experience of stopping medications and 13 patients (18%) were able to proceed without the deprescribed medication. When asked about follow-up on deprescribing, 60 patients (83%) preferred face-to-face consultations.

Conclusion and relevance In conclusion, our results highlight a great potential of applying a patient centred approach to deprescribing of medication among polymedicated multimorbid patients in multidisciplinary outpatient clinics.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-035 AN EVALUATION OF HEALTH PROMOTION AND DISEASE PREVENTION KNOWLEDGE IN PATIENTS ATTENDING A HOSPITAL OUTPATIENT PHARMACY

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Background and importance The importance of health promotion and disease prevention among the general public has been reinforced following the COVID-19 pandemic. Although national campaigns have been active for years, reports have highlighted the opportunities for the greater use of pharmacy teams for improving this, in light of their location, accessibility, convenience and relationship with the public.

Aim and objectives To assess the level of knowledge on important health topics of patients and learn their preferences for future learning in order to develop a targeted and effective health promotion programme.

Material and methods In July 2019, patients waiting for a prescription to be filled in a hospital outpatient pharmacy were approached for inclusion in the study. Those who consented were interviewed via a confidential questionnaire (revised following a pilot on 5 patients) until 100 patients were recruited. The results were submitted into Excel for analysis.

Results The participation rate was approximately 30% (47% men and 53% women, aged 18–70 years). Approximately 10% of patients were unaware of the risks of high blood pressure and 28% had never had their blood pressure monitored. 28% did not know the maximum recommended units of alcohol permitted per week. All smokers (28%) had been unsuccessful in previous attempts to stop smoking. Although all patients were aware of the correct signs of breast cancer, 17% of patients were unsure of the signs of prostate cancer. 40% of patients were unable to give two correct symptoms of depression and some patients mentioned inaccurate ones. Although over 75% of patients preferred to receive health promotion information via a one-to-one consultation with pharmacy staff, 74% of patients thought watching health promotion videos while waiting for a prescription was a good idea. All patients had access to a mobile phone or a computer and were happy to receive information via their electronic devices.

Conclusion and relevance The study highlighted gaps in knowledge, particularly in the areas of alcohol intake, depression and prostate cancer, giving ideas of where to target future health promotion campaigns. Although patients prefer personal consultations with pharmacy staff, novel ways of delivering health promotion, including the use of phones and electronic devices, should be considered.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-036 DEPREScribing TOOLS FOR THE ELDERLY: A SYSTEMATIC REVIEW

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Background and importance Deprescription is the revision of the therapeutic plan with the aim of simplifying it, taking into account the preferences of the patient, prognosis and the environment. This strategy acquires special relevance in elderly patients as they are exposed to numerous adverse effects and interactions.

Aim and objectives To identify the deprescribing tools (DT) aimed at elderly patients available in the scientific literature and their main characteristics.

Material and methods A systematic search was conducted in PubMed and EMBASE for relevant literature published up to April 2020, applying the PRISMA method. The search strategy included terms for deprescribing, study population (aged OR elderly) and deprescribing strategies (tool OR process OR criteria OR algorithm). Inclusion criteria were: observational/experimental studies which created or developed a DT in elderly patients. Exclusion criteria were: studies where the DT was aimed at a specific medication, pharmacological group or pathology. Tools identified were analysed according to whether they were criterion/algorithm type.

Results 13/485 papers met the inclusion criteria, and 11 tools were identified: 5 'algorithm based tools' and 6 'criterion based tools' (2 of the articles developed the validation of 2 criterion based tools). All tools were aimed at elderly patients, with peculiarities regarding their design, population, setting of application and items that formed the tool.

Algorithm based tools

- The methodology used for its development was not specified.
- Population: two of them focused specifically on patients with limited life expectancy.
- Settings of application: two algorithms were applied to institutionalised patients, one to hospitalised patients and the remaining two did not specify the scenario.

Criterion based tools

- Five used the Delphi method for their design and development.
- Population: one was focused on patients with multimorbidity or similar characteristics and two were aimed at patients with limited life expectancy.
- Settings of application: three tools were aimed at institutionalised patients, two other tools were aimed at all healthcare settings and the other one to outpatients.

It is important to emphasise that most of the tools agreed on the pharmacological groups that were likely to be deprescribed (statins, antipsychotics, proton pump inhibitors and antidepressants).

Conclusion and relevance Knowing and being able to use DT aimed at hospitalised or multimorbidity patients could be very useful for hospital pharmacists, allowing them to carry out this activity as part of their healthcare activity.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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6ER-037 DRUG-DRUG INTERACTIONS WITH QT PROLONGING DRUGS IN PATIENTS ADMITTED TO A CARDIOVASCULAR DEPARTMENT: A RETROSPECTIVE ANALYSIS

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Background and importance Many medications have been implicated in prolonging the QT interval, and additional agents continue to be identified. Concomitant use of QT prolonging agents increases the risk of adverse events. Our hospital uses electronic medication records with a built-in drug-drug interaction (DDI) database that enables different analyses in prespecified populations. DDI analyses are part of a hospital/clinical pharmacist's work in our hospital.

Aim and objectives The aim of the study was to characterise QT prolonging DDIs in patients admitted to the cardiovascular department in the university hospital. Another objective was to compare DDI risk ratings in our built-in DDI database with two distinct DDI databases, to find possible differences and to further determine clinical significance.

Material and methods The study population consisted of patients hospitalised in the cardiovascular department who experienced at least one QT DDI during hospitalisation. Only DDIs with overall significance ratings of 5 or 6 on the 0–6 scale, with a QT prolonging mechanism, were included in the analysis. The cardiovascular department has 50 standard beds and 12 ICU beds. The study period was January to December 2019. DDI data were retrospectively extracted from electronic medication records. The respective electronic medical records were manually reviewed for additional information. The analyses were performed using descriptive statistics methods.

Results 3.7% of the patients admitted to the cardiovascular department (230/6250) experienced at least one QT DDI (study population). Single and multiple QT DDIs were more common in ICU patients than in standard unit patients. The most frequently involved agents were amiodarone, melperone, tiapride, citalopram, ciprofloxacin, tramadol, escitalopram, clarithromycin and sertraline. A maximum number of nine QT DDIs was found in one patient. Seven patients experienced drug associated long QT syndrome. DDI risk rating in our built-in database was considerably more stringent than in the comparator database (Lexi-Interact).

Conclusion and relevance The analysis revealed that QT DDIs were frequent among patients hospitalised in the cardiovascular department. The DDI database should be viewed as a guide, not an algorithm. Some QT DDIs rated as highly significant by our built-in DDI database seemed to have a low clinical impact in real world settings. It is useful to consult more sources or seek expert opinion, if in doubt. The role of the hospital/clinical pharmacist as a consultant seems essential.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

National poster prize winners

NP-015 QUALITY ASSESSMENT OF 3D PRINTED SILDENAFIL AND FUROSEMIDE TABLETS FOR THE PAEDIATRIC POPULATION USING AN INNOVATIVE EXTRUSION-BASED TECHNIQUE

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Background and importance Commercially available tablets often don't meet patients' needs, as is the case for children. Three-dimensional (3D) printing can possibly achieve this. However, most investigated 3D printing techniques for production of pharmaceutical preparations may not be suitable for chemically unstable drugs. In addition, quality requirements are not well established.

Aim and objectives A proof-of-principle study was conducted using a low heat, solvent-free extrusion-based 3D printing technique. Furosemide and sildenafil immediate release tablets containing paediatric appropriate dosages were the model products. The quality requirements as stated by the European Pharmacopoeia (EP) were evaluated.

Materials and methods Formulations containing furosemide, 2 mg or 10 mg per tablet, or sildenafil, 4 mg per tablet, were slightly heated to a semi-solid to allow printing. The tablets were analysed for weight distribution (EP 2.9.5.), content uniformity (EP 2.9.40.) and dissolution profile (EP 2.9.3.), using an analytical balance, high-performance liquid chromatography ultraviolet and UV/VIS spectrophotometry, respectively. Content uniformity and dissolution analyses were performed in triplicate. Linear regression analysis was performed to assess tablet mass and content.

Results The weight distribution met the requirements of EP 2.9.5 with a relative standard deviation of 1.26%. The acceptance values of the content uniformity of furosemide 2 mg, 10 mg and sildenafil 4 mg ranged between 4.2–10.6, 4.8–8.9 and 6.6–9.2, respectively, where a maximum value of 15 was accepted. A linear correlation between tablet mass and content was found. Furosemide 10 mg and sildenafil 4 mg showed a dissolved content of >80% after 45 minutes, indicating an immediate release profile. For furosemide 2 mg batches, the second testing level had to be used. This preparation also met the requirement of an immediate release profile. Additionally, the tablets should also have sufficient microbiological stability (EP 5.4.1.) and mechanical strength (EP 2.9.7. and 2.9.8.), though an adjusted test for mechanical strength is necessary for applicability to 3D printed tablets.

Conclusion and relevance This proof-of-principle study shows lower temperature 3D printing can be useful in enabling production of personalised tablets. Further investigation of suitable quality tests for 3D printed tablets will be performed in further studies.