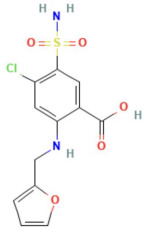
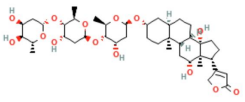
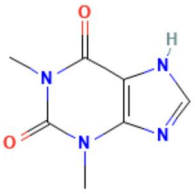
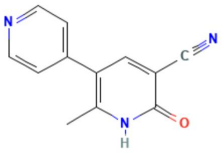
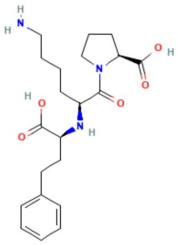
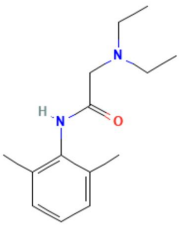
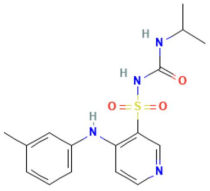
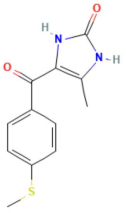
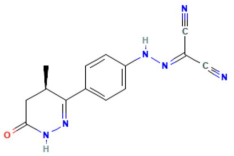
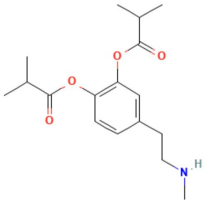
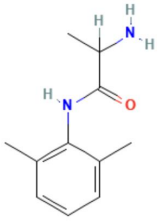
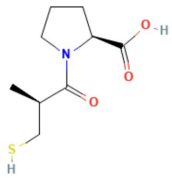
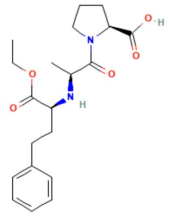
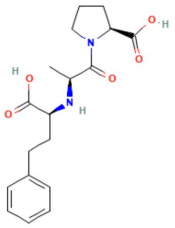
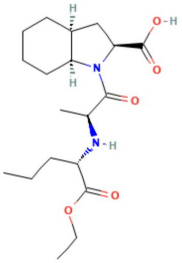
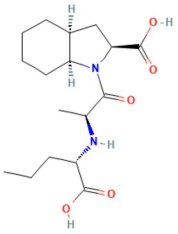
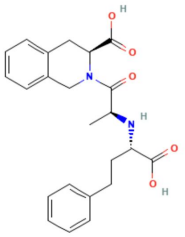
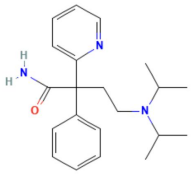
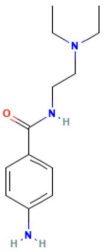
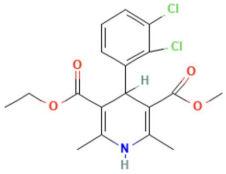
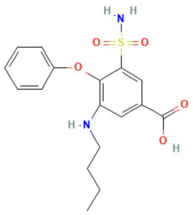
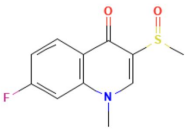
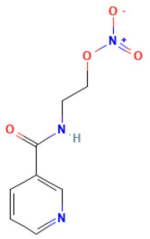
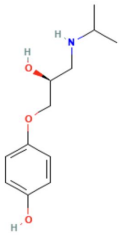


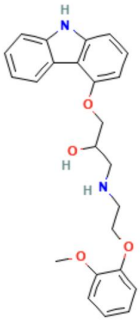
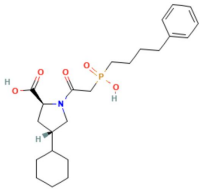
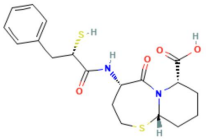
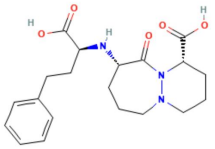
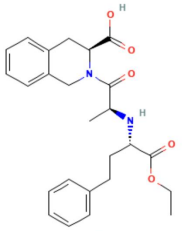
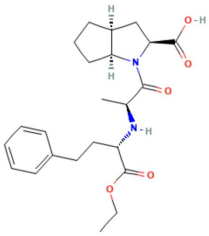
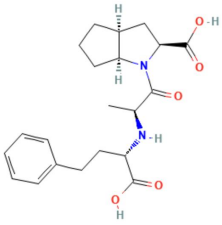
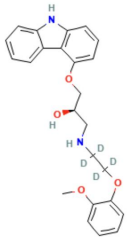
Figure S1. Quality assessment.

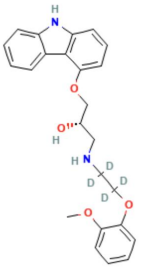
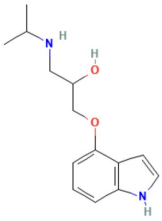
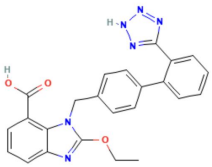
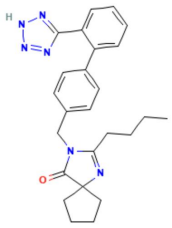
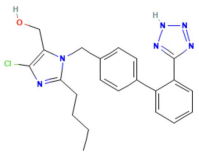
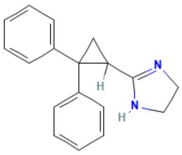
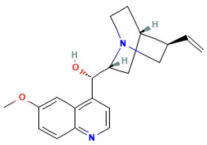
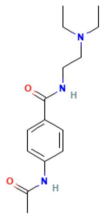
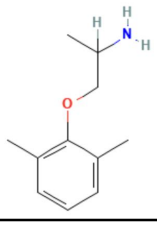
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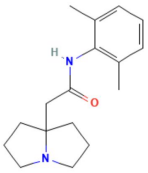
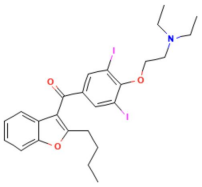
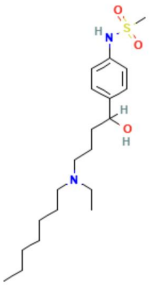
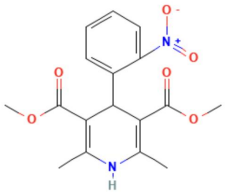
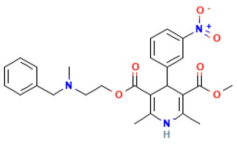
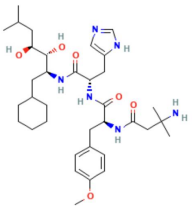
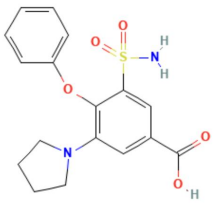
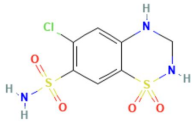
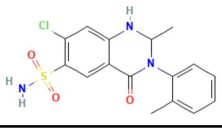
Drug name	N of studies	Chemical structure	References
Furosemide	9		[39,40-44, 89,90,115]
Digoxin	6		[20,48-51,88]
Theophylline	5		[103-107]
Milrinone	4		[55-57,98]
Lisinopril	3		[17,18,22]
Lidocaine	3		[33,82,83]
Torasemide	3		[43,46,90]
Enoximone	3		[54,93,94]

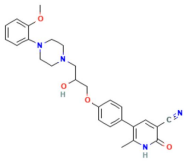
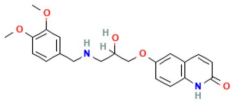
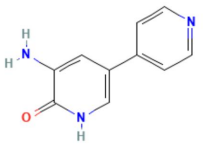
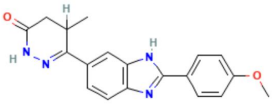
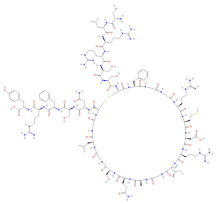
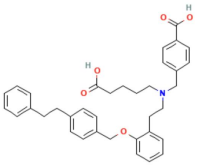
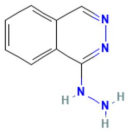
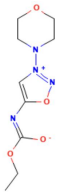
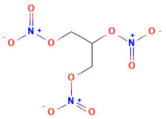
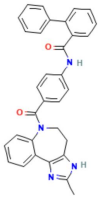
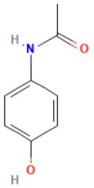
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Tocainide	3		[34,35,84]
Captopril	2		[19-20]
Enalapril	2		[21-22]
Enalaprilat	2		[21-22]
Perindopril	2		[23-24]
Perindoprilat	2		[23-24]

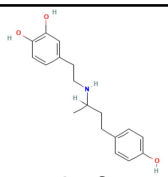
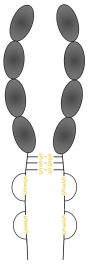
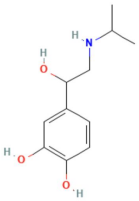
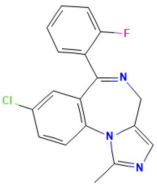
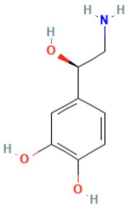
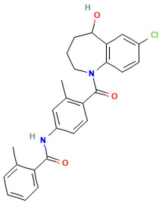
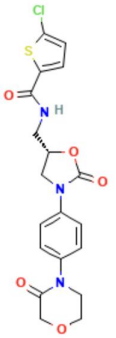
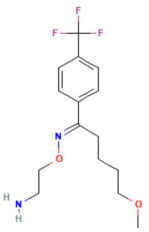
Quinaprilat	2		[26-27]
Disopyramide	2		[79,118]
Procainamide	2		[32,81]
Felodipine	2		[87,88]
Bumetanide	2		[89,115]
Flosequinan	2		[110-112]
Nicorandil	2		[61-120]
Prenalterol	2		[59,60]

Carvedilol	2		[31,72]
Fosinoprilat	1		[17]
Omapatrilat	1		[30]
Cilazaprilat	1		[29]
Quinapril	1		[25]
Ramipril	1		[28]
Ramiprilat	1		[28]
R-Carvedilol	1		[73]

S-Carvedilol	1		[74]
Pindolol	1		[75]
Candesartan	1		[117]
Irbesartan	1		[76]
Losartan	1		[77]
Cibenzoline	1		[78]
Quinidine	1		[80]
N-acetylprocainamide	1		[32]
Mexiletine	1		[36]

Pilsicainide	1		[85]
Amiodarone	1		[37]
Ibutilide	1		[86]
Nifedipine	1		[38]
Nicardipine	1		[45]
Enalkiren	1		[91]
Piretanide	1		[46]
Hydrochlorothiazide	1		[92]
Metolazone	1		[47]

Saterinone	1		[58]
Toborinone	1		[99]
Amrinone	1		[109]
Pimobendan	1		[67]
Carperitide	1		[59]
Cinaciguat	1		[60]
Hydralazine	1		[100]
Molsidomine	1		[119]
Nitroglycerin	1		[101]
Conivaptan	1		[121]
Acetaminophen	1		[62]

Dobutamine	1		[63]
Etanercept	1		[123]
Isoproterenol	1		[64]
Midazolam	1		[65]
Norepinephrine	1		[64]
Tolvaptan	1		[108]
Rivaroxaban	1		[66]
Fluvoxamine	1		[112]

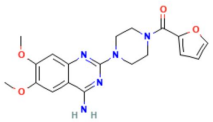
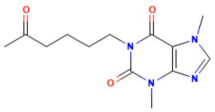
Prazosin	1		[70]
Pentoxifylline	1		[114]

Table S2. Cardiovascular drugs.

ATC group C – Cardiovascular system	N of studies	References
C09AA ACE inhibitors, plain	15	[17-30]
C01CE Phosphodiesterase inhibitors	11	[54-58,67,93,93,98,99,109]
C03CA Sulfonamides, plain	10	[39-44,89,90,93,115]
C01CA Adrenergic and dopaminergic agents	7	[63,64,68,69,102,113]
C01BB Antiarrhythmics, class Ib	7	[33-36,82-84]
C01AA Digitalis glycosides	6	[20,48-51,88]
C01BA Antiarrhythmics, class Ia	5	[32,79-81,118]
C01DX Other vasodilators used in cardiac diseases	5	[59,60,61,119,120]
C07AG Alpha and beta blocking agents	5	[31,72-75]
C08CA Dihydropyridine derivatives	4	[38,45,87,88]
C01CX Other cardiac stimulants	3	[95-97]
C01DB Quinolone vasodilators	3	[100], [110,111]
C09CA Angiotensin II receptor blockers (ARBs), plain	3	[76,77,117]
C01BD Antiarrhythmics, class III	2	[37,86]
C03XA Vasopressin antagonists	2	[108,121]
C01BC Antiarrhythmics, class Ic	1	[85]
C01BG Other antiarrhythmics, class I and III	1	[78]
C01DA Organic nitrates	1	[101]
C02CA Alpha-adrenoreceptor antagonists	1	[70]
C03AA Thiazides, plain	1	[92]
C03BA Sulfonamides, plain	1	[47]
C04AD Purine derivatives	1	[114]
C09XA Renin-inhibitors	1	[91]

Table S3. Structure of drugs according to ATC groups.

Drugs	N of studies	References
ATC group C – Cardiovascular system		
Furosemide	9	[39,40-44, 89,90,115]
Digoxin	6	[20,48-51,88]
Milrinone	4	[55-57,98]
Lidocaine	3	[33,82,83]
Ibopamine	3	[68,69,113]
Enoximone	3	[54,93,94]
Levosimendan	3	[95-97]
Torasemide	3	[43,46,90]
Lisinopril	3	[17,18,22]
Tocainide	3	[34,35,84]
Disopyramide	2	[79,118]

Procainamide	2	[32,81]
Prenalterol	2	[59,60]
Flosequinan	2	[110-112]
Nicorandil	2	[61-120]
Bumetanide	2	[89,115]
Felodipine	2	[87,88]
Captopril	2	[19-20]
Enalapril	2	[21-22]
Enalaprilat	2	[21-22]
Perindopril	2	[23-24]
Perindoprilat	2	[23-24]
Quinaprilat	2	[26-27]
Carvedilol	2	[31,72]
Quinidine	1	[80]
N-acetylprocainamide	1	[32]
Mexiletine	1	[36]
Pilsicainide	1	[85]
Amiodarone	1	[37]
Ibutilide	1	[86]
Cibenzoline	1	[78]
Dobutamine	1	[63]
Isoproterenol	1	[59]
Norepinephrine	1	[64]
Saterinone	1	[58]
Toborinone	1	[99]
Amrinone	1	[109]
Pimobendan	1	[67]
Nitroglycerin	1	[101]
Hydralazine	1	[100]
Carperitide	1	[59]
Cinaciguat	1	[60]
Molsidomine	1	[118]
Prazosin	1	[70]
Hydrochlorothiazide	1	[92]
Metolazone	1	[47]
Piretanide	1	[46]
Conivaptan	1	[120]
Tolvaptan	1	[108]
Pentoxifylline	1	[114]
R-Carvedilol	1	[73]
S-Carvedilol	1	[74]
Pindolol	1	[75]
Nifedipine	1	[38]
Nicardipine	1	[45]
Fosinoprilat	1	[17]
Omapatrilat	1	[30]
Cilazaprilat	1	[29]
Quinapril	1	[26,27]
Ramipril	1	[28]
Ramiprilat	1	[28]
Candesartan	1	[117]
Irbesartan	1	[76]
Losartan	1	[77]

Enalkiren	1	[91]
ATC group R – Respiratory system		
Theophylline	5	[103-107]
ATC group N – Nervous system		
Acetaminophen	1	[62]
Midazolam	1	[65]
Fluvoxamine	1	[112]
ATC group B – Blood and blood forming organs		
Rivaroxaban	1	[66]
ATC group L – Antineoplastic and immunomodulating agents		
Etanercept	1	[123]

Table S4. Drugs structure based on hydrophilicity, lipophilicity, amphiphilicity.

PK property	Drug name	References
Hydrophilic	Acetaminophen Amrinone Captopril Carperitide Cilazaprilat Conivaptan Digoxin Enalapril Enalaprilat Enalkiren Etanercept Fosinoprilat Furosemide Hydrochlorothiazide Ibopamine Isoproterenol Lisinopril Metolazone Milrinone Molsidomine N-acetylprocainamide Norepinephrine Omapatrilat Pentoxifylline Perindoprilat Pilsicainide Procainamide Quinaprilat Ramiprilat Toborinone Tocainide Tolvaptan	[17-71]
Lipophilic	Amiodarone Bumetanide	[72-116]

	Candesartan Carvedilol Cinaciguat Disopyramide Dobutamine Enoximone Felodipine Flosequinan Fluvoxamine Ibutilide Irbesartan Levosimendan Lidocaine Losartan Mexiletine Midazolam Nicardipine Nifedipine Nitroglycerin Perindopril Pimobendan Piretanide Prazosin Quinapril Quinidine R-Carvedilol Rivaroxaban S-Carvedilol Saterinone Theophylline	
Amphiphilic	Cibenzoline Hydralazine Nicorandil Pindolol Prenalterol Ramipril Torasemide	[117-123]

Table S5. Demographic data for parenterally administered drugs.

Drug	CHF/control	Mean age	NYHA class	LVEF	References
Fosinoprilat	10/10	77.8+9.5	II/III	32	[16]
Lisinopril	12/0	57+16.5	III/IV	NA	[17]
Omapatrilat	19/17	55+16	II/III	23	[29]
Irbesartan	10/10	>18	II/III	26	[117]
Losartan	11/0	47+13	II/III/IV	27	[76]
Cibenzoline	6/5	58+11	II/III	28	[77]
Disopyramide	7/11	>18	NA	NA	[118]
Disopyramide	6/11	35.8+7.36	NA	NA	[78]

Disopyramide	11/5	35.8+7.36	II/III/IV	25	[78]
Procainamide	15/10	57+12	I/II/III	30	[81]
Procainamide	9/7	61.4+12.7	II/III	22	[32]
N-acetylprocainamide	9/7	61.4+12.7	II/III	22	[32]
Quinidine	7/9	>18	NA	NA	[32]
Lidocaine	7/6	57.7+10	NA	NA	[33]
Lidocaine	8/10	64+20	NA	NA	[82]
Lidocaine	3/10	23+4.0	NA	NA	[83]
Lidocaine	7/10	23+4.0	NA	NA	[83]
Tocainide	14/0	64,8+10	NA	NA	[84]
Amiodarone	6/11	50±10	II/III	35	[85]
Amiodarone	6/11	50±10	II/III	25	[85]
Ibutilide	6/10	53±17	II/III	30	[86]
Felodipine	11/0	62±7	III	<40	[87]
Nicardipine	5/0	>18	III/IV	NA	[44]
Enalkiren	12/0	73±12	NA	21	[91]
Bumetanide	6/4	51.8±14.9	III/IV	20	[89]
Furosemide	18/8	50.5±11.75	NA	NA	[43]
Furosemide	16/8	>18	NA	32	[115]
Furosemide	16/0	59,8±11.6	II/III	<40	[90]
Piretanide	6/0	71.7±10	NA	NA	[46]
Torasemide	16/0	50.5±11.75	II/III	<40	[43]
Enoximone	21/0	57.44±13.3	II/III/IV	<45	[54]
Levosimendan	8/8	>18	II	30	[95]
Levosimendan	193/0	>18	III/IV	NA	[95]
Levosimendan	29/0	>18	III/IV	31	[96]
Levosimendan	24/0	>18	III/IV	NA	[97]
Milrinone	26/0	62±9.5	III/IV	NA	[98]
Milrinone	13/0	56±13.2	III/IV	8-27	[55]
Milrinone	6/0	65.6±11.2	IV	NA	[56]
Saterinone	12/0	56,6±13.2	III	NA	[57]
Toborinone	10/0	56.8±13.3	II/III	26	[58]
Toborinone	11/0	56.8±13.3	II/III/IV	26	[58]
Toborinone	5/0	56.8±13.3	II/III	22	[58]
Toborinone	6/0	56.8±13.3	III/IV	30	[58]
Carperitide	10/0	>18	III/IV	NA	[63]
Cinaciguat	56/0	66±11.5	III/IV	NA	[59]
Hydralazine	10/0	59.5±5.25	III	NA	[60]
Molsidomine	10/0	>18	NA	NA	[100]
Nicorandil	46/6	65.1±11.5	II/III/IV	NA	[119]
Nitroglycerin	16/0	55.5±9.2	III/IV	NA	[120]
Conivaptan	5/11	73,1±14.3	NA	NA	[101]
Acetaminoph	12/12	48±3	II/III/IV	NA	[121]

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Dobutamine	7/0	54.1±12.8	IV	NA	[63]
Etanercept	11/0	52,5±10.75	II/III/IV	NA	[122]
Isoproterenol	8/9	56.1±10.8	III/IV	20	[123]
Midazolam	6/6	49.5±5.75	II/III	19	[64]
Norepinephrine	8/9	56.1±10.8	III/IV	20	[112]
Prenalterol	5/0	57±3.3	II/III	20	[63]
Theophylline	50/20	46±13	III/IV	NA	[65]
Theophylline	18/39	75±8	II/III/IV	NA	[103]
Theophylline	15/34	75±8	II/III/IV	NA	[103]
Theophylline	10/16	75±8	II/III/IV	NA	[103]
Theophylline	6/12	75±8	II/III/IV	NA	[103]
Theophylline	8/0	67,9±5.9	IV	NA	[104]
Theophylline	8/0	67,9±5.9	I/II	NA	[104]
Tolvaptan	74/0	52,5±16.25	I/II/III/IV	NA	[107]

Table S6. Demographic data for orally administered drugs.

Drug	CHF/control	Mean age	NYHA class	LVEF	References
Captopril	7/0	60±11.2	II	NA	[19]
Captopril	5/0	60±11.2	III/IV	NA	[19]
Captopril	12/0	53,8±5.0	I/II	NA	[20]
Cilazaprilat	11/0	49±15.5	II/III	NA	[29]
Cilazaprilat	10/0	57±4.5	II/III	NA	[114]
Enalapril	8/4	53,4±8.6	III/IV	NA	[21]
Enalapril	7/0	53,4±8.6	III/IV	NA	[21]
Enalaprilat	7/0	53,4±8.6	III/IV	NA	[21]
Enalaprilat	8/4	53,4±8.6	III/IV	NA	[21]
Fosinoprilat	10/10	65±15.5	II/III	32	[15]
Lisinopril	12/0	57±16.5	III/IV	NA	[17]
Lisinopril	5/6	>18	NA	NA	[18]
Lisinopril	6/0	>18	III/IV	NA	[22]
Omapatrilat	19/17	49±15.5	II/III	23	[29]
Perindopril	10/6	64,4±8.3	III/IV	NA	[23]
Perindoprilat	10/6	64,4±8.3	III/IV	NA	[23]
Quinapril	11/0	65±7	II/III/IV	NA	[26]
Quinaprilat	12/0	72±8.5	II/III	NA	[25]
Quinaprilat	12/0	65±7	II/III	35-50 (n=6); <35 (n=6)	[26]
Quinaprilat	11/0	>18	II/III/IV	NA	[24]
Ramipril	12/0	>18	II/III	NA	[27]
Ramiprilat	12/0	>18	II/III	NA	[27]
Carvedilol	10/0	55±6.25	III	NA	[30]
Carvedilol	10/0	55±6.25	IV	NA	[30]
Carvedilol	173/0	51,5±16.75	NA	26	[31]
Carvedilol	24/0	70,5±11.3	NA	NA	[72]
Carvedilol	58/0	65±14.0	I-IV	29,4	[73]
R-Carvedilol	10/0	55±6.25	III	NA	[30]
R-Carvedilol	10/0	55±6.25	IV	NA	[30]

R-Carvedilol	173/0	51,5±16.75	NA	26	[31]
R-Carvedilol	24/0	70,5±11.3	NA	NA	[72]
R-Carvedilol	58/0	65±14.0	I-IV	NA	[73]
S-Carvedilol	10/0	55±6.25	III	NA	[30]
S-Carvedilol	10/0	55±6.25	IV	NA	[30]
S-Carvedilol	173/0	51,5±16.75	NA	26	[31]
S-Carvedilol	24/0	70,5±11.3	NA	NA	[72]
S-Carvedilol	58/0	65±14.0	I-IV	NA	[73]
Pindolol	8/0	47±9.25	II/III	<45	[74]
Candesartan	5/0	>18	II/III	NA	[75]
Irbesartan	10/10	>18	II/III	26	[117]
Losartan	11/0	47±13	II/III/IV	27	[76]
Cibenzoline	6/5	58±11	II/III	28	[77]
Disopyramide	11/5	35.8±7.36	II/III/IV	25	[78]
Disopyramide	11/5	35.8±7.36	II/III/IV	25	[78]
Quinidine	7/9	>18	NA	NA	[79]
Mexiletine	116/374	61.9±15.1	I/II	NA	[35]
Mexiletine	96/374	58.7±15.2	III/IV	NA	[35]
Pilsicainide	3/14	>18	II/III	29	[36]
Tocainide	7/7	>18	II-IV	NA	[34]
Digoxin	10/9	77±11	NA	NA	[47]
Digoxin	8/0	62,1±9.25	NA	NA	[48]
Digoxin	8/0	62,1±9.25	NA	NA	[48]
Digoxin	30/0	59±9.8	III/IV	<30	[49]
Digoxin	14/92	60,5±12.4	NA	NA	[51]
Digoxin	77/308	60,47±13.45	NA	NA	[52]
Digoxin	9/0	>18	II/III	NA	[50]
Felodipine	11/0	62±7.0	III	<40	[86]
Felodipine	11/0	64.6±2.25	II/III	NA	[87]
Nifedipine	12/5	>18	III/IV	NA	[88]
Bumetanide	6/4	60±12.0	III/IV	20	[38]
Bumetanide	20/0	53.5±10.25	I-IV	NA	[89]
Furosemide	20/0	53.5±10.25	I-IV	NA	[89]
Furosemide	10/0	>18	NA	NA	[115]
Furosemide	11/0	62.5±9.9	III	NA	[39]
Furosemide	11/0	62.5±9.9	III	NA	[39]
Furosemide	23/0	>18	III/IV	NA	[40]
Furosemide	19/0	65±6.5	II/III	NA	[41]
Furosemide	18/0	58±11.0	III/IV	<40	[42]
Furosemide	16/0	59,75±11.6	II/III	<40	[90]
Torasemide	19/0	58±11.0	III/IV	<40	[42]
Torasemide	16/0	59,75±11.6	II/III	<40	[90]
Rivaroxaban	6/0	52.5±13.16	III	22	[108]
Rivaroxaban	12/0	58.9±15.86	III/IV	21	[108]
Amrinone	15/0	>18	II/III/IV	NA	[66]
Enoximone	10/0	57,4±13.25	II/III/IV	NA	[54]
Enoximone	7/2	51,5±12.5	III/IV	<45	[93]
Milrinone	26/0	>18	III/IV	NA	[97]
Milrinone	22/13	51.5±13.0	NA	NA	[56]
Pimobendan	8/0	55±9.0	III/IV	18	[109]

Hydrochlorothiazide	7/0	71,7±10.0	NA	NA	[46]
Metolazone	3/3	>18	NA	NA	[92]
Flosequinan	8/0	84±5.5	II/III	NA	[67]
Flosequinan	18/0	72,9±10.0	II/III/IV	NA	[110]
Hydralazine	10/0	59.5±5.25	III	NA	[60]
Molsidomine	9/0	>18	NA	NA	[100]
Nicorandil	25/0	51±12.25	II-IV	NA	[61]
Fluvoxamine	10/10	79±6.0	III/IV	31	[111]
Ibopamine	10/0	>18	II/III/IV	NA	[112]
Ibopamine	20/0	62,7±9.0	II	NA	[113]
Ibopamine	9/8	>18	IV	23	[68]
Midazolam	6/6	46±5.75	II/III	NA	[64]
Prazosin	8/0	55,5±5.75	III/IV	NA	[69]
Prenalterol	12/0	77,8±10.8	III/IV	NA	[102]
Theophylline	11/15	77±10.5	II/III	NA	[105]
Theophylline	16/16	>18	>II	NA	[106]
Pentoxifylline	20/0	65±10	III/IV	NA	[70]

Table S7. PK parameters of drugs revealed in the study.

Drug Name	Administration route	PPB	CL	Vd	T 1/2	References
Fosinoprilat	Parenteral	High	↓	↓	↓	[16]
Lisinopril	Parenteral	Low	↓	NA	NA	[17]
Omapatrilat	Parenteral	Low	↑	↓	NA	[29]
Irbesartan	Parenteral	High	↓	↓	↑	[117]
Losartan	Parenteral	High	↓	NA	↑	[76]
Cibenzoline	Parenteral	NA	↓	↓	NA	[77]
Disopyramide	Parenteral	Low	↓	↑	↑	[118]
Disopyramide	Parenteral	Low	↓	↑	↑	[78]
Disopyramide	Parenteral	Low	↓	↑	↑	[78]
Procainamide	Parenteral	Low	↓	↓	↑	[81]
Procainamide	Parenteral	Low	↓	↓	↑	[32]
N-acetylprocainamide	Parenteral	Low	NA	NA	↓	[32]
Quinidine	Parenteral	High	NA	NA	↑	[32]
Lidocaine	Parenteral	Low	NA	NA	↑	[33]
Lidocaine	Parenteral	Low	NA	NA	↑	[82]
Lidocaine	Parenteral	Low	NA	NA	↑	[83]
Lidocaine	Parenteral	Low	NA	NA	↑	[83]
Tocainide	Parenteral	Low	↑	↑	↑	[84]
Amiodarone	Parenteral	High	↓	↑	↑	[85]
Amiodarone	Parenteral	High	↓	↑	↑	[85]
Ibutilide	Parenteral	Low	↓	↓	↑	[86]
Felodipine	Parenteral	High	↓	NA	↑	[87]
Nicardipine	Parenteral	High	↑	↑	↑	[44]
Enalkiren	Parenteral	Low	↓	↑	↑	[91]
Bumetanide	Parenteral	High	↓	NA	↑	[89]
Furosemide	Parenteral	High	NA	NA	↑	[43]
Furosemide	Parenteral	High	NA	NA	↑	[115]
Furosemide	Parenteral	High	NA	NA	↑	[90]
Piretanide	Parenteral	High	↓	↓	↑	[46]
Torasemide	Parenteral	High	↓	NA	↑	[43]

Enoximone	Parenteral	Low	↓	↓	↓	[54]
Levosimendan	Parenteral	High	↓	↓	↑	[95]
Levosimendan	Parenteral	High	↓	↓	↑	[95]
Levosimendan	Parenteral	High	↓	↓	↑	[96]
Levosimendan	Parenteral	High	↓	↓	↑	[97]
Milrinone	Parenteral	Low	↓	↑	↑	[98]
Milrinone	Parenteral	Low	↓	↑	↑	[55]
Milrinone	Parenteral	Low	↓	↑	↑	[56]
Saterinone	Parenteral	Low	NA	NA	NA	[57]
Toborinone	Parenteral	High	↓	↑	↓	[58]
Toborinone	Parenteral	High	↓	↑	↓	[58]
Toborinone	Parenteral	High	↓	↑	↓	[58]
Toborinone	Parenteral	High	↓	↑	↓	[58]
Carperitide	Parenteral	Low	↑	↑	↑	[63]
Cinaciguat	Parenteral	Low	↓	↓	NA	[59]
Hydralazine	Parenteral	High	↓	↓	↑	[60]
Molsidomine	Parenteral	Low	↓	NA	↑	[100]
Nicorandil	Parenteral	Low	↑	↑	NA	[118]
Nitroglycerin	Parenteral	Low	↓	NA	NA	[119]
Conivaptan	Parenteral	High	↑	NA	↑	[101]
Acetaminophen	Parenteral	Low	↓	↓	↑	[120]
Dobutamine	Parenteral	Low	NA	NA	NA	[63]
Etanercept	Parenteral	Low	↑	NA	NA	[122]
Isoproterenol	Parenteral	Low	↓	NA	NA	[123]
Midazolam	Parenteral	High	↓	↑	↑	[64]
Norepinephrine	Parenteral	Low	↓	NA	NA	[112]
Prenalterol	Parenteral	Low	↓	↑	↑	[63]
Theophylline	Parenteral	Low	↓	NA	↑	[65]
Theophylline	Parenteral	Low	↓	NA	↑	[103]
Theophylline	Parenteral	Low	↓	NA	↑	[103]
Theophylline	Parenteral	Low	↓	NA	↑	[103]
Theophylline	Parenteral	Low	↓	NA	↑	[103]
Theophylline	Parenteral	Low	↓	NA	↑	[104]
Theophylline	Parenteral	Low	↓	NA	↑	[104]
Tolvaptan	Parenteral	High	NA	NA	↓	[107]
Captopril	Oral	Low	↓	↓	↓	[19]
Captopril	Oral	Low	↓	NA	NA	[19]
Captopril	Oral	Low	↑	↓	NA	[20]
Cilazaprilat	Oral	NA	↓	NA	↑	[29]
Cilazaprilat	Oral	NA	↓	NA	↑	[114]
Enalapril	Oral	Low	↓	NA	↑	[21]
Enalapril	Oral	Low	↑	NA	NA	[21]
Enalaprilat	Oral	Low	↓	NA	↑	[21]
Enalaprilat	Oral	Low	↓	NA	↑	[21]
Fosinoprilat	Oral	High	↓	↓	↓	[15]
Lisinopril	Oral	Low	↓	NA	NA	[17]
Lisinopril	Oral	Low	↓	NA	NA	[18]
Lisinopril	Oral	Low	↓	NA	NA	[22]
Omapatrilat	Oral	Low	↑	↓	NA	[29]
Perindopril	Oral	Low	↓	NA	↑	[23]
Perindoprilat	Oral	Low	↓	NA	↓	[23]
Quinapril	Oral	High	↓	NA	NA	[26]
Quinaprilat	Oral	High	↑	NA	NA	[25]

Quinaprilat	Oral	High	↑	NA	↑	[26]
Quinaprilat	Oral	High	↑	NA	NA	[24]
Ramipril	Oral	Low	↑	NA	NA	[27]
Ramiprilat	Oral	Low	↓	NA	NA	[27]
Carvedilol	Oral	High	↓	NA	NA	[30]
Carvedilol	Oral	High	↓	NA	NA	[30]
Carvedilol	Oral	High	↓	NA	NA	[31]
Carvedilol	Oral	High	↓	NA	NA	[72]
Carvedilol	Oral	High	↓	NA	NA	[73]
R-Carvedilol	Oral	High	↓	NA	NA	[30]
R-Carvedilol	Oral	High	↓	NA	NA	[30]
R-Carvedilol	Oral	High	↓	NA	NA	[31]
R-Carvedilol	Oral	High	↓	NA	NA	[72]
R-Carvedilol	Oral	High	↓	NA	NA	[73]
S-Carvedilol	Oral	High	↓	NA	NA	[30]
S-Carvedilol	Oral	High	↓	NA	NA	[30]
S-Carvedilol	Oral	High	↓	NA	NA	[31]
S-Carvedilol	Oral	High	↓	NA	NA	[72]
S-Carvedilol	Oral	High	↓	NA	NA	[73]
Pindolol	Oral	Low	↑	NA	↑	[74]
Candesartan	Oral	High	↓	NA	↑	[75]
Irbesartan	Oral	High	↓	↓	↑	[117]
Losartan	Oral	High	↓	NA	↑	[76]
Cibenzoline	Oral	NA	↓	↓	NA	[77]
Disopyramide	Oral	Low	↓	↑	↑	[78]
Disopyramide	Oral	Low	↓	↑	↑	[78]
Quinidine	Oral	High	NA	NA	↑	[79]
Mexiletine	Oral	Low	↓	NA	NA	[35]
Mexiletine	Oral	Low	↓	NA	NA	[35]
Pilsicainide	Oral	NA	↓	NA	↑	[36]
Tocainide	Oral	Low	↑	↑	↑	[34]
Digoxin	Oral	Low	↓	NA	NA	[47]
Digoxin	Oral	Low	↓	NA	NA	[48]
Digoxin	Oral	Low	↓	NA	NA	[48]
Digoxin	Oral	Low	↓	NA	NA	[49]
Digoxin	Oral	Low	↓	NA	NA	[51]
Digoxin	Oral	Low	↓	NA	NA	[52]
Digoxin	Oral	Low	↓	NA	NA	[50]
Felodipine	Oral	High	↓	NA	↑	[86]
Felodipine	Oral	High	↓	NA	↑	[87]
Nifedipine	Oral	High	↑	NA	↓	[88]
Bumetanide	Oral	High	↓	NA	↑	[38]
Bumetanide	Oral	High	↓	NA	↑	[89]
Furosemide	Oral	High	NA	NA	↑	[89]
Furosemide	Oral	High	NA	NA	↑	[115]
Furosemide	Oral	High	NA	NA	↑	[39]
Furosemide	Oral	High	NA	NA	↑	[39]
Furosemide	Oral	High	NA	NA	↑	[40]
Furosemide	Oral	High	NA	NA	↑	[41]
Furosemide	Oral	High	NA	NA	↑	[42]
Furosemide	Oral	High	NA	NA	↑	[90]
Torasemide	Oral	High	↓	NA	↑	[42]
Torasemide	Oral	High	↓	NA	↑	[90]

Rivaroxaban	Oral	High	↓	NA	↓	[108]
Rivaroxaban	Oral	High	↓	NA	↓	[108]
Amrinone	Oral	Low	↓	NA	↑	[66]
Enoximone	Oral	Low	↓	↓	↓	[54]
Enoximone	Oral	Low	↓	↓	↓	[93]
Milrinone	Oral	Low	↓	↑	↑	[97]
Milrinone	Oral	Low	↓	↑	↑	[56]
Pimobendan	Oral	High	↑	NA	↑	[109]
Hydrochlorothiazide	Oral	Low	NA	NA	↑	[46]
Metolazone	Oral	Low	NA	NA	↑	[92]
Flosequinan	Oral	Low	↓	NA	↑	[67]
Flosequinan	Oral	Low	↓	NA	↑	[110]
Hydralazine	Oral	High	↓	↓	↑	[60]
Molsidomine	Oral	Low	↓	NA	↑	[100]
Nicorandil	Oral	Low	↑	↑	NA	[61]
Fluvoxamine	Oral	High	↓	↓	↑	[111]
Ibopamine	Oral	NA	↓	NA	↓	[112]
Ibopamine	Oral	NA	↓	NA	↓	[113]
Ibopamine	Oral	NA	↓	NA	↓	[68]
Midazolam	Oral	High	↓	↑	↑	[64]
Prazosin	Oral	High	↓	NA	↑	[69]
Prenalterol	Oral	Low	↓	↑	↑	[102]
Theophylline	Oral	Low	↓	NA	↑	[105]
Theophylline	Oral	Low	↓	NA	↑	[106]
Pentoxifylline	Oral	Low	↓	NA	NA	[70]