

Running Head: Sleeping Pills

Sleeping Pills: How does that little pill affect you and your sleep

Tenesha Keyes

McMurry University

McM Station Box 1338

Abilene, TX 79697

Phone: 325-793-6704

April 26, 2004

Sleeping Pills: How does that little pill affect you and your sleep

Sleep is something we all need and most people feel they never get enough. We are a fast paced society and sometime you just don't have time to sleep. I as a student have had many sleepless nights due to the fact that I just needed more time to study or to write a paper so I just do not go to bed. Some people say you need six hours of sleep a night and some say you need eight hours or more, but the truth is depending on age and the person doing the sleeping the numbers of hours of sleeps one needs can vary. Obviously a small child is going to need a lot more sleep than an adult, and a person who has been out doing hard labor all day is going to need more sleep than some one who sat around watching television all day. By not having enough sleep our motor skills can deteriorate and even death at the wheel of a car is possible. The national highway traffic safety administration stated that "There have been about 56,000 crashes annually in which driver drowsiness/fatigue was cited by police. Annual averages of roughly 40,000 nonfatal injuries and 1,550 fatalities result from these crashes. It is widely recognized that these statistics underreport the extent of these types of crashes. These statistics also do not deal with crashes caused by driver inattention, which is believed to be a larger problem." Its commonly known one of the number one causes of sleep deprivation is stress. There is also depression, medical illnesses etc. The national sleep foundation reported that 63% of Americans are sleep deprived and that is due to the fact that we are a

stressed out society. It is no wonder so many people are turning to sleeping pills to get a good nights sleep. But is that the best thing for them to do?

Before I started working on this paper the only thing I knew about sleeping pills was that I did not take them. One day while watching TV at a friend's house we were talking about how the store brand sleeping pills have the exact same ingredients as the name brand sleeping pills and how much cheaper the store brand was. So I asked how often do you take sleeping pills and he said, "I can not sleep unless I take them." To my surprise this was also true with four of my other friends and this really got me interested in what kind of drugs are in these non-prescription sleep aids. Now what I did was I went down to HEB to look at the different non-prescription sleep aids. As I looked through I notice all but one contained the drug Diphenhydramine (DPH) Tylenol pm, Unisom, Nytol, etc. Now the only reason what Aluna did not contain Diphenhydramine is because it is an Herbal sleep aid. Also Diphenhydramine is a main ingredient in the allergy medicine Benadryl.

Diphenhydramine is a sedative and an antihistamine. It can treat common allergy symptoms as well as common cold symptoms. It is used in several sleep aids due to the fact that it causes drowsiness. Something that I found to be very interesting is that this drug is used to treat stiffness and tremor in people who have Parkinson's disease. Like every drug Diphenhydramine has its down sides. Some of the common side effects are dry mouth and nose, dizziness, and drowsiness. Some not very common effects are nausea, headache, nightmares, tightness in the chest, wheezing, skin rashes

etc. This drug is not fatal, but there are a few rare cases of death from suicidal overdose. Karch states that (1998) "Diphenhydramine (DPH)-related deaths in adults are extremely rare, and detailed autopsy studies are rarer still. In 4 cases of suicidal DPH overdose are described and compared with findings in a database of cocaine- and heroin-related deaths. Blood DPH levels were many times higher than those considered therapeutic. When normalized for body weight in this fashion, edema in DPH-related deaths was comparable to that in cocaine-related deaths. Cardiac enlargement was apparent in 3 of the 4 DPH cases, 1 with marked myocardial fibrosis. The finding of increased heart size suggests that preexisting heart disease may provide the necessary substrate for lethal cases of DPH toxicity. Pulmonary edema in these cases remains unexplained, with edema in cases of heroin-related toxicity significantly worse than that produced by cocaine or DPH. Because DPH and cocaine can exert similar effects on the heart, a common mechanism may produce pulmonary edema in both. A different mechanism may account for heroin-related edema." There were also few instances where this drug was thought to be the cause of death in some infants. "Diphenhydramine is an antihistamine available in numerous over-the-counter preparations. Often used for its sedative effects in adults, it can cause paradoxical central nervous system stimulation in children, with effects ranging from excitation to seizures and death. Reports of fatal intoxications in young children are rare. We present five cases of fatal intoxication in infants 6, 8, 9, 12, and 12 weeks old. Postmortem blood diphenhydramine levels in the cases were 1.6, 1.5, 1.6, 1.1 and 1.1 mg/L,

respectively. Anatomic findings in each case were normal. In one case the child's father admitted giving the infant diphenhydramine in an attempt to induce the infant to sleep; in another case, a daycare provider admitted putting diphenhydramine in a baby bottle. Two cases remain unsolved; one case remains under investigation. The postmortem drug levels in these cases are lower than seen in adult fatalities. We review the literature on diphenhydramine toxicity, particularly as it pertains to small children, and discuss the rationale for treating these cases as fatal intoxications. (Baker et al., 2003).” Over all this is a fairly safe drug other wise it would not be on the market.

Another type of sedative hypnotic is called Chloral Hydrate and it is used to treat short term insomnia, relieve anxiety and induce sleep before surgery. It was first synthesized in 1832 and is one of the older sedative hypnotics, it has been used as a street drug but never seen as a big problem (Stracciolini 1998). It is rapidly metabolized by alcohol dehydrogenase enzymes in the liver into trichloroethanol (Stracciolini 1998). “Chloral hydrate is rapidly absorbed from the GI tract following oral or rectal administration. It is believed that the central depressant effect of chloral hydrate is due primarily to the pharmacologically active metabolite trichlorethanol which has a half life of 8 to 10 hours (Stracciolini 1998).” This drug is mainly used for children or elderly under going surgery but those with heart and respiration problems must be carefully. There have been many accidental and planned overdoses on this drug, but it is considered to be pretty safe (Stracciolini 1998). Although at toxic levels it can cause problems with your breathing. Some of the side affects to this drug are drowsiness, upset

stomach, rash confusion etc. This drug is addictive and you can build tolerance to it if used over a prolonged period of time. Also if used for a long period of time you may experience withdrawal symptoms such as tremors, anxiety, and hallucination (Stracciolini 1998). The general use of this drug has declined over the years

The next sedative I'm going to talk about is Flurazepam also known as Dalmane, and is used to treat short term insomnia. It is absorbed in the gastrointestinal tract and metabolized (Brown University Psychopharmacology 2000). "Combines with benzodiazepine receptors, which are part of the benzodiazepine-GABA receptor-chloride ionophore complex. Results in enhanced inhibitory action of GABA leading to interference of transmission of nerve impulses in the reticular activating system (Brown University Psychopharmacology 2000)." All the side effects of this drug are not known yet but people have reported feeling drowsy after using this drug (Brown University Psychopharmacology 2000). This drug can also cause headaches, weakness heartburn and diarrhea. "Flurazepam can depress the central nervous system and possibly respiration when taken with alcohol or other depressant medications such as anticonvulsants or antihistamines. These combinations must be avoided for several days after the last dose of flurazepam is taken due to its long duration of action (Brown University Psychopharmacology 2000)." This drug should not be used if you are pregnant or trying to become pregnant.

Lorazepam or Ativan is both a sedative and an anti-anxiety drug. This drug works by binding to GABA A receptor sites "It is used for the relief of

anxiety, agitation, irritability, to relieve insomnia, to calm people with mania / schizophrenia, and intravenously as a sedative and nervous tension or prior to surgery to relieve the anxiety. It has less of an effect on the liver than other benzodiazepines, making it better suited if you are taking birth control pills, anti-abuse drugs, propranolol, ulcer medications, or any other drug that affects the liver. Ativan may also be used to help in the prevention of severe alcohol withdrawal symptoms ( Delirium Tremens, DTs ), to treat serial seizures in children by placing it under the tongue, to promote amnesia, or in patients who are undergoing chemotherapy and have severe vomiting (Swart 2004).” This drug is addictive and should not be prescribed to any one with a history of addiction to medication. This drug in the past has been taken in either pill form or intravenous but they have developed a new nasal method for taking this drug but it has yet to be approved by the FDA. If a patient receives an injection of this drug they should not drive or handle any heavy machinery for several hours due to the sedation affect of the drug. Since this drug is addictive there are withdrawal symptoms such as tremor abdominal and muscle craps. The withdrawal will be worse for some one who has been on the drug for a long period of time than some one who has been on the drug for a short time. This drug may also cause damage to your fetus so it’s best not to take if pregnant or nursing. “Lorazepam is not recommended for use in patients with a primary depressive disorder or psychosis (Swart 2004). Always make sure to watch your doses.

Temazepam helps to induce sleep and sometimes reduce anxiety.

“Temazepam is produced as a gel-filled capsule, designed to be taken orally. A normal therapeutic dose of Temazepam would be 10mg-30mg. If you have a normal dose of Temazepam you may feel less anxious and start to feel relaxed and sleepy. At higher doses the effects are similar to alcohol - you may feel less inhibited towards other people. Your behavior may be exaggerated (people who are using Temazepam are often very talkative or over-excited, sometimes even hostile or aggressive) and judgment is impaired. You may have a false sense of confidence, or even believe you are invincible or invisible (Morin 2003).” Now this drug is usually used to help people sleep but it has also been used as a muscle relaxant. People can become dependent on this drug so those who become easily addicted should be careful. Also as many of the other drugs this drug also has withdrawal symptoms. They consist of anxiety, sleeplessness, panic attacks, loss of appetite and nausea. “The most common adverse reactions reported after administration of temazepam and other drugs of this class are dizziness, lethargy and drowsiness. Confusion, euphoria, staggering, ataxia and falling are commonly encountered. Paradoxical reactions such as excitement, stimulation and hyperactivity and hallucinations are observed infrequently. Other adverse reactions are weakness, anorexia, horizontal nystagmus, vertigo, tremor, lack of concentration, loss of equilibrium, dry mouth, blurred vision, palpitations, faintness, hypotension, depression, shortness of breath, nausea, diarrhea, abdominal discomfort, genitourinary complaints, pruritus, skin rash, urticaria, and anterograde amnesia. Abnormal liver function tests have been

reported occasionally with temazepam (Morin 2003). This drug may conflict with other barbiturates so it is best not to use alcohol or use any other kinds of drug with this medicine due to the fact that it may cause an over dose. Also if you suffer from depression or any other mental illnesses you may need to consult your physician before using this drug. "Safety in pregnancy has not been established and therefore, Temazepam should not be used during pregnancy. Several studies have suggested an increased risk of congenital malformations associated with the use of the benzodiazepines, chlordiazepoxide and diazepam, and meprobamate, during the first trimester of pregnancy. Since Temazepam is also a benzodiazepine derivative, its administration is rarely justified in women of child bearing potential. If the drug is prescribed to a woman of child bearing potential, she should be warned to consult her physician regarding discontinuation of the drug if she intends to become or suspects that she is pregnant (Morin 2003)." Also this medicine can be found in breast milk so nursing mothers should not take this drug.

The last sedative I'm going to talk about is called Triazolam or Halcion and its main use is as a sleeping pill. This drug acts on the GABA receptors which cause people to sleep by slowing down the brain so people can sleep. " Halcion (triazolam) can be habit-forming. Do not take a larger dose, take it more often, or for a longer period than your doctor tells you to. Tolerance may develop with long-term or excessive use, making the medications less effective. Halcion (triazolam) should be used only for short periods, such as a few days and generally no longer than 1-2 weeks (Roehrs 2002)." Now this drug is not as

dangerous as some of the other but it still has some side effects. "A variety of abnormal thinking and behavior changes have been reported to occur in association with the use of benzodiazepine hypnotics including triazolam. Some of these changes may be characterized by decreased inhibition, e.g. aggressiveness and extroversion that seem excessive, similar to that seen with alcohol and other CNS depressants (e.g., sedative/hypnotics). Other kinds of behavioral changes have also been reported, for example, bizarre behavior, agitation, hallucinations, depersonalization. In primarily depressed patients, the worsening of depression, including suicidal thinking, has been reported in association with the use of benzodiazepines ( Roehrs 2002). Some other side effects were dizziness, lightheadedness, clumsiness and drowsiness. This drug should not be taken if pregnant or planning to become pregnant, also mother breast feeding should not use this drug. "Caution should be exercised if triazolam is prescribed to patients with signs or symptoms of depression that could be intensified by hypnotic drugs. Suicidal tendencies may be present in such patients and protective measures may be required. Intentional over dosage is more common in these patients, and the least amount of drug that is feasible should be available to the patient at any one time (Roehrs 2002)." So if you are suffering from depression or any thing like that you must consult your doctor especially concerning any current medication that you might be on.

In this paper I have discussed six different types of sedatives. Some of these were more dangerous than others were, but the thing that caught my eyes the most was how addicted you can become to these types of medication. Now

they warn people who are easily addicted to be careful with these medications, but the truth is anyone can easily become hooked to these medications. Sleeping pill, sedatives all of these things are very dangerous. They can cause your heart to stop, they can cause your breathing to stop. They are almost like a legalized drug. I would not recommend these sedatives to any one, because I know a few people who are hooked and now they do not get a good nights rest with out them.

Work Cited