

Catastrophic consumption: when medication access is too easy

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Objective

To report a complex case where although it was easy to obtain multiple prescriptions, it was much harder to get one single remedy.

Background

- The impact of technology on healthcare in Australia over the previous decade has had a dramatic impact on improving patient care by allowing more readily accessible patient files and information for medical practitioners, to aid in diagnosis of diseases¹.
- Technology such as the internet has also made it easier for consumers to access medications and medication information, often leading to self-diagnosed medical conditions as well as more readily available access to websites for supply of medications, without an appropriate prescription issued by a medical practitioner^{2,3}.
- It is essential to understand that when patients access non-approved drugs through means other than the Special Access Scheme or Authorised Prescriber Scheme, there can be no guarantees of the quality, safety and efficacy of the imported product and patients must be prepared to accept the potential harms and benefits of use^{3,4}.

Clinical Features

A 26-year-old male with an industrial chemistry background and medical history including; Bipolar disorder, ADHD and anxiety was admitted with six-day history of fluctuating confusion and disorientation. His medication history is summarised in table 1.

Table 1: Medication history

Medication Name and Strength	Dose and Frequency	Indication
Dexamphetamine 5mg	15mg BD	ADHD
Atenolol 50mg	1 mane	Tachyarrhythmias
Lithium SR 450mg	1 mane	Bipolar disorder
Lamotrigine 100mg	1 nocte	Bipolar disorder
Chlorpromazine 100mg	1 nocte	Bipolar disorder
Bromazepam 3mg	1 q8h PRN	Anxiety

Case Progress

- During his admission, the patient became increasingly confused with reduced level of consciousness.
- As polypharmacy exposure was suspected reviews were requested from; pharmacy, clinical pharmacology, toxicology, liaison psychiatry and drug & alcohol.
- Patient's own medications were brought into hospital, consisting of multiple shopping bags and toolbox full of medications (figure 1).

Figure 1. Patients own medications



Interventions

Examples of medications brought into hospital are included in figure 2.

Figure 2. Examples of patients own medications



At the time of review the pharmacist identified multiple medications that were purchased overseas, translating each medication to English (table 2) and working with clinical toxicology to identify potential drug related causes.

Table 2. Examples of medications identified and translated by the pharmacist

Medication	Indication
Grandaxin	Russian tranquiliser
CRL-40-940	Increase arousal & treat ADHD
Bromantane	Atypical psychostimulant & anxiolytic
Suvorexant	Treat insomnia
Corvalol	Tranquiliser based on valerian root & phenobarbital
Phenazepam	Russian benzodiazepine
Piracetam	Improves cognitive functioning & memory
Tianeptine powder	Antidepressant

There were also multiple unidentifiable substances and it appeared that the patient had been compounding his own capsules.

Significantly, due to the patients confusion he was unable to provide a coherent history of the use of these medications, however once his diary was obtained it was found that there was documentation around his experimentation with various combinations of these medications & their effects.

Outcomes

- The patient was transferred to ICU (day 8) for management of increased intracranial pressure, fevers and hyper-natraemia with diagnosis of probable ingestion of non-therapeutic chemicals (including organic solvents) together with potentially high doses of polypharmacy, later confirmed by patient's diary outlining experimentation with gases, thus toluene level was ordered.
- Unfortunately, the patient continued to deteriorate and passed away with final diagnosis; likely toxidrome with multiple agents, including toluene leukoencephalopathy with white matter demyelination.

Conclusion

This case prompted discussion regarding ease of medication access & information and exemplifies the importance of health practitioners working together to provide patient-centred care, highlighting the pharmacists role as a valuable multi-disciplinary team member.

References

- Hambleton SJ, Aloizos J. Australia's digital health journey. Med J Aust. 2019. 210(6): S5-6
- Tonsaker T, Barlett G. Health information on the internet- Gold mine or minefield? Can Fam Physician. 2014. 60(5): 407-408.
- Bennadi D. Self-medication: A current challenge. J Basic Clin Pharm. 2014. 5(1): 19-23
- Donovan P. Access to unregistered drugs in Australia. Australian Prescriber. 2017. 40(5): 194-196.