CPD January 2024

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Day 1: [#vortioxetine](https://twitter.com/hashtag/vortioxetine?src=hashtag_click) is a unique antidepressant, discovered from exploring bis-aryl-sulfanyl amine compounds. It is categorised as a ‘serotonergic’ drug, acting both as an SSRI & as a serotonin receptor modulator. Approved for adults in the USA in 2013 & in Europe 2014

Day 2: Indication for [#vortioxetine](https://twitter.com/hashtag/vortioxetine?src=hashtag_click) is major depressive disorder. Targeted when at least 2 other anti-depressants have not worked. Oral delivery 10mg od (5mg if >65) titrated to 20mg according to response (caution elderly >10mg). Continue minimum 6 months after symptoms resolve

Day 3: High but slow oral absorption, highly plasma protein bound & high Vd. Liver metabolism major via CYP2D6, minor 3A4/5 & 2C9. No active metabolites. 2/3 excretion urine, 1/3 faeces. T½ 66 hrs with around 2 weeks to steady state. No dose adjustment for renal/hepatic impairment, but this may be necessary for poor CYP2D6 metabolisers

Day 4: #vortioxetine has high affinity for the serotonin (5-HT) transporter & increases serotonin levels. It also acts as a 5-HT3 & 5-HT7 receptor antagonist & a 5-HT1A agonist. Further, multiple neural pathways may be modulated, such as NE, dopamine, ACh, histamine, as well as modulation GABA & glutamate, but much remains poorly understood

Day 5: Common adverse drug effects #vortioxetine: dizziness, nausea (taking with food might help), vomiting, GI disturbance, abnormal dreams, pruritus. Associated with low risk sexual dysfunction, but this may be more likely with ↑ dose. Weight gain/appetite changes are not stated as an ADE unlike common antidepressants e,g SSRIs & mirtazapine

Day 6: DDIs#vortioxetine. All drugs which can increase risk of bleeding eg NSAIDs. All other serotonergic drugs, including St John’s wort. CYP2D6 inhibitors e.g quinidine. All drugs which lower seizure threshold e.g other anti-depressants & neuroleptics

Day 7: #vortioxetine is believed not to require managed withdrawal, as trials showed no difference to placebo for discontinuation symptoms (BNF & SPC)

CPD: in addition to the tweets, read the BNF section on depression, as well as the monograph on vortioxetine. Another useful source is the Summary of Product Characteristics for vortioxetine (see links below)

<https://bnf.nice.org.uk/treatment-summaries/depression/>

<https://bnf.nice.org.uk/drugs/vortioxetine/>

<https://www.medicines.org.uk/emc/product/7121/smpc#gref>

1. Vortioxetine is not licensed for use in children

TRUE or FALSE

1. Vortioxetine is mostly used first-line for moderate to severe depression

TRUE or FALSE

1. The long half-life means steady state will be achieved in the first few days

TRUE or FALSE

1. Which of the following is FALSE?
2. Vortioxetine has a high volume of distribution
3. Vortioxetine is not linked to metabolic disturbance
4. Vortioxetine has a good cardiovascular safety profile
5. Vortioxetine has a range of formulations
6. Which of the following is TRUE?
7. Dose adjustment is needed for elderly
8. Dose adjustment is needed for renal impairment
9. Dose adjustment is needed for hepatic impairment
10. Dose adjustment is needed for cardiac disease
11. Which of the following is TRUE?
12. Vortioxetine is a traditional selective serotonin reuptake inhibitor (SSRI)
13. Vortioxetine acts primarily on dopamine receptors
14. Vortioxetine has a multimodal mechanism of action
15. Vortioxetine’s main action is as a serotonin agonist
16. Sexual dysfunction is a ‘common’ side-effect

TRUE or FALSE

1. Vortioxetine is linked to severe withdrawal reactions

TRUE or FALSE

1. Vortioxetine should not be used with other serotonergic drugs

TRUE or FALSE

1. Vortioxetine is not linked to weight gain

TRUE or FALSE