

Presented at the SAEM Annual Meeting 2014- Dallas, TX

758. Gender Differences In Prescription Medication Abuse

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Background: The abuse of prescription medications has steeply risen in the United States over the past decade; mortality associated with prescription opioids quadrupled from 1999 to 2008. According to the National Survey on Drug Use and Health, males reported a higher frequency of prescription drug abuse than females. To date, there are no published reports describing gender patterns or outcomes in patients presenting to health care facilities for prescription drug abuse.

Objectives: The current study aims to examine gender differences encountered in healthcare facilities with regard to the most commonly abused prescription drugs. The secondary aim is to describe severity as represented by medical intervention (antidotal therapies, hemodynamic support, and intubation).

Methods: This is a retrospective review of cases reported in ToxIC (Toxicology Investigators Consortium, a national case registry) for a 35 month period starting 1/1/2010. All cases categorized as "Prescription Drug Abuse" were identified. A standardized form was used to collect the class(es) of pharmaceuticals encountered. Abstractors were given instructions; cases were independently reviewed by two medical toxicology fellows, one blinded. A kappa value was used to calculate interrater reliability. A board certified toxicologist blindly reviewed any discrepancies. A Z-ratio compared exposures and treatments between genders.

Results: 398 cases were identified. 22 were excluded (medication not identified), leaving a total of 376 cases. 241 (64.1%) were male, 135 (35.9%) were female ($p < 0.001$). The top three most common exposures (opioids, sedative-hypnotics, and stimulants) and administration of specific their specific antidotes are reported in Table 1. The calculated kappa values were between 0.85-0.99. No significant differences were found in regard to exposure type. However, frequency of antidote use was higher in females; 101 doses were administered to 82 females, compared to 142 doses administered to 126 males ($p = 0.002$).

Conclusions: Among our study population a higher proportion of prescription drug abusers were male, which is consistent with National Survey data. Our data suggests that women were prone to more severe outcomes as perceived by need for treatment. More research is needed to elucidate prescription drug abuse patterns and outcomes, which may improve targeted prevention strategies.

Gender Differences in Prescription Drug Abuse (Oral Abstract 758).

Table 1.			
	Male	Female	P-value
Exposure			
Opioid	154 (64%)	93 (69%)	0.33
Sedative-Hypnotic	124 (51%)	77 (57%)	0.3
Opioid + Sedative-Hypnotic	66 (27%)	40 (30%)	0.64
Stimulant	18 (7%)	7 (5%)	0.39
Stimulant + Opioid or Sedative-Hypnotic	8 (3%)	3 (2%)	0.55
Treatment			
Antidote Administered*	142 (59%)	101 (75%)	0.002
Cases Receiving Naloxone	88 (37%)	56 (41%)	0.34
Cases Receiving Flumazenil	25 (10%)	19 (14%)	0.28
Cases Receiving N-acetylcysteine	12 (5%)	10 (7%)	0.34
Vasopressor Therapy	10 (4%)	3 (2%)	0.33
Intubation	24 (10%)	10 (7%)	0.41

- **Some patients received multiple antidotes**