Pharmacists prescribed 7 times more antibiotics than physicians did for query urinary tract infection

AS FORMER PHARMACISTS, WE THANK BEAHM AND COLLEAGUES for presenting their work at the recent Association of Medical Microbiology and Infectious Disease (AMMI) Canada conference and discussing the expanded role of pharmacist prescribing for patients with query urinary tract infection (UTI).^{1,2} However, we are alarmed that the study had 656 prescriptions initiated by pharmacists, compared to 94 prescriptions initiated by physicians. This was almost a 7-times difference in the number of prescriptions. Are the data suggesting pharmacists can better detect UTI than physicians do, even without physical examination and investigations? Or are the data suggesting pharmacists prescribe more due to better financial incentives?

As stated in the methodology, the pharmacies in the study were reimbursed an assessment fee each time a patient was initiated a prescription. In addition, the pharmacies could bill a dispensing fee on each of these prescriptions. This might explain why pharmacist-initiated antibiotic prescriptions significantly outnumbered the physician-initiated ones. Although the authors claimed they have no conflict of interest, they did not address the potential conflict of interest of their study collaborators.

Tsuyuki, a coauthor in the current study, has previously denied conflict of interest of pharmacist prescribing and questioned whether people would question the same about physicians being paid for performing procedures.³ Indeed, we would question this. That is why family medicine physicians have a cap on consultation rates to ensure patient safety and ethical practice.⁴ Secondary care physicians cannot initiate consultations themselves and must wait for referrals. Imagine if a surgeon wanted operations on all emergency department patients regardless of the clinical indications—that would be considered unethical. There is a famous saying: the best surgeons know when not to operate.⁵ Similarly, the best pharmacists should know when not to prescribe and dispense. If physicians have abnormally high frequencies of procedure claims, their practice would certainly be heavily scrutinized.

We should have the same standard for the current pharmacy study, which showed abnormally high numbers of pharmacist-initiated prescriptions.

It is misleading to claim the study patients achieved clinical cure when it was uncertain whether they had UTI in the first place. Although the study claimed that 88.9% of patients were symptom free after antibiotics, it could be because they did not even have true UTI. In their limitation paragraph, Beahm and colleagues stated that if UTI investigations were negative in conjunction with typical symptoms of UTI, then treatment would usually still be indicated, but they had no reference to support this claim. This described prescribing practice seems unusual to us, especially if an alternate diagnosis is more likely.

One major concern was whether the study pharmacists performed physical examination that aided their differential diagnoses prior to initiation of antibiotics. Although the study coauthor Tsuyuki claims that pharmacy schools provide good training in physical assessment,³ we ourselves were never taught how to perform physical examination and differential diagnoses despite graduating from a Canadian pharmacy school. A survey study showed that only 18% of Canadian pharmacists received formal education in physical assessment, but 38% of them were practising physical assessment,⁶ suggesting some pharmacists practise beyond their level of competence. Moreover, it is debatable what “formal education” of physical assessment in pharmacy means, since pharmacists have unstandardized, unaccredited ways for acquiring these skills.⁷ As an analogy, can clinic receptionists claim they had “formal training” of drug dispensing and can now dispense without the supervision of a pharmacist?

We disagree with the study conclusion that the practice of pharmacist-initiated antibiotics is safe and effective. The study had no clear explanation of the 7-times difference in prescription rate between pharmacists and physicians, as well as no clinical and laboratory confirmation of UTI among the study patients. As former pharmacists, we are not against expanding

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DOI:10.1177/1715163519866223

scope of pharmacist practice. However, we would like to gently remind pharmacists about the Hippocratic Oath: first do no harm. Misuse of antibiotics can lead to antibiotic resistance, adverse drug reactions and delay in management for the right condition.⁸ Pharmacists should feel neither proud nor ashamed of the current study data. Rather, pharmacists should

positively use these data to reflect on their practice and identify knowledge gaps that require improvement. ■

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