# Medicine for Managers

Dr Paul Lambden BSc MB BS BDS FDSRCS MRCS LRCP DRCOG FIHSCM

# Ketamine

**During my student years up to qualification half a century ago, I never once saw a patient admitted because of or dying as a result of psycho-active drugs. Now, the patient consequences of such drugs are to be found regularly in every A&E, in every newspaper or periodical, as a common storyline in many television programmes and as a regular component of the academic papers and publications in the medical press. It seems to be out-of-control.**

Ketamine is increasingly the topic of discussion because of a surge in its use in the United Kingdom. Medically, it is used as a pain-killer, anaesthetic and anti-depressant.

Although its uses in medicine are legal, it is a tightly controlled drug because of its use recreationally associated with its hallucinogenic effects and its ability to enable users to feel disconnected from oneself and from one's surroundings.

This effect is called ***dissociation*** and enables the individual to feel as though he or she is experiencing their own life as though in a dream, feeling unreal. The drug also causes alteration of sensory perception, hallucinations, memory loss and an analgesic effect.

The drug was first synthesised in 1962. Initially its principal use was as an anaesthetic but its antidepressant effects, which were identified at the beginning of the century, represented something of a breakthrough in the management of the disorder.

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It is an effective ***anaesthetic***. Its advantage over other agents, particularly when used for short procedures, is its profound muscle relaxation together with its safety because it suppresses respiration much less than some other agents. Unlike other drugs used for anaesthesia and analgesia, its use does not cause significant fall

in blood pressure in most patients. For this reason it is valuable as an anaesthetic in patients with head injuries. It is also a bronchodilator, and is therefore useful in asthmatic and bronchitic patients.

Ketamine may be used for the management of acute ***pain***. It is effective and has similar efficacy to opioid drugs.

It is popular as a post-operative analgesic and is employed in a variety of clinical settings for such as for spinal injury, fibro-myalgia and generalised pain.

Ketamine is a rapidly acting ***antidepressant***. Indeed, when administered intravenously as an infusion, mood may be improved within four hours.

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A single dose has been shown to achieve improvement in over 60% of patients. The benefits of the drug can be maintained by repeated injections every seven to ten days.

A key benefit of ketamine is to induce a state of sedation, feeling calm and tranquil, with relief from pain and amnesia during the period of effect of the drug. Its ability to produce dissociation and hallucinations has been used criminally to facilitate sexual assault.

It is popularly abused, together with other ***"club drugs"*** particularly amongst teenagers and young adults. It is available under a number of street names including ***Special K***, ***"Kit Kat"***, ***"Kat"*** or simply ***"K"***. The drug is commercially manufactured and made available as either a powder or a liquid.

For drug-dealing purposes, pharmaceutical ketamine can be prepared for dealing by evaporating the liquid in a microwave oven or on a hotplate, resulting in the formation of crystals which can be ground into powder.

It may be presented for sale to users as a liquid in vials or in plastic bags, folded paper or folded aluminium foil.

The powdered drug may be snorted or smoked (typically in marijuana or tobacco cigarettes) or, as a liquid, injected or mixed in drinks.

Onset when injected is in a few minutes, though slightly slower if administered orally. Ketamine may be supplied either on its own or mixed with amphetamine or cocaine.

Ketamine ***is addictive*** and users may experience a range of effects with a single dose of the drug, including numbness, confusion, drowsiness, euphoria, difficulty concentrating, difficulty speaking, vomiting and hallucinations, amongst other consequences.

Repeated use of the drug generates ***tolerance*** and ***dependence***. A study of ketamine users found that over half suffered painful abdominal cramps with use (***K***-cramps) and also nasal, kidney and bladder damage, the latter

sometimes leading to bladder removal and the provision of a urostomy bag. Other organs damaged by the drug can include the liver and the brain.

Over time users increase the dose required for effect and, on withdrawal may suffer a range of symptoms including anxiety, tremor, palpitations, sweating and disorientation.

Worryingly the drug use is increasing rapidly. The British Medical Journal has reported that ***addiction psychiatrists*** commenced treatment for ketamine addiction for over 3,600 in 2024, more than eight times the number in 2014-15.

It is thought of by many as a ***"party drug"*** but it is much more than that. It can be a nasty, addictive, dangerous drug. Its potential harm may even be underestimated by some clinicians and its alarming popularity, brought about by its cheapness and benign reputation, suggests that the problem will continue to worsen.

Ketamine is controlled as a Class B substance. Possession is punishable by an unlimited fine and up to 14 years in prison.

Recently the Home Office has been reviewing whether it should be reclassified as a Class A drug, which hopefully might discourage the young even to experiment with it.

Certainly action is urgently required to control the trajectory of use and the harm being caused.

paullambden@compuserve.com