JPP July 2022: Zopiclone

Developed as a safer alternative to benzodiazepines (BZDs), [#zopiclone](https://twitter.com/search?q=%23zopiclone) was the first ‘Z’ drug licensed in UK for short-term insomnia in the 1980-90s. GABA receptor complex scrutiny led to the discovery of other compounds with affinity. Despite similar effects, [#zopiclone](https://twitter.com/search?q=%23zopiclone) is chemically distinct from BZDs

Day 1 (cont) [#zopliclone](https://twitter.com/search?q=%23zopliclone) [#zdrugs](https://twitter.com/search?q=%23zdrugs) advantages may include short half-lives & lower respiratory depression risk. Low risk of dependence/withdrawal/tolerance & rebound effects of insomnia/anxiety IF the duration of use is less than 4 weeks

Day 2: #zopiclone comes in tablet form for adult use only. Once daily night time dosing for up to 4 weeks at either 3.75mg or 7.5mg. A lower dose is recommended in the elderly as risk falls/accidents & also if chronic respiratory failure (contra-indicated if severe)

Day 3: Kinetics: Good oral absorption & bioavailability & high Vd. Extensive liver metabolism via CYP3A4& CYP2C8 producing 2 active (weak) metabolites; caution/reduce doseor avoid if hepatic impairment. 80% renal excretion of metabolites. No relevant accumulation in repeat dosing (even in elderly/renal impairment). Crosses the placenta & excreted into breast milk. Avoid in pregnancy & breast feeding. T½ 5-6hrs

Day 4:[#zopiclone](https://twitter.com/search?q=%23zopiclone) modulates the GABAA receptor complex leading to opening of the chloride channel at different site to benzodiazepines (BZDs). Higher frequency of channel opening combined with high affinity in brain sleep function areas leads to hypnotic effect. Believed to mirror physiological sleep pattern more closely than BZDs. #zopiclone has anxiolytic, muscle relaxant and anti-convulsant properties, but is licensed only for insomnia

Day 5: #zopiclone common ADEs include bitter taste, & dry mouth. Serious/rare: anaphylaxis, withdrawal reactions, psychiatric disorders (NOT exhaustive). Residual sedation can cause driving risks & psychomotor/cognitive impairment can cause falls/accidents. [#zopiclone](https://twitter.com/search?q=%23zopiclone) linked with increased ED visits

Day 6: [#zopiclone](https://twitter.com/search?q=%23zopiclone) No drug-drug interaction classed as ‘severe’. All drugs with CNS depressant activity can potentiate effect. Enzyme inhibitors e.g macrolides, fluconazole can increase exposure & inducers e.g phenytoin can reduce drug action

Day 7. In the UK, [#zdrugs](https://twitter.com/search?q=%23zdrugs) such as [#zopiclone](https://twitter.com/search?q=%23zopiclone) are all class C controlled drugs. They are under schedule 4 in U.K & U.S (light regulation). [#zopiclone](https://twitter.com/search?q=%23zopiclone) (racemic mix) is not licensed in U.S, but the S-enantiomer eszopiclone is licensed in the U.S, as is zolpidem

CPD: in addition to the tweets, read the BNF treatment summaries on Hypnotics and Anxiolytics and the monograph for zopiclone. Another useful source is the Summary of Product Characteristics for zopiclone – see links below

<https://bnf.nice.org.uk/treatment-summaries/hypnotics-and-anxiolytics/>

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

<https://www.medicines.org.uk/emc/product/5894/smpc#gref>

CPD questions (most but not all answers will be in the tweets). There is only one correct answer per question

1. The licensed indications for zopiclone mirror that of benzodiazepines

TRUE or FALSE

1. Which of the following is true?
2. Zopiclone is a type of benzodiazepine
3. Zopiclone has opioid-like properties
4. All Z drugs, including zopiclone are controlled drugs
5. Z drugs are licensed for long-term use
6. Which of the following is FALSE regarding the advantages of Z drugs compared to benzodiazepines?
7. Z drugs are more addictive
8. Z drugs have short half-lives limiting residual sedation
9. There is a lower risk of dependence with Z drugs
10. There is a lower risk of respiratory depression with Z drugs
11. The kinetics of zopiclone mean there is a risk of reduced clearance in hepatic impairment

TRUE or FALSE

1. Zopiclone is not recommended for use in pregnancy or breast feeding

TRUE or FALSE

1. Which of the following is a contraindication for zopiclone use?
2. Epilepsy
3. Severe sleep apnoea syndrome
4. Elderly
5. Any grade of hepatic impairment
6. Zopiclone increases the activity of the GABAA receptor

TRUE or FALSE

1. Which of the following is a common adverse drug event for zopiclone?
2. Anaphylaxis
3. Metallic taste
4. Cognitive impairment
5. Skin reactions
6. Zopiclone has many severe drug-drug interactions

TRUE or FALSE

1. Zopiclone is not licensed in the United States

TRUE or FALSE