4CPS-067 EFFECTIVENESS AND SAFETY OF THE EARLY SWITCH FROM INTRAVENOUS TO ORAL ANTIBIOTICS TREATMENT IN THE PNEUMOLOGY WARD

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10.1136/ejhp-2019-eahpconf.216

Background The intravenous administration of antibiotics remains the route of choice at patient admission. Although the early-oral switch once the clinical stability has been achieved, has demonstrated to be effective and safe in other settings, its implementation in the pneumology ward has not been studied.

Purpose To assess the effectiveness and safety of an early-oral antimicrobial switch protocol in the pulmonology ward.

Material and methods Quasi-experimental study performed in a 400-bed tertiary hospital. The protocol was implemented in March 2018 and therefore two groups were identified: intervention group (March to August 2018) and control group (March to August 2017). All patients admitted to the pneumology ward were treated with intravenous antibiotics that, in turn, were available orally: therefore, amoxicillin/clavulanate, fluoroquinolones, trimethoprim-sulfamethoxazole, clindamycin and azithromycin were included.

Results A total of 200 patients were included. Main clinical outcomes are summarised in table 1.

Abstract 4CPS-067 Table 1

	Intervention group (n=100)	Control group (n=100)	P-value
Age, years	67.2 (14.3)	69.1 (13.0)	0.341
Male, n (%)	63 (63.0)	73 (73.0)	0.130
Comorbidities, n (%) hypertension	48 (48.0)	56 (56.0)	0.258
diabetes cardiopathy cardiopulmonary disease (COPD)	(25.0) 43 (43.0)	(26.0) 39 (39.0)	0.871
	62 (62.0)	66 (66.0)	0.565
			0.556
Source of infection, n (%)	19 (19.0)	18 (18.0)	0.285
pneumonia acute COPD exacerbation,	(48.0) 22 (22.0)	(55.0) 15 (15.0)	
acute asthma exacerbation,	11 (11.0)	9 (9.0)	0.330
pulmonary abscess, others			
Antibiotic treatment amoxicillin/clavulanate/fluoroquinolones	52 (52.0) 41 (41.0)	47 (47.0) 37 (37.0)	
trimethoprim-sulfamethoxazole	(1.0) 2 (2.0)	(5.0) 1 (1.0)	
clindamycinazithromycin			
Oral-switch, n (%) days until oral switch, days of intravenous treatment, total days of treatment	97 (97.0) 3.4 (2.7) 3.6 (2.7) 9.6 (4.7)	58 (58.0) 4.8 (2.3) 6.0 (3.9) 8.9 (4.0)	0.000 0.001 0.000 0.234
Length of stay, days	12.9 (20.3)	15.9 (18.6)	0.282
Days of catheterisation	9.0 (7.0)	15.9 (22.5)	0.004
Readmission in 1 month, n (%)	20/98 (20.4)	30/95 (31.6)	0.077
Catheter-related bloodstream infection, n (%)	0 (0.0)	2 (2.0)	0.155
Thrombophlebitis, n (%)	6 (6.0)	9 (9.0)	0.421
Treatment failure, n (%)	11 (11.0)	15 (15.0)	0.529

Conclusion The implementation of an early-oral antimicrobial switch protocol in the pneumology ward is effective and safe.

The early-oral antibiotic switch could decrease the days of catheterisation and the potential related adverse outcomes, with a shortening in the length of stay.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.

4CPS-068 IMPACT OF THE PHARMACEUTICAL RECOMMENDATIONS FOR THE IMPROVEMENT IN ANTIBIOTICS PRESCRIPTION

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10.1136/ejhp-2019-eahpconf.217

Background Antibiotic prescription has been increased over the past years. A misuse of them has led to an increasing antibiotic-resistant bacteria and side effects in patients. Thus, the goal of pharmaceutical recommendations is to avoid these important issues.

Purpose To analyse the pharmaceutical interventions in antibiotics prescription performed in a third-level hospital and the degree of acceptance per service.

Material and methods A retrospective, observational and descriptive study of the pharmaceutical interventions in antibiotic prescription in our hospital over a 12 month period has been done. Types of interventions were collected from the antibiotic prescription of patients.

Pharmaceutical interventions registered were: incorrect dosage (ID), excessive duration (ED), incorrect dosage regime (IDR), pharmaceutical substitution (PS), de-escalation (DE) and other interventions (OI). We also analysed the degree of acceptance of these recommendations per services.

Data were collected from an electronic prescription program (Farmatools v. 2.6)

Results During the study period, 312 antibiotic interventions have been registered and analysed.

Prescribing services were: internal medicine 56%, emergency department 11%, surgery 9%, urology 5%, oncology and haematology 6%, digestive 4%, pneumology 3%, traumatology 3%, intensive care unit 2% and otorhinolaryngology 1%.

Prescribed antibiotic families were: 154 beta-lactam antibiotics (49%), 106 fluoroquinolones (34%), 16 other antibacterials (5%), 14 aminoglycosides (5%), 13 glycopeptides (4%), seven macrolides (2%) and two sulfonamides (1%).

Pharmaceutical interventions were: ID 40%, ED 26%, IDR 22%, OI 5%, PS 4% and DE 3%.

The degree of acceptance of these recommendations was 42%. We could not evaluate if 58% interventions were accepted. Acceptance per service was: internal medicine 49%, surgery 15%, oncology and haematology 8%, urology 7%, digestive 6%, emergency department 5%, traumatology 5%, intensive care unit 3% and pneumology 2%.

Conclusion The antibiotic family with the highest number of interventions was beta-lactam antibiotics. The most frequent intervention registered was ID. Internal medicine service accepted the highest number of interventions.

Data shows that the pharmaceutical role is important in achieving the correct antibiotic prescription. The objective of