tolerated dose (MTD), (2) evaluate the MTD and 6-TGN levels and (3) analyse the prevalence of each activity of TPMT.
Material and methods Retrospective observational study in patients with IBD treated with AZA and determination of TPMT activity between February 2017 and May 2021. Demographic, clinical data, metabolites (6-TGN (target 300–550 pmol/0.2 mL) and 6-MMP) and phenotype (activity of TPMT (IU/mL), determined by HPLC) were collected. AZA dosage was adjusted according to TPMT activity: treatment not recommended (poor; TPMT <5.0 IU/mL)), 0.5 mg/kg (low; TPMT 5.1–13.7 IU/mL), 5 mg/kg (intermediate; TPMT 13.8–18 IU/mL), 2.5 mg/kg (moderate; TPMT 18.1–26.0 IU/mL) and 3.0 mg/kg (high activity; TPMT 26.1–40.0 IU/mL).
Results 131 patients were included, 61 (46.6%) women, mean age 34.7(SD 17.4) years. TPMT phenotype: low activity in 19 (14.5%) patients, intermediate activity 54 (41.2%) and moderate activity 58 (44.3%).

When analysing the dosage, in 30 (22.9%) patients the dosage according MTD was higher than according to the activity of TPMT, in 43 (32.8%) it was lower and in 58 (44.3%) it was within the range.

6-TGN levels in the patients receiving the MTD were higher than recommended in 35 (26.7%) patients, lower in 24 (18.3%) and within range in 72 (54.9%). Median 6-MMP/6-TGN ratio was 1.57 (SD1.7) in patients with 6-TGN levels <300 pmol/0.2 mL and only 3 (2.3%) had a ratio >4.

Mean serum creatinine was 0.70 (SD 0.35) mg/dL. Patients' renal function did not interfere in the elimination of AZA metabolites.

AZA posology was decreased in 31 (23.7%) patients and withdrawn in 22 (16.8%) due to adverse events. Most frequent adverse events detected were: digestive intolerance in 10 (7.6%) patients, leukopenia 7 (5.3%), lymphopenia 5 (3.8%), hypertransaminasaemia 4 (3.1%) and nausea 3 (2.3%).
Conclusion and relevance The phenotypes of intermediate and moderate activity of TPMT were the most prevalent. 6-TGN levels were high in almost a quarter of patients, increasing the risk of toxicity. In half the patients, the recommended dose based on TPMT activity was not coincident with MTD, suggesting the need to analyse other genetic factors that might influence AZA metabolism.

REFERENCES AND/OR ACKNOWLEDGEMENTS
Conflict of interest No conflict of interest

5PSQ-097 USE AND PERSISTENCE OF FIRST-LINE BIOLOGICAL TREATMENTS FOR PSORIASIS

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Background and importance Psoriasis is a chronic, relapsing, immunologically mediated inflammatory dermatosis. Disease control is key to the physical, emotional and psychological well-being of patients.
Aim and objectives The main objective of the study was to identify the biological drugs chosen by the dermatologists at our centre as the first-line to treat psoriasis. The secondary objective was to determine the persistence of the drugs used in the first-line treatments.
Material and methods An observational, descriptive and retrospective study was carried out on patients diagnosed with psoriasis who were treated with selective immunosuppressive biological medication in our centre between 2016 and 2020. Data were collected from the medical history and the medication prescription program.
Results A total of 160 patients who started biological treatment for psoriasis were included; 38.8% were women. The mean age of the patients was 52±14.5 years. The treatments used in first-line therapy of psoriasis were: ustekinumab 42.5%, adalimumab 21.3%, apremilast 12.5%, secukinumab 10%, etanercept 8.8% and ixekizumab 3.1%. Only 3 patients started with brodalumab, guselkumab or infliximab, and none with certolizumab-pegol, risankizumab or tildrakizumab as first choice treatment. Those therapies with only one patient on treatment were excluded from the secondary endpoint analysis.

The treatments with the longest persistence were: etanercept (1296±418 days), ustekinumab (1090±739 days), secukinumab (813±368 days), adalimumab (803±664 days), ixekizumab (715±343 days) and apremilast (713±336 days).

Only 43.13% of the initiations were anti-TNF-α drugs.
Conclusion and relevance The result of the study shows the preference of ustekinumab as the first option by the dermatologist at our centre in the treatment of psoriasis, over others that are included in the regional guides. The study results show the preference of ustekinumab as the first option by the dermatologists in our centre in the treatment of psoriasis, compared to other drugs that are included in the regional opinion.

The drug with the longest persistence was etanercept, followed by ustekinumab, probably because they were the first commercialised molecules. The treatment durations show great interindividual variability.

With the arrival of new biological drugs indicated in this pathology, it is the job of the specialist pharmacist to promote the rational and protocolised use of the drug within the hospital's pharmacotherapeutic commissions.

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5PSQ-098 EXPERIENCE IN THE TREATMENT OF *CLOSTRIDIUM DIFFICILE* INFECTION

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Background and importance *Clostridium difficile* infection (CDI) can cause acute diarrhoea. One of the complications of CDI is recurrences. There are risk factors for multiple recurrences of the disease. Vancomycin and oral metronidazole are considered the treatment of choice. Other drugs, such as fidaxomicin and bezlotuxumab, may help in the control of recurrences.
Aim and objectives To analyse the use of fidaxomicin and bezlotuxumab in our hospital.

To analyse recurrences after treatment with fidaxomicin and early bezlotuxumab administration.
Material and methods Retrospective study including all patients treated with fidaxomicin from January 2014 to April 2021. Variables collected: age, gender, previous treatment

(vancomycin/metronidazol), days and regimen of treatment, recurrence or death at 8 weeks. Risk factors evaluated: age >65 years, use of antibiotics in the previous 3 months, ICD in the last 6 months, severe disease (oncological patient, immunosuppressed, renal failure). Tapered dosage of fidaxomicin oral was defined as 200 mg/12 hours (5 days) and 200 mg/48 hours (D7–D25).

Data were obtained from the pharmacy dispensation program and the patients' digital clinical records.

Results Forty-one patients were included, 25 women (61%), mean age 69 (21–99) years, 73.2% (n=30) were older than 65 years. 95.1% (n=39) had received antibiotics in the previous 3 months, 51.2% (n=21) had suffered CDI in the last 6 months, 60.9% (n=26) had severe baseline disease and 21.9% (n=9) were immunosuppressed. As first line, 41.4% (n=17) received vancomycin and metronidazole, 44% (n=18) received vancomycin and 14.6% (n=6) received fidaxomicin. 63.4% (n=26) received fidaxomicin 200 mg/12 hours (10 days), in 14.6% (n=9) the extended regimen was used and 22% (n=6) received 200 mg/12 hours for longer. 82.9% (n=34) of fidaxomicin-treated patients had no CDI recurrence at 8 weeks. 22% (n=9) of the patients died. Nine fidaxomicin-treated patients were administered bezlotuxumab and none subsequently developed CDI. All were older than 65 years and 66.6% (n=6) were oncology patients.

Conclusion and relevance The CDI treatment was mostly adjusted to the recommendedations in the therapeutic guidelines, with vancomycin/metronidazole as first-line and fidaxomicin in recurrences. The use of bexlotuxumab was adapted to the considerations of the Therapeutic Positioning Index and was used in patients with a higher risk of recurrence.

Although in the pivotal studies the recurrence rate with bexlotuxumab was 16.5%, in our study there were no recurrences. In the case of fidaxomicin, the recurrence rate was 17.1%, which was higher than the published studies.

Limitations: small sample size and the impact of the joint use of bexlotuxumab and fidaxomicin has not been measured.

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5PSQ-103 DEVELOPMENT AND TESTING OF A SMARTPHONE-BASED SOLID ORAL DOSAGE FORM IMAGE RECOGNITION SYSTEM BY MACHINE LEARNING TO SUPPORT THE IDENTIFICATION OF DISPENSING ERRORS

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Background and importance Misidentification of oral dosage forms contribute to medication errors and compromise patient safety. Especially in manual dose dispensing, identification and verification of medicinal products at point-of-care can be a challenge for healthcare professionals. Machine learning is a powerful tool for object detection and image classification. As mobile technology and smartphones have developed exponentially in terms of computing power and camera systems, handheld devices could serve as a convenient and cost-effective solution for real-time point-of-care tools for supporting the identification and verification of dispensed oral dosage forms for pharmacists, physicians and nurses in hospital settings.

Aim and objectives We aimed to develop and test the real-world point-of-care applicability of a smartphone-based pill recognition system using machine learning.

Material and methods Formularies and number of dispensed oral dosage forms of three hospitals were evaluated to select the 10 most commonly prescribed medications. A total of 8960 images were taken with a Sony IMX363 camera sensor with resolution of 12 megapixels under various conditions (lighting, distance, angle, dose container) and were used without augmentation to train the model. Microsoft Azure Custom Vision platform was utilised to develop our object detection and image classification model. An application was built using Android Developer Studio, and the model was exported in TensorFlow lite format and integrated in the application. A validation dataset of 200 test images were captured by two pharmacists at the Central Clinical Pharmacy, and precision, recall, mean average precision (mAP) and F1 score evaluation metrics were calculated.

Results Our model reached 98.1% precision, 87.4% recall and 96.4% mAP after training, with probability and overlap thresholds set to 50% and 30%, respectively, under the reference condition. Confusion matrix of 200 real-world test images showed a lower overall mAP (73.04%), recall (72.35%) and F1 score (70.6%). Per-class (medication) precision and recall ranges were between 50% and 100% and 20% and 100% respectively.

Conclusion and relevance Our model's performance indicates promising potential for application of smartphone-based identification and verification of dispensed medications at point-of-care. Eventually, the robustness of the model must be improved by adding more images and extending the dataset with additional commonly used medications before such a system can be utilised in a healthcare setting.

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5PSQ-104 VOLUNTARY ELECTRONIC REPORTING OF MEDICATION ERRORS AND ADVERSE DRUGS EVENTS DURING THE FIRST YEAR OF THE COVID-19 PANDEMIC

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Background and importance Evidence regarding the rate of medication errors (ME) and adverse drugs events (ADE) during the COVID-19 pandemic is limited. In that period the risk of ME and unsafe medication practices was potentially higher than average. Thus, voluntary hospital reporting systems are valuable sources of information on ME and ADE.

Aim and objectives To describe the ME and ADE registered in the voluntary electronic notification system of our centre (TPSC Cloud) during the first year of the COVID-19