

Oral Presentation – 12

25 Years of Self-poisoning in Newcastle, 1987-2011

Nicholas Buckley^{1,4}, Andrew Dawson^{2,4}, Ian Whyte^{3,4}, Geoff Isbister^{3,4}

¹*POW Clinical School, UNSW, Sydney NSW, Australia*

²*Royal Prince Alfred Hospital, Sydney NSW, Australia*

³*School of Medicine and Public Health, University of Newcastle, Newcastle, NSW, Australia*

⁴*NSW Poisons Information Centre, Sydney, NSW, Australia*

Abstract

Objectives: Our aim was to examine the morbidity associated with self-poisoning with different drug classes over the last 25 years.

Method: The Hunter area Toxicology Service (HATS) is a primary and tertiary referral toxicology centre covering Newcastle and Lake Macquarie, Australia. A prospective cohort study has been conducted from 1987 to date. We extracted the data from, 1987 to 2011 and examined the characteristics of the patients and drugs taken in poisoning in 5 year periods.

Results: There were 14,565 admissions after ingestion of 29,055 substances (16,723 prescription drugs and 12,332 non-prescription items). Of the total admissions, 91.7% were for attempts at self-harm and the remainder were for a mixture of unintentional, iatrogenic and recreational self-poisonings. The median age of admitted patients was 32 years (Range: 14 to 98y) and the female/male ratio was 1.7/1. In 58.5% of admissions, the patient was noted to have a previous psychiatric history and in 38.9% a previous psychiatric admission. A previous suicide attempt was commonly reported (58.2%), as well as a history of alcohol or drug abuse (56%). The most frequently ingested substances were benzodiazepines, alcohol, paracetamol, antidepressants, antipsychotics and anticonvulsants. Between 1987-92 and 2007-11, there has been a substantial fall in the percentage of self-poisoning involving tricyclic antidepressants (from 8.5% to 1.6% of the total in 5 year period), benzodiazepines (22% to 13%), anticholinergics (1.2% to 0.38%), barbiturates (0.79% to 0.01%), and 'typical antipsychotics' (6.2% to 1.1%), theophylline (1.6% to 0.01%), salicylates (1.7% to 0.7%). At the same time there have been very large rises in other drug classes such as 'atypical antipsychotics' (from 0 to 10.2% of the total), SSRIs (0 to 5.6%), SNRIs (0 to 3.7%), paracetamol (10.4 to 14.9%), NSAIDs (2.7 to 4.8%), and opioids (1.5% to 3.2%). In contrast, some agents [ethanol (16.4% of 25-year total), anticonvulsants (4.9%), antihistamines (2.2%)] have remained largely constant.

Conclusions: The agents taken in overdose have changed considerably over 25 years and mostly towards less toxic agents. This, to a large extent, simply reflects changes in psychiatric prescribing and over the counter analgesic drug use. Efforts at decreasing morbidity and mortality from self-poisoning should target psychiatric and non-prescription drugs that are more lethal in overdose, and off-label use of psychiatric drugs.