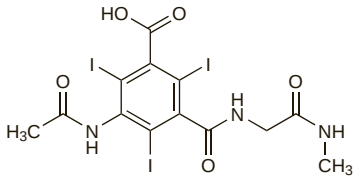
Ioglicic Acid *(BAN, USAN, rINN)*

Acide Ioglicique; Ácido ioglícico; Acidum Ioglicicum; Joglicinsyra; Joglisiinihappo; SH-H-200-AB. 5-Acetamido-2,4,6-tri-iodo-*N*-(methylcarbamoylmethyl)isophthalamic acid.

Йоглициевая Кислота

$C_{13}H_{12}I_3N_3O_5$ = 671.0.
CAS — 49755-67-1.
ATC — V08AA06.
ATC Vet — QV08AA06.



Description. Ioglicic acid contains about 56.7% of I.

Meglumine Ioglicate *(BANM, rINNM)*

Ioglicate de Méglumine; Ioglicate Meglumine; Ioglicato de meglumina; Meglumini Ioglicas. The *N*-methylglucamine salt of ioglicic acid.

Меглумина Йоглициат

$C_{13}H_{12}I_3N_3O_5$,$C_7H_{17}NO_5$ = 866.2.
ATC — V08AA06.
ATC Vet — QV08AA06.

Description. Meglumine ioglicate contains about 44.0% of I.

Sodium Ioglicate *(BANM, rINNM)*

Ioglicate de Sodium; Ioglicate Sodium; Ioglicato sódico; Natrii Ioglicas.

Натрий Йоглициат

$C_{13}H_{11}I_3N_3NaO_5$ = 692.9.
ATC — V08AA06.
ATC Vet — QV08AA06.

Description. Sodium ioglicate contains about 54.9% of I.

Profile

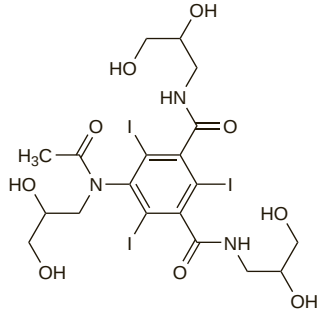
Ioglicic acid is an ionic monomeric iodinated radiographic contrast medium (p.1474) that has been used, as the meglumine and sodium salts, for diagnostic procedures.

Iohexol *(BAN, USAN, rINN)*

Iohexolum; Joheksoli; Joheksolis; Johexol; Win-39424. *N,N′*-Bis(2,3-dihydroxypropyl)-5-[*N*-(2,3-dihydroxypropyl)acetamido]-2,4,6-tri-iodoisophthalamide.

Йогексол

$C_{19}H_{26}I_3N_3O_9$ = 821.1.
CAS — 66108-95-0.
ATC — V08AB02.
ATC Vet — QV08AB02.



Description. Iohexol contains about 46.4% of I.

Pharmacopoeias. In *Eur.* (see p.vii), *Int.*, and *US.*
Ph. Eur. 6.2 (Iohexol). A white or greyish-white, hygroscopic powder. Very soluble in water; practically insoluble in dichloromethane; freely soluble in methyl alcohol. Store in airtight containers. Protect from light.
USP 31 (Iohexol). A white to off-white, hygroscopic, odourless powder. Very soluble in water and in methyl alcohol; practically insoluble or insoluble in chloroform and in ether. Store at a temperature of 25°, excursions permitted between 15° and 30°. Protect from light.

Adverse Effects, Treatment, and Precautions

Iohexol and other nonionic iodinated contrast media have similar adverse effects and precautions to ionic media but the effects tend to be less severe and the incidence is generally lower; see under the amidotrizoates, p.1475 for details.

Additional neurological adverse effects may occur when nonionic media such as iohexol are used for myelography. These include severe headache, backache, neck stiffness, dizziness, and leg or sciatic-type pain. Convulsions, aseptic meningitis, and mild and transitory perceptual aberrations, such as visual and speech disturbances, and confusion, may occur occasionally; rarely, more severe mental disturbances have occurred. Urinary retention has also been reported.

Breast feeding. Iohexol is distributed into breast milk in very small quantities[1] but no adverse effects have been seen in breast-feeding infants whose mothers were receiving iohexol and the American Academy of Pediatrics considers[2] that it is therefore usually compatible with breast feeding.

1. Nielsen ST, *et al.* Excretion of iohexol and metrizoate in human breast milk. *Acta Radiol* 1987; **28:** 523–6.
2. American Academy of Pediatrics. The transfer of drugs and other chemicals into human milk. *Pediatrics* 2001; **108:** 776–89. Correction. *ibid.*; 1029. Also available at: http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b108/3/776 (accessed 27/03/06)

Effects on the nervous system. Encephalopathy developed in a 48-year-old man with sciatica within 9 hours of iohexol for lumbar myelography but had largely resolved 48 hours after the myelogram; complete resolution took 4 days.[1] However, recovery was slow in a patient who developed paraplegia and areflexia in the legs after a similar procedure. Five months later the patient still complained of paraesthesia in her legs and could not stand without support.[2]

1. Donaghy M, *et al.* Encephalopathy after iohexol myelography. *Lancet* 1985; **ii:** 887.
2. Noda K, *et al.* Prolonged paraplegia after iohexol myelography. *Lancet* 1991; **337**: 681.

Pharmacokinetics

After intravascular use, 90% or more of a dose of iohexol is eliminated unchanged in the urine within 24 hours. An elimination half-life of about 2 hours in patients with normal renal function has been reported. Protein binding in blood is reported to be very low.

Pregnancy. Contrast material was detected[1] in the intestines of twin neonates who were born 17 hours after iohexol was given to their mother for angiography, suggesting that transplacental transfer had taken place.

1. Moon AJ, *et al.* Transplacental passage of iohexol. *J Pediatr* 2000; **136:** 548–9.

Uses and Administration

Iohexol is a nonionic monomeric iodinated radiographic contrast medium (see p.1474). It may be given intravenously, intra-arterially, intrathecally, orally, rectally, or by instillation into body cavities and is used in diagnostic procedures including myelography, angiography, urography, arthrography, and visualisation of the gastrointestinal tract and body cavities. Iohexol is also used to produce contrast enhancement during computed tomography.

Iohexol is usually available as solutions containing 30.2 to 75.5% of iohexol (equivalent to 140 to 350 mg/mL of iodine) and the dose and strength used vary according to the procedure and the route.

Preparations

USP 31: Iohexol Injection.

Proprietary Preparations (details are given in Part 3)

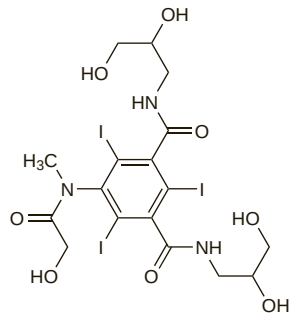
Arg.: Omnipaque†; ***Austral.:*** Omnipaque; ***Austria:*** Accupaque; Omnipaque; ***Belg.:*** Omnipaque; ***Braz.:*** Omnipaque†; ***Canad.:*** Omnipaque; ***Chile:*** Omnipaque; ***Cz.:*** Omnipaque; ***Denm.:*** Omnipaque; ***Fin.:*** Omnipaque; ***Fr.:*** Omnipaque; ***Ger.:*** Accupaque; Omnipaque; ***Gr.:*** Omnipaque; ***Hung.:*** Omnipaque; ***India:*** Radiopaque; ***Israel:*** Omnipaque; ***Ital.:*** Omnipaque; ***Neth.:*** Omnipaque; ***Norw.:*** Omnipaque; ***NZ:*** Omnipaque; ***Port.:*** Omnipaque; ***Rus.:*** Omnipaque (Омнипак); ***Spain:*** Omnigraf; Omnipaque; Omnitrast; ***Swed.:*** Omnipaque; ***Switz.:*** Accupaque; Omnipaque; ***UK:*** Omnipaque; ***USA:*** Omnipaque; ***Venez.:*** Omnipaque†.

Iomeprol *(BAN, USAN, rINN)*

Iométrol; Iomeprolum; Jomeprol; Jomeproli. *N,N′*-Bis(2,3-dihydroxypropyl)-2,4,6-triiodo-5-(*N*-methylglycolamido)-isophthalamide.

Йомепрол

$C_{17}H_{22}I_3N_3O_8$ = 777.1.
CAS — 78649-41-9.
ATC — V08AB10.
ATC Vet — QV08AB10.



Description. Iomeprol contains about 49% of I.

Adverse Effects, Treatment, and Precautions

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

Pharmacokinetics

After intravascular use, iomeprol is rapidly eliminated unchanged in the urine, with a terminal elimination half-life of 1.9 hours. It is not significantly bound to plasma proteins.

Uses and Administration

Iomeprol is a nonionic monomeric iodinated radiographic contrast medium (see p.1474). It may be given intravenously, intra-arterially, intrathecally, or by instillation into body cavities, and is used in radiographic procedures including myelography, angiography, urography, and arthrography. It is also used to produce contrast enhancement during computed tomography.

Iomeprol is usually available as solutions containing 30.62 to 81.65% of iomeprol (equivalent to 150 to 400 mg/mL of iodine) and the dose and strength used vary according to the procedure and the route.

◊ Reviews.

1. Dooley M, Jarvis B. Iomeprol: a review of its use as a contrast medium. *Drugs* 2000; **59:** 1169–86.

Preparations

Proprietary Preparations (details are given in Part 3)

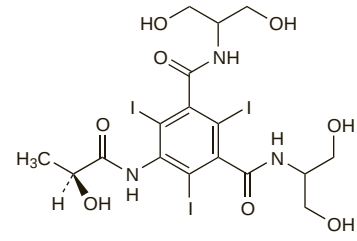
Austral.: Iomeron; ***Austria:*** Iomeron; ***Belg.:*** Iomeron; ***Cz.:*** Iomeron; ***Denm.:*** Iomeron; ***Fin.:*** Iomeron; ***Fr.:*** Iomeron; ***Ger.:*** Imeron; ***Gr.:*** Iomeron; ***Hung.:*** Iomeron; ***Irl.:*** Iomeron†; ***Israel:*** Iomeron; ***Ital.:*** Iomeron; ***Jpn:*** Iomeron; ***Neth.:*** Iomeron; ***Norw.:*** Iomeron; ***NZ:*** Iomeron; ***Port.:*** Iomeron; ***Spain:*** Iomeron; ***Swed.:*** Iomeron; ***Switz.:*** Iomeron; ***UK:*** Iomeron.

Iopamidol *(BAN, USAN, rINN)*

B-15000; Iopamidolum; Jopamidol; Jopamidoli; Jopamidolis; SQ-13396. (*S*)-*N,N′*-Bis[2-hydroxy-1-(hydroxymethyl)ethyl]-2,4,6-tri-iodo-5-lactamidoisophthalamide.

Йопамидол

$C_{17}H_{22}I_3N_3O_8$ = 777.1.
CAS — 60166-93-0; 62883-00-5.
ATC — V08AB04.
ATC Vet — QV08AB04.



Description. Iopamidol contains about 49% of I.

Pharmacopoeias. In *Eur.* (see p.vii), *Jpn*, and *US.*
Ph. Eur. 6.2 (Iopamidol). A white or almost white powder. Freely soluble in water; practically insoluble in alcohol and in dichloromethane; very slightly soluble in methyl alcohol. Protect from light.
USP 31 (Iopamidol). A white to off-white, practically odourless, powder. Very soluble in water; practically insoluble in alcohol and in chloroform; sparingly soluble in methyl alcohol. Store at a temperature of 25°, excursions permitted between 15° and 30°. Protect from light.

Adverse Effects, Treatment, and Precautions

As for the amidotrizoates, p.1475. For the adverse effects relating to the use of nonionic contrast media such as iopamidol for