THE IMPACT OF SCHEDULING CHANGES ON ALPRAZOLAM AND CODEINE SELF-POISONING REPORTED TO THE NEW SOUTH WALES POISONS INFORMATION CENTRE

Cairns R[1,2]; Brown JA [1,3]; Schaffer A [4]; Pearson SA [4]; Buckley NA [1,2]

[1]*NSW Poisons Information Centre, The Children's Hospital at Westmead, Australia*

[2]*Clinical Pharmacology and Toxicology Research Group, Pharmacology, Sydney Medical School, The University of Sydney, Australia*

[3]*NPS MedicineWise, Sydney, Australia*

[4]*Pharmacoepidemiology & Pharmaceutical Policy Research Group, Faculty of Pharmacy, The University of Sydney, Australia*

Objective: To describe the effects of rescheduling on the frequency of self-poisonings reported to Australia's largest Poisons Centre. Alprazolam and over-the-counter (OTC) codeine combination products have undergone rescheduling in response to concerns over abuse/misuse. Alprazolam was up-scheduled on 01/02/2014 from Schedule 4 (Prescription Only) to Schedule 8 (Controlled Drug). On 01/05/2010, OTC codeine products were up-scheduled to Schedule 3 (Pharmacist Only) and Schedule 4, depending on tablet strength and pack size.

Methods: The NSW Poisons Information Centre (NSWPIC) database was searched from 01/01/2004 to 30/06/2015. Intentional poisonings with alprazolam and other benzodiazepines and sedatives/hypnotics were extracted (to determine if there was agent switching). To examine codeine combination products, intentional poisonings to paracetamol/codeine and ibuprofen/codeine combinations were extracted. A free-text search for indicators of abuse/misuse was conducted. Results were manually reviewed for inclusion.

Results: There was a decrease in intentional exposures to alprazolam following up-scheduling, (average of 109 calls/quarter pre-intervention, 59 calls/quarter post intervention). However, an increase in diazepam exposures (from 274 calls/quarter to 306 calls/quarter) was seen over the same time period. This is in line with trends in dispensing seen in PBS data. The rescheduling of OTC codeine products in 2010 resulted in a slight reduction of abuse/ misuse cases for ibuprofen/codeine products (average 11 cases/year 2008-09, 8 cases/year 2010-2011), but this was not sustained, with the frequency of cases returning to pre-intervention levels following this. Abuse of paracetamol/codeine products has been increasing despite rescheduling efforts (averaging 12 cases/year pre 2010, 31 cases/year post 2010). Associated harms include liver injury with misuse of paracetamol containing products, and acute kidney injury and gastrointestinal bleeds with misuse of ibuprofen containing products.

Conclusion: Up-scheduling of alprazolam to Schedule 8 has coincided with a substantial reduction in intentional exposures to alprazolam, but also a concurrent increase in diazepam exposures. Since alprazolam is considered more toxic than other benzodiazepines in overdose, this switching could result in harm reduction. Changes in codeine scheduling did not effectively reduce codeine combination product abuse/misuse reported to NSWPIC. This could be because these products are still accessible without a prescription. Negative outcomes associated with the paracetamol and ibuprofen components of these combinations, especially in a chronic setting, mean that more needs to be done to restrict inappropriate access to these products. This could involve further up-scheduling, or monitoring programmes conducted through pharmacies (similar to the monitoring of OTC pseudoephedrine products).