International Journal of Contemporary Pediatrics
Toufeeq SB et al. Int J Contemp Pediatr. 2026 Feb;13(2):365-366
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291
DOI: https://dx.doi.org/10.18203/2349-3291.ijcp20260117

Letter to the Editor

From awareness to accountability: strengthening pediatric antibiotic stewardship in low-resource outpatient setting

Sir,

Antibiotics prescribed in the pediatric outpatient departments is most of the time empirical and often being prescribed for a self-limiting viral illness. The excessive use of antibiotics is prevalent worldwide resulting from the over prescription by health care professionals.[1]

To overcome the over-prescription of antibiotics in pediatric out-patient setting, awareness programs are being run but awareness alone has not proven to be the only effective strategy to curb the over prescribing of antibiotics.[2] Educational campaigns targeting prescribers and parents is raising awareness but achieving little behavioral change.

Accountability by stewardship programs and audits is the lacking critical intervention to tackle antimicrobial resistance due to unwarranted antibiotic use. A systematic scoping review of implementation and outcomes of pediatric antimicrobial stewardship programs (ASPs) shows globally significant reduction in inappropriate prescriptions.[3]

It is hard to eradicate the irrational practice of prescribing antibiotics without the systemic enforcement of ASPs by hospital administrations and health department. Clinician education coupled with audit and feedback are core components of the CDC's framework for an effective antimicrobial stewardship program. Thus audit-feedback interventions in low-resource hospitals should be used by the authorities as a tool to improve compliance in a low resource setting. A systemic review and meta-analysis show results of incorporation of the audits and feedback intervention in stewardship programs; 11% relative reduction in antibiotic prescribing volume, 23% relative reduction in unnecessary antibiotic initiation, 13% relative reduction in prolonged duration of antibiotic course, 17% relative reduction in broad-spectrum antibiotic selection.[4]

Limited access to point-of-care diagnostics in a low resource out-patient setting is perpetuating empirical prescribing of antibiotics causing AMR. Diagnostic support is the missing link to achieve a way forward to effective reduction in empirical and unnecessary use of antibiotics. A simple PCR report could help reduced antibiotic prescriptions in pediatric patients with ARTIs, without compromising patients' clinical outcomes.[5] A budget spent wisely on point of care tests (POCTs) is better than just indiscriminate prescribing of antibiotics. Allocating healthcare budgets toward point-of-care diagnostic tools can prove to be more cost-effective by reducing unnecessary drug use and resistance-related costs.

To optimize antibiotic use in children, regional stewardship frameworks must be built or a sustainable change. Clinicians must prescribe judiciously, hospital leadership must enforce stewardship protocols, and national policies must embed pediatric stewardship principles into primary care supported by the World Health Organization (WHO) AWaRe framework and should adapt to local resistance patterns.[6]

Saad B. Toufeeq[1-3]*, Nabeel Ahmad[1-3]

[1]Department of Paediatrics, Lahore General Hospital, Lahore, Pakistan
[2]Postgraduate Medical Institute, Lahore, Punjab, Pakistan
[3]Azra Naheed Medical College, Lahore, Pakistan

***Correspondence to**
Dr. Saad B. Toufeeq,
E-mail: saadtoufeeq345@gmail.com

REFERENCES

1. Duan L, Liu C, Wang D, Lin R, Qian P, Zhang X, et al. The vicious cycle of the public's irrational use of antibiotics for upper respiratory tract infections: A mixed methods systematic review. Front Public Health. 2022;10:985188.
2. Maarouf L, Amin M, Evans BA, Abouelfetouh A. Knowledge, attitudes and behaviour of Egyptians towards antibiotic use in the community: can we do better? Antimicrob Resist Infect Control. 2023;12(1):50.
3. Donà D, Barbieri E, Daverio M, Lundin R, Giaquinto C, Zaoutis T, et al. Implementation and impact of pediatric antimicrobial stewardship programs: a systematic scoping review. Antimicrob Resist Infect Control. 2020;9(1):3.
4. Xu AXT, Brown K, Schwartz KL, Aghlmandi S, Alderson S, Brehaut JC, et al. Audit and Feedback Interventions for Antibiotic Prescribing in Primary Care: A Systematic Review and Meta-analysis. Clin Infect Dis. 2025;80(2):253-62.

5. Tolley A, Bansal A, Murerwa R, Dicks JH. Cost-effectiveness of point-of-care diagnostics for AMR: a systematic review. J Antimicrob Chemother. 2024;79(6)1248-69.
6. Wesangula E, Chizimu JY, Mapunjo S, Mudenda S, Seni J, Mitambo C, et al. A Regional Approach to Strengthening the Implementation of Sustainable Antimicrobial Stewardship Programs in Five Countries in East, Central, and Southern Africa. Antibiotics (Basel). 2025;14(3):266.

Cite this article as: Toufeeq SB, Ahmad N. From awareness to accountability: strengthening pediatric antibiotic stewardship in low-resource outpatient setting. Int J Contemp Pediatr 2026;13:365-6.