**Supplementary Table:** Free resources for Antimicrobial Stewardship (AS) Program implementation

| **Item** | **Language** | **Where to find it** | **Notes** |
| --- | --- | --- | --- |
| **Program self-assessment tools** | | | |
| * Antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries: a WHO practical toolkit | * Spanish | * <https://apps.who.int/iris/bitstream/handle/10665/335947/9789240003057-spa.pdf?sequence=1&isAllowed=y> | * Comprehensive guide for implementation of AS programs in low- and middle-income countries. * Includes:   + How to perform a gap analysis   + Approach to antibiotics (AWaRe classification)   + How to implement AS interventions   + How to assess the impact of the AS program   + Contains indicators with questions for “basic” and “advanced” core elements |
| * English | * <https://apps.who.int/iris/handle/10665/329404> |
| * WHO policy guidance on integrated antimicrobial stewardship activities | * Spanish | * <https://www.who.int/es/publications/i/item/9789240025530> | * Guide for implementation of AS activities at the national and facility level. * Contains self-assessment tools for the national and hospital levels (assesses core elements such as leadership support, AS actions, surveillance, etc.). |
| * English | * <https://www.who.int/publications/i/item/9789240025530> |
| * ASP in Adult Intensive Care Units in Latin America | * English/Spanish (upon request to first author) | * Supplementary material in Quirós RE et al; PROA-LATAM Project Group. Infect Control Hosp Epidemiol. 2022, PMID  33829982 | * This self-assessment tool was adapted from the CDC core elements to the Latin America region. * Provides a score (0-100) * Validated with data on antibiotic use and multidrug resistance organisms (i.e., higher score correlated with better antibiotic use, less antibiotic consumption, and lower incidence of multidrug resistant organisms) |
| **Educational resources for the ASP** | | | |
| * Agency for Healthcare Research and Quality Safety Program for Improving Antibiotic Use | * English | * Acute care hospital Toolkit:   <https://www.ahrq.gov/hai/tools/antibiotic-stewardship/index.html>   * Long term care Toolkit:   <https://www.ahrq.gov/antibiotic-use/long-term-care/index.html> | * National program developed to expand ASP implementation in the United States. * Goal is to foster antibiotic stewardship as a patient safety event. * Directed to those leading AS activities. * PowerPoint slides with facilitator guides. * Covers:   + How to develop a culture of safety around antibiotic prescribing   + How to develop and improve an ASP   + Applying the 4 moments framework for antibiotic prescribing   + Best practices for the diagnosis and treatment of infectious diseases |
| * Toolkit to Enhance Nursing and Antibiotic Stewardship Partnership | * English | * Available at:   <https://www.hopkinsmedicine.org/antimicrobial-stewardship/nursing-toolkit/index.html> | * Toolkit to implement nurse-driven antibiotic stewardship activities. * Includes:   + Implementation checklist and framework   + Educational modules for nurses (Urinary tract infections and urine cultures, pneumonia, and respiratory cultures, *Clostridioides difficile* testing, documentation of penicillin allergy)   + Algorithms to optimize urine and respiratory cultures   + Algorithms to optimize allergy history |
| * Curso para la implementación y el fortalecimiento de los Programas de Optimización de Antimicrobianos (PROA) | * Spanish | * Available at:   <https://www.campusvirtualsp.org/es/curso/curso-para-la-implementacion-y-el-fortalecimiento-de-los-programas-de-optimizacion-de> | * Periodic training by PAHO (usually every year) * Five modules over 7 weeks |
| **ASP technological resources** | | | |
| *Data tracking* | | | |
| * PROAnet | * Spanish | * Available at:   [www.proanet.org](http://www.proanet.org) | * Free secured platform available for all countries. * One-step registration process * User-friendly, provides an efficient way to visualize data and track it over time * Structured to house:   + Self-assessment   + Point prevalence survey data for antimicrobial use   + Antimicrobial consumption data   + Incidence of multidrug resistance organisms   + Crude mortality   + Allows tracking data over time   + Allows benchmarking to other hospitals in the country |
| *Clinical decision support tools* | | | |
| * PROAnet app | * Spanish | * Available in Google play and App Store | * Free app * Contains:   + Clinical guidelines that can be adapted to local epidemiology   + Antimicrobial information (e.g., dosing, drug interactions, safety in pregnancy, side effects)   + Renal and liver function calculator   + Allows uploading of local antibiograms |
| **General information on antimicrobial resistance per country** | | | |
| * Latin American Network for Antimicrobial Resistance Surveillance (Pan American Health Organization established network) | * Spanish | * Available at:   <https://www.paho.org/es/temas/resistencia-antimicrobianos/red-latinoamericana-caribe-vigilancia-resistencia-antimicrobianos>  and at:  https://www3.paho.org/data/index.php/es/temas/resistencia-antimicrobiana.html | * One of the largest regional AMR surveillance networks in the world (over 750 laboratories within the region have reported AST data on a total of ~2,633,000 isolates). * It includes data from 20 countries. Aggregates level standardized data on antibiotic resistance from both community and nosocomial pathogens is collected and reported annually, on number of priority pathogens-drugs combination. |
| * English | * Available at:   <https://www.paho.org/en/topics/antimicrobial-resistance/latin-american-network-antimicrobial-resistance-surveillance>  and at:  https://www3.paho.org/data/index.php/en/mnu-topics/antimicrobial-resistance.html |
| **Other implementation guides** | | | |
| * Proposed roadmap for the adaptation and implementation of WHO policy guidance on integrated antimicrobial stewardship in the human health sector | * Spanish | * <https://www.paho.org/es/documentos/propuesta-hoja-ruta-para-adaptacion-e-implementacion-politica-oms-sobre-actividades>) | * This document provides a roadmap for implementation of the WHO policy on integrated activities to optimize antimicrobial use in human health * The roadmap includes using existing resources, gap analysis, multidisciplinary work, establishing goals and assessing needed resources |
| * English | * <https://www.paho.org/en/documents/proposed-roadmap-adaptation-and-implementation-who-policy-guidance-integrated> |
| * Core Elements of Human Antibiotic Stewardship Programs in Resource-Limited Settings | * English | * <https://www.cdc.gov/antibiotic-use/healthcare/pdfs/stewardship-resource-limited-508.pdf> | * Based on the CDC Core elements, this guide outlines “basic” and “advanced” AS activities for implementation based on local resources |
| * Recommendations for Implementing Antimicrobial Stewardship Programs in Latin America and the Caribbean: Manual for Public Health Decision-Makers | * English | * https://iris.paho.org/handle/10665.2/49645 | * This manual examines the concept and benefits of AS programs, and describes their major components: leadership, human resources, microbiology laboratories, and robust pharmaceutical services. * Also includes AS strategies in the ambulatory setting, including legislation around over-the-counter medications. |