USA:** Gentran 40; Rheomacrodex.

Multi-ingredient: **Indon.:** Otsutran; **Port.:** Bas-Dextrano; **Rus.:** Rheogluman (Реоглюман).

Dextran 60 (BAN, rINN) ⊗

Dekstraani 60; Dekstrasnas 60; Dextrán 60; Dextranum 60.

Декстран 60

CAS — 9004-54-0 (dextran).

ATC — B05AA05.

ATC Vet — QB05AA05.

Pharmacopoeias. *Eur.* (see p.vii) describes Dextran 60 for Injection.

Ph. Eur. 6.2 (Dextran 60 for Injection). A mixture of polysaccharides, principally of the α -1,6-glucan type, obtained by hydrolysis and fractionation of dextrans produced by fermentation of sucrose using a certain strain or substrains of *Leuconostoc mesenteroides*. The average relative molecular mass is about 60 000.

A white or almost white powder. Very soluble in water; very slightly soluble in alcohol.

Incompatibility. Incompatibilities may arise from the slightly acid pH of dextran 60 preparations.

Profile

Dextran 60 is a plasma volume expander with actions and uses similar to those of dextran 70 (below). It is given by intravenous infusion as a 3 or 6% solution in sodium chloride 0.9% or a mixture of electrolytes.

Dextran 60 is also used topically for dry eyes.

Preparations

Proprietary Preparations (details are given in Part 3)

Austria: Macrodex; **Ger.:** Macrodex; **Hung.:** Macrodex; **Mex.:** Rescuesol; **Norw.:** Plasmox; **Swed.:** Plasmox.

Dextran 70 (BAN, USAN, rINN) ⊗

Dekstraani 70; Dekstran 70; Dekstrasnas 70; Dextrán 70; Dextranum 70; Polyglucin (dextran).

Декстран 70

CAS — 9004-54-0 (dextran).

ATC — B05AA05.

ATC Vet — QB05AA05.

Pharmacopoeias. In *Chin.*, *Jpn.*, and *US*.

Eur. (see p.vii) describes Dextran 70 for Injection.

Ph. Eur. 6.2 (Dextran 70 for Injection). A mixture of polysaccharides, principally of the α -1,6-glucan type, obtained by hydrolysis and fractionation of dextrans produced by fermentation of sucrose using a certain strain or substrains of *Leuconostoc mesenteroides*. The average relative molecular mass is about 70 000.

A white or almost white powder. Very soluble in water; very slightly soluble in alcohol.

USP 31 (Dextran 70). It is derived by controlled hydrolysis and fractionation of polysaccharides elaborated by the fermentative action of certain appropriate strains of *Leuconostoc mesenteroides* on a sucrose substrate. It is a glucose polymer in which the linkages between glucose units are almost entirely of the α -1:6 type. Its weight average molecular weight is in the 63 000 to 77 000 range. A 6% solution in water has a pH of 4.5 to 7.0. Store at a temperature of 25°, excursions permitted between 15° and 30°.

Incompatibility. Incompatibilities may arise from the slightly acid pH of dextran 70 preparations.

Storage. Crystals may form in solutions of dextran if they are stored at low temperatures. These may be redissolved by warming for a short time.

Adverse Effects and Treatment

Infusions of dextrans may occasionally produce hypersensitivity reactions such as fever, nasal congestion, joint pains, urticaria, hypotension, and bronchospasm. Severe anaphylactic reactions occur rarely and may be fatal. Dextran-reactive antibodies have been detected in patients who have not previously received dextran. This may possibly be in response to dietary or bacterial polysaccharides. Nausea and vomiting have also been reported. These reactions are treated symptomatically after withdrawal of the dextran.

The symbol † denotes a preparation no longer actively marketed

The symbol ⊗ denotes a substance whose use may be restricted in certain sports (see p.vii)

Dextran 1 (p.1058) may be used to block the formation of dextran-reactive antibodies and hence the hypersensitivity reactions.

Effects on the blood. A syndrome of acute hypotension, pulmonary oedema, coagulopathy, and anaemia, has occurred after the intra-uterine instillation of 32% solution of dextran 70 for hysteroscopy.¹ The volumes of solution that were used in 10 reported cases ranged from 300 to 1200 mL, and these large volumes may have contributed to the intravascular absorption of dextran. The pathogenesis and role of dextran in this syndrome are unclear but suggestions have included acute volume overload, direct alveolar endothelial damage, and release of tissue factors that promote fibrinolysis and a consumptive coagulopathy.

1. Ellingson TL, Aboulafia DM. Dextran syndrome: acute hypotension, noncardiogenic pulmonary edema, anemia, and coagulopathy following hysteroscopic surgery using 32% dextran 70. *Chest* 1997; **111**: 513–18.

Effects on the kidneys. For a report of acute renal failure associated with use of dextran 70, see Dextran 40, above.

Hypersensitivity. In a retrospective study of allergic reactions to dextran 40 and dextran 70 reported in Sweden from 1970 to 1979,¹ there were 478 reports of reactions, 458 of which were considered to be due to dextran, out of 1 365 266 infusions given. There was a male to female ratio of 1.5 to 1 for all reactions and a ratio of 3 to 1 for the most severe reactions. The mean age of the patients was higher in those with severe reactions. Of the 28 fatal reactions, 27 occurred within 5 minutes of the start of the infusion and 25 when less than 25 mL had been infused. Three of the fatal reactions occurred after a test dose of only 0.5 to 1 mL and it was strongly recommended that such test doses should not be used.

An anaphylactic reaction has also been reported² more than 75 minutes after intraperitoneal instillation. After successful symptomatic treatment symptoms recurred 20 minutes later, due to slow absorption of dextran from the peritoneal cavity. No further reaction occurred after removal of 200 mL of intraperitoneal fluid by culdocentesis.

Anaphylactoid reactions after BCG vaccination have been attributed to hypersensitivity to dextran in the formulation.³

The use of dextran 1 for the prevention of hypersensitivity reactions is discussed under that monograph (p.1058).

1. Ljungström K-G, *et al.* Adverse reactions to dextran in Sweden 1970–1979. *Acta Chir Scand* 1983; **149**: 253–62.
2. Borten M, *et al.* Recurrent anaphylactic reaction to intraperitoneal dextran 75 used for prevention of postsurgical adhesions. *Obstet Gynecol* 1983; **61**: 755–7.
3. Rudin C, *et al.* Anaphylactoid reaction to BCG vaccine containing high molecular weight dextran. *Eur J Pediatr* 1995; **154**: 941–2.

Precautions

Dextran infusions produce a progressive dilution of oxygen-carrying capacity, coagulation factors, and plasma proteins and may overload the circulation. They are therefore contra-indicated in patients with severe heart failure, bleeding disorders such as hypofibrinogenemia or thrombocytopenia, or renal failure and should be used with caution in patients with renal impairment, haemorrhage, chronic liver disease, or those at risk of developing pulmonary oedema or heart failure. Central venous pressure should be monitored during the initial period of infusion to detect fluid overload. Also patients should be watched closely during the early part of the infusion period, and the infusion stopped immediately if signs of anaphylactic reactions appear. Infusions should also be stopped if there are signs of oliguria or renal failure. The haematocrit should not be allowed to fall below 30% and all patients should be observed for early signs of bleeding complications. The bleeding time may be increased especially in patients receiving large volumes of dextrans. Deficiency of coagulation factors should be corrected and fluid and electrolyte balance maintained. Dehydration should be corrected before or at least during dextran infusions, in order to maintain an adequate urine flow.

The anticoagulant effect of heparin may be enhanced by dextran.

The higher molecular weight dextrans may interfere with blood grouping and cross-matching of blood, while the lower molecular weight dextrans may interfere with some methods. Therefore, whenever possible, a sample of blood should be collected before giving the dextran infusion and kept frozen in case such tests become necessary.

The presence of dextran may interfere with the determination of glucose, bilirubin, or protein in blood.

Pharmacokinetics

After intravenous infusion dextrans with a molecular weight of less than 50 000 are excreted unchanged by the kidney. Dextrans with a molecular weight greater than 50 000 are slowly metabolised to glucose. Small amounts of dextrans are excreted into the gastrointestinal tract and eliminated in the faeces.

About 50% of dextran 70 is excreted unchanged in the urine within 24 hours.

Uses and Administration

Dextran 70 is a plasma volume expander used in the management of hypovolaemic shock (p.1183). As a 6% solution dextran 70 exerts a colloidal osmotic pressure similar to that of plasma proteins and thus produces less expansion of plasma volume than dextrans of a lower molecular weight, although the expansion may have a longer duration because of less rapid renal excretion. Dextran 70 also reduces blood viscosity, interferes with fibrin polymerisation, has an antiplatelet effect, and inhibits sludging or aggregation of red blood cells. It may be used in the prophylaxis of postoperative thromboembolic disorders (p.1189).

Dextran 70 is given by intravenous infusion as a 6% solution, usually in sodium chloride 0.9% or glucose 5%.

Doses depend on the severity of the plasma loss and on the degree of haemoconcentration.

In **shock**, the usual initial dose for rapid expansion of plasma volume is 500 to 1000 mL infused at a rate of 20 to 40 mL/minute. A suggested maximum dose is 20 mL/kg during the first 24-hour period and 10 mL/kg per day thereafter; treatment should not continue for longer than 3 days. Patients may also require blood, coagulation factors, and electrolytes. A hypertonic solution of 6% dextran 70 in sodium chloride 7.5% is also available for use as a plasma expander, given in a single intravenous dose of 250 mL over 2 to 5 minutes, followed by isotonic fluids as required.

For the prophylaxis of pulmonary embolism or venous thrombosis in moderate- to high-risk patients undergoing surgery, a dose of 500 to 1000 mL may be given over 4 to 6 hours either during or immediately after surgery. A dose of 500 mL should be given on the next day and in high-risk patients on subsequent alternate days for up to 2 weeks after the operation.

A 32% solution of dextran 70 has been instilled into the uterus in a dose of 50 to 100 mL as a rinsing and dilatation fluid to aid **hysteroscopy**.

Dextran 70 is also an ingredient of artificial tears.

Hypertonic solutions. There is some evidence to suggest that hypertonic solutions of dextran 70 in sodium chloride 7.5% may be an effective treatment option for hypovolaemic shock resulting from trauma.^{1,2}

1. Wade CE, *et al.* Efficacy of hypertonic 7.5% saline and 6% dextran-70 in treating trauma: a meta-analysis of controlled clinical studies. *Surgery* 1997; **122**: 609–16.
2. Alpar EK, Killampalli VV. Effects of hypertonic dextran in hypovolaemic shock: a prospective clinical trial. *Injury* 2004; **35**: 500–506.

Preparations

BP 2008: Dextran 70 Intravenous Infusion;

USP 31: Dextran 70 in Dextrose Injection; Dextran 70 in Sodium Chloride Injection.

Proprietary Preparations (details are given in Part 3)

Austral: Hyskon; **Braz:** Volumax D 70; **Canad:** Gentran 70; **Cz:** Tensiton; **Denm:** Macrodex; RescueFlow; **Fin:** RescueFlow; **Ger:** Longasteril 70; RescueFlow; **Israel:** Macrodex; **Ital:** Plander; Solplex 70; **Mex:** Macrodex; **Neth:** RescueFlow; **Norw:** Macrodex; RescueFlow; **Port:** Neodextrin 70; RescueFlow; **S.Afr:** Macrodex; RescueFlow; **Swed:** Macrodex; RescueFlow; **Switz:** Dialens; Macrodex; **Turk:** Macrodex; **UK:** Gentran 70; RescueFlow; **USA:** Gentran 70; Hyskon; Macrodex; **Venez:** Lacridos; Lacrimart; Lagrimas Artificiales.

Multi-ingredient: **Arg:** Alcon Lagrimas; Kalopsis Lagrimas; Phoenix Lagrimas; Tears Naturale; Visine Plus; **Austral:** Bion Tears; Opti-Free Comfort; Poly-Tears; Tears Naturale; Visine Advanced Relief; **Belg:** Alcon Ad-equal; Lacrystat; Tears Naturale; **Braz:** Lacribell; Lacrima Plus; Lacrima; Trisorb; **Canad:** Artificial Tears; Bion Tears; Tears Naturale; Tears Naturale Forte; Visine Advance Triple Action; **Chile:** Lagrimas Artificiales; Naphtears; Nico Drops; Nicotears; Tears Naturale; **Cz:** Tears Naturale; **Denm:** Dacriol; **Ger:** Isopto Naturale; **Gr:** Tears Naturale; **Hong Kong:** Bion Tears; Tears Naturale Forte; **Hung:** Dacrolux; Tears Naturale; **Indon:** Isot-

ic Tearin; Tears; Tears Naturale II; **Ir:** Tears Naturale; **Israel:** Tears Naturale; **Ital:** Dacriol; **Malaysia:** Bion Tears; Dacrolux; Tears Naturale; **Mex:** Lacrima Plus; Naphtears; Naturalag; Tears Naturale; Visine Extra; **Neth:** Duratears; **Norw:** Tears Naturale; **NZ:** Poly-Tears; Tears Naturale; Visine Advanced Relief; **Philipp:** Gentle Tears; Tears Naturale; **Pol:** Tears Naturale; **Port:** Tears Naturale; **Rus:** Tears Naturale (Слеззащитная); **S.Afr:** Tears Naturale; **Singapore:** Bion Tears; Dacrolux; Tears Naturale; **Spain:** Dacrolux; Tears Humectante; **Swed:** Bion Tears; **Switz:** Tears Naturale; **Thai:** Bion Tears; Tears Naturale; **Turk:** Dacrolux; Tears Naturale; **UK:** Tears Naturale; **USA:** Advanced Relief Visine; Aqua-site; Bion Tears; Lacri-Tears; LubriTears; Moisture Drops; Nature's Tears; Ocucol; Tears Naturale; Tears Renewed.

Dextran 75 (BAN, USAN, rINN) ⊗

Dextrán 75; Dextranum 75.

Декстран 75

CAS — 9004-54-0 (dextran).

ATC — B05AA05.

ATC Vet — QB05AA05.

Profile

Dextran 75 consists of dextrans (glucose polymers) of weight average molecular weight about 75 000 that are derived from the dextrans produced by the fermentation of sucrose by means of a certain strain of *Leuconostoc mesenteroides*.

Dextran 75 is a plasma volume expander with actions and uses similar to dextran 70 (p.1059). It is given by intravenous infusion as a 6% solution in sodium chloride 0.9% or glucose 5%.

Ecaltantide (USAN, rINN)

DX-88; Ecaltantida; Écaltantide; Ecaltantidum. Human plasma kallikrein-inhibitor (synthetic protein).

Экальвантид

CAS — 460738-38-9.

Profile

Ecaltantide is a recombinant inhibitor of human plasma kallikrein. It is under investigation in the management of hereditary angioedema (p.1081).

References

1. Levy JH, O'Donnell PS. The therapeutic potential of a kallikrein inhibitor for treating hereditary angioedema. *Expert Opin Invest Drugs* 2006; **15**: 1077–90.

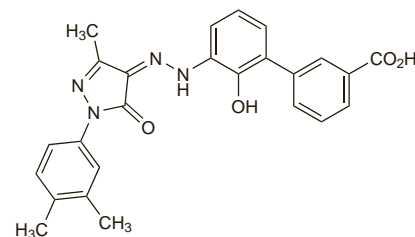
Eltrombopag (rINN)

Eltrombopagum. 3'-{(2Z)-2-[1-(3,4-Dimethylphenyl)-3-methyl-5-oxo-1,5-dihydro-4H-pyrazol-4-ylidene]diazanyl}-2'-hydroxybiphenyl-3-carboxylic acid.

Элтромбопаг

C₂₅H₂₂N₄O₄ = 442.5.

CAS — 496775-61-2.



Eltrombopag Olamine (USAN, rINN)

Eltrombopag olamina; Eltrombopagum Olaminum; SB-497115-GR. 3'-{(2Z)-2-[1-(3,4-Dimethylphenyl)-3-methyl-5-oxo-1,5-dihydro-4H-pyrazol-4-ylidene]diazanyl}-2'-hydroxybiphenyl-3-carboxylic acid compound with 2-aminoethanol (1:2).

Элтромбопаг Оламин

C₂₅H₂₂N₄O₄·2(C₂H₇NO) = 564.6.

CAS — 496775-62-3.

Profile

Eltrombopag is a non-peptide thrombopoietin receptor agonist. It is under investigation as a platelet growth factor given orally for the management of thrombocytopenia in patients with hepatitis C infection, and in idiopathic thrombocytopenic purpura.

References

1. McHutchison JG, *et al.* Eltrombopag for thrombocytopenia in patients with cirrhosis associated with hepatitis C. *N Engl J Med* 2007; **357**: 2227–36.
2. Bussell JB, *et al.* Eltrombopag for the treatment of chronic idiopathic thrombocytopenic purpura. *N Engl J Med* 2007; **357**: 2237–47.