

Iotrolan (BAN, USAN, rINN)

Iotrol; Iotrolán; Iotrolane; Iotrolanum; Iotrolum; Jotrolaani; Jotrolan; ZK-39482. *N,N',N'',N'''*-Tetrakis(2,3-dihydroxy-1-hydroxy-methylpropyl)-2,2',4,4',6,6'-hexaiodo-5,5'-(*N,N'*-dimethylmalonyldi-imino)di-isophthalamide.

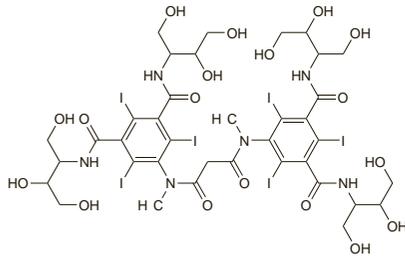
Йотролан

$C_{37}H_{48}I_6N_6O_{18} = 1626.2$.

CAS — 79770-24-4.

ATC — V08AB06.

ATC Vet — QV08AB06.



Description. Iotrolan contains about 46.8% of I.

Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Iotrolan). A white or yellowish-white, hygroscopic powder. Very soluble in water; practically insoluble in alcohol; freely soluble in dimethyl sulfoxide. Store in airtight containers. Protect from light.

Adverse Effects, Treatment, and Precautions

As for the amidotriazates, p.1475. For the adverse effects relating to the use of nonionic contrast media such as iotrolan for myelography, see under Iohexol, p.1483.

Pharmacokinetics

Iotrolan is excreted unchanged in the urine. After intrathecal injection, about 80% is excreted in the urine within 24 hours.

Uses and Administration

Iotrolan is a nonionic dimeric iodinated radiographic contrast medium (p.1474). It is given intrathecally for myelography and for contrast enhancement in computed tomography, and by instillation into body ducts or cavities for procedures including lymphography, arthrography, hysterosalpingography, cholangiopancreatography, and for visualisation of the mammary ducts. It may also be given orally for imaging of the gastrointestinal tract. Iotrolan is usually available as solutions containing 51.3% or 64.1% of iotrolan (equivalent to 240 or 300 mg/mL of iodine, respectively) and the dose and strength used vary according to the procedure and route.

Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Isovist†; **Austria:** Isovist; **Canada:** Osmovist†; **Cz.:** Isovist†; **Denm.:** Isovist; **Fin.:** Isovist†; **Ger.:** Isovist; **Hung.:** Isovist; **Neth.:** Isovist; **NZ:** Isovist; **S.Afr.:** Isovist; **Switz.:** Isovist; **UK:** Isovist.

Iotroxic Acid (BAN, USAN, rINN)

Acide Iotroxiq; Ácido iotróxico; Acidum Iotroxicum; Jotroksi-happo; Jotroxysyra; SH-213AB. 3,3'-(3,6,9-Trioxaundecanedioyl-di-imino)bis(2,4,6-tri-iodobenzoic acid).

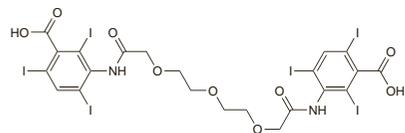
Йотроксовая Кислота

$C_{22}H_{18}I_6N_2O_9 = 1215.8$.

CAS — 51022-74-3.

ATC — V08AC02.

ATC Vet — QV08AC02.



Description. Iotroxic acid contains about 62.6% of I.

Pharmacopoeias. In *Int.* and *Jpn.*

Meglumine Iotroxate (BANM, rINNM)

Dimeglumine Iotroxate; Iotroxate de Méglumine; Iotroxate Meglumine; Iotroxato de meglumina; Meglumine Iotroxinate; Meglumini Iotroxas. The di(*N*-methylglucamine)salt of iotroxic acid.

Меглумина Йотроксат

$C_{22}H_{18}I_6N_2O_9 \cdot 2C_7H_{17}NO_5 = 1606.2$.

CAS — 68890-05-1.

ATC — V08AC02.

ATC Vet — QV08AC02.

Description. Meglumine iotroxate contains about 47.4% of I.

Adverse Effects, Treatment, and Precautions

See under the amidotriazates, p.1475.

Pharmacokinetics

After intravenous injection, iotroxic acid binds to plasma proteins and is taken up by the liver; plasma-protein binding is about 60 to 90%. It is excreted primarily unchanged in the bile; a small amount is metabolised and excreted in the urine.

Uses and Administration

Iotroxic acid is an ionic dimeric iodinated radiographic contrast medium (see p.1474); it is taken up by the liver and excreted in bile, and is used in cholecystography and cholangiography.

Iotroxic acid is given intravenously as a solution containing 10.5% of the meglumine salt. The usual dose is 10.5 g of meglumine iotroxate (equivalent to about 5 g of iodine), given by infusion over at least 15 minutes. Alternatively, a solution containing 22.8% of meglumine iotroxate may be used.

Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Biliscopin; **Austria:** Biliscopin; **Ger.:** Biliscopin; **Gr.:** Biliscopin; **NZ:** Biliscopin; **Spain:** Bilisegrol†; **Swed.:** Biliscopin†; **Switz.:** Biliscopin; **UK:** Biliscopin.

Ioversol (BAN, USAN, rINN)

Ioversolum; Joversol; Joversoli; MP-328. *N,N'*-Bis(2,3-dihydroxypropyl)-5-[*N*-(2-hydroxyethyl)glycolamido]-2,4,6-tri-iodoisophthalamide.

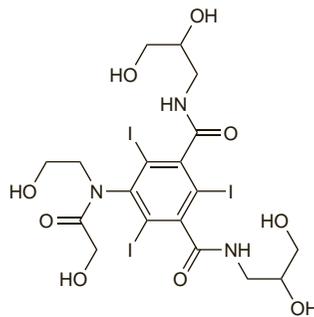
Йоверсол

$C_{18}H_{24}I_3N_3O_9 = 807.1$.

CAS — 87771-40-2.

ATC — V08AB07.

ATC Vet — QV08AB07.



Description. Ioversol contains about 47.2% of I.

Pharmacopoeias. In *US*.

USP 31 (Ioversol). Store at a temperature of 25°, excursions permitted between 15° and 30°.

Adverse Effects, Treatment, and Precautions

See under the amidotriazates, p.1475.

Pharmacokinetics

When given intravascularly, ioversol is rapidly eliminated unchanged in the urine, with a half-life of about 1.5 hours; more than 95% of a dose is eliminated within 24 hours. Binding to plasma or serum proteins is very low.

Uses and Administration

Ioversol is a nonionic monomeric iodinated radiographic contrast medium (p.1474) that is given intra-arterially or intravenously for angiography and urography. It is also used for contrast enhancement during computed tomography. It is usually available as a solution containing 34 to 74% of ioversol (equivalent to 160 to 350 mg/mL of iodine). The dose and strength used vary according to the procedure and route.

References.

1. Floriani I, *et al.* Clinical profile of ioversol: a metaanalysis of 57 randomized, double-blind clinical trials. *Invest Radiol* 1996; **31**: 479-91.

Preparations

USP 31: Ioversol Injection.

Proprietary Preparations (details are given in Part 3)

Arg.: Optiray; **Austral.:** Optiray; **Austria:** Optiray; **Belg.:** Optiject; Optiray; **Canada:** Optiray; **Cz.:** Optiray; **Denm.:** Optiray; **Fin.:** Optiray; **Fr.:** Optiray; **Ger.:** Optiray†; **Gr.:** Optiray; **Hung.:** Optiray; **Israel:** Optiray; **Ital.:** Optiray; **Neth.:** Optiray; **Norw.:** Optiray; **Port.:** Optiray; **Spain:** Optiray; **Swed.:** Optiray; **Switz.:** Optiray; **UK:** Optiray; **USA:** Optiray.

Ioxaglic Acid (BAN, USAN, rINN)

Acide ioxaglique; Ácido ioxáglico; Acidum ioxaglicum; Joksgagliin-happo; Joksgaglio rügstis; Joxaglinsav; Joxaglinsyra; Kyselina joxaglová; P-286. *N*-(2-Hydroxyethyl)-2,4,6-tri-iodo-5-[2',4',6'-tri-iodo-3'-(*N*-methylacetamido)-5'-methylcarbonylhippuramido]-isophthalamide.

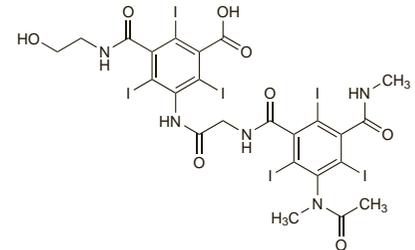
Йоксагловая Кислота

$C_{24}H_{21}I_6N_5O_8 = 1268.9$.

CAS — 59017-64-0.

ATC — V08AB03.

ATC Vet — QV08AB03.



Description. Ioxaglic acid contains about 60% of I.

Pharmacopoeias. In *Eur.* (see p.vii) and *US*.

Ph. Eur. 6.2 (Ioxaglic Acid). A white or almost white hygroscopic powder. Very slightly soluble in water and in dichloromethane; slightly soluble in alcohol. It dissolves in dilute solutions of alkali hydroxides. Store in airtight containers. Protect from light.

USP 31 (Ioxaglic Acid). Store at a temperature of 25°, excursions permitted between 15° and 30°.

Meglumine Ioxaglate (BANM, rINNM)

Ioxaglate de Méglumine; Ioxaglate Meglumine (USAN); Ioxaglato de meglumina; Meglumini Ioxaglas; MP-302 (meglumine ioxaglate with sodium ioxaglate). The *N*-methylglucamine salt of ioxaglic acid.

Меглумина Йоксаглат

$C_{24}H_{21}I_6N_5O_8 \cdot C_7H_{17}NO_5 = 1464.1$.

CAS — 59018-13-2.

ATC — V08AB03.

ATC Vet — QV08AB03.

Description. Meglumine ioxaglate contains about 52% of I.

Sodium Ioxaglate (BANM, rINNM)

Ioxaglate de Sodium; Ioxaglate Sodium (USAN); Ioxaglato sódico; MP-302 (sodium ioxaglate with meglumine ioxaglate); Natrium Ioxaglas; Natriumjoksgaalaatti; Natriumjoxaglat.

Натрий Йоксаглат

$C_{24}H_{20}I_6N_5NaO_8 = 1290.9$.

CAS — 67992-58-9.

ATC — V08AB03.

ATC Vet — QV08AB03.

Description. Sodium ioxaglate contains about 59% of I.

Adverse Effects, Treatment, and Precautions

See under the amidotriazates, p.1475.

Pharmacokinetics

On intravenous use, ioxaglates are rapidly distributed throughout the extracellular fluid. Protein binding is reported to be very low. They are mainly excreted unchanged in the urine, although biliary excretion may predominate in renal impairment. With normal renal function, about 90% of a dose is excreted in the urine within 24 hours; an elimination half-life of about 90 minutes has been reported. Ioxaglates cross the placenta and are distributed into breast milk. They are removed by haemodialysis and peritoneal dialysis.

Uses and Administration

Ioxaglic acid is an ionic dimeric iodinated radiographic contrast medium (p.1474). It is given intravenously, intra-arterially, intrathecally, or by instillation into body ducts and cavities and is used in diagnostic procedures including angiography, arthrography, hysterosalpingography, and urography. It is also used for contrast enhancement during computed tomography.

Ioxaglic acid is usually available as solutions containing a mixture of the sodium and meglumine salts. Commonly used solutions contain 39.3% of meglumine ioxaglate and 19.6% of sodium ioxaglate (equivalent to 320 mg/mL of iodine) or 24.6% of meglumine ioxaglate and 12.3% of sodium ioxaglate (equivalent to 200 mg/mL of iodine). The dose and strength used depend upon the procedure and route.

Preparations

USP 31: Ioxaglate Meglumine and Ioxaglate Sodium Injection.

Proprietary Preparations (details are given in Part 3)

Arg.: Hexabrix; **Austral.:** Hexabrix; **Austria:** Hexabrix; **Belg.:** Hexabrix; **Braz.:** Hexabrix†; **Canada:** Hexabrix; **Chile:** Hexabrix; **Cz.:** Hexabrix; **Denm.:** Hexabrix; **Fin.:** Hexabrix; **Fr.:** Hexabrix; **Ger.:** Hexabrix; **Gr.:** Hexabrix; **Hung.:** Hexabrix; **Israel:** Hexabrix; **Ital.:** Hexabrix; **Neth.:**