List of the developed methods for the detection of Drugs in PARC

No	Drug	Matrix	Sample preparation method	Method	Linear range	LOD	Detection range	Researcher	Ref
1	Carvedilol	Plasma	Dispersive liquid–liquid microextraction based on solidification of floating organic droplet	Spectrofluorimetry	40 – 300 ng mL^{-1}	18 ng mL^{-1}	40 – 223 ng mL^{-1}	M.Z	(1)
2	Metoprolol Propranolol Carvedilol Diltiazem Verapamil	Plasma	Dispersive liquid–liquid microextraction	HPLC-UV	0.02 – 1 µg mL^{-1}	0.002 µg mL^{-} 0.005 µg mL^{-} 0.006 µg mL^{-} 0.003 µg mL^{-} 0.003 µg mL^{-1}	25.8-92.3 ng mL^{-} 70.6 ng mL^{-1} 23.6 ng mL^{-1}	R.F	(2)
3	Carvedilol Propranolol	Urine	Vortex-assisted liquid–liquid extraction	CE-DAD	0.005-1 µg mL^{-1}	0.001 µg mL^{-} 0.0007 µg mL^{-1}	22 – 163 ng mL^{-1}	R.F	(3)
4	Propranolol Metoprolol Carvedilol	Urine	Salt-assisted liquid–liquid extraction	CE-DAD	0.025-1 µg mL^{-1}	0.008 µg mL 0.005 µg mL 0.015 µg mL^{-1}	67-150 ng mL^{-1}-	R.F	(4)
5	Carbamazepine	Plasma	Stir bar sorptive extractionMagnetic solid phase extraction	HPLC-UV	0.2-12 µg mL^{-} 0.05-12 µg mL^{-1}	0.01 µg mL^{-} 0.0043 µg mL^{-1}	2.3-5.5 µg mL^{-1}	S.A	(5)
6	Verapamil	Exhaled breath condensate	-	Spectrofluorimetry	0.02-12 µg mL^{-1}	0.008 µg mL^{-1}	0.059-0.067 µg mL^{-1}	F.P	(6)
7	Verapamil	Exhaled breath condensate	Dispersive liquid–liquid microextraction	HPLC-UV	0.07-0.8 µg mL^{-1}	-	0.07-0.09 µg mL^{-1}	F.P	(6)

8	Phenobarbital Carbamazepine	Urine	Homogenous liquid-liquid extraction coupled with dispersive liquid-liquid microextraction	GC-FID	0.06-100 µg mL^{-1} 0.04-100 µg mL^{-1}	0.017 µg mL^{-1} 0.010 µg mL^{-1}	-	B.F	(7)
9	Ethanol	Exhaled breath condensate	-	Spectrophotometry	300-1500 µg mL^{-1} 1600-8000 µg mL^{-1}	82.5 µg mL^{-1} 330 µg mL^{-1}	200 – 800 µg mL^{-1}	F.P	(8)
10	Lamotrigine	Exhaled breath condensate	-	Spectrophotometry	0.02-1 µg mL^{-1}	5 ng mL^{-1}	0.592-0.721 µg mL^{-1}	A.S	(9)
11	Lamotrigine	Plasma	-	Spectrofluorimetry	0.5-6.0 µg mL^{-1}	0.3 µg mL^{-1}	1.69-3.71 µg mL^{-1}	A.S	(9)
12	Phenytoin	Plasma	-	Spectrophotometry	67-670 ng mL^{-1}	21 ng mL^{-1}	2.06-4.84 µg mL^{-1}	A.S	(10)
13	Phenytoin	Exhaled breath condensate	-	Spectrophotometry	25-450 µg L^{-1}	10 µg L^{-1}	-	A.S	(10)
14	Doxorubicin	Exhaled breath condensate	-	Spectrophotometry	20-200 µg L^{-1}	4.16 µg L^{-1}	-	A.S	(11)
15	P-Cresol	Plasma	In situ surfactant -based solid phase microextraction	HPLC-FL	0.5-8 µg mL^{-1}	0.324 µg mL^{-1}	-	A.S	(12)
16	Phenobarbital Phenytoin Carbamazepine Carbamazepine epoxide	Plasma	-	HPLC-UV	1-40 µg mL^{-1} 1-30 µg mL^{-1} 0.3-15 µg mL^{-1} 0.5-6 µg mL^{-1}	0.82 µg mL^{-1} 0.28 µg mL^{-1} 0.02 µg mL^{-1} 0.49 µg mL^{-1}	-	A.S	(13)
17	Carbamazepine	Exhaled breath condensate	-	Spectrofluorimetry	0.2-20 µg mL^{-1}	0.08 µg mL^{-1}	0.39-0.51 µg mL^{-1}	E.R	(14)

18	Tobramycin	Exhaled breath condensate	-	Spectrophotometry	1-50 ng mL^{-1}	0.5 ng mL^{-1}	13.7-31.1 ng mL^{-1}	E.R	(15)
19	Phenobarbital	Plasma	Protein precipitation	Spectrophotometry	1-50 µg mL^{-1}	0.6 µg mL^{-1}	19 – 39.6 µg mL^{-1}	E.R	(16)
20	Mycophenolic acid	Plasma	Protein precipitation	Spectrofluorimetry	1 – 10 µg mL^{-1}	-	-	A.SH	(17)
21	Indoxyl sulfate	Plasma	Salting-out assisted liquid-liquid extraction	Spectrofluorimetry	2.5 – 40 µg mL^{-1}		18.4–28.9 µg mL^{-1}	F.N	Submitted.
22	Cynaide	Whole blood	-	Spectrophotometry	-	<1 µg mL^{-1}	-	A.SH	Submitted.
23	Folic acid	Plasma	Protein precipitation	Spectrofluorimetry	0.01–1.1 mg/L	0.003 mg/L	-	JS	(18)
24	Methotrexate	Plasma	Protein precipitation	Spectrofluorimetry	0.02-10 µg/mL	0.015 µg/mL	-	M.SH	(19)
25	Deferiprone	Plasma and urine	Protein precipitation	Spectrofluorimetry	0.072–13 mmol/L	0.022 and 0.014 mM	-	JS	(20)
26	Doxorubicin	PlasmaUrine CF	Protein precipitation	Electrochemical	4.3×10^{-8}–3.5×10^{-6} M 2.6×10^{-8}–3.5×10^{-6} M 8.6×10^{-7}–13×10^{-6} M	4.9×10^{-9} M 4.3×10^{-9} M 1.4×10^{-8} M	-	JS	(21)
27	Doxorubicin	Plasma Whole blood	Protein precipitation	Electrochemical	6.9×10^{-8}–1.08×10^{-6} M 1.03 × 10-7–3.45 × 10^{-6} M	6.9×10^{-8} M 1.03×10^{-7} M	-	JS	(22)
28	Doxorubicin	Plasma	Protein precipitation	Electrochemical	0.086 µM to 3.45 µM	12 mM	-	PA	(23)
29	Doxorubicin	Plasma	-	Electrochemical	17 nM - 8.6 µM	17 nM	-	ME	(24)
30	Doxorubicin	Plasma	-	Electrochemical	0.018–3.6 µM	0.016 µM	-	N.H	(25)

31	Atenolol Carvedilol Propranolol	Serum	-	Electrochemical	12–96 μM 5–37 μM 10–104 μM	1.12 μM 3.01 μM 2.91 μM	-	N.S	(26)
32	Captopril	Serum	-	Electrochemical	0.06–0.2 μM	0.03 μM	-	M.H	(27)
33	Verapamil	Serum	-	Electrochemical	50–160 160–350 nmol dm^{-3}	41 nmol dm^{-3}	-	M.H	(28)
34	Diltiazem timolol	Serum	-	Electrochemical	0.1 to 100 μM 0.2 to 340 μM	0.06 μM 0.02 μM	-	M.H	(29)
35	Furosemide	Serum	-	Electrochemical	15–340 μM 17–100 μM	0.10 μM	-	M.H	(30)
36	Mefenamic acid indomethacin	Serum	-	Electrochemical	0.02–150 μM 0.08–435 M μM	0.02 μM 0.08 μM	-	M.H	(31)
37	Norfloxacin lomefloxacin	Serum	-	Electrochemical	0.06 to 170 μM 0.08 to 200 μM	0.2 μM 0.38 μM	-	M.H	(32)
38	Alprazolam Diazepam Clonazepam Oxazepam Chlordiazepoxide	Serum	-	Electrochemical	0.031-0.052 μM 0.027-0.041 μM 0.025-0.90 μM 0.025-0.047 μM 0.03-0.071 μM	0.031 μM 0.027 μM 0.025 μM 0.025 μM 0.03 μM	-	H.A	(33)
39	ketoconazole	Plasma	-	Spectrophotometry	10-80 μmol/L	10 μmol/L (LLOQ)	-	P.P	(34)

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