Synthetic cannabinoid use in New Zealand: a recent rebound

Synthetic cannabinoid analogues had, until August 2011, been readily available in various retail outlets within New Zealand and were openly promoted and sold as legal substitutes for cannabis.\(^1,2\) These analogues describe a range of disparate chemicals that bind to CB1 and CB2 cannabinoid receptors, mimicking the effects of delta-9-tetrahydrocannabinol, though with greater efficacy.\(^3\)

Published case reports and case series,\(^4,5\) and information based on calls received at the National Poisons Centre (NPC) suggest the adverse signs and symptoms displayed by users of these analogues are different from those found in cannabis users. The predominant effects displayed, in rank order are tachycardia, vomiting, agitation, drowsiness, psychosis, hallucinations, anxiety, headache, seizures and tremors.

Recent calls to the NPC additionally suggest an increase in the severity of the neuropsychiatric effects, particularly psychosis, hallucinations and seizures. Additionally, staff at some Emergency Departments have noticed an increasing number of presenting patients who are aggressive and violent. Little is known of the chronic effects; however, there is an emerging concern with patients suffering adverse withdrawal effects following cessation of long-term use.\(^6,7\)

Recently, the NPC published a letter describing a dramatic fall in calls to the Centre following the prohibition of identified analogues present in New Zealand in August 2011.\(^8\) Within a month of the ban, calls dropped from 10 in August 2011 to 1 in September 2011. Calls to the NPC in months subsequent to this were low and varied between zero and four calls until July 2012 (figure one).

In the last two months there has, however, been a dramatic rise in calls; calls per month increased from three in July, nine in August to thirteen in September. Products reported in these three months were overwhelmingly identified as ‘K2’. Analogues identified in new products introduced to the market since August 2011 have been regularly added to the Gazette, but there have not been any further inclusions since July 2012 (as of October 07, 2012),\(^9\) which may, in part, explain this increase.

Once these analogues have been added, there should be a subsequent decrease in use in the community, which will be reflected in calls to the NPC. In the meantime, we wish to draw the attention of healthcare professionals to this trend, which is resulting in patient presentations to Emergency Departments with the additional burden on ED staff and resources.
Figure 1. Calls received by the National Poisons Centre on synthetic cannabinoids (October 2010 to September 2012)

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