

AMR Sameeksha*

Highlights

- Inclusion of AMR in training programmes for community health workers
- Antimicrobial susceptibility of community-acquired uropathogenic *Escherichia coli* across LMICs
- Updated WHO AWaRe classification 2025
- Country preparedness for the introduction and appropriate use of antibiotics
- Strengthening primary health care-oriented health systems to address AMR
- Independent Panel on Evidence for Action against AMR (IPEA) founding document

1) Awareness and understanding

Inclusion of antimicrobial resistance in training programmes for community health workers: technical brief

- Highlights the role of community health workers (CHW) in AMR containment through community engagement, education, infection prevention and control, water, sanitation and hygiene, and appropriate antimicrobial use.
- Outlines AMR-related tasks expected from CHW and emphasizes tailored training and supportive supervision.

WHO | Publication | 8 September 2025 | [Online link](#)

Be Antibiotics Aware partner toolkit

- Aims to improve antibiotic prescribing and use among target consumer and healthcare professional audiences.
- Provides educational materials – social media and print resources, graphics, videos, stewardship resources and newsletters – to promote appropriate antimicrobial use and raise awareness.

CDC | Toolkit | 14 August 2025 | [Online link](#)

Empowering the youth frontline in the fight against antimicrobial resistance

- Highlights the role of youth as key change agents and stewards for addressing AMR.
- Details youth-led initiatives shaping the fight against AMR – policy brief, toolkits and digital games.

World Economic Forum | Youth perspectives | 14 August 2025 | [Online link](#)

Ever wondered how your glass of milk might be linked to superbugs?

- Explores how the role of poor hygiene, overcrowding, and unregulated antibiotic use in India's small dairy farms contribute to AMR.
- Highlights lack of veterinary oversight and awareness, and risk posed by multi-drug-resistant pathogens – linking everyday milk consumption to the global AMR crisis.

Superheroes Against Superbugs | Blog | 11 August 2025 | [Online link](#)

2) Laboratories and surveillance

Mapping antimicrobial susceptibility of community-acquired uropathogenic *Escherichia coli* across low, middle and high-income countries highlights significant differences: insights for empiric treatment

- Comparative analysis of the antimicrobial susceptibility of *E. coli* isolated from simple cystitis cases across 37 centres in 13 countries, shows marked geographical differences in AST patterns supporting the need for localized antibiograms and tailored empirical therapy.
- Reinforces the usefulness of nitrofurantoin and fosfomycin as first-line agents and discourages the use of fluoroquinolones and third-generation cephalosporins.

IJID Regions | Article | 17 July 2025 | [Online link](#)

Antibiotic resistance patterns of environmental bacteria from sewage water in Vellore, India: isolation, virulence analysis, and characterization

- Investigates prevalence and antibiotic resistance patterns of bacterial isolates obtained from sewage receiving hospital wastewater in Vellore, Tamil Nadu.
- Highlights sewage as a reservoir of MDR bacteria and emphasizes the need for integrated environmental AMR surveillance to prevent transmission to humans.

Frontiers in Microbiology | Original Research Article | 12 August 2025 | [Online link](#)

Enhancing access to antimicrobial resistance diagnostics for the marginalised: challenges and opportunities of point-of-care technologies

- Spatial analysis on access to diagnostics and laboratory assessments from the EquityAMR project in Himachal Pradesh and Bihar highlights disproportionate diagnostic services and critical gaps.
- Argues for strengthening traditional culture-based microbiology facilities in sub-district facilities to improve access to diagnostics.

Journal of Global Antimicrobial Resistance | Short Communication | 9 July 2025 | [Online link](#)

Genetic diversity and antifungal resistance in *Candida albicans* from VVC cases in Indian women

- Assesses genetic diversity and antifungal resistance (AFR) patterns of *C. albicans* isolated from 170 patients with vulvovaginal candidiasis in Odisha.
- Highlights significant genetic variability and widespread AFR, especially to azole-based treatments – underscoring the need for regular surveillance.

BMC Microbiology | Research | 23 August 2025 | [Online link](#)

Molecular profiling of antibiotic resistance genes in acute and chronic irreversible pulpitis: a cross-sectional study

- Estimates the prevalence of β -lactam and tetracycline resistance genes in cases of irreversible pulpitis from Mangalore, Karnataka.
- Highlights need for robust antibiotic stewardship and continuous AMR surveillance in endodontic practice.

Journal of Conservative Dentistry and Endodontics | Original article | 1 August 2025 | [Online link](#)

Prevalence and antimicrobial susceptibility patterns of non-fermenting gram-negative bacteria causing lower respiratory tract infections: a retrospective study

- Assesses AMR patterns in non-fermenting gram-negative bacteria causing lower respiratory tract infections in Bhubaneswar.
- Reports high sensitivity to tigecycline in *Acinetobacter baumannii* and *Burkholderia cepacia*, and Aztreonam sensitivity in *Pseudomonas aeruginosa*.

Cureus | Article | 27 July 2025 | [Online link](#)

Antibiotic resistance, biofilm formation, and virulence gene profiling of multidrug-resistant *Pseudomonas aeruginosa* isolates from a multi-speciality hospital in Sikkim

- Assesses resistance patterns, biofilm formation, and virulence-associated genes in MDR *P. aeruginosa* isolates.
- Reports that isolates harbour several virulence-associated genes and are fully susceptible to colistin, suggesting the need for continued surveillance and antimicrobial stewardship.

Microbial Pathogenesis | Article | 7 August 2025 | [Online link](#)

Phenotypic characterisation and prevalence of carbapenem-resistant Enterobacterales in a tertiary care centre in Bihar India

- Determines antibiotic susceptibility patterns and phenotypic class distribution of carbapenem-resistant Enterobacterales (CRE).
- Reveals high prevalence of CRE in the state with concerning AMR patterns, highlighting the need for antibiotic stewardship, infection control, and targeted therapy.

Scientific Reports | Article | 26 August 2025 | [Online link](#)

3) Infection prevention and control

Sameeksha – Infection Prevention and Control | volume 21

- Reduction of central line-associated bloodstream infections rates in a tertiary care trauma hospital in India
- Guidance for sterilization and high-level disinfection of reusable medical devices
- Implementation of a SMART-based infection control plan in an emergency intensive care unit
- Non-adherence to surgical antibiotic prophylaxis guidelines in a developing country
- Campaign resources for World Patient Safety Day 2025

WCO India | Newsletter | July 2025 | [Online link](#)

4) Optimise use of antimicrobials

The selection and use of essential medicines, 2025: WHO AWaRe (Access, Watch, Reserve) classification of antibiotics for evaluation and monitoring of use

- Biennial update of the WHO AWaRe classification of antibiotics by the WHO Expert Committee on Selection and Use of Essential Medicines.
- AWaRe classification is a tool to monitor antibiotic consumption, defining targets and monitoring the effects of stewardship policies to optimize antibiotic use and curb antimicrobial resistance.

WHO | Technical document | 5 September 2025 | [Online link](#)

Country preparedness for the introduction and appropriate use of antibiotics

- Aimed at improving antibiotic access, this operational guideline helps countries plan the introduction of antibiotics into their health system.
- Targeted at country-level decision-makers, regulatory authorities, healthcare professionals, and program managers for developing detailed, costed plans integrated with national AMR strategies.

WHO | Operational guidance | 3 September 2025 | [Online link](#)

Importance of hospital-specific antibiotic policy for ensuring maternal quality of care in India: a narrative review

- Integrates national and international guidelines, local resistance data, epidemiological studies, and stewardship interventions related to maternal infections, and presents treatments/stewardships interventions for obstetrics.
- Highlights the importance of hospital-specific antibiotic policies for optimizing antibiotic use in obstetrics.

Journal of Family Medicine and Primary Care | Review article | 21 July 2025 | [Online link](#)

Correct sepsis classification – a must for antimicrobial stewardship: a longitudinal observational study

- Assesses the distribution of sepsis categories and use of empirical antibiotics as per AWARe classification in a tertiary care hospital in Rishikesh.
- Shows predominant empirical use of Watch group antibiotics (72%), with high use of ceftriaxone and piperacillin-tazobactam.

World Journal of Critical Care Medicine | Article | 9 September 2025 | [Online link](#)

Human vaginal *Lactobacillus Jensenii*-derived (-)-Terpinen-4-ol restores antibiotic sensitivity by inhibiting efflux pumps in drug resistant *E. coli* and *K. pneumoniae*

- Explores integration of *Lactobacillus*-derived efflux pump inhibitor with conventional antibiotics to enhance the efficacy of treatments against multi-drug-resistant superbugs.
- Highlights the potential of (-)-Terpinen-4-ol to enhance the efficacy of existing antibiotics to address AMR infections.

Scientific Reports | Article | 29 August 2025 | [Online link](#)

5) Research, innovations and finance

Novel macrolide antibiotic nafithromycin for tackling emerging resistance in respiratory pathogens encountered in India

- Details India's first DCGI approved macrolide antibiotic with superior efficacy against multi-drug respiratory pathogens.
- Highlights the benefits of nafithromycin over other medications, its development, mechanism of action, structure–activity relationships, clinical efficacy, drug delivery strategies, strategies to combat AMR and future perspectives.

Current Microbiology | Article | 20 August 2025 | [Online link](#)

Evaluation of the rapid lateral flow assay (LFA) for detection of five major carbapenemase enzyme families in genotypically characterised bacterial isolates

- Assesses a LFA for rapid identification of carbapenemase production in cultured bacteria.
- The robust, cost-effective LFA with a short turnaround time can support rapid diagnosis to practice antimicrobial stewardship.

Indian Journal of Medical Research | Minireview | 8 August 2025 | [Online link](#)

Exploring the potential of photodynamic therapy in overcoming multidrug resistance: mechanisms, synergies, and clinical advancements in infectious diseases

- Reviews multidrug resistance (MDR) and potential of photodynamic therapy (PDT) in addressing AMR.
- Concludes that PDT offers a promising and novel solution to address localized MDR infections.

Frontiers in Cellular and Infection Microbiology | Mini review article | 14 August 2025 | [Online link](#)

An explainable machine learning pipeline for prediction of antimicrobial resistance in *Pseudomonas aeruginosa*

- Presents a machine learning based model that predicts – whether a genome belongs to antibiotic-resistant or susceptible *P. aeruginosa*, and if resistant which antibiotic it is resistant to.
- Highlights this framework as a scalable and rapid strategy to augment resistance prediction in *P. aeruginosa*.

Bioinformatics Advances | Journal article | 22 August 2025 | [Online link](#)

Integrating computational approaches to uncover β -lactamase-associated resistance in diarrheagenic *Escherichia coli* from pediatric patients

- Evaluates prevalence of β -lactamase genes in diarrheagenic *E. coli* isolates from children and emphasizes the importance of using molecular insights to inform empirical treatment choices.
- Bridges clinical microbiology, computational biology and public health – offering a scalable model for investigating resistance in diverse contexts.

Scientific Reports | Article | 22 August 2025 | [Online link](#)

Inter- and intra-bacterial strain diversity remains the “elephant in the (living) room”

- Reviews cases of broadly used *A. baumannii* strains and their genetic and phenotypic differences.
- Highlights the risk and potential of high diversity within isolates and microevolution of *A. baumannii* strains.

npj antimicrobials and resistance | Review | 25 July 2025 | [Online link](#)

6) Collaborations

Strengthening primary health care-oriented health systems to address AMR

- Describes 8 priority AMR interventions for mainstreaming AMR into primary healthcare-oriented health systems; and includes an AMR and PHC country scoping tool and stakeholder consideration list.
- Building on the WHO people-centred approach to addressing AMR, it aims to strengthen primary care and bolster community engagement for AMR.

WHO | Technical document | 9 September 2025 | [Online link](#)

Independent Panel on Evidence for Action against Antimicrobial Resistance (IPEA) Founding Document, draft 0

- Founding document for establishment of the IPEA mandated by the Political Declaration of the High-level Meeting on AMR at the 79th Session of the UN General Assembly in September 2024.
- Includes scope, objectives, functions, institutional and financial arrangements, and evaluation of the panel.

Quadrupartite Joint Secretariat on AMR | Technical document | 19 August 2025 | [Online link](#)

WHO rapid risk assessment – hypervirulent *Klebsiella pneumoniae*, Global v.1

- The assessment aims to assess the current risk of AMR related to the emergence and sustained transmission of Hypervirulent *Klebsiella pneumoniae* carrying carbapenemase genes at the global level.
- Presents results of the global assessment to contribute to preparedness for and response to health emergencies.

WHO | Rapid Risk Assessment | 23 May 2025 | [Online link](#)

Summary report of the online survey on key elements to guide the development of the founding document of the IPEA-AMR

- Presents findings of an online survey to inform the establishment of the Independent Panel on Evidence for Action against AMR (IPEA), mandated to strengthen global AMR response.
- Captures stakeholder perspectives to shape the panel's scope, functions, and governance.

Quadrupartite Joint Secretariat on AMR | Technical document | 29 August 2025 | [Online link](#)

Embedding animal welfare in the IPEA mandate: a One Health imperative for curbing antimicrobial resistance

- Highlights the role of animal welfare in reducing the need for antimicrobials and addressing AMR.
- Provides a background and policy recommendations to integrate animal welfare in the work of IPEA.

AMR MSPP / Action Group on Animal Welfare – AMR Nexus | Policy brief | 3 September 2025 | [Online link](#)

Climate change and the global food chain: a catalyst for emerging infectious diseases?

- Examines the impact of climate change on agriculture, food supply systems, and infectious disease.
- Highlights the public health importance of the One Health approach and addressing climate change as a threat for zoonotic and food-borne illnesses.

International Journal of Emergency Medicine | Review | 11 August 2025 | [Online link](#)

Quotable quote

*The fight against AMR demands bold thinking and sustained commitment.
Vaccines must be part of that conversation.*

– [Professor Gordon Dougan](#), President of the Microbiological Society

**Sameeksha* is a Hindi word, meaning "review". Publications and resources on AMR (with a bulleted summary and online link) are compiled according to the strategic priorities of India's National Action Plan on Antimicrobial Resistance. Kindly note, inclusion of publications and resources in this review/compilation does not imply an endorsement by WHO.