

53 - Pattern of tapering

Pattern of tapering

Depression and anxiety disorders CHAPTER 3 Pattern of tapering Although reducing by linear amounts (e.g. 50mg, 37.5mg, 25mg, 12.5mg, 0 for sertraline) seems intuitively reasonable (and practical, through splitting tablets), because of the hyperbolic relationship between dose of antidepressant and effect on its principal target, the serotonin receptor (SERT) (following the law of mass action),¹⁴ this is likely to produce increasingly severe withdrawal symptoms (Figure 3.3a).⁷ This is consistent with patient reports that reducing at small doses is the most difficult aspect of the process. It makes more sense to reduce the drug in such a way that it produces a fixed reduction in effect on target receptors at each step: this entails hyperbolic dose reductions (Figure 3.3b). This is most easily approximated by exponential (proportional) reductions of dose – for example, reducing by 10–25% of the most recent dose every 2–4 weeks (so that the size of the reductions gets smaller and smaller as the total dose gets lower). The final dose before completely stopping may need to be very small (<1mg) to prevent the reduction to zero being a bigger fall in activity than previously tolerated reductions. This is supported by evidence that tapering down to doses much lower than common therapeutic doses (e.g. 1mg for sertraline) improves the likelihood that people will be able to stop antidepressants,^{15,16} and remain off them,¹⁷ as compared with tapering in a ‘linear’ fashion to minimum therapeutic doses. This approach to tapering is recommended by NICE^{18,19} and the Royal College of Psychiatrists.²⁰ Further details on how to safely stop antidepressants can be found in the Maudsley Deprescribing Guidelines: Antidepressants, Benzodiazepines, Gabapentinoids and Z-drugs, including specific reduction schedules for all licensed antidepressants.⁹

(a) (b) SERT occupancy (%) 40 0 50 Sertraline dose (mg) 150 80 SERT occupancy (%) 40 0 50 Sertraline dose (mg) 150

Figure 3.3 (a) Linear reductions of dose cause increasingly large reductions in effect on receptor targets, probably associated with more withdrawal effects. (b) ‘Even’ reductions of effect at target receptors require hyperbolic dose reductions. The final dose before stopping will need to be very small to minimise the destabilisation caused by this reduction.

Revision #1

Created 2026-01-04 20:15:32 UTC by Omar Ayman

Updated 2026-01-04 20:15:32 UTC by Omar Ayman