

## Risks Associated with use of Benzodiazapines By Christopher Bennett, MSN, CRNP-PMH

There are no licensed indications for the use of benzodiazapines for greater than 2-4 weeks (Mehdi, 2012) and yet benzodiazapines are often prescribed on a long term basis. This is despite the fact that cognitive behavior therapy has shown superior efficacy for the treatment of anxiety disorders (Mitchell, et al., 2012). Benzodiazapines actually impair a patient's ability to benefit from psychotherapy. A 2015 study by Guina (et al., 2015) shows that in individuals with PTSD benzodiazapines numb emotions, decrease learning in therapy, and inhibit memory processing of material learned in therapy, thus worsening outcomes in psychotherapy. The most effective treatment for panic disorder is cognitive behavior therapy, with exposure therapy being central to its treatment. Marks (et. al) conducted a study in 1993 comparing those who receive exposure therapy alone and exposure therapy plus alprazolam. In this study individuals treated with alprazolam plus exposure therapy, treatment gains were 50% less than individuals treated with exposure therapy alone. At 6 month follow-up most individuals prescribed alprazolam had a relapse of symptoms, whereas individuals treated with exposure alone had gains that persisted beyond six months.

It is possible that chronic use of benzodiazapines actually increase anxiety and other problems over the long term. In a 1996 study by Michelini (et al), a large number of patients developed agoraphobia and panic attacks when they did not have them previously. The author believes that chronic benzodiazepine use can cause subtle toxicity which increases psychopathology in long term users. Daily users of benzodiazapines are at an increased risk of developing delusions and hallucinations (Tien, et al, 1990) and in a study by Mathew et al (2000), 53% of long-term benzodiazepine users developed violent characteristics.

Benzodiazapines are not without their cognitive risks. Tannenbaum (2012) shows that benzodiazapines result in short term cognitive impairment and at times amnesia. Though benzodiazepine users frequently develop tolerance for sedation and drowsiness, this is not true for cognitive impairment (Dell'Osso, et al, 2013). Barker (et al, 2004) show that it takes up to 6 months for many individuals to recover from cognitive impairments, and in some individuals these impairments can be permanent. A recent study in the British Journal of Medicine (Gage, et al., 2014) showed that individuals who had used benzodiazapines for greater than 3 months had a 51% increased risk of Alzheimer's Disease. The study authors note that even if only taken occasionally (once or twice a week), this risk remains. In this study if individuals took 180 doses in a row or spread them over a couple of years, their risk of developing Alzheimer's disease remained double that of individuals who had never taken benzodiazapines in the first place. Leung (et al, 2011) shows that individuals who take benzodiazapines have an increased risk of being in a motor vehicle accident secondary to cognitive impairment.

Mierer (et al, 1998) shows that 30-45% of individuals chronically treated with benzodiazapines develop dependence. In 2011 20% of all ER visits were related to drug or alcohol abuse, and alprazolam was indicated in one third of benzodiazepine-related suicide attempts, and one third of all visits. Alprazolam was involved in 17% of all drug related deaths, second to only oxycodone. (Drug Abuse Warning Network, 2011; Shah, et al., 2012). In a 1987 study by Allgulander (et al), 11% of males and 23% of females with a benzodiazepine misuse habit commit suicide. Some studies suggest that long term use of benzodiazapines are associated with causing depression, increased suicide risk, and increased overall mortality (Nathan, et al, 1995; Kripke, 2007).

Chronic benzodiazepine use also carries other risks to long term physical health. In a study by Kao (et al, 2012), the authors indicate a possible link between benzodiazepine risk and cancer. In their study individuals with exposure to benzodiazapines were at a 19% increased risk of developing cancer. Older adults taking benzodiazapines have a 50% increased risk of hip fractures. (Cumming, et al. 2012). Lechin (et al, 2004) found that long term benzodiazepine use leads to suppression of the immune system, and Obiora (et al, 2013) found that exposure to benzodiazapines was associated with an increased risk of developing and dying of pneumonia. Sanders (et al, 2015) found the benzodiazepine use increases a patient's vulnerability to infection with influenza. Wakakura (2004) also found that chronic use of benzodiazapines is a risk factor for blepharospasm, which is an uncontrolled twitching of the eyelid that can only be treated with injection of botulism toxin or surgical myectomy.

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