Kratom: Facts, Fiction, and the Unknown

To the Editor: The intensive care unit is no stranger to drug reactions and overdoses. However, it is not always clear what substance is causing a certain patient presentation, particularly in the setting of multiple substances. During a recent rotation in the Medical ICU, our team took care of a young, previously healthy patient that presented with suspected drug-induced cardiac arrest. All toxicity and substance screening returned negative. Although the patient quickly recovered, this raised suspicion for an overdose of a substance not routinely tested for in the ICU setting. Kratom is 1 such example of a substance that is rapidly growing in popularity in the United States and is not routinely tested for. We are writing because of kratom's implications for Family Medicine physicians; from use in the outpatient setting, to possibly life-threatening overdoses in the hospital setting.

Kratom comes from the leaves of a tree indigenous to Southeast Asia. It has been used for several centuries to treat a wide range of ailments, including use as a stimulant, pain relief agent, and more recently, mitigating symptoms of opiate withdrawal.[1] It contains alkaloids, including mitragyna, which have partial affinity for the mu opioid receptors. However, they do not seem to activate the β arrestin pathway that results in the respiratory depression.[2] Kratom is highly addictive and quickly causes dependence and has been banned in Malaysia and Thailand since the midtwentieth century. In the United States, kratom use has been rapidly rising without any restrictions or FDA regulation. The DEA lists it as a "Drug of Concern," though only a handful of states have independently banned or restricted sales of kratom. Although there are urine and blood tests that can detect kratom, it is not included on a standard 5 to10-panel drug screen. There have been multiple published case reports showing severe adverse effects, including seizures, liver failure, cardiopulmonary arrest, and even death.[3] In 2018, the FDA reported 44 cases of kratom-associated deaths, nevertheless they were unable to determine to what degree kratom contributed to the mortality, as most cases also involved ingestion of other potentially lethal substances.[2]

Despite some of the negative press kratom has received in response to the reports detailed above, there is significant interest in the potential therapeutic uses of kratom. In the setting of an opioid epidemic, kratom has been touted as a theoretically safer alternative to opiates. Animal studies showed that kratom significantly attenuates symptoms of opioid withdrawal.[2] Most human studies are currently observational but show that kratom users feel that regular use enhances physical performance, improves mood, and alleviates pain.[2] In a US-based survey study, nearly half of 8049 respondents indicated that kratom enabled them to reduce or discontinue use of opioids.[4]

The only certain conclusion that can be drawn from the information currently available is that more data are needed to make clear recommendations for patients. Until this happens, we suggest Family Physicians research the availability of kratom in their area, consider screening for kratom use when applicable, and stay updated on studies demonstrating safety and/or efficacy of kratom in humans.

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References

1. Eastlack SC, Cornett EM, Kaye AD. Kratom-pharmacology, clinical implications, and outlook: a comprehensive review. Pain Ther 2020;9:55–69.
2. Swogger MT, Smith KE, Garcia-Romeu A, et al. Understanding kratom use: a guide for healthcare providers. Front Pharmacol 2022;13:801855. Published 2 March 2022.
3. Gorelick DA. Kratom: substance of abuse or therapeutic plant? Psychiatr Clin North Am 2022;45:415–30.
4. Grundmann O. Patterns of Kratom use and health impact in the US-Results from an online survey. Drug Alcohol Depend 2017;176:63–70.

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Re: Becoming a Phronimos: Evidence-Based Medicine, Clinical Decision Making and the Role of Practical Wisdom in Primary Care

To the Editor: I recently read the *JABFM* ethics feature titled, "Becoming a Phronimos: Evidence-Based Medicine, Clinical Decision Making and the Role of Practical Wisdom in Primary Care."[1] I have been a Family Medicine physician for over 25 years and agreed with the general claims of the manuscript; the current business approach in health care is often contrary to the tenets of family medicine. Furthermore, the points raised by Cosgrove and Shaughnessy that clinicians should have both clinical and epistemic humility was spot on.

However, I found some of the examples in the manuscript to be overly simplistic and, at times, arguably incorrect. Evidence Based Medicine (EBM) does not "offer a value and context free approach to the care of

patients." While business administrators may interpret it that way, EBM specifically calls on clinicians to incorporate patient's values and preferences.[2] I disagree with the claim that "every patient entering an examination room has to leave with a diagnosis [or the clinician will not be paid]." Wise clinicians often express the uncertainty that the authors recommend and do not reach a specific diagnosis, unless one claims that "knee pain, unspecified" (which has an ICD code) is a diagnosis. I have not seen this affect payment and found that many patients welcome this approach while others find it frustrating.

I agree that the term "prediabetes" unnecessarily labels people, but do not concur that the term assumes that "left untreated, diabetes will inevitably develop." Rather, the term is simply a poor shorthand to communicate that people with an A1C between 5.7 and 6.4% have a greater risk of developing diabetes than people with a lower A1C level. I wish that we would use terminology such as "at higher risk for diabetes" but that may be viewed as overly wordy for some.

The manuscript appropriately highlights the problems of over screening in clinical medicine, but then it states that routine screening for melanoma "has led to more harm than good," citing a Cochrane review from 2019.[3] However, that is not an accurate summation of the Cochrane review which concluded that "screening for malignant melanoma is not supported or refuted by current evidence from RCTs."[3]

In summary, I support the plea by Cosgrove and Shaughnessy that clinicians develop practical wisdom. And I wish that the business interests of our current health care system would stop medicalizing the human experience and instead encourage clinicians to demonstrate humility. The purpose of this letter was to point out concerns with some of the specific examples used to support the need for more practical wisdom.

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References

1. Cosgrove L, Shaughnessy AF. Becoming a phronimos: evidence-based medicine, clinical decision making, and the role of practical wisdom in primary Care. J Am Board Fam Med 2023;36:531–6.
2. Sackett D, Rosenberg W, Gray J, Haynes R, Richardson W. Evidence based medicine: what it is and what it isn't - it's about integrating individual clinical expertise and the best external evidence. BMJ 1996;312:71–2.
3. Johansson M, Brodersen J, Gøtzsche PC, Jørgensen KJ. Screening for reducing morbidity and mortality in malignant melanoma. Cochrane Database Syst Rev 2019;6: CD012352.

doi: 10.3122/jabfm.2023.230335R0