Hospital pharmacy services had to implement a telepharmacy programme in record time, to bring drugs closer to patients.

Aim and objectives To measure the impact of a telepharmacy programme in terms of direct and indirect costs and benefits for patients.

Material and methods A retrospective observational study was conducted in a tertiary level hospital between March and September 2020. The following variables were collected: number of remote dispensings, number of patients enrolled in the telepharmacy programme, population characteristics, drugs and storage conditions, average distance, and direct and indirect costs.

Results 13 216 remote dispensings were made relating to 4090 active patients within the telepharmacy programme. This represented 51.21% of the total number of our outpatients (7986). 50.81% (2078) of the patients were women and median age was 57 (± 23) years. 44.59% (5894) of the total drugs sent were thermolabile drugs. The mean distance of the shipments was 41.7 (0.2–208) km. Establishing the ratio 0.226€/km, and 1 visit every 2 months to the hospital pharmacy service, direct costs would mean an average of 113.04€ per year for patients. Establishing the 1 km/2 min relationship, the annual indirect costs represent 10.5 working hours: 7.7 hours as the average travel time and 2.8 hours as the average waiting time for face-to-face dispensings.

Conclusion and relevance Telepharmacy has become one more tool for dispensing treatments to outpatients with savings for the patient in terms of travel and waiting times. The time of confinement due to the pandemic has accelerated the inclusion of patients in this programme, reaching more than 50% in 6 months.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-402 COVID-19 AND DIGESTIVE SURGERY: MEDICAL DEVICES FOR SURGICAL SMOKE FILTRATION

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Background and importance Surgical smoke is composed of chemical substances, viable cells and viral particles (HBV, HPV, HIV) of unproven contagiousness for the operating theatre staff. In the context of the COVID-19 health crisis, several learned societies (SFCO, SCGP, SAGES) recommended the use of systems that filter the surgical plume during an invasive procedure, the presence of this virus in the pneumoperitoneum not being excluded.

Aim and objectives The objective was to perform a comparative study of existing medical devices (MD) on the market with enough filtration capacity to trap SARS-CoV-2.

Material and methods We performed a literature review, contacted providers susceptible to market this type of MD, drew a summary table comparing the different characteristics and costs, and finally, analysed the responses in collaboration with the surgical team, hygiene and the biomedical engineer.

Results We identified two categories of MD. The first can be used in laparotomy: tubing or scalpel connected to a suction terminal or a smoke aspirator. The second are intended for laparoscopy. Some of them provide passive filtration. They are

filters connected to the trocar valve. Others perform active filtration. This is done by means of a tube that is connected on one side to the trocar valve. On the other side, it is connected either to the wall vacuum or to a smoke aspirator or a generator with a dual function: insufflation and aspiration. All of these systems use ULPA quality filters with variable porosity and classification depending on the supplier. Finally, there is a generator using electrostatic precipitation. It electrically charges the particles, which then precipitate against the walls of the peritoneal cavity throughout their formation. The price of the consumables varies from 8 to 182€, excluding taxes.

Conclusion and relevance A panel of MDs for surgical smoke filtration was available. To ensure the safety of operating theatre personnel while controlling costs, we established a strategy based on the patient's viral status: if the patient was COVID-19 positive, a filtration device with insufflation and aspiration was preferred, while if the patient was only suspected of having COVID-19, passive filtration was preferred to minimise costs. This is subject to change according to the state of scientific knowledge.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-403 CHRONIC KIDNEY DISEASE PATIENTS AND POLYPHARMACY: HOW TO OPTIMISE AND SIMPLIFY PRESCRIPTIONS?

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Background and importance Patients with chronic kidney disease (CKD) are often characterised by the concomitance of multimorbidity, which could cause complex drug prescriptions that lead to a higher risk of incorrect administration and serious drug–drug interactions (DDIs) and potentially inappropriate medications (PIMs). According to national recommendation No17 of the national health system (NHS), these patients need appropriate attention: a multidisciplinary team (clinical pharmacists–clinician–nurse) should systematically re-evaluate pharmacological therapies to simplify/harmonise treatments and increase patient adherence.

Aim and objectives The aim of this study was to improve a method to analyse pharmacological therapies, identify incorrect prescriptions and simplify therapies.

Material and methods The chosen method requires that the clinical pharmacist in the nephrological team collaborates to analyse 231 therapies of patients, is in charge of the advanced renal disease clinic, using an already identified information and communication technology (ICT) tool.¹ Drugs, classified by anatomical therapeutic chemical class (ATC), and dosage units (DU) were counted and DDIs were investigated. PIMs and dangerous drugs were identified by Beers criteria and STOPP criteria.

Results 2311 drugs and 2695 DU were counted. Each patient was receiving 10 ± 3.1 different medicines, corresponding to 12.1 ± 8.1 DU/day. 91% of patients were taking 5 or more DU/day and 59.3% at least 10. Stratifying drugs by ATC class identified the following: 644 prescriptions for C02-

antihypertensives class, 184 for M04-gout preparations, 135 for C10-lipid modifying agents and 218 for B03-antianaemic preparations. 64% of patients (139) used gastroprotectors, especially proton pump inhibitors (PPIs). 3 DDIs, of 289 detected, were considered contraindicated and potentially serious, and were due to antipsychotic drugs. Drugs most responsible for DDIs were: cardioaspirin, PPIs, angiotensin receptor blockers and diuretics. 975 (4.2 ± 2.2 per patient) and 571 (2.4 ± 1.7 per patient) inappropriate drugs were identified according to STOPP criteria and Beers criteria, respectively.

Conclusion and relevance Polypharmacy is associated with a high incidence of DDIs and an increased risk of mortality and hospitalisation. The use of the ICT tool and the clinical pharmacist who bring their contribution in terms of pharmacological and pharmacokinetic knowledge have significantly contributed to the improvement in prescriptive appropriateness and minimised the risk of adverse events.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Conflict of interest No conflict of interest

4CPS-404 MULTIDISCIPLINARY TEAM TO OPTIMISE INDIVIDUALISED SPECIAL DRUG PRESCRIPTIONS AND AUTHORISATION BY HOSPITAL MEDICAL DIRECTOR THROUGH AN INFORMATIC APPLICATION

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Background and importance Special drug prescriptions and authorisation by the hospital medical director is a necessary but time consuming activity that could even delay the start of treatment in some cases. To avoid documents and improve traceability, since 2014 our third level hospital is using an internal application (Rafpharma). This works as a mailbox: the treatment request for a specific patient is created by the physician, his head of the service agrees, the pharmacy service assesses the suitability and the medical director (MD) authorises/denies the treatment requested.

Aim and objectives To optimise the individualised special treatments requests circuit.

Material and methods A multidisciplinary working team (MWT) was created, including five hospital pharmacists, the head of the pharmacy department (PD), an internal medicine physician, the hospital MD and a hospital informatic, aimed at analysing all requests, identifying inefficiencies and proposing solutions to optimise the circuit.

Results Nine work team meetings were held between February and June 2018. Each of the 1641 requests in 2017 were analysed. The main causes reducing the efficiency of the system were: high volume of requests, time spent in the application and lack of knowledge by the persons involved. With the aim

of improving the efficiency of the system, the working group implemented the following measures.

1. Reduced the number of treatments that required authorisation from the MD, with the agreement of the pharmacy and therapeutics committee (FTC). This was possible by avoiding the need for special requests for certain drugs, affecting 39% of all the requests; encouraging three medical services to request approval for off-label use by the FTC, of which two did; and finally the group recommended that several medical services make a formal request to include 11 drugs in the hospital (only 3 have been requested).
2. Optimisation of Rafpharma application by the informatic department.
3. Development of Rafpharma user protocols by user profile.
4. Planning of specific training sessions in the departments involved.

Conclusion and relevance The optimisation process of the individualised request circuit led to improvement in the three main problems detected. The group reduced the circuit's workload by nearly 40%. The creation of MWTs makes approaching any key process from all points of view possible, allowing proposals to be made for optimisation agreed upon.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-405 STRONGYLOIDES STERCORALIS PROPHYLAXIS WITH IVERMECTIN IN COVID-19 PATIENTS

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Background and importance A preliminary report of the RECOVERY trial revealed a survival benefit related to the use of dexamethasone in hospitalised patients with coronavirus disease 2019 (COVID-19) (CM1). However, corticosteroids have an uncommon, but preventable, complication associated with its immunosuppressive mechanism of action: *Strongyloides stercoralis* hyperinfection or dissemination syndrome. *S. stercoralis* infection should be ruled out in patients from endemic areas before starting immunosuppressive treatment. As the results of the serological tests are not immediate, certain patients would benefit from preventive treatment with ivermectin.

Aim and objectives To evaluate the effectiveness and safety of ivermectin for prophylaxis of *S. stercoralis* hyperinfection syndrome in COVID-19 patients from endemic zones treated with corticosteroids or immunosuppressive treatment.

Material and methods A retrospective observational study was performed in a tertiary level hospital including all COVID-19 patients from *S. stercoralis* endemic areas and treated with prophylactic ivermectin between March 2020 and September 2020. Demographic and clinical features were obtained from the electronic patient clinical history (DIRAYA) and the electronic prescription programme (PRISMA). Effectiveness was defined as the non-presentation of *S. stercoralis* hyperinfection