Putting Every Patient in the Antibiotic Stewardship Loop

Through a Community-Connected Antibiotic Passport

Author: Raksha Kochi | Co-authors: Vijay Kumar A, Aparna Priya M

What if every patient carried a missing piece of the global AMR response?

Introduction and Objectives

Fragmented care, non-prescription access and poor recall of previous treatment leave patients outside the antibiotic information loop. ABX-PASS proposes a patient-held paper and digital record connecting communities, prescribers, laboratories and pharmacists.

Antibiotic eXposure Passport for Patient Action, Safety and Stewardship
Continuity of information • Informed participation • Responsible antibiotic use

Methodology | Proposed pilot

Co-design with patients, caregivers, clinicians, clinical microbiologists, pharmacists and public-health representatives. Enrol adults receiving systemic antibiotics during a six-month hospital pilot; prescribers and pharmacists update each encounter.

Record: drug, indication, prescriber, dates, completion, allergies/adverse reactions, diagnostic and culture results, and WHO AWaRe category.

Support: QR-linked multilingual education and reminders; pharmacist counselling, documentation of non-prescription requests and referral for clinical assessment.

Evaluation and anticipated outcomes

Implementation: adoption, completeness, cross-setting use, acceptability and feasibility.
Effectiveness: self-medication, repeat/duplicate exposure, guideline-concordant prescribing, Watch/Reserve use, diagnostic testing, adherence and knowledge.

Compare pre/post findings and interview users about trust, privacy, workload and inclusion. A traceable antibiotic history may support review and avoid duplication; these benefits remain to be evaluated.

Challenges: incomplete records, interoperability, privacy, workload and reuse of old prescriptions for self-medication.

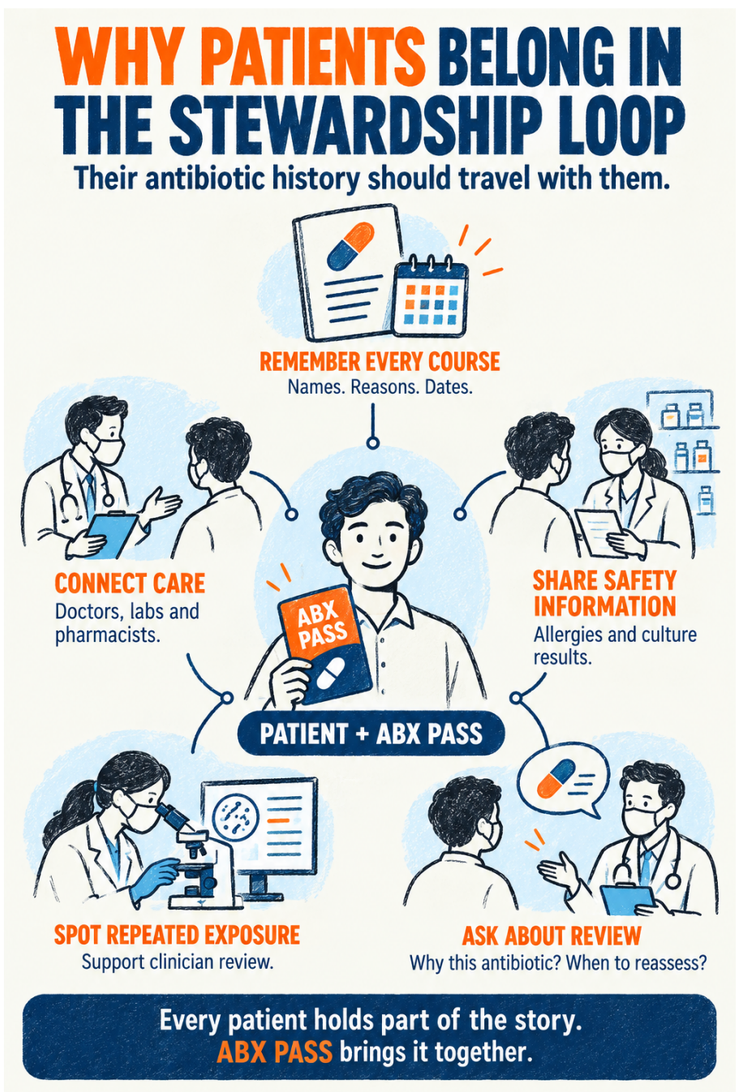


Figure 1. Patient participation in antibiotic stewardship. ABX PASS connects antibiotic history, safety information and treatment-review questions across healthcare encounters.



Figure 2. Technology and AI for informed patient participation.
Proposed multilingual support, portable records, reminders and clinician-reviewed alerts, with paper and SMS options for accessibility.



Figure 3. From India to Geneva: priorities for collaboration. Six priorities connect frontline experience and patient participation with equitable access, implementation partnerships and measurable action.



	SHORT TERM | 0-6 MONTHS DESIGN & FEASIBILITY	MEDIUM TERM | 6-18 MONTHS CONNECT & EVALUATE	LONG TERM | 18-36 MONTHS SCALE & SUSTAIN
STUDY DESIGN	Patient co-design; mixed-methods hospital pilot; baseline and follow-up.	Controlled evaluation across clinics and pharmacies; supervised AI validation.	Multicentre evaluation of sustained effects, equity and integration.
INVESTMENT	Development, translation, privacy controls, training and staff time.	Partner onboarding, messaging support and evaluation.	Integration, maintenance, governance and recurring funding.
OUTCOME MEASURES	Adoption; record completeness; usability; cost per enrolled patient.	Prescribing appropriateness; self-medication; cross-setting use; incremental cost per appropriate encounter.	Sustained participation; equitable reach; safety; cost-effectiveness and budget impact.
PROGRESSION GATE	Feasible, usable and acceptable to patients and staff.	Demonstrated benefit with acceptable safety and workload.	Affordable, equitable and sustainable expansion.

Figure 4. Proposed ABX PASS implementation and evaluation roadmap. A phased 36-month framework outlining study design, investment priorities, outcome measures and criteria for expansion.

Conclusion

A patient-held antibiotic history can connect fragmented encounters and turn AMR awareness into measurable stewardship action. ABX-PASS proposes shared accountability beyond hospital walls.

Interested in collaboration?
Dr Raksha Kochi
raksha.k@manipalhospitals.com
+91 8147744195

Scan to connect

References

1. Nampoothiri V, Mbamalu O, Surendran S, Bonaconsa C, Pennel T, Boutall A, et al. The elephant in the room: exploring the influence and participation of patients in infection-related care across surgical pathways in South Africa and India. Health Expect. 2023;26(2):892-904. doi:10.1111/hex.13715.
2. Chow A, Guo H, Ho A, Ng TM, Lye DCB. Empowered hospitalized patients are involved in shared decision making on antibiotic therapy: a quantitative analysis. J Hosp Infect. 2024;151:109-15. doi:10.1016/j.jhin.2024.07.006.
3. Indian Council of Medical Research. Antimicrobial stewardship program guideline. New Delhi: ICMR; 2018.
4. World Health Organization. Antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries: a WHO practical toolkit. Geneva: WHO; 2019.
5. World Health Organization. The WHO AWaRe (Access, Watch, Reserve) antibiotic book. Geneva: WHO; 2022.