Fluoroquinolone and quinolone antibiotics reported in these ADRs were mainly used for urinary tract infections (40.9%) and respiratory tract infections (31.8%).

Conclusion On 5 October 2018, the European Medicines Agency PRAC recommended restricting the use of fluoroquinolone and quinolone antibiotics² (used by mouth, injection or inhalation), that will become applicable only after the decision of the Committee for Medicinal Products for Human Use. In the meantime, this work could help in make the healthcare professionals aware of a range of possible side effects (apart from achilles tendon disorders) attributable to fluoroquinolone and quinolone antibiotics, and that could be life-changing and wide ranging.

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No conflict of interest.

5PSQ-032 ADMINISTRATION PROTOCOL FOR PENICILLIN G IN A PATIENT WITH A SEVERE REACTION TO BETALACTAMS AND ABDOMINAL ACTINOMYCOSIS

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Background Penicillin G 20 MIU/day for 4–6 weeks followed by oral amoxicillin for 6–12 months is the first option of treatment for abdominal actinomycosis where other therapies have less effectiveness.

Purpose To describe a desensitisation protocol for Penicillin G in a patient with abdominal actinomycosis that had experienced a severe anaphylactic reaction (tachycardia, redness, bronchospasm and refractory hypotension) to ceftriaxone that required a perfusion of noradrenaline, in addition to adrenaline, corticosteroids and salbutamol for recovering.

Material and methods Penicillin G vials were reconstituted with water for injection as indicated on its label and they were diluted with 0.9% sodium chloride to make four mother solutions (0.1 mg/ml, 1 mg/ml, 10 mg/ml and 100 mg/ml of δ -lactamic). Doses were prepared in syringes. Initial dose was 16 IU, with subsequent syringes elaborated doubling the dose until a cumulative dose of 5 MIU. A total of 19 syringes were prepared in a horizontal laminar flow cabinet in the pharmacy service: dilution 0.1 mg/ml (160 IU/ml): 16 IU/0.1 ml, 32 IU/0.2 ml, 64 IU/0.4 ml and 128 IU/0.8 ml. Dilution 1 mg/ml (1,600 IU/ml): 240 IU/0.15 ml, 480 IU/0.3 ml, 960 IU/0.6 ml and 1,600 IU/1 ml. Dilution 10 mg/ml (16,000 IU/ml): 3,200 IU/0.2 ml, 6,400 IU/0.4 ml and 12,800 IU/0.8 ml. Dilution 100 mg/ml (160,000 IU/ml): 24,000 IU/0.15 ml, 48,000 IU/0.3 ml, 96,000 IU/0.6 ml, 16,000 IU/1 ml, 320,000 IU/2 ml, 640,000 IU/4 ml, 1,280,000 IU/8 ml and 2,400,000 IU/15 ml.

Results Due to the high risk of the patient, despite negative allergological tests, a desensitisation protocol was administrated by allergists in the intensive care unit with monitoring and

cardiopulmonary resuscitation equipment. The time interval between each syringe was 10 min in direct bolus, the last three doses were administered during 10–15 min due to the higher doses and infusion pain. The schedule was achieved without any reaction. After this, a whole dose of 5 MIU/6 hours was administered during 2 months without any adverse reaction.

Conclusion This desensitisation protocol can be useful for penicillin-allergic patients without alternative treatment options.

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5PSQ-033 EFFECTIVENESS OF COMPUTERISED DECISION SUPPORT SYSTEM-BASED INTERVENTION IN ANTIMICROBIAL USE: THE HIGEA PROJECT

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Background Clinical decision support systems (CDSS) can play an important role in facilitating antimicrobial stewardship programmes (ASP). However, the effects of CDSS in improving antimicrobial therapy have been insufficiently studied.

Purpose To evaluate the impact of an automated/integrated real-time CDSS called HIGEA for antimicrobial stewardship-related interventions.

Material and methods This was a prospective descriptive study performed in a 1300-bed tertiary teaching hospital in Madrid.

A CDSS was developed integrating microbiology data, laboratory data and the computerised prescription order system. The integration was performed using a standard language (HL7). The system generates alerts based on predefined clinical rules (CR) to select patients in whom antimicrobial therapy can be improved. Alerts are reviewed daily by an infectious disease pharmacist, who makes recommendations of the necessary changes on the treatment to the physician.

Eight custom-built CR that promote stop/de-escalation of therapy were evaluated in the initial ASP review during 1 April 2017–31 August 2017. Data collection included total number of actionable alerts, recommendations provided and acceptance rates. For each CR, the positive predictive value (PPV) was calculated as the ratio of modifications in treatment to alerts reviewed. The severity of medication errors prevented and antimicrobial consumption were also analysed.

Results In total, 701 alerts were reviewed during the study period (6.4 alerts per day). Overall, 419 (60%) alerts were actionable. The acceptance rate was 77% (321/419) and the PPV 0.46. The CR that induced the highest number of treatment changes was ‘treatment with penicillins/cephalosporins/quinolones>7 days’ (PPV=0.58), followed by ‘switch to oral therapy with quinolones/linezolid/azole’ (PPV=0.31), ‘Streptococcus/Enterococcus+carbapenem’ (PPV=0.70) and ‘candida + fluconazole sensitive *Candida*’ (PPV=0.82).