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Optimise community antibiotic use to tackle antimicrobial resistance in Egypt

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About the research

Antimicrobial resistance (AMR) is a growing public health threat in Egypt and other Low and Middle Income Countries (LMIC), driven by high levels of antibiotic consumption and inappropriate use. Egypt and other governments are tackling this threat through National Action Plans (NAP) on AMR. Addressing community use is paramount, as across the world most antibiotics are used outside hospital settings.

This research investigated sociocultural drivers of antibiotic use in Badr City (Cairo) and El-Fath City (Assiut) using mixed methods. It included literature and policy reviews, participatory mapping, interviews and focus groups (n=74), pharmacy observations (n=640), and customer exit interviews (n=109). Workshops (n=3) were then convened with local and national stakeholders to share study findings and co-produce policy recommendations. Stakeholder-informed evidence will support government efforts to optimise use of antibiotics in Egypt and similar community settings worldwide.

We presented our key findings to groups of physicians, pharmacists, members of the public, and national policy makers in three interactive workshops. In the first two workshops, participants reviewed key findings under eight research themes and proposed recommendations for change. These were grouped into eight policy target areas and presented to national AMR policy makers at a third workshop, together with relevant supporting evidence from existing literature. Participants then ranked the recommendations according to perceived priority and feasibility; the four areas given highest priority are presented in this briefing.

Policy recommendations

We summarise the recommendations detailed in our full Policy Brief below.

Physician education on AMR should be prioritised, including:

- Continuous professional development in antibiotic prescribing, regular updates on clinical guidelines, and integration of pharmacology in clinical practice.
- Mandatory periodic competency tests including AMR and antibiotics.

Policies for prescribing antibiotics should:

- Use standardized antibiotic prescription forms and/ or electronic system.
- Include preliminary or confirmed diagnosis on antibiotic prescriptions.
- Prescribe antibiotics by generic name.

Policies for dispensing antibiotics should:

- Restrict dispensing of broad-spectrum (WHO Watch & Reserve categories) antibiotics without prescription.

The Egyptian health system should:

- Create an online resource to share real-time data on antibiotic supplies.
- Require clear labelling of antibiotic products & prohibit use of misleading marketing such as ‘intestinal antiseptic’.
- Improve access to affordable, quality primary healthcare to reduce reliance on non-prescribed antibiotics.

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Key findings

1. Pharmacies are the first point of community care due to speed, convenience and cost. Over-the-counter antibiotic purchasing avoids having to pay consultation fees or the time and expense of seeking limited government health care. 65% of 640 observed purchases at pharmacies did not present a prescription. Only 37.6% of these purchases were an AWaRe Access category antibiotic.

2. The public views antibiotics as powerful, quick-acting medicines suitable for treating many illnesses, including ones likely to be viral or self-limiting. Antibiotics are often requested by name but Metronidazole (Flagyl) is marketed as an 'intestinal antiseptic' and hence not recognised as an antibiotic. Antibiotic overuse is recognised to reduce effectiveness, but resistance is generally understood as the human body becoming unresponsive to antibiotics rather than the microbes.

3. Physicians in primary care prescribe antibiotics based on clinical symptoms due to time constraints, limited diagnostics and patient financial barriers. Older antibiotics are perceived as less effective; and outdated clinical conventions result in clinically unnecessary prescribing and provision of inaccurate information to patients.

4. Market competition in the private sector and commercial influences, including pharmaceutical marketing, brand loyalty, and supply shortages, influence prescribing and dispensing behaviour.



Further information

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