antibiotic and a reminder of the 48–72 hour reassessment in the medical record. After corrective actions, a second audit was carried out to assess the effects of these actions.

Results In the first audit, 59% (n=118/200) of antibiotic reassessments were documented in the medical records. After the 5 month intervention, this rate increased to 74% (n=148/200) (p<0.05). Eight of the 10 units got feedback on their results by presenting in their unit. A total of 137 physicians did the e-learning module and global satisfaction was 8/10. Among them, 88% appreciated the online format and would like to receive other similar formats. The antibiotic de-escalated rate did not change significantly between the periods. However, antibiotic therapies without de-escalation at 72 hours were recorded more often (p<0.05). Amoxicillin-ac clavulanic (AMC) was the most prescribed drug, but was also documented the least in the patient medical records (31.3%). After corrective actions, documentation of reassessment of AMC increased to 63%.

Conclusion and relevance E-learning and physician awareness allowed a significant increase in documentation of antibiotic reassessment between the two reporting periods. However, improvement in practice must be coupled with long term awareness to obtain a sustained impact on actions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-028 EXPERIENCE OF CEFTAROLINE USE IN A THIRD LEVEL HOSPITAL

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Background and importance Ceftaroline is approved for treating complicated skin and skin structure infections (cSSSI), and community acquired pneumonia (CAP). However, there is growing evidence that other severe methicillin resistant staphylococcal infections could be treated with ceftaroline.

Aim and objectives To evaluate the use of ceftaroline in a tertiary hospital in Spain, as well as its effectiveness and safety.

Material and methods A retrospective observational study including all patients treated with ceftaroline in our hospital (November 2017–September 2019) was carried out. Demographic, clinical and safety variables were collected. Effectiveness was assessed by the clinical and microbiological resolution of the infection, and the absence of hospital admissions for the same infection after receiving ceftaroline.

Results Thirty patients received treatment (76.7% men, n=23). All patients were adults except one. Mean age of the adults was 68.4.1±17.6 years (the paediatric patient was 3 months old).

The most common indication for ceftaroline was bacteraemia (60.7%, n=20): 8 were due to cSSSI, in 8 its origin was unknown, 2 were due to CAP and 2 were due to catheter associated infections. The other indications were endocarditis (13.2%, n=4), cSSSI (10%, n=3), hospital acquired pneumonia (6.7%, n=2) and osteomyelitis (3.2%, n=1). Infections were caused by *Staphylococcus aureus* (93.2%, n=28) and *Staphylococcus epidermidis* (n=2). In 76.7% (n=23) of cases the infections were caused by methicillin resistant microorganisms.

Dosage was: 600 mg/8 hours (63.2%, n=19), 400 mg/8 hours (20%, n=6), 600 mg/12 hours (6.7%, n=2), 600 mg/6 hours (3.2%, n=1), 200 mg/12 hours (3.2%, n=1) and in the paediatric patient 8 mg/kg/8 hours. Median duration of treatment was 11.7 (5.2–14.7) days.

A total of 76.7% of patients (n=23) presented clinical and microbiological resolution of the infection. However, four patients were readmitted for treatment of the same infection during the follow-up period.

Serious adverse effects related to ceftaroline were reported in one patient: it was necessary to withdraw treatment because of severe thrombopenia, with a platelet count of 84×1000/μL (previously 149×1000/μL).

Conclusion and relevance In most of our patients, ceftaroline was used in infections caused by methicillin resistant microorganisms although there were some ‘off-label’ indications. Our results suggest that ceftaroline is safe and effective in severe methicillin resistant infections with few treatment options due to multiresistance.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-029 PRELIMINARY RESULTS OF AN ANTIMICROBIAL STEWARDSHIP PROGRAMME IN AN ONCOLOGY DEPARTMENT

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Background and importance Misuse of antibiotics has been related to the emergence of multidrug resistant microorganisms which are related to worse outcome in infected patients. Antimicrobial stewardship programmes (ASPs) have been shown to improve antimicrobial use.

Aim and objectives To describe the characteristics of antimicrobial prescriptions and analyse the impact of a specific ASP implemented in an oncology department.

Abstract 4CPS-029 Table 1

	Pre-intervention (n=62) (n (%))	Post-intervention (n=73) (n (%))
Men	38 (31)	44 (60)
Age (years) (mean±SD)	62.18±11.5	63.78±10
Clinical syndrome		
Respiratory focus	15 (24)	16 (21)
Urinary focus	11 (18)	5 (7)
Unknown focus	10 (16)	8 (11)
Intra-abdominal focus	8 (13)	8 (11)
Febrile neutropenia	5 (8)	16 (22)
Antimicrobials		
Piperacillin/tazobactam	16 (26)	22 (30)
Amoxicillin/clavulanic	12 (19)	14 (19)
Ceftriaxone	8 (12)	13 (18)
Levofloxacin	6 (10)	4 (5)
Fluconazole	5 (8)	2 (3)
Adherence to guidelines	32 (51)	43 (59)

Material and methods A before and after ASP intervention was implemented in an oncology department in a tertiary hospital. Pre-intervention prescription characteristics were analysed through repeated point prevalence surveys in the previous year. The intervention was initiated in February 2019 based on a weekly ward round where non-tax advice was given to the oncologists about their active antibiotic prescriptions. Prescription features, rate of adherence to local guidelines and type and acceptance of the recommendations given to stop or de-escalate were recorded.

Results A total of 62 and 73 prescriptions were included in the pre- and post-intervention periods, respectively. Table 1 describes the prescription characteristics in both periods. Adherence to local guidelines was 51% and 59% in the pre- and post-intervention periods, respectively ($p=0.39$).

In the intervention period, 26% of prescriptions were stopped and 12% de-escalated. Acceptance was 99%.

Conclusion and relevance An ASP weekly intervention in the oncology department showed a slight increase in adherence to local antibiotic guidelines. Nevertheless, this improvement was not statistically significant due to the short follow-up period and small sample size. Further studies are required to corroborate this improvement.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-030 INCIDENCE AND RISK FACTORS FOR PROSTHETIC JOINT INFECTION WITHIN 90 DAYS AFTER HEMIARTHROPLASTY FOR FEMORAL NECK FRACTURES IN THE ELDERLY

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Background and importance Closed femoral neck fractures after low impact trauma in the elderly are often treated with hemiarthroplasty. In this setting, the literature with respect to prosthetic joint infection (PJI) is scarce.

Aim and objectives The objectives of this study were to investigate the incidence of PJI and the impact of the number of perioperative antimicrobial prophylaxis (PAP) administrations. Furthermore, in this population, risk factors for PJI were identified.

Material and methods In this retrospective monocentric study, medical files of elderly (≥ 75 years) trauma patients with closed femoral neck fractures and treated with a hemiarthroplasty, admitted between January 2006 and July 2017, were evaluated. Patient follow-up was 90 days. A Cox proportional hazards regression analysis with forward step was applied. Results were considered statistically significant if $p < 0.05$.

Results A consecutive series of 745 patients (mean age 85 ± 5 years, 221 (29.7%) men) were treated with a hemiarthroplasty. Within 90 postoperative days, 13 (1.7%) patients developed a PJI and 120 (16.1%) died due to reasons other than infection. The applied PAP regimens consisted of intravenous cefazoline or clindamycin. Single and repeated PAP administrations (every 8 hours) were observed. Patients who developed a PJI received a median of 1 (IQR 1–2) PAP administration, which was not significantly different compared with PAP

administrations in patients that did not develop a PJI (1 (IQR 1–3)) (HR=0.236 (95% CI 0.032 – 1.745); $p=0.157$). Higher body weight (HR=1.05 (95% CI 1.008–1.094); $p=0.020$), systemic corticoid use (HR=4.790 (95% CI 1.275–17.997; $p=0.020$) and the need for transfer to the intensive care unit (ICU) for reasons other than infection (HR=8.692 (95% CI 2.353–32.106; $p=0.001$) were independently associated with the development of a PJI within 90 days.

Conclusion and relevance In this fragile trauma population, the observed 1.7% PJI incidence within 90 days was low compared with the incidence rate of 3.4–4.5% in the literature. Our preliminary data showed that the number of PAP administrations did not influence the risk of PJI. Patients with a higher body weight, with systemic corticoid use or with post-operative ICU transfer should be monitored closely for infection.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-031 AUDIT OF ANTIBIOTIC PROPHYLAXIS PRACTICE IN VISCERAL SURGERY IN AN AFRICAN COUNTRY

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Background and importance According to the WHO, care associated infections (CAIs) affect at least 2 million patients worldwide annually. In this African country, common CAIs are surgery site infections (SSI; 24.7% among inpatients in the south of the country). To prevent SSIs, appropriate use of antibiotics is essential.

Aim and objectives To audit compliance with international recommendations of antibioprophylaxis practices in visceral surgery.

Material and methods Data were prospectively collected in visceral surgery wards of five hospitals. Compliance with the antibiotic indication (administered when needed and not administered when not required), choice of molecule, dosage, timing of administration and duration were assessed in patients admitted for class 1 or 2 surgery according to Altemeier's classification over 4 months. The international recommendation on antibiotic prophylaxis described by the SFAR (Société Française d'Anesthésie et Réanimation)¹ was considered as a reference. Statistical analysis was performed using SPSS software.

Results A total of 71 interventions were included the study. In 50 cases (70.4%), the administration conformed to the indication criteria (ie, 48 administrations when actually indicated and 2 abstentions when antibioprophylaxis was not required). None (0%) of the 48 patients who received the indicated antibioprophylaxis were administered the recommended molecule. Ceftriaxone was the most widely used molecule (31%). In addition, the initial dose, timing and duration of antibiotic