

"TIAFT reference blood level list of therapeutic and toxic substances " September 2004

The renewed table, 2004.

June till September 2004 the Dutch pharmacist student Marieke Welzen, M.Sc. in pharmacology and chemistry under supervision of Professor Dr. Donald R.A. Uges, hospital pharmacist and clinical and forensic toxicologist - pharmacologist renewed and updated the TIAFT reference blood concentration list totally. Now we provide you with the newest compilation of blood or plasma levels of more than 800 substances and active metabolites.

Molecular weights have been added for the colleagues using moles in stead of mg per litre.

For this new list the following existing lists and sources have been sought and were critically compared.

1. **D.R.A. Uges:** The old TIAFT list was based on the list of Donald R.A. Uges, Ph.D. In 1982 he published his first list of drug data in the Netherlands. Later on compilations of new drug data were published in 1987 and 1995. All these drug data have been obtained from surveys of colleagues and medical specialists, from information from literature and pharmaceutical industries and by comparison with several well known drug data list.
2. **M. Schulz and A. Schmoltdt,** Therapeutic and toxic concentrations of more than 800 drugs and other xenobiotics. Pharmazie 2003; 58: 447-474
3. **Ch.Winek.** Annual Drug and Chemical Blood Level Data PC Laboratory 1320 5th Ave. Pittsburgh PA, USA, 2004
4. Moffat AC, Osselton MD, Widdop B; Clarke's Analysis of Drug and Poisons in pharmaceuticals, body fluids and post-mortem material. Third Ed. London, Pharmaceutical Press, 2004;.
5. **R.C. Baselt.** Disposition of Toxic Drugs and Chemicals in Man., Sixth Ed. Foster City CA. Biomedical Publ., 2002.
6. **Micromedex**® (Healthcare Series, CD-Rom), 2004
7. **C. Dollery.** Therapeutic Drugs. Second Ed. Edinburgh. Churchill Livingstone. 1999

Ideally these reference drug data are from patients under the same condition and with the same age, illness and medication as the patients involved in your case. Unfortunately there are great intra- and inter-individual differences between individuals. These differences are even greater between patients and healthy volunteers. Nevertheless, for those who know the relevant pharmacokinetic and pharmacodynamic factors (and pitfalls) that can influence the serum concentrations of drugs, a list of reliable therapeutic and toxic reference values can be very valuable. However, the forensic toxicologists has to be aware that these so called therapeutic and toxic drug concentrations are clinical data in serum or plasma and not in post-mortem whole blood.

Therapeutic levels are the steady state concentrations that need to be reached for the drug to exert a significant clinical benefit without causing unacceptable side effects.

Toxic levels are serum concentrations above which unacceptable, concentration dependent, side- or toxic effects might appear.

It has to be taken in account, that these values will never be static and might change with advancing knowledge or with other (therapeutic) use of the compounds. Nor the members of the TIAFT reference committee, nor the Board of TIAFT, nor the TIAFT organisation is responsible for any consequence by any error in this list. Using these data is for your own liability!

Use of drug data without sufficient knowledge about the patient or victim, the case and about pharmacokinetics, toxicokinetics and pharmacodynamics might give a wrong interpretation.

The Members of the TIAFT reference committee are: Donald Uges Ph.D., Groningen, Netherlands, Anni Steentoft Ph.D., Copenhagen, Denmark and Charles Winek Ph.D. , Pittsburgh PA, USA are convinced that this compilation gives the most reliable comprehensive drug data information for clinical and forensic toxicologists at this moment.

It is very important that every TIAFT member who has reliable new reference data, or has noticed errors in this list or got new insights or experiences will send this information (with scientific foundations) to Donald R.A. Uges Ph.D. d.r.a.uges@apoth.azg.nl. tel. 00.31.50.361.4071

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Substance (Mol. weight) - Matrix - [Ref. Concentration **Therapeutic** mg/L (T=trough; P=peak)] - [Ref. **Concentration Toxic** mg/L (T=trough; L=lethal)];

[(10)20-40(50)]: means: normally between 20-40 mg/L, but some authors or clinicians are using ranges between 10 and 50 mg/L. * case report **Bold = changed after April 2005**

Substances starting with letter "A"

- Acamprosate (440.5) - Plasma - [0.18-0.81]
- Acebutolol (336.4) - Serum - [0.5-1.25] - [**L 15-20**]
- - diacetalol (308.4) - Serum - [0.65-4.45] - [**L 90-150**]
- Acecarbromal (279.1) - Plasma - [sum 10-20] - [**25-30**]
- Acenocoumarol (353.3) - Serum - [T 0.03-0.09; P 0.1-0.5] - [**T 0.1-0.15**]
- Acetaldehyde (44.1) - Blood - [0-30] - [**100-125**]
- Acetazolamide (222.2) - Serum - [(glaucoma 4-5)10-20] - [**25-30**]
- Acetohexamide (324.4) - Plasma - [20-60] - [**500**]
- Acetone (58.1) - Blood - [endogenic for diabetes5-20] - [**after acetone drinking/sniffing 200-400; diabetic ketoacidosis 325-450; L 550**]
- Acetonitrile (41.1) - Blood - [-] - [**L 0.75**]
- - cyanide (26.0) - Blood - [0.001-0.012(-0.15)] - [-]
- Acetylsalicylic acid (180.2) – plasma (very instabel)- [-] - [-]
- - salicylic acid (138.1) - Serum - [rheumatism (child 150)- 200-300; anticoagulant 50-125; prostaglandinsynthetase inhibitor 50-150] - [**400-500 child 300; L 500-900**]
- Acitretin (326.4) - Plasma - [(0.05)0.1-0.7] - [-]
- Acyclovir (225.2) - Serum - [T 0.5-1.5; P 5-15] - [-]
- Ajmaline (326.4) - Serum - [0.2-1] - [**L 5.5***]
- Albendazole (265.3) - ... - [-] - [-]
- - albendazole sulphoxide - Serum - [0.5-1.5] - [-]
- Alcuronium chloride (827.9) - Plasma - [0.3-3] - [-]
- Aldrin (364.9) - Serum - [0-0.0015] - [**0.0035**]
- Alfentanil (416.5) - Serum - [0.03-0.6] - [-]
- Alfuzosine (389.5) - Plasma - [0.003-0.06] - [-]
- Alimemazine (298.4) - Serum - [0.05-0.4] - [**0.5; L 1-3.2**]
- Allobarbitol (208.2) - Serum - [2-5] - [**10; L 20-30**]
- Allopurinol (136.1) - Serum - [P 1-5] - [-]
- - oxypurinol (152.1) - Serum - [5-15] - [**20**]
- Alphaprodine (261.4) - Serum - [0.87-1.0] - [-]
- Alprazolam (308.8) - Serum - [0.005-0.05(-0.1)] - [**0.1-0.4**]
- Alprenolol (249.4) - Plasma - [0.01-0.2] - [**T 0.1; P 1-2; L 40**]
- - 4-hydroxyalprenolol (265.4) - Plasma - [0.04-0.06 sum 0.1-0.2] - [**sum T 0.25-0.3**]
- Aluminium (27.0) – Serum not in glass - [0-0.02(0.1)] - [**0.05-0.15; L 4.4***]
- Amantadine (151.3) - Serum - [0.3-0.6(-1)] - [**1; L 21***]
- Amikacin (585.6) - Serum - [T 1-4(10); P 15-25(30)] - [**T 10; P 30**]
- Aminobenzoic acid (137.1) Serum- [300-600] - [**600**]
- Aminophenazone (231.3) - .Serum - [10-20] - [-]
- Aminoglutethimide (232.3) - Serum - [0.5-25] - [-]
- 4-Aminopyridine (94.1) - Serum - [0.025-0.075] - [**0.15-0.2**]
- Amiodarone (645.3) - Serum - [1-2.5 T 0.5-2] - [**3**]
- - desethylamiodarone (617.3) - Serum - [sum 1-5] - [**sum 5-8**]
- Amisulpride (369.5) - Plasma - [-0.4] - [**10***]
- Amitriptyline (277.4) - Serum - [0.05-0.3] - [-]
- - nortriptyline (263.4) - Serum - [0.04-0.3 sum 0.1-0.2] - [**sum 0.5; L 1.5-2**]
- Amlodipine (408.9) - Plasma - [0.006-0.018] - [**0.088; L 0.1-0.2**]
- Ammonia (17.0) - Plasma - [0.5-1.7] - [-]

- Amobarbital (226.3) - Plasma - [2-12] - [**>9; L 13-96**]
- Amodiaquine (355.9) - Serum - [0.3-0.7] - [-]
- Amoxapine (313.8) - Serum - [0.01-0.2] - [-]
- 8-hydroxyamoxapine (329.8) - Serum - [sum 0.2-0.6] - [**sum 3; L sum 5**]
- Amoxicillin (365.4) - Serum - [T 0.5-1 P5-15] - [-]
- Amphetamine (135.2) - Serum - [(0.02)0.05-0.15] - [**0.2; L 0.5-1 (*for addicts 1-10)**]
- Amphotericin B (924.1) - Serum - [T 0.025-1; P 1.5-3.5] - [**T (3-)5-10**]
- Ampicillin (349.4) - Serum - [T 0.02-1; P 2-20] - [-]
- Amprenavir (505.6) serum / plasma - [P (2 hrs) 4-6 ; medium (4-6 hrs) 1.5-4.5 ; T(10-12 hrs) 0.4-1] - [-]
- Amrinone (187.2) - Plasma - [1-2(-4)] - [-]
- Amsacrine (393.5) - Plasma + 1 dr lactic acid < 48h -20°C - [continuous infusion 0.1-0.5; T 0.03; P 0.15-5.5] - [-]
- Anileridine (352.5) - Serum - [<0.5] - [**L 0.9***]
- Aniline (93.1) - Serum - [appr. -1 (urine)] - [**L 6**]
- Antimony (121.8) - Blood - [-0.01] - [**0.2**]
- Apomorphine (267.3) - Serum - [0.002-0.02] - [-]
- Aprindine (322.5) - Serum - [0.7-2] - [**2**]
- Aprobarbital (210.2) - Plasma - [10-40] - [**40; L 50**]
- Arsenic (74.9) - Blood - [0.002-0.07] - [**0.05-0.25(1); L 9-15**]
- Arsenic (74.9) - Urine - [0-0.1] - [**chronic 0.2-1; acute 1; As III more toxic than As V**]
- Ascorbic Acid (Vitamin C) (176.1) - Plasma - [5-12] - [-]
- Astemizole (458.6) and desmethylastemizole - Plasma - [0.003-0.005] - [**0.14***]
- Atazanavir (704.9) - [serum / plasma]- [P(1-2 hrs) 3.5-6; medium (4-8 hrs) 2-4; T (10-24 hrs) 1-2.5] - [-]
- Atenolol (266.3) - Serum - [0.1-0.6(1)] - [**2; L 27***]
- Atovaquone (366.8) - Plasma - [(10)15-30 (50)] - [-]
- Atracurium (929.2) - Serum - [0.1-1(5)] - [-]
- Atropine (289.4) - Serum - [0.002-0.025] - [**0.03-0.1 L0.2**]
- Azapropazone (336.4) - Plasma - [30-90] - [-]
- Azathioprine (277.3) - Serum / plasma + dithiothreitol 0.1M- [P 0.05-0.3] - [-]
- 6-mercaptopurine (152.2) - Serum - [0.04-0.3] - [**1-2**]
- Azelastine (383) - Plasma - [0.002-0.003(-0.01)] - [-]
- Azithromycin (749.0) - plasma- [0.04-1; tissue > 2 mg/l] - [-]
- Aztreonam (435.4) - Serum - [T 1-10; P 50-250] - [-]

Substances starting with letter "B"

- Baclofen (213.7) - Serum - [0.08-0.6] - [**1.1-3.5; L 6-9.6**]
- Barbitol (184.2) - Plasma - [5-30] - [**20; L 90**]
- Barbiturates
 - intermediate acting - Serum - [1-5] - [**10-30; L >30**]
 - long acting - Serum - [10-40] - [**40-60; L >80**]
 - short acting - Serum - [1-5] - [**7-10; L >10-15**]
- Barium (137.3) - Plasma - [-0.001] - [-]
- Bendroflumethiazide (421.4) - Plasma - [0.05-0.1] - [-]
- Benoxaprofen (301.7) - Plasma - [Peak <50] - [-]
- Benperidol (381.4) - Plasma - [appr. -0.002] - [-]
- Benzbromaron (424.1) - Serum - [2-10] - [-]
- Benzene (78.1) - Blood - [0.0002 (smokers 0.0006)] - [**L 0.95**]
- Benzphetamine (239.4) - Serum - [0.025-0.5] - [**0.5; L 14***]
- Benzpropine (307.4) - Serum - [0.01-0.2] - [**0.05; L 0.7**]
- Benzyl alcohol (108.1) - Blood - [**18**]
- Bepridil (366.6) - Plasma - [0.6-2.5] - [-]
- Beryllium (9.0) - Plasma - [-0.0003] - [-]
- Betaxolol (307.4) - Serum - [0.005-0.05] - [**L 36***]

- Bethanidine (177.2) - Serum - [0.02-0.5] - [-]
- Bevantolol (345.4) - Plasma - [0.2-2] - [-]
- Bezafibrate (361.8) -serum - [3-15] - [-]
- Bicalutamide (430.4) - Plasma - [1.5-17.5(25) as R-enantiomer] - [-]
- Biperiden (311.5) - Serum - [0.005-0.1] - [L 0.25*]
- Bismuth (209.0) - Blood - [0-0.05] - [0.1]
- Bisoprolol (325.5) - Serum - [0.01-0.06] - [-]
- Bopindolol (380.5) - Plasma - [0.001-0.015 after hydrolysis] - [-]
- Borate (58.8) - Plasma - [0-7] - [20; L 200]
- Boron (10.8) - Serum - [0.8-6] - [20-50; L 50-150]
- Brallobarbitol (287.1) - Serum - [4-8] - [8-10; L 150]
- Bretylium (414.4) - Serum - [0.08-2.4] - [-]
- Brodifacoum (523.4) - Serum - [-] - [0.02 L 0.03-0.17]
- Bromadiolon (527.4) - Serum - [-] - [0.02]
- Bromazepam (316.2) - Serum - [0.08-0.17] - [0.3-0.4; L (1-)2]
- Bromide (79.9) - Serum - [normal 3-30 therapeutic 75-100(300)] - [Bromism > 200; 500-1000(1500); L 2000]
- Bromisoval (223.1) - Serum - [10-20] - [30-40]
- Bromoxynil (276.9) - Plasma - [-] - [20]
- Bromperidol (420.3) - Serum - [0.001-0.02] - [-]
- Brompheniramine (319.2) - Serum - [0.005-0.015] - [0.2*]
- Brotizolam (393.7) - Serum - [0.001-0.02] - [-]
- Buflomedil (307.3) - Serum - [0.2-0.5] - [15-25; L 25]
- Bunitrolol (248.3) - Serum - [0.001-0.015] - [-]
- Bupivacaine (288.4) - Serum - [epidural anesthesia (e.a.)0.25-0.75; P 1-4] - [4-5 ; e.a. 1.5]
- Buprenorphine (467.6) - Serum - [0.001-0.01 - [0.2; L (1.1*)4-13]
- Bupropion (239.7) - Serum - [0.025-0.1] - [0.17; L 0.45]
- Buspirone (385.5) - Serum - [0.0009-0.005(0.01)] - [-]
- Butabarbital (Secbutabarbital) (212.2) - Serum - [5-15] - [10; L 30]
- Butalbital (224.3) - Plasma - [1-10] - [10-15; L 15-30]
- Butanone (72.1) - Plasma - [0-10] - [500]
- Butaperazine (409.6) - Plasma - [0.02-0.7] - [-]
- Butobarbital (212.3) - Plasma- [2-15] - [(14)32-98; L (11)30-75]
- Butorphanol (327.5) - Serum - [0.0003-0.002] - [-]
- Butriptyline (293.5) - Serum - [0.07-0.15] - [0.4-0.5]

Substances starting with letter "C"

- Cadmium (112.4) - Blood - [0-0.0065] - [0.015-0.05]
- Cadmium (112.4) - Urine - [0-0.005/g creatinine] - [-]
- Caffeine (194.2) - Serum - [ther. 8-20(drink 2-5)] - [30-50); L>80-100]
- Camazepam (371.8) - Serum - [0.1-0.6] - [2]
- Camphor (152.2) - Plasma - [-] - [0.3-0.4 (1.7)]
- Candesartan (440.5) - Plasma - [0.08-0.18]
- Captopril (217.3) - Serum - [0.05-0.5(-1)] - [5-6; L 60]
- Carazolol (298.4) - Plasma - [-0.015] - [-]
- Carbamazepine (236.3) - Serum - [4-9(12)] - [(12)-15 L>25]
- Carbamazepine-epoxide - Serum - [0.5-6] - [15]
- Carbaryl (201.2) - Plasma - [-] - [5; L 6]
- Carbenoxolone (570.8) - Plasma - [appr. 5-30] - [50]
- Carbimazole (186.2) - ... - [-] - [-]
- - methimazole (114.2) - Serum - [T 0.5-3.4] - [-]
- Carbinoxamine (290.8) - Plasma - [appr. 0.02-0.04] - [-]
- Carbocromen (361.4) - Plasma - [0.8-2.4] - [-]

- Carbon monoxide , HbCO (28.0) - Blood - [1-5% ; smoker 8-10 %] - **[25-35%; L 50-60%]**
- Carbon tetrachloride (153.8) - Blood - [-0.07] - **[20-50; L 100-200]**
- Carboplatin (free fraction) (371.3) - Plasma - [-] - [-]
- platinum (195.1) - Serum - [P 10-25] - **[T 0.1-0.2]**
- Carbromal (237.1) - Serum - [2-10] - **[15-20; L 40]**
- bromide (79.9) - Serum - [5-30] - **[300]**
- Carisoprodol (260.3) - Serum [2.5-10]
- meprobamate (218.3) - Serum- [10-30] - **[30-50; L 110]**
- Carteolol (292.4) - Plasma - [0.01-0.1] - [-]
- Carvedilol (406.5) - Plasma - [appr. 0.02-0.15(-0.3)] - [-]
- Cefaclor (385.8) – Plasma, -20 °C unstable- [oral 13-35; i.v. to 900] - [-]
- Cefalexin (365.4) - Plasma, -20 °C unstable- - [P 10-65 ; T 1-5] - [-]
- Cefaloridine (415.5) - Plasma, -20 °C unstable- - [T 0.5-1; P 20-80] - [-]
- Cefalothin (396.4) - Plasma, -20 °C unstable- - [P 15-30] - [-]
- Cefamandole (462.5) - Plasma, -20 °C unstable- - [T 1-5; P 10-40-150] - [-]
- Cefazolin (454.5) - Plasma, -20 °C unstable- - [P 50-150] - [-]
- Cefotaxime (477.5) - Plasma, -20 °C unstable- - [T 0.5-2; P 10-50; i.v. to 225] - [-]
- Cefoxitin (427.4) - Plasma, -20 °C unstable- [P25-220] - [-]
- Cefsulodin (554.5) - Plasma, -20 °C unstable- - [20-100] - [-]
- Ceftazidime (546.6) - Plasma, -20 °C unstable- - [T20-40 P50-200] - [-]
- Ceftizoxime (383.4) - Plasma, -20 °C unstable- - [P 40-160] - [-]
- Ceftriaxone (598.5) - Plasma, -20 °C unstable- [15-75] - [-]
- Cefuroxime (424) - Plasma, -20 °C unstable- - [T 0.5-1; P 10-60; i.v. to 180] - [-]
- Celiprolol (379.5) - Plasma - [0.05-1] - [-]
- Cephradine (349.4) - Plasma, -20 °C unstable- - [T0.5-1 P20-50] - [-]
- Cerivastatin (459.6) - Plasma - [0.002-0.04] - [-]
- Cetirizine (388.9) - Plasma - [appr. 0.02-0.4] - [-]
- Chloral hydrate (165.4) - ... - [-] - [-]
- trichloroethanol (149.4) - Serum - [(1.5)5-15] - **[40; L 60]**
- Chlorambucil (304.2) - Plasma - [0.15-0.3(-1.0)] - [-]
- Chloramphenicol (323.1) - Serum - [5-15; T 5-10; P 10-20(25)] - **[25; T 10]**
- Chlordane (409.8) - Plasma - [-0.001] - **[0.0025; L 1-7]**
- Chlordecone (490.6) - Plasma - [-] - **[0.5]**
- Chlordiazepoxide (299.8) - Serum - [0.4-4] - **[3-10; L 20]**
- demoxepam (286.7) - Serum - [0.5-0.74] - **[1; L 2.7]**
- Chlormezanone (273.7) - Serum - [2.5-9] - **[appr. 20; L 53*]**
- Chlorobutanol (177.5) - Plasma - [-] - **[100*; L 64*]**
- Chloroform (119.4) - Blood - [20-50] - **[70-250 L390]**
- Chlorophacinone (374.8) - Plasma - [-] - **[0.1]**
- Chlorophenoxyacetic acid - Serum - [-] - **[200]**
- Chlorprocaine (270.8) - Serum - [2.4] - [-]
- Chloroquine (319.9) - Serum - [0.02-0.2] - **[0.6-1; L 3]**
- Chlorothiazide (295.7) - Serum - [appr. 6] - [-]
- Chlorpheniramine (274.8) - Serum - [0.01-0.017] - **[20-30; 1.1*]**
- Chlorphentermine (183.7) - Serum - [0.32] - [-]
- Chlorpromazine (318.9) - Serum - [0.03-0.5; child 0.04-0.1] - **[0.5-2; L2]**
- Chlorpropamide (276.7) - Plasma - [30-250] - **[200-750]**
- Chlorprothixene (315.9) - Serum - [0.03-0.3] - **[0.4-0.7; L 0.8]**
- Chlorpyrifos (350.6) - Plasma - [-] - **[0.2]**
- Chlortalidone (338.8) - Serum - [(Blood)5-10; (Plasma)0.14-1.4] - **[(Plasma)appr. 2]**
- Chlortetracycline (478.9) - Serum - [1-5(-10)] - **[30]**
- Cholinesterase Pseudo - Serum - [2000-7000 U/L] - **[1000 U/L]**
- Chromium (52.0) - Plasma - [-0.00035] - **[32*]**

- Cibenzoline - Plasma - [0.2-0.4(-0.9)] - **[(0.5-1)]**
- Cidofovir (279.2) - plasma - [10-50] - **[-]**
- Cilazapril (435.5) - Plasma - [0.003-0.09] - **[-]**
- Cimetidine (252.3) - Plasma - [0.5-1.5] - **[T 1.3; L 110*]**
- Ciprofloxacin (331.4) - Serum - [T 0.05-0.5; P 1-5] - **[12*]**
- Cisaprid (466.0) - Plasma - [0.04-0.08] - **[-]**
- Cisplatin (free fraction) (300.1) - Plasma - [P 1-5] - **[T 0.1]**
- platinum - Serum - [P 10-25] - **[T 0.1-0.2]**
- Citalopram (324.4) - Plasma - [0.02-0.2] - **[L 0.5]**
- Clarithromycin (748.0) - Plasma - [appr. 0.2-2] - **[-]**
- Clemastine (343.9) - Plasma - [appr. 0.001-0.002] - **[-]**
- Clenbuterol (277.2) - Plasma - [0.0003-0.0006] - **[0.003*]**
- Clindamycin (425.0) - Plasma - [T 0.05 – 2; P 1.5 – 9.5] - **[-]**
- Clobazam (300.7) - Serum - [0.1-0.4] - **[-]**
- N-desmethyloclobazam (286.7) - Serum - [2-4] - **[-]**
- Clofibrate (242.7) - Serum - [50-250] - **[-]**
- Clomethiazole (161.7) - Plasma - [0.1-2.8] - **[(1.6-13-26; L (8-)50-70)]**
- Clomipramine (314.9) - Serum - [(0.02)0.09-0.25] - **[-]**
- N-desmethyloclopramine (300.8) - Serum - [sum 0.15-0.55] - **[sum 0.4; L sum 1-2]**
- Clonazepam (315.7) – Plasma; may be reduced by micro-org. - [0.02-0.07] - **[0.1]**
- Clonidine (230.1) - Serum - [0.0002-0.002] - **[0.025-0.06; L 0.23*]**
- (Zu)Clopenthixol (401.0) - Serum - [T 0.002-0.010(0.015)] - **[0.05-0.1]**
- Clorazepic acid (clorazepate) (314.7) - Serum - [only detectable after i.v.] - **[-]**
- nordazepam (270.7) - Serum - [sum 0.02-0.8] - **[sum 1.5-2]**
- Clotiazepam (318.8) - Plasma - [0.1-0.7] - **[-]**
- Cloxacillin (435.9) - Serum - [5-30; P 85] - **[-]**
- Clozapine (326.8) - Serum - [0.1-0.6(0.8)] - **[(seizures >0.5); 0.8-1.3; L 3]**
- desmethylclozapine (312.8) - Serum - [0.1-0.6] - **[agranulocytosis 0.7]**
- Cobalt (58.9) - Blood - [0.0001-0.0022] - **[-]**
- Cocaine (303.4) - Serum - [0.05-0.3] - **[0.25-5; L 1-20]**
- Codeine (299.4) - Serum - [T 0.01-0.05; P 0.05-0.250] - **[0.3-1; L 1.6]**
- Colchicine (399.4) - Serum - [0.0003-0.0024; P 0.003] - **[0.005; L 0.024*]**
- Colistin (appr. 1170) - Serum. - [1-5 –(10) ; C.fibrose 10-350 MU] - **[-]**
- Copper (63.6) - Plasma - [0.6-1.5] - **[2; L 5]**
- Cresol (108.1) - Plasma - **[-]** - **[appr. 50; L 120]**
- Cromoglycate sodium (512.3) - Plasma - [appr. 0.01] - **[-]**
- Cyanide (26.0) - Blood - [0.001-0.006; smoker 0.005-0.012(-0.15)] - **[0.5; L (1)4-5]**
- Cyclizine (266.4) - Serum - [0.1-0.25(0.03-0.3)] - **[0.75-1; L 15]**
- norcyclizine (252.5) - Serum - [0.004-0.025] - **[-]**
- Cyclobarbitol (236.3) - Serum - [2-10] - **[10-15; L 20]**
- Cyclobenzaprine (275.4) - Serum - [appr. 0.003-0.036] - **[0.4]**
- Cyclophosphamide (279.1) - Plasma - [10-25] - **[-]**
- Cyclopropane (42.1) - Plasma - [80-180] - **[-]**
- Cyclosporine A (1203) – EDTA Blood - [T 0.1-0.4; C₂ (2hrs) 0.75-1.5 depending transplanted organ or disease] - **[T 0.35-0.4]**
- Cyproheptadine (287.4) - Plasma - [appr. -0.05] - **[-]**
- Cytarabine (Ara C) (243.2) – Plasma + 1 dr 1M tetrahydrouridine- [0.05-0.5] - **[-]**

Substances starting with letter "D"

- Danazol (337.5) - Plasma - [appr. -0.2] - **[-]**
- Dantrolene (314.3) - Serum - [0.4-1.5; T 0.3-1.4; P 1-3] - **[-]**
- Dapsone (248.3) - Serum - [0.5-5] - **[10-20; L 18*]**

- Deferoxamine (406.8) - Serum - [3-15] - [-]
- ferrioxamine (1082.5) - Serum - [0.5-3] - [-]
- Deptropine (333.5) - Serum - [-] - **[0.015]**
- Dexamethasone (392.5) - Plasma - [appr. 0.05-0.265] - [-]
- Dexfenfluramine (231.2)- Serum - [0.03-0.06] - **[0.15-0.25]**
- Dextromethorphan (271.4) - Serum - [0.01-0.04] - **[0.1; L 3]**
- Dextromoramide (392.5) - Serum - [0.075-0.15] - **[0.2; L 0.9]**
- Dextropropoxyphene (339.5) - Plasma - [0.05-0.75] - **[1; L 2]**
- - nordextropropoxyphen – plasma – [sum 0.75 – 3] – **[sum 3]**
- Diazepam (284.7) - Plasma - [anxiolytic 0.125-0.25; anti-epileptic 0.25 – 0.5; eclampsia, tetanus, strychnine-poisoning 1-1.5] - **[1.5; L 5]**
- - nordazepam (270.7) - Serum - [approx. the same as diazepam; 0.2-1.8] - [-]
- Diazinon (304.3) - Serum - [-] - **[0.05-0.1(0.5)]**
- Diazoxide (230.7) - Serum - [10-50] - **[50-100]**
- Dibenzepin (295.4) - Serum - [T 0.025-0.15; P 0.1-0.5] - [-]
- - desmethylidibenzepin - Serum - [sum 0.2-0.4] - **[sum 3; L 18]**
- Dichlorodiphenyltrichloroethane (354.5) - Serum - [0-0.013] - [-]
- Dichloromethane (84.9) - Serum - [-] - **[L 280]**
- 2,4-Dichlorophenoxyacetic acid (221.0) - Serum - [-] - **[appr. 100; L 200]**
- Dichlorvos (221.0) - Blood - [-] - **[L 29*]**
- Diclofenac (296.2) - Serum - [T 0.05-0.5; P 0.1-2.2] - **[50; 60*]**
- Dicoumarol (336.3) - Serum - [8-30(50)] - **[50-70]**
- Dicycloverine (Dicyclomine) (309.5) - Plasma - [0-0.1] - **[appr. 0.2; L 0.5]**
- Didanosine (236.2) - Plasma - [0.5-2.9] - [-]
- Dieldrin (380.9) - Serum - [0-0.0015] - **[0.15-0.3]**
- Diethylcarbamazine (199.3) - Plasma - [0-0.2] - [-]
- Diethylpropion (205.3) - Plasma - [0.007-0.2] - **[2; L 5.4*]**
- Difenacoum - Plasma - [-] - **[0.5]**
- Diflunisal (250.2) - Serum - [(9)40-100(200)] - **[300-500; L 600]**
- Digitoxin (764.9) - Serum - [0.01-0.03] - **[0.03; L 0.04-0.1]**
- Digoxin (780.9) - Serum - [T 0.0005 - 0.001 (was 0.002) - [T (0.0014)0.0025-0.007; L (0.0015)0.01-0.03 ; depending on potassium level]
- Dihydrocodein (301.4) - Serum - [0.03-0.25] - **[0.5-1; L 2]**
- Dihydroergotamine (583.7) - Plasma - [0.001-0.01] - [-]
- Diltiazem (414.5) - Serum - [0.05-0.4] - **[0.8; L 2-6]**
- Dimethadione (129.1) - Serum - [500-1000] - **[1000]**
- Dimethyltryptamine (188.3) - Serum - [0.001-0.1] - [-]
- Dimetindene (292.4) - Serum - [P 0.01-0.05] - [-]
- Dinitro-ortho-cresol (DNOC) (198.1) - Serum - [1-5] - **[30-60; L75-100]**
- Diphenhydramine (225.4) - Plasma - [0.1-1] - **[1; L 5]**
- Diphenoxylate (452.6) - Serum - [appr. 0.01] - [-]
- Dipipanone (349.5) - Plasma - [appr. -0.05] - **[0.2]**
- Dipyridamole (504.6) - Serum - [1-2; T 0.1-1] - **[4]**
- Diquat (184.2) - Serum/Urine - [-] - **[0.1-0.4]**
- Disopyramide (339.5) - Plasma - [2-7] - **[8]**
- - nordisopyramide (297.5) - Serum - [20% active ; stronger anticholinergic] - **[sum 8-10]**
- Disulfiram (296.5) - Serum - [0.05-0.4] - **[0.5-5; L 8]**
- - diethyldithiocarbamate (171.3) - Serum - [0.3-1.4] - [-]
- Divinyl-oxide (70.1) - Blood - [-] - **[L700]**
- Dixyrazine (427.6) - blood - [appr. 0.3] - **[L 5.5*,9.4*]**
- Domperidon (425.9) - Serum - [0.005-0.025(0.04)] - [-]
- Donepezil (379.5) – Plasma - [. 0.03-0.075▲] - [-] ▲ active metabolite 6-O-desmethyldonepezil

- Dosulepin (Dothiepin) (295.4) - Serum - [0.02-0.15(0.4)] - **[0.8; L (1)5-19]**
- desmethyldosulepin - Serum - [0.1-0.2] - **[0.75]**
- dosulepin-S-oxide - Serum - [0.04-0.4] - **[0.65-2.2]**
- Doxacurium chloride (1106.1) - Plasma - [0.01-0.3] - [-]
- Doxapram (378.5) - Serum - [(1.5)2-5.2] - **[9(doxapram & keto-doxapram)]**
- Doxazosin (451.5) - Serum - [0.01-0.15] - [-]
- Doxepin (279.4) - Plasma - [0.02-0.15] - **[0.1; L 1-18]**
- nordoxepin (265.4) - Serum - [sum 0.2-0.35] - **[0.5-1; L 2-4]**
- Doxorubicin (543.5) - Serum - [0.006-0.02] - [-]
- Doxycycline (444.5) - Serum - [(1-)5-10] - **[30]**
- Doxylamine (270.4) - Serum - [0.05-0.2] - **[1-2; L 5]**
- Dronabinol (Delta-9-tetrahydrocannabinol, THC) (314.5) - Plasma - [0.01-0.2] - [-]
- Droperidol (379.4) - Plasma - [appr. -0.05] - [-]
- Dyphylline (254.3) - Serum - [6.5-14(-20)] - **[40]**

Substances starting with letter "E"

- Edrofonium (165.2) - Serum - [0.15-0.2] - **[appr. 0.15]**
- Efavirenz (315.7) - plasma - [1.5-4] - **[4-6]**
- Emetine (480.6) - Plasma - [appr. -0.1] - **[0.5]**
- Enalapril (376.5) - ... - [-] - **[-]**
- desethylenalapril - Serum - [0.01-0.05(-0.1)] - [-]
- Encainide (352.2) - Serum - [-] - **[-]**
- 3-methoxy-O-desmethylencaïnide (MODE) (368.5) - Serum - [0.06-0.28] - [-]
- O-desmethylencaïnide (ODE) (338.5) - Serum - [0.1-0.3] - **[0.3]**
- Endrin (380.9) - Serum - [0-0.003] - **[0.01-0.03]**
- Enoximone (248.3) - Plasma - [≥0.2] - [-]
- Entacapone (305.3) - Plasma - [0.4-1.0(-7.0)] - [-]
- Ephedrine (165.2) - Serum - [0.02-0.2] - **[1; L 5*]**
- Epirubicin (543.5) - Serum - [0.01-0.05] - [-]
- Eprosartan (520.6) - Serum - [0.01-0.04]
- Erythromycin (733.9) - Serum - [0.5-6; T 0.5-1; P 4-12] - **[12-15]**
- Esmolol (295.4) - Plasma - [0.15-2] - [-]
- Estazolam (294.8) - Serum - [0.055-0.2] - [-]
- Etacrynic Acid (303.1) - Serum - [0.05-0.1] - [-]
- Ethambutol (204.3) - Serum - [0.5-6.5] - **[6-10]**
- Ethamsylate - Serum - [P15-20] - [-]
- Ethanol (46.1) - Blood - [0-25] - **[1000-4500; L (2250)4000-6000]**
- Ethchlorvynol (144.6) - Serum - [0.5-8] - **[20; L 50]**
- Ethinamate (167.2) - Serum - [5-10] - **[50-100; L 100(200*)]**
- Ethosuximide (141.2) - Serum - [40-100] - **[(100)150-200; L 250]**
- Ethyl ether (74.1) - Serum - [500-1500] - **[L(1400)-1900]**
- Ethylene glycol (62.1) - Serum - [-] - **[200-500; L 2000]**
- Etidocaine (276.4) - Serum - [0.5-1.5] - **[1.6-2]**
- Etilefrine (181.2) - Serum - [P 5-15] - [-]
- Etodolac (287.4) - Serum - [20-50] - [-]
- Etomidate (244.3) - Plasma - [0.1-0.5(-1)] - [-]
- Etoposide (588.6) - Serum - [T 2-6; P 8-14] - [-]

Substances starting with letter "F"

- Famotidine (337.4) - Serum - [0.02-0.06(0.2)] - **[0.42*]**
- Felbamate (238.2) - Plasma - [50-100 (110)] - **[120-200]**
- Felodipine (384.3) - Serum - [0.001-0.008(0.012)] - **[0.01-0.015]**

- Fenbufen (254.3) - Serum - [appr. -60] - [-]
- Fendiline - Plasma - [P 0.04-0.17] - [-]
- Fenfluramine (231.3) - Plasma - [0.05-0.15] - [0.5-0.7; L 6]
- Fenitrothion (277.3) - ... - [-] - [1]
- Fenofibrate (360.8) - Plasma - [5-30] - [-]
- Fenoldopam (305.8) - Plasma - [0.003-0.06] - [-]
- Fenopropfen (242.3) - Serum - [15-65] - [-]
- Fenoterol (303.4) - Plasma - [(0.001-)0.01-0.04] - [-]
- Fentanyl (336.5) - Serum - [0.001-0.002] - [0.002-0.02]
- Fexofenadine (501.7) - Plasma - [0.3-0.6] - [-]
- Finasteride (372.6) - Plasma - [0.008-0.01] - [-]
- Flecainide (414.4) - Serum - [T 0.45-0.9; P 0.75-1.25] - [1.5-3; L 2.6*,13*]
- Flucloxacillin (453.9) - Plasma - [3-30] - [-]
- Fluconazole (306.3) - Serum - [5-15 (40)] - [50-75]
- Flucytosine (129.1) - Serum - [T 25-50; P 50-100] - [100]
- Flumazenil (303.3) - Serum - [0.01-0.05 P0.2-0.3] - [0.5]
- Flunarizine (404.5) - Serum - [0.025-0.2] - [0.3]
- Flunitrazepam (313.3) – Serum; may be reduced by micro-org - [0.005-0.015] - [0.05]
- Fluoride (19.0) - S/U not in glass- [after 24 h stop 0.08-0.15] - [T 0.5-2; L 3]
- 5-Fluorouracil (130.1) - Serum - [0.05-0.3] - [0.4-0.6; 1 neurotoxic]
- Fluoxetine (309.3) - Serum - [0.15-0.5] - [2; L 1.3-6.8]
- - norfluoxetine (295.3) - Serum - [0.1-0.5] - [0.4; L 0.9-5.0]
- Flupentixol (434.5) - Serum - [0.001-0.015] - [-]
- Fluphenazine (437.5) - Serum - [(0.0002-)0.001-0.017] - [0.05-0.1]
- Flupirtine (304.3) - Plasma - [0.5-1.5] - [appr. 3-4]
- Flurazepam (387.9) - Serum - [0.0005-0.03; sedation 0.007] - [0.15-0.2; L 0.5-17]
- - N-desalkylflurazepam (288.9) - Serum - [0.04-0.15] - [sum 0.2-0.5]
- Flurbiprofen (244.3) - [5-15] - [-]
- Fluvoxamine (318.3) - Serum - [0.05-0.25] - [0.65]
- Furosemide (330.8) - Serum - [2-5(10)] - [25-30]

Substances starting with letter "G"

- Gabapentin (171.2) - Plasma - [5.9-21] - [85*]
- Galantamine (287.4) - Plasma - [appr. 0.03-0.14] - [-]
- Gallopamil (484.6) - Plasma - [0.02-0.1] - [L 8*]
- Gamma hydroxybutyric Acid (GHB) see Hydroxybutyrate
- Ganciclovir (255.2) - Serum - [0.5-5; T 0.2-1; P 5-12.5] - [T 3-5; P 20]
- Gemcitabine (263.2) - Plasma - [3-6] - [-]
- Gemfibrozil (250.3) - Plasma - [appr. -25] - [-]
- Gentamicin (449-477) - Serum - [P 4-15; T 0.05-2] - [T 2]
- Glibenclamide (494.0) - Serum - [0.03-0.35] - [0.6]
- Glipizide (445.5) - Plasma - [0.1-1.0(-2.5)] - [2]
- Glutethimide (217.3) - Serum - [2-12] - [12-20; L 30]
- Gold (197.0) - Serum - [3-8] - [10-15]
- Granisetron (312.4) - Plasma - [0.009-0.017] - [-]
- Griseofulvin (352.8) - Plasma - [0.3-1.3(2.5)] - [-]
- Guaifenesin (198.2) - Blood - [appr. 0.3-1.4] - [-]
- Guanethidine (198.3) - Serum - [0.01] - [-]

Substances starting with letter "H"

- Haloperidol (375.9) - Serum - [0.005- 0.015 (0.04)] - [(side effect 0.01);0.05-0.1; L 0.5]
- Halothane (197.4) - Blood - [22-84] - [L 200]
- Heptabarb(ital) (250.3) - Plasma - [1-4] - [8-15; L 20]

- Heptaminol (145.2) - Plasma - [appr. 0.2-1(-1.5)] - [-]
- Heptobarbital (218.2) - Serum - [50-100] - [125-150]
- Hexachlorophene (406.9) - Serum - [0.003-0.65(1)] - [L 35]
- n-Hexane (86.2) - Plasma - [-0.01] - [-]
- Hexapropymate (181.2) - Serum - [2-5] - [10-20]
- Hexobarbital (236.3) - Serum - [1-5] - [8(10-20); L 50]
- Hydralazine (160.2) - Serum - [(0.05)0.2-0.9] - [-]
- Hydrochlorothiazide (297.7) - Serum - [0.07-0.45] - [-]
- Hydrocodone (299.4) - Serum - [0.002-0.024(0.05)] - [0.1; L 0.1(0.2)]
- Hydrogen Sulfide (34.1) - Serum - [-] - [L 0.92]
- Hydromorphone (285.3) - Serum - [0.008-0.032] - [L >0.1]
- 4-Hydroxybutyrate (GHB) (104.1)- Plasma EDTA; not in citrate - [appr. 50-120] – [80(abuse); L 250-280(abuse)]
- Hydroxychloroquine (335.9) - Serum - [T 0.1-0.4; P 0.5-2.0] - [0.5-0.8; L 4]
- Hydroxyzine (374.9) - Serum - [P 0.05-0.09] - [0.1; L 39*]

Substances starting with letter "I"

- Ibuprofen (206.3) - Serum - [15-30(5-50)] - [100]
- Idebenone (338.4) - Serum - [0.05-0.2; P 0.65-0.85] - [-]
- Imipenem (317.4) - Serum - [T 0.5-5; P 20-75] - [-]
- Imipramine (280.4) - Serum - [0.045-0.15] - [0.4-0.5; L 2]
- - desipramine (266.4) - Serum - [0.075-0.25 sum 0.15-0.3] - [sum 0.5; L sum (0.8-)4.5-13]
- Indinavir (613.8) – Plasma/serum- [P(1-3 hrs) 7-12; medium (4-7 hrs) 3-7; T(10-12 hrs) 1-3] - [10]
- Indomethacin (357.8) - Serum - [0.5-3] - [4-6]
- Indoramin (347.5) - Plasma - [appr. 0.025-0.1] - [-]
- Iproniazid (179.2) - Plasma - [appr. -5] - [-]
- Iron (35.8) – Serum / plasma; non hemolytic - [0.5-2] - [6; child 2-8; L 17]
- Iron (35.8) - Blood - [380-625] - [-]
- Isoniazid (137.1) - Serum - [T 0.2-1; P 3-10] - [20; L (30-)100]
- Isopropanol (60.1) - Blood - [-] - [200-400; L 1000]
- - acetone (58.1) - Blood - [5-20] - [200-400; L 550]
- Isosorbide dinitrate (236.1) - Serum - [0.003-0.018] - [-]
- - isosorbide mononitrate (191.1) - Serum - [0.2-0.5] - [-]
- Isotretinoin (300.4) - Plasma - [T 0.4-1.8; oral 0.1-0.5] - [-]
- Isoxicam (335.3)- Serum. - [5-25] - [-]
- Isradipine (371.4) -Plasma. - [0.0005-0.002(-0.01)] - [-]
- Itraconazole (705.6) - Serum - [T >0.25] - [-]
- - hydroxy-itraconazole - Serum - [sum 1-4] - [sum 6]

Substances starting with letter "K"

- Kanamycin (484.5) - Serum - [T 1-4; P 15-25] - [T 5-10; P 25-30]
- Ketamine (237.7) - Serum - [0.5-6.5] - [7(abuse)]
- Ketanserin (395.4) - Serum - [0.015-0.2; P 0.08-1] - [-]
- Ketazolam (368.8) - Serum - [0.001-0.02] - [-]
- - nordazepam (270.7) - Serum - [0.2-0.6] - [1-2]
- Ketobemidone (247.3) -plasma - [0.025-0.030] - [-]
- Ketoconazole (531.4) - Serum - [T 0.3-0.5; P 3-10(20)] - [-]
- Ketoprofen (254.3) - Serum - [1-5; P 5-15(-20)] - [-]
- Ketorolac (255.3) - Serum - [0.22-3.5] - [5(plasma)]
- Ketotifen (309.4) - Plasma - [0.001-0.004] - [0.02; L 1.2*]

Substances starting with letter "L"

- Labetalol (328.4) - Serum - [0.025-0.2] - **[0.5-1]**
- Lacidipine (455.5) - Plasma - [0.003-0.006] - [-]
- Lamotrigine (256.1) - Serum - [(7) 11-19- **[25- 30; L 50*]**]
- Lead (207.2) – heparinized Blood - [<0.3 ; child < 0.2] - **[acute 0.45-0.6; chronic 0.4; L 3]**
- Leflunomide (270.2) - Plasma - [as metabolite A77172618-63^α] - [-]
- Levetiracetam (170.2) - Serum - [10-37] - **[400*]**
- Levocabastine (420.5) - Plasma - [topical, nasal or ocular 0.001-0.01] - [-]
- Levodopa (197.2) - Plasma - [0.3-1.6] - **[L 650*]**
- Levomepromazine (Methotrimeprazine) (328.5) - Serum - [0.02-0.15] - **[0.4; L 0.5]**
- Levomethadone (345.9)- Serum. - [0.04-0.3] - **[1; L 0.2]**
- Levorphanol (257.4) - Plasma - [0.007-0.02] - **[0.1; L 0.8*(2.7*)]**
- Levothyroxine (776.9) - Plasma - [0.045-0.14] - [-]
- Lidocaine (Lignocaine) (234.3) - Serum - [(1-)1.5-5] - **[6-10; L 10-25]**
- monoethylglycinexylidide (MEGX) (206.3) - Serum - [0.07-0.175] - [-]
- Lisinopril (405.5) - Serum - [(0.005-)0.02-0.07] - **[0.5]**
- Lithium (6.9) - Serum - [4-10mg/L; T 0.5-1.2mmol/L] - **[T 1.5(2)mmol/L (15 mg/L); L >35mg/L]**
- Lofepamine (419.0) - Plasma - [0.003-0.03] - [-]
- Loperamide (477.0) - Plasma - [P 0.001-0.003] - [-]
- Lopinavir (628.8) – plasma / serum – [P (3-5 hrs) 7-14; T (8-12 hrs) resistant T 5-7; starter T 1-3] – [-]
- Loprazolam (464.9) - Serum - [0.03-0.01] - [-]
- Loratadine (382.9) - Serum - [0.015-0.027] - [-]
- descarboethoxyloratadine - Serum - [0.007-0.028] - [-]
- Lorazepam (321.2) - Serum - [0.02-0.25] - **[0.3-0.6]**
- Lorcainide (370.9) - Plasma - [(0.04-)0.1-0.4(-0.9)] - [-]
- Lormetazepam (335.2) - Serum - [0.001-0.02] - [-]
- Loxapine (327.8) - Serum - [0.01-0.03(-0.1)] - **[1; L7.7]**
- Lysergide (LSD) (323.4) - Serum - [0.0005 - 0.005] - **[0.001; L 0.002-0.005]**

Substances starting with letter "M"

- Magnesium (24.3) - Plasma - [(12-32)55-75] - **[(85)120-140; 150-180]**
- Malathion (330.4) - Plasma - [-] - **[0.5; L 1.7*]**
- Manganese (54.9) - Plasma - [0.0005-0.0015(plasma); 0.004-0.012(blood)] - [-]
- Maprotiline (277.4) - Serum - [0.075-0.25(0.1-0.6)] - **[0.3-0.8; L 1-5]**
- desmethylmaprotiline (263.4) - Serum - [sum 0.1-0.4] - **[sum 0.75-1]**
- Mebendazole (295.3) - Plasma - [≥ 0.1] - **[0.5]**
- Medazepam (270.8) - Serum - [0.01-0.15; P 0.1-0.5] - **[0.6(-1)]**
- nordazepam (270.7) - Serum - [0.2-0.6] - **[1-2]**
- Mefenamic acid (241.3) - Serum - [0.3-20] - **[25]**
- Mefloquine (379.3) - Plasma - [0.4-1(1.5-5.5^x)] - **[1.5-2]** ^x metabolite carboxylic acid
- Melitracen (327.9)- Plasma ... - [0.01-0.1] - [-]
- Meloxicam (351.4) - Plasma - [0.4-2] - [-]
- Melperone (299.8)- **[0.05 - 1] - [L 17.1*]**
- Melphalan (305.2) - Serum - [0.2-1.5] - [-]
- MEGX (liver test) (206.3) - Serum - [T0.070-0.175] - **[0.05]**
- Mephenesin (182.2) - Serum - [3-10] - [-]
- Mephénytoin (218.3) - Serum - [-] - [-]
- desmethylmephénytoin - Serum - [sum 15-40] - **[sum 50]**
- Mepindolol (262.4) - Plasma - [0.007-0.07] - [-]
- Mepivacaine (246.4) - Serum - [2-5.5] - **[6-10; L 50]**
- Meprobamate (218.3) - Serum - [5-25] - **[50; L 70]**
- Meptazinol (233.4) - Plasma - [0.025-0.25] - [-]
- 6-Mercaptopurine (152.2) – Plasma + dithiothreitol 0.1M - [0.03-0.08] - **[1-2]**
- Mercury (organic) (200.6) - Blood/Urine - [0-0.01] - **[0.1-0.3; L 0.4-22]**

- Mercury (inorganic) (200.6) - Blood - [0-0.08] - **[0.2; L>0.6]**
- Mesalazine (Mesalamine) (153.1) - Plasma - [0.1-1.8] - [-]
- Mesoridazine (386.6) - Serum - [0.1-1.1] - **[3-5; L 3*,4*16*]**
- Mesuximide (203.2) - Serum - [0.04-0.08] - [-]
- N-desmethylnormesuximide (Normesuximide) (189.2) - Serum - [10-30(40)] - **[40-50]**
- Metaclozepam (393.7) - Plasma - [0.05-0.2(0.4)] - [-]
- Metamfetamine (D-Methylamfetamine) (149.2) - Serum - [0.01-0.05] - **[0.2-1(5); erratic driving 0.05-2.5 blood; L (2)10-40]**
- Metformin (129.2) - Serum - [1-4] - **[5-10; 64*]**
- Methadone (309.4) - Serum - [0.05-0.5(1); analgesic 0.1-0.3; addicts 0.2-0.75] - **[Native: 0.2; Users: >0.75; L(acute)0.2-1]**
- Methanol (32.0) - Blood - [endogenous appr. -1.5] - **[200; L >900]**
- Methapyrilene (261.4) - Plasma - [appr. 0.1] - **[>30 (4); L 2-380*]**
- Methaqualone (250.3) - Plasma - [0.4-5] - **[>2; L >8]**
- Methazolamide (236.3) - Serum - [40] - [-]
- Methimazole (Thiamazole) (114.2) - Plasma - [0.5-2(-3)] - [-]
- Methocarbamol (241.2) - Serum - [25-40(-50)] - **[250]**
- Methohexital (262.3) - Plasma - [(0.5-)1-6] - [-]
- Methotrexate (454.5) - Serum - [active > 0.005] - **[T >4.5 (24h after dose); >0.45 (48h after dose)]**
- Methoxsalen (8-Methoxypsoralene) (216.2) - Serum - [0.1-0.2; T 0.025-0.1; P 0.1-0.4] - [1]
- Methoxyflurane (165.0) - blood. - [30-200] - [-]
- 2-Methyl-4-Chlorophenoxyacetic acid (MCPA) (200.6) - Plasma - [-] - **[appr. 100(500); L appr. 180]**
- 2-Methyl-Chlorophenoxypropionic acid (MCPP) (214.6) - Plasma - [-] - **[appr. 100(500); L 669*]**
- Methyl dopa (211.2) - Serum - [1-5] - **[7-10; 9*]**
- Methylenedioxyamphetamine (MDA) (179.2) - Serum - [-0.4] - **[1(1.5); L2]**
- Methylenedioxyethylamphetamine (MDEA) (207.3) - Plasma - [0.2] - **[L 1]**
- 3,4-Methylenedioxymethylamphetamine (XTC) (193.2) - Serum - [0.1-0.35] - **[0.35-0.5; L 0.4-0.8]**
- Methylfentanyl (350.5) - Serum - [-] - **[L0.002-0.011]**
- Methylphenidate (233.3) - Serum - [0.005-0.06] - **[(0.5)0.8; L 2.3]**
- Methylthioamphetamine (4-MTA, p-MTA) (181.3) - Plasma - [-] - **[1; 2*,4.2*]**
- Methyprylon (183.2) - Plasma - [10-20] - **[12-75(-128); L50(-100)]**
- Metiamide - Serum - [0.01-0.06] - [-]
- Metildigoxin (795.0) - Plasma - [0.0005-0.0008(-0.003)] - **[0.0025-0.003; L0.005]**
- Metipranolol (309.4) - Plasma - [0.02-0.08^e] - [-] ^e as desacetylmepipranolol
- Metoclopramide (299.8) - Serum - [0.04-0.15] - **[0.1-0.2; L 4.4*]**
- Metoprolol (267.4) - Serum - [0.1-0.6; T 0.02-0.34] - **[(0.65*)1; L (4.7*)12-18]**
- Metronidazole (171.2) - Serum - [(3-)10-30] - **[150(200*)]**
- Mexiletine (179.3) - Serum - [0.5-2] - **[2-4; L 35*]**
- Mianserin (264.4) - Serum - [0.015-0.07(0.14)] - **[0.5-5]**
- desmethylmianserin (250.3) - Serum - [sum 0.04-0.125] - **[sum 0.3-0.5; L 2]**
- Miconazole (416.1) - Plasma - [appr. 1(2-9)] - [-]
- Midazolam (325.8) - Serum - [(postoperative awake 0.1-0.04)0.08-0.25] - **[1-1.5]**; (glucuronide)-metabolites also active
- Mifepristone (429.6) - Plasma - [1-2] - [-]
- Milrinone (211.2) - Serum - [0.15-0.25] - **[0.3]**
- Minoxidil (209.3) - Plasma - [0.04-0.25(oral); <0.03(topical)] - **[1.4*,3.1*; L 2.7*]**
- Mirtazepine (265.4) - Serum - [0.02-0.1(-0.3)] - [-]
- desmethylmirtazepine - Serum - [sum 0.05-0.3] - **[sum 1]**
- Mizolastine (432.5) - Plasma - [appr. 0.2-0.8] - [-]
- Moclobemide (268.7) - Serum - [P 1.5-4; T 0.4-1] - **[5-8; L 16]**
- Modafinil (276.4) - Plasma - [appr. 2-3(9)] - [-]
- Molindone (276.4) - Plasma - [appr. -0.5] - [-]
- Molsidomine (242.2) - Plasma - [0.001-0.02(-0.2)] - [-]

- Molybdenum (95.9) - Plasma - [-0.005] - [-]
- Montelukast (586.2) - plasma - [0.05-0.3] - [-]
- Moricidine (427.5) - Plasma - [appr. 0.12-1.27] - [-]
- Morphine (285.4) - Serum - [0.01-0.12; neonates under artif. breathing 0.08-0.12] - [**0.15-0.5; L 0.05-4; strongly depending on route, how long (ab-)used**] (glucuronide)-metabolites also active
-
- Moxonidine (241.7) - Plasma - [0.001-0.002(-0.004)] - [-]
- Muromonab-CD3 (OKT 3) (50,000 + 25,000) - Plasma... - [appr. 0.7-1.3] - [-]

Substances starting with letter "N"

- Nabumetone (228.3) - Plasma - [20-70] - [-]
- - 6-Methoxy-2-naphthylacetic acid (216.3) - Plasma - [appr. 10-37(-100)] - [-]
- Nadolol (309.4) - Plasma - [0.02-0.25] - [**L 1.3***]
- Naftidrofuryl (Nafronyl) (383.5) - Plasma - [<0.5] - [-]
- Nalbuphine (357.4) - Plasma - [0.03- 0.6 (0.2)] - [-]
- Nalidixic acid (232.2) - Serum - [10-30] - [**40-50**]
- Nalidixic acid (232.2) - Urine - [50-200] - [-]
- Nalmefene (339.4) - Plasma - [i.v. 0.010-0.2; oral 0.01-0.2] - [-]
- Naloxone (327.4) - Serum - [0.01-0.03] - [-]
- Naltrexone (341.4) - Plasma - [0.05- 0.15 as β -naltrexol] - [-]
- Naproxen (230.3) - Serum - [25-75(90)] - [**200-400; 414***]
- Naratriptan (335.4) - Plasma - [(0.008-)0.01-0.05] - [-]
- Nebivolol (405.4) - Plasma - [0.001(fast metabolisers); 0.003(slow metabolisers); <0.02] - [**0.48***]
- Nedocromil (371.3) - Plasma - [(0.003); <0.025] - [-]
- Nefazodone (470.0) - Plasma - [appr. 0.01-0.3(-1)] - [**5.5***]
- Nefopam (253.3) - Plasma - [0.01-0.1(-0.2)] - [**4*; 12***]
- Nelfinavir (567.8) - Plasma - [P (2-4 hrs) 3-5 ; medium (4-7 hrs) 2-3 ;T (8-12 hrs) 0.75-1.5] - [-]
- Neostigmine (223.3) - Plasma - [0.001-0.01] - [-]
- Netilmicin (475.6) - Serum - [P 7-15(-18); T 0.5-2(3)] - [**T 4**]
- Nevirapine (266.3) - Plasma/serum - [P (1-2 hrs) 4-8 ; T3-5]- [-]
- Nicardipine (479.5) - Serum - [0.035-0.135] - [-]
- Nickel (58.7) - Serum - [0.0015-0.005] - [-]
- Nickel (58.7) - Urine - [0.0005-0.006] - [-]
- Nicotine (162.2) - Serum - [sum T 0.001-0.275; transdermal 0.004-0.03; Heavy smoker T 0.003-0.05 P 0.03-0.35] - [-]
- - cotinine (176.2) - Serum - [sum P 0.025-0.35; Light smoker T.0.175-0.275; P (end of day) 0.25 - 0.34] - [**sum 0.3-1; L 5**]
- Nicotinic acid (123.1) - Plasma - [3-19] - [-]
- Nifedipine (346.3) - Serum - [0.02-0.1(-0.15)] - [**0.15-0.2; L 5.4***]
- Niflumic acid (282.2) - Plasma - [2-35] - [-]
- Nilvadipine (385.4) - Plasma - [<0.01] - [-]
- Nimesulide (308.3)-Plasma - [10-75- [-]
- Nimodipine (418.4) - Serum - [0.01 - 0.05] - [-]
- Nimustine (272.7) - Serum - [0.0002-0.0005] - [-]
- Nisoldipine (388.4) - Plasma - [0.0003-0.001(-0.01)] - [-]
- Nitrazepam (281.3) - Serum; may reduced by micro-org. - [0.03-0.12] - [**0.2-0.5**]
- Nitrendipine (360.4) - Plasma - [0.01-0.05] - [-]
- Nitrofurantoin (238.2) - Serum - [0.5-2(-3)] - [**3-4 (child 2)**]
- Nitrofurantoin (238.2) - Urine - [10-400] - [-]
- Nitroglycerin (227.1) - Plasma - [appr. -0.015] - [-]
- Nitroprusside (218.0) - Serum - [-] - [-]
- - thiocyanate (57.1) - Serum - [(5)6-30] - [**50-100; L 200**]
- Nizatidine (331.5) - Serum - [0.15-1] - [-]

- Nomifensine (unbound) (238.3) - Serum - [T 0.02-0.06; P 0.2-0.6] - **[0.8-1; total 8-10]**
- Nordazepam (270.7) - Serum - [0.2-0.8(1.8)] - **[1.5-2]**
- Norfloxacin (319.3) - Serum - [0.5-5] - **[-]**
- Nortriptyline (263.4) - Serum - [(0.05-)0.075-0.25] - **[>0.25; L 1-3]**

Substances starting with letter "O"

- Obidoxime (359.2) - Serum - [1-10] - **[-]**
- Ofloxacin (361.4) - Serum - [1-4; T 0.05-5; P 1-7] - **[30-(40*)]**
- Olanzapine (312.4) - Serum - [0.01-0.05(0.1)] - **[0.2; L 1*]**
- Ondansetron (293.4) - Serum - [0.03-0.3] - **[-]**
- Opipramol (363.5) - Serum - [0.05-0.2(0.5)] - **[0.5-2(3); L 7-10]**
- Orphenadrine (269.4) - Plasma - [0.1-0.2(0.6)] - **[0.5; L 5(3.6*)]**
- - tophenacine (255.4) - Serum - [sum 0.05-0.2] - **[sum 0.5-2 L4-8]**
- Oxatomide (426.6) - Plasma - [0.02-0.1] - **[-]**
- Oxazepam (286.7) - Serum - [(0.15)0.5-2] - **[2; L 3-5]**
- Oxcarbazepine (252.3) - Serum - [-] - **[-]**
- - 10-hydroxycarbazepine (254.3) - Serum - [12-30(40)] - **[45]**
- Oxprenolol (265.4) - Serum - [0.05-0.3(-1.0)] - **[2-3; L 10]**
- Oxycodone (315.4) - Serum - [(0.005-)0.02-0.05] - **[0.2; L 0.6]**
- Oxytetracycline (460.5) - Serum - [5-10] - **[30]**

Substances starting with letter "P"

- Paclitaxel (853.9) - Plasma - [P 2-12 T 0.5-1] - **[-]**
- Pamidronate (235.1) - Plasma - [appr.0.5-1] - **[-]**
- Pancuronium (652.8) - Serum - [0.1-0.6] - **[0.4; L 1.6]**
- Pantoprazole (383.4) - Plasma - [appr. -4.6] - **[-]**
- Papaverine (339.4) - Serum - [0.2-0.6(2)] - **[-]**
- Paracetamol (Acetaminophen) (151.2) - Serum - [10-20(2.5-25)] - **[T 75-100; P 100-150; L 160]**
- Paraldehyde (132.2) - Blood - [sedative 30-100; hypnotic 100-300] - **[200-400; L >500 (less with alcohol ingestion)]**
- - acetaldehyde (44.1) - Serum/Blood - [0-30] - **[100-125]**
- Paramethadione (157.2) - Serum - [1.1-5] - **[-]**
- Paraoxon (275.2)- Edetate plasma- [-] - **[>0.005]**
- Paraquat (186.3) - Serum/Urine - [-] - **[0.05; L 2(4h), 0.1(24h)]**
- Parathion (291.3) – Edetate plasma - [-] - **[0.01-0.05; 0.05-0.08]**
- Paroxetine (329.4) - Serum - [0.01-0.075(-0.1); P 0.015-0.15(0.25)] - **[0.35-0.4]**
- Pefloxacin (333.4) - Serum - [T 0.1-6; P 5-10] - **[25]**
- Pemoline (176.2) - Plasma - [1-7] - **[-]**
- Penbutolol (291.4) - Serum - [(0.01-)0.3-0.7(1.0)] - **[-]**
- Penciclovir (253.3) - Serum - [T 0.1-0.3; P 1.75-2(orally); P 10-20(IV)] - **[-]**
- Penfluridol (524.0) - Serum - [0.004-0.025] - **[-]**
- Penicillin (benzyl) (334.4) - Serum - [1-10] - **[-]**
- (D-)Penicillamine (149.2) - Plasma - [appr. 1.7-5.6(-11)] - **[-]**
- Pentachlorophenol (266.3) - Serum - [0-0.1(-0.2 dietary)] - **[30; L >45]**
- Pentamidine (340.4) - Plasma - [appr. 0.3-0.5] - **[-]**
- Pentazocine (285.4) - Serum - [0.01-0.2(0.5)] - **[1-2; L >1(3)]**
- Pentobarbital (226.3) - Plasma - [1-10(25-40)] - **[(5-)8-10; L (8-)15-25]**
- Pentoxifylline (Oxpentifylline) (278.3) - Plasma - [appr. 0.5-2] - **[-]**
- Perazine (339.5) - Serum - [0.02-0.35] - **[0.5]**
- Pericyazine (Periciazine) (365.5) - Serum - [0.005-0.03] - **[0.1]**
- Perindopril (368.5) - Plasma - [(0.05-)0.08-0.15] - **[-]**
- Perphenazine (404.0) - Serum - [0.0004-0.03] - **[0.05-0.1]**

- Pethidine (Meperidine) (247.3) - Serum - [0.1-0.8] - **[(1-)2 L >5]**
- norpethidine (233.3)- Serum - [0.3] - **[0.5]**
- Phenacetin (179.2) - Serum - [5-20] - **[50]**
- Phenazone (Antipyrine) (188.2) - Serum - [5-25] - **[50-100]**
- Phencyclidine (PCP) (243.4) - Serum - [-] - **[0.007-0.24; L (0.3-)1-5]**
- Phendimetrazine (191.3) - Serum - [0.02-0.24(-0.3)] - [-]
- Phenelzine (136.2) - Serum - [0.001-0.002(-0.2)] - **[0.5; L >1.5]**
- Phenformin (205.3) - Plasma - [0.03-0.1(-0.3)] - **[0.6; L 3]**
- Pheniramine (240.3) - Plasma - [0.01-0.27] - **[L 1.9*]**
- Phenmetrazine (177.2) - Serum - [0.02-0.25] - **[0.5; L 4]**
- Phenobarbital (232.2) - Serum - [2-30(-40)] - **[30-40; L 45-120]**
- Phenol (94.1) - Serum - [-] - **[50; L 90]**
- Phenprocoumon (280.3) - Serum - [1-3] - **[5]**
- Phensuximide (189.2) - Serum - [4-10; P 10-20] - **[80]**
- Phentermine (149.2) - Serum - [0.03-0.1] - **[L 7.6*]**
- Phenylbutazone (308.4) - Serum - [50-100] - **[120-200; L 400-500]**
- Phenylephrine (167.2) - Serum - [0.03-0.1(-0.3)] - [-]
- Phenylpropanolamine (Norephedrine) (151.2) - Serum - [0.05-0.5] - **[2; L 48]**
- Phenytoin (252.3) - Serum - [10-20; baby 6-14] - **[20-40 baby 15; L 70]**
- free fraction - Serum - [0.2-2] - **[2]**
- Physostigmine (275.3) -Serum - [$<0.001-0.005$] - [-]
- Pimozide (461.6) - Serum - [0.001-0.02] - [-]
- Pinazepam (308.8) - Plasma - [0.01-0.05] - [-]
- Pindolol (248.3) - Serum - [0.02-0.08(-0.15)] - **[0.7]**
- Pipamperone (375.5) - Serum - [0.1-0.4] - **[0.5-0.6]**
- Piperacilline (517.6) - Serum - [T 1-5; P 20-70] - [-]
- Piperazine (86.1) - Serum - [0.02-0.1] - **[0.5]**
- Pipotiazine (475.7) - Serum - [0.001-0.06] - **[0.1]**
- Piracetam (142.2) – Serum) - [20-75] - [-]
- Pirenzepine (351.4) - Serum - [0.03-0.45] - [-]
- Pirmenol (338.5) - Serum - [1-3] - [-]
- Piroxicam (331.3) - Serum - [5-10(-20)] - **[14*]**
- Pizotifen (Pizotyline) (295.4) - Plasma - [0.007-0.009(-0.01)] - [-]
- Platinum (195.1) - Serum - [0.5-5; P 10-30] - **[30; T 10]**
- Polythiazide (439.9) - Serum - [0.002-0.007] - [-]
- Prajmalium (369.6) - Plasma - [0.06-0.5] - [-]
- Pramipexole (211.3) - Plasma - [appr. 0.0002-0.007] - [-]
- Pranlukast (481.5) - Plasma - [0.2-1.2] - [-]
- Prazepam (324.8) - Serum - [0.01-0.04] - [-]
- nordazepam (270.7) - Serum - [0.2-0.8] - **[1-2]**
- Prazosin (383.4) - Serum - [0.001-0.075] - **[0.9]**
- Prednisolone (360.4) - Plasma - [0.5-1] - [-]
- Prilocaine (220.3) - Serum - [0.5-2(-5)] - **[5; L appr. 20]**
- Primaquine (259.4) - Plasma - [appr. 0.1-0.2] - [-]
- Carboxyprimaquine (274.4) - Plasma - [1-2] - [-]
- Primidone (218.3) - Plasma - [T 5-12] - **[10(15-20); L 50]**
- phenobarbital (232.2) - Serum - [20-40] - **[60-80]**
- Probenecid (285.4) - Serum - [40-60; 100-200] - [-]
- Procainamide (235.3) - Serum - [4-10] - **[10-15; L >20]**
- N-Acetylprocainamide (Acecainide) (277.4) - Serum - [2-12; sum T 5-30] - **[sum 40]**
- Procaine (236.3) - Serum - [2.5-10] - **[15-20; L 20]**
- Prochlorperazine (373.9) - Serum - [0.01-0.05] - **[0.2-0.3; L 5]**
- Procyclidine (287.4) - Serum - [0.08-0.63] - **[1-2; L 7.8*]**

- Proguanil (253.7) - Plasma - [0.04-0.15] - [-]
- cycloguanil (251.7) - Plasma - [0.02-0.06] - [-]
- Promazine (284.4) - Serum - [0.01-0.4] - [(1-)2-3; L >5]
- Promethazine (284.4) - Serum - [(0.05)0.1-0.4] - [1; L 2.4*]
- Propafenone (341.5) - Serum - [0.4-1.1(1.6); beta-blocker > 0.8] - [1.1-3; L 7.7*]
- norpropafenone (415.5) - Serum - [-] - [sum 2-3]
- Propallylonal [Ibomal] (289.1)- Serum - [0.3-10] - [>10]
- Propantheline (368.5) - Plasma - [appr. -0.02(-0.04)] - [-]
- Propericiazine - Serum - [T 0.005; P 0.05] - [0.1]
- Propofol (178.3) - Blood - [narcose 2-4(8)] (*<55 yrs, induction 4-8 mg/L; narcose 3-6 / >55yrs: induction 2-5 - all awake 1-2.2) - [toxic: abuse, not in hospital 0.22 mg/l]
- Propoxyphen (dextro) (339.5) - Serum - [0.1-0.75] - [1]
- norpropoxyphen (325.5) - Serum - [0.1-0.15] - [2]
- Propranolol (259.3) - Serum - [T 0.05-0.15; P 0.1-0.3] - [1-2; L 4-10]
- Propylene glycol (76.1) - Serum - [0.05-0.5] - [1000]
- Propylhexedrine (155.3) - Serum - [0.01] - [0.5; L 2-3]
- Propyphenazone (230.3) - Serum - [3-12] - [-]
- Prothipendyl (285.4) - Serum - [0.05-0.2] - [0.5(-1)]
- Protionamide (180.3) - Serum - [T 0.5; P 3-8] - [-]
- Protriptyline (263.4) - Serum - [0.07-0.17(0.38)] - [0.5; L 1]
- Pseudoephedrine (165.2) - Serum - [0.5-0.8] - [L 19]
- Pyrazinamide (123.1) - Serum - [30-75] - [-]
- Pyridostigmine (181.3) - Serum - [0.05-0.1(-0.2)] - [-]
- Pyridoxine (Vitamin B6) (169.2) - Plasma - [0.003-0.018] - [-]
- Pyrimethamine (248.7) - Plasma - [0.05 – 0.75 ; P0.25 – 4] ; - [-]
- Pyrithyldione (167.2)-Plasma - [1-10] - [-]

Substances starting with letter "Q"

- Quazepam (386.8) - Serum - [0.01-0.15] - [-]
- Quetiapine (383.5) - Serum - [T (0.025)0.075-0.17; P 0.14-0.365] - [1.8*; L 7-]
- Quinidine (360.5) - Serum - [(1)2-6] - [(6)-10-(15); L 30]
- Quinine (378.5) - Serum - [1-7(-9.5)] - [10]

Substances starting with letter "R"

- Rabeprazole (359.4) - Plasma - [0.25-1] - [-]
- Ramipril (416.5) - Plasma - [appr. 0.001-0.01 as metabolite ramiprilat] - [-]
- Ranitidine (314.4) - Serum - [(0.05)0.15-0.5] - [-]
- Recainam (263.4) - Plasma- [1.3-6] - [-]
- Remoxipride (371.3) - Plasma - [0.7-8] - [L 41-150]
- Retinol (Vitamin A) - Plasma - [0.2-0.8] - [-]
- Ricin (30,000 +33,000)- Serum - [-] - [0.0005]
- Rifabutin (847.0) - Serum - [T 0.05; P 0.15] - [-]
- Rifampicin (823.0) - Serum - [sum with metabolite] - [-]
- desacetylrifampicin (781.0) - Serum - [sum P 5-20; sum T 0.5-1] - [sum P 20, sum L 55*]
- Riluzole (234.2) - Plasma - [0.05-0.5(-1.5)] - [-]
- Risperidon (410.5) - Serum - [(0.004)0.01-0.03 (0.09)] - [L 1.8*]
- 9-hydroxyrisperidon (426.5) - Serum - [sum 0.015-0.06] - [0.08]
- Ritonavir (721.0) - Plasma - [P(2-6 hrs) 5-8; T (8-12 hrs) 2-4(12); as booster 0.3-2] - [-]
- Rizatriptan (269.4) - Plasma - [0.005-0.1] - [-]
- Ropinirole (260.4) - Plasma - [0.0004-0.006] - [-]
- Ropivacaine (274.4) - Plasma - [P1-6; steady state continu 2-3; 0.6(free arterial plasma)] - [-]
- Roxatidine (384.9)-Plasma - [0.1-0.8] - [-]
- Roxithromycin (837.0) - Plasma - [4-12] - [-]

Substances starting with letter "S"

- Salbutamol (239.3) - Serum - [0.004-0.018] - **[0.03; L 0.16]**
- Salicylamide (137.1) - Plasma - [5-40(-50)] - [-]
- Salicylic acid (138.1) - Serum - [rheumatism (child 150)- 200-300; anticoagulant 50-125; Prostaglandin synthetase inhibitor 50-150] - **[400-500 child 300; L 500-900]**
- [20-300] - **[400-500 child 300; L500-900]**
- Saquinavir (721.0) – plasma – [P(2-5 hrs)0.8-1.6; medium(5-10 hrs) 0.3-0.8;T (10-12 hrs) 0.25-0.5] – [-]
- Scopolamine (Hyoscine) (303.4) - Serum - [0.0001-0.0003(-0.001)] - [-]
- Secbutabarbital (Butabarbital) (212.2) - Serum - [5-15] - **[10; L 30]**
- Secobarbital (238.3) - Serum - [2-10] - **[>8; L (4-)10-50]**
- Selenium (79.0) - Plasma - [0.045-0.13] - **[0.4]**
- Sertraline (306.2) - Serum - [0.05-0.25(-0.5)] - **[0.29*; 1.6*]**
- Sildenafil (474.6) - Plasma - [0.05-0.5] - **[depending cardiac function]**
- Silver (107.9) - Blood - [0-0.005; with silver sulphadiazine ointment for burns 0.06-0.6] - [-]
- Sirolimus (914.2) - Plasma - [0.005-0.015; **single therapie 0.012-0.020**] - **[0.020]**
- Sotalol (272.4) - Serum - [0.5-3(5)] - **[5-10; L 40*]**
- Sparteine (234.4) - Plasma - [0.5-1] - [-]
- Spironolactone (416.6) - Serum - [0.1-0.5] - [-]
- - canrenone (340.5) - Serum - [0.05-0.25(-0.5)] - [-]
- Stiripentol (234.3) - Plasma - [4-20] - **[20]**
- Streptomycin (581.6) - Serum - [T 1-5; P 15-40] - **[T 5; P 40-50]**
- Strontium (87.6) - Serum - [-0.03] - [-]
- Strychnine (334.4) - Serum - [-] - **[0.075-0.1; L 0.2-2]**
- Sufentanil (386.6) - Serum - [0.0005-0.005; P 0.01-0.02] - [-]
- Sulfaguanidine (214.2) - Serum - [30-50] - [-]
- Sulfamethoxazole (253.3) - Serum - [30-60(100-200)] - **[200-400]**
- Sulfanilamide (172.2) - Serum - [100-150] - [-]
- Sulfasalazine (398.4) - Plasma - [5-30(-70)] - [-]
- Sulfinpyrazone (404.5) - Plasma - [6-17(-21)] - [-]
- Sulfonamides - Serum/Urine - [T 35-75; P 80-150] - **[200]**
- Sulindac (356.4) - Serum - [0.5-5] - [-]
- - sulindac-sulfide (340.4) - Serum - [sum (incl. sulfone) 1-5] - [-]
- Sulpiride (341.4) - Serum - [0.04-0.6; P 0.15-0.75] - **[L 3.8*]**
- Sultiam (Sulthiame) (290.4) - Serum - [0.5-12.5] - **[12-15; L 20-25]**
- Sumatriptan (295.4) - Plasma - [0.018-0.06] - [-]
- Suramin (1407.2) - Plasma - [150-250] - **[300]**

Substances starting with letter "T"

- Tacrine (198.3) - Plasma - [appr. 0.1] - **[0.02]**
- Tacrolimus (FK506) (804.0) - Blood - [T 0.003-0.015; P 0.01-0.025] - **[T 0.012-0.015]**
- Talinolol (363.5)- Plasma - [0.04-0.15] - **[L 5*]**
- Talipexole (282.2)- Plasma - [continu 0.003-0.01] - [-]
- Tamoxifen (371.5) - Serum - [0.05-0.5] - [-]
- Teicoplanin (189.4) - Serum - [T 10-40] - **[200]**
- Temazepam (300.7) - Serum - [0.3-0.9; T 0.02-0.15] - **[1; L 8.2*]**
- Tenoxicam (337.4) - Plasma - [5-10] - [-]
- Terazosin (387.4) - Plasma - [0.02-0.08(-0.1)] - [-]
- Terbinafine (291.4) - Serum - [T 0.01-0.03; P 0.5-3] - [-]
- - norterbinafine - Serum - [P 0.4-0.8] - [-]
- Terbutaline (225.3) - Serum - [0.001-0.006(-0.01)] - **[L 0.04]**
- Terfenadine (471.7) - Plasma - [0.0015-0.0045] - **[0.06; L 0.4*]**
- Tetrachloroethylene (165.8) - Serum - [-] - **[L 4-5]**

- Tetracycline (444.4) - Serum - [5-10; T 1-5] - **[30]**
- Tetrazepam (288.8) - Plasma - [0.05-0.6(-1)] - **[-]**
- Thalidomide (258.2) - Plasma - [0.5-1.5(-8)] - **[-]**
- Thallium (204.4) - Blood - [<0.005] - **[0.1-0.5; L 0.5]**
- Thallium (204.4) - Urine - [-] - **[0.1]**
- Theobromine (180.2) - Serum - [10-15] - **[20]**
- Theophylline (180.2) - Serum - [8-20; baby 5-10] - **[25-30; baby 15; L 50-250]**
- Thiamphenicol (356.2)- Serum - [3 - 10; P 5-15)] - **[20]**
- Thiazinamium (299.5) - Serum - [0.05-0.15] - **[0.3]**
- Thiocyanate (58.0) - Serum - [non smokers 1-4; smokers 3 -12; as metabolite of nitroprusside 6-30)] - **[35-50; L 200]**
- Thiopental (242.3) - Serum - [1-5(empty EEG: 25-40)] - **[10(40-50); L 10-100]**
- pentobarbital (226.3) - Serum - [5-10] - **[10-15]**
- Thioproperazine (446.6) -Serum - [appr. 0.001-0.02] - **[0.1]**
- Thioridazine (370.6) - Serum - [0.2-1] - **[2(5); L 3-10]**
- mesoridazine (386.6) - Serum - [0.3(0.2-1.6)] - **[-]**
- sulforidazine (402.6) - Serum - [<0.6 ; sum 0.75-1.5] - **[sum 3]**
- Tiagabine (375.6) - Plasma - [0.05-0.2] - **[0.5-0.6]**
- Tiapride (328.4) - Plasma - [P 1-2] - **[-]**
- Tiaprofenic acid (260.3) - Serum - [15-35(-40)] - **[-]**
- Ticlopidine (263.8) - Plasma - [$<1-2$] - **[-]**
- Tilidine (Tilidate) (273.4) - Plasma - [0.05-0.12] - **[1.7*]**
- nortilidate (nortilidate) (259.4) - Plasma - [0.2] - **[4.4*]**
- Tiludronate (Tiludronic Acid) (318.6) - Plasma - [0.2-1.5] - **[-]**
- Timolol (316.4) - Serum - [T 0.005-0.05; P 0.02-0.1] - **[-]**
- Tin (118.7) - Serum - [0.03-0.14] - **[-]**
- Tinidazole (247.3) - Serum - [<60] - **[-]**
- Tiopronin (163.2)- Plasma - [2-5] - **[-]**
- Tiotixene (443.6) - Serum - [T 0.001-0.02; P 0.01-0.1] - **[0.1]**
- Tizanidine (253.7) - Plasma - [appr. 0.015] - **[-]**
- Tobramycin (467.5) - Serum - [T 0.5-1.5; P 8-15] - **[T 2(chronic treatment)]**
- Tocainide (192.3) - Serum - [4-12] - **[(13-15)25; 74*]**
- Tofenacin (255.4) - Serum - [P 0.025-0.1] - **[0.5-1]**
- Tolbutamide (270.3) - Serum - [45-100] - **[400-500; L 640*]**
- Tolmetin (257.3) - Serum - [10-80] - **[]**
- Toluene (92.1) - Blood - [-] - **[L 10]**
- Topiramate (339.4) - Plasma - [3-10] - **[-]**
- Topotecan (421.5) -Plasma - [sum appr. 0.001-0.01] - **[-]**
- Tramadol (263.4) - Blood - [0.1-0.8(-1)] - **[1; L 2]**
- Tranexamic Acid (Tranexamate) (157.2) - Plasma - [10-50] - **[-]**
- Tranylcypramine (133.2) - Serum - [0.05(-0.1)] - **[0.5*; L 0.7*]**
- Trapidil (205.3)- Serum - [(4-)6-10] - **[-]**
- Trazodone (371.9) - Serum - [0.5-2.5; T 0.3-1.5; P 1.5-2.5] - **[4; L 12-15]**
- Triamterene (253.3) - Serum - [T 0.01-0.1; P 0.05-0.2] - **[-]**
- Triazolam (343.2) - Serum - [0.002-0.02] - **[0.04]**
- 2,2,2-Tribromo-ethanol (282.8) - Blood - [-] - **[50; L 90]**
- Trichlorfon (Metrifonate) (257.4) - Plasma - [1.5-4] - **[-]**
- Trichloroethane (133.4) - Blood - [-] - **[L (15*)100-1000]**
- 2,2,2-Trichloro-ethanol (149.4) - Serum - [5-15] - **[40-70; L 60-100]**
- 2,4,5-Trichlorophenoxyacetic acid (255.5) - Serum - [-] - **[appr. 100; L 200]**
- Trifluoperazine (407.5) - Serum - [(0.001-)0.005-0.05] - **[0.1-0.2]**
- Triflupromazine (352.4) - Serum - [0.03-0.1] - **[0.3-0.5]**
- Trihexyphenidyl (301.5) - Serum - [0.05-0.2] - **[0.5]**

- Trimethadione (143.1) - Serum - [20-40] - [-]
- dimethadione (129.1) - Serum - [500-1000] - [1000]
- Trimethobenzamide (388.5) - Serum - [1-2] - [-]
- Trimethoprim (290.3) - Serum/Urine - [1.5-2.5(5-10)] - [15-20]
- Trimipramine (294.4) - Serum - [0.01-0.3] - [0.5; L 8.7*]
- Tripelennamine (255.4) - Serum - [0.02-0.06] - [L 10]
- Triprolidine (278.4) - Serum - [0.004-0.045] - [-]
- Tropisetron (284.4) - Serum - [T 0.02-0.03; P 0.05-0.1] - [-]
- Tubocurarine (646.2) - Serum - [0.7-3(-6)] - [-]
- Tungsten (183.8) - Plasma - [-0.035] - [-]

Substances starting with letter "U"

- Urapidil (387.5)- Serum - [appr. 0.1-0.2] - [-]

Substances starting with letter "V"

- Valaciclovir (360.8)
Aciclovir (225.2) – serum [T 0.2-1.5; P 0.5 – 1.5]
- Valnoctamide (143.2) - Serum - [5-25] - [40]
- Valproic acid (144.2) - Plasma - [40-100(-150)] - [150-200, L 720*]
- Vanadium (50.9) - Plasma - [-0.05] - [-]
- Vancomycin (1449.3) - Serum - [P 20-40; T 8-15; continuous infusion 10-15] - [P (30)50]
- Vecuronium (557.8) - Plasma - [appr. 0.2-0.37(-0.5)] - [-]
- Venlafaxine (277.4) - Serum - [sum with metabolite] - [-]
- O-desmethylvenlafaxine (263.4) - Serum - [sum 0.25-0.75] - [sum 1-1.5; L 6.6*]
- Verapamil (454.6) - Serum - [0.02-0.35] - [0.9; L 2.5-4]
- norverapamil (440.6) - Serum - [sum 0.1-0.6] - [sum 1]
- Vigabatrin (129.2) - Serum - [T 5-15] - [-]
- Viloxazine (237.3) - Plasma - [P 5 -10] - [-]
- Vinblastine (811.0) - Plasma - [P0.25-0.4] - [-]
- Vincristine (824.9) - Plasma - [P0.3-0.4] - [-]
- Vinylbital (224.3) - Serum - [1-4] - [5; L 8]
- Viquidil (360.9)- Plasma - [0.15-0.25] - [-]
- Voriconazole (349.3) - serum [0.5 – 5]- [6]

Substances starting with letter "W"

- Warfarin (308.3) - Serum - [1-3(-7); T 0.3-3; P 5-10] - [10-12; L 100]

Substances starting with letter "X"

- Xamoterol (339.4) - Plasma - [0.02-0.15 ; P 0.1 – 0.27] - [-]
- Xylene (106.2) - Blood - [-] - [L 3-40]

Substances starting with letter "Y"

- Yohimbine (354.4) - Plasma - [0.05-0.3] - [-]

Substances starting with letter "Z"

- Zafirlukast (575.7) -Plasma - [0.005-0.03; P 0.1-0.7] - [-]
- Zalcitabine (211.2) - Plasma - [P 0.02] - [-]
- Zidovudine (267.2) - Serum - [T 0.1-0.3; P 1-1.5] - [0.5-3]
- Zinc (65.4) - Plasma - [0.6-1.6] - [2; L 42*]
- Zipeprol (384.5) - Plasma - [0.1-0.7] - [L 5.8*]
- Ziprasidone (412.9) - Plasma - [0.02-0.06] - [-]
- Zolmitriptan (287.4) - Plasma - [(0.003-)0.007-0.01] - [-]
- Zolpidem (307.4) - Serum - [0.08-0.15(-0.2)] - [0.5; L 2-4]

- Zonisamide (212.2) - Plasma - [(15-)20-30(-40)] - [(30-)40-70; L 100*]
- Zopiclone (388.8) - Serum - [0.01-0.05; P 0.04-0.07] - [0.15; L 0.6*]
- Zotepine (331.9) - Plasma - [0.01-0.15] - [0.15-0.2]
- Zuclopenthixol (401.0) - Plasma - [0.005-0.1] - [0.15-0.3-]