

EVALUATION OF THE INTERVENTIONS OF A CRITICAL CARE PHARMACIST IN ADDITION TO TEAM-BASED CARE IN AN INTENSIVE CARE UNIT.

E. SERRAMONTMANY¹, P. Lalueza¹, L. Girona¹, J.C. Juarez¹, A. Robles², M. Riveiro², L. Betriu¹.

¹Vall d'Hebron University Hospital, pharmacy service, Barcelona, Spain.

²Vall d'Hebron University Hospital, Critical Care Unit, Barcelona, Spain.

Background

A pharmacist in the Intensive Care Unit (ICU) as a component of multi-professional staff may improve the care provided to patients, particularly by monitoring the drugs administered, promoting a rational use of drugs, reducing preventable adverse drug events (ADE) and identifying drug interactions and errors.

Purpose

Evaluate the interventions of a Critical Care Pharmacist (CCP) as a component of team-based care in a Spain Neurotrauma ICU (NTICU).

Materials and methods

Prospective observational study with patients admitted in a NTICU for five weeks (including only working days). CCP collaborates with a multidisciplinary team selecting the medication therapy, dosage, duration and monitoring, based on physician diagnosis and team's goals for the patient. CCP is also responsible for clinical services and electronic verification of medication orders.

Results

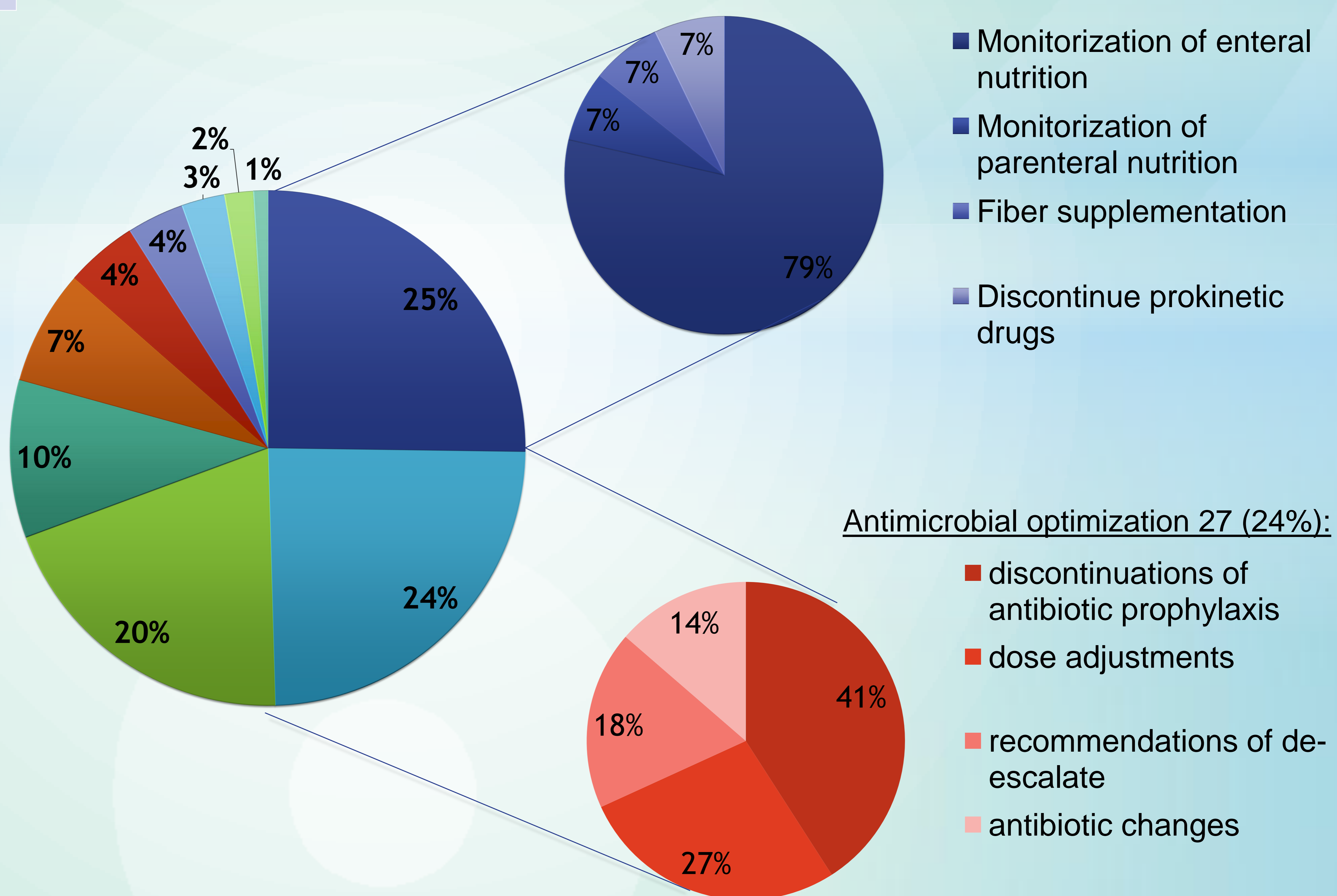
Table 1: Cause of hospitalization

| | |
|--------------------------|----|
| Polytrauma | 11 |
| Traumatic brain injury | 8 |
| Acute spinal cord injury | 6 |
| Cerebrovascular accident | 3 |
| Necrotizing fasciitis | 2 |
| Complicated post-surgery | 8 |
| Other causes | 4 |

- Out of 54 patients admitted during 5 weeks, only 42 were monitored, with a mean age of 57 years (31-85), of which 31 were men (74%). (Table 1)
- The length of stay were 14 days and there were only 5 deaths during study period.
- A total of 116 interventions were done, almost 3 interventions per patient and 5 per day of dedication of the CCP

Type of interventions:

- nutritional recommendations
- antimicrobial optimization
- drug administration
- conciliation
- intravenous-to-enteral conversion
- thromboembolism prophylaxis
- drug-related information
- discontinuation by duplicities
- stop because of ADE
- interaction



✓ According to an internal hospital protocol, 26% of interventions were considered of high clinical impact.

Conclusions

✓ As most of the interventions (69%) were related to artificial nutrition support, antimicrobial optimization management and drug administration.

✓ A check-list was designed, containing such points where the pharmacist is mostly involved, to monitor critical patients in a standardized way, making easier to detect discrepancies.