

4CPS-054 USE OF ANTIMICROBIAL AGENTS IN THE EMERGENCY DEPARTMENT IN A THIRD-LEVEL HOSPITAL

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10.1136/ejhp-2019-eahpconf.204

Background Infectious diseases are one of the most frequent reasons for consultation in the Emergency Department (ED), as well as one of the main causes of mortality and admission in the hospital. According to recent studies, antimicrobials are the second most common type of medication prescribed in the ED, so it is important to optimise their use.

Purpose To describe and to analyse the prescription of antimicrobials prescribed empirically in the ED of a third-level hospital and to analyse if microbiological samples are collected in order to establish a targeted treatment.

Material and methods Cross-sectional study of all antimicrobial prescriptions of patients waiting in the ED for admission to hospital from February 2018 to March 2018. The following variables were collected: age, sex, type of infection and microbiological samples (yes/no). It was analysed if the patient after admission maintained the same empirical antimicrobial treatment and if it was correct according to the microbial sensibility data from the sample studied. Data were collected from electronic health records and electronic prescription systems.

Results Ninety-three patients were included, 68 male and 25 female (mean 70 years, SD 13.5 years). The main clinical infections treated were: non-pneumonic lower respiratory tract (41%), urinary tract (18%) intrabdominal (12%), pneumonia (7.5%), chronic obstructive pulmonary disease exacerbation (7.5%) and other type of infections (14%).

After admission, 34% of the patients maintained empirical antimicrobial treatment, 51% treatments were changed to another antimicrobial agent and 15% of patients were discharged from the hospital.

Microbiological samples were collected before treatment in 48% of patients. According to the laboratory sample results, the empirical antimicrobial was correct in 63% of patients.

Conclusion Less than 50% of patient samples were collected before treatment and more than 35% of the empirically prescribed treatments were inadequate according to the laboratory sample results.

In order to prescribe suitable antimicrobial treatments, it is important to take microbiological samples in advance to establish a targeted treatment that could be optimised by developing a multidisciplinary group (program for optimising the use of antimicrobials (PROA)) in the ED.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-055 EFFICACY AND SAFETY OF ARTEMISININE DERIVATIVES IN THE TREATMENT OF MALARIA

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10.1136/ejhp-2019-eahpconf.204

Background Malaria is a parasitic disease caused by the parasite *Plasmodium falciparum* that is transmitted through the

bite of infected *Anopheles* female mosquitoes. It is a deadly disease that requires diagnosis and urgent treatment. The treatment is based on the combination of artemisinin derivatives and another drug. In 2016, according to the latest global report of malaria, there were 216 million cases of malaria and 4 45 000 deaths due to malaria.

Purpose To evaluate the efficacy and safety of artemisinin derivatives in the treatment of malaria.

Material and methods We carried out a retrospective observational study in the use of piperazine 320 mg/dihydroartemisinin 40 mg and intravenous (IV) artesunate from August 2017 to August 2018 in a district hospital in the south of Spain. Artesunate IV treatment was used in patients with malaria, and the severity criteria was: decreased level of consciousness, convulsions, acute respiratory failure, bilirubin greater than 2.5 mg/dL, spontaneous bleeding, hypoglycaemia, metabolic acidosis, acute renal failure, haemoglobinuria, glycaemia <40 mg/dl metabolic acidosis, hyperlactacidaemia, acute renal failure (serum creatinine >3 mg/dL), severe normocytic anaemia Hb <5 g/dL and parasitaemia >4%. Data collected: sex, age, origin country, prior consultation at the international vaccination centre and chemoprophylaxis against malaria, treatment with artesunate IV, initial parasitaemia (%), parasitaemia at 24 hours (%), parasitaemia at 48 hours (%), hospitalisation stay (days), adverse effects and readmission due to malaria recurrence. The data was obtained from the digital clinical history.

Results Patients: 32, 29 (90.6%) men. Average age: 35.4 years (18–48). Twenty-one (65.6%) patients came from Mali, five (15.6%) from Senegal, two (6.3%) from Gambia, two (6.3%) from Equatorial Guinea, one (3.1%) from Ivory Coast and one (3.1%) from Ghana. Six (18.8%) patients went for prior consultation in international vaccination but did not complete chemoprophylaxis. Five (15.6%) patients were treated with artesunate IV. Initial parasitaemia: 2.65%. After 24 hours of treatment, 11 (34.4%) patients presented parasitaemia. After 48 hours, no patient presented parasitaemia. 28.1% of the patients presented adverse effects. Five (55.6%) patients developed thrombocytopenia, three (33.3%) anaemia, two (22.2%) headache and one (11.1%) dizziness. Average hospital stay in patients with severity criteria: 4.2 days. Average hospital stay in patients without severity criteria: 2.3 days.

Conclusion Artemisinin derivatives are highly effective. They were effective in 100% of cases. Adverse effects were not serious and reversed after treatment was completed. No resistances to treatment were found in any cases.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-056 MAPPING ANTIBIOTIC USE PATTERNS IN A SEPTIC ORTHOPAEDIC WARD

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10.1136/ejhp-2019-eahpconf.205

Background The Septic Ward treats patients with bone-, joint- and prosthetic-joint infections. The treatment of these infections requires complex, long-term antibiotic therapies. Clinical pharmacy services were introduced in 2015. This included