month due to an infectious process and 7 of these patients were readmitted. 36 (57%) patients had taken antibiotics within 3 months before the study.

The most common illnesses were community acquired pneumonia (CAP) 16 (25.4%), acute bronchitis (AB) 15 (23.8%), COPD exacerbation 13 (20.6%) and influenza 7 (11.1%). The most common antimicrobials prescribed were: cephalosporins 24 (26.7%), co-amoxiclav 20 (22.2%) and quinolones 17 (18.9%).

Patients with AB were not analysed because there is no optimal duration of antibiotic treatment recommended in the current scientific evidence. The remainder of the patients were analysed (48): 35 were given antibiotics for more days than the recommended evidence (15 CAP, 12 COPD exacerbation, 4 influenza, 4 other infections); 9 patients were given antibiotics as per the recommended duration (3 acute pyelonephritis, 3 influenza, 1 CAP, 1 hospital acquired pneumonia, 1 complicated cystitis); and 4 were given antibiotics for a shorter duration than recommended (1 complicated cystitis, 1 COPD exacerbation, 1 pharyngotonsillitis, 1 acute gastroenteritis).

Conclusion and relevance Nearly 75% of patients had a longer antibiotic course than the recommended evidence. This should be a priority for intervention. It is important to create antibiotic awareness, where 'shorter is better' is a 'prescriber mantra' as far as the rational use of antibiotics is concerned.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-246 CORONAVIRUS FIRST WAVE EFFECT ON ANTIBIOTIC CONSUMPTION AND ANTIMICROBIAL RESISTANCE

¹P Tejedor Prado*, ¹A Lázaro Cebas, ²B Sánchez Artola, ³E Palencia Herrejon, ⁴E Aznar Cano, ⁴S Salso Ortiz, ¹A Such Díaz, ¹S Esteban Casado, ¹E Izquierdo García, ¹EA Álvaro Alonso, ¹I Escobar Rodríguez. ¹Hospital Universitario Infanta Leonor, Pharmacy, Madrid, Spain; ²Hospital Universitario Infanta Leonor, Internal Medicine, Madrid, Spain; ³Hospital Universitario Infanta Leonor, Intensive Care Medicine, Madrid, Spain; ⁴Hospital Universitario Infanta Leonor, Microbiology, Madrid, Spain

10.1136/ejhp-pharm-2021-eahpconf.78

Background and importance In the absence of evidence about the incidence of bacterial co-infection, antibiotic treatment was widely prescribed to prevent this potential complication. Increasing antibiotic consumption could have exerted an ecological pressure on microorganisms with potential clinical implications that need to be examined.

Aim and objectives The aim of this study was to analyse antibiotic consumption and antimicrobial resistant microorganism isolates during the peak incidence of the COVID-19 first wave at our hospital.

Material and methods An observational, descriptive, cross sectional study was carried out. Antibiotic consumption data for March and April 2020 and 2019 were analysed. Defined daily dose (DDD) per 100 bed days was used as the consumption indicator and changes were expressed in absolute and percentage terms. Isolates of Enterobacteriaceae (*Escherichia coli* and *Klebsiella pneumoniae*) were examined for March and April 2020 and compared with the average over 2019. Extended spectrum beta-lactamase (ESBL) producing Enterobacteriaceae were expressed in relative terms over their total isolates.

Results For the period under study, antibiotic consumption increased from 79.94 to 141.10 DDD/100 bed days in 2020, which was an increase of 77%. Macrolides and cephalosporins were among the groups of antibiotics with the highest consumption, representing 37% (52.79 DDD/100 bed days) and 32% (45.41 DDD/100 bed days) of total consumption, respectively, and almost 70% jointly. Additionally, ceftriaxone and azithromycin showed an increase in DDD/100 bed days of $4.5\times$ (8.91 vs 39.97) and $27.4\times$ (1.89 vs 51.90) with respect to the same period in 2019.

The share of ESBL producing *Escherichia coli* was 12% (13/111 isolates) and 23% (20/87 isolates) in March and April 2020 compared with an average of 11% (273/2494 isolates) in 2019. ESBL producing *Klebsiella pneumoniae* was 23% (8/35 isolates) and 57% (25/44 isolates) in March and April 2020 versus 24% (153/642 isolates) on average in 2019.

Conclusion and relevance During the study period, antibiotic consumption increased markedly. The increasing use of third generation cephalosporins, which have no effect on ESBL producing Enterobacteriaceae, may have contributed to the observed changes in the bacterial ecology in our hospital. As the incidence of bacterial co-infection on admission was reported to be lower than 5% and the increase in antibiotic consumption translated into selection of antibiotic resistant bacteria, it is important to properly assess antibiotic treatment for each particular case in future outbreaks of SARS-CoV-2 infections.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-247 VARIATIONS IN CONSUMPTION OF ANTIMICROBIALS IN INTERNAL MEDICINE WARDS OF HOSPITALS

¹K Perdikouri, ²F Marini*, ²D Gennimata. ¹Spiliopoulou Hospital, Pharmacy, Athens, Greece; ²'Korgialenio-Benakio' Red Cross General Hospital, Pharmacy, Athens, Greece

10.1136/ejhp-pharm-2021-eahpconf.79

Background and importance Although there is a direct relationship between rates of antibiotic use and emergence of antimicrobial resistance in the community and in hospital, measurement of antimicrobial consumption, without further analysis of any variations observed, is inadequate to support decision making.

Aim and objectives The aim of the study was twofold: presenting variations in antimicrobial consumption in internal medicine wards and investigating potential variables in the choice of regimen.

Material and methods Anonymous data on administration of parenteral antibiotics, during 2019, in two internal medicine wards of a general hospital and one semi-autonomous (independent) internal medicine clinic, located in the same healthcare region, were collected and compared. Antibiotic consumption was recorded as daily defined doses per 100 bed days (DDDs/100 bed days). All antibacterial antibiotics were included in the analyses. Furthermore, each substance's contribution, as a percentage of the annual configuration of the total index, was calculated. Average length of stay (LOS) and regimen indications were also registered.

Results In 2019, total antibiotic consumption in the general hospital internal medicine clinics ranged from 176.53 to 184.03 DDDs/100 bed days, exhibiting a 4.5-fold difference compared with the independent clinic. Administration of 33