

The effects of Zolpidem used as sleeping pills

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Objective: Investigation of the effects and side effects of Zolpidem used as sleeping pills + pros and cons about sleeping pills. Accidents that are related to sleeping pills, and society's opinions about sleeping pills.

1 Introduction

In the 21st century, Zolpidem is used as a recreational drug which is commonly used in tablet form as a short-term treatment for insomnia. As a group we recognize the relevant global issue of the dangerous usage of zolpidem as through overdose; suicides, cancer and death is increasing amongst the users of this therapeutic drug. In the role of a sleeping pill which is developed to suit different sleeping stages, ethical concerns are arising as the usage of this drug is now more common. In this research, we aim to identify the uses, cautions, effects, advantages and disadvantages and ethical issues regarding this sedative-hypnotic.

2 What is Zolpidem

- A medicine used to treat short-term sleeping problems (therapy for insomnia)
- Treatment periods of 1 to 2 weeks
- Belongs to a class of medicine called sedative-hypnotics which works by slowing the rate of brain activities (creates calming effect).
- Makes you fall asleep more quickly and makes you remain asleep through the night
- Comes in a tablet form which comes in two different types 5mg (65 years old or kidney problems) and 10mg.
- Takes around 1 hour for zolpidem to activate
- Do not take the medicine with or after meals (longer)
- Swallow the tablet with water.
- Common brands of Zolpidem: CR, Intermezzo, Edluar, Zolpimist, and Ambien.

Zolpidem is a medicine that belongs to a class of medicine called sedative-hypnotics (which works by slowing the rate of brain activities and creating a calming effect), it could be used to treat sleeping problems in the short term as it is a therapy for insomnia. Zolpidem allows the patient to fall asleep at a faster rate and remain asleep throughout the night. Commonly zolpidem is available in a tablet form, which comes in two different types a common 10 mg and 5 mg (which is specifically used for elders 65 years old and above). Usually, zolpidem is used to treat insomnia for a period of one to two weeks. It is recommended to take the medicine with an empty stomach, one hour before attempting to sleep as it takes around one hour for zolpidem to activate. If you were to take this medication with a full stomach, the drug will take longer to take action. The most common brands for zolpidem are Ambien, Ambien CR, Edluar, Intermezzo and Zolpimist.

3 Uses of Zolpidem

3.1 Directions - dosage, how many times

Zolpidem would be prescribed by your pharmacist or doctor in tablets. The usual dose for each tablet is 5 to 10 milligrams depending on the doctor's prescription based on your age, gender, medical conditions. If you are 65 or older/have kidney problems the doctor would usually lower your dosage to 5 milligrams rather than the usual 10 milligram.

The medicine would be taken orally right before you go to bed or if you are having trouble falling asleep as this medicine would make you fall asleep very quickly. You should also note that you should only take the medicine if you are sure that you can get a full 7-8 hours of sleep. If you must wake up before this, you may continue to feel drowsy since the medicine would not have the time to wear off.

3.2 Cautions & emergency

- Do not take more than the prescribed dose.
- Do not take it more often.
- Do not take it for longer than your doctor instructed you to.
- Prolong use or excess usage can lead to addiction or even death if the dosage is high enough.
- Don't take the medication unless you are able to get a full night sleep, this is usually 7-8 hours. If you must wake up before this, the medication will still be in effect and will cause you to be drowsy.
- Do not take this medication if you have drunk alcohol in the evening or before you go to bed. If you missed a dosage, skip it and go back to the regular dosing schedule, do not double dose to make up for the missed medication.

3.3 Usage of zolpidem

in extreme cases of insomnia where the person would have trouble falling asleep. It would be prescribed to the person in order to help the sleep and make sure they stay asleep for the whole night

4 Effects of Zolpidem

4.1 Statistics regarding zolpidem effect before and after

The time to peak effect of Zolpidem varies depending on the formulation but ranges from over half an hour to 1.5 hour. According to the NHS, the effect of Zolpidem is an hour. Duration of effects also varies but the immediate - release tablets last 6-8 hours.

4.2 Advantages and disadvantages of zolpidem

4.2.1 Advantages of zolpidem

Zolpidem usually works quite quickly so it may be used to help you to get to sleep and stay asleep. Studies have found that Zolpidem can help initiate the sleep process. With the help of Zolpidem, sleeping problems often improve within just 7 to 10 days of being on the medication. In addition to that, different forms of zolpidem are used during different sleeping stages: sleep initiation, sleep maintenance or difficulty getting back to sleep after "middle-of-the-night" awakening.

4.2.2 Disadvantages of zolpidem

Zolpidem also has its drawbacks. For instance, it can give the user a rush of energy and euphoria when abused at high doses, but misusing this drug may result in extreme drowsiness, confusion, and clumsiness, all of which will increase accidental injuries such as the risk of falls, fractures etc. In addition, there are a lot of side effects regarding Zolpidem as well. The common side effects include a metallic taste in your mouth or a dry mouth, headache, and feeling sleepy in the daytime, affecting a person's ability to carry out everyday tasks, making them less productive, and increasing their risk of making mistakes.

Moreover, Zolpidem is also potentially addictive, causing emotional and physical dependence. Lastly, the withdrawal symptoms of Zolpidem may occur if the user stops abruptly after taking the pill for extended periods.

5 Ethical issues regarding Zolpidem

From the research about 'how do you feel about sleeping pills' among 20's in South Korea, 60% of the people think that sleeping pills are dangerous and unsafe because it is closely related to overdose and suicidal thoughts. It's true that sleeping pills, Zolpidem is closely related to suicide problems and overdose problems in our society.

From the research, 11,537 drug overdose deaths were caused by sleeping pills called benzodiazepines in 2017. One study published in the British Medical Journal also found that people taking hypnotic sleeping pills like Ambien, Sonata, Doral, Halcion, Lunesta, Valium, Atican, and Librium had a four times greater risk of death and had a more than 35% increase in risk of cancer than people who did not.

But apart from all of these statistics and values, sleeping pills are not always critical to your life. They are not always going to take your life away. And of course, sleeping pills are a really good short-term solution for insomnia. The bad effects that you can get from sleeping pills are when you overtake sleeping pills. From the research, people who take more than one, or less than eighteen sleeping pills annually are 3.5 times higher to die within a two-and-a-half-year follow up period. This is one of the reasons why people do think sleeping pills are critical to your life. At least one in six people with a diagnosed sleep disorder and one in at least eight people are reporting that they are having trouble sleeping, use, and sleep aids.

Over-taking sleeping pills or cross-taking sleeping pills do lead people to death. That's why there are many people every year, or in the media, sleeping pills are being shown as some trouble-making pills. And also, sleeping pills do have a close relationship with people who have depression. If someone has a bad depression and the depression lasts really long, they may overtake sleeping drugs or cross-dosing the sleeping pills with other drugs. In 2017, about 47,173 people in America died by suicide. And between that, about 13.9% of those deaths are closely related to poisoning. Although an overdose can occur with a high dose of sleeping pills, a deadly overdose caused by sleeping pills is much more common when alcohol is involved. Not every sleeping pill does lead people to death. But this makes sense when we take a suitable amount of the drugs as the experts recommend. When we overtake the pills or cross-take the pills, it leads to death, or leads to serious injuries.

It is possible that we can suffer heavy symptoms after taking sleeping pills. But also, we have to know that not all of those problems' origin is sleeping pills. The problems that could be caused by sleeping pills mostly came from over-taking and cross-taking some pills. But this could be prevented by taking advice from experts before we take pills.

6 References

Anon, 2018. Melatonin and Zolpidem: Do Sleeping Aids Actually Work? *Pennmedicine.org*. Available at: <https://www.pennmedicine.org/updates/blogs/health-and-wellness/2018/july/sleeping-aids>

Anon, 2022. Zolpidem (oral route) proper use. *Mayo Clinic*. Available at: <https://www.mayoclinic.org/drugs-supplements/zolpidem-oral-route/proper-use/drg-20061195>

Stewart, J., 2021. Zolpidem uses, dosage & side effects. *Drugs.com*. Available at: <https://www.drugs.com/zolpidem.html>

Anon, 2021. Zolpidem: Side effects, dosage, uses, and more. *Healthline*. Available at: <https://www.healthline.com/health/drugs/zolpidem-oral-tablet#interactions>

Fookes, C., 2022. ZOLPIDEM: 7 THINGS YOU SHOULD KNOW. *Drugs.com*. Available at: <https://www.drugs.com/tips/zolpidem-patient-tips>

Anon, 2019. ZOLPIDEM. *NHS CHOICES*. Available at: <https://www.nhs.uk/medicines/zolpidem/#:~:text=Common%20side%20effects%20are%20a,by%20the%20brand%20name%20Stilnoct>

Shehan, 2021. Can you die from sleeping pills? Nova Recovery Center Near Austin Texas. Available at: <https://novarecoverycenter.com/substance-abuse/can-you-die-from-sleeping-pills/>

Anon, 2021. Can Depression Tablets Kill You. Available at: <https://depressionhelpmobile.com/can-depression-tablets-kill-you/>

Anon, 2019. Information about Zolpidem. *NHS choices*. Available at: <https://www.nhs.uk/medicines/zolpidem/#:~:text=Common%20side%20effects%20are%20a,by%20the%20brand%20name%20Stilnoct>

Qnadmin, 2021. Which sleeping pill is dangerous? *QuestionAnswer.io*. Available at: <https://questionanswer.io/which-sleeping-pill-is-dangerous/>

Stewart, J., 2021. Zolpidem uses, dosage & side effects. *Drugs.com*. Available at: <https://www.drugs.com/zolpidem.html>

Anon, 2019. Zolpidem. *NHS choices*. Available at: <https://www.nhs.uk/medicines/zolpidem/#:~:text=You'll%20usually%20be%20prescribed,also%20become%20dependent%20on%20it.>

Anon, 2019. Zolpidem: Medlineplus Drug Information. *MedlinePlus*. Available at: <https://medlineplus.gov/druginfo/meds/a693025.html> [Accessed March 3, 2022].