

Dispensing of antibiotics without a prescription: a worldwide problem

Professor Javaid Khan, reviewing Batista AD, *et al. Antibiotics* 2020;9:786 published 7 Nov 2020.

Systematic review finds that dispensing of antibiotics without prescription is still common practice in many countries, especially in low- and middle-income countries.

Antibiotic overuse and misuse are major contributing factors to antimicrobial resistance. At current consumption rates and with no changes in the policies that affect antibiotic usage, global antibiotic consumption is projected to increase by 15% by 2030 compared with 2015, (1). With increased use seeming inevitable, the need to use antibiotics responsibly and according to medical need becomes even more important. In a timely report, Batista and colleagues (2) conducted a systematic review of 85 published investigations of the dispensing antibiotics without a prescription in the community pharmacies or drug stores that sell drugs for human use. The studies collected data by two different complementary methods; pharmacy interviews/questionnaires and simulated patients (where an individual visits a pharmacy simulating specific symptoms and requiring an antibiotic). Over 80% of the studies reported a rate of antibiotic dispensing without prescription of $\geq 60\%$, and reached 100% in some, with the highest percentages of antibiotic dispensation without a prescription occurring in Asia. The disorders most commonly associated with dispensing antibiotics without a prescription were respiratory system problems, diarrhoea, and urinary tract infections, and the antibiotics most commonly sold off-prescription were amoxicillin, amoxicillin-clavulanate, azithromycin, and ciprofloxacin. Other research has shown that, in general, community pharmacists have good awareness and knowledge of antibiotic dispensing (3). Despite this, it appears that community pharmacies and drugstores continue to be a major source of antibiotic acquisition without a medical prescription, illustrating a clear gap between knowledge and practice.

Comment

Achieving further progress in reducing antibiotic use and limiting the development of antibiotic resistance in bacterial pathogens through global antimicrobial stewardship will be limited if antibiotic usage without prescription is not also reduced. In other words, our efforts to improve prescribing – however well intended and resourced – will be weakened if we do not include all those involved in the delivery of anti-infective healthcare – whether in central or peripheral roles – in this worldwide collective endeavour. Community pharmacists are often patients' first point of contact with the healthcare system and their preferred route for purchasing medicines. There is a clear and urgent need, noted by Batista and colleagues (2), to engage with and empower pharmacists and their professional colleagues through the implementation of educational and/or administrative strategies that will reduce the dispensation of antibiotics without a prescription. This is particularly true in low- and middle-income countries.

References

1. Klein EY, *et al.* Global increase and geographic convergence in antibiotic consumption between 2000 and 2015. *Proc Natl Acad Sci USA* 2018;**115**:E3463–E3470.
2. Batista AD, *et al.* Antibiotic dispensation without a prescription worldwide: a systematic review. *Antibiotics* 2020;**9**:786.
3. Jamshed S, *et al.* Antibiotic stewardship in community pharmacies: a scoping review. *Pharmacy* 2018;**6**:92.