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Real-life experience with ceftazidime/avibactam in a tertiary care hospital

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Background and Objective: Ceftazidime/avibactam (CAZ/AVI) is a 5th generation cephalosporin. Avibactam is a non-beta-lactam inhibitor that inhibits most class A, C and some D beta-lactamases, including extended-spectrum beta-lactamases (ESBL) and KPC.The aim of the study was to describe our experience in patients treated with ceftazidime/avibactam.
Method: A retrospective observational study performed in a tertiary university hospital.All prescriptions with ceftazidime/avibactam were included from the moment this drug was introduced in the hospital's guidelines (2017)until 30 September 2021.The variables were collected through the electronic medical record.The variables collected were: demographic and epidemiological characteristics of patients,-focus of infection,type of microorganism isolated,daily dose and duration together with concomitant antibiotics.
Results: A total of 307 prescriptions with CAZ/AVI were enrolled. 217 (70.7%) were male with the age of 62 (52–70)years. 18.9% of patients had been admitted in the previous 30 days, 2.9% from social health centres, 19.9% transferred from another hospital, 7.5% with interventions in the previous month, 84.4% with some underlying disease, 26.7% with diabetes, 12.1% with renal disease, 14.3% with COPD, 46.6% with CV disease, 25.1% patients with haematological diseases. McCabe's index was 64.2% non-fatal and 29.0% ultimately fatal. 81.8% of infections were nosocomial. 28.0% were in patients with COVID. 29.7% of patients were colonised by MDR bacteria prior to initiation of CAZ/AVI treatment. Prescription of CAZ/AVI was mostly in combination therapy (52.1%), of which 34.2% were associated with aztreonam, amikacin,tigecycline or fosfomycin.43.9% of the prescriptions were for infection of respiratory origin (pneumonia) followed by 24.8% for urinary tract infections and 10.7% for intra-abdominal infections. 20.2% of infections involved bacteraemia. 50.5% in patients with sepsis or septic shock. 43.0% of prescriptions were for targeted therapy, 41.0% for empirical therapy and 16.0% for empirical rescue therapy.The median duration of treatment with CAZ/AVI was 6 (3–10) days.The dose used in 88.9% was 2 g/8 h. 13.0% of prescriptions were in patients undergoing CRRT. The reason for end of treatment was mainly de-escalation and/or adjustment to antibiogram 37.5%, 31.3% cure, 18.9% exitus,12.0% clinical or microbiological failure and 0.3% due to toxicity. 3.3% of patients had C.difficile infection.
Conclusion: In most cases, CAZ/AVI was prescribed empirically in critically ill patients with nosocomial infections of respiratory origin.

Disclosure of Interest: None Declared.

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Deprescribing fall risk-increasing drugs in older patients

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Background and Objective: Drug-related falls are of particular concern in older people since they lead to increased morbidity and mortality. The aim was to assess applicability and outcome of the application of fall medication risk assessment tools.
Method: The research was conducted at Karin Grech Hospital, a rehabilitation hospital. A literature review identified five multifactorial tools and three medication-based tools. The STOPP-Fall[1] tool from the medication-based category was chosen. To assess the extent of deprescribing of fall risk-increasing drugs (FRIDs), pharmacy profiles of patients aged 60 years and over admitted due to a fall with or without a fracture were retrospectively analysed during January to July 2021, and after intervention during October 2021 and January 2022. Clinical pharmacists were presented with the application of the STOPPFall tool to deprescribe FRIDs as an intervention to support deprescribing during medication management. T-test for one proportion and paired t-test were applied.
Main outcome measures: Deprescribing of fall risk-increasing drugs; assessment of effectiveness of intervention to empower pharmacists using STOPPFall tool.
Results: In the pre-intervention study, the average age of the 55 patient profiles assessed was 81 years (65% females). Antidepressants (n = 35), diuretics (n = 34), opioids (n = 31) and benzodiazepines (n = 23) were the most frequently prescribed FRIDs. Significant deprescription rates were evident for opioids (97%, $p < 0.01$) and benzodiazepines (70%, $p = 0.030$). Diuretics (47%), antipsychotics (46%) and antidepressants (37%) showed lower deprescription rates. The post-intervention study evaluated 58 patient profiles with an average age of 79 years (71% females). Diuretics (n = 41), opioids (n = 39) and antidepressants (n = 26) were the most commonly prescribed FRIDs. Opioids (97%, $p < 0.01$) and antipsychotics (67%, $p = 0.027$) were significantly deprescribed. Results of pre and post analyses showed that the intervention did not significantly increase the deprescription of the FRIDs.
Conclusion: The intervention to enhance application of the selected tool by clinical pharmacists did not significantly increase deprescribing of FRIDs.

Disclosure of Interest: None Declared.

References:
[1]Seppala LJ, Petrovic M, Ryg J, Bahat G, Topinkova E, Szczerbinska K, et al. STOPPFall (Screening Tool of Older Persons Prescriptions in older adults with high fall risk): a Delphi study by the EuGMS Task and Finish Group on Fall-Risk-Increasing Drugs. Age Ageing 2020;1–11.

PP099

Clinical decision support systems to optimize prescription in hospitalized older patients

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Background and Objective: Inappropriate prescriptions (IP) are common among hospitalized older adults. Reducing IP is a major and global challenge. Incorporating clinical decision support systems (CDSS) into electronical medical records across hospitals might be a good strategy to optimize prescription in hospitalized older patients. The aim of this study is to develop, implement and assess a CDSS based on STOPP/START (*Screening Tool of Older People's Prescription/Screening Tool to Alert to Right Treatment*) Version 2 in order to reduce the number of potentially inappropriate prescriptions (PIP) among older patients.
Method: This was a before/after study including hospitalized patients (≥ 75 years) in an academic hospital. First, the team selected 44 criteria to implement based on clinical impact from the literature and technical feasibility. The intervention consisted of activation of CDSS

based on STOPP/START criteria available for all prescribing physicians working in the hospital (besides palliative care, intensive care, operating area, and emergency). These CDSS appear as a non-interruptive information visible to prescribers at any time in the medical chart of inpatients aged 75 and over. Each period has a duration of six weeks.
Main outcome measures: Mean number of PIP was estimated in each period. Multivariate logistic regression analysis was used to determine patients factor associated with the detection of at least one PIP.
Results: 470 patients were included in the preintervention group and 546 in the postintervention group. The mean number of PIP was 28% lower in the postintervention group compared to the preintervention group (0,58 and 0,80 respectively; p-val < 0.05). During the preintervention phase, there was a relative increase of 6% of the PIP number between the 1st and 15th day of hospitalization. During the postintervention phase, there was a relative reduction of 36% of the PIP number between the 1st and 15th day of hospitalization. Age, sex and number of home medication were not significantly associated with number of PIP. Most frequent STOPP and START criteria were respectively about opioids without laxatives and persistent high blood pressure without antihypertensives.
Conclusion: CDSS based on STOPP/START criteria reduce PIP among hospitalized older patients. Additional studies are needed to further reduce PIP use.

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PP100

Importance and necessity of pharmacists in the management of polypharmacy in heart failure patients with comorbidities

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Background and Objective: The progressive use of many medications and a complicated therapy protocol is frequent in heart failure (HF) and is encouraged by international guidelines. Because HF is an ailment frequently seen in the elderly, patients often have multiple comorbidities that require additional specific therapy, resulting in the simultaneous use of multiple drugs (1). Polypharmacy, described as the continuous use of five or more drugs, is an underappreciated issue in the treatment of heart failure patients (2). Polypharmacy has a major effect on HF treatment because it frequently leads to incorrect drug prescribing, poor adherence to pharmacological treatments, drug-drug interactions, and side effects (3). As the part of the medical crew the pharmacist can take responsibility to determine and help solution of drug-related problems. The aim of this study was to determine the frequency of comorbidity in HF patients, the rate of exposure to polypharmacy and the frequency of drug interactions.
Method: A prospective pilot observational research was conducted on HF patients in a cardiology department of a hospital between 22–30 September 2021. Patients' demographic data and other relevant informations were collected via face-to-face.
Main outcome measures: Sociodemographic characteristics of heart failure patients. Comorbidities, regularly used drugs, drug-drug interactions, commonly seen side effects.
Results: 39 heart failure patients with a mean age of 78.87 ± 2.34 were participated in the study. 22 (56.4%) of the participants were male. Patients in the study had heart failure for an average of 6.97 ± 1.39 years. 37 (94.9%) of the patients had comorbidities and 28 (71.8%) of the patients had at least 2 comorbidities. Hypertension (30%) was the most commonly seen comorbidity and the average comorbidity number of the patients in the study was 2.5. 30 (77%) of the patients were using 5 or more drugs in a day. 207 (74.7%) drug-drug interactions were detected among a total of 277 drugs used by patients. 197 (95.2%) of drug interactions were in category C, others were in category D and X. Furosemid 50 (18%) and metformin 34 (12.3%) were the drugs with the most drug interactions. 34 (87.2%) of the patients complaint about side effects and nausea 16 (47%) was the most commonly seen side effect.
Conclusion: It was detected that 30 (76.9%) of the patients suffer from polypharmacy and there was a significant rate of (74.7%) drug-drug interactions. Polypharmacy which is the most common cause of drug-drug interactions, leads to greater drug expenses, more adverse events, and nonadherence to medicine. On the other hand polypharmacy is inevitable in some situations such as the presence of comorbidities. It is essential that pharmacists—who are the pharmaceutical specialists-take responsibility especially when polypharmacy is unavoidable and guide physicians in drug selection. Thereby polypharmacy related drug-drug interactions and other problems can be reduced.

Disclosure of Interest: None Declared.

References:
(1) Braunstein JB, Anderson GF, Gerstenblith G, et al. Noncardiac comorbidity increases preventable hospitalizations and mortality among Medicare beneficiaries with chronic heart failure. J Am Coll Cardiol. 2003;42(7):1226–33.
(2) Qato DM, Alexander GC, Conti RM, Johnson M, Schumm P, Lindau ST. Use of prescription and over-the-counter medications and dietary supplements among older adults in the United States. JAMA. 2008;300(24):2867–78.
(3) Hilmer SN, Gnjidic D. The effects of polypharmacy in older adults. Clin Pharmacol Ther. 2009;85(1):86–8.

PP104

Self-management practices in multiple sclerosis patients

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Background and Objective: In comparison with other chronic diseases, Multipl Sclerosis (MS) patients feel more uncertainty and less control over the disease, and consequently, their self-management abilities become frail (3). Inadequate number of self-management programs is contributing factor for the failure to fully adopt self-management by MS patients (4). This study aims to assess MS patients self-management abilities at short and long term after the provision of education and counseling by a clinical pharmacist.
Method: This prospective, randomized controlled study included adult MS patients followed between February–August 2020 in the neuroimmunology outpatient clinic of a tertiary care hospital in Turkey. Demographic data were collected by a clinical pharmacist, then oral and written education was provided to the study group patients on the disease, drug therapy, compliance and active participation issues in the MS treatment process, and monitoring of disease symptoms. The Multiple Sclerosis Self-Management (MSSM-R) scale was administered to the patients at baseline and at 4 and 8 months after the educational session. The scale consists of 5 subdimensions and the total score ranges between 24–120. Higher values indicate a higher level of self-management.
Main outcome measures: Main outcome measure was to evaluate patients self management skills by the MSSM-R scale over the period of 8 months.
Results: A total of 100 patients (51 in study group, 49 in control group) were included in the study. There was no difference between