Material and Methods A descriptive prospective study of the pharmaceutical interventions (PI) performed in hospitalised neonates between 1 July and 15 September 2022 was conducted. The following variables were collected from the electronic medical record and prescription program: total number of admitted neonates, number of patients for whom a PI was issued, main pathologies associated with PI, number and type of PI carried out, and degree of acceptance of the recommendations.

Results 166 patients were admitted to the Neonatology Unit. Of the total number of patients, 45 PI were performed on 35 of them (21.1%).

The main pathologies related to PI were: respiratory (51.1%), infectious (26.7%), endocrine (17,8%) and cardiovascular (4.4%).

Of all the interventions carried out (n=45), the pharmacist recommended: dose adjustments (42.9%, n=15), changing the route or rate of administration (24.4%, n=11), pharmacokinetic drug monitoring (vancomycin) (13.3%, n=6), adapting the dose to the pharmaceutical presentation (11.%, n=5), adding another medication to the prescription (6.6% n=3) or suspending a medication (6.6%, n=3), exchanging of a drug for a therapeutic equivalent (2.2%, n=1), and changing a medication to a more effective one (2.2%, n=1).

The degree of acceptance of the interventions by neonatologists was 86.6%.

Conclusion and Relevance Most of the PI were related to dose modifications, changes in the route or rate of administration, as well as the optimisation of antibiotic treatment through pharmacokinetic monitoring. The degree of acceptance of the interventions was very high, which reinforces the integration of the hospital pharmacist in a multidisciplinary team.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-086 COMPARISON OF A TRADITIONAL ELISA TECHNIQUE VERSUS A POINT-OF-CARE TECHNIQUE IN THE DETERMINATION OF ADALIMUMAB LEVELS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE

[1]A Aguado Paredes*, [1]V Merino Bohórquez, [1]LM Moñino Dominguez, [1]MJ Tirado Pérez, [1]A Martínez Escudero, [1]M Romero González, [2]T Valdés Delgado, [2]F Argüelles Arias, [2]Á Caunedo Álvarez, [1]CH Miguel Ángel. *[1]Clinical Pharmacist, Hospital Universitario Virgen Macarena, Sevilla, Spain; [2]Gastroenterologist, Hospital Universitario Virgen Macarena, Sevilla, Spain*

10.1136/ejhpharm-2023-eahp.392

Background and Importance ELISA is the most commonly used technique to determine adalimumab (ADL) levels in patients with inflammatory bowel disease (IBD), as it is simple and inexpensive. Its disadvantage is that it requires a specialised laboratory and several tens of samples have to be accumulated to make the cost of each determination more efficient, with the consequent delay in obtaining the results. Rapid tests make it possible to obtain levels in a very short time (15 minutes) and to act immediately to optimise biological therapy.

Aim and Objectives The aim of this study is to compare the reference technique for quantifying ADL levels using ELISA with quantification using a rapid test, the point of care (POC) test.

Material and Methods ADL levels of 56 IBD patients were tested by both methods. Samples were obtained prior to ADL infusion. Promonitor® ADLv2 kits from Progenika Biopharma were used for the enzyme-linked immunoassay (ELISA). For the rapid assay (POC), the Quantum Blue® Adalimumab Lateral Flow Immunochromatography technique (BÜHLMANN Laboratories) was used.

Quantitative comparison of both techniques was assessed with Bland-Altman plots, Student's t-test and regression line to test for agreement between the two techniques. A p-value of <0.05 was considered statistically significant. The 95% limits of agreement were calculated using the mean ± 1.96*SD. Correlation was assessed using Pearson's correlation coefficient (r). Statistical analyses were performed with the R® v4.1.2 package.

Results The median ADL concentration was 12.4 µg/mL (range 0.3–24.4 µg/mL) using the ELISA test and 13.8 µg/mL (range 1–35 µg/mL) using the POC test (Quantum Blue®). The Pearson correlation for both was high ($r=0.87$, $p<0.001$) and the regression line $y=1.06x+1.90$, whose slope of 1.06 indicates good agreement between the two techniques. The mean difference between ELISA and POC test was -2.76 µg/mL (95%CI, -11.70–6.18) (<0.05). The Bland-Altman plot indicates that at concentrations above approximately 15 µg/mL, the rapid test (POC) overestimates the ADL concentration values compared to the ELISA technique.

Conclusion and Relevance The Quantum Blue® Adalimumab POC rapid test shows high correlation and concordance and minimal acceptable differences compared to the reference ELISA tests, making it reliable and allowing results to be obtained within minutes.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-087 PERSISTENCE IN THE METHADONE MAINTENANCE PROGRAMME AND ITS RELATIONSHIP WITH THE MEDICATION REGIMEN COMPLEXITY INDEX IN OPIOID DEPENDENT PATIENTS

[1]EA Álvaro Alonso*, [2]A Aguilar Ros, [3]MC Gomez Álvarez, [3]B Segovia Tapiador, [3]MI Del Pino Illaconza, [3]MT Ramirez Cuesta, [3]Mm Nieto Riva, [3]O Junca Jimenez, [3]ML Gonzalez Ahedo, [1]A Such Diaz, [1]I Escobar Rodriguez. *[1]Infanta Leonor University Hospital, Pharmacy Department, Madrid, Spain; [2]Institute for the Study of Addictions, University Ceu-san Pablo-CEU Universities., Faculty of Pharmacy, Boadilla del Monte, Spain; [3]Madrid Health Service, Vallecas Comprehensive Care Centre For Drug Addicts, Madrid, Spain*

10.1136/ejhpharm-2023-eahp.393

Background and Importance It has been shown that the Medication-Regimen-Complexity-Index (MRCI) is a useful and reliable tool for calculating the complexity of the pharmacotherapeutic regimen (CPR). Furthermore, high MRCI is associated with lower adherence. However, MRCI in opioid-dependent patients (ODP) has not been studied.

Aim and Objectives Calculate the methadone-maintenance-programme (MMP) persistence and the MRCI score in a ODP cohort. Second, to analyse its relationship and association with other variables.

Material and Methods An observational study including adults with a confirmed diagnosis of opiate-dependence according to the DSM-5 in a MMP centre was carried out from November 2021 to April-2022.

To define MMP-persistence, a group was created with the researchers who defined five weighted items according to the importance agreed.

The variables collected were sex, age, social/work situation, comorbidities, substances consumption, methadone treatment (doses, frequency, duration, number of dropouts/interruptions since the MMP onset). MRCI score and MMP-persistence were calculated. They were collected and managed using REDCap. Statistical analysis was carried out using SPSS® Statistics (v.27).

The study was approved by the Ethics Committee.

Results 84 patients signed the informed consent. 79.8% were male (median age:51(46–56)). 25.4% had a job and 14.9% was homeless. 57.0% had any comorbidity. 62.5% had infectious disease and almost 40% mental health disorder.

Substances consumption was tobacco (81.4%), benzodiazepines (74.0%), cocaine (65.0%), alcohol (42.4%), heroin (33.9%) and cannabis (28.3%). 2.9% were intravenous-drug-users (IVDU). Median methadone dose was 60mg (40–80). 63.1% received maintenance doses. 38.1% received methadone for>10 years. None of the patients abandoned MMP at any time.

The median MRCI score was 13.5 (8.5–21.8) (maximum:40.5).

Regarding MMP-persistence, a patient was considered persistent with a score ≥90% according to our definition. We found 77.4% persistent patients.

No association was found between MRCI and MMP-persistence (p=0.74). However, the following variables had relationship: age (p=0.04), comorbidity (0.002) and patients receiving maintenance doses (p=0.024).

Regarding MRCI, we found association with age (p=0.04), homeless (p=0.002), comorbidity (p=0.0), HBV (p=0.003), mental health disorder (p=0.006), active heroin consumption (p=0.03) and IVDU(p=0.03).

Conclusion and Relevance A new MMP-persistence definition has been created. We identified age, comorbidities, and receiving methadone maintenance doses as successful predictors for MMP-persistence.

MRCI does not seem to be a useful tool to determine the MMP-persistence, probably because there are multiple factors that influence in addition to the CPR. It is necessary to continue searching for more precise selection and stratification tools for ODP to improve their persistence. However, it should not be an obstacle to implementing measures to optimise their pharmacotherapy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-094 ANALYSIS OF INTERVENTIONS ON ANTIBIOTIC PRESCRIPTIONS BY THE ANTIMICROBIAL STEWARDSHIP PROGRAMS AT THE EMERGENCY DEPARTMENT

[1]S Álvarez Atienza*, [2]P Martinez De La Cruz, [1]I Plo Seco, [2]L Moreno Nuñez, [1]S Sanz Márquez, [3]JF Valverde Canovas, [1]M Perez Encinas. *[1]Hospital Universitario Fundación Alcorcón, Pharmacy, Alcorcón, Spain; [2]Hospital Universitario Fundación Alcorcón, Internal Medicine, Alcorcón, Spain; [3]Hospital Universitario Fundación Alcorcón, Microbiology, Alcorcón, Spain*

10.1136/ejhpharm-2023-eahp.394

Background and Importance Antibiotics are some of the most prescribed drugs at the Emergency Department (ED) and it is usually inappropriate. An educational intervention by the antimicrobial stewardship programme (ASP) could be effective to improve the use of antibiotics.

Aim and Objectives To compare and analyse the interventions carried out on empirical antibiotic prescription (EAP) in two periods at ED by the multidisciplinary ASP(MASP). To compare defined daily doses per 100 discharges (DDD/100D) of meropenem in both periods.

Material and Methods Quasi-experimental study was conducted to compare the interventions performed by the MASP (formed by infectious disease doctors, clinical pharmacists and microbiologists) at ED of a tertiary hospital during June-2019(first period, FP) and March-2021(second period, SP). Unique recommendations on the adequacy of EAP were made for each patient and antibiotic dose optimisation. Collected data included patient demographics, diagnosis, prescription and its adequacy, recommendations made and grade of acceptance. Meropenem consumption of hospitalised patients during the intervention period and following month was obtained through the drug record programme in order to calculate the DDD/100D.

A database was created in Excel and analysed with SPSSv17.0 statistical software.

Results 145 patients were included: 58.6% men, mean age 71.2 years (SD:17.4). 42 on FP group (FPG) and 103 on SP group (SPG).

Abstract 4CPS-094 Table 1

Type of Infection	Number Patients(%)
Urinary tract	53(36.6%)
Respiratory tract	33(22.8%)
Intra-abdominal	25(17.2%)
Other	34(23.5%)

Over all the prescriptions, 58.6%(80/145) were appropriate, 50%(21/42) in FPG and 57.3%(59/103) in SPG. When inadequate prescription:

Abstract 4CPS-094 Table 2

Type	Recommendation FPG	Recommendation SGP
Increase spectrum	23.8%	14.6%
Decrease spectrum	7.1%	11.7%
Discontinue	19.0%	16.5%

Global acceptance was 95.9% (139/145), being 95.9% (40/42) in FPG and 96.1% (99/103) in SPG.

The most prescribed antibiotic was ceftriaxone (49/145), followed by amoxicillin/clavulanate (26/145) and piperacillin/tazobactam (25/145).

The EAP of meropenem was 26.2% (11/42) in FPG and 6.8% (7/103) in SPG with statistically significant differences (p<0.002).

DDD/100D of meropenem was 27.9 in FPG and 22.9 in SPG.

Conclusion and Relevance An improvement in EAP has been observed. Although the acceptance rate in both periods was very high, the results show that more work needs to be done on training of prescribers.