FDA Issues New Dosing Recommendations for all zolpidem-containing Products

On Jan. 10, 2013, the FDA released revised prescribing guidelines for Ambien, Ambien CR, Edluar, Zolpimist and other zolpidem-containing insomnia medications. Recently, new data shows that after taking these medications, morning activities that require mental alertness can be impaired due to residual zolpidem blood levels. Women appear to be more sensitive to this effect due to slower elimination of these medications. However, the FDA is also recommending that health care providers consider lowering the dose for everyone. Both men and women that are prescribed these products should be cautioned about the risk of morning impairment following use of these medications for activities that require mental alertness, such as driving.

The zolpidem dose recommendations for women has been changed from 10 mg to 5 mg for immediate-release products and 12.5 mg to 6.25 mg for extended release products; the new recommended dose for men is 5 to 10 mg for immediate release and 6.25 to 12.5 mg for extended release.

Background and Indication
Zolpidem is indicated for the short-term treatment of insomnia with difficulty of sleep onset. In randomized controlled trials, zolpidem was shown to decrease sleep latency for up to 35 days. Zolpidem is an effective sedative that exhibits minimal anxiolytic, myorelaxant, anti-convulsant properties, as well as decreased dependence potential or tolerance development properties.

Safety and Tolerability
In original studies, zolpidem was found to be safe and effective in adults experiencing transient insomnia. Safety and efficacy in children below the age of 18 has not been established. The main side effects include drowsiness (six to 15 percent), dizziness (one to 23.5 percent) and headache (one to 19 percent); rare reactions have included angioedema and anaphylaxis. These products are not recommended for use in lactating females and carry a category C pregnancy risk factor. It should be noted that zolpidem also carries a risk for dependence and has a similar abuse potential as benzodiazepines. Due to this risk, the DEA has classified zolpidem as a Schedule IV Controlled Substance.

Next day residual effects of zolpidem were evaluated in driving simulation and laboratory studies recently submitted to the FDA. They have indicated that residual zolpidem blood levels with the higher dosages appear capable of impairing driving to a degree that increases the risk of motor vehicle accidents. These residual blood levels were measured approximately eight hours after dosing. These impairments were highest with the extended-release formulations of zolpidem.

Potentially Inappropriate Medication Use in Older Adults
These effects may be further pronounced in the elderly population. As noted in the 2012 American Geriatric Society (AGS) sponsored BEERS Criteria (Table 2), the use of non-benzodiazepine sleep agents (zolpidem, zaleplon and eszopidem) may compound motor impairment and/or cognitive function in this patient population after repeated exposure or due to increased sensitivity to these agents. These sedating effects may cause confusion and over sedation. Their side effect profile is very similar to benzodiazepines and may increase the risk of delirium, falls and fractures in the elderly. They also only offer minimal improvement in sleep latency and duration. Therefore, the minimum effective dose should always be utilized and chronic use (longer than 90 days) should be avoided in the elderly. Similar concerns exist for other medications utilized for the treatment of insomnia, including over-the-counter medications.

In a related, recently released case-crossover study, 15,528 long-term U.S. nursing home residents 50 years or older with a documented hip fracture were examined for a relationship between sleep medication use and the risk of serious falls. Among the study participants, 1,715 (11.0 percent) were dispensed a non-benzodiazepine hypnotic drug before the hip fracture. The conclusion of the study authors was that the risk for hip fracture was 66 percent higher among nursing home residents using a non-benzodiazepine hypnotic drug. New medication users and residents having mild to moderate cognitive impairment or requiring limited assistance with transfers appeared to be the most vulnerable to the use of these drugs. Understandably, the authors advised physicians to exercise appropriate caution when prescribing sleep medications to nursing home residents.
Lastly, good sleep hygiene should be reviewed with all patients experiencing insomnia. Patients should be encouraged to create a sleep pattern in which they go to bed at about the same time every night. Patients should be reminded that the bed should be for sleeping only; avoid reading and watching TV while in bed. Exercise and meals should be separated by 2-4 hours from bedtime.

References: