

Appendix

Drug	Non-pregnant state										Pregnancy		
	F_{PO}	V	% bound	$F_{u(0\infty)}$	$T_{1/2}$	Cl	Metabolism	Induces	Inducible	Cl	Mechanism	M-P Ratio	
Carbamazepine	High	~1.0	75	0.01	36	0.7-1.8	Oxidation	Y	Y	Slight↑		0.4-0.7	
CBZ-epoxide		0.6-1.6	50-60	0.20-0.35	5-11	~7.0	Hydration						
Clonazepam	~1.0	2.0-4.0	85	~0	22-36	6.3	Reduction and oxidation	N	N	↑		0.8	
Ethosuximide	~1.0	0.7	0	0.20	54	0.7-1.1	Oxidation	N	Y	No ↑		0.9	
Gabapentin	<0.6	0.9	0	0.60	6	~6.0	Nil	N	N			~1.0	
Lamotrigine	~1.0	1.25	55	low	25	1.8	Glucuronidation	N	Y	↑↑	Glucuronidation	0.6	
Levetiracetam	~1.0	0.6	<10	0.66	6-8	2.5	Hydrolysis	N	N	↑	Renal excretion	1.05	
Oxcarbazepine	~1.0	0.7	66	<0.01	2-3	>100	Reduction	Y					
OXC-MHD			40		9.3	~6.4	Hydration and conjugation			↑		0.5	
Phenobarbitone	High	0.5	50	0.25	72-96	0.28	Oxidation and N-glucosidation	Y	Y	↑			
Phenytoin	~1.0	0.5-0.8	90	0.05	22	0.02	Oxidation	Y	Y	↑	Oxidation		
Topiramate	~0.9	0.7	9-17	0.6-0.7	20-30	1.3-2.2	Hydroxylation and conjugations	N	Y	↑		0.86-1.0	

Drug	Non-pregnant state										Pregnancy		
	F_{PO}	V	% bound	$F_{u(\infty)}$	$T_{1/2}$	Cl	Metabolism	Induces	Inducible	Cl	Mechanism	M-P Ratio	
Valproate	~1.0	0.15–0.20	90	0.01	8–15	1.26	Glucuronidation and β -oxidation			Little↓			
Vigabatrin	0.5–0.6	1.2	0	0.5–0.6	5–7	7.5	Nil	N	N			<1.0	
Zonisamide	~1.0	1.1–1.8	40–50	0.15–0.30	50–70	0.7	Reduction and acetylation	N	Y	??↑		0.9	

Values for pharmacologically active metabolites are shaded

F_{PO} = oral bioavailability fraction, V = apparent volume of distribution (L/kg), $F_{u(\infty)}$ = fraction of oral dose excreted in urine unmetabolised, $T_{1/2}$ = elimination half-life (hours), Cl = clearance/bioavailability (L/h); M-P ratio = milk to maternal plasma ratio; OXC-MHD = oxcarbazepine monohydroxy derivative; ↑ = increased; ↓ = no consistent change

Index

A

Aaemia, aplastic, 32
Abnormality, skeletal, 131, 155, 158
Abortion
 spontaneous, 122, 123, 137, 201
 therapeutic, 133, 137
Absorption, of drug, 22
Acetazolamide, 74, 75
Acetylation, 105, 177
Acid, valproic *See* Valproate
Activity, sexual, 7, 8
Advice, before pregnancy, 199
Agenesis, renal, 158
Aggression, 32, 52, 59, 103, 177
Agranulocytosis, 32, 52
Albumin, in plasma, 21, 23
Aldosterone, 20
Alpha-fetoprotein, 206
AMPA, 75
Anaemia, 32, 42, 52, 122
Androstenedione, 7
Antidiuretic activity, 52
Antiepileptic drug(s)
 after pregnancy, 209
 choice of, 194
 non-inducing, 7
 during pregnancy, 207
Antiepileptic drug therapy
 initiation of, 194
 before pregnancy, 198
Apoptosis, 146, 176, 177
Arthritis, 43
Aspartate, 21, 55
Asterixis, 41
Ataxia, 32, 41, 52, 71, 103, 106
Atresia, anal, 158, 169

Autism, 185, 186, 201
Auto-induction, 49, 50, 51, 53
Axis, hypothalamic-pituitary, 9

B

Behaviour
 sexual, 7
 stereotyped, 185
Benzodiazepine, 100, 101, 104, 105, 168
Beta oxidation, 217
Bilirubin, 31
Bioavailability, 22
Birth, premature, 122
Birth rate, 6, 8
Bleeding, post-partum, 123
Blepharospasm, 101
Body hair, overgrowth of, 42
Bradycardia, 53
Breast feeding, 2, 73, 74, 79, 84,
 100, 104, 201, 202, 203,
 204, 209, 220

C

Caesarean section, 122, 123
Calculi, renal, 77, 106
Capacity, sexual, 5
Carbamazepine, 1, 6, 8, 9, 10, 31, 32, 35,
 40, 41, 47, 48, 49, 50, 51, 52, 53,
 54, 55, 58, 59, 68, 70, 75, 77, 87,
 88, 89, 90, 99, 103, 106, 116, 140,
 142, 143, 145, 155, 156, 157, 158,
 161, 164, 177, 179, 180, 181, 182,
 183, 184, 185, 186, 197, 198, 203,
 204, 207, 208, 218

- Carbamazepine (*cont.*)
 absorption, 48
 adverse effects, 52
 chemistry, 47
 clinical pharmacokinetics, 50
 cutaneous hypersensitivity, 52
 distribution, 48
 elimination, 49
 excretion, 49
 interactions, 51
 metabolism, 49
 in mother, 53
 in neonate, 54
 pharmacodynamics, 47
 pharmacokinetics, 48
 in pregnancy, 53
 therapeutic range, 51
 toxicity, 51
- Carbamazepine-acridan, 54
 Carbamazepine-diol, 54
 Carbamazepine-10,11-epoxide, 48, 49,
 51, 52, 54, 89
- Carbonic anhydrase, 75, 77, 105
 Carnitine, 57
 Cerebrospinal, 92
 Cerebrospinal fluid, 29, 37, 49, 56, 69, 95, 98
 Change, behavioural, 183
 Clearance, 30, 32, 33, 37, 40, 44, 49,
 52, 53, 56, 58, 69, 71, 72, 73,
 76, 77, 78, 81, 82, 83, 89, 90,
 92, 93, 98, 99, 102, 103, 105,
 106, 112, 120, 207, 209, 216
 apparent, 33
 renal, 76, 83
 steady-state, 18
- Clefts, facial, 130, 131, 145, 164, 165, 201,
 206
 Clefts, oral, 154, 164, 168, 169
 Clobazam, 41, 100, 168
 Clonazepam, 32, 41, 100, 101, 102, 103, 104,
 168, 169, 177
 absorption, 102
 adverse effects, 103
 in breast milk, 104
 chemistry, 101
 clinical pharmacokinetics, 102
 distribution, 102
 elimination, 102
 excretion, 102
 in foetus, 103
 interactions, 103
 metabolism, 102
 in the mother, 103
 in the neonate, 104
 pharmacodynamics, 101
 pharmacokinetics, 101
 in pregnancy, 103
- Cognition, 77, 175, 177, 180, 181, 203
 Coitus, frequency of, 6
 Coma, 41
 Comprehension, verbal, 184
 Concentration monitoring, of antiepileptic
 drug, 112, 113, 118, 119, 120,
 199, 205, 207, 209, 215
 Concentration, of antiepileptic drug,
 18, 24, 216
 Conductance, potassium, 68
 Confusion, 52, 58, 106
 Congenital heart abnormalities *See* Heart,
 malformation
 Constant, Michaelis, 37, 45
 Contraception, 9
 Contraceptives, oral, 9, 10, 32, 39,
 70, 77, 112, 113
 Contracture, Dupuytren's, 32
 Cortisol, 31, 43
 Currents, Ca²⁺, 68
 CYP450, 21, 24, 38, 76, 77, 82, 89
 CYP3A4, 21, 31, 40, 50, 51,
 52, 106, 112
 CYP2C9, 21
 CYP2C19, 21, 38, 41, 77, 89
- D**
 Danazol, 52
 Death
 intrauterine, 137
 neonatal, 124
 Deficit, neurocognitive, 177
 Dehydroepiandrosterone, 7
 Dehydrogenation, 59
 De-induction, 24
 Delay
 cognitive, 180
 developmental, 158, 180
 neurodevelopmental, 182, 183
 Depression, 82
 Dermatitis, 42
 Development
 cognitive, 178, 179
 motor, 177
 psychomotor, 158, 179
 Diabetes, gestational, 122
 Diabetes insipidus, 48, 52
 Diazepam, 58, 168, 177
 Diltiazem, 52
 Diphenylhydantoin *See* Phenytoin
 Diplopia, 32, 41, 48, 52, 71, 93, 106
 Disequilibrium, 52

Distribution

- apparent volume of, 23, 29, 34, 36, 44, 49, 75
- of drug, 22, 23, 29, 56, 69, 75, 81, 88, 92, 95, 98, 102, 105
- volume of, 23, 48

Dopamine, 105

Drowsiness, 32, 41, 52, 71, 93, 96, 103, 106

Dysequilibrium, 99

Dysfunction, erectile, 6

Dyskinesia, 41

Dysmorphogenesis, 154

Dysplasia, septo-optic, 159

Dystonia, 41

E

Ears, low-set, 131

Elimination, of drug, 21, 22, 23, 29, 56, 69, 70, 74, 76, 84, 89, 91, 94, 100, 104, 105, 107, 113, 215

Elimination, velocity of, 39, 45

[E]-2-en-valproate, 57

4-en-valproate, 59

Enzyme

- cytochrome P450, 31, 53, 69
- drug-metabolising, 7
- epoxide hydrolase, 50, 82, 89
- GABA transaminase, 94, 95
- glucuronyl transferase, 40
- induction, 6, 31, 73, 76, 112
- mono-oxygenase system, 31
- succinate semi-aldehyde dehydrogenase, 55
- sulphatase, 21
- UDP glucuronosyl transferase, 21
- UDP glucuronosyl transferase 1A4, 69

Epilepsy

- catamenial, 112
- focal, 59, 68, 75, 80, 88, 94, 95, 114, 116, 137, 197, 198
- generalised, 30, 35, 48, 68, 75, 80, 88, 95, 101, 116, 137, 182, 195, 196, 197
- infantile spasms, 95
- untreated, 113, 118, 130, 135, 136, 139, 141, 166

Erythromycin, 52

Eslicarbazepine, 10, 87, 170

Ethinyl oestradiol, 9, 10, 31, 58, 77

Ethosuximide, 40, 41, 58, 80, 87, 97, 98, 99, 100, 131, 156, 195

- absorption, 98
- adverse effects, 99
- chemistry, 97

clinical pharmacokinetics, 99

distribution, 98

elimination, 98

excretion, 98

in foetus, 100

interactions, 99

metabolism, 98

in mother, 99

in neonate, 100

pharmacokinetics, 98

in pregnancy, 99

Ethosuzimide, pharmacodynamics, 98

Etonorgestrol, 10

EURAP, 115, 116, 134, 135, 146, 147, 154, 157, 163, 196, 204

European Medicines Authority, 196

Excretion, renal, 24, 73, 83, 90, 215

F

Factor, genetic, 144, 145, 177, 200, 219

Factors, psychosocial, 7

Failure, ovarian, 8

Felbamate, 10, 40, 41, 87, 169

Fertility, 6, 7, 8, 9

Fibrinogen, 43, 59

Foetus

- malformation, 3, 124, 136, 148
- physical development, 124

Folate, 18, 31, 32, 42, 43, 44, 67, 68, 131, 137, 146, 147, 175, 181, 206, 208

Fosphenytoin, 36

Function, sexual, 6, 7, 8, 9, 71

GGABA *See* Gamma amino butyrate (GABA)

Gabapentin, 10, 91, 92, 93, 94, 134, 167, 182, 198

- absorption, 92
- adverse effects, 93
- in breast milk, 94
- chemistry, 91
- clinical pharmacokinetics, 93
- distribution, 92
- elimination, 92
- excretion, 92
- in foetus, 94
- interactions, 93
- metabolism, 93
- in mother, 94
- in neonate, 94
- pharmacodynamics, 92
- pharmacokinetics, 92
- in pregnancy, 93

Gamma amino butyrate (GABA),
 29, 55, 75, 80, 91, 92, 94, 105
 Genetic influences, 144
 Globulin, sex hormone binding, 7, 8
 Glomerular filtration rate, 20, 24
 Glucosidation, 33, 58
 Glucuronidation, 69, 70, 73, 105
 Glutamate, 35, 68, 75
 Glycine, 57
 Gonadotropins, 7
 Government data, 133
 Growth, intrauterine, 124, 155

H

Half-life, elimination, 6, 34, 37,
 40, 49, 51, 98, 102
 Hare lip, 130
 Headache, 93, 99, 106
 Head, circumference of, 124, 136, 179
 Heart malformation, 130
 Heparin, 40
 Hepatitis, 32, 43, 52, 53
 Hormones
 sex, 7, 9, 93, 112
 steroidal, 9, 20
 2-Hydroxy carbamazepine, 54
 Hydroxycholecalciferol, 42
 10-Hydroxy oxcarbazepine, 88
 3-Hydroxy valproate, 57
 Hyperactivity, sexual, 5
 Hyperandrogenism, 8
 Hyperplasia, of gums, 42
 Hypertelorism, 131
 Hypoalbuminaemia, 37
 Hypocalcaemia, 32
 Hypoglycaemia, 43
 Hyponatraemia, 52, 90, 198
 Hypoplasia, of digits, 155
 Hypospadias, 145, 158, 160, 165, 201, 217
 Hypothalamus, 6
 Hypoxia, intrauterine, 124

I

Impairment
 cognitive, 178, 180, 203
 intellectual, 176, 183
 of language development, 183
 Impotence, sexual, 6
 Induction, drug metabolising enzyme,
 6, 8, 76
 Interactions, pharmacokinetic,
 68, 70, 96, 199, 210

Ion channel(s)
 Ca²⁺, 75, 80, 88, 92, 98
 calcium, 35, 104
 GABAA-chloride, 29
 sodium, 29, 35, 47, 55, 68, 75, 80, 88, 104
 IQ, 178, 179, 180, 181, 182, 184, 203
 impairment of, 178
 verbal, 178, 180
 Irritability, 32
 Isoniazid, 52, 99

K

Kinetics, Michaelis Menten, 37

L

Lacosamide, 10, 87, 170, 198, 200
 Lactation, 21
 Lamotrigine, 2, 5, 7, 8, 9, 10, 35, 41, 55, 67,
 68, 69, 70, 71, 72, 73, 74, 75, 81,
 89, 106, 113, 116, 120, 134, 135,
 143, 160, 161, 163, 177, 180, 181,
 182, 183, 184, 186, 195, 196, 197,
 203, 204, 205, 207, 208, 218
 absorption, 68
 adverse effects, 70
 in breast milk, 73
 chemistry, 68
 clinical pharmacokinetics, 69
 distribution, 69
 elimination, 69
 excretion, 69
 in foetus, 73
 interactions, 70
 in neonate, 74
 pharmacokinetics, 68
 in pregnancy, 71
 Lamotrigine 2-N-glucuronide, 69, 73
 Lamotrigine 5-N-glucuronide, 69
 Levetiracetam, 10, 79, 80, 81, 82,
 83, 84, 135, 142, 166, 177,
 182, 183, 195, 196, 197
 absorption, 80
 adverse effects, 82
 in breast milk, 84
 chemistry, 79
 clinical pharmacokinetics, 81
 distribution, 81
 elimination, 81
 excretion, 81
 in foetus, 83
 interactions, 82
 metabolism, 81

in mother, 82
 in neonate, 84
 pharmacodynamics, 80
 pharmacokinetics, 80
 in pregnancy, 82
 Levonorgestrol, 10, 58
 Libido, 6, 7, 8, 43
 Lip, cleft, 130, 131, 144, 161, 168
 Lipinovor, 70
 Liver failure, 59
 Lupus erythematosus, 42, 99
 Lymphadenopathy, 42
 Lymphoma, 42

M

Malformation, major congenital,
 137, 139, 140, 146, 147, 157,
 159, 161, 163, 164, 166, 169
 Malformation rate, 130, 131, 132, 135, 136,
 137, 138, 139, 140, 141, 143, 145,
 147, 154, 155, 157, 159, 160, 161,
 163, 164, 165, 166, 167, 168, 169,
 170, 219
 Malformation risk, 200
 Management, obstetric, 4, 205
 Menopause, early, 8
 Menstrual cycle, 9, 20, 40, 70, 112, 113
 anovulatory, 112
 ovulatory, 112
 Menstruation, irregular, 8
 Metabolism, pre-systemic, 22, 69
 Methylphenobarbitone, 28
 Microcephaly, 131, 164
 Migraine, 54, 58, 74, 75, 111, 164, 165, 209,
 210
 Milk, breast, 2, 21, 23, 29, 34, 46, 54, 60,
 71, 73, 79, 84, 91, 94, 97, 100,
 104, 107, 202, 203, 204
 Miscarriage, 122
 Mortality, pregnancy associated, 121
 Myopathy, 43
 Myotonia, 35, 48

N

NEAD *See* Neurodevelopmental Effects of
 Antiepileptic Drugs (NEAD)
 Nephritis, 43
 Neuralgia, trigeminal, 1, 47, 50, 101
 Neural tube defect, 131, 133, 145, 146, 147,
 157, 158, 159, 176, 200, 206, 217
 Neurodevelopment, 4, 147, 175, 176, 179,
 181, 182, 183, 185, 215, 219

Neurodevelopmental Effects of
 Antiepileptic Drugs (NEAD),
 175, 179, 180, 181, 184
 Neurogenesis, 146, 176
 Neuropathy, peripheral, 41
 Nicotinamide, 52
 Non-compliance, 118, 208
 Norethindrone, 10
 Norgestrol, 10
 Nystagmus, 32, 41, 48, 52

O

17- β -Oestradiol, 73
 Oestriol, 21, 31
 Oestrogen, 8, 9, 20, 32, 70
 Ophthalmoplegia, 41
 Orgasm, 8
 Osteomalacia, 42
 Ovary, polycystic, 8, 9
 Overactivity, 177
 Overbreathing, 77
 Ovulation, 10, 112, 118
 Oxcarbazepine, 5, 6, 8, 10, 40, 87,
 88, 89, 90, 167, 182
 absorption, 88
 adverse effects, 90
 in breast milk, 91
 chemistry, 88
 clinical pharmacokinetics, 89
 distribution, 88
 elimination, 89
 excretion, 89
 in foetus, 90
 interactions, 89
 metabolism, 89
 mono-hydroxy derivative,
 88, 89, 90
 in mother, 90
 in neonate, 91
 pharmacodynamics, 88
 pharmacokinetics, 88
 in pregnancy, 90
 Oxidation, fatty acid beta, 56, 57, 59
 3-Oxo-valproate, 57

P

Pain, neuropathic, 92, 209
 Palate, cleft, 130, 144, 161, 168
 Pancreatitis, 59
 Perampanel, 87, 170, 200
 P-glycoprotein, 21, 23, 36, 76
 Phenobarbital *See* Phenobarbitone

- Phenobarbitone, 1, 6, 10, 11, 17, 18, 28,
29, 30, 31, 32, 33, 34, 40, 41, 52,
58, 67, 70, 103, 104, 106, 116,
124, 130, 131, 132, 143, 146, 153,
154, 177, 179, 180, 197, 204, 218
absorption, 29
adverse effects, 32
in breast milk, 34
chemistry, 28
clinical pharmacokinetics, 30
distribution, 29
effects of pregnancy on, 33
elimination, 29
excretion, 30
in foetus, 33
half-life, 29
interactions, 31
metabolism, 30
in mother, 33
in neonates, 34
N-glucoside conjugate, 30, 32
overdosage, 32
pharmacodynamics, 29
pharmacokinetics, 29
therapeutic range, 30
- Phenytoin, 1, 10, 11, 18, 31, 32, 34, 35,
36, 37, 38, 40, 41, 42, 43, 44, 46,
47, 51, 52, 55, 58, 67, 68, 70, 75,
77, 89, 96, 99, 103, 106, 112, 130,
131, 132, 143, 146, 154, 155, 156,
158, 177, 179, 180, 181, 197, 198,
207, 208
absorption, 36
adverse effects, 41
bioavailability, 36
biochemistry abnormalities, 43
chemistry, 34
clinical pharmacokinetics, 39
distribution, 36
elimination, 37
excretion, 37
interactions, 40
maximum velocity of elimination, 37
metabolism, 37
in mother, 43
pharmacodynamics, 35
pharmacokinetics, 36
in pregnancy, 43
therapeutic range, 39
- p*-hydroxy phenobarbitone, 32
p-hydroxy phenytoin, 37, 38, 46
- Placenta, 18, 20, 21, 23, 24, 33, 60,
73, 79, 83, 90, 96, 177, 206
- Plasma protein binding, 29, 39, 43, 46, 52, 53,
54, 56, 58, 82, 102, 207
- Polypharmacy *See* Polytherapy
- Polytherapy, 139, 143, 154, 160, 165, 166,
167, 169, 170, 177, 178, 180, 183,
185, 199, 203, 220
- Porphyria, 32, 43, 53
- Potassium bromide, 113
- Pregabalin, 170
- Pregnancy
complications of, 121, 122, 123, 124, 125
effect on antiepileptic drug disposition,
119
- Primidone, 6, 11, 18, 28, 33, 40, 41,
52, 99, 103, 130, 131, 179
- Progesterone, 10, 20, 24, 43, 112
- Propoxyphene, 52
- Puerperium, 18, 115
- R**
- Range, therapeutic, 37, 39, 41, 51, 58,
70, 76, 81, 89, 93, 96, 102,
106, 120, 197, 209
- Rate, fertility, 8
- Receptors, adenosine, 47
- Receptors, GABAA, 35, 101, 112
- Records, hospital, 133
- Register(s), 116, 117, 122, 123, 134, 136, 137,
142, 145, 154, 160, 163, 164, 166,
167, 169, 182, 202, 216, 218
Australian pregnancy, 116, 118, 123, 124,
134, 135, 136, 137, 138, 141, 143,
144, 145, 155, 158, 159, 160, 163,
164, 165, 166, 167, 169, 182, 185,
202, 204, 216, 217
pregnancy, 134, 178
United Kingdom, 135, 140, 144, 161, 163,
164, 166
- Registry, 134, 135, 140, 164, 196
- Registry, North American, 135, 137, 157, 161,
164, 166
- Renin, 20
- Rifampicin, 70
- S**
- Salicylates, 40
- Saliva, 29, 37, 39, 56, 69, 98, 208
- Sedation, 6, 32, 41, 52, 58, 71, 77, 82, 90, 103
- Seizure(s)
absence, 35, 48, 68, 75, 80, 92, 97, 99,
131, 195, 196
epileptic, 3, 4, 6, 29, 35, 55, 114, 134,
141, 193, 194, 204, 216
epileptic, control of, 116, 198, 205
epileptic, effects of, 120

- epileptic, frequency of, 112, 114, 115
 - focal, 6, 92, 198
 - freedom, 115
 - generalised, 92, 123, 124, 205
 - generalised convulsive, 3, 68, 75, 114, 116, 117, 119, 121, 123, 124, 125
 - maximum electroshock, 80
 - myoclonic, 41, 48, 68, 80, 88, 101
 - occurrence rates of, 113, 137
 - partial, 30, 39
 - withdrawal, 103
 - Seizure occurrence, factors influencing, 117
 - Serotonin, 101, 105
 - Skin rash(es), 32, 41, 52, 70, 71, 82, 90, 99
 - Sleep deprivation, 118
 - Sperm count, 7
 - Spina bifida, 145, 147, 156, 157, 158, 159, 160, 176, 217
 - Status epilepticus, 177, 178, 196, 201, 208
 - Stillbirth, 122, 123, 124, 137
 - Stiripentol, 169
 - Stupor, 59
 - Subnormality, mental, 131
 - Sulthiame, 40, 87, 169
 - Synaptic vesicle protein SV2A, 80
 - Syndrome
 - Baller–Gerold, 159
 - foetal carbamazepine, 158
 - foetal hydantoin, 155
 - foetal valproate, 158
 - Lennox–Gastaut, 75
 - polycystic ovary, 8, 59
 - pseudolymphoma, 42
 - ‘purple glove,’ 42
 - Stevens–Johnson, 42, 71
- T**
- Teratogen, 132, 154, 155, 158, 159, 163, 165, 169, 196, 217, 218
 - Teratogenesis, 53, 71, 139, 148, 155, 156, 159, 177, 195, 196, 210, 217, 218, 220
 - Teratogenicity, risk of, 144
 - Testosterone, 7, 8, 9, 43
 - Thalidomide, 129, 131, 217
 - Thickness, of cerebral cortex, 184
 - Thrombophlebitis, 42
 - Thyroiditis, 43
 - Tiagabine, 41, 169, 182
 - Topiramate, 10, 11, 41, 74, 75, 76, 77, 78, 79, 144, 145, 164, 165, 170, 177, 194, 196, 197, 199, 200, 201, 208, 216, 217, 218, 220
 - absorption, 75
 - adverse effects, 77
 - in breast milk, 79
 - chemistry, 74
 - clinical pharmacokinetics, 76
 - distribution, 75
 - elimination, 76
 - excretion, 76
 - in foetus, 79
 - interactions, 77
 - metabolism, 76
 - in mother, 78
 - in neonate, 79
 - pharmacodynamics, 75
 - pharmacokinetics, 75
 - in pregnancy, 78
 - Tremor, essential, 28, 59
 - Trigonocephaly, 131
 - Trisomy 21, 206
 - Troxidone, 130, 131
 - Tubes, fallopian, 9
- U**
- UDP-glucuronosyl transferase, 24, 70, 77
 - UPD-glucuronosyl transferase, 82
- V**
- Valproamide, 55
 - Valproate, 2, 6, 8, 31, 32, 52, 55, 56, 57, 58, 59, 60, 70, 77, 89, 106, 113, 116, 141, 143, 144, 145, 147, 155, 156, 158, 159, 160, 162, 165, 170, 177, 178, 180, 181, 182, 183, 184, 185, 186, 194, 195, 196, 197, 198, 200, 201, 203, 204, 206, 208, 210, 216, 217, 218, 219, 220
 - absorption, 55
 - adverse effects, 58
 - chemistry, 55
 - clinical pharmacokinetics, 58
 - distribution, 56
 - elimination, 56
 - excretion, 56
 - in foetus, 60
 - metabolism, 56, 217
 - in mother, 59
 - in neonate, 60
 - pharmacodynamics, 55
 - pharmacokinetics, 55
 - in pregnancy, 59
 - sodium hydrogen, 55
 - therapeutic range, 58

- Valproic acid
 See Valproate
- Vasculitis, 43
- Vein, umbilical, 73
- Verapamil, 52
- Vertigo, 101
- Vigabatrin,
 11, 40, 94, 95, 96, 97, 134, 177
 absorption, 95
 adverse effects, 96
 in breast milk, 97
 chemistry, 94
 clinical pharmacokinetics, 96
 distribution, 95
 elimination, 95
 excretion, 95
 in foetus, 97
 interactions, 96
 metabolism, 96
 in mother, 96
 in neonate, 97
 pharmacokinetics, 95
 in pregnancy, 96
- Vitamin K,
 32, 43, 46, 206
- Volume, of blood plasma, 20
- W**
- Warfarin, 31, 52
- Weight
 gain, 59
 loss, 77
- Working memory, 184
- Z**
- Zonisamide, 11, 41, 104, 105,
 106, 107, 169, 196, 198
 absorption, 105
 adverse effects, 106
 in breast milk, 107
 chemistry, 104
 clinical pharmacology, 105
 distribution, 105
 elimination, 105
 excretion, 105
 in foetus, 107
 interactions, 106
 metabolism, 105
 in the mother, 106
 pharmacodynamics, 104
 pharmacokinetics, 105
 in pregnancy, 106