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P435 -The nephrotoxic risks of online shopping

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Introduction: The Internet facilitates the sale of drugs, legal and illegal, directly to consumers in a way that is difficult to regulate. With a major online retailer's recent investment into entering the online pharmacy industry, this medium is likely to only become more popular. However, the degree of harm resulting from these purchases is not well known.

Case: We report the case of a 35 year old man presenting with reduced GCS, acute kidney injury (AKI) and metabolic acidosis following a likely overdose of fentanyl procured from the 'dark web' (for the purpose of pain relief) and a long lie. Creatinine kinase, autoimmune screen and renal ultrasound were consistent with a drug- and rhabdomyolysis-related aetiology. He required 7 sessions of haemodialysis before regaining independent renal function, which returned completely to baseline by follow-up at 1 year.

Discussion: A literature search for reports of AKI resulting from drugs purchased online yields case series and case reports illustrating both direct and indirect (for example sympathomimetic ischaemic or long lie/seizure related rhabdomyolysis) mechanisms of injury.

A diverse range of motivations for their use emerges: from performance enhancement in bodybuilders, to dietary supplements to cure cancer or simple purchasing errors. Another case report describes the indirect effect of self-medication through online pharmacies in delaying seeking medical advice for progressive decompensated chronic kidney disease and heart failure. The population of patients who procure medications online may therefore not fit the profile of patients typically anticipated to be at risk for a severe drug-related renal injury, for example post-intentional overdose or with a known history of intravenous drug use.

The pertinent information may not come to light from questions about regular and over-the-counter medications that form the standard medication history, unless volunteered by the patient themselves. During medicines reconciliation too, it may escape notice unless efforts are made to investigate the source of prescriptions. Tellingly, in the case series and reports reviewed, the origin of the nephrotoxic agent (online versus street, online pharmacy versus independent vendor) was in many cases not stated nor attempts made to verify its purported composition. Considering the limited evidence available and the reasons why such cases may go undetected and unreported, it is difficult to estimate the true morbidity and mortality of renal injury from drugs purchased online.

This review highlights a potential role for education in reducing harm upstream of monitoring and regulation, which are difficult to enforce. Engaging the public in discussion about the risks of utilising online pharmacies or when procuring unverified substances from independent vendors (for example in terms of quality control and lack of safeguards such as an on-site pharmacist) may lead to more selective decision-making when shopping online. Meanwhile improving awareness of this growing marketplace amongst clinicians, nurses and pharmacists will aid recognition and reporting, as well as onward management.