

Morbidity Groups (GMA). Forty-four groups of drugs associated with DRPs were evaluated.

**Results** 851,649 patients were included [201,445 (23.6%) with >9 drugs prescribed at discharge], of whom 134,560 (15.8%) visited the ED after 30 days. The four variables evaluated (sex, age, GMA, and income level) and 34 ATC groups were associated with the risk of repeat ED consultation and were combined into a final score (DRP-Score). The drugs with the highest risk score were osmotic laxatives (RR:1.421(95% CI:1.264–1.596)), b-lactam antibiotics (1.333(1.123–1.583)), digoxin (1.282 (1.256–1.309)), heparins (1.150 (1.112–1.190)) and lithium (1,146 (1.000–1.315)) The model achieved an area under the receiver operating curve (AUC-ROC) values of 0.648 (95% CI: 0.646–0.650) in the reference cohort and 0.647 (0.644–0.649) in the validation group. Three risk categories were generated, with the following estimated risks of revisiting the ED at 30 days: low risk: 10.2%, intermediate risk: 18.3%, and high risk: 28.4%. The score was validated in a sample of 1437 patients who visited the ED for DRPs, maintaining its predictive capacity.

**Conclusion and Relevance** The DRP-score identifies patients at high risk of returning to the ED within 30 days based on pharmacotherapy, being a useful tool for prioritizing interventions from these units.

NP-009

#### ASSESSMENT OF MEDICATION DISCREPANCIES BY PHARMACIST-LED MEDICATION RECONCILIATION AT ADMISSION: A PROSPECTIVE STUDY IN TRAUMATOLOGY

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**Background and Importance** Medication errors leading to preventable adverse drug events occur mainly during transitions of care (admission/discharge from a healthcare facility, hospital interdepartmental transfers). Data on drug reconciliation in surgical wards are scarce.

**Aim and Objectives** The purpose of this study was to assess the prevalence of medication discrepancies in patients admitted to an orthopaedic and trauma department during the medication reconciliation process performed by a pharmacist at admission, and to identify potential risk factors.

**Materials and Methods** This was a prospective single-center observational study conducted over a 15-week in 2021. Eligible patients were adults hospitalized in two units of an orthopaedic and trauma department of a tertiary university hospital in Switzerland, admitted for a duration of hospitalization > 48 hours, in the presence of a chronic pathology and/or a medication at risk and/or on the physician in charge of the patient's request. The Best Possible Medication History list was established for each patient and compared to the prescription on admission to identify medication discrepancies. These discrepancies were classified as intentional/unintentional on the basis of the medical record and, if necessary, a discussion with the physician. A multivariable analysis by logistic regression was performed to identify predictors of the 'presence of an unintentional medication discrepancy (UMD)'.

**Results** 120 patients were included in the study with a median age of 71 years [IQR 63.5 – 83.5]. 71.7% of patients were taking  $\geq 5$  medications before admission. The median pharmaceutical time required to perform the medication reconciliation activity was 36 minutes [IQR 29 – 45]. 60.8% of admitted patients had at least one UMD on admission with a median of 2 per patient [IQR 1 – 3]. Unintentional drug omission (67.3%) and dose modification (21.2%) were the most frequently encountered UMD. 88.5% of identified UMD were corrected. Polymedication ( $\geq 5$  medications) was the only variable associated with 'presence of an UMD' at a level very close to the established statistical significance level of  $p = 0.05$  [OR 2.24, p-value 0.065].

**Conclusion and Relevance** This study confirms the major interest of the medication reconciliation at admission in an orthopaedic and trauma department in an elderly and polymedicated population, exposed to high-risk medications and to a risky process.

NP-010

#### DEVELOPMENT OF A 2% LIDOCAINE GEL FOR LOCAL ANAESTHESIA OF THE EYE PRIOR TO INTRAVITREAL INJECTION

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**Background and Importance** Intravitreal injection is a very common eye surgery. The preparation of the injection is time-consuming and labour-intensive, because patients receive several ophthalmic drugs beforehand like locally disinfecting, pupil dilating and local anaesthetic eye drops. Additionally, eye drops containing oxybuprocaine must be applied 3 to 5 times at minute intervals for a sufficient anaesthetic effect.

**Aim and Objectives** To simplify the process, a local anaesthetic eye gel preparation was requested. The increased viscosity leads to a longer local exposure time on the eye. A single dose is therefore sufficient to achieve the required local anaesthetic effect. As far as we know, a corresponding product is not available on the German market, so an in-house product was developed.

**Material and Methods** The active ingredient lidocaine hydrochloride 2% (w/w) is dissolved in hot WFI with 0.48% (w/w) sodium chloride as an isotonicizing additive. 0.25% (w/w) sodium monohydrogen phosphate x 12 H<sub>2</sub>O, leads to a pH value of 6 -7 in the finished gel. pH 7 must not be exceeded, to prevent precipitation of lidocaine base. Hydroxyethylcellulose 250 (Natrosol 250 G pharm®), a sterilizable gelling agent, is incorporated into the hot solution at a concentration of 2.5% (w/w). After cooling, WFI is added to the full batch weight, the batch is stirred vigorously and left to stand covered overnight. A homogeneous gel of suitable viscosity develops overnight. The following day, the gel is filled into Redipac® single-dose containers with subsequent autoclaving under standard conditions.

The identity and content of the preparation is checked by UV/VIS spectroscopy.

**Results** The preparation described achieves a sufficient local anaesthetic effect after single application, is free of preservatives and can be stored at room temperature.

**Conclusion and Relevance** The lidocaine gel in single-dose containers has significantly accelerated and simplified the preparation of intravitreal injections in the UKSH Eye Clinic.