Material and methods A cross-sectional study in the Paediatrics Emergency Care Unit was used as pilot test. The day the study was completed, the relation of registered children in the unit was obtained via an informatic program. Both demographic (age and weight) and clinical (symptomatology, complementary tests, diagnosis and discharge treatment) were registered. For each patient, adequacy of the prescribed antibiotic, indication and dose adjustment to weight and age, were analysed.

Results From the 114 assessed patients, 16 (14%) were treated with antibiotics and recruited for follow-up. The most common diagnosis was tonsillitis (25%), acute bronchitis (19%) and otitis media (19%), being the remaining percentage cases of appendicitis, urinary tract infections, nasopharyngitis, cellulitis and laryngitis. From the 16 prescribed treatments, 12 were susceptible of recommendation.The main identified causes for treatment modification were an excessive duration (50%), an inadequate dose for either shortage (25%) or excess (8%) or a suboptimal antibiotic choice (17%).

Conclusion and relevance Results showed a low adequacy of the antibiotic treatments, thus evidencing the need for a PROA that improves the prescription quality and guarantees patient safety. Members from the PROA group must ensure education about antibiotics prescription, emphasising the features of children as a population group and sharing the local antibiotic guide from the hospital.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-154 IMPACT OF THE COVID-19 PANDEMIC ON ANTIMICROBIAL CONSUMPTION AND ANTIMICROBIAL RESISTANCE

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Background and importance Recent studies have reported an increase of antimicrobial use during the COVID-19 pandemic. The impact of overuse on the propagation of antimicrobial resistance could be an indirect adverse consequence of the pandemic.

Aim and objectives To describe the impact of the COVID-19 pandemic on antimicrobial prescription trends and analyse the relationship with the evolution of antimicrobial susceptibility.

Material and methods Descriptive study to investigate the prescription of antimicrobials (ATC group J01) and the evolution of resistance before and after the COVID-19 pandemic in adult patients admitted to a tertiary-care hospital.

Antimicrobial use was expressed into defined daily doses per 100 discharges (DDD/100D). We compared first-wave COVID (March-June 2020) versus pre-COVID (March-June 2019).

Antimicrobial sensitivity (EUCAST v11.0) was evaluated as a percentage of resistant bacterial strains isolated between January and June 2021 versus the pre-COVID situation (January-December 2019).

Results During the first wave, 4465 adult patients were admitted to the hospital versus 5318 in the same period of 2019). In this context antimicrobial consumption increased +79.09% (735.85/410.89 DDD/100D).

The most important changes in antimicrobials consumption compared to the pre-COVID period are detailed in table 1.

Abstract 5PSQ-154 Table 1

Antimicrobial	COVID/pre-COVID (DDD/100D)	Increase DDD/100D (%)
Amoxicillin	60.23/2.19	+2650.98
Azithromycin	107.73/5.69	+1791.68
Cefotaxime	0.99/0.18	+461.22
Ceftriaxone	139.24/28.97	+380.67
Vancomycin	24.25/8.33	+199.40
Aztreonam	2.61/0.92	+185.49
Meropenem	43.29/24.39	+77.48
Cefuroxime	14.6/9.23	+60.77
Linezolid	27.57/17.19	+60.40
Cefixime	2.72/1.82	+49.32
Piperacillin/tazobactam	49.81/33.75	+47.58
Amoxicillin/clavulanate	95.23/79.96	+19.09

Abstract 5PSQ-154 Table 2

Microorganism	No. isolated January-December 2019	No. isolated January-June 2021	Antimicrobial	Sensitivity January-December 2019 (%)	Sensitivity January-June 2021 (%)	Pearson's Chi-square significance
Escherichia coli	4085	1648	No change			
Klebsiella spp	1095	425	Gentamicin	93	86	p=0.000
			Cefuroxime	78	73	p=0.036
			Cefotaxime	81	76	p=0.028
			Nitrofurantoin	87	81	p=0.010
			Aztreonam	74	70	p=0.226
			Ceftazidime	81	77	p=0.076
			cefepime	82	78	p=0.069
Pseudomonas aeruginosa	507	195	Gentamicin	83	78	p=0.114
Staphylococcus aureus	878	400	No change			
Enterococcus faecalis	572	266	No change			
Enterococcus faecium	146	87	Nitrofurantoin	92	83	p=0.120
			Ampicillin	12	6	p=0.305

The most important changes in bacterial sensitivity are detailed in table 2.

Conclusion and relevance Important increase in hospital antimicrobial consumption was observed, especially for the beta-lactams and carbapenems.

Minimal changes in antimicrobial susceptibility was observed, detected only in *Klebsiella spp*, *Pseudomonas aeruginosa* and *Enterococcus faecium*.

Antimicrobial stewardship strategies can help to keep the consumption of antimicrobials within acceptable levels.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-006 PARACETAMOL VERSUS IBUPROFEN FOR TREATMENT OF PERSISTENT DUCTUS ARTERIOSUS CLOSURE IN PRETERM INFANTS: IBUPAR-TRIAL

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Background and importance Haemodynamically significant patent ductus arteriosus (hsPDA) is a common cause of morbidity and mortality in preterm infants. Currently, the first-line therapy for hsPDA is ibuprofen, but this treatment has potentially life-threatening side effects. Paracetamol has been proposed as an alternative to ibuprofen, but there is still insufficient clinical evidence to make a standard recommendation.

Aim and objectives To evaluate the efficacy and safety of the standard treatment of hsPDA with ibuprofen versus paracetamol in the closure of hsPDA.

Material and methods Non-inferiority, randomised, multicentre, double-blind clinical trial was designed to evaluate the efficacy and safety of intravenous (IV) paracetamol versus IV ibuprofen in preterm patients with a gestational age (GA) ≤30 weeks diagnosed with hsPDA in four Spanish hospitals. Patients were randomized 1:1 to 10 mg/kg ibuprofen followed by 5 mg/kg at 24 and 48 hours or 15 mg/kg paracetamol every 6 hours for 3 days. If ductus size was >1 mm after the end of the 3-day course of the assigned treatment, another 3-day course of the same treatment was administered. If not, efficacy, ibuprofen and/or surgical closure were evaluated. The primary endpoint was ductus closure after the first treatment course.

Results The clinical trial is currently ongoing. The results presented correspond to an interim analysis with the objective of evaluating possible relevant safety warnings. A total of 91 patients have been recruited (approximately one-third of the scheduled recruitment). The populations of both groups have been comparable, with a mean GA of 26 weeks. For the main variable, ductus clousure after the first treatment course, an intention-to-treat analysis revealed no statistically significant differences between the groups (62.8% vs 42.2%, p=0.053). Applying the random stop method to assess the need to continue or stop the study, a p value <0.978 was obtained, the limit for assuming a lack of power. Likewise, no differences were found in the main safety variables.

Conclusion and relevance Given the data obtained in the intermediate analysis, it is essential to continue with the planned recruitment. At the moment, with the results of this analysis and the previous literature, it is not yet possible to establish a clear recommendation on the use of paracetamol in hsPDA.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-013 ANALYSIS OF PATIENTS' MORTALITY IN SARS-COV-2 INFECTION DURING THE FIRST MONTH OF HOSPITAL ADMISSION

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Background and importance As of December 2019, the world is facing a pandemic caused by the SARS-CoV-2 coronavirus (COVID-19). Symptoms resulting from the infection vary widely, ranging from asymptomatic disease to pneumonia and life-threatening complications.

Aim and objectives The aim was to study the impact of the active oncohaematological process on the severity and short-medium term mortality of COVID-19 infection.

Material and methods Observational retrospective study, carried out in a Spanish tertiary-level hospital. All patients diagnosed with COVID-19 and hospital admission between March 2020 and June 2021 were included. Variables collected were demographics, comorbidities; situation during hospitalisation (defining severe situation as admission to intensive care unit (ICU) or intubation) and mortality at 14 and 30 days after hospital admission. Data were obtained through the digital medical record and managed by R software (V.4–2021).

Results We included 1924 patients in the non-oncological group, 47.5% (915) men with a median age of 67 years and interquartile range (IQR) of 53–77. 128 patients (6.23%) were included in the active oncohaematological group, 58.6% were men (median age 72 (IQR 63–78) years). The most prevalent oncohaematological processes were: lung cancer (16.4%), colorectal (15.6%), bladder (10.9%), breast (10.2%) and prostate (8.59%). Metastases were present in 42.2% of patients. The main comorbidities presented by oncohaematological patients with statistical significance versus non-oncological patients were diabetes mellitus (30.5% vs 19.4%), dyslipidaemia (46.9% vs 32.2%), hypertension (52.3% vs 42.0%), chronic renal failure (18.0% vs 8.73%), chronic obstructive pulmonary disease (22.7% vs 9.94%), obesity (14.1% vs 15.2%) and heart failure (13.3% vs 10.6%). In the oncohaematological group, 44.5% were in a serious condition during their admission. The number who died compared to non-oncohaematological patients was 23.4% versus 13.6% at day 14 and 29.7% versus 18.1% at day 30. The two main neoplasms in the deceased patients were lung cancer (26.3%) and colorectal cancer (21%). Univariate analysis showed a relative risk of 1.72 (1.23–2.4) and 1.64 (1.23–2.17) mortality at 14 and 30 days, respectively, for COVID-19 in patients with active oncohematological processes versus non-oncohematological processes.

Conclusion and relevance The data reflect a higher mortality at 14 and 30 days due to COVID-19 in the oncohaematological population (72% and 64%, respectively). The oncohaematological population has a higher percentage of comorbidities