MUAMs authorised between 2017 and 2019 were marketed in Spain, mostly antineoplastic and immunomodulatory drugs. During these 3 years, the AEMPS published 13 notes referring to MUAMs and they related to safety (30.7%), contraindications for use (30.7%), restrictions on use (23%) and informative notes (15.4%). Only two of these notes affected one of the authorised MUAMs from 2017 to 2019 (tofacitinib).

Conclusion and relevance The most frequent designated criteria were new active substance, followed by new biologicals, PASS and conditional/exceptional authorisations. The high number of MUAMs authorised each year in Europe and their special characteristics justifies the need to implement a circuit in the hospital pharmacy services that includes: sessions to remind staff of their importance, patient information sheets to reinforce greater follow-up and explain the most common adverse effects as well as a wider dissemination of information about restrictions of use and contraindications.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-208 PHARMACEUTICAL ALGORITHMS TARGETING ANTICOAGULANT THERAPY: IMPACT OF AVICENNE CLINICAL DECISION SUPPORT IN PATIENT SAFETY

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Background and importance Anticoagulants are sources of iatrogenia when they are used, misused or not used, especially when medication errors are involved. The EAHP statement integrates pharmaceutical analysis into our practices mentioning that all prescriptions should be reviewed and validated as soon as possible by a pharmacist. Pharmaceutical analysis practice is highly variable. Clinical decision support systems have proven to be effective globally in reducing morbidity, improving the detection of drug related problems (DRP) and reducing adverse drug events and costs. The threefold alliance, AVICENNE, as a real time clinical decision support system, works on the patient's data, pharmaceutical algorithms and Pharmaclass (Keenturtle-F).

Aim and objectives The aim of the study was present the ability of AVICENNE to detect DRP when working on anticoagulation therapy compared with other drugs.

Material and methods An observational prospective study has been ongoing from January 2019 to September 2020 in two facilities (1600 beds). 20 to about 135 pharmaceutical algorithms encoded in Pharmaclass detected patients with an anticoagulant related problem. Guidelines structured the pharmaceutical analysis of selected DRP analysed from anamnesis to transmission of the pharmaceutical interventions (PI). In the two algorithms, the number of accepted PIs were collected via computerised patient order entries.

Results The data were collected over 260 non-consecutive days. Of 4121 alerts 1301 were about anticoagulant medications (31%) and 2820 about other medications (69%). DRP detection was better with the algorithm on anticoagulants than with the other algorithm (1029 (79%) vs 1271 (45%)) because of fewer technical false positives. Pharmacist issued 437 PI targeting anticoagulant medicines, of which 266 PI (61%) were accepted by physicians. On the other hand, 1075 transmitted PI resulted in 505 accepted PI (47%). The difference was statistically significant ($\chi^2=23.99$; $p<10^{-6}$). For both of the algorithms' sets, transmission had the same importance: for the oral route, 29% vs 27%, respectively (NS). The acceptance rate was similar (81% and 75%, respectively (NS)).

Conclusion and relevance Algorithms about anticoagulant therapy medications were more efficient in the detection of DRP because of explicit clinical practice guidelines. The acceptance rate of PI by physicians was better. AVICENNE improved patient safety.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-209 ANTICHOLINERGIC BURDEN AND RISK OF ADVERSE EVENTS IN PATIENTS FROM A SPANISH NURSING HOME

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Background and importance High anticholinergic burden (AB) has been associated with central and peripheral adverse events. Several anticholinergic scales were developed to estimate this AB. Patients residing in nursing homes are frequently prescribed a wide range of drugs but the rates of anticholinergic drug usage and the AB associated with these drugs have not been previously described.

Aim and objectives To study the anticholinergic prescription rates of patients residing in a nursing home and to compare the results from 10 different anticholinergic scales when estimating AB.

Material and methods An observational cross sectional study was carried out from June 2020 to September 2020 in a nursing home. Variables collected were: age, sex, number of drugs prescribed, number of anticholinergic drugs prescribed, anticholinergic drugs prescribed, AB and anticholinergic risk. Patients were classified as polymedicated if more than 5 drugs were prescribed and heavy polymedicated if more than 10 drugs were prescribed. AB and anticholinergic risk were estimated with 10 anticholinergic scales.

Results 156 patients, 59.3% men, median age 74.2 (IQR 67.4–82.8) years, were prescribed a median of 10 (range 0–26) drugs with 2 (0–6) of them with anticholinergic activity. 84.0% (n=131) of patients were polymedicated and 50.6% (n=79) were heavily polymedicated. The most frequently prescribed anticholinergic drugs were: furosemide (21.2%, n=33), tramadol (13.5%, n=21), lorazepam (14.7%, n=23), metformin (13.5%, n=21) and clorazepate (12.8%, n=20). Anticholinergic risk and anticholinergic drug burden of patients who were prescribed at least one anticholinergic drug are shown in table 1.

Abstract 5PSQ-209 Table 1

Anticholinergic scale	Patients with AB	Mean AB score	Mean anticholinergic risk
Anticholinergic cognitive burden scale	62.8% (n=98)	2.1	Medium
Anticholinergic risk scale	32.1% (n=50)	1.8	Medium
Chew's list	51.9% (n=81)	2.1	Medium–low
Anticholinergic drug scale	55.1% (n=86)	2.4	Medium
Anticholinergic activity scale	50.6% (n=79)	2.6	Medium
Anticholinergic load scale	54.5% (n=85)	1.8	Medium–low
Clinician rated anticholinergic scale	51.3% (n=80)	1.9	Medium
Duran's scale	54.5% (n=85)	1.9	Medium
Anticholinergic burden classification	41.0% (n=64)	3.7	High
Drug burden index	72.4% (n=113)	1.2	High–medium

Conclusion and relevance Patients included were heavily polymedicated, often with drugs with anticholinergic activity.

Most anticholinergic scales estimated at least a medium anticholinergic risk, predicting a relatively high risk for anticholinergic adverse events. This work highlights the differences in anticholinergic scales when estimating the anticholinergic risk and its capacity to recognise this risk in the studied population.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-210 RETROSPECTIVE EVALUATION OF THE DOCUMENTATION OF ALLERGIC AND IDIOSYNCRATIC ADVERSE DRUG REACTIONS IN THE CONTEXT OF THE REQUIREMENTS CONCERNING A CLINICAL DECISION SUPPORT SYSTEM

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Background and importance Allergies should be visible on all patient specific pages or screens of the electronic medical record in the hospital information system. The computerised physician order entry system must have a tiered severity rating for allergies based on the patient's reaction to the drug. Limiting alert fatigue from drug intolerances that are not true allergies and providing clear warnings to staff during medication order entry is crucial for a clinical decision support system (CDSS).

Aim and objectives This study analysed the current practice of documentation of information associated with allergic or idiosyncratic adverse drug reactions (ADRs) in patients admitted to the department of dermatology in order to improve documentation of allergy information and establish a CDSS. The secondary objective was to examine the adherence of follow-up appointments for verification of potential ADRs to improve organisational procedures.

Material and methods Medical reports and entries from patients admitted to the department of dermatology over 4 years due to an ADR were retrospectively reviewed. 611 were considered eligible. A subpopulation of 190 ADR related cases was reviewed to examine adherence to follow-up appointments.

Results In 23.2% (n=142) of patients, the documentation was incomplete: in 1.6% (n=10) the tested alternative drug was not entered, in 5.6% (n=34) the verified allergy/intolerance was not documented and in 16% (n=98) both were missing. In 28.8% (n=90), when patients got a permanent allergy pass a corresponding entry was made with the brand name and not with the international non-proprietary name. In 53 (27.9%) of 190 cases, patients with follow-up appointment recommendations did not keep their appointment at the department of dermatology's outpatient clinic to verify the concern. If patients had to arrange the appointment on their own (n=51), 49.0% (n=25) did not keep their appointment. Only patients with follow-up in the allergy unit of the department were documented completely in the drug allergy/intolerance field.

Conclusion and relevance Any patient's allergy information entered into the information technology system must be accurate to allow for clinical decision support screening. Both potential and verified ADRs should be documented, but they must be clearly distinguishable. Fixed appointments improve adherence of follow-up appointments for verification of potential ADRs.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-211 MEDICATION ERRORS RELATING TO SIMILAR OR MISLEADING MANUFACTURER SPECIFIC DRUG PACKAGING AND LABELLING

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Background and importance Pharmaceutical packaging is often associated with medication errors. The so-called 'lookalikes' and 'soundalikes' are especially challenging. While some countries have already tackled this problem and introduced appropriate legislation, no initiatives have yet been taken in Austria.

Aim and objectives This study aimed to analyse the pharmaceutical packaging of the university hospital pharmacy's product portfolio for similar or misleading manufacturer specific drug packaging and labelling to determine whether there are security gaps in this regard.

Material and methods The recommendations of the 'soundalike–lookalike' (SaLa) working group founded by Swiss hospital pharmacists were used as criteria. Also, cases of near misses reported in CIRSmedical.at were evaluated.

Results 1139 secondary and 1102 primary packaging for solid oral preparations, and 474 secondary and 653 primary packaging for parenteral preparations were assessed. The main risks were in the primary packaging of parenteral products, such as no ink used to increase security (76.4%), missing specification of the total amount of active substance (32.6%) and concentration per volume (30.3%) or multiple concentration indications (16.5%). Of a total of 522 reports on CIRSmedical, 35 were relevant for the evaluation. CIRSmedical's