



# Ketamine: just a harmless party drug?

**When Kat Deans, Rachel Ayres and Pete Weinstock began to see more long-term ketamine users at Bristol Drug Project, they joined forces with local urologist Angela Cottrell to devise more targeted advice**

**A**t the beginning of this year, Sue visited the daily drop-in at the Bristol Drugs Project (BDP) asking to see a drugs worker to talk about her ketamine use. She was experiencing unwanted physical and emotional side effects from using up to 7gm of ketamine a day, but finding it extremely difficult to cut down. Sue was also seeing her GP on a regular basis for treatment for chronic cystitis, but as the prescribed antibiotics weren't alleviating her symptoms, Sue's GP referred her to a urologist. At this point neither Sue nor her GP were aware that there could be a link between her urinary tract problems and her ketamine use.

Sue was not the only service user being seen by BDP for help with problematic ketamine use, and we realised that two other ketamine users were being treated by urologists in the area. We liaised with Dr Angela Cottrell from Bristol Urological Institute at Southmead Hospital, who told us that the local urology department was seeing an increased number of patients with similar symptoms who had a history of heavy ketamine use. She informed us that there had been reports of urinary tract problems associated with chronic ketamine use in Hong Kong and Canada, but no published reports in the UK.

Back in January there were seven young people being investigated by local urologists for possible bladder damage associated with ketamine use; by June this number had more than doubled. It was clear that we as drug service providers, as well as our colleagues in urology, needed more information on the scale of the problem.

We began by running two well-attended workshops for users, and another for professionals – which to our surprise, attracted 45 people. In April of this year the first UK case of urinary-tract pathology associated with ketamine was published in the *British Medical Journal*. We responded with a letter highlighting the increasing number of cases in the South West. As we began to ask service users at BDP about urinary problems, it became apparent that many ketamine users had experienced similar symptoms – in fact this was common experience among heavy users. Chronic ketamine users told us of a list of typical symptoms varying with severity, such as pain and burning on passing urine, blood in the urine, necessity to pass urine

frequently and suddenly, and leakage of urine. These effects seemed to be directly related to the damage done to the bladder lining, which bled as it became inflamed. More worryingly, the scarring found in the bladder might also appear in the ureters (tubes from kidneys to bladder) and ultimately lead to kidney damage.

Some patients were unable to cope with the severe and frequent pain and had had a catheter inserted; one patient in the South West had their bladder removed as their symptoms were so bad. With patients tending to be very young (in their 20s), these were not decisions to be taken lightly. The prognosis of patients who have bladder damage following ketamine use is unknown. Some patients' symptoms worsen as they continue to take ketamine; others improve if they stop, but others continue to get worse despite stopping ketamine. There are reports of similar cases following long-term prescribed use of 'pure' ketamine for pain control.

Since the beginning of the year, our understanding of the short and long-term problems related to ketamine has increased greatly and we have been able to get a better picture of the problem. We are aware that ketamine (classified 'C' in January 2006) is widely used in Bristol and surrounding areas, particularly among young people. It is cheap to buy, at between £6 and £10 a gram. The general perception, both locally and nationally, seems to be that users do not experience major physical problems if they are taking small amounts. Recreational users with low tolerance will experience a mild 'trippy' euphoric feeling from a dose (a 'bump') of 10-30mg.

As the dose increases, the dissociative effect that most users seek, becomes more marked. This state can be reached with around 50-100mg, the size of a small line. At higher doses (anything over 100mg) users talk about entering the 'K hole', when the body starts to pass from a dissociative state to anaesthesia. As to be expected from an anaesthetic drug, this means that the user may become unconscious or paralysed for a while. In these situations ketamine users are extremely vulnerable, and unable to look after themselves and their belongings. Ketamine is associated with socially and sexually risky behaviours and can be a serious compromise to personal safety.

The majority of our local ketamine users snort the drug or take it orally. However,

# 'Despite severe health problems, many people find it difficult to stop using ketamine, and tolerance of the drug and dependence on it can follow surprisingly rapidly.'

many of the older injecting drug users using the needle exchange at BDP inject ketamine as part of their poly-drug repertoire, as it seems to temporarily reduce their tolerance and therefore increase the effectiveness of opiates.

Like Sue, many of the ketamine users that we have seen this year have also suffered from 'K-cramps' – prolonged and severe abdominal pain – and may need to be admitted to an A&E department. Our workshops revealed a wealth of acquired wisdom about the origin of K-cramps, including swallowing rather than snorting, and ketamine being cut with other substances. Several online user-forum sites advise using pharmaceutical grade liquid ketamine only, to avoid this.

Despite severe health problems, many people find it difficult to stop using ketamine, and tolerance to the drug and dependence on it can follow surprisingly rapidly. As users move from recreational use of less than 1mg once or twice a week, to several grams per day, they seem to stop experiencing the originally desired effects and find themselves using to feel well, and even to control the pain from their unwanted symptoms. The shift from recreational to problematic use is poorly understood. We don't know how long it takes for tolerance to build up, or which groups of users are at risk of this happening.

Habitual daily use may leave users feeling paranoid and with a diminished capacity to cope with everyday life situations and emotions. Several workshop participants reported feeling anxious, having poor concentration and longer-term memory loss.

In our still-limited experience, anxiety and depression seem to be a feature of ketamine withdrawal. Ketamine is known to stimulate the production of dopamine in the reward parts of the brain, as well as producing adrenalin and endorphins. Perhaps low mood following a reduction, or cessation of use, is not surprising and may be treated symptomatically, as for stimulant detoxes.

At BDP we continue to support Sue through our community detox programme. However, we now know of two ketamine users that have recently completed ten-day inpatient detoxes in Bristol, and these were managed symptomatically, as for a benzodiazepine detox. Our next priority at BDP is to further develop and promote our harm reduction and detox support guidelines. We need to be imaginative in how we get messages out to people who do not traditionally come to drugs agencies and we need to adapt them to different target groups. Some questions still remain: What are the risks of using ketamine during pregnancy? What is ketamine cut with? Do manufacturers have a record of patients experiencing similar problems where ketamine has been prescribed therapeutically?

It seems that as ketamine use increases recreationally, so more users will move into problematic use and present to us, as well as to medical services. Locally there is an increasing demand for information; since writing the first draft of this article we have run another well-attended workshop for professionals in Bath, have one planned for local youth workers next week and two more user workshops planned before mid-August, for which we have a waiting list. We are keen to continue to gather information and get clear messages out to ketamine users, other services and to our local GPs.

*Kat Deans is harm reduction worker, Rachel Ayres is volunteer manager, and Pete Weinstock is senior practitioner for community detox and shared care plus at Bristol Drugs Project. 'Sue' is a fictional name, representing actual service users at BDP. For more information or feedback, contact Bristol Drugs Project on 0117 987 6000, or email Kat.Deans@bdp.org.uk or Rachel.Ayres@bdp.org.uk*

*Angela Cottrell is clinical research fellow at Bristol Urological Institute, Southmead Hospital, Bristol. If you have any experience working with people with bladder symptoms associated with chronic ketamine use, please email her at [angecottrell@hotmail.com](mailto:angecottrell@hotmail.com)*

*Full references for this article are available by emailing [claire@cjwellings.com](mailto:claire@cjwellings.com)*

**Cartoon by Chris Keegan, volunteer at Bristol Drug Project.**

## Reducing risk

### BDP offers some basic harm reduction advice to ketamine users

**Guard against vulnerability and forgetfulness** by making sure you're with people you can trust. Mixing ketamine with other drugs or alcohol will make problems worse.

**Avoid severe and long lasting abdominal pain** (referred to as K cramps) by not swallowing the drug – there is a strong belief that ketamine in the stomach makes cramps worse. Seek medical advice and mention your ketamine use to the doctor. If you sit in the bath to soothe the pain there is a risk of unconsciousness and drowning.

**If you have a panic or anxiety attack** stay with your friends. Make sure someone is looking after you. Relax through slow, controlled breathing.

**If you experience urination problems** be aware that the symptoms will not respond to cystitis treatments. Drink plenty of water. Seek medical help, tell your GP that you use ketamine and ask for a referral to an urologist to reduce the risk of permanent harm.

**If you find yourself needing to use higher and higher doses** and are using more frequently than intended, monitor yourself. Give yourself breaks from using if you can.

**If you feel depressed and anxious** when stopping or reducing ketamine use, get some professional help to manage your symptoms during a gradual reduction. Try to distract yourself with purposeful and enjoyable activities.

**Injecting ketamine** brings the additional risks of damaging your veins, skin infections and contracting blood borne viruses such as Hepatitis or HIV. Get safer injecting advice from your nearest needle exchange.

### How do you support a ketamine detox?

Encourage a slow reduction so the body can adjust to lower dose levels and new, positive routines can be built into their day, advises Pete Weinstock, who drew up guidelines in consultation with BDP's local prescribing service, in-patient detox unit and service users. Each symptom should be treated separately, but chlordiazepoxide (Librium) can alleviate anxiety. Short-term promethazine (Phenergan) and complementary therapies can also be useful.

The person is likely to have difficulty sleeping initially or may need a considerable amount of sleep during the first few days of detox, and they will feel lethargic. Their mood may be low and they will feel demotivated, as serotonin and dopamine levels will be depleted by their drug use. Plan routine and structure, using meaningful and enjoyable activities to stimulate and reinforce positive progress.

Encourage users to eat and drink regularly and healthily, and to avoid isolation. Engaging in a social support network can help to continue reduction and abstinence.