



**Rhode Island Hospital
The Miriam Hospital**

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Memorandum

TO: Rhode Island Hospital, The Miriam Hospital and Newport Hospital
Medical Staff, House Staff Officers, Nursing Managers and Lifespan
Outreach Clients

FROM: Adina Badea, PhD
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DATE: July 22, 2022

SUBJECT: Introducing Comprehensive Drug Testing in Serum

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Effective July 18th, the Clinical Toxicology Laboratory will be implementing a Comprehensive Drug Screen test in Serum. This test will be performed by high resolution mass spectrometry (LC-QTOF-MS) and it is a qualitative, yet definitive test. It is meant as a complementary service to its equivalent in urine – more reflective of acute exposures and a solution to situations in which urine cannot be collected. The test will be performed daily (Mon-Sat). A comprehensive list of compounds tested for along with limits of detection can be found at the end of this memorandum. Only compounds detected will be resulted. This list will be extended periodically, as demand grows.

For questions, please do not hesitate to contact Matt Keane (401-444-3702) or Dr. Adina Badea (401-444-8390).

List of compounds with limits of detection (ng/mL)

1. 11-hydroxy-delta-9-THC	20	15. 4-MeOPPP	1
2. 11-nor-9-carboxy-delta9-THC	30	16. 4-MTA	5
3. (-)-delta9-THC	300	17. 5F-BZO-POXIZID	5
4. 2C-H	1	18. 6-APB	5
5. 2C-I	1	19. 6-acetylcodeine	10
6. 2C-T2	1	20. 6-acetylmorphine	10
7. 2C-T4	5	21. 7-aminoclonazepam	1
8. 2C-T7	1	22. 7-aminoflunitrazepam	1
9. 2-Hydroxyethylflurazepam	5	23. 7-aminonitrazepam	1
10. 2-oxo-3-hydroxy-LSD	5	24. 9-hydroxyrisperidone	1
11. 3-Hydroxyphenazepam	10	25. AB-FUBINACA metab. 3	10
12. 3-methyl fentanyl	0.5	26. Acetaminophen	10
13. 4-fluoromethcathinone	5	27. Acetohexamide	30
14. 4-MEPPP	1	28. Acetyl fentanyl	1

29. Acryl fentanyl	0.5	78. Chlorpromazine	1
30. ADB-4-en-PINACA	1	79. Chlorpropamide	50
31. ADB-BUTINACA	1	80. Cimetidine	1
32. Adinazolam	1	81. Citalopram	1
33. Adrafinil	200	82. Clenbuterol	1
34. 5-fluoro-AKB48	5	83. Clobazam	1
35. Alfentanil	1	84. Clomipramine	1
36. Alpha-hydroxyalprazolam	1	85. Clonazepam	1
37. Alpha-hydroxymidazolam	1	86. Clonazolam	5
38. Alpha-hydroxytriazolam	1	87. Clonidine	1
39. Alpha-PvP	1	88. Clozapine	1
40. Alprazolam	1	89. Cocaethylene	1
41. Amiodarone	10	90. Cocaine	1
42. Amitriptyline	1	91. Codeine	1
43. Amoxapine	1	92. Codeine-6-glucuronide	1
44. Amphetamine	20	93. Cotinine	5
45. Aniracetam	1	94. Cyclobenzaprine	1
46. 4-ANPP	0.5	95. Delorazepam	1
47. Aripiprazole	1	96. Demoxepam	5
48. Atenolol	1	97. Desalkylflurazepam	1
49. Atropine	1	98. Deschloroetizolam	1
50. Baclofen	30	99. Desipramine	1
51. BDB	1	100. Desmethylclomipramine	1
52. Benzoylcegonine	1	101. Desmethyleyclobenzaprine	1
53. Beta-hydroxythiofentanyl	0.5	102. Desmethyl-loperamide (N-)	1
54. Bromazepam	1	103. Desmethyl(nor)sertraline	50
55. Brompheniramine	1	104. Despropionyl-parafluorofentanyl	1
56. Buprenorphine	1	105. Dextromethorphan	1
57. Buprenorphine-glucuronide	10	106. Diazepam	1
58. Bupropion	5	107. Diclazepam	1
59. Butylone	1	108. Diclofenac	>500
60. Butyryl fentanyl	0.5	109. Dihydrocodeine	1
61. BZO-CHMOXIZID	1	110. Diltiazem	1
62. BZO-HEXOXIZID	1	111. Dimethyltryptamine	1
63. BZO-POXIZID	1	112. Diphenhydramine	1
64. BZP (Benzylpiperazine)	1	113. Diphenoxylate (Difenoxin)	10
65. Cannabidiol (CBD)	100	114. DMA (2,5 Dimethoxyamphetamine)	1
66. Cannabinol (CBN)	>500	115. DOB (4- Bromo 2,5 DMA)	5
67. Caffeine	ND	116. DOC (4-chloro, 2,5 DMA)	1
68. Carbamazepine	1	117. DOET	5
69. Carbamazepine-10,11-epox.	1	118. DOM	1
70. Carisoprodol	5	119. Doxepin	1
71. Carfentanil	1	120. Doxylamine	1
72. Cathine	20	121. Droperidol	1
73. Cathinone	10	122. Duloxetine	5
74. CBG	200	123. Ecgonine	10
75. Cephalexin	1	124. EDDP	1
76. Chlordiazepoxide	10	125. EME (Ecgonine methyl ester)	40
77. Chlorpheniramine	1	126. Emetine	5

127. Estazolam	1	176. MDDMA	1
128. Ethylamphetamine (N-)	1	177. MDMB-4en-PINACA	1
129. Ethylone	1	178. MDPPP	1
130. Etizolam	1	179. MDPV	1
131. Fenfluramine	1	180. Meclizine	ND
132. Fentanyl	0.5	181. Mefenamic acid	5
133. Flecainide	1	182. Meperidine	1
134. Flualprazolam	5	183. Mephedrone	5
135. Flubromazepam	1	184. Meproamate	10
136. Flubromazolam	1	185. Mescaline	5
137. Flunitrazepam	1	186. Methadone	1
138. Fluoroamphetamine	20	187. Methamphetamine	5
139. Fluoxetine	1	188. Methaqualone	5
140. Flurazepam	1	189. Methcathinone (S-)	5
141. Fluvoxamine	5	190. Methedrone	10
142. Furanyl fentanyl	1	191. Methocarbamol	1
143. Gabapentin	5	192. Methoxyacetylfentanyl	1
144. Gliclazide	1	193. MDA	5
145. Glimepiride	1	194. MDMA	1
146. Glipizide	5	195. Methylone	1
147. Glyburide	5	196. Methylphenidate	1
148. Guaifenesin	50	197. Metoprolol	1
149. Haloperidol	1	198. Mianserin	1
150. Heroin	1	199. Midazolam	1
151. Hydrocodone	1	200. Mirtazapine	1
152. Hydromorphone	1	201. Mitragynine	1
153. Hydromorphone-glucuronide	200	202. Modafinil	100
154. Hydroxybupropion	1	203. Morphine	1
155. Hydroxychloroquine	5	204. Morphine-3-glucuronide	100
156. Hydroxyzine	1	205. Naloxone	10
157. Imipramine	1	206. Naproxen	500
158. Ketamine	1	207. N-desmethyl tramadol	1
159. Ketazolam	1	208. N-desmethyl-citalopram	30
160. Ketoprofen	10	209. N-desmethyl-flunitrazepam	5
161. Lamotrigine	1	210. Nefazodone	5
162. Levamisole	1	211. Niacinamide (Vitamin B3)	ND
163. Levetiracetam	10	212. Nicotine	10
164. Levorphanol	1	213. Nimetazepam	5
165. Lidocaine	1	214. Nitrazepam	5
166. Loperamide	1	215. Norbuprenorphine	5
167. Loratadine	1	216. Norbuprenorphine-glucuronide	40
168. Lorazepam	1	217. Norchlordiazepoxide	5
169. Lorazepam glucuronide	500	218. Norcocaine	1
170. Loxapine	1	219. Norcodeine	5
171. LSD	1	220. Nordiazepam	5
172. Maprotiline	1	221. Nordoxepin (Desmethyldoxepin)	1
173. MBDB	5	222. Norfentanyl	0.5
174. mCPP	1	223. Norfluoxetine	10
175. MDEA	1	224. Norketamine	5

225. Normeperidine	1	274. Protriptyline	1
226. Norsufentanil	0.5	275. Pseudoephedrine/Ephedrine	1
227. Normirtazapine	1	276. Psilocin	20
228. Nornalaxone (6-alpha-Naloxol)	5	277. Psilocybin	20
229. Noroxycodone	1	278. Pyrazolam	5
230. Norpropoxyphene	5	279. Quetiapine	1
231. Nortrimipramine	1	280. Quinidine/Quinine	1
232. Nortriptyline	1	281. Ricinine	10
233. Norverapamil	1	282. Risperidone	1
234. NPP	1	283. Selegiline	100
235. O-desmethyltramadol	1	284. Sertraline	5
236. O-desmethylvenlafaxine	1	285. Sildenafil	5
237. Olanzapine	1	286. Sufentanil	0.5
238. Omeprazole	20	287. Temazepam	1
239. Oxazepam	5	288. Temazepam Glucuronide	300
240. Oxazepam glucuronide	500	289. Tetrahydrofuran fentanyl	1
241. Oxcarbazepine	5	290. Tetrahydrozoline	1
242. Oxycodone	1	291. TFMPP	1
243. Oxymorphone	5	292. Thioridazine	1
244. Oxymorphone-glucuronide	100	293. Thiothixene	1
245. Papaverine	1	294. Tolazamide	1
246. Para-fluorobutyryl fentanyl	5	295. Tolbutamide	10
247. Para-fluorofentanyl	1	296. Topiramate	>500
248. Paroxetine	5	297. Tramadol	1
249. Pentazocine	50	298. Trazodone	1
250. Pentylone	1	299. Triazolam	1
251. Perphenazine	1	300. Trifluoperazine	1
252. Phenacetin	1	301. Trimipramine	1
253. Phenazepam	100	302. U-47700	10
254. Phenethyl-4-ANPP	1	303. Venlafaxine	1
255. Phencyclidine	1	304. Verapamil	1
256. Phenibut	200	305. Xylazine	1
257. Pheniramine	1	306. Yohimbine	1
258. Phenothiazine	100	307. Zaleplon	1
259. Phentermine	10	308. Ziprasidone	1
260. Phenylephrine	10	309. Zolpidem	1
261. Phenylpiracetam	5	310. Zonisamide	30
262. Phenylpropanolamine	10	311. Norhydrocodone	5
263. Piracetam	100	312. Thebaine	1
264. PMA	10	313. Zopiclone	50
265. PMMA	1		
266. Pregabalin	10		
267. Primidone	30		
268. Procaine	ND		
269. Prochlorperazine	20		
270. Promazine	1		
271. Promethazine	1		
272. Propoxyphene	1		
273. Protonitazene	1		