(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.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

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