

#### 4CPS-399 EVALUATING CLINICAL PHARMACY SERVICES ON AN INTENSIVE CARE UNIT: A SATISFACTION SURVEY

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10.1136/ejhp-harm-2021-eahpconf.231

**Background and importance** Clinical pharmacists involved in critical care are well described in the literature. Additionally, a computerised physician order entry (CPOE) system reduces the incidence of medication errors, especially when it allows pharmacy validation. Despite these potential benefits, integrating new members and implementing new tools in an ICU team is a complex process and it can influence overall staff satisfaction.

**Aim and objectives** To assess the satisfaction of ICU doctors and nurses with the new critical care pharmacist role during the last 2 years and the new CPOE 1 year after implementation.

**Material and methods** A cross sectional study was carried out in September 2020 in an 18 bed medical/surgical adult ICU in a second level hospital. A 5 point Likert scale based survey (5=highest level of agreement) was electronically distributed to ICU staff. The surveys contained 17 Likert questions in three sections: pharmacist integration on ICU team; pharmacist role; and CPOE. The results were expressed as a percentage of the maximum score (a value  $\geq 4$ ). Demographic data and sections for comments were included. Cronbach's alpha coefficient was performed to assess reliability. Data analysis was conducted using the SPSS statistical software 20.0.

**Results** 31/72 nurses and 15/18 doctors completed the survey (42% vs 83.3% response rate). Regarding the pharmacist's integration, 100% of doctors versus 22.6% of nurses knew the pharmacist by name and 100% of doctors versus 71% of nurses considered pharmacists accessible professionals. Both considered the pharmacist as an important liaison between the pharmacy and ICU (100% vs 96.8%). Doctors were satisfied with statements such as timely resolution to drug related questions (100% vs 67.7% of nurses), ICU-pharmacy relationship has improved since the pharmacist joined (100% vs 61.3%) and overall satisfaction with the pharmacist (100% vs 64.5%).

Concerning CPOE: pharmaceutical validation makes the CPOE safer (80% vs 41.9%), taking into account the pharmacist's advice (90% vs 96.7%), and CPOE presents more advantages than disadvantages (80% vs 61.3%). Cronbach's alpha statistical analysis indicated that the survey's reliability was high (nurses 0.77, doctors 0.89).

**Conclusion and relevance** Physicians appreciated the clinical pharmacist's work and its impact on daily clinical practice. Nurses gave lower scores, but nevertheless their role as an intermediary was highly valued. The evaluation of the new CPOE was satisfactory, however it is necessary to focus on nurses' needs to improve the pharmacist service.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of interest** No conflict of interest

#### 4CPS-400 THE ROLE AND VALUE OF A WARD BASED PHARMACIST IN THE INTENSIVE CARE UNIT: THE CRITICAL CARE PHYSICIANS' AND NURSES' PERCEPTIONS

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10.1136/ejhp-harm-2021-eahpconf.232

**Background and importance** Patients hospitalised within the intensive care unit (ICU) are prescribed almost twice as many medications compared with patients hospitalised within other areas of the hospital. This increases the likelihood of possible drug interactions as well as medication errors.<sup>1</sup>

**Aim and objectives** The aim of this study was to assess the expected role and perceived value of a ward based pharmacist in the ICU, as deemed by critical care physicians and nurses at an acute general teaching hospital prior to the introduction of the service.

**Material and methods** The pre-service questionnaires developed by Portelli (2018), targeting nurses and physicians, respectively, were adapted to portray the requirements of a critical care setting and validated for content by an expert panel. The validated tools were disseminated among ICU based physicians and nurses. The responses obtained were analysed descriptively and by content analysis.

**Results** The vast majority of nurses gave a score of 4 or higher on a 5 point Likert scale (with 5=essential) when asked whether they felt there was a need for an inhouse pharmacist in the ICU. Similarly, the majority of physicians gave a score of 4 or higher on the same 5 point Likert scale when posed the same question.

**Conclusion and relevance** The delivery of direct, proactive, patient centred care by pharmacists has been correlated with both actual and perceived improvement in patient outcomes.<sup>2</sup>

<sup>3</sup> Most of the respondents were positive that the presence of a pharmacist in the ICU would improve the outcomes for patient safety and better quality care.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Richter A, Bates I, Thacker M, *et al.* Impact of the introduction of a specialist critical care pharmacist on the level of pharmaceutical care provided to the critical care unit. *Int J Pharm Pract* 2016;**24**:253–61.
2. Preslaski CR, Lat I, MacLaren R, *et al.* Pharmacist contributions as members of the multidisciplinary ICU team. *Chest* 2013;**144**:1687–95.
3. Mailman JF, Semchuk W. Pharmacists' roles in critical care: Environmental scan of current practices in Canadian intensive care units. *Can J Hosp Pharm* 2018;**71**:215–16.

**Conflict of interest** No conflict of interest

#### 4CPS-401 TELEPHARMACY PROGRAMME IMPLEMENTATION DURING THE COVID-19 PANDEMIC

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10.1136/ejhp-harm-2021-eahpconf.233

**Background and importance** The COVID-19 pandemic has created a new scenario for the dispensing of hospital drugs.

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 ( $\pm 23$ ) 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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10.1136/ejhp-pharm-2021-eahpconf.234

**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

**Conflict of interest** No conflict of interest

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

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10.1136/ejhp-pharm-2021-eahpconf.235

**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.<sup>1</sup> 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  $10 \pm 3.1$  different medicines, corresponding to  $12.1 \pm 8.1$  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-