

13 - Target ranges for other psychotropics

Target ranges for other psychotropics

Pharmacokinetics CHAPTER 11 Quetiapine has an established dose-response relationship, and appears to be well tolerated at doses well beyond the licensed dose range.¹¹⁵ In practice, dose adjustment should be based on patient response and tolerability. Risperidone The therapeutic range for risperidone is generally agreed to be 20-60mcg/L of the active moiety (risperidone + 9-OH-risperidone)^{98,116,117} although other ranges (25-150mcg/L and 25-80mcg/L) have been proposed.¹¹⁸ Plasma levels of 20-60mcg/L are usually afforded by oral doses of between 3mg and 6mg a day.^{116,119-121} Occupancy of striatal dopamine D2 receptors has been shown to be around 65% (the minimum required for acute therapeutic effect) at plasma levels of approximately 20mcg/L.^{117,122} Limited data for paliperidone palmitate 1-monthly long-acting injection (LAI) suggest that standard loading doses give plasma levels of 25-45mcg/L; while at steady state, plasma levels ranged from 10 to 25mcg/L for 100mg/month and 15 to 35mcg/L for 150mg/month.¹²³ Plasma concentrations may gradually rise in the first year of treatment to around 35mcg/L (mean dose 138mg/month)¹²⁴ and remain stable thereafter.¹²⁵ For the 3-monthly injection, steady state plasma concentrations range from 30 to 55mcg/L for 525mg every 3 months, 25 to 55mcg/L for 350mg every 3 months and 20 to 35mcg/L for 263mg every 3 months.^{126,127} Six-monthly paliperidone, available as 700 and 1000mg injections, provides similar plasma concentrations to those achieved by the corresponding doses of 3-monthly injections.¹²⁸ Plasma concentrations of risperidone ISM® remain above 20mcg/L throughout the dosing interval.¹²⁹ Target ranges for other psychotropics The target ranges listed in Table 11.2 have somewhat dubious usefulness and, in some cases, merely represent the range of values seen in clinical use. Assays for these drugs are likely to be available only in specialist units. Table 11.2 Target ranges for other psychotropics.^{32,98,130} Target range (mcg/L) Antipsychotics Asenapine 1-5 Brexpiprazole 40-140 Cariprazine 10-20 Chlorpromazine 30-300 Flupentixol 0.5-5 (cis-isomer) Fluphenazine 1-10 Haloperidol 1-10 (Continued)

874 The Maudsley® Prescribing Guidelines in Psychiatry Table 11.2 (Continued) Iloperidone 5-10 Lurasidone 15-40 Melperone 30-100 CHAPTER 11 Sulpiride 200-1000 Ziprasidone 50-200 Zuclopenthixol 4-50 Antidepressants Agomelatine 7-300 Citalopram 50-110 Desvenlafaxine 100-400 Dosulepin 45-100 Duloxetine 30-120 Escitalopram 15-80 Fluoxetine (+ norfluoxetine)

120-500 Fluvoxamine 60-230 Levomilnacipran 80-120 Mianserin 15-70 Milnacipram 100-150
Mirtazapine 30-80 Moclobemide 300-1000 Paroxetine 20-65 Reboxetine 60-350 Sertraline 10-150
Trazodone 700-1000 Venlafaxine (+ O-desmethylvenlafaxine) 100-400 Vilazodone 30-70
Vortioxetine 15-60 Target range (mcg/L)

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