

**Preparations****Proprietary Preparations** (details are given in Part 3)**Austria:** Arwin.**Angiotensinamide** (BAN, rINN)

Angiotensinamid; Angiotensin Amide (USAN); Angiotensinamid; Angiotensinamida; Angiotensinamidum; NSC-107678. Asn-Arg-Val-Tyr-Val-His-Pro-Phe; [1-Asparagine,5-valine]angiotensin II.

АНГИОТЕНСИНАМИД

C<sub>49</sub>H<sub>70</sub>N<sub>14</sub>O<sub>11</sub> = 1031.2.

CAS — 11128-99-7 (angiotensin II); 53-73-6 (angiotensinamide).

ATC — C01CX06.

ATC Vet — QC01CX06.

**Profile**

Angiotensinamide is a vasopressor related to the naturally occurring peptide angiotensin II. It increases the peripheral resistance mainly in cutaneous, splanchnic, and renal blood vessels. The increased blood pressure is accompanied by a reflex reduction in heart rate, and cardiac output may also be reduced.

Angiotensinamide has been used in the treatment of hypotension associated with shock. It has also been given in the management of overdosage of ACE inhibitors, when conventional therapy has been ineffective.

Angiotensinamide should not be given to patients being treated with an MAOI or within 14 days of stopping such treatment as a hypertensive crisis may be precipitated.

## ◇ References.

1. Jackson T, et al. Enalapril overdose treated with angiotensin infusion. *Lancet* 1993; **341**: 703.
2. Newby DE, et al. Enalapril overdose and the corrective effect of intravenous angiotensin II. *Br J Clin Pharmacol* 1995; **40**: 103-4.
3. Yunge M, Petros A. Angiotensin for septic shock unresponsive to noradrenaline. *Arch Dis Child* 2000; **82**: 388-9.

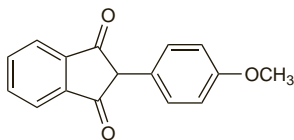
**Anisindione** (BAN, rINN)

Anisindiona; Anisindionum. 2-(4-Methoxyphenyl)indan-1,3-dione.

АНИЗИНДИОН

C<sub>16</sub>H<sub>12</sub>O<sub>3</sub> = 252.3.

CAS — 117-37-3.

**Profile**

Anisindione is an oral indanedione anticoagulant with actions similar to those of warfarin (p.1425). It has been used in the management of thromboembolic disorders (p.1187) but, as the indanediones are generally more toxic than warfarin (see Phenindione, p.1369), its use is limited.

Use of anisindione may colour the urine pink or orange.

**Anistreplase** (BAN, USAN, rINN)Anisoylated Plasminogen Streptokinase Activator Complex; Anistreplasi; Anistreplas; Anistreplasa; Anistreplasum; APSAC; BRL-26921. *p*-Anisoylated (human) lys-plasminogen streptokinase activator complex (1:1).

Анистреплаза

CAS — 81669-57-0.

ATC — B01AD03.

ATC Vet — QB01AD03.

**Storage.** The manufacturer recommends that anistreplase should be stored at 2° to 8°.**Adverse Effects, Treatment, and Precautions**

As for Streptokinase, p.1402. Like streptokinase, anistreplase appears to be antigenic and may be neutralised by streptokinase antibodies.

**Back pain.** For references to back pain associated with anistreplase infusion, see under Streptokinase, p.1402.**Interactions**

As for Streptokinase, p.1404.

**Pharmacokinetics**

Anistreplase is reported to be cleared from plasma at about half the rate of streptokinase and has a fibrinolytic half-life of about

90 minutes. It is metabolised to the plasminogen-streptokinase complex at a steady rate.

## ◇ References.

1. Gemmill JD, et al. A comparison of the pharmacokinetic properties of streptokinase and anistreplase in acute myocardial infarction. *Br J Clin Pharmacol* 1991; **31**: 143-7.

**Uses and Administration**Anistreplase is a thrombolytic drug. It consists of a complex of the lys-form of plasminogen and streptokinase with the addition of a *p*-anisoyl group. After intravenous injection the anisoyl group undergoes deacylation at a steady rate to release the active complex which converts plasminogen to plasmin, a proteolytic enzyme that has fibrinolytic effects. The mechanisms of fibrinolysis are discussed further under Haemostasis and Fibrinolysis on p.1045.

Anistreplase is used similarly to streptokinase (p.1404) in the treatment of acute myocardial infarction (p.1175). It is given as a single intravenous injection in a dose of 30 units over 5 minutes, as soon as possible after the onset of symptoms.

**Preparations****Proprietary Preparations** (details are given in Part 3)**Austria:** Eminase; **Belg.:** Eminase†; **Ger.:** Eminase; **Neth.:** Eminase†.**Multi-ingredient:** **Israel:** Eminase†.**Aprindine Hydrochloride** (BANM, USAN, rINNM)AC-1802; Aprindine, Chlorhydrate d'; Aprindini Hydrochloridum; Compound 83846; Compound 99170 (apringidine); Hydrochloruro de aprindina. *N*-(3-Diethylaminopropyl)-*N*-indan-2-ylaniline hydrochloride; *NN*-Diethyl-*N'*-indan-2-yl-*N'*-phenyltrimethylenediamine hydrochloride.

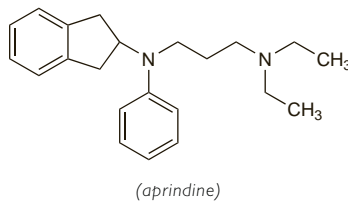
Априндина Гидрохлорид

C<sub>22</sub>H<sub>30</sub>N<sub>2</sub>·HCl = 358.9.

CAS — 37640-71-4 (apringidine); 33237-74-0 (apringidine hydrochloride).

ATC — C01BB04.

ATC Vet — QC01BB04.



(apringidine)

**Adverse Effects and Precautions**

Adverse effects of aprindine are usually dose-related and most commonly affect the CNS. They include tremor, vertigo, ataxia, diplopia, memory impairment, hallucinations, and convulsions. Gastrointestinal effects include nausea, vomiting, and bloating. There have been reports of agranulocytosis, including fatalities. Hepatitis and cholestatic jaundice have occasionally been reported; blood and liver function tests should be performed during treatment.

Aprindine is contra-indicated in patients with advanced heart failure or severe conduction disturbances. Some licensed product information has recommended that aprindine should not be used in patients with parkinsonism or convulsive disorders. It should be used with caution in patients with bradycardia, hypotension, and hepatic or renal impairment.

**Interactions****Antiarrhythmics.** Steady-state plasma-aprindine concentrations increased in 2 patients after starting *amiodarone* and this coincided with the appearance of adverse effects.<sup>1</sup>

1. Southworth W, et al. Possible amiodarone-aprindine interaction. *Am Heart J* 1982; **104**: 323.

**Pharmacokinetics**

Aprindine is readily absorbed from the gastrointestinal tract. It has a long plasma half-life, usually between 20 and 27 hours, and is about 85 to 95% bound to plasma proteins. It is excreted in the urine and the bile.

**Uses and Administration**

Aprindine is a class Ib antiarrhythmic (p.1153) used in the management of ventricular and supraventricular arrhythmias (p.1160).

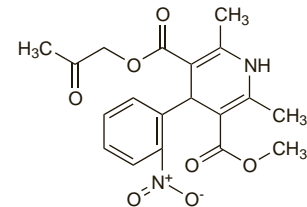
Aprindine is given as the hydrochloride in usual oral maintenance doses of 50 to 100 mg daily. Initial doses of 150 to 200 mg daily, in divided doses, may be given under strict surveillance for the first 2 to 3 days; up to 300 mg may be given on the first day if necessary. Therapy should be monitored by ECG during initial stabilisation of the dose and intermittently thereafter. Aprindine has also been given intravenously.

**Preparations****Proprietary Preparations** (details are given in Part 3)**Belg.:** Fibroran†; **Fr.:** Fibroran†; **Neth.:** Fibroran.**Aranidipine** (rINN)Aranidipino; Aranidipinum; MPC-1304. (±)-Acetonyl methyl 1,4-dihydro-2,6-dimethyl-4-(*o*-nitrophenyl)-3,5-pyridinedicarboxylate.

АРАНИДИПИН

C<sub>19</sub>H<sub>20</sub>N<sub>2</sub>O<sub>7</sub> = 388.4.

CAS — 86780-90-7.

**Profile**

Aranidipine is a dihydropyridine calcium-channel blocker used in the management of hypertension.

**Preparations****Proprietary Preparations** (details are given in Part 3)**Jpn:** Bec; Flaspas†; Sapresta.**Arbutamine Hydrochloride** (BANM, USAN, rINNM) ⊗

Arbutamine, Chlorhydrate d'; Arbutamini Hydrochloridum; GP-2-121-3 (arbutamine or arbutamine hydrochloride); Hydrochloruro de arbutamina. (R)-4-(1-Hydroxy-2-[4-(4-hydroxyphenyl)butylamino]ethyl)pyrocatechol hydrochloride.

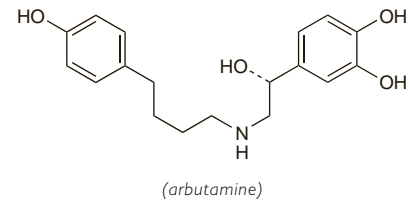
Арбутамина Гидрохлорид

C<sub>18</sub>H<sub>23</sub>NO<sub>4</sub>·HCl = 353.8.

CAS — 128470-16-6 (arbutamine); 125251-66-3 (arbutamine hydrochloride).

ATC — C01CA22.

ATC Vet — QC01CA22.



(arbutamine)

**Profile**

Arbutamine hydrochloride is a sympathomimetic (p.1407) with beta-agonist properties and like dobutamine (p.1272) has been used for cardiac stress testing in patients unable to exercise.

## ◇ References.

1. Anonymous. Arbutamine for stress testing. *Med Lett Drugs Ther* 1998; **40**: 19-20.

**Preparations****Proprietary Preparations** (details are given in Part 3)**USA:** Genesaf†.**Ardeparin Sodium** (USAN, rINN)

Ardeparina sódica; Ardéparine Sodique; Ardeparinum Natricum; Wy-90493-RD.

Ардепарин Натрий

CAS — 9041-08-1.

**Description.** Ardeparin sodium is prepared by peroxide degradation of heparin obtained from the intestinal mucosa of pigs. The end chain structure appears to be the same as the starting material with no unusual sugar residues present. The molecular weight of 98% of the components is between 2000 and 15 000 and the average molecular weight is about 5500 to 6500. The degree of sulfation is about 2.7 per disaccharide unit.**Profile**

Ardeparin sodium is a low-molecular-weight heparin (p.1329) with anticoagulant activity that has been used for the prevention of postoperative venous thromboembolism.