16 would be assessed, considering the main response variable as a 50% reduction in the Eczema Area and Severity Index (EASI), EASI-50. In addition, the intensity reduction of the pruritus according to the Numerical Rating Scale (NRS) as well as the variation in the quality of life according to the Dermatology Life Quality Index (DLQI).

Results The baseline EASI, NRS and DLQI values were respectively: 23, 6 and 23. Three days after first administration, the patient suffered from headache, low-grade fever and intense itching. One month later lesions were clearer and smaller, but the patient developed intense conjunctivitis requiring treatment with levocabastine. The EASI, NRS and DLQI values at week 16 were respectively: 7, 8.3 and 9. The EASI percentage reduction was 66%. Three months' later conjunctivitis persisted, not improved with antihistamines, and topical corticosteroids. In addition, the patient referred episodes of anxiety and erectile dysfunction. These AEs were reported to the Pharmacovigilance Centre. All this caused treatment discontinuation.

Conclusion Clinical improvement was evident, also quantitatively according to the used scales. Post-injection EAs are common in most patients. In this case, conjunctivitis was limiting and forced treatment suspension. EAs not described in the literature previously were found and associated with dupilumab, given the temporal match. According to subsequent experience with other patients, prophylaxis with artificial tears can be effective in the prevention of conjunctivitis, showing that dupilumab is an effective alternative in patients refractory to other therapies.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Thanks to the Dermatology Department for its collaboration.

No conflict of interest.

4CPS-040 OPTIMISING OF ANTIBIOTIC PROPHYLAXIS AT CARDIAC SURGERY CLINIC

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10.1136/ejhpharm-2019-eahpconf.189

Background Antibiotic prophylaxis (AP) plays an important role in the prevention of surgical site infections in cardiac surgery. Despite the availability of many guidelines, the daily practice of AP is still far from optimal.

Purpose The first aim of the study was to evaluate the management of rational AP by means of a pre-intervention audit. The second aim was to assess whether the clinical practice of AP was improved after pharmacists' interventions.

Material and methods Six parameters of AP (indication of AP, use of appropriate agent, proper initial dose, correct timing of first dose, perioperative redosing, adequate duration of AP) were evaluated by pharmacists during the pre-intervention audit at the Cardiovascular Surgery Clinic between March and April 2015. The data were obtained from medical records and the hospital information system. Based on the results of the pre-intervention audit and regional requirements, the local guidelines (LG) for AP were updated by microbiologists and pharmacists according to the Surgical Antimicrobial Prophylaxis Guidelines of American Society of Health-system Pharmacists. Two years' later a post-intervention audit was performed where implementation of new LG were assessed by measuring the same six parameters as the pre-intervention audit. The results of both audits were compared at 50 cardiac surgeries.

Results AP was used in all indicated surgeries during the pre-intervention and post-intervention audit. Incorrect antibiotics were used in 11 per cent of all surgeries in the pre-intervention audit, while all antibiotics were appropriately chosen in the post-intervention audit. Appropriate initial doses were given in only 2 per cent in the pre-intervention audit compared with 92 per cent in the post-intervention audit. The correct timing of AP was increased from 76 per cent to 96 per cent t after the implementation of new LG. Perioperative redosing was given in none of the indicated cases in the pre-intervention audit compared with 100 per cent after intervention. AP was prolonged for more than 48 hours in 51 per cent in the pre-intervention audit versus 18 per cent in the post-intervention audit. The number of surgeries where all parameters were in accordance with the guidelines was increased from 0 per cent to 80 per cent after interventions.

Conclusion Poor acceptance of international guidelines was identified during the pre-intervention audit. The clinical practice of AP was improved after pharmacists' interventions.

REFERENCE AND/OR ACKNOWLEDGEMENTS

Bratzler DW. Clinical practice guidelines for antimicrobial prophylaxis in surgery. *Am J Health Syst Pharm* 2013;**70**:195–283.

No conflict of interest.

4CPS-041 IMPLEMENTATION OF AN EMPIRICAL ANTIBIOTIC TREATMENT GUIDE: IMPACT ON ANTIOBITIC PRESCRIPTION IN AN EMERGENCY DEPARTMENT

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10.1136/ejhpharm-2019-eahpconf.190

Background An empirical antibiotic treatment guide (EATG) was implemented in our hospital in January 2017. This guide was developed by the antimicrobial stewardship team, composed of infectious disease specialists, microbiologists and pharmacists. The aim was to optimize the antibiotic prescription, avoiding the use of antibiotics associated with resistance development, such as quinolones, third-generation cephalosporins and carbapenems.[1,2]

Purpose To evaluate changes in the antibiotic consumption and their costs, after the EATG implementation in the Emergency Department of our hospital.

To analyse changes in the antibiotic prescription profile after this implementation.

Material and methods Retrospective study from 2016 to 2017 in a third-level hospital. The antibiotic consumption data and its costs in 2016 (pre-intervention) and 2017 (post-intervention) were compared. The data were obtained from the hospital pharmacy management programme (antibiotic treatment during the stay in the emergency room) and the primary care management programme (prescription at discharge). Antibiotic consumption is transformed into defined daily doses and adjusted to emergencies attended (EMERG) (data provided by the Admission Service).

The analysis was done in an Excel table 1 and statistical comparisons were performed with Fisher's exact test provided

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 EMERG	€ 1422.23	€ 1256.64

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

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10.1136/ejhpharm-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 (ABDA[5]) 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

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10.1136/ejhpharm-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