

# Initiative for Sequential Antibiotic Therapy: Enhancing Antimicrobial Stewardship in Hospitalized Patients

Martínez Marcos JM, Tamboleo Sánchez IJ, Fernández Vela J, Lago Ballester F, Mira Sirvent MC, Conesa Nicolas E  
 Hospital General Universitario Santa Lucía, Hospital Pharmacy, Cartagena (Murcia, Spain)

## What was done?



The initiative promoted the adoption of **sequential antibiotic therapy** among hospitalized patients undergoing intravenous treatment for more than 3 days

- ✓ Leveraging the **Wise Antimicrobial Stewardship Support System® (WASPSS®)** and detailed analysis of **medical records**.
- ✓ Choose **eligible patients** based on:
  - Clinical stability
  - Infection 
  - Oral bioavailability 
  - Antibiotic suitability 

## Why was it done?



- ✓ The initiative started in October 2022 as a response to the challenges associated with prolonged intravenous antibiotic use.
- ✓ The **overarching goals** were to enhance patient care, mitigate unnecessary intravenous antibiotic prescriptions, and foster a culture of responsible antimicrobial stewardship.
- ✓ Recognizing the need for a systematic and collaborative approach, the **Antimicrobial Stewardship Program (ASP) pharmacist** played a central role in implementing interventions across various medical specialties.

## How was it done?



- ✓ WASPSS® detects every patient with intravenous antibiotic more than 3 days and the ASP pharmacist decides which patients will benefit from sequential therapy.
- ✓ Choosing the **recommendation criteria** is essential to have a good response from medical specialties. 
- ✗ The main **obstacles** were:
  - Establishment of refined communication routes 
  - Targeted training to the specialties which are not yet fully implemented 

## What has been achieved?



**74% of 573 alerts met the criteria for transitioning from intravenous to oral administration**

Results from the intervention: 45.1% switch to oral antibiotics, 21.2% showed no change, 17% change or finish the treatment, 16.7% of patients were discharged  
**Acceptance rate** was lower than expected (43.8%). It differs between medical specialities:

- ✓ *Higher acceptance rates:* pneumology (61.3%) and general medicine (54.4%).
- ✓ *Lowest acceptance rate:* Oncology (35,3%) general and digestive surgery (25,8%)

## What next?



This initiative serves as a beacon for responsible antibiotic management, making noteworthy contributions to patient safety, cost-effectiveness, and the overall quality of healthcare delivery. Recommending ongoing collaboration, continuous training, and regular analysis of recommendation criteria will enhance its impact.

