

IMPACT OF ORAL SEQUENTIAL THERAPY ON ANTIMICROBIAL PRESCRIBING AT A TERTIARY CARE HOSPITAL

Castillo Medrano MI, González Bartolomé J, Fernández Galán R, Ferrer Pena A, Almanchel Rivadeneyra A, Caba Hernández C, Luengo Álvarez J, Rubio Merino MI.

Complejo Hospitalario Universitario de Cáceres.

ABSTRACT NUMBER: 4CPS-140



**COP
ENHA
GEN 2025**

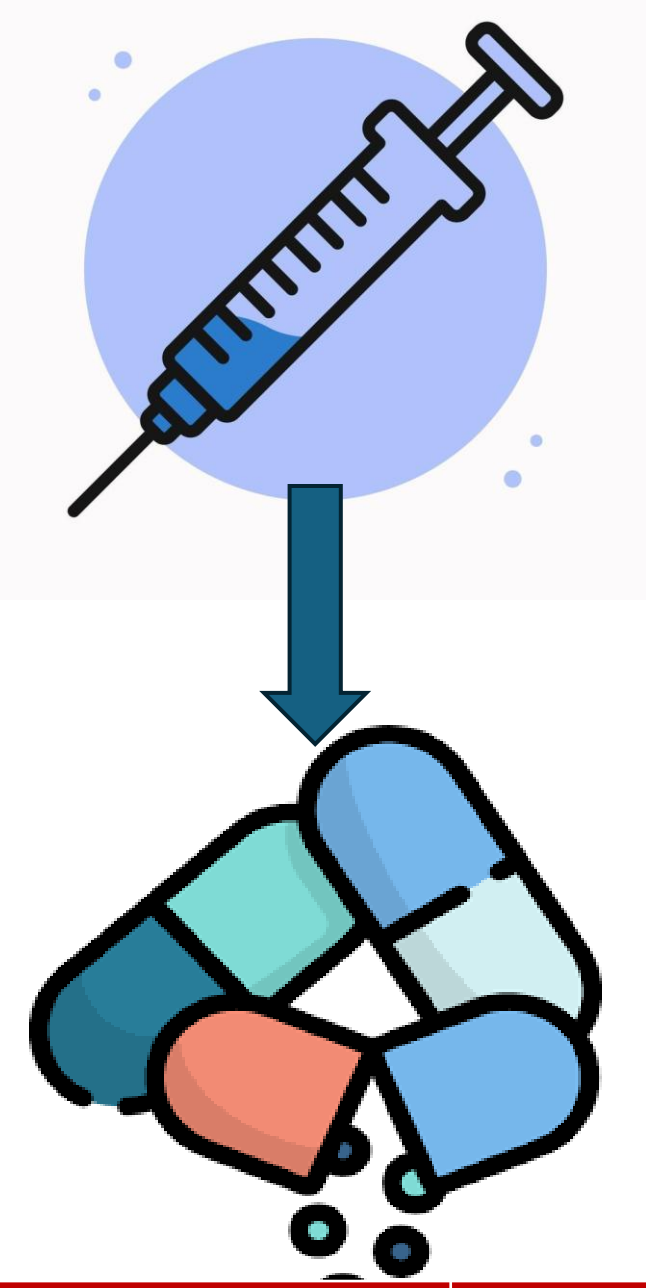


29TH EAHP CONGRESS
12-13-14 MARCH

PERSON CENTRED PHARMACY -
NAVIGATING DIGITAL HEALTH

Background and importance

- **Oral sequential therapy (OST)** → **switching parenteral antimicrobial treatment (AT)** to **oral therapy (OT)** → ↓ complications associated with parenteral administration (CAPA), hospital stay times (HST), treatment duration (TD) and costs.



Aim and objectives

- To describe OST recommendations and its acceptance degree by prescribers.
- To analyse impact on inpatient antimicrobial consumption following OST implementation.

Materials and methods

- Descriptive, observational, cross-sectional and prospective study of inpatient OST interventions (11/2023-01/2024).
- 2 periods of hospital antimicrobial consumption:
 - **pre-OST** = 11/2022-01/2023
 - **post-OST** = 11/2023-01/2024

| Inclusion criteria | Exclusion criteria | |
|--|------------------------------------|-----|
| PT: parenteral therapy | oral intolerance (OI) | -27 |
| Antimicrobials with oral bioavailability ≥ 60% | sepsis/complicated infections | -24 |
| TD ≥ 3 days | rising acute phase reactants (APR) | -16 |
| | altered consciousness | -1 |
| | fever or haemodynamic instability | -1 |
| 110 patients | 41 inpatients | |

Results

- Acceptance rate = 85.4% (35/41)

HOSPITAL DISCHARGE WITH ORAL AT FOR HOME
DISCONTINUATION OF AT, CONTINUING HOSPITALISATION
DISCONTINUATION OF AT AND HOSPITAL DISCHARGE
PT TO ORAL AT SWITCH DURING HOSPITALISATION

2,80%

8,60%

14,30%

Action of prescribers after acceptance

74,30%

Table 1. Hospital consumption of most recorded antimicrobials

| Antimicrobial | DDD/100 stays pre-OST | DDD/100 stays post-OST | Differences post-OST vs pre-OST |
|--------------------------------------|-----------------------|------------------------|---------------------------------|
| Levofloxacin 500mg Parenteral(P) | 12.47 | 11.6 | - 6.97% |
| Levofloxacin 500mg Oral(O) | 2.54 | 3.71 | + 46.06% |
| Isavuconazole 200mg(P) | 1.57 | 0.94 | - 40.13% |
| Isavuconazole 100mg(O) | 2.21 | 2.54 | + 14.93% |
| Amoxicillin/clavulanate 1/0.2g(P) | 3.51 | 4.61 | + 31.33% |
| Amoxicillin/clavulanate 875/125mg(O) | 0.75 | 1.00 | + 33.33% |

DDD: Defined Daily Dose

The most recorded antimicrobial was **levofloxacin** (29/41:70.7%), followed by **isavuconazole** and **amoxicillin/clav** (4/41:9.8% both)

Conclusion and relevance

- **High acceptance** degree: **>85%**
- **PT reduction and OT increase** → **levofloxacin** and **isavuconazole**.
- Some acceptances resulted in **AT discontinuation** and/or **hospital discharge**.
- Further studies would demonstrate more OST advantages (↓CAPA, HST and costs).

