The result of the analysis confirms an increase in appropriateness of 7.51%.

In the two periods compared, there was an increase in reports that also produced an economic saving of €33,619.12.

Conclusion The analysis shows that the role of the pharmacist is fundamental, both to ensure the effectiveness and efficiency of the therapies and to limit the costs of pharmaceuticals and health in general.

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No conflict of interest.

4CPS-075 CREATION OF AN INNOVATIVE AND ATTRACTION TRAINING PROGRAMME FOR PRESCRIBERS TO PROMOTE THE CORRECT USE OF FLUOROQUINOLONES

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Background Confronted with the increase in consumption of fluoroquinolones in our hospital during the past 2 years, an evaluation of professional practices of the prescription of fluoroquinolones was done.

Purpose Development of an innovative and attractive training programme for prescribers to promote the correct use of fluoroquinolones.

Material and methods The training was organised in two parts: a 1 h30 group session and an e-learning over 3 months, available on the intranet of the hospital (one survey per month). The programme was accredited as a Continuing Professional Development programme by the organisation concerned. Prior to this training, a first audit was carried out in 2014 (47 prescriptions) and another was conducted in 2017 (48 prescriptions). Five criteria were analysed: the indication of the prescription, the choice of the fluoroquinolone molecule, the dosage, duration of treatment and the use of intravenous drug.

Results Sixty-five per cent of the doctors attended the group session and seven physicians participated in all e-learnings. All of participants found this training useful. An increase in the percentage of global conformity of prescriptions was observed in 2017 (18%) compared with 2014 (15%) indicated an improvement in practices. In addition, the audit in 2017 (77 days) was longer than 2014 (43 days) for the same number of prescriptions, showing a decrease of 43% in the use of fluoroquinolones.

Conclusion This initiative, conducted by a chemist, a physician specialised in infectious diseases and a quality expert, has led to the development of training for prescribers, combining traditional and digital tools. It responds to one of the strategic objectives of the global plan of action developed by the World Health Organisation which is ‘to optimise the use of antimicrobial agents in human health’. Valorisation in a ‘Continuing Professional Development Programme’ is a real argument which attracts more participants and allows sustainability of this project.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Furthermore, the warning issued by the European Medicines Agency of potentially permanent side effects of quinolone and fluoroquinolone antibiotics may continue to influence the restriction in prescriptions. For us, it is an argument to pursue this training programme.

No conflict of interest.

4CPS-076 ENCOURAGING THE RESPONSIBLE USE OF ANTIBIOTICS: AWARENESS AND UNDERSTANDING AMONG A UNIVERSITY STUDENT POPULATION OF A COMMUNITY PHARMACY PUBLIC HEALTH CAMPAIGN IN SCOTLAND

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Background Antimicrobial resistance (AMR) is a significant threat to patient safety globally. European Antibiotic Awareness Day (EAAD) is an annual public health initiative, to raise awareness on how to use antibiotics in a responsible way and NHS Scotland has annually supported EAAD with various resources targeting the public.

Purpose To explore the awareness and understanding of this national campaign among a university student population.

Material and methods A questionnaire was developed comprising: demographics; exposure to media campaign; awareness, knowledge and understanding of campaign; and student recommendations on how the campaign may be enhanced. Questions were a combination of closed, 5-point Likert scales and open response items. Following a review for face and content validity, piloting and ethics approvals, the final version was distributed electronically to all students on all courses registered in a Scottish university. SPSS version 21 facilitated analysis. 15 228 email contacts were sent.

Results One-thousand three-hundred and fifty-eight responses were received (9% response). One-thousand one-hundred and forty-three (84%) were resident in Scotland. Seventy-five per cent were undergraduates, 63% female. Responses were received from all nine university schools, 52 (4.5%), predominantly healthcare students, had heard of EAAD, 31 (2.7%) were familiar with posters advertising the safe use of antibiotics and awareness was mainly through posters in pharmacies. The majority who thought that antibiotics should always be prescribed when having a cold were studying a non-healthcare-related course (5.4%, n=72). Eight-hundred and eighty-
one (77%) respondents were unaware that their behaviour in taking antibiotics may influence future effectiveness. Few respondents (7%, n=79) provided an opinion on more effective ways of raising public awareness of this issue, with social media (3%, n=35) being the main choice.

Conclusion A study limitation is that an accurate response rate cannot be determined. Emails were sent to all registered students irrespective of whether they lived in Scotland. Any response rate calculated is likely to be lower. A major strength is that good representation from across the university schools was achieved. The research indicates that most respondents had little understanding of the importance of AMR, were not aware of EAAD and had not seen the pharmacy posters. Current approaches need to be revised for more effective dissemination of this issue amongst the general public.

REFERENCE AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-077 INHALED COLISTIN AS CHRONIC SUPPRESSOR THERAPY IN PATIENTS WITH BRONCHIECTASIAS WITH NON-CYSTIC FIBROSIS

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Background Patients with non-cystic fibrosis (CF) bronchiectasis (BQ) are chronically colonised and infected by bacterial pathogens. The use of inhaled antibiotics in these patients is an increasingly common practice.

Purpose To describe the use of inhaled colistin in patients with non-CF BQ.

Material and methods A retrospective descriptive study in the use of inhaled colistin in non-CF BQ. Adult patients who started treatment between January 2014 to December 2017 were included. The follow-up lasted until April 2018.

Recorded variables were: demographic (age, sex, respiratory history), microbiological (culture at the beginning of treatment, isolated microorganisms and sensitivity), treatment (eradication (yes/no), initial dose, dosage changes or interruptions and cause, concomitant antibiotic treatment) and follow-up (negativisation during therapy, time until culture negativisation).

Results Thirty-three patients with non-CF BQ were included, 24 men and nine women, with a median age of 77 years (51–90). Twenty-nine had a history of pulmonary disease: 18 moderate or severe chronic obstructive pulmonary disease, five pneumonias, two chronic bronchitis and four others.

All patients except one started treatment after sputum culture. The most frequently isolated microorganisms was Pseudomonas aeruginosa, whose sensitivity was: 22 multisensitive, three multidrug-resistant (MDR) and six extremely drug-resistant (XDR). Achromobacter xylosoxidans MDR was isolated in three samples and one was negative.

Fifteen performed eradication treatment, all with quinolones: ciprofloxacin (13), levofloxacin (one) and levofloxacin plus imipenem (one).

The most common starting dose was 1 MUI colistin/12 hour. Nine patients had concomitant treatment with azithromycin three times a week.

During the treatment, 15 patients maintained the same dosage, in 10 patients it was modified (three to alternate months, four increased the dose due to lack of effectiveness and three changed to the inhalation exclusive colistin formulation) and in eight it was interrupted (three due to adverse effects, two due to improvement of symptoms, one eradication and two unknown).

The sputum culture of 15 patients became negative during suppressive therapy, with an average time to negativisation of 4 months (1–15 months). Twelve remained on treatment with inhaled colistin despite having negative sputum cultures.

Conclusion The great heterogeneity in the prescription of inhaled colistin makes it necessary to standardise its use and to carry out a treatment protocol in collaboration with the pneumology department.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-078 ADEQUACY OF SYSTEMATIC ANTIFUNGAL AGENT PRESCRIPTIONS IN A TEACHING HOSPITAL

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Background Invasive fungal infections (IFI) have a substantial morbidity and mortality, and their incidence has steadily increased over the past 20 years due to the increase in immunocompromised patients. The complex medical care, the expensive treatments and the emergence of antifungal resistance require appropriate prescribing.

Purpose The aim of this study was to assess the conformity of antifungal prescribing to local and international guidelines for the treatment of IFI in a teaching hospital and to compare with similar studies.

Material and methods Prospective study was performed in six wards (paediatric oncology, haematology and intensive care units) that accounted for 90% of the antifungal consumption at our facility. The study was performed between April and May of 2018. A multidisciplinary group produced a grid for prescription compliance in accordance with the local and international guidelines from the European Conference on Infections Leukaemia and the Infectious Diseases Society of America. The prescriptions were reviewed by two pharmacists.

Results Eighty-seven prescriptions were analysed for 79 patients. Treatments were prescribed for prophylaxis (n=29), empirical therapy (n=22), pre-emptive therapy (n=14) and targeted therapy (n=22). On average, the patients had three risk factors for IFI and 21 patients (24.1%) were deceased. The antifungal treatments were in keeping with the local guidelines for 63 prescriptions (72.4%) and with the international guidelines for 57 prescriptions (65.5%). The guidelines issued within the facility closely follow these international guidelines. The most common inappropriate use was an antifungal prescription of second- or third-line while the first-line antifungal therapy was an option (14.9%), typically by an azole. Another cause of misuse was the non-compliance with antifungal prophylaxis indications (9.2%), leading to unnecessary exposure to antifungal agents.

Conclusion Few studies to date have assessed the appropriate use of antifungals. In the studies published to date with a similar methodology, compliance with the international guidelines has been reported to be between 34%1 and 58%2. A