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 microorganism was *Pseudomonas aeruginosa*, whose sensitivity was: 22 multisensitive, three multidrug-resistant (MDR) and six extremely drug-resistant (XDR). *Achromobacter xylosoxidans* MDR was isolated in two 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

multidisciplinary antifungal group was implemented to curb IFI and to improve the use of antifungals. In this context, guidelines were updated in the form of decision algorithms that, once adopted as a guide, should be able to improve practices.³

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- No conflict of interest.

4CPS-079

PATIENT WITH COMPLICATED FUNGAL ENDOCARDITIS: A CASE REPORT

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Background Fungal endocarditis is the most serious form of infective endocarditis. It is associated with high morbidity and mortality. In 2016, the Infectious Diseases Society of America (IDSA) updated Clinical Practice Guidelines for the Management of Candidiasis that strengthens the use of echinocandins for candidiasis' initial therapy.

Purpose We report here a case of a nosocomial fungal endocarditis treated with echinocandins in the Intensive Care Unit (ICU).

Material and methods A 53-year-old woman was hospitalised for multiple traumas after a car accident. Her anti-infective treatment was collegially decided after multidisciplinary discussions. In addition, the local fungemia ecology was regularly followed since 2014 and pharmacists document each patient's treatment.

Results On 27 June 2018 the patient who had no significant medical history was admitted to the ICU. On 4 July a *Candida albicans* fungemia was diagnosed: a probabilistic treatment with caspofungin 70 mg daily was introduced and all intravenous devices were removed. The daily dose was increased to 140 mg on 11 July according to the new IDSA guidelines after documentation of endocarditis. A surgical treatment was refuted because of the risk of bleeding and haemodynamic context of the patient. Six fungal blood cultures returned positive under caspofungin treatment, despite the *C. albicans* susceptibility to caspofungin. On 14 July additional blood cultures returned positive to *C. glabrata* with a caspofungin intermediate susceptibility (MIC 0.125). Caspofungin was therefore discontinued and switched for Lipid Formulation AmB (LFAmB) (the two *Candida* strains were susceptible) and flucytosine. This association was continued for 8 weeks after the first negative blood culture, 4 days after the switch to LFAmB.

Conclusion The patient's infection was successfully managed thanks to the good collaboration between physicians, infectious diseases specialists, microbiologists and pharmacists, which represents a key element of an antimicrobial stewardship plan.¹ Transition to fluconazole was considered in the light of *C. albicans* fluconazole-susceptibility consistent with our local ecology (100% of *C. albicans* strains susceptible to fluconazole). This case underlines the need for keeping in mind the importance of documentation isolates sensitivity,

particularly with the increasing resistance of *Candida spp* to echinocandins,¹ and adapting the treatment according to the local fungal ecology.

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- No conflict of interest.

4CPS-080

APPROPRIATE USE OF ANTIFUNGALS: IMPACT OF AN ANTIFUNGAL STEWARDSHIP PROGRAMME ON THE CLINICAL OUTCOME OF CANDIDAEMIA IN A UNIVERSITY HOSPITAL

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Background Candidaemia/invasive candidiasis are becoming emerging problems in hospital practice due to an increased prevalence of susceptible hosts, i.e. patients with central venous catheters and/or immunosuppressive therapies added to a broad-spectrum antibiotic therapy. It is essential to identify risk factors for attributable mortality and to set up a stewardship programme to improve infection management.

Purpose The objective of this study was to compare clinical outcomes of patients with candidaemia before and after implementation of an antifungal stewardship programme (AFSP).

Material and methods All consecutive cases of candidaemia were included from January 2012 to December 2015 in a University Hospital. Data were collected retrospectively for a period of 2 years before implementation of the AFSP, and prospectively 2 years after. All cases were reviewed by a multidisciplinary panel of experts including two infectious disease physicians, a microbiologist and two pharmacists in order to have a complete follow-up of patients.

Results Seventy patients were included. Patients were more often male (sex ratio M/F: 2.5) with a median age of 65.5 years (52–78). The sites of entry for candidaemia were: intra-abdominal in 29 cases (41.4%), central venous catheter in 21 (30.0%) and other or unknown in 20 (28.6%). The most frequent comorbidities were malignancy (n=36; 51.4%) and renal failure (n=21; 30%). Sixty-one patients (87.1%) had a central venous catheter and 18 (25.7%) had abdominal surgery. Infectiologist consultations increased from 36.4% to 86.5% between the two periods, with a significant impact on daily blood cultures which were more frequently performed in the second period (p=0.04). Echinocandin use was also more frequent in the second period (97.1% vs 78.8%, p=0.03). The 3 month mortality rate declined from 36.4% in the first period to 27.0% in the second period.

Conclusion The strengths of this AFSP is its duration and the number of patients. Unfortunately, our study lacked statistical power to show a significant impact on mortality. A decline tendency was observed in mortality rates but efforts concerning candidaemia management must be maintained.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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