



Abstract 4CPS-062 Figure 1

**Conclusion and Relevance** In our case, the percentage of TPN volume reduction is higher compared to other studies collected in a recent meta-analysis.<sup>1</sup> Moreover, the TPN was totally withdrawn in less time than described in some studies.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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**Conflict of Interest** No conflict of interest

#### 4CPS-063 USING MACHINE LEARNING TO PREDICT PHARMACEUTICAL INTERVENTIONS IN A HOSPITAL SETTING

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**Background and Importance** The digitisation of hospital drug prescriptions has enabled the collection of a huge amount of data. Developing pharmaceutical decision support systems is facilitated thanks to artificial intelligence and the collected data.

**Aim and Objectives** Build a predictive algorithm that can detect prescriptions requiring pharmaceutical intervention (PI).

**Material and Methods** The algorithm was developed using machine learning techniques. Data collected during four years were extracted from patients' records from the prescription assistance software of a selected hospital. Various variables were used, including PIs generated by clinical pharmacists.

**Results** We used 1,961,176 drug prescriptions, including 312,591 PIs, to develop the matrix of the predictive algorithm in R. The model classifies each drug prescription according to the presence or the absence of a PI. The results after a

random forest statistical model are encouraging, yet perfectible, especially the sensibility.

A new approach of model construction is undergoing including a pharmaco-ontology gathering the characteristics of the drugs based on the summaries of product characteristics. This will allow the model to learn the context of the prescription leading to a PI and detect PIs with new data in a similar context. Such pharmaco-ontology exists regrouping only drug-drug interactions.<sup>1</sup>

**Conclusion and Relevance** Pharmaceutical decision support systems usually predict PIs thanks to rules designed by pharmacists. Our model aims to detect these high-risk prescriptions thanks to machine learning and previous data validated by clinical pharmacists in their daily practice. The ontology will help associate a context to each PI previously detected and predict PIs on new data. Integrating this model into prescribing assistance software will make it easier for clinical pharmacists to detect PIs.

The predictive algorithm developed in our research project is not a substitute for pharmaceutical analysis of prescriptions. It is an expert system for the identification of risk situations that will be integrated into a team approach to clinical pharmacy practices.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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#### 4CPS-066 BIOLOGICAL TREATMENTS USED TO TREAT HIDRADENITIS SUPPURATIVA IN A TERTIARY HOSPITAL

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**Background and Importance** Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease which causes painful inflamed lesions in the apocrine gland-bearing areas of the body, with high impact on patients' quality of life. Treatment is based on a combination of surgical and medical therapies, within biological agents play a key role. Adalimumab is currently the only biologic approved, what leads to use off-label biological treatments when adalimumab fails.

**Aim and Objectives** Our objective is to analyse the prescription of biological treatments, dosages used and adherence in a tertiary hospital to treat HS.

**Material and Methods** Medical charts of patients treated with biological drugs for HS where reviewed. Demographic features (sex, age, weight, height, smoking status), clinical stage (hurley score) and biological treatment used –including dosages, number of previous lines and adherence– were recorded.

**Results** Forty-one patients were included. Median age was 43 (IQR 30-52) and median body mass index was 27 (IQR 24-33). Nineteen out of 41 had a hurley score of 3 (H3) and 22 had a hurley score of 2 (H2). Twenty-seven patients were on adalimumab, including all patients H2 and 5 patients H3. Sixteen out of 27 were on 40 mg q.wk, and 11 were on 80 mg q.wk. The rest of H3 patients were on: infliximab 10 mg/kg (4), infliximab 7.5 mg/kg q.4.wk (1), subcutaneous infliximab