

by Epi Info 7,³ a P-value of less than 0.05 being considered as proof of significance.

Results Antibiotic consumption:

Antibiotic costs:

Abstract 4CPS-041 Table 1

	2016	2017
Total cost/1000	€ 1422.23	€ 1256.64
EMERG		

Conclusion We found a significant antibiotic consumption decrease after the implementation of the EATG. This reduction is associated with cost savings.

We noticed important changes in the antibiotic prescription profile: quinolones, third-generation cephalosporins and carbapenems prescriptions decreased (by about 30%–40%) and, simultaneously, amoxicillin clavulanic acid prescriptions increased (by less than 10%).

Levofloxacin is the main factor related to quinolones reduction. This could indicate a proper use of antibiotics in respiratory pathology.

These changes suggest an optimisation of antibiotic prescription in the Emergency Department because we observed a reduction in the use of antibiotics associated with resistance development.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. <https://www.ncbi.nlm.nih.gov/pubmed/23836188>
2. <https://www.ncbi.nlm.nih.gov/pubmed/15127367>
3. <https://www.cdc.gov/epiinfo/user-guide/statcalc/statcalcintro.html>

No conflict of interest.

4CPS-042 SWITCH FROM CLARITHROMYCIN TO AZITHROMYCIN – ONE OPTION TO OPTIMISE MACROLIDE USE THROUGH CLINICAL PHARMACISTS

C Querbach*. *Klinikum Rechts der Isar der TUM München, Pharmacy, München, Germany*

10.1136/ejhp-2019-eahpconf.191

Background Clarithromycin is a strong inhibitor especially of cytochrome-P450 3A4 in contrast to azithromycin. Clinicians may often not be aware of the importance of clarithromycin drug interactions. To date, we could not find published data directly comparing potential interactions of clarithromycin and azithromycin.

Purpose The aim of this study was to evaluate macrolide prescriptions with respect to the interaction potential of either clarithromycin or azithromycin, as well as the indication and duration of therapy by clinical pharmacists.

Material and methods From May 2018 to July 2018, a total of 48 patients for whom clarithromycin IV was ordered were identified at a German university hospital. Two clinical pharmacists independently evaluated drug therapy and performed database-based interaction checks^{1–4} of the complete medication regimens with clarithromycin according to a German validated classification system (ABDA⁵) and compared them to azithromycin. The most important antibiotic-related interventions were discussed with the physician in charge. Complete medication regimens, indications, duration of therapy, number and severity of interactions as well as the implementation of the interventions were documented.

Results Interventions were necessary in 37/48 patients. Clarithromycin was combined with 166 different medications, and, in total, 548 combinations were checked with the following results:

- In 16 patients discontinuation of clarithromycin due to missing indication.
- In eight patients switch to azithromycin IV, in four patients switch to azithromycin PO.
- In seven patients continuation of clarithromycin under close monitoring.
- in two patients interventions regarding the comedication.

A complete switch from clarithromycin IV to azithromycin would have resulted in a reduction of clinically relevant drug interactions from 168/548 to 115/548, with a shift to lower severity of interaction according to the ABDA classification system:

- Contraindicated combination: reduction from 15 to 0.
- Dosage adjustment or close monitoring needed/not recommended combination: reduction from 72 to six.
- Consider some monitoring: increase from 81 to 109.
- Generally no action needed: increase from 380 to 433.

Conclusion Involvement of clinical pharmacists helps to optimize macrolide prescription with respect to the interaction potential of either clarithromycin or azithromycin as well as the indication and duration of therapy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. <https://mediq.ch>
2. <https://about.medicinescomplete.com>, Stockleys Drug Interactions
3. <https://www.fachinfo.de>
4. <https://www.uptodate.com>, Lexicomp® Drug Interactions
5. <https://www.pharmazeutische-zeitung.de/ausgabe-252013/zum-1-juli-neue-klassifikationsstufen/>

No conflict of interest.

4CPS-043 EXTENSIVELY PANDRUG-RESISTANT PSEUDOMONAS AERUGINOSA INFECTIONS: ANALYSIS AND OUTCOMES

M Achaques-Rodriguez*, F Fernandez-Fraga, ME Martinez-Nuñez, T Molina-García. *Hospital Universitario de Getafe, Pharmacy, Getafe, Spain*

10.1136/ejhp-2019-eahpconf.192

Background The incidence of infections due to extensively drug-resistant (XDR) and pandrug-resistant (PDR) strains of *Pseudomonas aeruginosa* (PSA) is increasing, mainly due to the overuse of antibiotics.

Purpose The aim of this study was to identify and describe the infections due to XDR and PDR PSA occurring in our hospital, as well as to compare the effectiveness of monotherapy versus combination therapy.

Material and methods Observational, retrospective and longitudinal study was performed. Patients with positive cultures in diagnostic samples for XDR and PDR PSA from March 2009 to August 2018 were included. Magiorakos criteria were used to define XDR and PDR PSA. Only infections with directed treatment with systemic, inhaled, intratracheal antibiotics or a combination were considered. Data were collected from hospital electronic records. Comorbidity was measured by calculating the Charlson Comorbidity Index (CCI) at the beginning of hospitalisation. Previous hospitalisation and previous antibiotic treatment were considered if they occurred in the 90