

# Researchers deliver warning over increased detection of alprazolam (trade name Xanax) in heroin related deaths

## The Problem

Benzodiazepine use is common among people who inject drugs and their contribution to heroin overdose is well established. Alprazolam is not recommended as a first line treatment for anxiety and panic because of risk of dependence and potential for misuse.

## Goal

To track trends in alprazolam prescribing and supply over the period 1990 to 2010 and investigate its detection in heroin related deaths

## How did they investigate?

Researchers from the University of Monash and the University of New South Wales calculated the number of prescriptions of alprazolam in Victoria for each year from 1990 to 2010 and the annual numbers of heroin related deaths in which alprazolam was detected.

## What did they find out?

There was a huge increase in alprazolam prescribing over the 20 years from 1990, a big jump in heroin users obtaining the drug illicitly and in its detection in heroin overdose.

Alprazolam supply in Victoria increased by 1426% between 1990 and 2010 and the number of prescriptions increased by 611% from 609 per 100,000 population to 4327 per 100,000 population over that period. There was a disproportionate increase in prescriptions of the 2mg formulation. Alprazolam use among injecting drug users rose from 8 per cent to 69 per cent from 2005 to 2011 and 80 per cent of this was obtained illicitly. In the 20 years from 1990 there were 2392 heroin related deaths in Victoria. Until 2004 the detection of alprazolam was detected in only two deaths but rose to 28 per cent of deaths (27 deaths) in 2010.

## What does it mean for health care professionals?

Practitioners need to be aware that alprazolam use is common among heroin users and most of this is obtained illicitly. It appears to be particularly toxic in overdose and had been detected in an increasing number of heroin related deaths. The researchers have raised concern about the rapid increase in prescriptions, despite recommendations that it is used short term as a second line treatment, and also about the increase in the higher dose 2mg formulation.



**Citation: Angela Rintoul, Malcolm Dobbin, Suzanne Nielsen, Louisa Degenhardt, Olaf Drummer**

*Recent increase in detection of alprazolam in Victorian heroin-related deaths, Medical Journal of Australia, 4 March, 2013.*

## Preventing mental illness in children at higher risk due to parental depression and other comorbidities

### The Problem

Parental depression is a well established risk factor for mental illness and is associated with adverse outcomes, including depression and psychosocial difficulties, in adolescent offspring of affected parents.

### Goal

The goal of the study was to look at whether the number of co-occurring disorders (such as alcohol abuse, anxiety and antisocial behaviour) in mothers with depression increased the risk of mental illness in their children.

### How did they investigate?

The research team from Cardiff University and University College London assessed 315 mothers with recurrent depression at baseline and in two further waves over a four year period. Psychiatric disorder in adolescents was assessed using the Child and Adolescent Psychiatric Assessment.

### What did they find out?

At follow up the rates of new onset disorders among children free of any disorder at baseline increased according to the number of additional clinical problems in mothers.

### Professionals?

A number of studies have pointed to an association between parental depression and adverse outcomes for children. This study highlights the fact that treating the depression alone may not be sufficient to prevent adverse outcomes in children, particularly where alcohol abuse and anti social behaviour are comorbid with depression. Supportive interventions exist for children who are affected by depression and comorbidities in parents and these can be run alongside existing treatment for the parent.

**Citation: Ruth Sellers, Stephan Collishaw, Frances Rice, Ajay K. Thapar, Robert Potter, Becky Mars, Gordon T. Harold, Daniel J. Smith, Michael J. Owen, Nick Craddock and Anita Thapar Risk of psychopathology in adolescent offspring of mothers with psychopathology and recurrent depression. The British Journal of Psychiatry (2013) 202, 108–114. doi: 10.1192/bjp.bp.111.104984**

## Patients who exhibit high craving for alcohol respond less well to treatment than those with depression in patients with comorbid alcohol use disorders and depression

### Background

Comorbidity of mental health and substance use problems are high – with around 25% per to 50% of patients experiencing more than one disorder. Comorbidity is known to result in poorer treatment outcomes particularly where the two disorders are treated separately as one feeds the other. However it can be difficult to predict which patients will respond best to treatment.

### Goal

To investigate whether craving measured prior to commencement of treatment could be a useful tool to identify who would respond best to treatment among a group of depressed drinkers.

### How did they investigate

Researchers from Queensland University of Technology, University of Newcastle and University of New South Wales analysed a subset of 260 participants from a randomised controlled trial comparing treatments for comorbid alcohol and depression.

### Results

Pre treatment craving for alcohol was significantly predictive of weekly alcohol consumption at 18 weeks and 12 months post –treatment. Depression was not predictive of alcohol treatment success.

### Implications for health care professionals

Depression prior to entry for treatment is not related to how successful patients are at abstaining or cutting down from drinking after treatment. However if a depressed patient has a strong craving for alcohol before entering treatment this may affect success in giving up drinking or cutting back. Treatment and support for patients with comorbidity should be planned accordingly.

## An alternative to DSM IV and DSMV diagnostic measures

### Background

The impending publication of DSMV is already proving controversial. An alternative method of diagnosis, more in tune with everyday psychiatric practice, is prototype matching. Instead of counting symptoms of a disorder and determining whether they cross an arbitrary cut off, the task of the diagnostician is to gauge the extent to which a patient's clinical presentation matches a paragraph-length description of the disorder using a simple 5-point scale, from 1 ("little or no match") to 5 ("very good match").

### Goal

The aim of the study was to examine the reliability of prototype diagnosis for mood and anxiety disorder.

### How did they investigate?

The investigators from Emory University and Harvard Medical School conducted three studies. The first study examined clinicians' DSM IV and prototype diagnoses with their rating of patients' adaptive functioning and patients' self reported symptoms. In the second study independent interviewers made a prototype diagnosis following structured clinical interview. In the third study an interviewer made an independent rating of global adaptive functioning.

The main outcome measure was patients' self reported mood and anxiety levels along with independent ratings of adaptive functioning . Patients were recruited from outpatients and primary care clinics, with a focus on highly prevalent mood and anxiety disorders.

### Results

The authors concluded that prototype diagnosis is a viable, reliable alternative to DSM1V. Clinicians' prototype diagnoses showed small to moderate correlation with patients' self report and performed as well or better than DSM1V. Prototype diagnoses from independent interviewers substantially outperformed DSM1V in predicting adaptive functioning. They also concluded that, in contrast to widely held views that clinicians do not use DSM1V, they found that clinicians in the US do use it but its complex algorithms make it unwieldy for general clinical practice.

### Implications for health care professionals

Given the high interest in the upcoming DSMV which is already proving controversial, alternative diagnostic tools may be needed particularly if they are easier to implement in general psychiatric practice and more in tune with everyday practice.

**Citation: Jared A. DeFife; Joanne Peart; Bekh Bradley; Kerry Ressler; Rebecca Drill; Drew Westen. Validity of Prototype Diagnosis for Mood and Anxiety Disorders JAMA Psychiatry. 2013;70(2):140-148.**

