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# Smart drug use in the Department of Anaesthesiology at the University of the Witwatersrand

**Dr Natasha Jurković**

## ABSTRACT

### Background

Neurocognitive enhancement is an internationally occurring practice for which nootropics and prescription smart drugs are being used. It has been described in school-going children, undergraduate and postgraduate students, as well as in the work population.

### Objectives

To qualitatively assess the practice of pharmacological cognitive enhancement within the Department of Anaesthesiology at the University of the Witwatersrand.

### Methods

A peer-reviewed questionnaire was administered to the medical officers, registrars and consultants working in the Department of Anaesthesiology, to establish prevalence, substances used, motivators, routes of obtaining prescription nootropics, as well as the use of 'downers'.

### Results

A total of 139 responses were received from a possible 208. Ninety percent of respondents drank coffee, but not to improve cognition. Other caffeinated drinks were consumed with the intention of enhancing neurocognition in 45% of cases. Non-caffeinated energy drinks were consumed in 73% of cases, predominantly to improve sports performance. The nootropics most commonly used included omega 3 (34%), ginkgo biloba (16%) and caffeine tablets (5%). Prescription nootropics were consumed by 25% of respondents. Prescription nootropics included methylphenidate (91.7%), modafinil (11.1%), atomoxetine (2.8%) and donepezil (2.8%). Increased concentration was the motivation in 69% of responses, 22% were using prescription nootropics to stay awake, 17% for work performance and 17% to experiment. Frequency of use was annual in 56% of cases. Daily use was quoted in 20% of responses. Examination time constituted 83% of prescription nootropic usage. Self-prescription was found in 31% of cases, with prescriptions obtained from colleagues or friends in 27%. Smart drug use was informed in 92% of cases. Internet sources were predominantly used (85%). The most common side effects reported included palpitations (47%), irritability (31%), agitation (28%) and headache (25%). In terms of substances used to relax, 55% of

respondents had used a ‘downer’, 83% of which constituted alcohol, followed by sleeping tablets in 22% of cases.

## Conclusion

This study shows that smart drug use for neurocognitive enhancement occurs in this department in proportions similar to those seen in international institutions. The substances used are also similar, although prescription nootropics differ in terms of those available in South Africa. Neurocognitive enhancement may be more widespread than this study has shown. Further investigation is necessary to quantify the practice in the South African context.