

Table S4: DPWG guidelines which had an actionable therapeutic recommendation for at least one of the predicted phenotypes (n=54): covering 49 drugs and 14 genes, at the time of updated selection (25/01/2019)

1	Abacavir – <i>HLA-B*57:01</i>
2	Contraceptive with ethinylestadiol – <i>F5</i>
3	Zuclopenthixol - <i>CYP2D6</i>
4	Amitriptyline - <i>CYP2D6</i>
5	Clomipramine - <i>CYP2D6</i>
6	Imipramine - <i>CYP2D6</i>
7	Nortriptyline - <i>CYP2D6</i>
8	Venlafaxine - <i>CYP2D6</i>
9	Doxepin - <i>CYP2D6</i>
10	Atorvastatin - <i>SLCO1B1</i>
11	Tramadol - <i>CYP2D6</i>
12	Codeine - <i>CYP2D6</i>
13	Efavirenz - <i>CYP2B6</i>
14	Flucloxacillin - <i>HLA-B*57:01</i>
15	Fluorouracil/capecitabine - <i>DPYD</i>
16	Azathioprine/mercaptopurine - <i>TPMT</i>
17	Tioguanine - <i>TPMT</i>
18	Tacrolimus - <i>CYP3A5</i>
19	Tegafur - <i>DPYD</i>
20	Metoprolol - <i>CYP2D6</i>
21	Citalopram - <i>CYP2C19</i>
22	Escitalopram - <i>CYP2C19</i>
23	Simvastatin - <i>SLCO1B1</i>
24	Flecainide - <i>CYP2D6</i>
25	Propafenone - <i>CYP2D6</i>
26	Phenytoin - <i>CYP2C9</i>
27	Carbamazepine – <i>HLA-B*15:02</i>
28	Carbamazepine – <i>HLA-A*31:01</i>
29	Carbamazepine – <i>HLA-B*15:11</i>
30	Eliglustat - <i>CYP2D6</i>
31	Allopurinol – <i>HLA-B*58:01</i>
32	Voriconazole - <i>CYP2C19</i>
33	Aripiprazole - <i>CYP2D6</i>
34	Haloperidol - <i>CYP2D6</i>
35	Lansoprazole - <i>CYP2C19</i>
36	Omeprazole - <i>CYP2C19</i>
37	Pantoprazole - <i>CYP2C19</i>
38	Irinotecan - <i>UGT1A1</i>
39	Pimozide - <i>CYP2D6</i>
40	Tamoxifen - <i>CYP2D6</i>
41	Acenocoumarol - <i>VKORC1</i>

42	Phenprocoumon - <i>VKORC1</i>
43	Paroxetine - <i>CYP2D6</i>
44	Sertraline - <i>CYP2C19</i>
45	Clopidogrel - <i>CYP2C19</i>
46	Warfarin - <i>CYP2C9</i>
47	Warfarin - <i>VKORC1</i>
48	Atomoxetine - <i>CYP2D6</i>
49	Imipramine - <i>CYP2C19</i>
50	Azathioprine/mercaptopurine - <i>NUDT15</i>
51	Tioguanine - <i>NUDT15</i>
52	Lamotrigine – <i>HLA-B*15:02</i>
53	Phenytoin – <i>HLA-B*15:02</i>
54	Oxcarbazepine – <i>HLA-B*15:02</i>