pharmacy before drug dispensing (acceptance rate 79%). A total of 227 and 226 patients treated with intravenous acetaminophen and/or antibiotics, respectively, were included in the retrospective chart review before and after our interventions. This multimodal IV to oral switch strategy resulted in a reduction of the mean duration of non-appropriate IV therapy (total reduction of -7.25 hour, $p=0.002$, for acetaminophen reduction of -9.3 hour, $p=0.001$) and the number of IV to oral switches increased by 8.9% ($p=0.027$).

Conclusion and relevance Structural and proactive interventions by the hospital pharmacist resulted in a reduction of the duration of non-appropriate IV therapy and an increase in IV to oral switches. However, the cost effectiveness and sustainability of these interventions is questionable in a setting with limited clinical pharmacy resources.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-215 THE IMPACT OF CLINICAL PHARMACIST DRIVEN INTERVENTIONS ON PATIENT SAFETY IN HOSPITALISED PATIENTS: PRELIMINARY RESULTS OF A POINT PREVALENCE STUDY

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10.1136/ehjpharm-2020-eahpconf.316

Background and importance Most patients admitted to a hospital use more than five drugs. Apart from the beneficial effects of these drugs, these patients are at risk of medication errors. Traditionally, hospital pharmacists use clinical decision support systems (CDSSs) and clinical rules to prevent drug related problems (DRPs). For specific instances, (eg, intensive care and paediatric care), it has been shown that the involvement of clinical pharmacists integrated into the medical team on the ward has a beneficial effect on the reduction in DRPs. Hence there is a shift from the traditional way of practice to integration of clinical pharmacists into the medical team on the ward.

Aim and objectives The aim was to investigate the impact of hospital-wide integration of clinical pharmacists on patient safety.

Material and methods In this observational point prevalence study, interventions made by clinical pharmacists (in addition to interventions based on clinical rules or CDSSs) were studied over 5 consecutive working days. Patients admitted for more than 24 hours were included. The following endpoints were recorded: type of intervention, reason for intervention, severity of the underlying DRP (using the NCC MERP index scale), proportion of interventions accepted by the physician, communication route and time investment.

Results A total of 238 medication reviews were conducted and the pharmacists were consulted 16 times. For 58.4% of the reviewed patients, potential DRPs were detected, with an average of 1.8 per patient. Overtreatment was the most reported DRP (31.6%) and subsequently the most common type of intervention was the advice to stop medication (43.2%). During the study, 16.0% of the interventions were categorised as no error, 62.0% as error, no harm and 22.0% as error, harm. Regarding acceptance, 66.6% of the

interventions were accepted and given a follow-up. Face to face was the most frequently used method of communication (56.9%). The average time investment was 8.6 min per medication review.

Conclusion and relevance Structured medication reviews by clinical pharmacists contributed to detection and resolution of DRPs, mainly by reducing overtreatment. Therefore, in addition to clinical rules or CDSSs, a hospital-wide integration of clinical pharmacists as part of the multidisciplinary team can improve medication safety and optimise pharmaceutical care.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-216 PROMOTION OF THE QUALITY OF DRUG EDUCATION FOR PATIENTS USING NASOGASTRIC TUBE FEEDING BEFORE DISCHARGE

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10.1136/ehjpharm-2020-eahpconf.317

Background and importance More than 60% of prescription are not suitable for crushing, but the medicines may be crushed for patients for home care and in medical institutions. To reduce incorrect methods of taking medicines, we provided caregivers who fully understood tube feeding, knowledge and skills, using illustrated materials, to explain the correct methods of taking medicine before discharge from hospital.

Aim and objectives To improve the knowledge and skills of caregivers in tube feeding by providing illustrated materials for drug education in the discharge planning service and then home care, to achieve seamless pharmaceutical care.

Material and methods From October to December 2018, candidates were identified through screening information from the hospital information system for tube feeding. After excluding those unable to communicate or illiterate, specific tube feeding medication counselling was provided to caregivers. Questionnaires were filled out before and after the educational intervention. The study was conducted with the approval of Taipei City Hospital research ethics committee (TCHIRB-10703101).

Results Forty caregivers were enrolled in the study with an average age of 56.6 years and 67.5% were women. Lung infections were present in 42.5% of patients and 47.5% of patients had tube feeding during hospitalisation for the first time. The questionnaire was made up of four items: frequency of drug administration, identification of crushed medicine, obstruction of pipeline and risk of crushing. Each item was given a score of 1 to 3. Knowledge assessment of medication tube feeding (knowledge and skill) was significantly increased after drug education (7.33 ± 2.54 vs 9.78 ± 1.99 , $p < 0.001$).

Conclusion and relevance The data indicated that illustrated materials were good for patient education. We suggest that the tube feeding knowledge and skill should be widely used to increase patient drug safety and use correctly.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.